

2023-00



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



[www.omcr.it](http://www.omcr.it)

## GAS SPRINGS



### HIGHLIGHTS:

- Wide range of springs and accessories available on stock.
- Diameters from 12 to 195mm and stroke from 7 to 300mm
- PED approval for 2 million stroke (PED 2014/68/EU)

## WIRE SPRINGS



### HIGHLIGHTS:

- Wide range available on stock
- Forces from 4 to 1650 daN
- According to ISO 10243

## EYEBOLTS



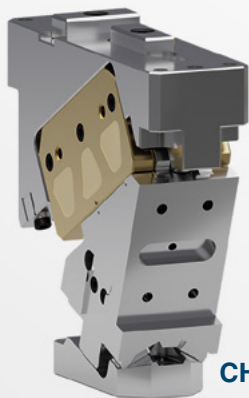
### HIGHLIGHTS:

- 360° orientable for lift force alignment
- Lift range from 0,3 to 50 Tons
- DGUV and EN1677 certifications

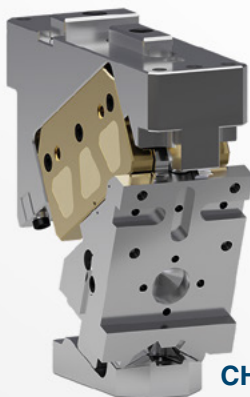
# CHW

COMPACT WITHOUT COMPROMISING POWER

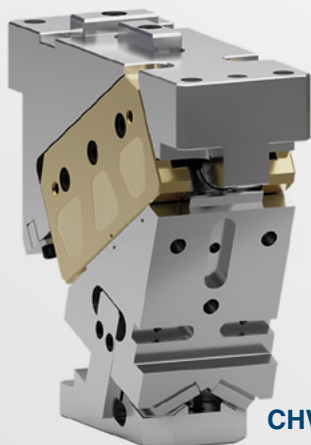
NEWS 2023



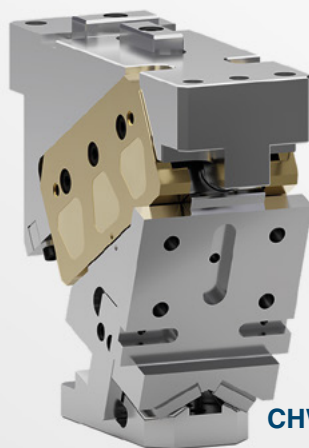
CHW065



CHW085



CHW090



CHW110

## HIGHLIGHTS:

- Compact design
- Adaptable to any type of work process
- Easy slider disassembly for maintenance

See page 718

## BUSH SELF-LUBRICATING

# NEWS 2023



### HIGHLIGHTS:

- E46.20 extended code range
- E46.21 new product range
- Wide range of diameters and lengths

See page 1062





		INDEX PAGE NUMBER
<b>INFORMATIONS</b> <b>INFORMATIONEN</b> <b>INFORMAZIONI</b>		<b>10</b>
<b>DIE COMPONENTS OMCR</b> <b>OMCR NORMALIEN</b> <b>COMPONENTI OMCR</b>		<b>20</b>
<b>DIE COMPONENTS CARMAKERS</b> <b>NORMALIEN</b> <b>COMPONENTI AUTOMOTIVE</b>	<b>BMW</b>	<b>136</b>
	<b>FCA</b>	<b>188</b>
	<b>FORD</b>	<b>270</b>
	<b>MERCEDES BENZ</b>	<b>334</b>
	<b>OPEL</b>	<b>378</b>
	<b>PSA</b>	<b>430</b>
	<b>RENAULT</b>	<b>460</b>
	<b>VW/AUDI</b>	<b>480</b>
	<b>VOLVO</b>	<b>570</b>
<b>CAM UNITS</b> <b>SCHIEBER</b> <b>UNITÀ A CAMME</b>	<b>AERIAL</b>	<b>616</b>
	<b>ROLLER</b>	<b>620</b>
	<b>DIE MOUNTED</b>	<b>621</b>
<b>LIFTING ELEMENTS</b> <b>TRAGELEMENTE</b> <b>ELEMENTI DI SOLLEVAMENTO</b>		<b>926</b>
<b>SLIDING ELEMENTS</b> <b>FÜHRUNGSELEMENTE</b> <b>SISTEMI DI GUIDA</b>	<b>E40</b>	<b>972</b>
	<b>E50 SINT300®</b>	<b>1082</b>
<b>WIRE SPRINGS</b> <b>FEDERN</b> <b>MOLLE A FILO</b>		<b>1102</b>
<b>GAS SPRINGS</b> <b>GASDRUCKFEDERN</b> <b>MOLLE A GAS</b>		<b>1126</b>

## THE COMPANY - UNTERNEHMEN - L'AZIENDA

Ⓞ Almost 40 years ago, **OMCR** started its activity of precision engineering with the object of '**Customer Satisfaction**' as its main target. Since then, having gained much experience in many fields of engineering **OMCR** has been concentrating its efforts in the production of standard die components for the automotive industry becoming step by step a point of reference for the most important die manufacturers. Quality is the main thread of **OMCR**'s activities: competence, engineering, flexibility of production, precise organisation and responsibility are the cornerstones of the services the company offers. Our greatest strength is the passion we put at the disposal of our customers and to whom we are fully dedicated to resolve their problems and fulfil their needs. **OMCR is the partner who helps make your company competitive.**

Ⓞ Vor fast 40 Jahren wurde die Firma **OMCR** als Werkstatt für mechanische Bearbeitungen und Präzisionsarbeiten aller Art gegründet. Von Anfang an steht die **Zufriedenheit der Kunden** im Mittelpunkt. Nach umfangreichen Erfahrungen in diversen Bereichen der Mechanik spezialisiert sich die Firma OMCR im Laufe der Zeit auf die Herstellung von Normalien für Großwerkzeuge nach Automobilherstellernorm und wird nach und nach zu einem Referenzpunkt für alle wichtigen Werkzeugbauer. Die Qualität steht im Zentrum aller Aktivitäten von OMCR: Kompetenz, Engineering, flexible Herstellungssysteme, akkurate Organisation und Verantwortung sind die Basis der Serviceleistungen von **OMCR**. Unsere größte Stärke ist das Engagement, mit dem wir unseren Kunden zur Verfügung stehen und mit dem wir uns täglich der Lösung der Probleme unserer Kunden widmen, um all Ihre Bedürfnisse abzudecken. **OMCR, ein Partner der Sie wettbewerbsfähig macht.**

Ⓞ Quasi 40 anni fa **OMCR** iniziò la sua attività di lavorazioni meccaniche di precisione e fin dalle origini pose al centro delle sue attenzioni **“la soddisfazione del cliente”**. Dopo aver maturato innumerevoli esperienze in svariati settori della meccanica nel corso degli anni la **OMCR** si specializza nella produzione di normalizzati per stampi in lamiera per l'automotive, diventando progressivamente un punto di riferimento per tutti i più importanti costruttori di stampi. La qualità è il filo conduttore di tutte le attività **OMCR**: competenza, engineering, sistemi di produzione flessibili, organizzazione accurata e responsabilità, sono i cardini del servizio offerto. La nostra forza maggiore è la passione che mettiamo a disposizione dei nostri clienti e con la quale ci dedichiamo quotidianamente a risolvere i loro problemi ed adempiere alle loro necessità. **OMCR, un partner che Vi rende competitivi.**

*“Your partner”*



Domenico Zentilin  
OMCR Founder



**THE COMPANY - UNTERNEHMEN - L'AZIENDA**

*CAD Design  
and Co-Engineering*



*Customer Service*



*Flexible  
manufacturing systems*



*Miniload System*



*Eco-Friendly*



## PAGE ORGANIZATION LEGENDE ORGANIZZAZIONE PAGINE

Article Nr./reference of specification  
Artikelnummer oder Referenznorm  
Codice articolo o norma di riferimento

01

Order example  
Bestellbeispiel  
Esempio d'ordine

02

Material information  
Materialinformationen  
Informazioni sui materiali

03

Informations  
Informationen  
Informazioni

04

Application example  
Einbaubeispiele  
Esempio di applicazione

05

Item description  
Artikelbeschreibung  
Descrizione articolo

06

Warning/technical information  
Technische Hinweise oder Informationen  
Avvertenze o informazioni tecniche

07

Technical - dimension table  
Tabelle techn. Angaben und Maße  
Tabella tecnico - dimensionale

08

## SYMBOLGY SYMBOLIK SIMBOLOGIA

Product available on stock  
Produkt auf Lager  
Prodotto disponibile a magazzino



Prices and delivery time on request  
Preis und Lieferzeit auf Anfrage  
Prezzi e tempi di consegna a richiesta



Delivery time in working days from ordering date  
Lieferzeit in Werktagen ab Bestelldatum  
Giorni lavorativi per spedizione dalla data d'ordine



Item supplied with shown parts  
Artikel setzt sich aus den angegebenen  
Teilen zusammen  
Articolo fornito con i particolari indicati



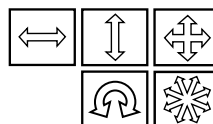
Ordering code  
Bestellnummer  
Codice d'ordine



Pay attention to this point!  
Wir weisen besonders auf diesen Punkt hin  
Attenzione a questa nota



Sliding direction  
Gleitrichtung  
Senso di scorrimento



Obtained from press-forged  
Geschmiedet  
Particolare ricavato da stampato



CAD files available on our website  
CAD-Datei auf unserer Webseite  
File CAD disponibili sul nostro sito web



Technical info available on our website  
Technische Informationen auf unserer Webseite  
Info disponibili sul nostro sito web



Purchase order of spare parts  
Bestellung Ersatzteile  
Ordine ricambi



CE manual available on our website  
CE Betriebsanleitungen auf unserer  
Internetseite verfügbar  
Manuali CE disponibili sul nostro sito web



01

06

C12.11.?

AIR PIN - UNTERLUFTBOLZEN - CANDELA

Standard OMCR

04

**TYPE 01**

**TYPE 02**

**10**

WEB

Lmax = 450 mm

Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

Notes

Material: CK45 - 800+1000 N/mm<sup>2</sup>

Application example

ORDER PARTS	Art.	TYPE	L=220
	C12.11.	01	220

OMCR CODE	TYPE	Max Load (kN)
C12.11.	01	80
C12.11.	02	80

07

03

05

02

08

53

INDEX

## 🇩🇪 DOWNLOAD CAD DATA

On our website, [www.omcr.it](http://www.omcr.it) you can find, besides CAD 3D (CATIA V5, STEP) data, specific technical information, **use and maintenance manuals** for Lifting Elements complete with **declaration of EC conformity** and the digital **catalogue in PDF format**.

## 🇩🇪 DOWNLOAD SCHIEBERDATEN

Auf [www.omcr.it](http://www.omcr.it) finden Sie abgesehen von den **3D CAD Daten** (CATIA V5, STEP) auch spezifische technische Informationen, die **Betriebsund Instandhaltungsanleitung** der **Tragelemente mit CE Konformitätserklärung**, unseren **Katalog als pdf-Datei** und Eine Suchmaschine.

## 🇮🇹 DOWNLOAD DATI CAMME

Su [www.omcr.it](http://www.omcr.it) è possibile trovare, oltre ai **dati CAD 3D** (CATIA V5, STEP), informazioni tecniche specifiche, i **manuali di uso e manutenzione** degli Elementi di Sollevamento completi di **dichiarazione di conformità CE** e il **catalogo digitale in formato PDF**.



Catalog - CAD files - Technical info - CE Manual  
 Katalog - CAD Daten - Technische Informationen - Manuli CE  
 Cataloghi - Dati CAD - Info tecniche - Manuli CE



Download from our web-site all the information about OMCR Cam Units.  
 Alle Informationen über Schieber von OMCR können Sie von unserer Internetseite downloaden.  
 Scarica dal nostro sito web tutte le informazioni sulle Unità a Camme OMCR.

## GB CAM SEARCH

By consulting the search engine on our website, you can choose the most suitable cam units for most types of project through information regarding **forces, delivery times and prices.**

## D SCHIEBERSUCHE

Über die Suchmaschine auf unserer Internetseite können Sie den für das jeweilige Projekt am besten geeigneten Schieber anhand von Informationen zu **Kraft, Preis und Lieferzeit** auswählen.

## I RICERCA CAMME

Consultando il motore di ricerca sul nostro sito, puoi scegliere l'unità a camma più adatta ad ogni tipo di progetto attraverso informazioni di **forza, prezzo e tempi di consegna.**



**www.omcr.it**



Visit the Cam Search page on our website.  
 Bitte gehen Sie auf unsere Internetseite und klicken Sie auf „Schiebersuche“.  
 Visita la pagina Ricerca Camme sul nostro sito web.

- ⑥ Our **PDF online catalogue** is constantly updated.
- ⑦ Den **Katalog als PDF-Datei** zum herunterladen oder online konsultieren.
- ⑧ Il **catalogo in versione PDF** consultabile online e periodicamente aggiornato.



LinkedIn



YouTube



Instagram



facebook







Die Components OMCR  
OMCR Normalien  
Componenti OMCR

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

# Die Components Werkzeugkomponenten Componenti per Stampi

Ⓜ **OMCR**'s line of die components offers an extraordinary variety of items meeting the standards of the leading automotive manufacturers. Thanks to the widespread use of computerised management systems, flexible production systems and wide availability of items in stock, this range of products meets the majority of customers needs and ensures quality, reliability and quick delivery. In this **Die Components** range we offer the **OMCR Standard** series, results of a selection which has allowed us to identify the ideal standard items for an efficient design and manufacture of dies for working sheet metal.

Ⓜ Die Linie der **Werkzeugkomponenten** bietet eine außergewöhnliche Vielfalt an Artikeln, die den Normen der europäischen Automobilhersteller entsprechen. Dank der EDV-gestützten Steuerung des Unternehmens, flexibler Produktionssysteme und durch einen großen Bestand an fertigen Produkten im Lager deckt diese Produktreihe den Bedarf der Kunden in vollem Umfang ab und gewährleistet Qualität, Zuverlässigkeit und schnelle Lieferung.

Unsere **Werkzeugkomponenten** beinhalten auch die Serie **Standard OMCR**, eine Auswahl an Normalien zur effizienten Konstruktion von Stanzwerkzeugen.

Ⓜ La linea **Componenti per Stampi** offre una straordinaria varietà di articoli, conformi alle normative delle principali case automobilistiche. Grazie al diffuso utilizzo di sistemi informatici di gestione, di sistemi di produzione flessibili e all'ampia disponibilità di prodotti pronti a magazzino, questa gamma di prodotti risponde in modo esauriente alle necessità dei clienti e garantisce qualità, affidabilità e rapidità nelle consegne.

All'interno della linea **Componenti per Stampi**, proponiamo la serie **Standard OMCR**, frutto di una selezione che ha permesso di individuare i normalizzati ideali per un'efficiente progettazione di stampi lavorazione lamiera.



# OMCR<sup>®</sup>

STANDARD DIE COMPONENTS



<p><b>C10.09</b></p> 	<p><b>C10.10</b></p> 	<p><b>C10.11</b></p> 	<p><b>C10.12</b></p> 	<p><b>C10.13</b></p> 
<p>BMW-MERCEDES-BENZ- FCA-FORD-OPEL-VW/AUDI</p>	<p>BMW-MERCEDES-BENZ- FCA-FORD-OPEL-VW/AUDI</p>			<p>MERCEDES-BENZ</p>
<p>Gage hardened Einweiser gehärtet Riferimento indurito</p>	<p>Gage Einweiser Riferimento</p>	<p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p>	<p>Gage Einweiser Riferimento</p>	<p>Gage hardened Einweiser gehärtet Riferimento indurito</p>
<p>26</p>	<p>27</p>	<p>28</p>	<p>29</p>	<p>30</p>
<p><b>C10.14</b></p> 	<p><b>C10.15</b></p> 	<p><b>C10.16</b></p> 	<p><b>C10.18</b></p> 	<p><b>C10.20</b></p> 
<p>MERCEDES-BENZ</p>	<p>BMW - FCA</p>	<p>VW/AUDI</p>	<p>BMW - MERCEDES-BENZ</p>	<p>FCA - OPEL</p>
<p>Gage Einweiser Riferimento</p>	<p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p>	<p>Gage Feineinweiser Riferimento di precisione</p>	<p>Gage Einweiser Riferimento</p>	<p>Front gage Einlaufanschlag Portasensore</p>
<p>30</p>	<p>31</p>	<p>32</p>	<p>33</p>	<p>34</p>
<p><b>C10.25</b></p> 	<p><b>C10.30</b></p> 	<p><b>C10.90</b></p> 	<p><b>C10.91</b></p> 	<p><b>C10.92</b></p> 
<p>VW/AUDI</p>				
<p>Support for sensor Lagekontrolle für Platinen Supporto sensore</p>	<p>Gage Einweiser Riferimento</p>	<p>Sensor Induktive sensor Sensore</p>	<p>Connector Steckverbinder Connettore</p>	<p>Sensor Induktive sensor Sensore</p>
<p>35</p>	<p>37</p>	<p>38</p>	<p>39</p>	<p>40</p>
<p><b>C10.95</b></p> 	<p><b>C11.08</b></p> 	<p><b>C11.09</b></p> 	<p><b>C11.11</b></p> 	<p><b>C11.12</b></p> 
<p>VW/AUDI</p>		<p>FCA - VW/AUDI</p>	<p>FCA - VW/AUDI</p>	<p>FCA</p>
<p>Plate for sensor Halterung Piastrina portasensore</p>	<p>Locating cone Kegeldistanz Cono di centraggio</p>	<p>Locating cone Kegeldistanz Cono di centraggio</p>	<p>Locating cone Kegeldistanz Cono di centraggio</p>	<p>Locating pin Zentrierbolzen Perno di centraggio</p>
<p>41</p>	<p>42</p>	<p>44</p>	<p>46</p>	<p>48</p>

<b>C11.20</b>  BMW - VW/AUDI Locating pin Zentrierbolzen Perno di centraggio 48	<b>C11.30</b>  VW/AUDI Visual locator setting punch Endkontrollstempel Punzone di visualizzazione 49	<b>C11.40</b>  FCA-PSA-RENAULT Stamp retainer Halteplatte Portatimbri 50	<b>C11.45</b>  FCA-PSA-RENAULT Backing plate Druckplatte Reazione 51	<b>C11.50</b>  FCA-PSA-RENAULT Stamp Buchstabenstempel Punzone marchio 52
<b>C11.51</b>  FCA - PSA - RENAULT Stamp Buchstabenstempel Punzone marchio 53	<b>C12.10.?</b>  BMW - FORD - OPEL Air pin Druckbolzen Candela 54	<b>C12.11.?</b>  VW/AUDI Air pin Unterluftbolzen Candela 55	<b>C12.12</b>  BMW - MERCEDES BENZ Air pin Unterluftbolzen Candela 57	<b>C12.12</b>  BMW - MERCEDES BENZ Air pin Unterluftbolzen Candela 58
<b>C12.12</b>  BMW - MERCEDES BENZ Air pin Unterluftbolzen Candela 59	<b>C12.12.?</b>  BMW - MERCEDES BENZ Air pin Unterluftbolzen Candela 60	<b>C12.16</b>  BMW VW/AUDI Spacer plate toothed Distanzplatte gezahnt Tassello di compensazione 61	<b>C12.20</b>  FCA Compensation block Abstandsblock Tassello di compensazione 62	<b>C12.21</b>  Shim Ausgleichscheib Spessore 62
<b>C12.22</b>  OPEL Pressure plate Druckplatte Piastra di reazione 63	<b>C12.23</b>  Pressure plate Druckplatte Piastra di reazione 63	<b>C12.25</b>  FORD Balance block Distanzstück Distanziale 64	<b>C12.26</b>  VW/AUDI Balance block Distanzstück Distanziale 66	<b>C12.26.?</b>  VW/AUDI Balance block Distanzstück Distanziale 68

<b>C12.27</b>	<b>C12.27.?</b>	<b>C12.30</b>	<b>C12.30.?</b>	<b>C13.10</b>
VW/AUDI	VW/AUDI	VW/AUDI	VW/AUDI	VW/AUDI
Balance block Distanzstück Distanziale	Balance block Distanzstück Distanziale	Spacing bar Abstellbolzen Distanziale	Spacing bar Abstellbolzen Distanziale	Pad retainer pin VDI 3365 Steckbolzen VDI 3365 Perno di arresto VDI 3365
70	72	74	76	77
<b>C13.11</b>	<b>C13.20.?</b>	<b>C13.24</b>	<b>C13.25.?</b>	<b>C13.26.?</b>
VW/AUDI	FCA - FORD			FORD
Pad retainer pin VDI 3365 Steckbolzen VDI 3365 Perno di arresto VDI 3365	Retainer bolt Zugbolzensatz Gruppo tirante	Ground collar screw Schraube mit distanzrohr Vite con colletto	Pad retainer Halteelement Gruppo tirante	Pad retainer Halteelement Gruppo tirante
78	79	80	82	82
<b>C13.27</b>	<b>C13.30</b>	<b>C14.09</b>	<b>C14.10</b>	<b>C14.11</b>
BMW - VW/AUDI		VW/AUDI	FCA	FORD
Anti-rebound pad retainer Halteelement mit Dämpfung Gruppo tirante antirimbazzo	Collar screw Schulter-passschraube Vite con colletto	Key Passfeder Chiavetta di reazione	Key Passfeder Chiavetta di reazione	Retainer Haltestück Ritegno per matrice
83	86	87	88	88
<b>C14.20</b>	<b>C14.25</b>	<b>C14.30</b>	<b>C15.10</b>	<b>C15.11</b>
		VW/AUDI	FCA	FCA
Key Passfeder Chiavetta di reazione	Key Passfeder Chiavetta di reazione	Locating block Fangbacke Tassello di centraggio	Clamp Befestigungselement Morsetto	Sleeve Führungseinheit Canotto guida
89	90	91	92	92

<p><b>C15.12</b></p> 	<p><b>C15.13</b></p> 	<p><b>C15.14</b></p> 	<p><b>C15.15</b></p> 	<p><b>C16.18</b></p> 
<p>FCA</p>	<p>FCA</p>			<p>VW/AUDI</p>
<p>Guide post Führungsaule Colonna</p>	<p>Union nut Befestigungselement Dado di unione</p>	<p>Air coupling bracket Luftanschlussblock Supporto innesti rapidi</p>	<p>Flux control Verteilerblock Regolatore di flusso</p>	<p>Roller Rolle Rotella</p>
<p>93</p>	<p>94</p>	<p>95</p>	<p>96</p>	<p>97</p>
<p><b>C16.19</b></p> 	<p><b>C16.20</b></p> 	<p><b>C16.20</b></p> 	<p><b>C16.21</b></p> 	<p><b>C16.25</b></p> 
<p>VW/AUDI</p>	<p>VW/AUDI</p>	<p>VW/AUDI</p>	<p>FCA</p>	
<p>Roller Rolle Rotella</p>	<p>Roller stock lifter Federnde laufrolle Rullino sollevamento nastro</p>	<p>Roller stock lifter Federnde laufrolle Rullino sollevamento nastro</p>	<p>Roller group Förderrolle Gruppo rullini</p>	<p>Coil support Abstreifer Sollevatore nastro</p>
<p>97</p>	<p>98</p>	<p>99</p>	<p>100</p>	<p>101</p>
<p><b>C16.26</b></p> 	<p><b>C16.27</b></p> 	<p><b>C16.30</b></p> 	<p><b>C16.31</b></p> 	<p><b>C16.40</b></p> 
<p>FCA</p>	<p>BMW - MERCEDES-BENZ</p>			<p>FCA</p>
<p>Ball caster Kugelrollensystem Sfera portante</p>	<p>Coil guide roller Führungsrolle Guida nastro</p>	<p>Flange lifter Abstreifer Sflangiatore</p>	<p>Flange lifter Abstreifer Sflangiatore</p>	<p>Spring plunger Federne druckstücke Espulsore a molla</p>
<p>102</p>	<p>103</p>	<p>104</p>	<p>105</p>	<p>106</p>
<p><b>C16.45</b></p> 	<p><b>C16.50</b></p> 	<p><b>C17.10</b></p> 	<p><b>C17.11</b></p> 	<p><b>C17.15</b></p> 
	<p>VW/AUDI</p>	<p>FCA - PSA</p>		
<p>Spring plunger Federne druckstücke Espulsore a molla</p>	<p>Spring rams Federbolzen Sollevatore</p>	<p>Elastomer spring Elastomerfeder Molla in elastomero</p>	<p>Elastomer spring Elastomerfeder Molla in elastomero</p>	<p>Elastomer stripper Abstreifer Estrattore per punzoni</p>
<p>107</p>	<p>108</p>	<p>109</p>	<p>112</p>	<p>115</p>

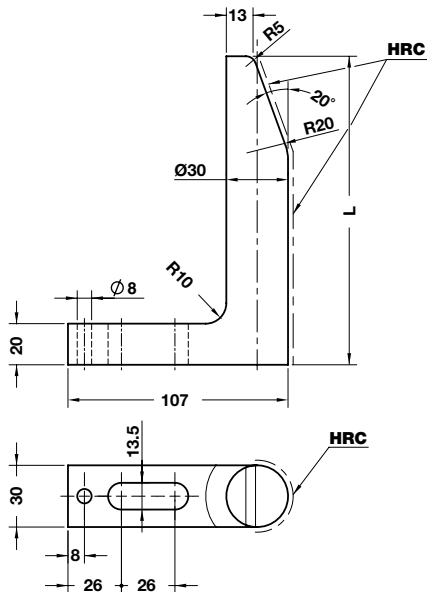
<p><b>C17.16</b></p> 	<p><b>C17.17</b></p> 	<p><b>C17.18</b></p> 	<p><b>C17.19</b></p> 	<p><b>C17.20</b></p> 
				<p>FCA - PSA</p>
<p>Washer Scheibe Rondella</p>	<p>Elastomer spring Elastomerfeder Molla in elastomero</p>	<p>Stripping unit - Pressure plate Abstreifer - Druckplatte Piastra premente dell'estrattore</p>	<p>Stripping unit - Mounting plate Abstreifer - Halteplatte Piastra di fissaggio dell'estrattore</p>	<p>Elastomer cap Elastomerdruckstück Puntalino in elastomero</p>
<p>115</p>	<p>116</p>	<p>117</p>	<p>117</p>	<p>118</p>
<p><b>C17.21</b></p> 	<p><b>C17.27</b></p> 	<p><b>C17.30</b></p> 	<p><b>C17.31</b></p> 	<p><b>C17.32</b></p> 
<p>OPEL</p>	<p>BMW - VW/AUDI</p>	<p>FCA</p>		
<p>Shock absorber Halteelement Ammortizzatore</p>	<p>Anti-rebound elastomer Dämpfungselement Ammortizzatore antirimbalzo</p>	<p>Elastomer spring pin Aufnahmebolzen Perno per molle in elastomero</p>	<p>Washer for elastomer spring Federscheibe Rondella per molle in elastomero</p>	<p>Column DIN 9835 Führungsbolzen DIN 9835 Colonna di guida DIN 9835</p>
<p>118</p>	<p>119</p>	<p>120</p>	<p>121</p>	<p>122</p>
<p><b>C17.40</b></p> 	<p><b>C17.51</b></p> 	<p><b>C17.52</b></p> 	<p><b>C18.05</b></p> 	<p><b>C18.07</b></p> 
<p>FCA - VW/AUDI</p>	<p>VW/AUDI - BMW</p>	<p>BMW</p>	<p>VW/AUDI - BMW</p>	<p>BMW</p>
<p>Stripper for blanking dies Abstreifer für Platinenschnitte Estrattore per stampi</p>	<p>Anti-rebound elastomer Dämpfungselement Ammortizzatore antirimbalzo</p>	<p>Anti-rebound elastomer Dämpfungselement Ammortizzatore antirimbalzo</p>	<p>Anti-rebound slide stop Arretierung gegen Rückfederung Arresto anti rimbalzo</p>	<p>Anti-rebound slide stop Arretierung gegen Rückfederung Arresto anti rimbalzo</p>
<p>123</p>	<p>124</p>	<p>125</p>	<p>126</p>	<p>127</p>
<p><b>C18.10</b></p> 	<p><b>C18.11</b></p> 	<p><b>C18.20.?</b></p> 	<p><b>C18.21</b></p> 	<p><b>C18.25</b></p> 
<p>FCA</p>	<p>VW/AUDI</p>	<p>FCA</p>	<p>FCA</p>	
<p>Slide stop block Schieberanschlag Arresto slitta</p>	<p>Slide stop block Schieberanschlag Arresto slitta</p>	<p>Positive return plate Zwangsrückholer Gancio di sicurezza</p>	<p>Key Passfeder Chiavetta</p>	<p>Cam blank-holder guide Gleitplatte für Schieber Guida per premiamiera</p>
<p>128</p>	<p>128</p>	<p>129</p>	<p>130</p>	<p>131</p>



C18.30	C18.31
	
<p>FORD</p>	<p>FCA</p>
<p>Coupling plate Befestigungsplatte Staffa di reazione</p>	<p>Coupling nut Kupplungsmutter Aggancio staffa</p>
<p>132</p>	<p>132</p>

Standard OMCR

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO

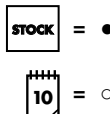


### Notes

**Material:** CK60 - HRC: 56÷60



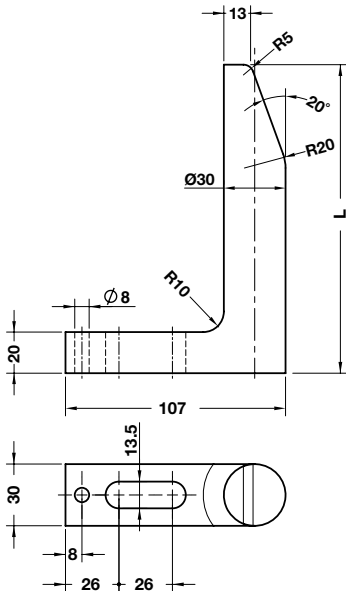
Delivery time  
Lieferzeit in Werktagen  
Tempi di spedizione



ORDER EXAMPLE	Art.	L=70
	C10.09.	070

OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time
C10.09.065	65	●	C10.09.145	145	○	C10.09.225	225	○
C10.09.070	70	○	C10.09.150	150	●	C10.09.230	230	○
C10.09.075	75	○	C10.09.155	155	○	C10.09.235	235	○
C10.09.080	80	○	C10.09.160	160	○	C10.09.240	240	○
C10.09.085	85	○	C10.09.165	165	○	C10.09.245	245	○
C10.09.090	90	●	C10.09.170	170	○	C10.09.250	250	●
C10.09.095	95	○	C10.09.175	175	○	C10.09.260	260	○
C10.09.100	100	○	C10.09.180	180	●	C10.09.270	270	○
C10.09.105	105	○	C10.09.185	185	○	C10.09.280	280	○
C10.09.110	110	○	C10.09.190	190	○	C10.09.290	290	○
C10.09.115	115	○	C10.09.195	195	○	C10.09.300	300	●
C10.09.120	120	●	C10.09.200	200	○	C10.09.310	310	○
C10.09.125	125	○	C10.09.205	205	○	C10.09.320	320	○
C10.09.130	130	○	C10.09.210	210	○	C10.09.330	330	○
C10.09.135	135	○	C10.09.215	215	○	C10.09.340	340	○
C10.09.140	140	○	C10.09.220	220	○	C10.09.350	350	●

## GAGE - EINWEISER - RIFERIMENTO



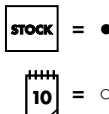
### Notes

**Material:** CK60



Standard OMCR

Delivery time  
Lieferzeit in Werktagen  
Tempi di spedizione



	Art.	L=70
	C10.10.	070

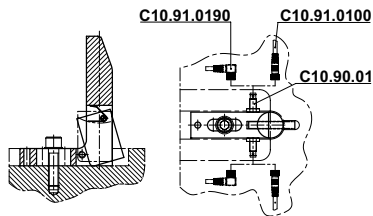
OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time
C10.10.065	65	●	C10.10.145	145	○	C10.10.225	225	○
C10.10.070	70	○	C10.10.150	150	●	C10.10.230	230	○
C10.10.075	75	○	C10.10.155	155	○	C10.10.235	235	○
C10.10.080	80	○	C10.10.160	160	○	C10.10.240	240	○
C10.10.085	85	○	C10.10.165	165	○	C10.10.245	245	○
C10.10.090	90	●	C10.10.170	170	○	C10.10.250	250	●
C10.10.095	95	○	C10.10.175	175	○	C10.10.260	260	○
C10.10.100	100	○	C10.10.180	180	●	C10.10.270	270	○
C10.10.105	105	○	C10.10.185	185	○	C10.10.280	280	○
C10.10.110	110	○	C10.10.190	190	○	C10.10.290	290	○
C10.10.115	115	○	C10.10.195	195	○	C10.10.300	300	●
C10.10.120	120	●	C10.10.200	200	○	C10.10.310	310	○
C10.10.125	125	○	C10.10.205	205	○	C10.10.320	320	○
C10.10.130	130	○	C10.10.210	210	○	C10.10.330	330	○
C10.10.135	135	○	C10.10.215	215	○	C10.10.340	340	○
C10.10.140	140	○	C10.10.220	220	○	C10.10.350	350	●

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE

### Notes

- 1 **Material:** CK60  
**HRC:** 50÷55
- 2 **Material:** Si37

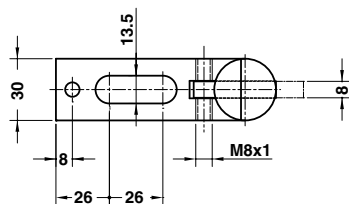
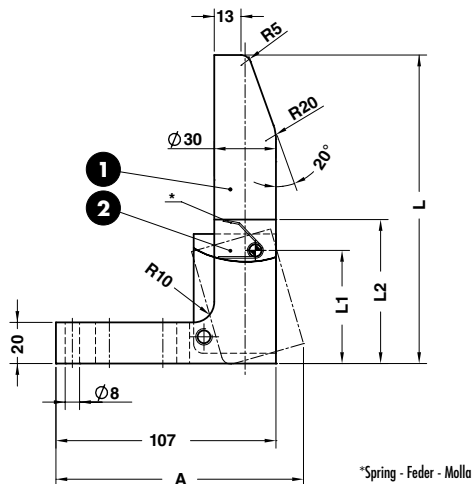
### Application example



STOCK



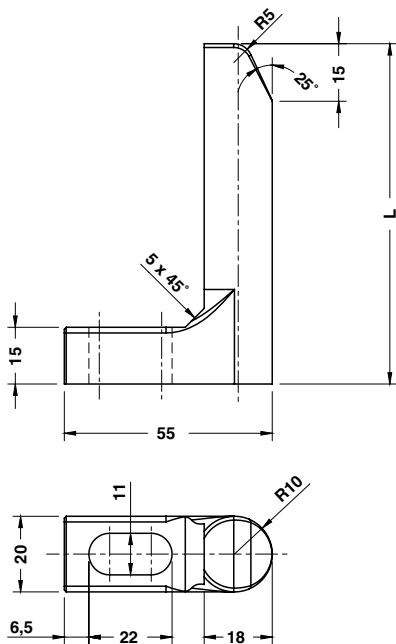
WEB



ORDER EXAMPLE	Art.	L=180
	C10.11.	180

OMCR CODE	A	L	L1	L2
C10.11.120	120	120	55	70
C10.11.150	120	150	55	70
C10.11.180	124	180	105	120
C10.11.250	124	250	105	120

## GAGE - EINWEISER - RIFERIMENTO



### Notes

**Material:** CK45

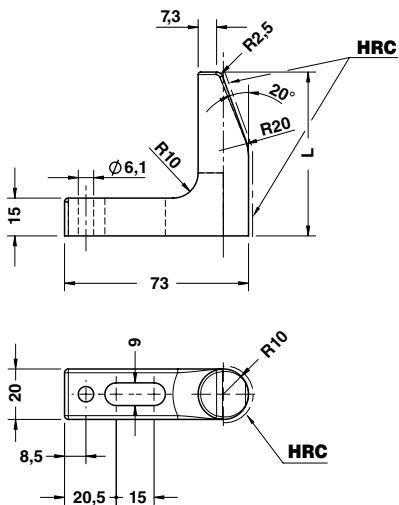


Art.	L=90
C10.12.	090

OMCR CODE	L
C10.12.055	55
C10.12.065	65
C10.12.090	90
C10.12.095	95
C10.12.120	120

Standard OMCR

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



STOCK



WEB

### Notes

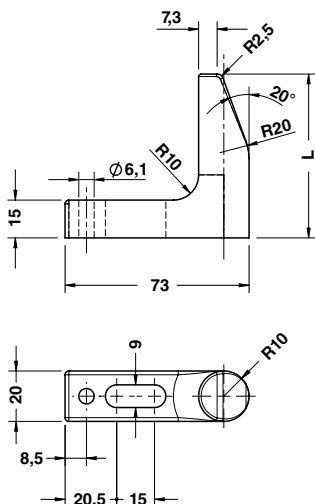
**Material:** CK60 - HRC: 58÷60



Art.	L=65
C10.13.	065

OMCR CODE	L
C10.13.065	65
C10.13.090	90

## GAGE - EINWEISER - RIFERIMENTO



STOCK



WEB

### Notes

**Material:** CK60



Art.	L=65
C10.14.	065

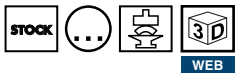
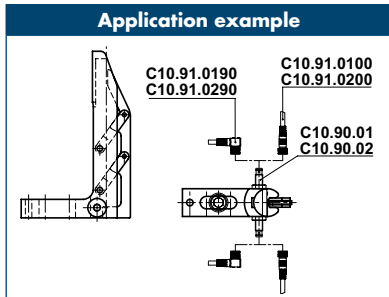
OMCR CODE	L
C10.14.065	65
C10.14.090	90

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE

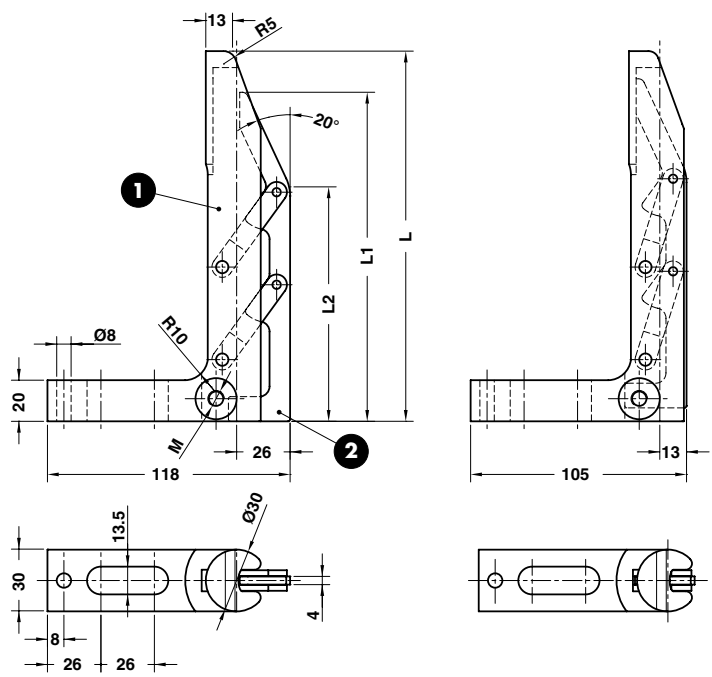
**Notes**

**1**  
Material: CK60

**2**  
Material: S137 - HRC: 58÷60



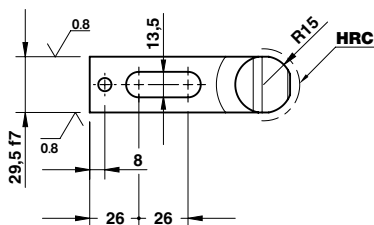
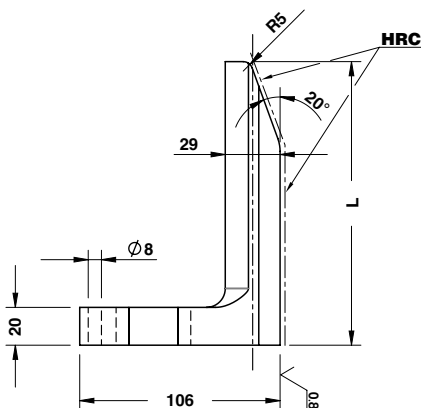
Standard OMCR



ORDER EXAMPLE	Art.	L=120	L1=113	M=8x1
	C10.15.	120	113	08

OMCR CODE	L	L1	L2	M
C10.15.12011308	120	113	78	8x1
C10.15.12011312	120	113	78	12x1
C10.15.15013008	150	130	90	8x1
C10.15.15013012	150	130	90	12x1
C10.15.18016008	180	160	114	8x1
C10.15.18016012	180	160	114	12x1
C10.15.25016008	250	160	114	8x1
C10.15.25016012	250	160	114	12x1
C10.15.25023008	250	230	184	8x1
C10.15.25023012	250	230	184	12x1

## PRECISION GAGE - FEINENWEISER - RIFERIMENTO DI PRECISIONE



### Notes

**Material:** CK60 - HRC: 58÷60



WEB

Delivery time  
Lieferzeit in Werktagen  
Tempi di spedizione

**STOCK** = ●

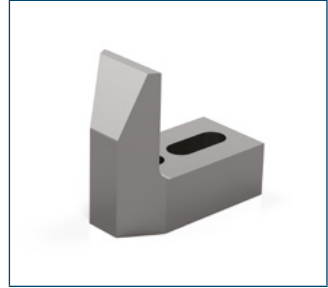
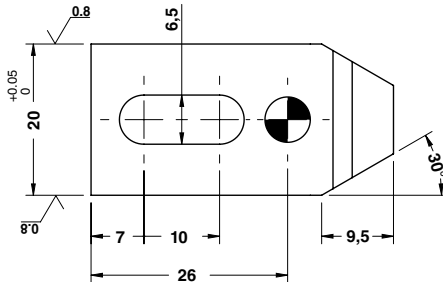
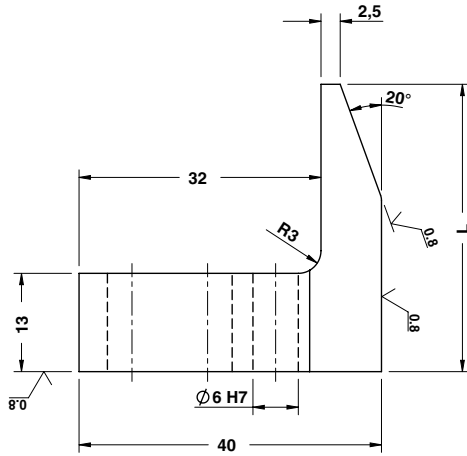
**15** = ○

ORDER EXAMPLE	Art.	L=70
	C10.16.	070

OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time	OMCR CODE	L	Delivery Time
C10.16.065	65	●	C10.16.145	145	○	C10.16.225	225	○
C10.16.070	70	○	C10.16.150	150	●	C10.16.230	230	○
C10.16.075	75	○	C10.16.155	155	○	C10.16.235	235	○
C10.16.080	80	○	C10.16.160	160	○	C10.16.240	240	○
C10.16.085	85	○	C10.16.165	165	○	C10.16.245	245	○
C10.16.090	90	●	C10.16.170	170	○	C10.16.250	250	●
C10.16.095	95	○	C10.16.175	175	○	C10.16.260	260	○
C10.16.100	100	○	C10.16.180	180	●	C10.16.270	270	○
C10.16.105	105	○	C10.16.185	185	○	C10.16.280	280	○
C10.16.110	110	○	C10.16.190	190	○	C10.16.290	290	○
C10.16.115	115	○	C10.16.195	195	○	C10.16.300	300	●
C10.16.120	120	●	C10.16.200	200	○	C10.16.310	310	○
C10.16.125	125	○	C10.16.205	205	○	C10.16.320	320	○
C10.16.130	130	○	C10.16.210	210	○	C10.16.330	330	○
C10.16.135	135	○	C10.16.215	215	○	C10.16.340	340	○
C10.16.140	140	○	C10.16.220	220	○	C10.16.350	350	●



GAGE - EINWEISER - RIFERIMENTO



**Notes**  
**Material:** 21MnCr5 - **HRC:** 58÷60

ORDER EXAMPLE	Art.	L=38
	C10.18.	038

OMCR CODE	L
C10.18.028	28
C10.18.038	38
C10.18.048	48
C10.18.058	58
C10.18.068	68
C10.18.078	78
C10.18.088	88

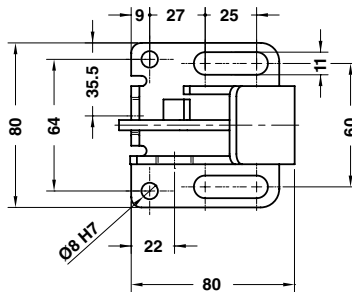
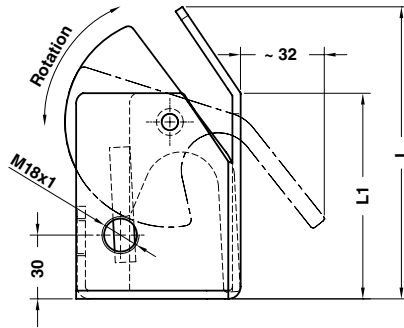
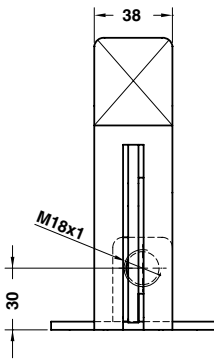
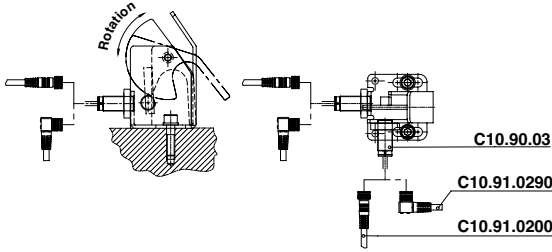
Standard OMCR

## FRONT GAGE - EINLAUFANSCHLAG - PORTASENSORE

### Notes

**Material:** St37

### Application example



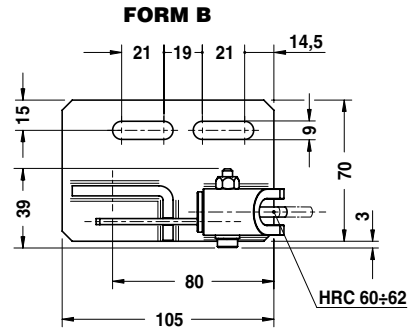
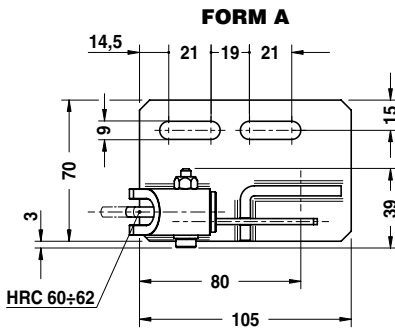
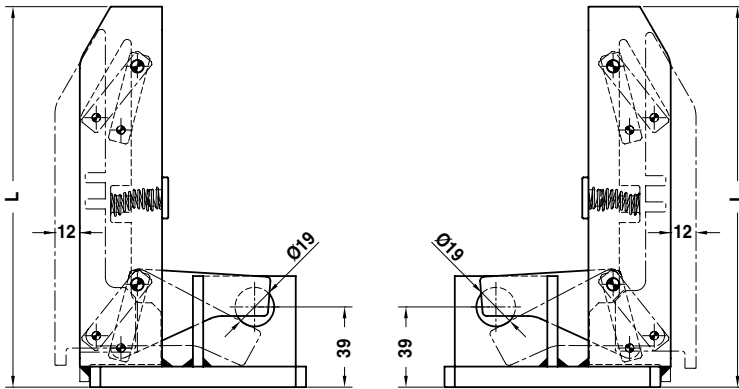
ORDER EXAMPLE	Art.	L=142
	C10.20.	142

OMCR CODE	L	L1
C10.20.117	117	75
C10.20.142	142	100
C10.20.192	192	150

## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE

Notes	Application example	
<p><b>Material:</b> Steel</p> <p>Only for replacement Nur für Reparatur Solo per riparazione</p>		


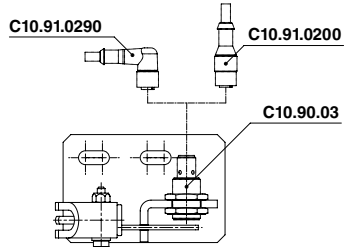


Standard OMCR

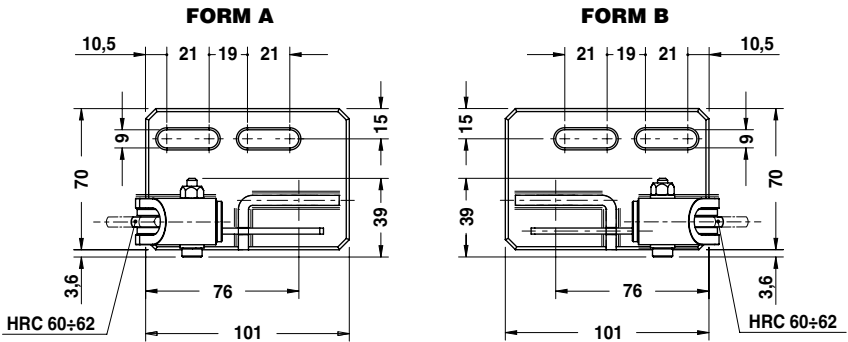
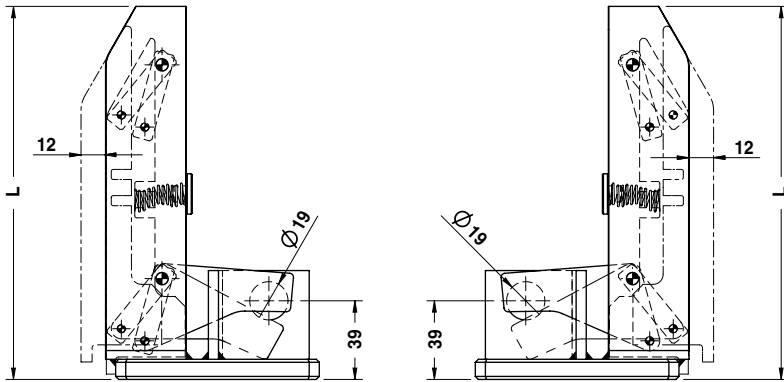


ORDER EXAMPLE	Art.	TYPE
	C10.25.	01

OMCR CODE	TYPE	L	FORM
C10.25.01	01	145	A
C10.25.02	02	145	B
C10.25.03	03	185	A
C10.25.04	04	185	B
C10.25.25	25	225	A
C10.25.26	26	225	B

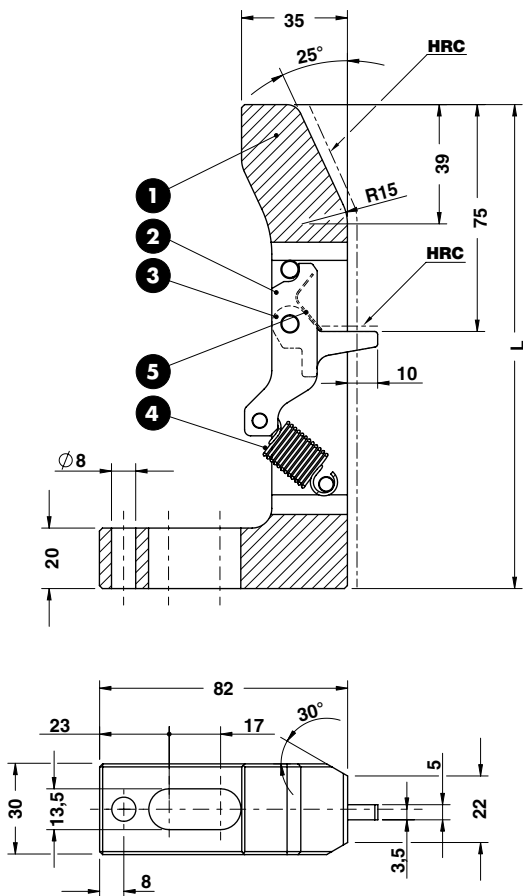
## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE

<b>Notes</b>	<b>Application example</b>	
<b>Material:</b> Steel		
		 



ORDER EXAMPLE	Art.	TYPE
	C10.25.	30

OMCR CODE	TYPE	L	FORM
C10.25.30	30	145	A
C10.25.31	31	145	B
C10.25.32	32	185	A
C10.25.33	33	185	B
C10.25.34	34	225	A
C10.25.35	35	225	B



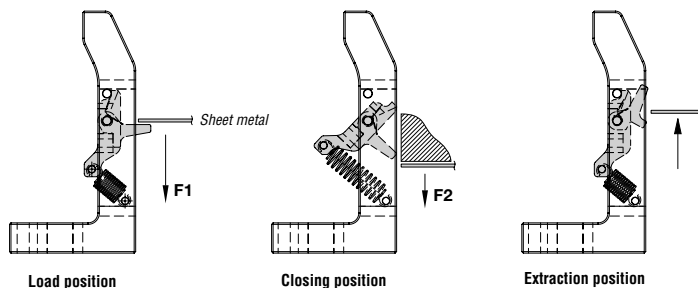
### Notes

- ① ③ **Material:** CK45 - HRC: 58÷60
- ② **Material:** CK45 - HRC: 54÷56
- ④ Spring
- ⑤ Spring

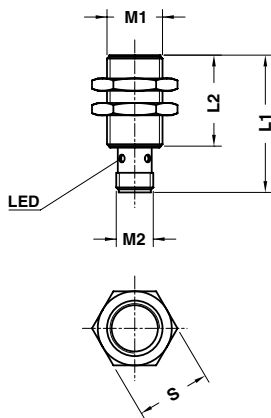
ORDER EXAMPLE	Art.	L=160
	C10.30.	160

OMCR CODE	L	F1(N)	F2(N)
C10.30.160	160	5,9	18,5
C10.30.170	170	5,9	18,5
C10.30.180	180	5,9	18,5
C10.30.190	190	5,9	18,5
C10.30.200	200	5,9	18,5

### Application example



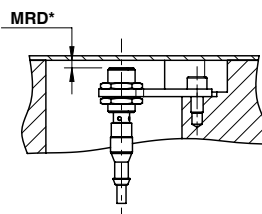
## SENSOR - INDUKTIVE SENSOR - SENSORE



### Notes

Manufactured by  
 Hersteller - Costruttore: **BALLUFF**

### Application example



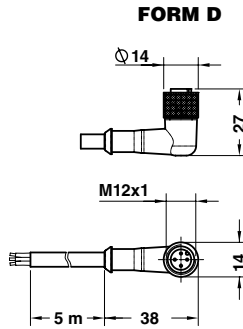
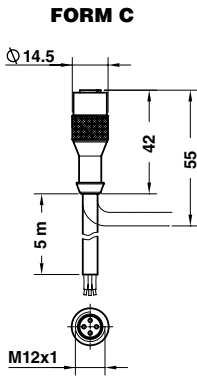
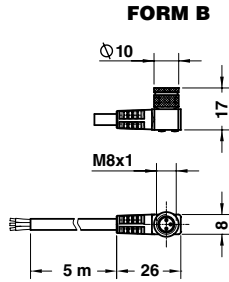
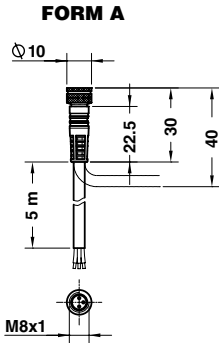
\*Max reading distance  
 Maximale Lesereichweite  
 Distanza massima di lettura

ORDER EXAMPLE	Art.
	<b>C10.90.01</b>

OMCR CODE	L1	L2	M1	M2	S	MRD* on steel (mm)	MRD* on aluminium (mm)
C10.90.01	30	23,5	M8x1	M8x1	13	1,5	-
C10.90.02	45	30	M12x1	M12x1	17	4	-
C10.90.03	44,5	29,5	M18x1	M12x1	24	5	3
C10.90.04	44,5	30	M30x1,5	M12x1	36	10	6

TECHNICAL DATA	C10.90.01	C10.90.02	C10.90.03	C10.90.04
1 Rated operational voltage (Ue)	24 V DC	24 V DC	24 V DC	24 V DC
2 Supply voltage (Ub)	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
3 No load supply current (I <sub>o max.</sub> )	≤ 7 mA	≤ 10 mA	≤ 10 mA	≤ 25 mA
4 Residual current (I <sub>r</sub> )	≤ 10 µA	≤ 50 µA	≤ 50 µA	≤ 80 µA
5 Repeat accuracy (R)	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
6 Ambient temperature range (Ta)	-40...+85° C	-25...+85° C	-25...+70° C	-25...+70° C
7 Frequency of operating cycles (f)	5000 Hz	2000 Hz	1000 Hz	150 Hz
8 Degree of protection per IEC 60529	IP 68	IP 68	IP 67	IP 67
9 Housing material	Stainless Steel	Stainless Steel	Brass	Brass
10 Connection	Connector	Connector	Connector	Connector
11 Approval	CE/UL	CE/UL	CE/UL	CE/UL
12 Switching output	PNP normally open	PNP normally open	PNP normally open	PNP normally open

## CONNECTOR - STECKVERBINDER - CONNETTORE



### Notes

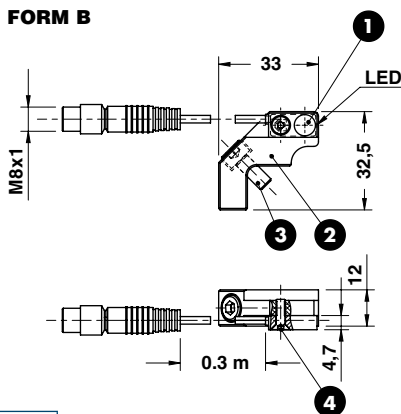
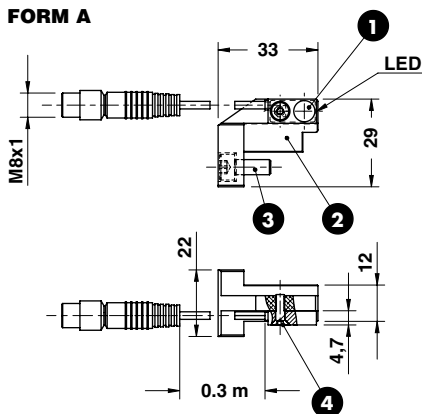
Manufactured by  
 Hersteller - Costruttore: **BALLUFF**

ORDER EXAMPLE	Art.
	C10.91.0190

OMCR CODE	FORM
C10.91.0100	A
C10.91.0190	B
C10.91.0200	C
C10.91.0290	D

Standard OMCR

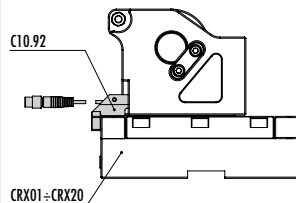
## SENSOR - INDUKTIVE SENSOR - SENSORE



### Notes

- 1 Manufactured by  
Hersteller - Costruttore: **BALLUFF**
- 2 Aluminium
- 3 M5x12 DIN 912
- 4 M3x10 DIN 7991

### Application example



\* Max reading distance  
Maximale Lesereichweite  
Distanza massima di lettura

ORDER EXAMPLE	Art.
	C10.92.01

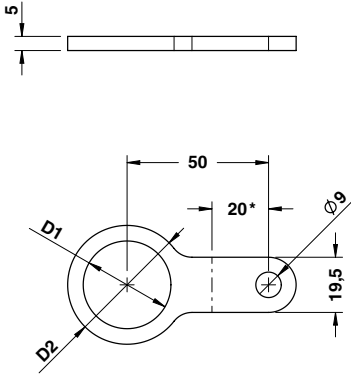
OMCR CODE	Form	MRD* on steel (mm)	Using with cam units
C10.92.01	A	2	CRX01
C10.92.02	B	2	CRX03, CRX05, CRX15, CRX20

### SENSOR TECHNICAL DATA

1	Rated operational voltage (Ue)	24 V DC
2	Supply voltage (Ub)	10...30 V DC
3	No load supply current (I <sub>o max.</sub> )	≤ 10 mA
4	Residual current (I <sub>r</sub> )	≤ 50 μA
5	Repeat accuracy (R)	≤ 1 %
6	Ambient temperature range (T <sub>a</sub> )	-25...+70° C
7	Frequency of operating cycles (f)	5000 Hz
8	Degree of protection per IEC 60529	IP 67
9	Housing material	Brass
10	Connection	Cable with connector, 0.30 m
11	Approval	CE/UL
12	Switching output	PNP normally open



PLATE FOR SENSOR - HALTERUNG - PIASTRINA PORTASENSORE



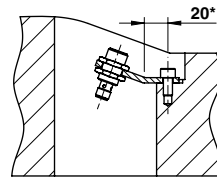
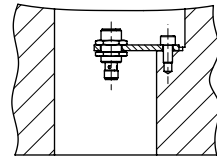
\* Biegekante  
Edge bending  
Linea di piegatura



Notes

Material: Si37

Application example

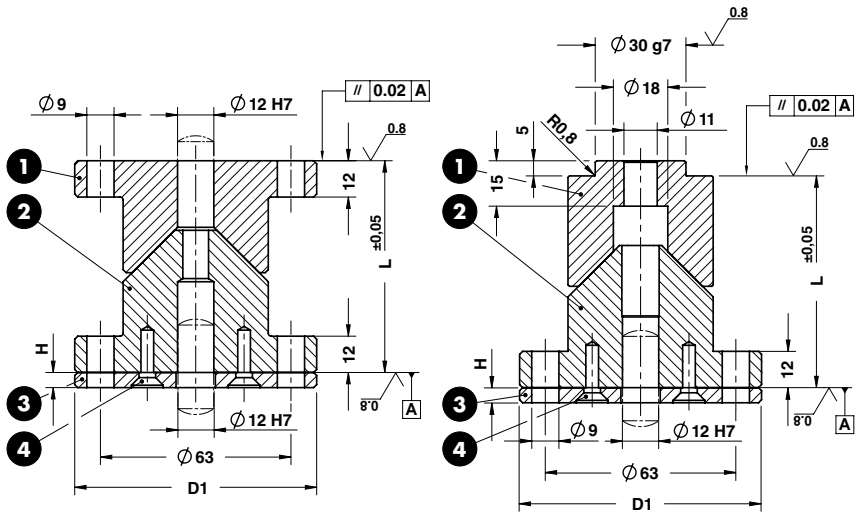


ORDER EXAMPLE	Art.
	C10.95.02

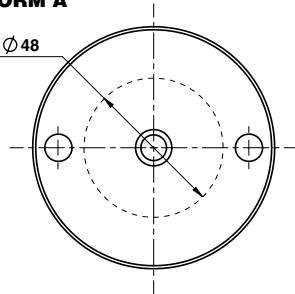
OMCR CODE	D1	D2	Using with sensor
C10.95.01	19	30	C10.90.03
C10.95.02	31	42	C10.90.04

Standard OMCR

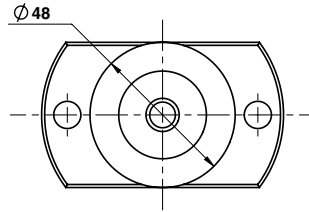
LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



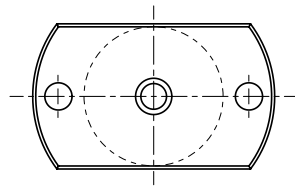
FORM A



FORM C



FORM B



## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO

### Notes

- 1 2 Material:** 16MnCr5 - HRC: 60÷62
- 3 Material:** CK45
- 4 M5x12 DIN 7991**

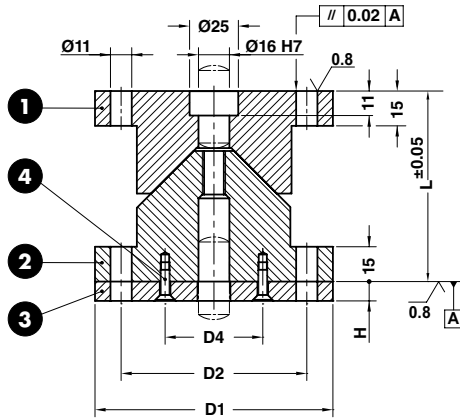


Standard OMCR

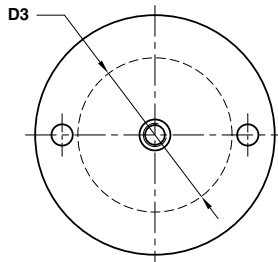
ORDER EXAMPLE	Art.	D1=80	L=70	FORM	TYPE
	C11.08.	80	70	A	01

OMCR CODE	D1	L	H	FORM	TYPE
C11.08.08070A00	80	70	5	A	00
C11.08.08070A01	80	70	5,5	A	01
C11.08.08070B00	80	70	5	B	00
C11.08.08070B01	80	70	5,5	B	01
C11.08.08070C00	80	70	5	C	00
C11.08.08070C01	80	70	5,5	C	01

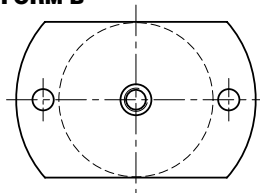
**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**



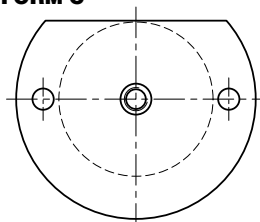
**FORM A**



**FORM B**



**FORM C**



## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO

### Notes

- 1 2** Material: 16MnCr5 - HRC: 60÷62
- 3** Material: CK45
- 4** M5x16 DIN 7991

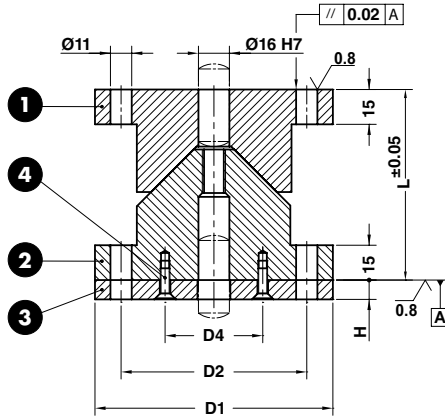


Standard OMCR

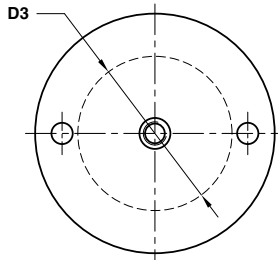
	Art.	D1=100	L=80	FORM	TYPE
	C11.09.	100	80	B	01

OMCR CODE	D1	D2	D3	D4	L	H	FORM	TYPE
C11.09.10080A00	100	76	58	40,5	80	10,5	A	00
C11.09.10080A01	100	76	58	40,5	80	10	A	01
C11.09.10080B00	100	76	58	40,5	80	10,5	B	00
C11.09.10080B01	100	76	58	40,5	80	10	B	01
C11.09.10080C00	100	76	58	40,5	80	10,5	C	00
C11.09.10080C01	100	76	58	40,5	80	10	C	01
C11.09.12090A00	120	96	78	50,5	90	10,5	A	00
C11.09.12090A01	120	96	78	50,5	90	10	A	01
C11.09.12090B00	120	96	78	50,5	90	10,5	B	00
C11.09.12090B01	120	96	78	50,5	90	10	B	01
C11.09.12090C00	120	96	78	50,5	90	10,5	C	00
C11.09.12090C01	120	96	78	50,5	90	10	C	01

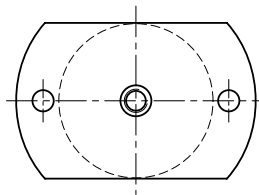
**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**



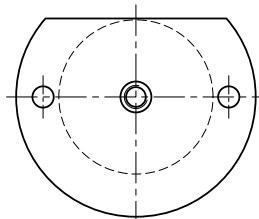
**"FORM A"**



**"FORM B"**



**"FORM C"**



## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO

### Notes

- 1 2 **Material:** 16MnCr5 - HRC: 60÷62
- 3 **Material:** CK45
- 4 M5x16 DIN 7991

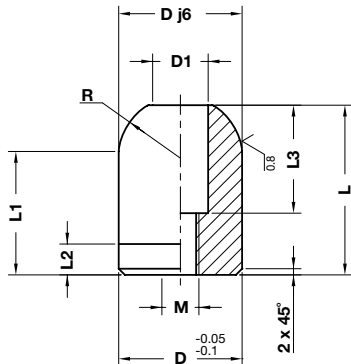


Standard OMCR

	Art.	D1=100	L=80	FORM	TYPE
	C11.11.	100	80	B	01

OMCR CODE	D1	D2	D3	D4	L	H	FORM	TYPE
C11.11.10080A00	100	76	58	40,5	80	10,5	A	00
C11.11.10080A01	100	76	58	40,5	80	10	A	01
C11.11.10080A02	100	76	58	40,5	80	5,5	A	02
C11.11.10080A03	100	76	58	40,5	80	5	A	03
C11.11.10080B00	100	76	58	40,5	80	10,5	B	00
C11.11.10080B01	100	76	58	40,5	80	10	B	01
C11.11.10080B02	100	76	58	40,5	80	5,5	B	02
C11.11.10080B03	100	76	58	40,5	80	5	B	03
C11.11.10080C00	100	76	58	40,5	80	10,5	C	00
C11.11.10080C01	100	76	58	40,5	80	10	C	01
C11.11.10080C02	100	76	58	40,5	80	5,5	C	02
C11.11.10080C03	100	76	58	40,5	80	5	C	03
C11.11.12090A00	120	96	78	50,5	90	10,5	A	00
C11.11.12090A01	120	96	78	50,5	90	10	A	01
C11.11.12090A02	120	96	78	50,5	90	5,5	A	02
C11.11.12090A03	120	96	78	50,5	90	5	A	03
C11.11.12090B00	120	96	78	50,5	90	10,5	B	00
C11.11.12090B01	120	96	78	50,5	90	10	B	01
C11.11.12090B02	120	96	78	50,5	90	5,5	B	02
C11.11.12090B03	120	96	78	50,5	90	5	B	03
C11.11.12090C00	120	96	78	50,5	90	10,5	C	00
C11.11.12090C01	120	96	78	50,5	90	10	C	01
C11.11.12090C02	120	96	78	50,5	90	5,5	C	02
C11.11.12090C03	120	96	78	50,5	90	5	C	03

## LOCATING PIN - ZENTRIERBOLZEN - PERNO DI CENTRAGGIO



STOCK

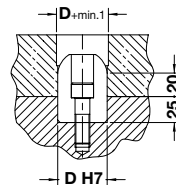
3D  
WEB



### Notes

**Material:** 16MnCr5 - HRC: 58÷60

### Application example



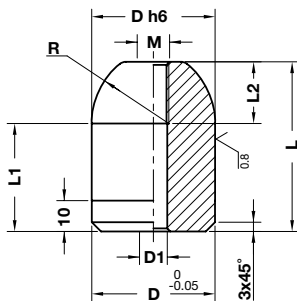
ORDER  
EXAMPLE

Art.	D=22	L=45
C11.12.	22	45

OMCR CODE	D	D1	L	L1	L2	L3	M	R
C11.12.2245	22	14	45	37,5	8	25	10	12,5
C11.12.3250	32	18	50	40	10	35	12	20
C11.12.4055	40	18	55	40	10	35	12	20
C11.12.5055	50	18	55	40	10	35	12	20

# C11.20

## LOCATING PIN - ZENTRIERBOLZEN - PERNO DI CENTRAGGIO



STOCK

3D  
WEB



### Notes

**Material:** 16MnCr5 - HRC: 58÷60

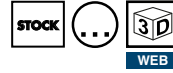
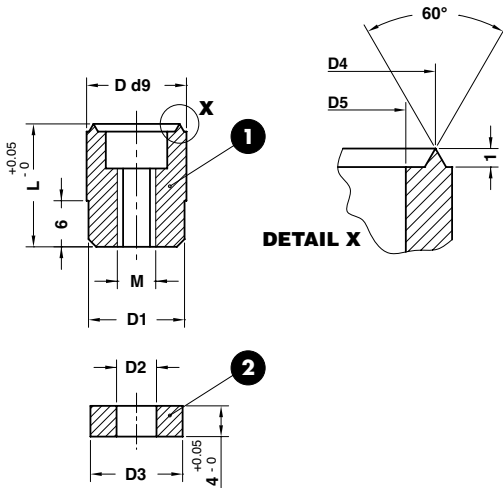
ORDER  
EXAMPLE

Art.	D=22	L=45
C11.20.	22	45

OMCR CODE	D	D1	L	L1	L2	M	R
C11.20.2245	22	7	45	35	16	M8	15
C11.20.2255	22	7	55	45	16	M8	15
C11.20.3250	32	9	50	37,5	20	M10	20
C11.20.4055	40	9	55	35	20	M10	25
C11.20.4065	40	9	65	45	20	M10	25
C11.20.4085	40	9	85	65	20	M10	25
C11.20.5055	50	9	55	41,25	20	M10	25
C11.20.5680	56	9	80	60	20	M10	30



VISUAL LOCATOR SETTING PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE



- Notes**
- 1 **Material:** X205Cr12KU  
**HRC:** 60÷62
  - 2 **Material:** X205Cr12KU

Standard OMCR

ORDER EXAMPLE	Art.	D=10	L=16
	C11.30.	10	16

OMCR CODE	D	D1	D2	D3	D4	D5	L	M
C11.30.1016	10	9,5	4,2	9,7	8	6	16	M4
C11.30.1316	13	12,5	5,2	12	11,2	8	16	M5



## STAMP RETAINER - HALTEPLATTE - PORTATIMBRI

### Notes

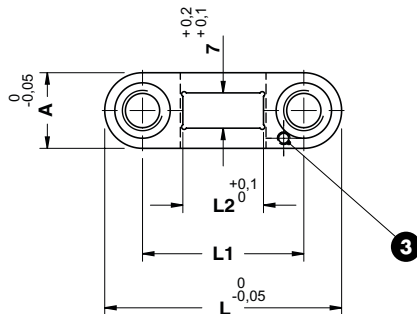
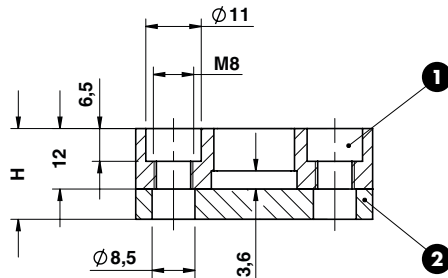
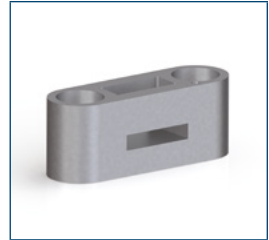
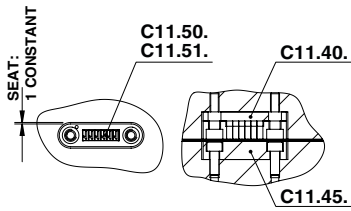
1 2

Material: CK45

3

ELASTIC PIN  $\varnothing 2.5 \times 14$  DIN 1481

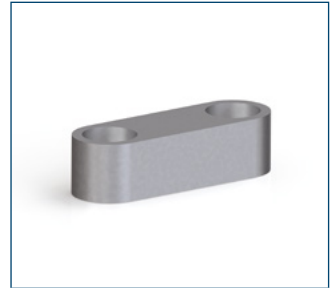
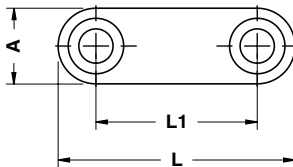
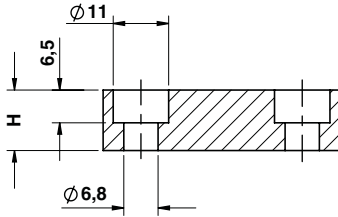
### Application example



Art.	A=15	H=18	L=47
C11.40.	15	18	047

OMCR CODE	A	H	L	L1	L2	Nr. of stamps C11.50.	Nr. of stamps C11.51.
C11.40.1518045	15	18	45	30	12	3	6
C11.40.1518047	15	18	47	32	16	4	8
C11.40.1518055	15	18	55	40	24	6	12
C11.40.1518063	15	18	63	48	32	8	16
C11.40.1518071	15	18	71	56	40	10	20

## BACKING PLATE - DRUCKPLATTE - REAZIONE



Standard OMCR



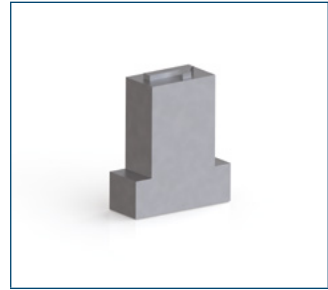
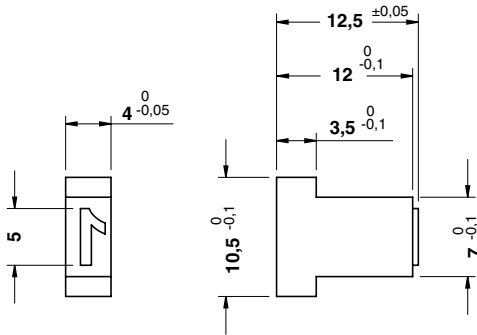
### Notes

**Material:** CK45

ORDER EXAMPLE	Art.	A=15	H=12	L=47
	C11.45.	15	12	047

OMCR CODE	A	H	L	L1	Used with Stamp Retainer
C11.45.1512045	15	12	45	30	C11.40.1518045
C11.45.1512047	15	12	47	32	C11.40.1518047
C11.45.1512055	15	12	55	40	C11.40.1518055
C11.45.1512063	15	12	63	48	C11.40.1518063
C11.45.1512071	15	12	71	56	C11.40.1518071

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



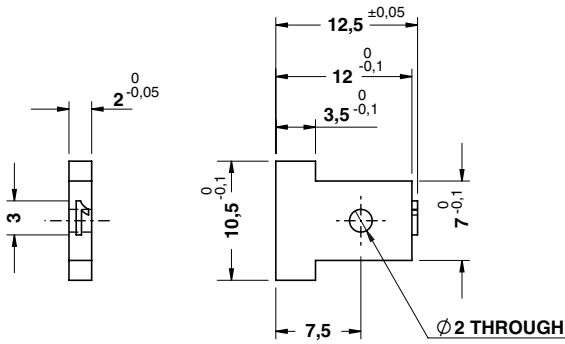
### Notes

**Material:** X153CrMoV12  
**HRC:** 54÷56

ORDER EXAMPLE	Art.
	C11.50.01

OMCR CODE	Stamp	OMCR CODE	Stamp	OMCR CODE	Stamp	OMCR CODE	Stamp
C11.50.00	0	C11.50.10	B	C11.50.20	L	C11.50.30	V
C11.50.01	1	C11.50.11	C	C11.50.21	M	C11.50.31	W
C11.50.02	2	C11.50.12	D	C11.50.22	N	C11.50.32	X
C11.50.03	3	C11.50.13	E	C11.50.23	O	C11.50.33	Y
C11.50.04	4	C11.50.14	F	C11.50.24	P	C11.50.34	Z
C11.50.05	5	C11.50.15	G	C11.50.25	Q	C11.50.35	SPACE
C11.50.06	6 or 9	C11.50.16	H	C11.50.26	R	C11.50.36	-
C11.50.07	7	C11.50.17	I	C11.50.27	S	C11.50.37	_
C11.50.08	8	C11.50.18	J	C11.50.28	T		
C11.50.09	A	C11.50.19	K	C11.50.29	U		

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



### Notes

**Material:** X153CrMoV12

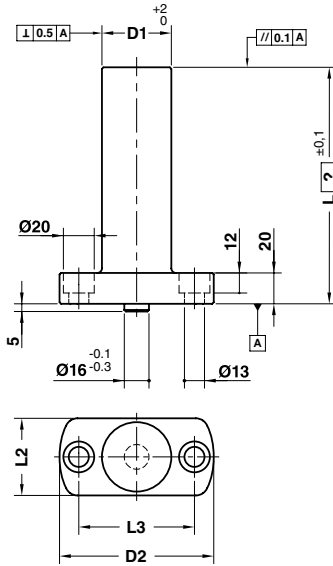
**HRC:** 54÷56

Standard OMCR

ORDER EXAMPLE	Art.
	C11.51.01

OMCR CODE	Stamp	OMCR CODE	Stamp	OMCR CODE	Stamp	OMCR CODE	Stamp
C11.51.00	0	C11.51.10	B	C11.51.20	L	C11.51.30	V
C11.51.01	1	C11.51.11	C	C11.51.21	M	C11.51.31	W
C11.51.02	2	C11.51.12	D	C11.51.22	N	C11.51.32	X
C11.51.03	3	C11.51.13	E	C11.51.23	O	C11.51.33	Y
C11.51.04	4	C11.51.14	F	C11.51.24	P	C11.51.34	Z
C11.51.05	5	C11.51.15	G	C11.51.25	Q	C11.51.35	SPACE
C11.51.06	6 or 9	C11.51.16	H	C11.51.26	R	C11.51.36	-
C11.51.07	7	C11.51.17	I	C11.51.27	S	C11.51.37	-
C11.51.08	8	C11.51.18	J	C11.51.28	T		
C11.51.09	A	C11.51.19	K	C11.51.29	U		

## AIR PIN - DRUCKBOLZEN - CANDELA



$L_{max} = 360 \text{ mm}$

Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

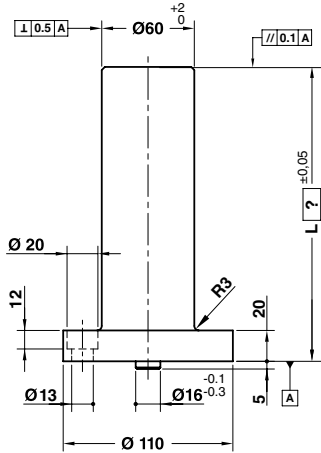
### Notes

**Material:** CK45 -  $800 \div 1000 \text{ N/mm}^2$

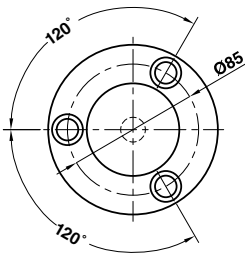
ORDER EXAMPLE 	Art.	D1=36	L=230
	C12.10.	36	230

OMCR CODE	D1	D2	L2	L3	Max load (kN)
C12.10.	36	90	40	65	50
C12.10.	45	100	50	75	70

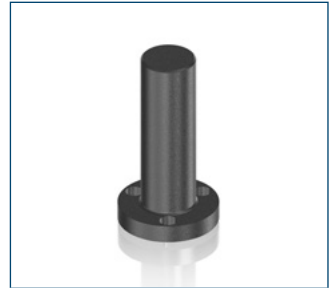
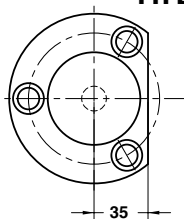
AIR PIN - UNTERLUFTBOLZEN - CANDELA



TYPE 01



TYPE 02

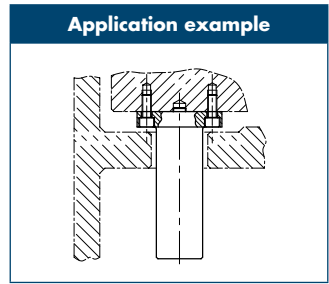


Standard OMCR



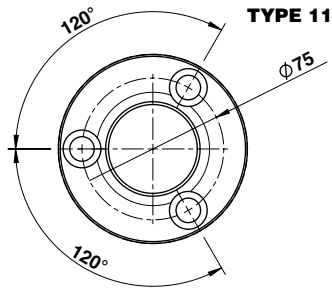
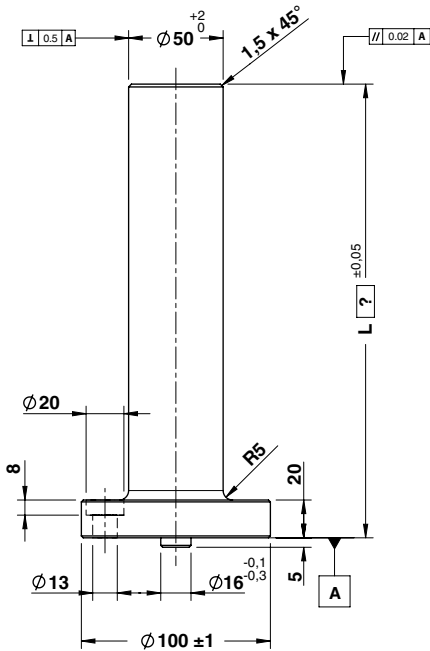
**L<sub>max</sub> = 450 mm**  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**Notes**  
**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

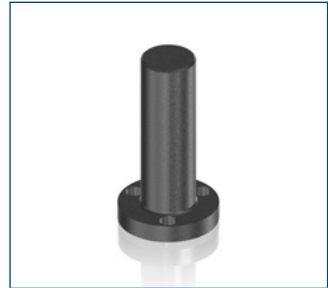
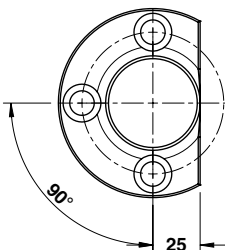


OMCR CODE	TYPE	Max Load (kN)
C12.11.	01	80
C12.11.	02	80

AIR PIN - UNTERLUFTBOLZEN - CANDELA

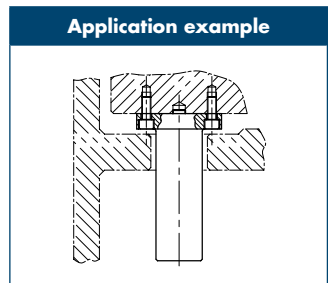


TYPE 12



**L**<sub>max</sub> = 450 mm  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**Notes**  
**Material:** CK45 - 800 ÷ 1000 N/mm<sup>2</sup>

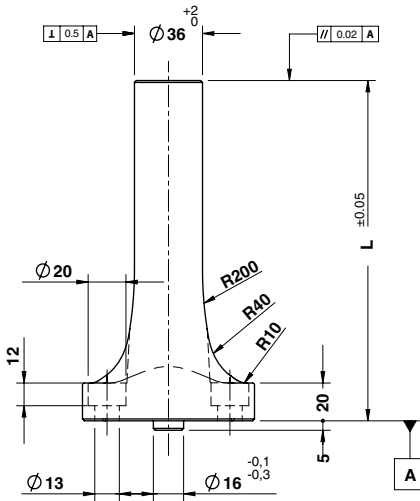


ORDER EXAMPLE	Art.	TYPE	L=220
	C12.11.	11	220

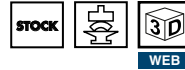
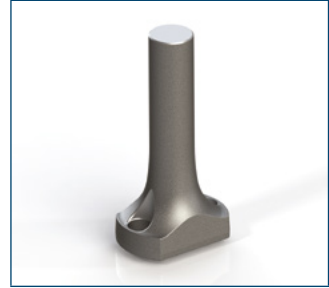
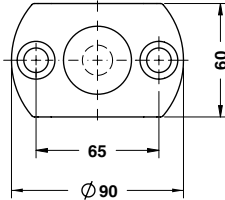
OMCR CODE	TYPE	Max Load (kN)
C12.11.	11	80
C12.11.	12	80



AIR PIN VDI 3002 - DRUCKBOLZEN VDI 3002 - CANDELA VDI 3002



TYPE 10



⚠  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

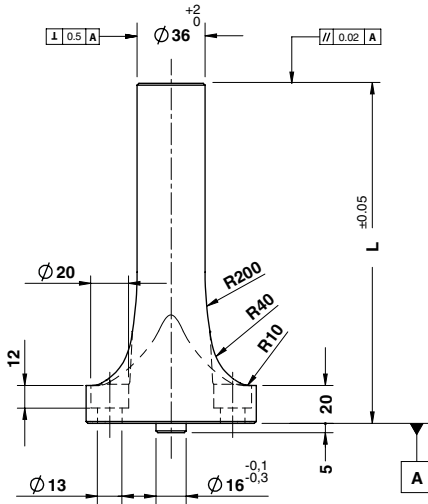
**Notes**  
**Material:** CK45  
 800÷1000 N/mm<sup>2</sup>

Standard OMCR

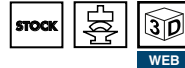
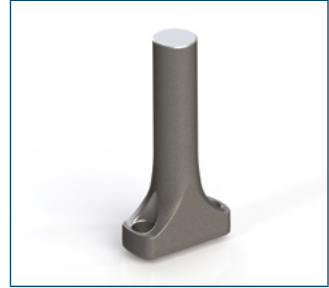
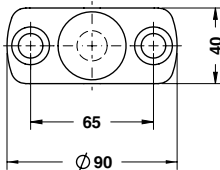
ORDER EXAMPLE	Art.	TYPE	L=220
	C12.12.	10	220

OMCR CODE	TYPE	L	Max Load (kN)	OMCR CODE	TYPE	L	Max Load (kN)	OMCR CODE	TYPE	L	Max Load (kN)
C12.12.10150	10	150	50	C12.12.10215	10	215	50	C12.12.10280	10	280	50
C12.12.10155	10	155	50	C12.12.10220	10	220	50	C12.12.10285	10	285	50
C12.12.10160	10	160	50	C12.12.10225	10	225	50	C12.12.10290	10	290	50
C12.12.10165	10	165	50	C12.12.10230	10	230	50	C12.12.10295	10	295	50
C12.12.10170	10	170	50	C12.12.10235	10	235	50	C12.12.10300	10	300	50
C12.12.10175	10	175	50	C12.12.10240	10	240	50	C12.12.10310	10	310	50
C12.12.10180	10	180	50	C12.12.10245	10	245	50	C12.12.10320	10	320	50
C12.12.10185	10	185	50	C12.12.10250	10	250	50	C12.12.10330	10	330	50
C12.12.10190	10	190	50	C12.12.10255	10	255	50	C12.12.10340	10	340	50
C12.12.10195	10	195	50	C12.12.10260	10	260	50	C12.12.10350	10	350	50
C12.12.10200	10	200	50	C12.12.10265	10	265	50	C12.12.10360	10	360	50
C12.12.10205	10	205	50	C12.12.10270	10	270	50				
C12.12.10210	10	210	50	C12.12.10275	10	275	50				

AIR PIN VDI 3002 - DRUCKBOLZEN VDI 3002 - CANDELA VDI 3002



TYPE 11



⚠  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

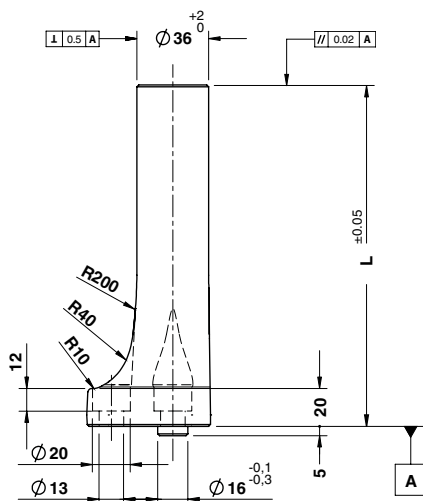
**Notes**  
**Material:** CK45  
 800÷1000 N/mm<sup>2</sup>

ORDER EXAMPLE	Art.	TYPE	L=220
	C12.12.	11	220

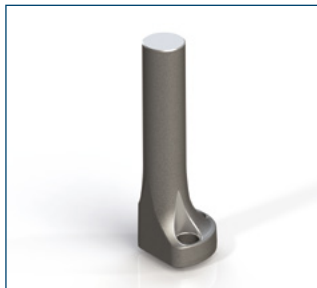
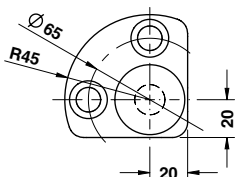
OMCR CODE	TYPE	L	Max Load (kN)	OMCR CODE	TYPE	L	Max Load (kN)	OMCR CODE	TYPE	L	Max Load (kN)
C12.12.11150	11	150	50	C12.12.11215	11	215	50	C12.12.11280	11	280	50
C12.12.11155	11	155	50	C12.12.11220	11	220	50	C12.12.11285	11	285	50
C12.12.11160	11	160	50	C12.12.11225	11	225	50	C12.12.11290	11	290	50
C12.12.11165	11	165	50	C12.12.11230	11	230	50	C12.12.11295	11	295	50
C12.12.11170	11	170	50	C12.12.11235	11	235	50	C12.12.11300	11	300	50
C12.12.11175	11	175	50	C12.12.11240	11	240	50	C12.12.11310	11	310	50
C12.12.11180	11	180	50	C12.12.11245	11	245	50	C12.12.11320	11	320	50
C12.12.11185	11	185	50	C12.12.11250	11	250	50	C12.12.11330	11	330	50
C12.12.11190	11	190	50	C12.12.11255	11	255	50	C12.12.11340	11	340	50
C12.12.11195	11	195	50	C12.12.11260	11	260	50	C12.12.11350	11	350	50
C12.12.11200	11	200	50	C12.12.11265	11	265	50	C12.12.11360	11	360	50
C12.12.11205	11	205	50	C12.12.11270	11	270	50				
C12.12.11210	11	210	50	C12.12.11275	11	275	50				

## AIR PIN VDI 3002 - DRUCKBOLZEN VDI 3002 - CANDELA VDI 3002

Standard OMCR



**TYPE 12**



STOCK



WEB

⚠  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**Notes**  
**Material:** CK45  
 800÷1000 N/mm<sup>2</sup>

ORDER EXAMPLE	Art.	TYPE	L=220
	C12.12.	12	220

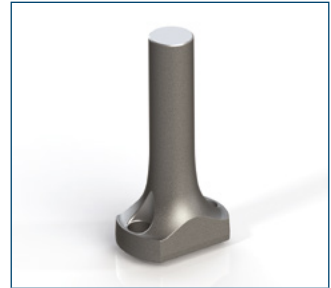
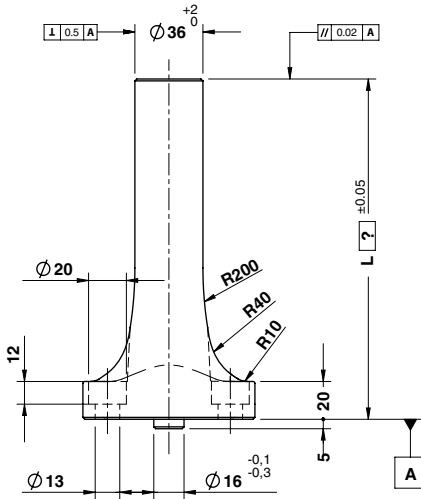
OMCR CODE	TYPE	L	Max Load (kN)
C12.12.12150	12	150	50
C12.12.12155	12	155	50
C12.12.12160	12	160	50
C12.12.12165	12	165	50
C12.12.12170	12	170	50
C12.12.12175	12	175	50
C12.12.12180	12	180	50
C12.12.12185	12	185	50
C12.12.12190	12	190	50
C12.12.12195	12	195	50
C12.12.12200	12	200	50
C12.12.12205	12	205	50
C12.12.12210	12	210	50

OMCR CODE	TYPE	L	Max Load (kN)
C12.12.12215	12	215	50
C12.12.12220	12	220	50
C12.12.12225	12	225	50
C12.12.12230	12	230	50
C12.12.12235	12	235	50
C12.12.12240	12	240	50
C12.12.12245	12	245	50
C12.12.12250	12	250	50
C12.12.12255	12	255	50
C12.12.12260	12	260	50
C12.12.12265	12	265	50
C12.12.12270	12	270	50
C12.12.12275	12	275	50

OMCR CODE	TYPE	L	Max Load (kN)
C12.12.12280	12	280	50
C12.12.12285	12	285	50
C12.12.12290	12	290	50
C12.12.12295	12	295	50
C12.12.12300	12	300	50
C12.12.12310	12	310	50
C12.12.12320	12	320	50
C12.12.12330	12	330	50
C12.12.12340	12	340	50
C12.12.12350	12	350	50
C12.12.12360	12	360	50



## AIR PIN VDI 3002 - DRUCKBOLZEN VDI 3002 - CANDELA VDI 3002



$L_{max} = 360$  mm

Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

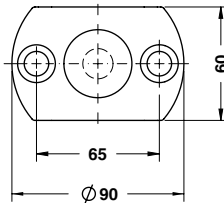
**Material:** C45  
 $800 \div 1000$  N/mm<sup>2</sup>



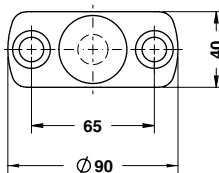
Art.	TYPE	L=220
C12.12.	10	220

OMCR CODE	TYPE	Max Load (kN)
C12.12.	10	50
C12.12.	11	50
C12.12.	12	50

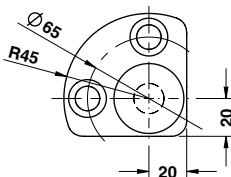
### TYPE 10



### TYPE 11



### TYPE 12



## SPACER PLATE TOOTHED - DISTANZPLATTE GEZAHNT - TASSELLO DI COMPENSAZIONE

### Notes

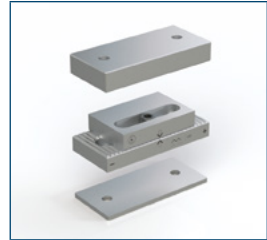
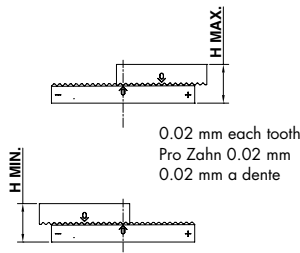
**1 2 3**

**Material:** 90MnCrV8  
**HRC:** 58±60

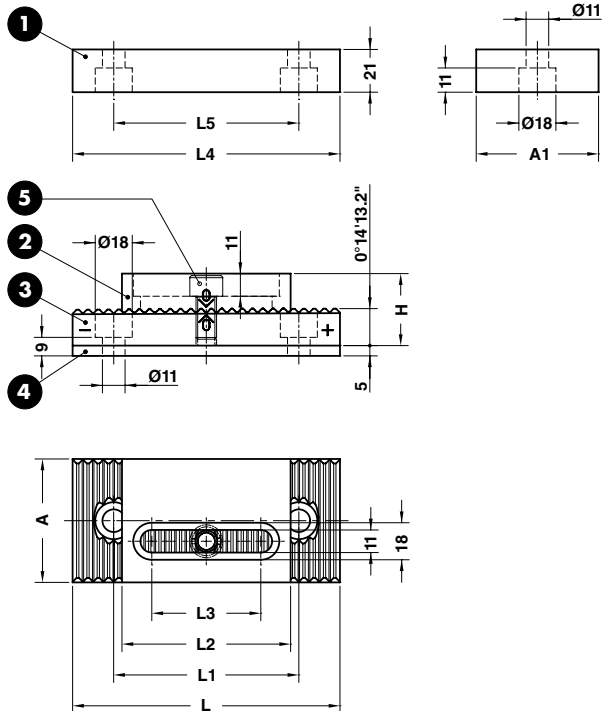
**4 Material:** X155CrVMo12

**5** DIN 912

### Application example



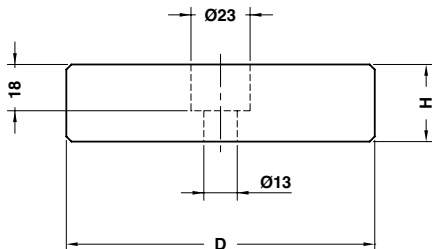
Standard OMCR



Art.	A=60	H=35	L=130
C12.16.	060	35	130

OMCR CODE	A	A1	H	H min.	H max.	L	L1	L2	L3	L4	L5
C12.16.06035130	60	60	35	34,88	35,12	130	90	90	61	130	90
C12.16.08035160	80	80	35	34,86	35,14	160	120	110	71	160	120

## COMPENSATION BLOCK - ABSTANDSBLOCK - TASSELLO DI COMPENSAZIONE



STOCK

3D

WEB



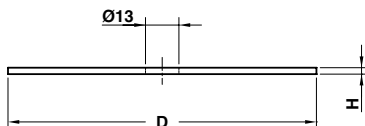
### Notes

**Material:** 42CrMo4 · **HRC:** 46÷48

ORDER EXAMPLE	Art.	D=80	H=25
	C12.20.	080	25

OMCR CODE	D	H
C12.20.08025	80	25
C12.20.08030	80	30
C12.20.10025	100	25
C12.20.10030	100	30
C12.20.12025	120	25
C12.20.12030	120	30

## SHIM - AUSGLEICHSCHEIB - SPESSORE



STOCK

3D

WEB



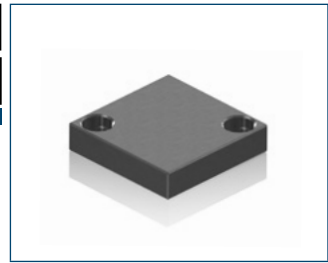
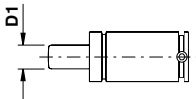
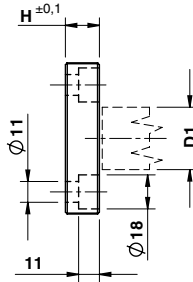
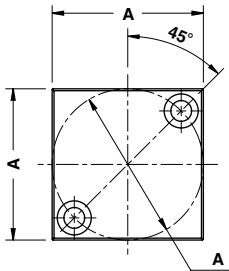
### Notes

**Material:** CK45

ORDER EXAMPLE	Art.	D=80	H=0,5
	C12.21.	080	05

OMCR CODE	D	H	Material
C12.21.08001	80	0,1	BRASS
C12.21.08005	80	0,5	STEEL
C12.21.10001	100	0,1	BRASS
C12.21.10005	100	0,5	STEEL
C12.21.12001	120	0,1	BRASS
C12.21.12005	120	0,5	STEEL

PRESSURE PLATE - DRUCKPLATTE - PIASTRA DI REAZIONE



Notes

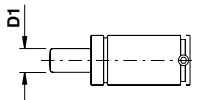
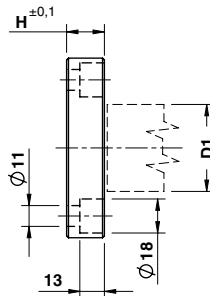
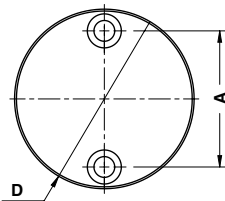
**Material:** 16MnCr5  
**HRC:** 58÷60

ORDER EXAMPLE	Art.	A=80	H=18
	C12.22.	80	18

OMCR CODE	A	D1	H
C12.22.8018	80	≤ 65	18

Standard OMCR

PRESSURE PLATE - DRUCKPLATTE - PIASTRA DI REAZIONE



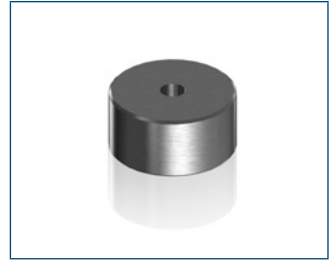
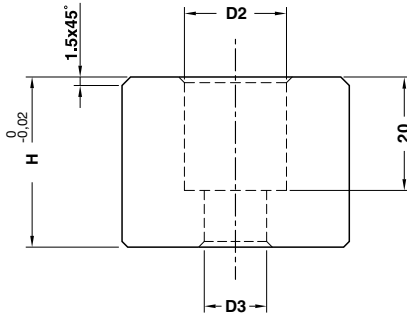
Notes

**Material:** 16MnCr5  
**HRC:** 58÷60

ORDER EXAMPLE	Art.	D=95	H=20
	C12.23.	95	20

OMCR CODE	A	D	D1	H
C12.23.6520	42	65	≤ 25	20
C12.23.9520	72	95	≤ 50	20

## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



### Notes

**Material:** CK45

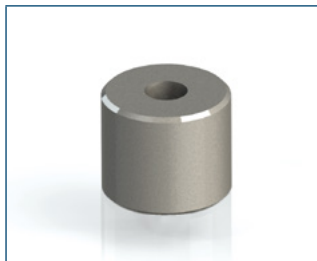
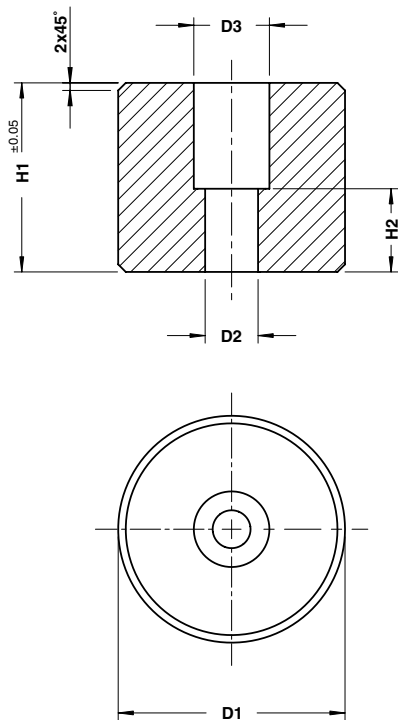
	Art.	D1=40	H=30
	C12.25.	040	30

OMCR CODE	D1	D2	D3	H
C12.25.04030	40	18	11	30
C12.25.06050	60	20	13,5	50
C12.25.10050	100	20	13,5	50





## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**Notes**

**Material:** CK45  
 Screws not included  
 Unpainted

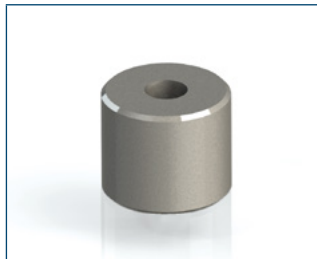
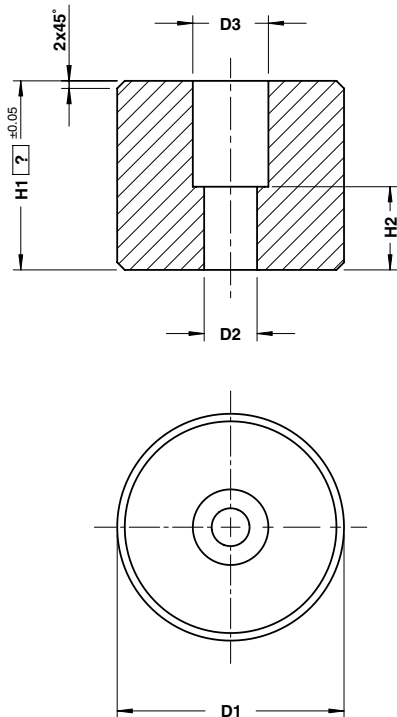
	Art.	D1=60	H1=40,50
	C12.26.	060	04050

## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE

D1	25		30		40		50		60		80		100		120		150			
D2	9		9		9		9		14		14		18		22		22			
D3	15		15		15		15		20		20		26		33		33			
Max load (t)	3.5		8		20		35		55		100		170		250		400			
H2	10	28	10	28	10	28	10	28	12	22	42	12	22	42	20	36	15	30	15	30
Screw DIN EN ISO 4762	M8x25	M8x40	M8x25	M8x40	M8x25	M8x40	M8x25	M8x40	M12x30	M12x40	M12x60	M12x30	M12x40	M12x60	M16x40	M16x60	M20x50	M20x60	M20x50	M20x60
H1																				
20	•		•		•		•													
20,3	•		•		•		•													
20,5	•		•		•		•													
23	•		•		•		•													
25	•		•		•		•		•											
28	•		•		•		•		•											
30	•		•		•		•		•			•								
30,3	•		•		•		•		•			•								
30,5	•		•		•		•		•			•								
33	•		•		•		•		•			•								
35	•		•		•		•		•			•								
38	•		•		•		•		•			•								
40	•		•		•		•			•			•		•					
40,3		•		•		•		•		•			•		•					
40,5		•		•		•		•		•			•		•					
41			•		•		•		•			•		•						
43			•		•		•		•			•		•						
45			•		•		•		•			•		•						
48			•		•		•		•			•		•						
50			•		•		•		•			•		•						•
50,3			•		•		•		•			•		•			•			•
50,5			•		•		•		•			•		•			•			•
51			•		•		•		•			•		•			•			•
55			•		•		•		•			•		•			•			•
60			•		•		•		•			•		•			•			•
60,3			•		•		•		•		•		•		•		•			•
60,5			•		•		•		•		•		•		•		•			•
61			•		•		•		•		•		•		•		•			•

Standard OMCR

## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

**Notes**

**Material:** CK45  
Screws not included  
Unpainted

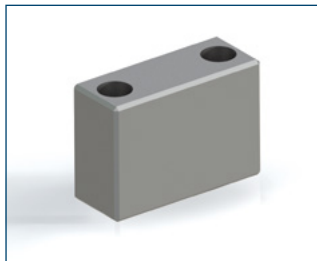
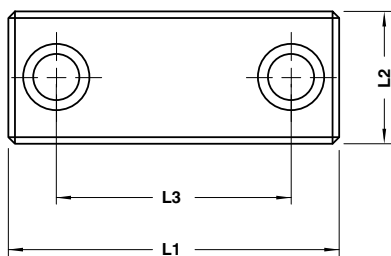
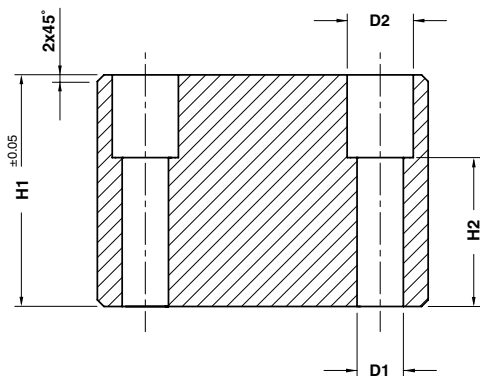
	Art.	D1=80	H1=45
	C12.26.	080	04500


OMCR CODE	D1	D2	D3	H1	H2	Screw DIN EN ISO 4762	Max load (t)
C12.26.	25	9	15	≥ 20 - 40	10	M8x25	3,5
C12.26.	25	9	15	> 40 - 60	28	M8x40	3,5
C12.26.	30	9	15	≥ 20 - 40	10	M8x25	8
C12.26.	30	9	15	> 40 - 60	28	M8x40	8
C12.26.	40	9	15	≥ 20 - 40	10	M8x25	20
C12.26.	40	9	15	> 40 - 60	28	M8x40	20
C12.26.	50	9	15	≥ 20 - 40	10	M8x25	35
C12.26.	50	9	15	> 40 - 60	28	M8x40	35

## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE

OMCR CODE	D1	D2	D3	H1	H2	Screw DIN EN ISO 4762	Max load (t)
C12.26.	60	14	20	≥ 25 < 40	12	M12x30	55
C12.26.	60	14	20	≥ 40 - 60	22	M12x40	55
C12.26.	60	14	20	> 60 - 80	42	M12x60	55
C12.26.	60	14	20	> 80 - 100	62	M12x80	55
C12.26.	60	14	20	> 100 - 120	82	M12x100	55
C12.26.	60	14	20	> 120 - 140	102	M12x120	55
C12.26.	60	14	20	> 140 - 160	122	M12x140	55
C12.26.	80	14	20	≥ 25 < 40	12	M12x30	100
C12.26.	80	14	20	≥ 40 - 60	20	M12x40	100
C12.26.	80	14	20	> 60 - 80	36	M12x60	100
C12.26.	80	14	20	> 80 - 100	56	M12x80	100
C12.26.	80	14	20	> 100 - 120	76	M12x100	100
C12.26.	80	14	20	> 120 - 140	96	M12x120	100
C12.26.	80	14	20	> 140 - 160	116	M12x140	100
C12.26.	100	18	26	≥ 40 - 60	20	M16x40	170
C12.26.	100	18	26	> 60 - 80	36	M16x60	170
C12.26.	100	18	26	> 80 - 100	56	M16x80	170
C12.26.	100	18	26	> 100 - 120	76	M16x100	170
C12.26.	100	18	26	> 120 - 140	96	M16x120	170
C12.26.	100	18	26	> 140 - 160	116	M16x140	170
C12.26.	120	22	33	≥ 40 - 60	15	M20x40	250
C12.26.	120	22	33	> 60 - 80	30	M20x60	250
C12.26.	120	22	33	> 80 - 100	50	M20x80	250
C12.26.	120	22	33	> 100 - 120	70	M20x100	250
C12.26.	120	22	33	> 120 - 140	90	M20x120	250
C12.26.	120	22	33	> 140 - 160	110	M20x140	250
C12.26.	150	22	33	≥ 40 - 60	15	M20x40	400
C12.26.	150	22	33	> 60 - 80	30	M20x60	400
C12.26.	150	22	33	> 80 - 100	50	M20x80	400
C12.26.	150	22	33	> 100 - 120	70	M20x100	400
C12.26.	150	22	33	> 120 - 140	90	M20x120	400
C12.26.	150	22	33	> 140 - 160	110	M20x140	400


BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE




  
 Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

Notes

**Material:** CK45  
 Screws not included  
 Unpainted

ORDER EXAMPLE	Art.	L1=60	L2=40	H1=60,5
	C12.27.	060	040	06050

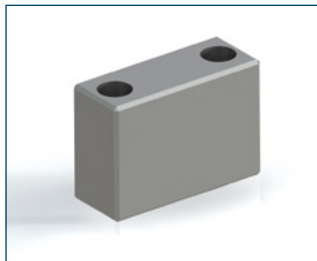
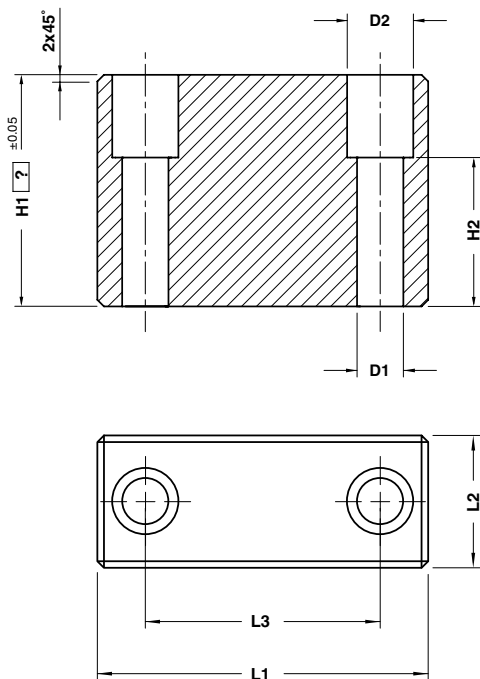
**BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE**

L1 x L2	60 x 40			80 x 40			100 x 40			100 x 50			120 x 60			150 x 80		160 x 100	
D1	9			11			14			14			14			18		18	
D2	15			18			20			20			20			26		26	
Max load (t)	50			65			85			110			160			270		380	
L3	40			56			71			76			93			120		130	
H2	10	28	48	8	25	45	6	22	42	6	22	42	6	22	42	18	38	18	38
Screw DIN EN ISO 4762	M8x25	M8x40	M8x60	M10x25	M10x40	M10x60	M12x25	M12x40	M12x60	M12x25	M12x40	M12x60	M12x25	M12x40	M12x60	M16x40	M16x60	M16x40	M16x60

H1																			
20	•			•															
20,3	•			•															
20,5	•			•															
23	•			•															
25	•			•			•												
28	•			•			•												
30	•			•			•			•									
30,3	•			•			•			•									
30,5	•			•			•			•									
33	•			•			•			•									
35	•			•			•			•									
38	•			•			•			•									
40	•			•			•			•			•			•			•
40,3		•			•			•			•			•			•		•
40,5		•			•			•			•			•			•		•
41		•			•			•			•			•			•		•
43		•			•			•			•			•			•		•
45		•			•			•			•			•			•		•
48		•			•			•			•			•			•		•
50		•			•			•			•			•			•		•
50,3		•			•			•			•			•			•		•
50,5		•			•			•			•			•			•		•
51		•			•			•			•			•			•		•
55		•			•			•			•			•			•		•
60		•			•			•			•			•			•		•
60,5			•			•			•			•			•			•	•
61									•			•			•			•	•

Standard OMCR

## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**Notes**  
**Material:** CK45  
 Screws not included  
 Unpainted

Art.	L1=150	L2=80	H1=85
C12.27.	150	080	08500

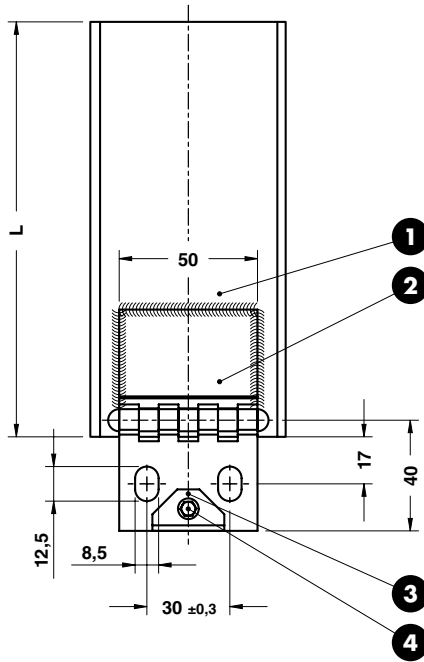
OMCR CODE	D1	D2	H1	H2	L1	L2	L3	Screw DIN EN ISO 4762	Max load (t)
C12.27.	9	15	≥ 20 - 40	10	60	40	40	M8x25	50
C12.27.	9	15	> 40 - 60	28	60	40	40	M8x40	50
C12.27.	9	15	> 60 - 80	48	60	40	40	M8x60	50
C12.27.	9	15	> 80 - 100	68	60	40	40	M8x80	50
C12.27.	9	15	> 100 - 120	68	60	40	40	M8x80	50
C12.27.	9	15	> 120 - 140	68	60	40	40	M8x80	50
C12.27.	9	15	> 140 - 160	68	60	40	40	M8x80	50
C12.27.	11	18	≥ 20 - 40	8	80	40	56	M10x25	65
C12.27.	11	18	> 40 - 60	25	80	40	56	M10x40	65
C12.27.	11	18	> 60 - 80	45	80	40	56	M10x60	65
C12.27.	11	18	> 80 - 100	65	80	40	56	M10x80	65
C12.27.	11	18	> 100 - 120	85	80	40	56	M10x100	65
C12.27.	11	18	> 120 - 140	105	80	40	56	M10x120	65
C12.27.	11	18	> 140 - 160	105	80	40	56	M10x120	65
C12.27.	14	20	≥ 20 - 40	6	100	40	71	M12x25	85
C12.27.	14	20	> 40 - 60	22	100	40	71	M12x40	85
C12.27.	14	20	> 60 - 80	42	100	40	71	M12x60	85
C12.27.	14	20	> 80 - 100	62	100	40	71	M12x80	85
C12.27.	14	20	> 100 - 120	82	100	40	71	M12x100	85
C12.27.	14	20	> 120 - 140	102	100	40	71	M12x120	85



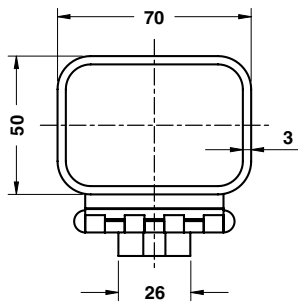
## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE

OMCR CODE	D1	D2	H1	H2	L1	L2	L3	Screw DIN EN ISO 4762	Max load (t)
C12.27.	14	20	> 140 - 160	122	100	40	71	M12x140	85
C12.27.	14	20	≥ 20 - 40	6	100	50	76	M12x25	110
C12.27.	14	20	> 40 - 60	22	100	50	76	M12x40	110
C12.27.	14	20	> 60 - 80	42	100	50	76	M12x60	110
C12.27.	14	20	> 80 - 100	62	100	50	76	M12x80	110
C12.27.	14	20	> 100 - 120	82	100	50	76	M12x100	110
C12.27.	14	20	> 120 - 140	102	100	50	76	M12x120	110
C12.27.	14	20	> 140 - 160	122	100	50	76	M12x140	110
C12.27.	14	20	≥ 20 - 40	6	120	60	93	M12x25	160
C12.27.	14	20	> 40 - 60	22	120	60	93	M12x40	160
C12.27.	14	20	> 60 - 80	42	120	60	93	M12x60	160
C12.27.	14	20	> 80 - 100	62	120	60	93	M12x80	160
C12.27.	14	20	> 100 - 120	82	120	60	93	M12x100	160
C12.27.	14	20	> 120 - 140	102	120	60	93	M12x120	160
C12.27.	14	20	> 140 - 160	122	120	60	93	M12x140	160
C12.27.	18	26	> 40 - 60	18	150	80	120	M16x40	270
C12.27.	18	26	> 60 - 80	38	150	80	120	M16x60	270
C12.27.	18	26	> 80 - 100	58	150	80	120	M16x80	270
C12.27.	18	26	> 100 - 120	78	150	80	120	M16x100	270
C12.27.	18	26	> 120 - 140	98	150	80	120	M16x120	270
C12.27.	18	26	> 140 - 160	118	150	80	120	M16x140	270
C12.27.	18	26	> 40 - 60	18	160	100	130	M16x40	380
C12.27.	18	26	> 60 - 80	38	160	100	130	M16x60	380
C12.27.	18	26	> 80 - 100	58	160	100	130	M16x80	380
C12.27.	18	26	> 100 - 120	78	160	100	130	M16x100	380
C12.27.	18	26	> 120 - 140	98	160	100	130	M16x120	380
C12.27.	18	26	> 140 - 160	118	160	100	130	M16x140	380

**SPACING BAR - ABSTELLBOLZEN - DISTANZIALE**



**TYPE 02**



## SPACING BAR - ABSTELLBOLZEN - DISTANZIALE

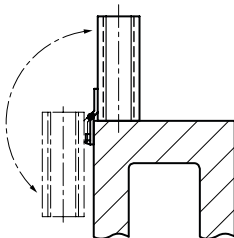


Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

- 1 Material:** St37
- 2** AHA Hinge
- 3 Material:** Elastomer 68SH
- 4** Screw M4x8 - DIN912

### Application example



Standard OMCR

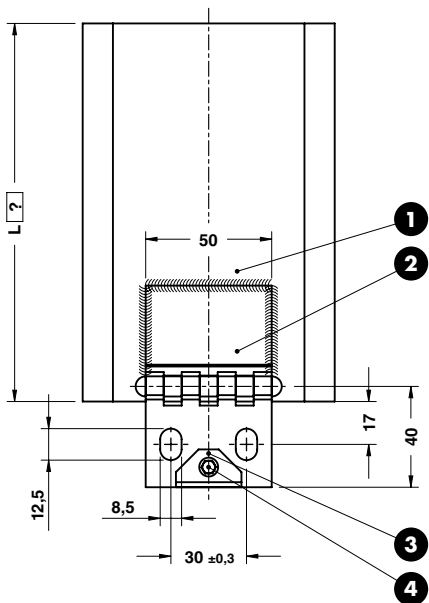
	Art.	TYPE	L=70
	C12.30.	02	070

OMCR CODE	TYPE	L	Max load (kN)
C12.30.02065	02	65	100
C12.30.02070	02	70	100
C12.30.02075	02	75	100
C12.30.02080	02	80	100
C12.30.02085	02	85	100
C12.30.02090	02	90	100
C12.30.02095	02	95	100
C12.30.02100	02	100	100
C12.30.02105	02	105	100
C12.30.02110	02	110	100
C12.30.02115	02	115	100
C12.30.02120	02	120	100
C12.30.02125	02	125	100
C12.30.02130	02	130	100
C12.30.02135	02	135	100
C12.30.02140	02	140	100

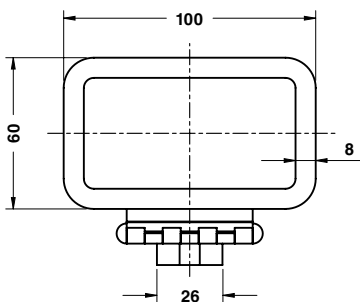
OMCR CODE	TYPE	L	Max load (kN)
C12.30.02150	02	150	100
C12.30.02155	02	155	100
C12.30.02160	02	160	100
C12.30.02165	02	165	100
C12.30.02170	02	170	100
C12.30.02175	02	175	100
C12.30.02180	02	180	100
C12.30.02185	02	185	100
C12.30.02190	02	190	100
C12.30.02195	02	195	100
C12.30.02200	02	200	100
C12.30.02205	02	205	100
C12.30.02210	02	210	100
C12.30.02215	02	215	100
C12.30.02220	02	220	100
C12.30.02225	02	225	100

OMCR CODE	TYPE	L	Max load (kN)
C12.30.02230	02	230	100
C12.30.02235	02	235	100
C12.30.02240	02	240	100
C12.30.02245	02	245	100
C12.30.02250	02	250	100
C12.30.02260	02	260	100
C12.30.02270	02	270	100
C12.30.02280	02	280	100
C12.30.02290	02	290	100
C12.30.02300	02	300	100
C12.30.02310	02	310	100
C12.30.02320	02	320	100
C12.30.02330	02	330	100
C12.30.02340	02	340	100
C12.30.02350	02	350	100

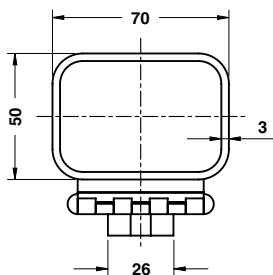
## SPACING BAR - ABSTELLBOLZEN - DISTANZIALE



**TYPE 01**



**TYPE 02**



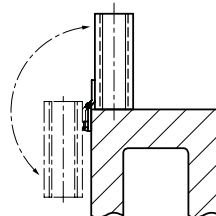
L max. = 400

Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

### Notes

- 1** Material: Si37
- 2** AHA Hinge
- 3** Material: Elastomer 68SH
- 4** Screw M4x8 - DIN912

### Application example



ORDER EXAMPLE	Art.	TYPE	L=200
	C12.30.	01	200
OMCR CODE	TYPE	Max load (kN)	
C12.30.	01	300	
C12.30.	02	100	

## PAD RETAINER PIN VDI 3365 - STECKBOLZEN VDI 3365 - PERNO DI ARRESTO VDI 3365

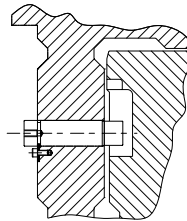


Respect the dynamic load  
Dynamische Last berücksichtigen  
Rispettare il carico dinamico

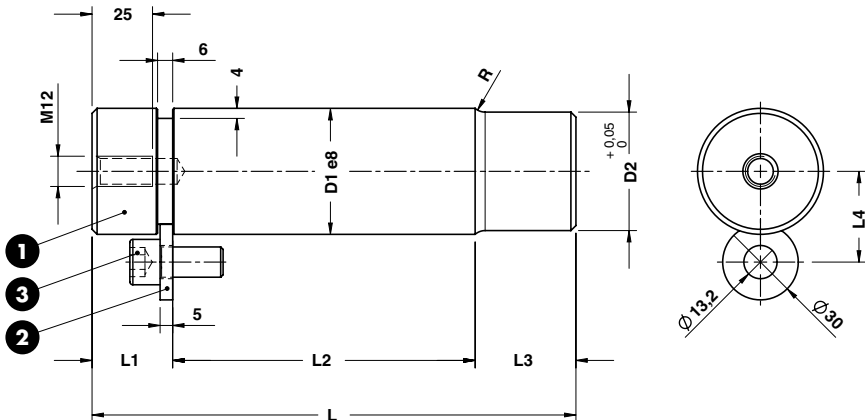
### Notes

- 1** Material: 42CrMo4  
800±1000 N/mm<sup>2</sup>
- 2** Material: CK45
- 3** Screw M12x20 - DIN 912

### Application example



Standard OMCR



ORDER EXAMPLE	Art.	D1=32	L=105
	C13.10.	32	105

OMCR CODE	D1	D2	L	L1	L2	L3	L4	R	Dynamic load (kN)
C13.10.32105	32	29	105	22	58	25	27	4	3
C13.10.32122	32	29	122	22	75	25	27	4	3
C13.10.40139	40	37	139	32	75	32	31	5	5
C13.10.40159	40	37	159	32	95	32	31	5	5
C13.10.50167	50	47	167	32	95	40	36	6	7,5
C13.10.50192	50	47	192	32	120	40	36	6	7,5
C13.10.63202	63	60	202	32	120	50	42,5	6	12,5
C13.10.63237	63	60	237	32	155	50	42,5	6	12,5

## PAD RETAINER PIN VDI 3365 - STECKBOLZEN VDI 3365 - PERNO DI ARRESTO VDI 3365

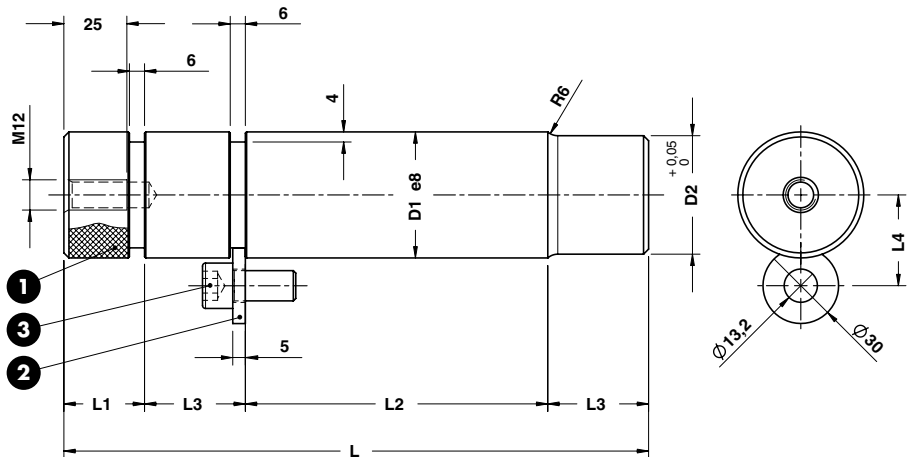
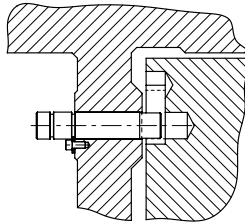


Respect the dynamic load  
 Dynamische Last berücksichtigen  
 Rispettare il carico dinamico

### Notes

- 1 Material:** 42CrMo4  
800±1000 N/mm<sup>2</sup>
- 2 Material:** CK45
- 3 Screw** M12x20 - DIN 912

### Application example

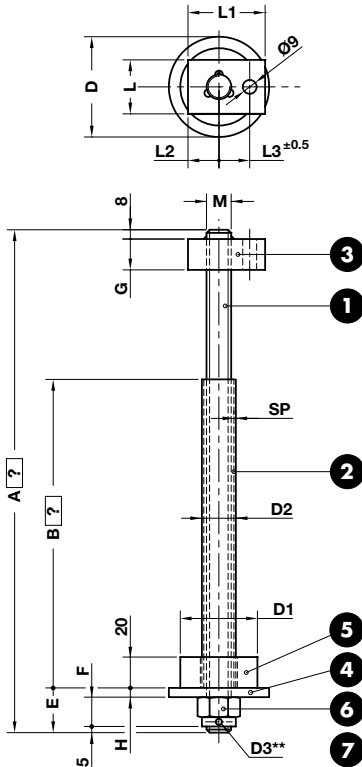


ORDER EXAMPLE	Art.	D1=32	L=130
	C13.11.	32	130

OMCR CODE	D1	D2	L	L1	L2	L3	L4	R	Dynamic load (kN)
C13.11.32130	32	29	130	22	58	25	27	4	3
C13.11.32147	32	29	147	22	75	25	27	4	3
C13.11.40171	40	37	171	32	75	32	31	5	5
C13.11.40191	40	37	191	32	95	32	31	5	5
C13.11.50207	50	47	207	32	95	40	36	6	7,5
C13.11.50232	50	47	232	32	120	40	36	6	7,5
C13.11.63252	63	60	252	32	120	50	42,5	6	12,5
C13.11.63287	63	60	287	32	155	50	42,5	6	12,5

RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE

Standard OMCR

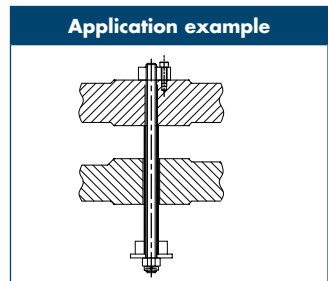


\*\* Drill hole in rod for copper pin at assembly  
Bohrung für splint durchzuführen bei der montage  
Foro per copiglia da eseguire al montaggio



⚠  
Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

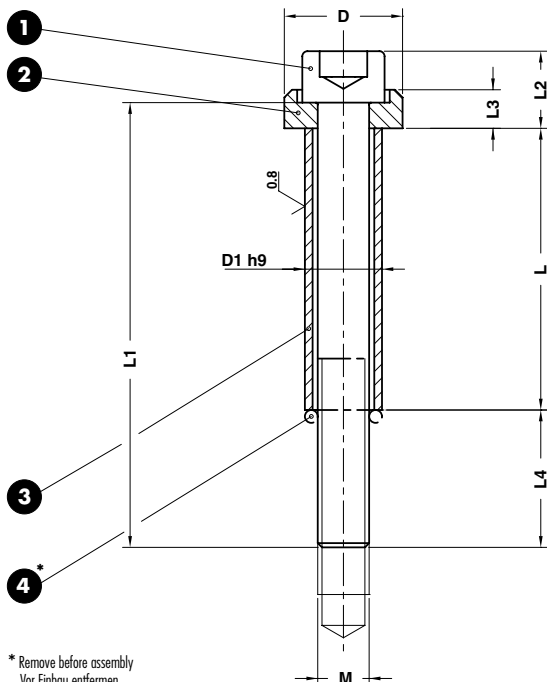
- Notes**
- 1 **Material:** Thread rod cl 8.8
  - 2 3 **Material:** St37
  - 4 **Material:** CK45
  - 5 Elastomer 92SH
  - 6 DIN 935 cl. 8.8
  - 7 DIN 94



ORDER EXAMPLE	Art.	M=M30	A=100	B=60
	C13.20.	M30	100	60

OMCR CODE	D	D1	D2	D3	SP	E	F	G	H	L	L1	L2	L3	M	Max load (kN)
C13.20.	65	50	22	4	2,5	30	19	20	6	35	50	20	20	M16	2,5
C13.20.	82	63	25	4	2	35	22	20	8	40	50	20	20	M20	4,5
C13.20.	105	80	30	5	2,5	42	27	20	10	45	50	20	20	M24	7,5
C13.20.	130	100	38	6,3	3,5	50	33	25	12	50	63	28	26	M30	12,5

## GROUND COLLAR SCREW - SCHRAUBE MIT DISTANZROHR - VITE CON COLLETO



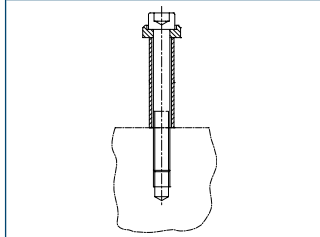
\* Remove before assembly  
Vor Einbau entfernen  
Da rimuovere prima del montaggio



### Notes

- 1 DIN 912 cl. 12.9
- 2 **Material:** Steel 1000 N/mm<sup>2</sup>
- 3 **Material:** Steel 1200-1400 N/mm<sup>2</sup>
- 4 O-Ring\*

### Application example



ORDER EXAMPLE	Art.	M=M6	L=70
	C13.24.	M06	070

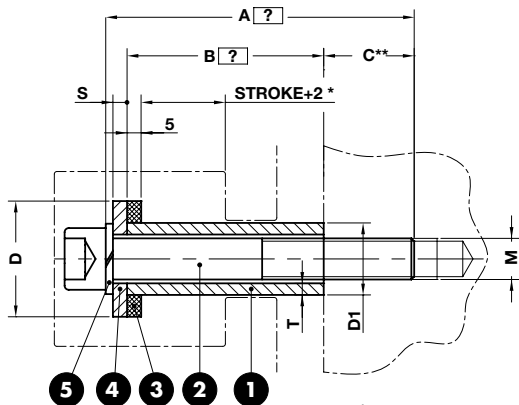
OMCR CODE	D	D1	L	L1	L2	L3	L4	M
C13.24.M06020	15	10	20	35	10	5,5	11	M6
C13.24.M06025	15	10	25	40	10	5,5	11	M6
C13.24.M06030	15	10	30	45	10	5,5	11	M6
C13.24.M06035	15	10	35	50	10	5,5	11	M6
C13.24.M06040	15	10	40	55	10	5,5	11	M6
C13.24.M06045	15	10	45	60	10	5,5	11	M6
C13.24.M06050	15	10	50	65	10	5,5	11	M6
C13.24.M06055	15	10	55	70	10	5,5	11	M6
C13.24.M06060	15	10	60	80	10	5,5	16	M6
C13.24.M06070	15	10	70	90	10	5,5	16	M6
C13.24.M06080	15	10	80	100	10	5,5	16	M6
C13.24.M06090	15	10	90	110	10	5,5	16	M6
C13.24.M06100	15	10	100	120	10	5,5	16	M6
C13.24.M08030	19	12,5	30	45	13	6,5	10	M8
C13.24.M08035	19	12,5	35	50	13	6,5	10	M8
C13.24.M08040	19	12,5	40	55	13	6,5	10	M8
C13.24.M08045	19	12,5	45	60	13	6,5	10	M8



## GROUND COLLAR SCREW - SCHRAUBE MIT DISTANZROHR - VITE CON COLLETO

OMCR CODE	D	D1	L	L1	L2	L3	L4	M
C13.24.M08050	19	12,5	50	65	13	6,5	10	M8
C13.24.M08055	19	12,5	55	70	13	6,5	10	M8
C13.24.M08060	19	12,5	60	80	13	6,5	15	M8
C13.24.M08070	19	12,5	70	90	13	6,5	15	M8
C13.24.M08080	19	12,5	80	100	13	6,5	15	M8
C13.24.M08090	19	12,5	90	110	13	6,5	15	M8
C13.24.M08100	19	12,5	100	120	13	6,5	15	M8
C13.24.M10030	23	15	30	50	15	7,5	15	M10
C13.24.M10035	23	15	35	55	15	7,5	15	M10
C13.24.M10040	23	15	40	60	15	7,5	15	M10
C13.24.M10045	23	15	45	65	15	7,5	15	M10
C13.24.M10050	23	15	50	70	15	7,5	15	M10
C13.24.M10055	23	15	55	75	15	7,5	15	M10
C13.24.M10060	23	15	60	80	15	7,5	15	M10
C13.24.M10070	23	15	70	90	15	7,5	15	M10
C13.24.M10080	23	15	80	100	15	7,5	15	M10
C13.24.M10090	23	15	90	110	15	7,5	15	M10
C13.24.M10100	23	15	100	120	15	7,5	15	M10
C13.24.M10120	23	15	120	140	15	7,5	15	M10
C13.24.M12030	27	17,5	30	50	18	9	14	M12
C13.24.M12040	27	17,5	40	60	18	9	14	M12
C13.24.M12045	27	17,5	45	65	18	9	14	M12
C13.24.M12050	27	17,5	50	70	18	9	14	M12
C13.24.M12055	27	17,5	55	80	18	9	19	M12
C13.24.M12060	27	17,5	60	90	18	9	24	M12
C13.24.M12070	27	17,5	70	100	18	9	24	M12
C13.24.M12080	27	17,5	80	110	18	9	24	M12
C13.24.M12090	27	17,5	90	120	18	9	24	M12
C13.24.M12100	27	17,5	100	130	18	9	24	M12
C13.24.M12110	27	17,5	110	140	18	9	24	M12
C13.24.M12120	27	17,5	120	150	18	9	24	M12
C13.24.M12140	27	17,5	140	180	18	9	24	M12
C13.24.M16050	34	23	50	80	24	11	22	M16
C13.24.M16060	34	23	60	90	24	11	22	M16
C13.24.M16070	34	23	70	100	24	11	22	M16
C13.24.M16080	34	23	80	110	24	11	22	M16
C13.24.M16090	34	23	90	120	24	11	22	M16
C13.24.M16100	34	23	100	130	24	11	22	M16
C13.24.M16110	34	23	110	140	24	11	22	M16
C13.24.M16120	34	23	120	150	24	11	22	M16
C13.24.M16140	34	23	140	180	24	11	32	M16
C13.24.M16150	34	23	150	180	24	11	22	M16
C13.24.M16160	34	23	160	200	24	11	32	M16

## PAD RETAINER - HALTELEMENT - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

- Notes**
- 1 Material:** St37
  - 2** DIN 912 cl. 8.8
  - 3 Material:** Elastomer 92SH
  - 4 Material:** CK45
  - 5** DIN 127

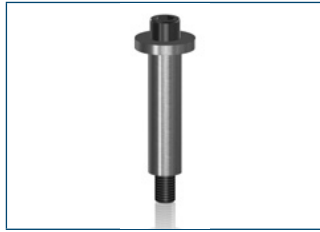
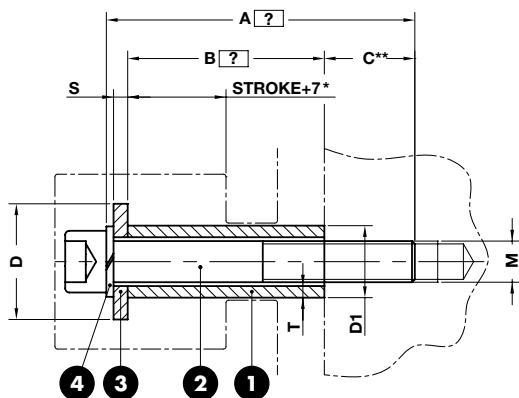


Art.	M=M10	A=100	B=76
C13.25.	M10	A100	B076

\* Hub +2, Corsa +2  
 \*\* 1,5 x d on steel, auf stahl, su acciaio  
 2 x d on cast iron, auf gusseisen, su ghisa

OMCR CODE	D	D1	M	S	T	Max load (kN)
C13.25.	32	16	M10	4	2,5	1
C13.25.	36	20	M12	6	3,5	1,5
C13.25.	45	28	M16	6	5,5	2,5

## PAD RETAINER - HALTELEMENT - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

- Notes**
- 1 Material:** St37
  - 2** DIN 912 cl. 8.8
  - 3 Material:** CK45
  - 4** DIN 127

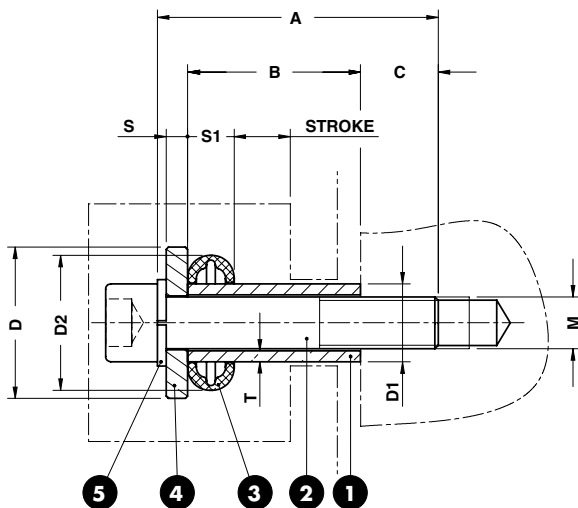


Art.	M=M10	A=100	B=76
C13.26.	M10	A100	B076

\* Hub +7, Corsa +7  
 \*\* 1,5 x d on steel, auf stahl, su acciaio  
 2 x d on cast iron, auf gusseisen, su ghisa

OMCR CODE	D	D1	M	S	T	Max load (kN)
C13.26.	25	16	M10	4	2,5	1
C13.26.	30	20	M12	6	3,5	1,5
C13.26.	40	28	M16	6	5,5	2,5

## ANTI-REBOUND PAD RETAINER HALTELEMENT MIT DÄMPFUNG GRUPPO TIRANTE ANTIRIMBALZO



For dimensioning see pages 84-85  
Dimensionierung s. Seiten 84-85  
Per il dimensionamento vedi pagine 84-85

ORDER EXAMPLE	Art.	M=M10	A=75	B=50
C13.27.	M10	075	050	



⚠  
Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

### Notes

- 1 Material: St37
- 2 DIN 912 cl. 8.8
- 3 C17.27
- 4 Material: CK45
- 5 DIN 127

OMCR CODE	A	B	C	D	D1	D2	M	S	S1	T
C13.27.M10065040	65	40	18	30	16	26,4	M10	5	7,8	2,5
C13.27.M10075050	75	50	18	30	16	26,4	M10	5	7,8	2,5
C13.27.M10090063	90	63	20	30	16	26,4	M10	5	7,8	2,5
C13.27.M10130100	130	100	18	30	16	26,4	M10	5	7,8	2,5
C13.27.M12080050	80	50	23	35	20	32,1	M12	5	10,8	3,5
C13.27.M12090063	90	63	20	35	20	32,1	M12	5	10,8	3,5
C13.27.M12110080	110	80	23	35	20	32,1	M12	5	10,8	3,5
C13.27.M12130100	130	100	23	35	20	32,1	M12	5	10,8	3,5
C13.27.M16100063	100	63	28	50	25	45,8	M16	6	17,0	4
C13.27.M16120080	120	80	31	50	25	45,8	M16	6	17,0	4
C13.27.M16140100	140	100	31	50	25	45,8	M16	6	17,0	4
C13.27.M16160125	160	125	26	50	25	45,8	M16	6	17,0	4
C13.27.M20130080	130	80	38	65	30	54,6	M20	8	21,3	4
C13.27.M20170125	170	125	33	65	30	54,6	M20	8	21,3	4
C13.27.M24140080	140	80	45	70	36	61,8	M24	10	21,5	5
C13.27.M24160100	160	100	45	70	36	61,8	M24	10	21,5	5
C13.27.M24180125	180	125	40	70	36	61,8	M24	10	21,5	5
C13.27.M30160080	160	80	59	90	42	78,5	M30	15	29,4	5
C13.27.M30180100	180	100	59	90	42	78,5	M30	15	29,4	5
C13.27.M30200125	200	125	54	90	42	78,5	M30	15	29,4	5

## ANTI-REBOUND PAD RETAINER HALTELEMENT MIT DÄMPFUNG GRUPPO TIRANTE ANTIRIMBALZO

### EXAMPLE:

Pressure pad weight - Niederhaltergewicht - Massa del premilamiera: **500 daN**

Pressure pad speed - Niederhaltergeschwindigkeit - Velocità del premilamiera: **0,4 m/s**

Strokes/minute - Hübe/min - Corse/min.: **20**

Strokes/minute **18-25**

Pressure pad weight (daN)	Pressure pad speed (m/s)										
	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1
100	2x M10	2x M10	2x M10	2x M12 4x M10	2x M12 5x M10	3x M12 7x M10	3x M12 9x M10	2x M16 4x M12	3x M16 5x M12	3x M16 6x M12	2x M20 4x M16
250	2x M10	3x M10	2x M12 5x M10	3x M12 8x M10	3x M16 4x M12	3x M16 6x M12	2x M20 4x M16	2x M20 5x M16	3x M20 6x M16	3x M20 8x M16	3x M24 4x M20
500	3x M10	3x M12 6x M10	3x M16 4x M12	3x M16 6x M12	3x M20 5x M16	3x M20 6x M16	3x M24 4x M20	3x M24 4x M20	3x M30 4x M24	3x M30 4x M24	4x M30 5x M24
750	3x M12	3x M16 5x M10	3x M16 6x M12	3x M16 5x M16	3x M20 7x M16	3x M20 4x M20	3x M24 5x M20	3x M24 4x M24	3x M30 5x M24	4x M30 6x M24	5x M30 7x M24
1000	3x M12 6x M10	3x M16 5x M12	3x M20 4x M16	3x M20 6x M16	3x M20 4x M20	3x M24 4x M24	3x M24 4x M24	3x M30 5x M24	4x M30 7x M24	5x M30 8x M24	6x M30 9x M24

- Nr.3 C13.27.M16 or nr.6 C13.27.M12
- 3 St. C13.27.M16 oder 6 St. C13.27.M12
- N.3 C13.27.M16 o n.6 C13.27.M12

### Strokes/minute ≤17

Pressure pad weight (daN)	Pressure pad speed (m/s)												
	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,3
100	2x M10	2x M10	2x M10	2x M12 4x M10	2x M12 5x M10	3x M12 7x M10	3x M12 9x M10	2x M16 4x M12	3x M16 5x M12	3x M16 6x M12	2x M20 4x M16	2x M20 4x M16	2x M20 5x M16
250	2x M10	3x M10	2x M12 5x M10	3x M12 8x M10	2x M16 4x M12	3x M16 6x M12	2x M20 4x M16	3x M20 5x M16	3x M20 6x M16	3x M24 4x M20	3x M24 5x M24	3x M24 6x M24	3x M24 5x M20
500	3x M10	3x M12 6x M10	3x M16 4x M12	3x M16 6x M12	3x M20 4x M16	3x M20 6x M16	3x M24 4x M20	3x M24 4x M20	3x M30 4x M24	3x M30 4x M24	3x M30 5x M24	3x M30 6x M24	4x M30 5x M24
750	3x M12	3x M16 5x M10	3x M16 6x M12	3x M16 5x M16	3x M20 6x M16	3x M20 4x M20	3x M24 5x M20	3x M24 4x M24	3x M30 5x M24	3x M30 6x M24	4x M30 7x M24	5x M30 8x M24	5x M30 9x M24
1000	3x M12 6x M10	3x M16 5x M12	3x M20 4x M16	3x M20 6x M16	3x M24 4x M20	3x M30 4x M24	3x M30 5x M24	3x M30 7x M24	4x M30 8x M24	5x M30 9x M24	6x M30 11x M24	6x M30 12x M24	7x M30 12x M24
1250	4x M12	4x M16 7x M10	4x M20 5x M16	4x M20 7x M16	4x M24 5x M20	4x M24 7x M20	4x M30 5x M24	4x M30 7x M24	5x M30 8x M24	5x M30 10x M24	6x M30 11x M24	7x M30	9x M30
1500	4x M12	4x M16 9x M10	4x M20 6x M16	4x M20 9x M16	4x M24 6x M20	4x M24 8x M20	4x M30 6x M24	4x M30 8x M24	5x M30 10x M24	6x M30 11x M24	8x M30	9x M30	10x M30
1750	4x M16	4x M16 5x M12	4x M20 7x M16	4x M24 5x M20	4x M30 5x M24	4x M30 6x M24	4x M30 7x M24	5x M30 9x M24	6x M30 11x M24	7x M30	9x M30	10x M30	12x M30
2000	4x M16	4x M20 6x M12	4x M24 8x M16	4x M24 6x M20	4x M30 5x M24	4x M30 7x M24	4x M30 8x M24	5x M30 10x M24	6x M30 11x M24	7x M30	8x M30	10x M30	12x M30
2500	4x M16	4x M20 7x M12	4x M24 6x M16	4x M30 5x M24	4x M30 6x M24	4x M30 8x M24	5x M30 10x M24	5x M30 11x M24	6x M30	7x M30	9x M30	10x M30	12x M30
3000	4x M16	4x M20 8x M12	4x M24 7x M16	4x M30 6x M24	4x M30 7x M24	4x M30 10x M24	5x M30 12x M24	6x M30	7x M30	9x M30	10x M30	12x M30	
3500	4x M20	4x M24 5x M16	4x M30 5x M20	4x M30 6x M24	4x M30 9x M24	5x M30 11x M24	7x M30	8x M30	10x M30	12x M30			
4000	4x M20	4x M24 6x M16	4x M30 6x M20	4x M30 7x M24	5x M30 10x M24	5x M30 11x M24	7x M30	9x M30	11x M30				
4500	4x M20	4x M24 6x M16	4x M30 6x M20	4x M30 8x M24	5x M30 11x M24	5x M30	7x M30	8x M30	10x M30				
5000	4x M24	4x M30 5x M20	4x M30 6x M24	6x M30 9x M24	7x M30 12x M24	9x M30	12x M30						
5500	4x M24	4x M30 5x M20	5x M30 7x M24	6x M30 10x M24	8x M30	10x M30							
6000	4x M24	4x M30 5x M20	5x M30 8x M24	7x M30 11x M24	9x M30	11x M30							

Strokes/minute 18÷25

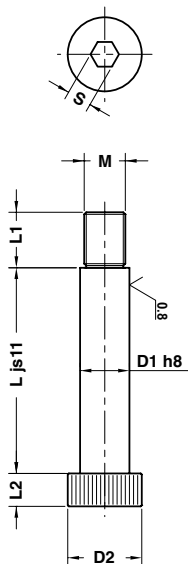
Pressure pad weight (daN)	Pressure pad speed (m/s)												
	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,3
100	2x M10	2x M10	2x M10	2x M12	2x M12	3x M12	3x M12	2x M16	3x M16	3x M16	2x M20	2x M20	2x M20
250	2x M10	3x M10	2x M12	3x M12	3x M16	3x M16	2x M20	2x M20	3x M20	3x M20	3x M24	3x M24	3x M24
500	3x M10	3x M12	3x M16	3x M16	3x M20	3x M20	3x M24	3x M24	3x M30	3x M30	4x M30	4x M30	5x M30
750	3x M12	3x M16	3x M16	3x M20	3x M20	3x M24	3x M24	3x M30	4x M30	4x M30	5x M30	5x M30	7x M30
1000	3x M12	3x M16	3x M20	3x M20	3x M24	3x M30	3x M30	4x M30	5x M30	6x M30	7x M30	8x M30	9x M30
1250	4x M12	4x M16	4x M20	4x M20	4x M24	4x M24	4x M24	5x M30	6x M30	6x M30	7x M30	8x M30	11x M30
1500	4x M12	4x M16	4x M20	4x M24	4x M24	4x M30	5x M30	6x M30	7x M30	8x M30	8x M30	10x M30	11x M30
1750	4x M16	4x M16	4x M20	4x M24	4x M30	4x M30	6x M30	7x M30	8x M30	8x M30	10x M30	12x M30	
2000	5x M12	8x M12	7x M16	5x M20	5x M24	6x M24	7x M24	9x M24	11x M24				
2500	4x M16	4x M20	4x M20	4x M24	4x M30	5x M30	6x M30	8x M30	8x M30				
3000	4x M16	6x M16	5x M20	5x M24	6x M24	8x M24	10x M24	10x M30	12x M30				
3500	4x M16	4x M20	4x M24	4x M30	5x M30	6x M30	8x M30	8x M30					
4000	4x M20	4x M24	4x M30	6x M30	7x M30	10x M30	12x M30						
4500	6x M16	6x M20	6x M24	8x M24	11x M24								
5000	4x M24	4x M30	5x M30	7x M30	9x M30	12x M30							
5500	5x M20	5x M24	6x M24	9x M24	12x M24								
6000	4x M24	4x M30	6x M30	8x M30	11x M30								

Standard OMCR

Strokes/minute 26÷40

Pressure pad weight (daN)	Pressure pad speed (m/s)												
	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,1	1,2	1,3
100	2x M10	2x M10	2x M10	2x M12	2x M12	3x M12	3x M12	2x M16	3x M16	3x M16	3x M20	3x M20	2x M24
250	2x M10	3x M10	2x M12	3x M12	3x M16	3x M16	3x M20	2x M24	3x M24	3x M24	3x M30	4x M30	4x M30
400	3x M10	2x M12	3x M12	3x M16	3x M20	2x M24	3x M24	3x M30	4x M30	4x M30	5x M30	5x M30	6x M30
550	3x M10	5x M10	8x M10	5x M12	4x M16	4x M20	5x M20	4x M24	5x M24	6x M24	7x M24	8x M24	8x M24
700	3x M12	3x M16	3x M16	3x M20	3x M24	3x M30	4x M30	5x M30	6x M30	7x M30	8x M30	9x M30	10x M30
850	4x M10	4x M12	5x M12	4x M16	5x M20	4x M24	4x M24	5x M24	6x M24	7x M24	8x M24	10x M24	12x M24
1000	3x M12	3x M16	3x M20	3x M24	3x M30	4x M30	5x M30	6x M30	8x M30	9x M30	11x M30		
1150	6x M10	5x M12	4x M16	5x M20	4x M24	5x M24	7x M24	8x M24	10x M24	12x M24			
1300	3x M16	3x M16	3x M24	3x M24	4x M30	5x M30	6x M30	7x M30	9x M30	10x M30	12x M30		
1450	4x M12	4x M16	4x M20	4x M24	4x M30	6x M30	7x M30	9x M30					
1600	4x M16	4x M16	4x M24	4x M24	5x M30	6x M30	8x M30	8x M30					
1850	5x M12	8x M12	5x M20	7x M20	6x M24	8x M24	10x M24	10x M30	12x M30				
2000	4x M16	4x M20	4x M24	4x M30	5x M30	7x M30	9x M30	9x M30					
2150	6x M12	5x M16	7x M20	6x M24	8x M24	10x M24	10x M30						
2300	4x M16	4x M24	4x M24	5x M30	7x M30	9x M30	11x M30						
2450	7x M12	5x M20	7x M20	6x M24	8x M24	11x M24							
2600	4x M16	4x M24	4x M30	6x M30	8x M30	10x M30	12x M30						

COLLAR SCREW - SCHULTER-PASSSCHRAUBE - VITE CON COLLETTA



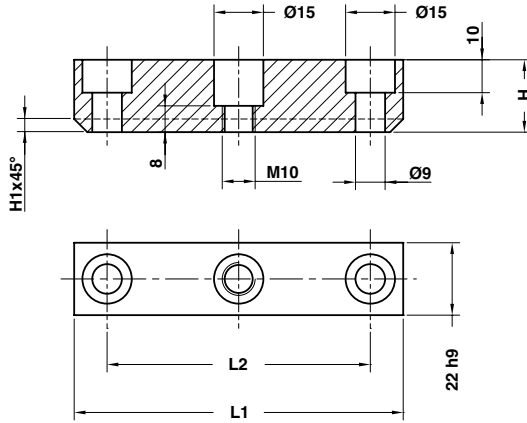
**Notes**  
**Material:** Steel cl. 12.9

ORDER EXAMPLE	Art.	D1=6	L=10
	C13.30.	06	010

M	M5	M6	M8	M10	M12	M16	M20
D1	6	8	10	12	16	20	24
D2	10	13	16	18	24	30	36
L1	9,5	11	13	16	18	22	27
L2	4,5	5,5	7	9	11	14	16
S	3	4	5	6	8	10	12

L							
10	•	•					
12	•	•					
15	•	•	•	•			
16	•	•	•	•			
20	•	•	•	•			
25	•	•	•	•			
30	•	•	•	•	•		
35	•	•	•	•	•		
40	•	•	•	•	•	•	
45	•	•	•	•	•	•	
50	•	•	•	•	•	•	•
55	•	•	•	•	•	•	•
60	•	•	•	•	•	•	•
65		•	•	•	•	•	•
70		•	•	•	•	•	•
80		•	•	•	•	•	•
90		•	•	•	•	•	•
100		•	•	•	•	•	•
120			•	•	•	•	•

## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



### Notes

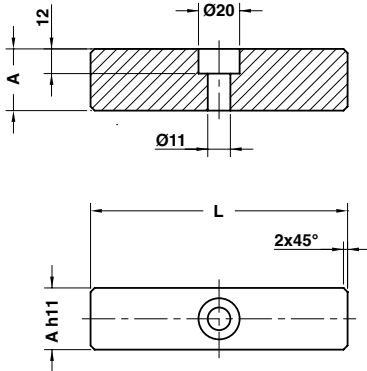
**Material:** CK45

Standard OMCR

ORDER EXAMPLE	Art.	H=14	L1=50
	C14.09.	14	050

OMCR CODE	H	H1	L1	L2
C14.09.14050	14	-	50	32
C14.09.14080	14	-	80	50
C14.09.14100	14	-	100	80
C14.09.14125	14	-	125	100
C14.09.22050	22	4	50	32
C14.09.22080	22	4	80	50
C14.09.22100	22	4	100	80
C14.09.22125	22	4	125	100
C14.09.40050	40	4	50	32
C14.09.40080	40	4	80	50
C14.09.40100	40	4	100	80
C14.09.40125	40	4	125	100

## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



STOCK

3D  
WEB



### Notes

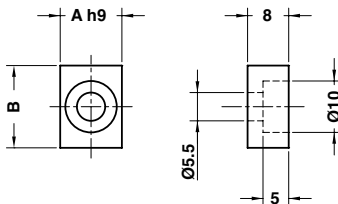
**Material:** CK45

ORDER EXAMPLE	Art.	A=25	L=80
	C14.10.	25	080

OMCR CODE	A	L
C14.10.25080	25	80
C14.10.25125	25	125
C14.10.30080	30	80
C14.10.30125	30	125

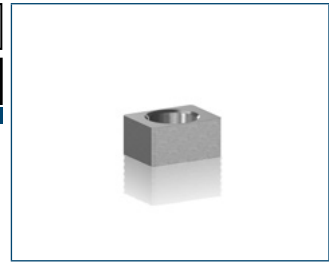
# C14.11

## RETAINER - HALTESTÜCK - RITEGNO PER MATRICE



STOCK

3D  
WEB



### Notes

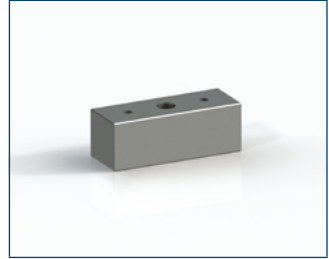
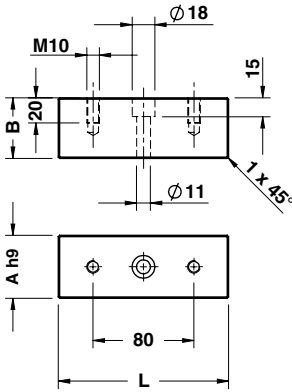
**Material:** CK45

ORDER EXAMPLE	Art.	A=12	B=16
	C14.11.	12	16

OMCR CODE	A	B
C14.11.1216	12	16



KEY - PASSFEDER - CHIAVETTA DI REAZIONE



Notes

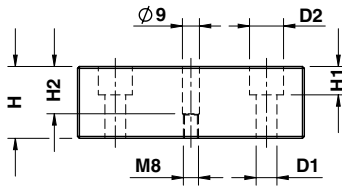
Material: CK45

Standard OMCR

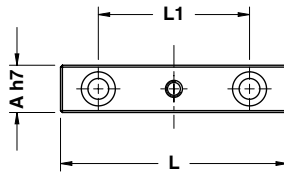
	Art.	A=50	L=135
	C14.20.	50	135

OMCR CODE	A	B	L
C14.20.42125	42	40	125
C14.20.50135	50	48	135
C14.20.50220	50	48	220

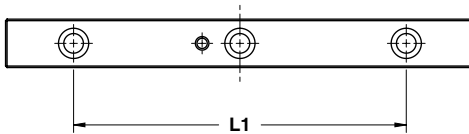
## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



**TYPE 01**



**TYPE 02**



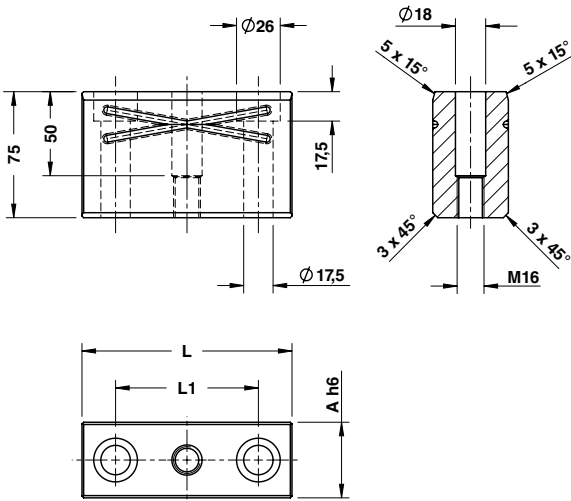
### Notes

**Material:** CK45

	Art.	A=25	H=38	L=120
	C14.25.	25	38	120

OMCR CODE	A	D1	D2	H	H1	H2	L	L1	TYPE
C14.25.2538090	25	11	18	38	15	25	90	50	01
C14.25.2538120	25	11	18	38	15	25	120	80	01
C14.25.3248150	32	13	20	48	25	35	150	90	01
C14.25.3248210	32	13	20	48	25	35	210	130	01
C14.25.3258260	32	13	20	58	25	42	260	150	01
C14.25.3258310	32	13	20	58	25	42	310	220	02
C14.25.3258350	32	13	20	58	25	42	350	250	02

## LOCATING BLOCK - FANGBACKE - TASSELLO DI CENTRAGGIO



### Notes

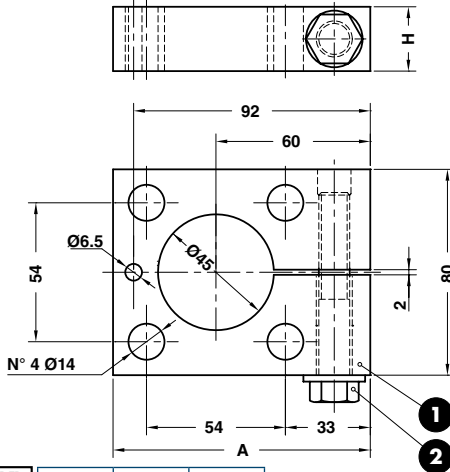
**Material:** 16MnCr5 - **HRC:** 60÷62

Standard OMCR

	Art.	A=45	L=125
	C14.30.	45	125

OMCR CODE	A	L	L1
C14.30.45100	45	100	60
C14.30.45125	45	125	85
C14.30.45160	45	160	120
C14.30.45200	45	200	160

## CLAMP - BEFESTIGUNGSELEMENT - MORSETTO



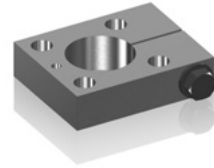
Art.	A=100	H=25
C15.10.	100	25

OMCR CODE	A	H
C15.10.10025	100	25

STOCK



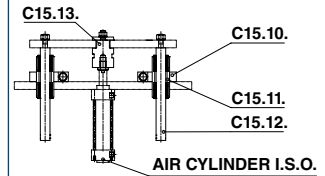
WEB



### Notes

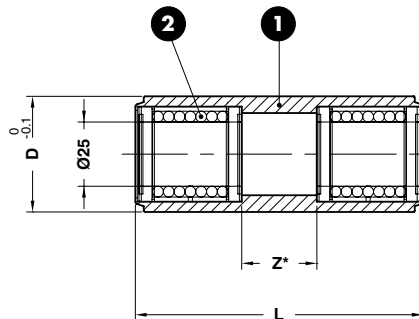
- 1 Material: CK45
- 2 M12 x 70 DIN 931

### Application example



# C15.11

## SLEEVE - FÜHRUNGSEINHEIT - CANOTTO GUIDA



Art.	D=45	L=112
C15.11.	45	112

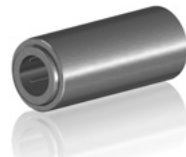
OMCR CODE	D	L	Z
C15.11.45112	45	112	40
C15.11.45200	45	200	120

\* Fixing zone  
Befestigungsbereich Klammer  
Zona di fissaggio

STOCK



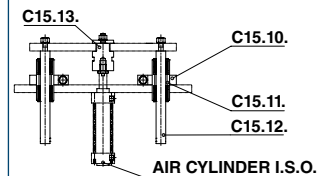
WEB



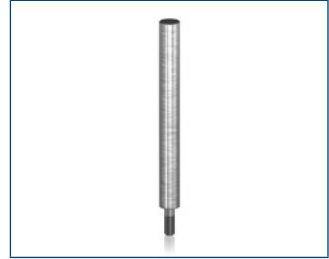
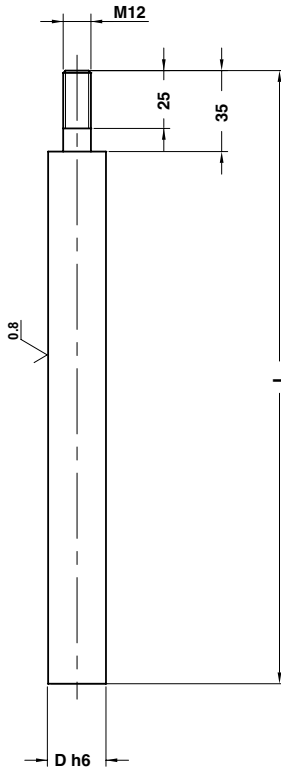
### Notes

- 1 Material: CK45
- 2 Material: STAR 0658-225-40

### Application example



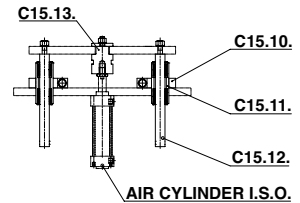
## GUIDE POST - FÜHRUNGSSAULE - COLONNA



### Notes

**Material:** CK45  
**HRC:** 60÷62

### Application example

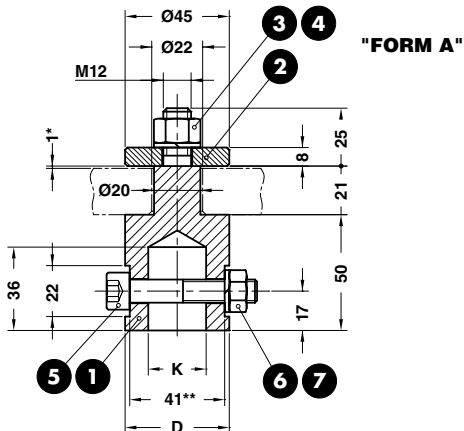


Standard OMCR

Art.	D=25	L=265
C15.12.	25	265

OMCR CODE	D	L
C15.12.25265	25	265
C15.12.25350	25	350
C15.12.25400	25	400
C15.12.25450	25	450
C15.12.25500	25	500

UNION NUT - BEFESTIGUNGSELEMENT - DADO DI UNIONE

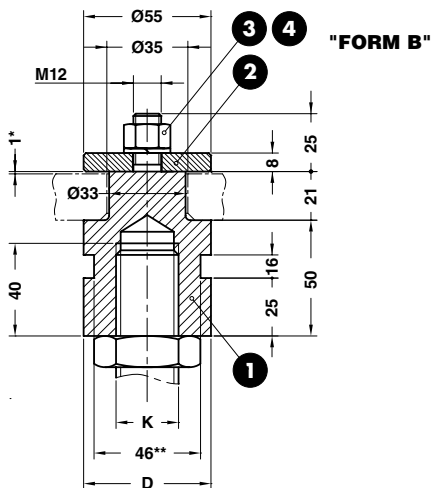


"FORM A"



Notes

- 1 2 Material: CK45
- 3 M12 DIN 934
- 4 Ø12 DIN 127B
- 5 M10X55 DIN 912
- 6 M10 DIN 934
- 7 Ø10 DIN 127B



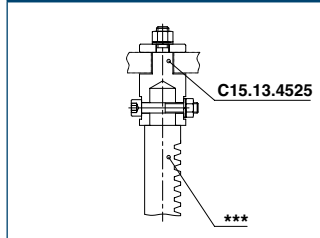
"FORM B"

\* Backlash  
Spiel  
Gioco

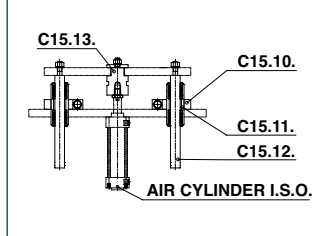
\*\* Spanner  
Schlüssel  
Chiave

\*\*\* Rackwork  
Zahnstange-antreib  
Sollervatore a cremagliera

Application example FORM A



Application example FORM B

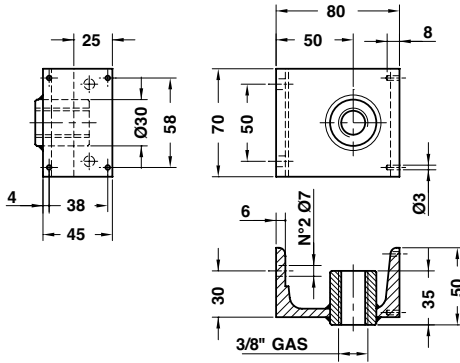


ORDER EXAMPLE	Art.	D=45	K=25
	C15.13.	45	25

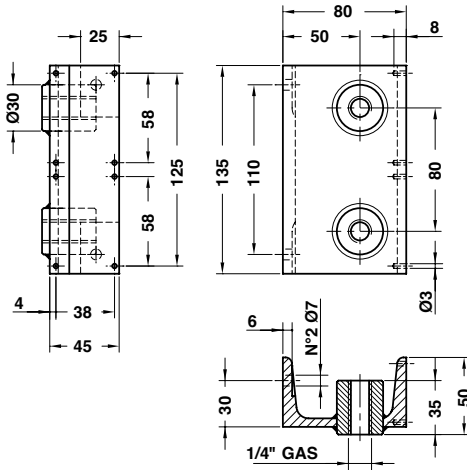
OMCR CODE	D	K	FORM
C15.13.4525	45	25	A
C15.13.5516	55	M16x1,5	B
C15.13.5520	55	M20x1,5	B
C15.13.5527	55	M27x2	B

**AIR COUPLING BRACKET - LUFTANSCHLUSSBLOCK - SUPPORTO INNESTI RAPIDI**

**"FORM A"**



**"FORM B"**



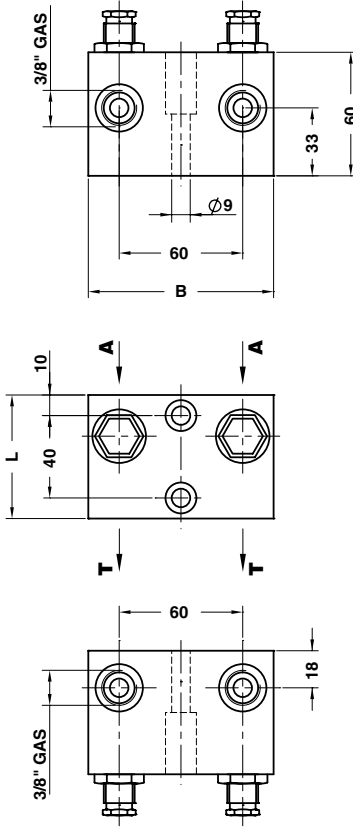
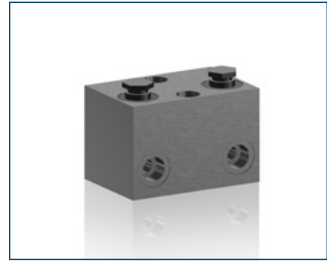
**Notes**  
**Material:** Si37

ORDER EXAMPLE	Art.	FORM
	C15.14.	A

OMCR CODE	FORM
C15.14.	A
C15.14.	B

Standard OMCR

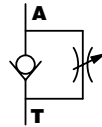
FLUX CONTROL - VERTEILERBLOCK - REGOLATORE DI FLUSSO



**Notes**  
**Material:** CK45

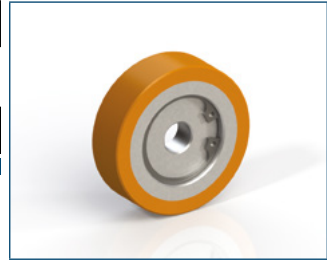
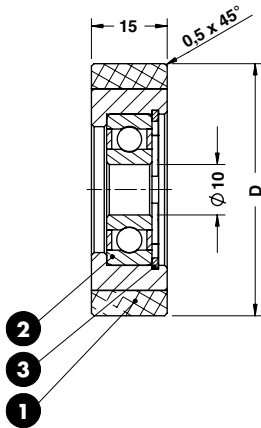
ORDER EXAMPLE	Art.	A=60	B=90
	C15.15.	60	90

OMCR CODE	A	B
C15.15.6090	60	90





ROLLER - ROLLE - ROTELLA



Notes

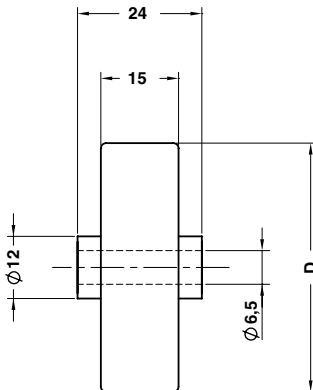
- 1 **Material:** Steel+Vulkolan
- 2 Roller Bearing 6200 2RS
- 3 I30 DIN472

ORDER EXAMPLE	Art.	D=50
	C16.18.	50

OMCR CODE	D	Max Load (daN)
C16.18.	50	70

Standard OMCR

ROLLER - ROLLE - ROTELLA



Notes

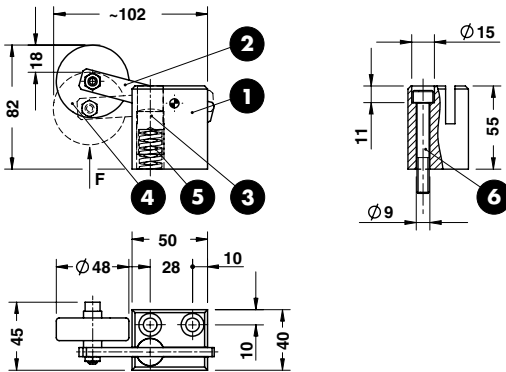
**Material:** Steel

ORDER EXAMPLE	Art.	D=48
	C16.19.	48

OMCR CODE	D	Max Load (daN)
C16.19.	48	25

ROLLER STOCK LIFTER - FEDERENDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO

TYPE 01



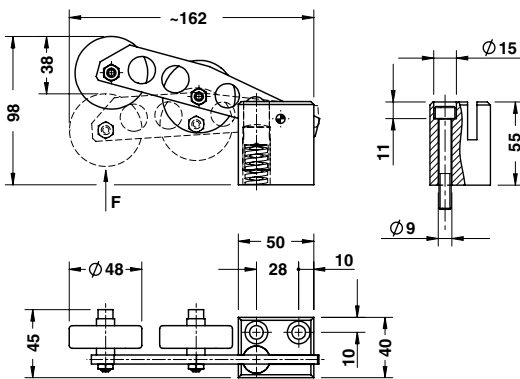
Notes

- 1 Material: C15
- 2 Material: S235JRG2K
- 3 Material: 42CrMo4
- 4 C16.19.48
- 5 Spring
- 6 Screws M8x60 DIN 912

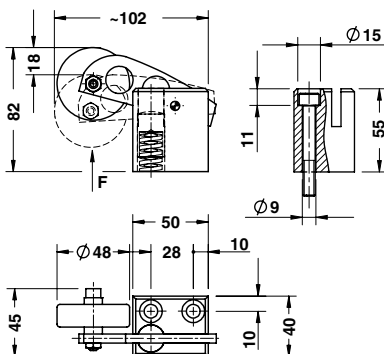
ORDER EXAMPLE	Art.	TYPE
	C16.20.	01

OMCR CODE	F (N)	TYPE
C16.20.01	66	01
C16.20.02	32	02
C16.20.03	66	03
C16.20.04	66	04

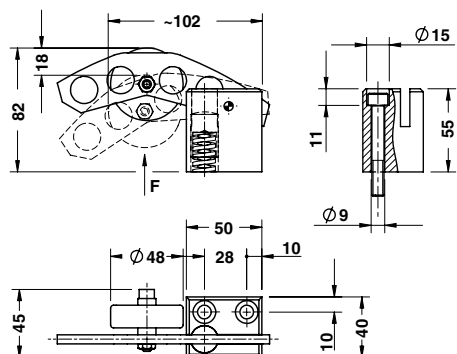
TYPE 02



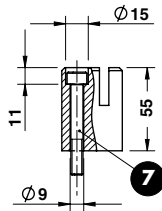
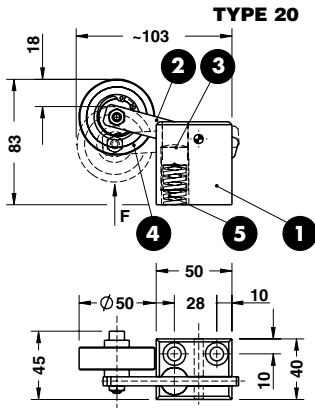
TYPE 03



TYPE 04

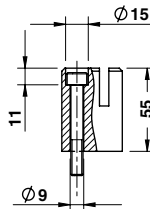
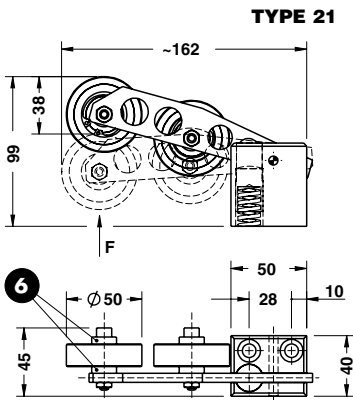


ROLLER STOCK LIFTER - FEDERINDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO



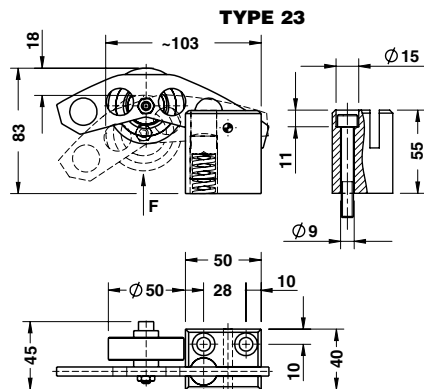
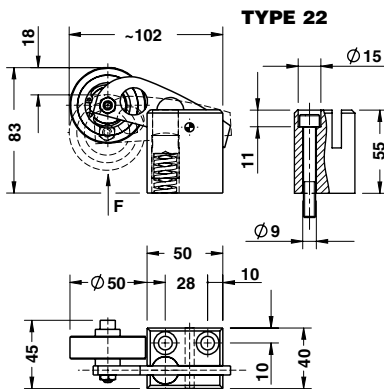
Notes

- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** C16.18.50
- 5** Spring
- 6** Material: steel
- 7** Screws M8x60 DIN 912

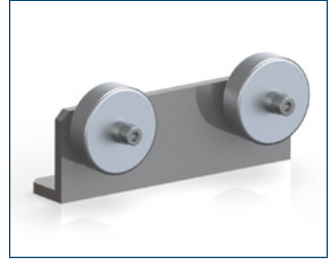
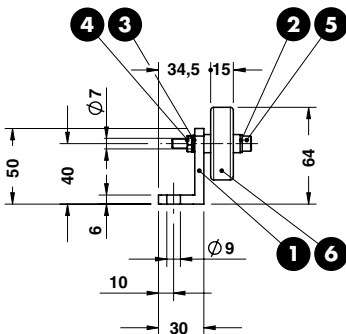
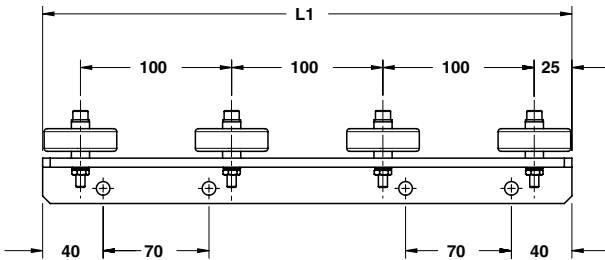
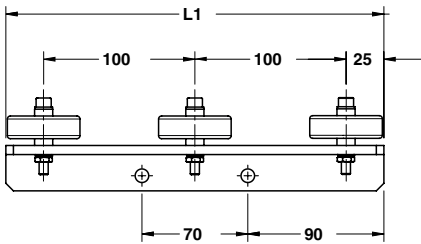
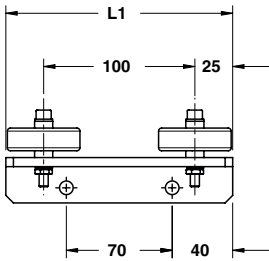


ORDER EXAMPLE	Art.	TYPE
	C16.20.	20

OMCR CODE	F (N)	TYPE
C16.20.20	66	20
C16.20.21	32	21
C16.20.22	66	22
C16.20.23	66	23



## ROLLER GROUP - FÖRDERROLLE - GRUPPO RULLINI



### Notes

- 1 Material: St37
- 2 3 Washers for M6
- 4 Nut for M6
- 5 Screw M6x40 DIN 912
- 6 Material: Steel - C16.19.48

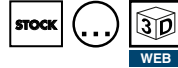
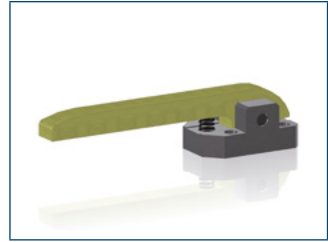
	Art.	L1
	C16.21.	150

OMCR CODE	L1	Max Load (daN)
C16.21.150	150	50
C16.21.250	250	75
C16.21.350	350	100

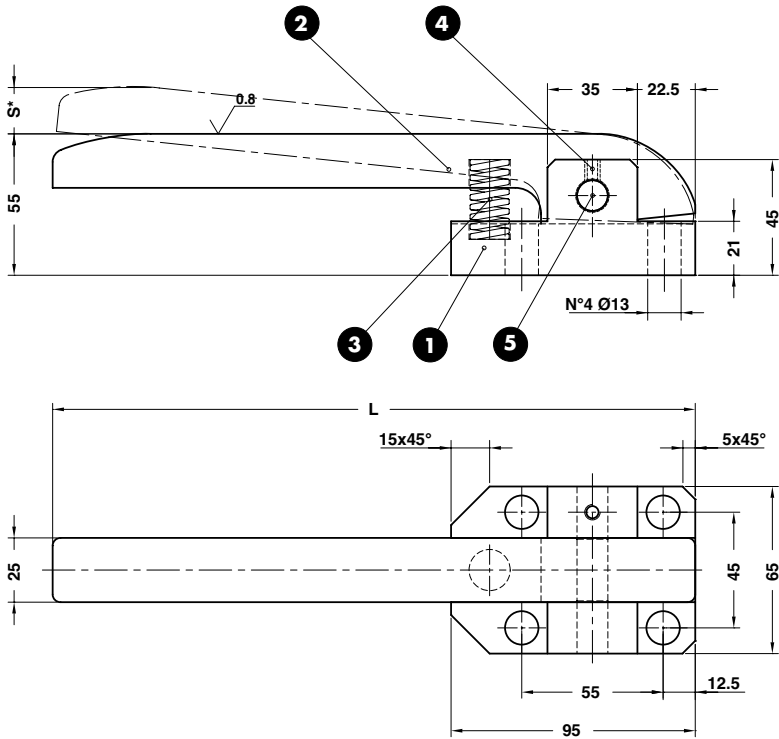
## COIL SUPPORT - ABSTREIFER - SOLLEVATORE NASTRO

### Notes

- 1** Material: CK45
- 2** Material: Bronze - HB>190
- 3** SPRING
- 4** M6x8 DIN 913
- 5** Ø12x60 DIN 6325



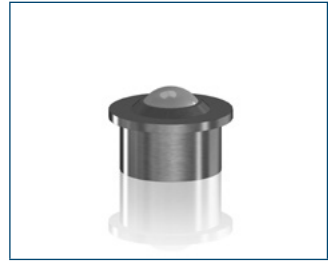
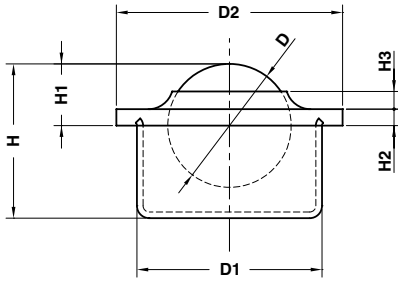
Standard OMCR



ORDER EXAMPLE	Art.	TYPE
	C16.25.	01

OMCR CODE	L	S	Spring	Spring initial force (daN)	Spring final force (daN)	TYPE
C16.25.01	250	18	TV016044	7,9 N	12,3 N	01
C16.25.02	250	18	B16044	27 N	42 N	02
C16.25.03	300	30	B16044	24 N	42 N	03

BALL CASTER - KUGELROLLENSYSTEM - SFERA PORTANTE



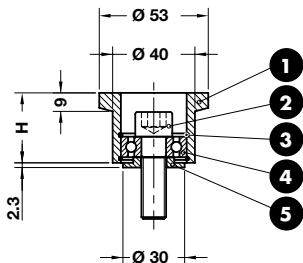
Notes

Material: Steel

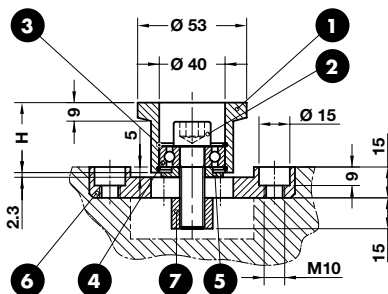
ORDER EXAMPLE	Art.	D=15
	C16.26.	15

OMCR CODE	D	D1	D2	Max load (daN)	H	H1	H2	H3
C16.26.15	15	24±0,065	31	50	21,5	9,5±0,2	2,8	3,5
C16.26.30	30	45±0,080	55	250	37,5	13,8±0,3	4	4,3

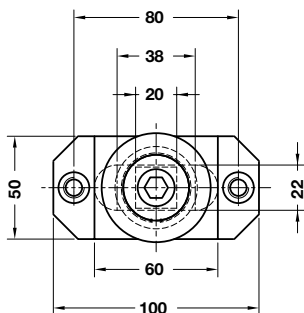
COIL GUIDE ROLLER - FÜHRUNGSROLLE - GUIDA NASTRO



TYPE 01



TYPE 02



ORDER EXAMPLE	Art.	TYPE	H=17
	C16.27.	01	17

OMCR CODE	TYPE	H
C16.27.01.17	01	17
C16.27.01.34	01	34
C16.27.01.54	01	54
C16.27.02.17	02	17
C16.27.02.34	02	34
C16.27.02.54	02	54

TYPE 01



Notes TYPE 01

- 1 Material: 16MnCr5 - HRC: 55÷58
- 2 M12x40 DIN 472
- 3 I32 DIN 472
- 4 6201 2Z VA DIN 625
- 5 Material: CK45

TYPE 02



Notes TYPE 02

- 1 Material: 16MnCr5 - HRC: 55÷58
- 2 M12x40 DIN 472
- 3 I32 DIN 472
- 4 6201 2Z VA DIN 625
- 5 Material: CK45
- 6 Material: St37
- 7 Material: CK45

Standard OMCR

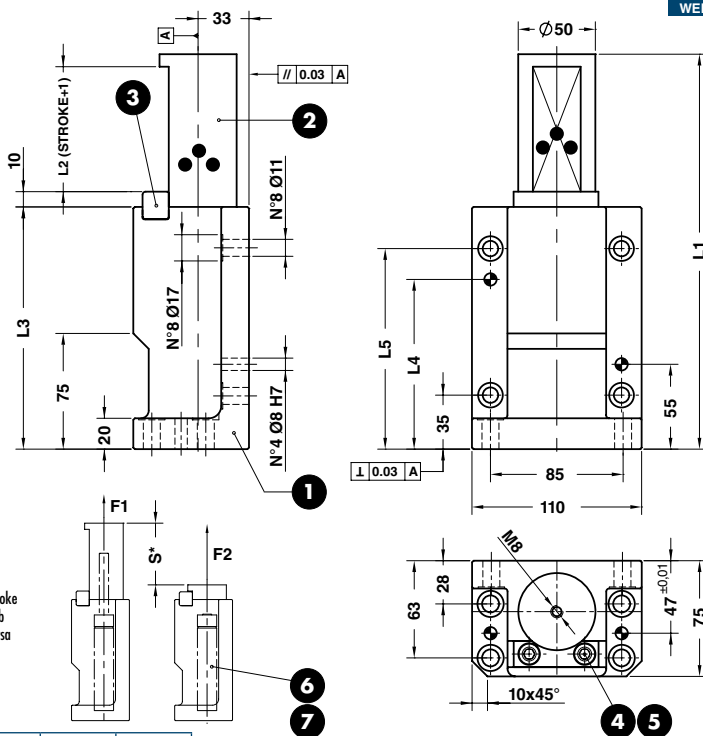
## FLANGE LIFTER - ABSTREIFER - SFLANGIATORE



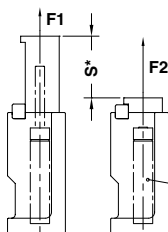
Do not exceed the stroke  
Hub nicht überschreiten  
Non superare la corsa

### Notes

- 1** Material: EN-GJL300
- 2** Material: Bronze + Graphite - HB>190
- 3** Material: 36NiCrMo4
- 4** M8x25 DIN 912
- 5** Schnorr Ø8
- 6** Gas Spring
- 7** M6x12 DIN 7991



\* Stroke  
Hub  
Corsa



ORDER EXAMPLE	Art.	S=50	F1=50
	C16.30.	50	050

OMCR CODE	F1 (daN)	F2 (daN)	L1	L2	L3	L4	L5	S
C16.30.50050	50	86	196	51	127	80	100	50
C16.30.50100	100	172	196	51	127	80	100	50
C16.30.50150	150	258	196	51	127	80	100	50
C16.30.50200	200	344	196	51	127	80	100	50
C16.30.80050	50	86	256	81	157	110	130	80
C16.30.80100	100	172	256	81	157	110	130	80
C16.30.80150	150	258	256	81	157	110	130	80
C16.30.80200	200	344	256	81	157	110	130	80



## FLANGE LIFTER - ABSTREIFER - SFLANGIATORE



Do not exceed the stroke  
Hub nicht überschreiten  
Non superare la corsa

### Notes

- 1 **Material:** EN-GJL300
- 2 **Material:** Bronze + Graphite - HB>190
- 3 **Material:** 36NiCrMo4
- 4 M8x25 DIN 912
- 5 Schnorr Ø8
- 6 Gas Spring
- 7 M6x12 DIN 7991

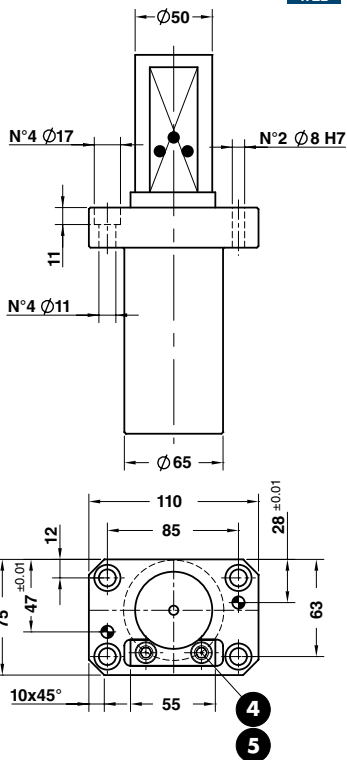
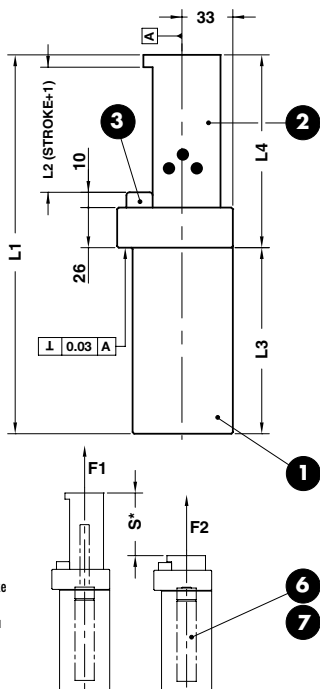


STOCK



WEB

Standard OMCR



\* Stroke  
Hub  
Corsa

ORDER EXAMPLE	Art.	S=50	F1=50
	C16.31.	50	050

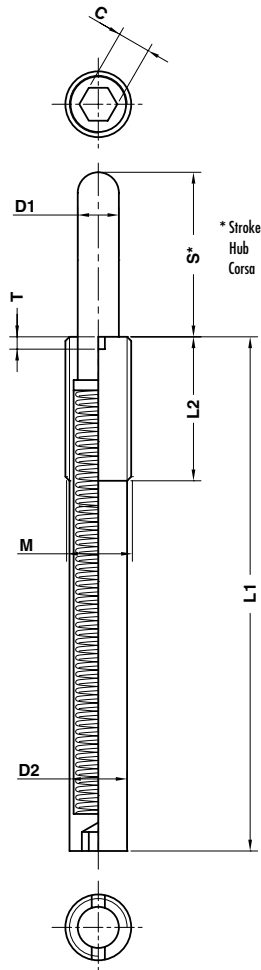
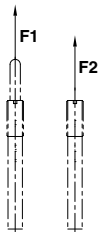
OMCR CODE	F1 (daN)	F2 (daN)	L1	L2	L3	L4	S
C16.31.50050	50	86	196	51	101	95	50
C16.31.50100	100	172	196	51	101	95	50
C16.31.50150	150	258	196	51	101	95	50
C16.31.50200	200	344	196	51	101	95	50
C16.31.80050	50	86	256	81	131	125	80
C16.31.80100	100	172	256	81	131	125	80
C16.31.80150	150	258	256	81	131	125	80
C16.31.80200	200	344	256	81	131	125	80

## SPRING PLUNGER - FEDERNE DRUCKSTÜCKE - ESPULSORE A MOLLA

Spring plungers can be fitted/  
removed by means of the slot or  
internal hexagon.

Montage/demontage mit  
Innensechskant und Schlitz  
möglich.

Il montaggio/smontaggio  
avviene sia tramite l'esagono  
incassato, che tramite l'intaglio  
frontale.



### Notes

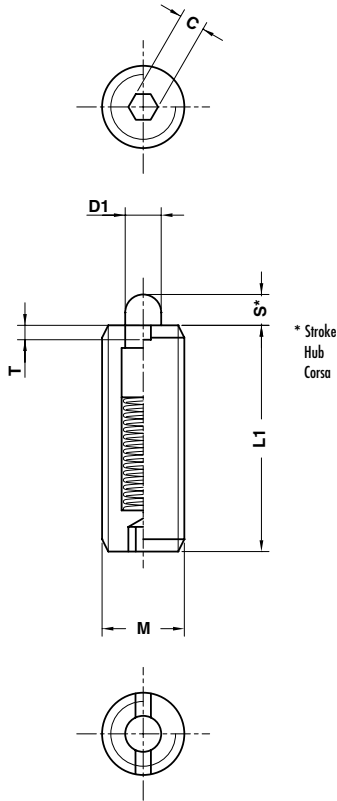
**Material:** Steel

	Art.	M=M16	S=40
	C16.40.	M16	40

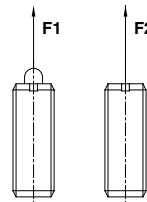
OMCR CODE	C	D1	D2	F1 (N)	F2 (N)	L1	L2	M	S	T
C16.40.M1210	4	5,5	9,5	7	40	45	35	M12	10	2
C16.40.M1615	5	8	13,4	15	80	60	35	M16	15	3
C16.40.M1620	5	8	13,4	17	80	85	35	M16	20	3
C16.40.M1630	5	8	13,4	20	80	125	35	M16	30	3
C16.40.M1640	8	8	13,4	20	80	125	35	M16	40	3
C16.40.M1650	8	8	13,4	30	100	155	35	M16	50	3
C16.40.M1660	8	8	13,4	20	80	155	35	M16	60	3
C16.40.M2415	8	10	19,6	40	200	60	45	M24	15	3
C16.40.M3020	12	15	22,5	50	300	80	45	M30	20	3

SPRING PLUNGER - FEDERNE DRUCKSTÜCKE - ESPULSORE A MOLLA

Standard OMCR



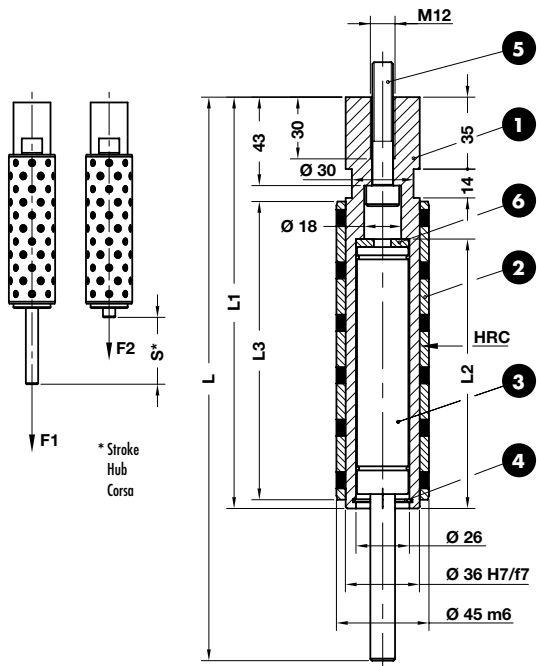
**Notes**  
**Material:** Steel



ORDER EXAMPLE	Art.	M=M3
	C16.45.	M03

OMCR CODE	C	D1	F1 (N)	F2 (N)	L1	M	S	T
C16.45.M03	0,7	1	2	4	10	M3	1,5	0,5
C16.45.M04	1,3	1,6	5	16	12	M4	2	0,6
C16.45.M05	1,5	2	6	19	20	M5	3	0,8
C16.45.M06	2	2,5	6	19	25	M6	3	0,9
C16.45.M08	2,5	3,1	10	39	25	M8	4	1,4
C16.45.M10	3	3,8	10	39	30	M10	5	1,4
C16.45.M12	4	5,5	12	53	30	M12	5	2

## SPRING RAMS - FEDERBOLZEN - SOLLEVATORE



STOCK



WEB

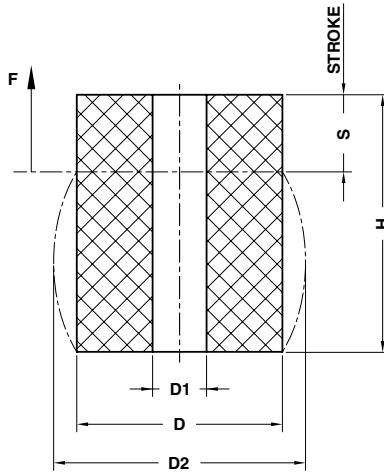
### Notes

- 1 **Material:** CK45 - HRC: 58÷62
- 2 **Material:** Bronze+Graphite - HB>190
- 3 Gas Spring
- 4 DIN 472
- 5 M10x60 DIN 912
- 6 **Material:** 90MnCrV8 - HRC: 54÷60

ORDER EXAMPLE	Art.	S=50	F1=50
	C16.50.	50	050

OMCR CODE	F1 (daN)	F2 (daN)	L	L1	L2	L3	S
C16.50.50050	50	68	240	182	118	115	50
C16.50.50100	100	136	240	182	118	115	50
C16.50.50150	150	204	240	182	118	115	50
C16.50.50200	200	272	240	182	118	115	50
C16.50.65050	50	68	274	200	135	145	65
C16.50.65100	100	136	274	200	135	145	65
C16.50.65150	150	204	274	200	135	145	65
C16.50.65200	200	272	274	200	135	145	65
C16.50.80050	50	68	314	220	155	170	80
C16.50.80100	100	136	314	220	155	170	80
C16.50.80150	150	204	314	220	155	170	80
C16.50.80200	200	272	314	220	155	170	80

## ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



S = max. 30% H

**Notes**

**Material:** Elastomer 92SH

Standard OMCR

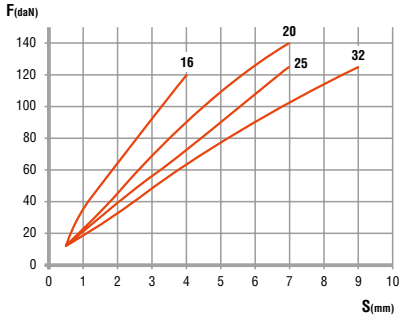
 ORDER EXAMPLE	Art.	D=63	H=80
	C17.10.	063	080

D	16	20	25	32	40	50	63	80	100	125
D1	6,5	8,5	10,5	13,5	13,5	17	17	21	21	27
D2	19	26	30	41	50	62	78	98	120	152
F (daN)	130	200	300	580	1250	1700	2600	4300	5900	9900

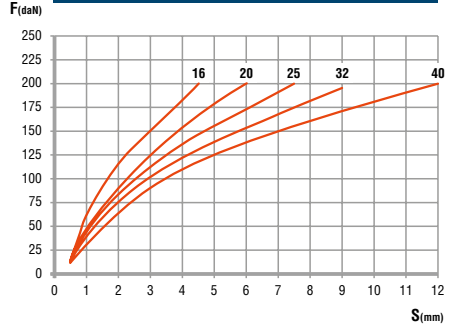
H	S									
16	4,8	•	•	•	•					
20	6	•	•	•	•	•				
25	7,5	•	•	•	•	•	•			
32	9,6	•	•	•	•	•	•	•		
40	12		•	•	•	•	•	•	•	
50	15			•	•	•	•	•	•	•
63	19				•	•	•	•	•	•
80	24					•	•	•	•	•
100	30						•	•	•	•
125	37,5							•	•	•
160	48								•	•

**LOAD DIAGRAMS FOR ELASTOMER SPRINGS 92SH  
KRAFT-WEG-DIAGRAMM ELASTOMERFEDERN 92SH  
DIAGRAMMI DI CARICO MOLLE IN ELASTOMERO 92SH**

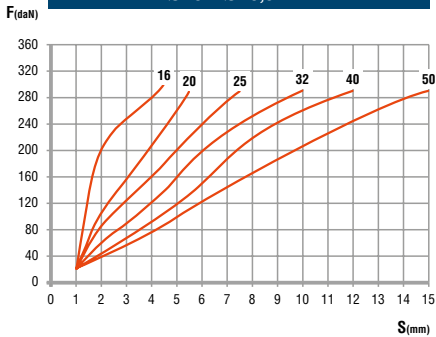
**Ø16 x Ø6,5 x H**



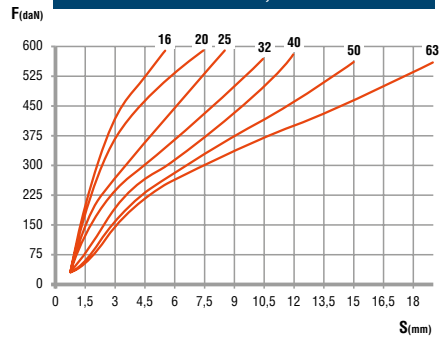
**Ø20 x Ø8,5 x H**



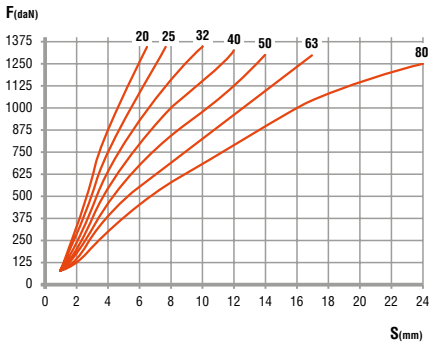
**Ø25 x Ø10,5 x H**



**Ø32 x Ø13,5 x H**

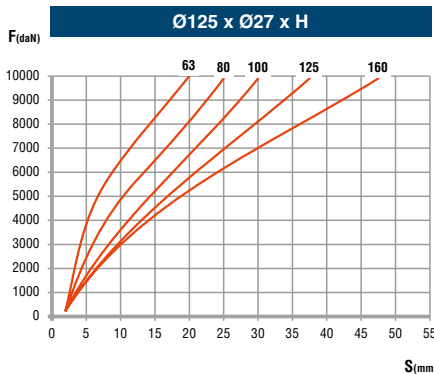
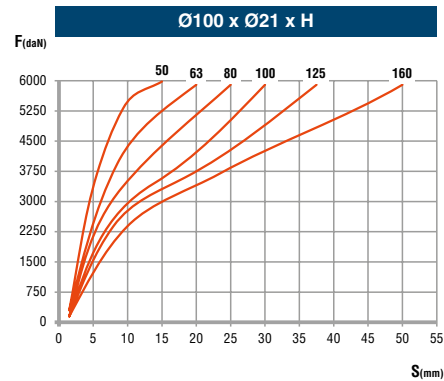
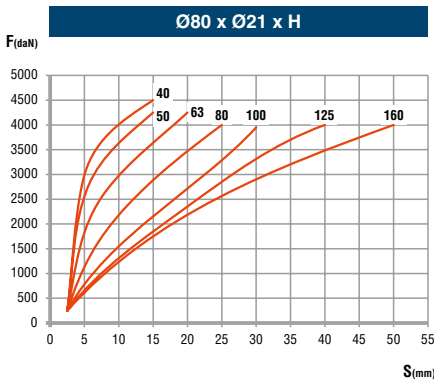
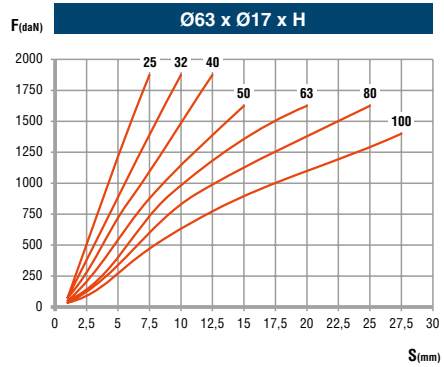
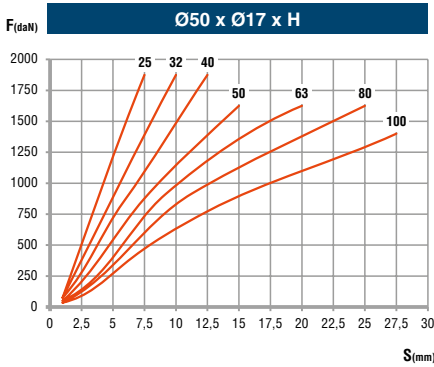


**Ø40 x Ø13,5 x H**

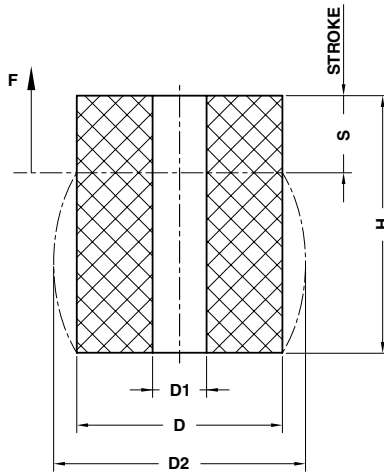


**LOAD DIAGRAMS FOR ELASTOMER SPRINGS 92SH**  
**KRAFT-WEG-DIAGRAMM ELASTOMERFEDERN 92SH**  
**DIAGRAMMI DI CARICO MOLLE IN ELASTOMERO 92SH**

Standard OMCR



## ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



### Notes

**Material:** Elastomer 70 Shore

ORDER EXAMPLE	Art.	D=63	H=80
	C17.11.	063	080

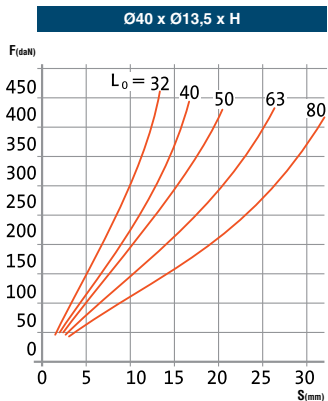
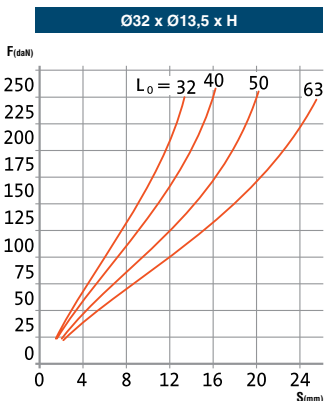
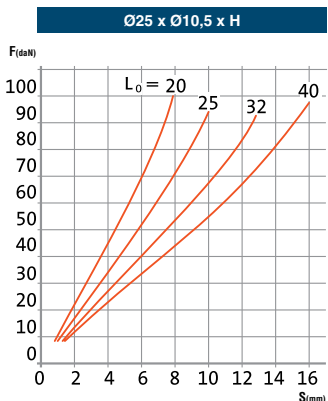
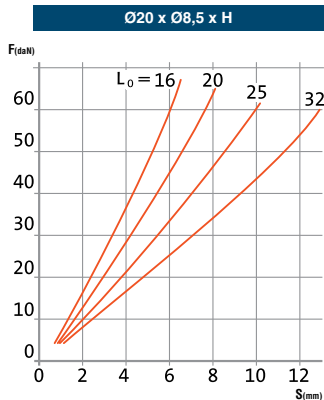
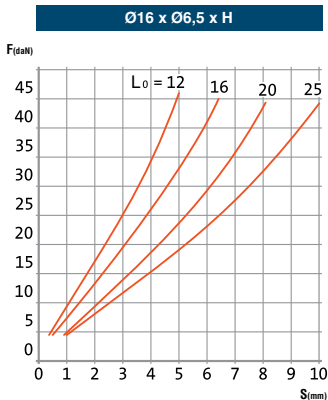
D	16	20	25	32	40	50	63	80	100	125
D1	6,5	8,5	10,5	13,5	13,5	17	17	21	21	27
D2	19	26	30	41	50	62	78	98	120	152
F (daN)	40	50	90	225	400	600	1000	1800	3000	5000

H	S										
12	4,8	•									
16	6,4	•	•								
20	8	•	•	•							
25	10	•	•	•							
32	12,8		•	•	•	•	•	•	•	•	•
40	16			•	•	•	•	•	•	•	•
50	20				•	•	•	•	•	•	•
63	25,2				•	•	•	•	•	•	•
80	32					•	•	•	•	•	•
100	40						•	•	•	•	•
125	50							•	•	•	•
160	64										•

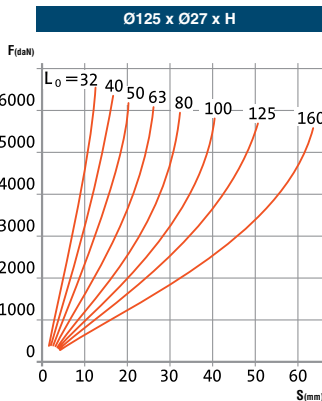
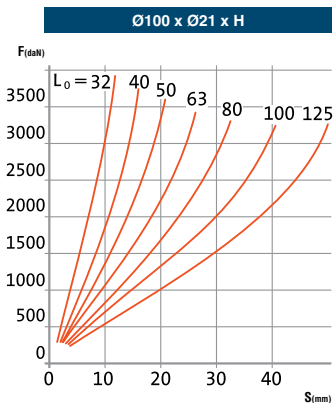
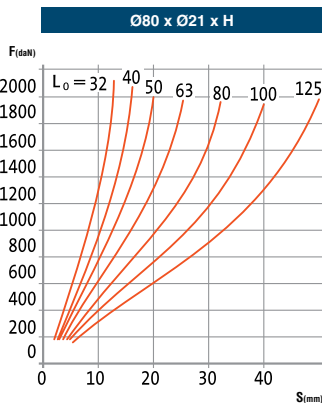
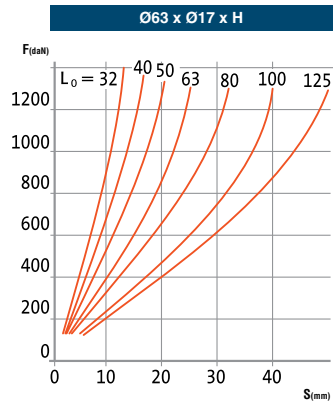
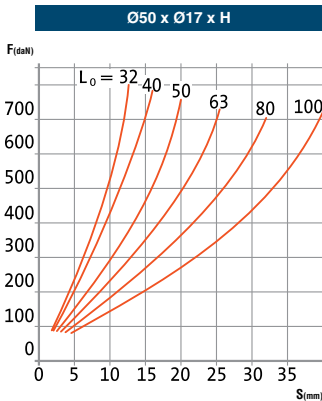


**LOAD DIAGRAMS FOR ELASTOMER SPRINGS 70 SHORE**  
**KRAFT-WEG-DIAGRAMM ELASTOMERFEDERN 70 SHORE**  
**DIAGRAMMI DI CARICO MOLLE IN ELASTOMERO 70 SHORE**

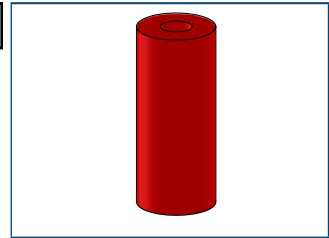
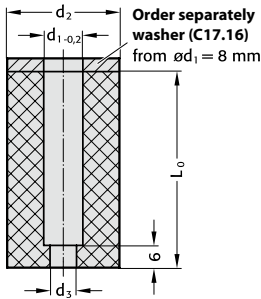
Standard OMCR



**LOAD DIAGRAMS FOR ELASTOMER SPRINGS 70 SHORE**  
**KRAFT-WEG-DIAGRAMM ELASTOMERFEDERN 70 SHORE**  
**DIAGRAMMI DI CARICO MOLLE IN ELASTOMERO 70 SHORE**



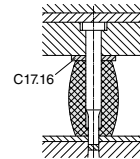
## ELASTOMER STRIPPER - ABSTREIFER - ESTRATTORE PER PUNZIONI



### Notes

**Material:** Elastomer 95SH

### Application example

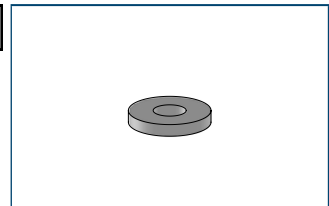
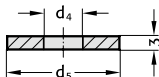


	Art.	D1 = 4	L
	C17.15.	04	39

CODE	d1	d2	d3	L	CODE	d1	d2	d3	L
C17.15.0439	4	17	1,6	39	C17.15.1339	13	26	3	39
C17.15.0447	4	17	1,6	47	C17.15.1347	13	26	3	47
C17.15.0456	4	17	1,6	56	C17.15.1356	13	26	3	56
C17.15.0639	6	19	1,6	39	C17.15.1639	16	30	3	39
C17.15.0647	6	19	1,6	47	C17.15.1647	16	30	3	47
C17.15.0656	6	19	1,6	56	C17.15.1656	16	30	3	56
C17.15.0839	8	21	3	39	C17.15.2039	20	38	3	39
C17.15.0847	8	21	3	47	C17.15.2047	20	38	3	47
C17.15.0856	8	21	3	56	C17.15.2056	20	38	3	56
C17.15.1039	10	23	3	39	C17.15.2539	25	50	3	39
C17.15.1047	10	23	3	47	C17.15.2547	25	50	3	47
C17.15.1056	10	23	3	56	C17.15.2556	25	50	3	56

# C17.16

## WASHER - SCHEIBE - RONDELLA



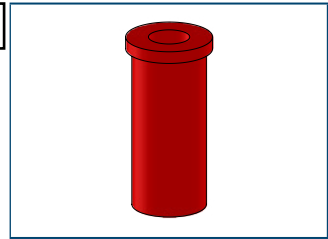
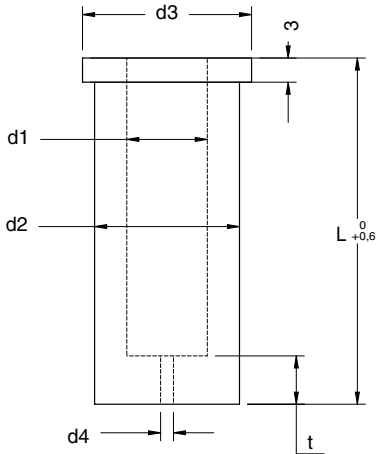
	Art.	D4 = 8,5
	C17.16.	085

CODE	d4	d5	CODE	d4	d5
C17.16.085	8,5	21	C17.16.205	20,5	38
C17.16.105	10,5	23	C17.16.255	25,5	50
C17.16.130	13	26	C17.16.325	32,5	55
C17.16.135	13,5	26	C17.16.385	38,5	60
C17.16.165	16,5	30	C17.16.405	40,5	63

### Notes

**Material:** Steel

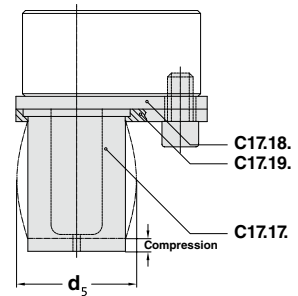
ELASTOMER STRIPPER - ABSTREIFER - ESTRATTORE PER PUNZONI



Notes

Material: Elastomer 95SH A

Application example



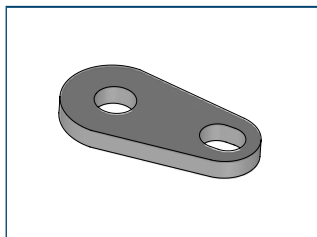
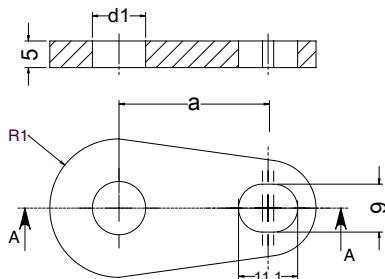
\* values for the stripping force are dependent on a number of parameters (e.g. lubricant, temperature etc.) and may vary from those given here.  
 \*\* max spring travel should not exceed 15% of the length

Art.	d1	L
C17.17.	10	43

CODE	d1	d2	d3	d4	d5	t	L
C17.17.1043	10	18	21	1,6	22	6	43
C17.17.1053	10	18	21	1,6	22	6	53
C17.17.1063	10	18	21	1,6	22	6	63
C17.17.1343	13	23	26	3	26,5	6	43
C17.17.1353	13	23	26	3	26,5	6	53
C17.17.1363	13	23	26	3	26,5	6	63
C17.17.1373	13	23	26	3	26,5	6	73
C17.17.1643	16	28	31	3	34	6	43
C17.17.1653	16	28	31	3	34	6	53
C17.17.1663	16	28	31	3	34	6	63
C17.17.1673	16	28	31	3	34	6	73
C17.17.2043	20	33	36	3	38	7	43
C17.17.2053	20	33	36	3	38	7	53
C17.17.2063	20	33	36	3	38	7	63
C17.17.2073	20	33	36	3	38	7	73
C17.17.2543	25	40	43	3	47,5	7	43
C17.17.2553	25	40	43	3	47,5	7	53
C17.17.2563	25	40	43	3	47,5	7	63
C17.17.2573	25	40	43	3	47,5	7	73

STROKE**	3mm	6mm	9mm	3mm	6mm	9mm	3mm	6mm	9mm	3mm	6mm	9mm
LENGHT	43	43	43	53	53	53	63	63	63	73	73	73
d1	Stripping forces (N)*											
10	1060	1820	-	900	1650	-	720	1450	1860	-	-	-
13	1700	2850	-	1460	2610	-	1170	2320	2910	930	2080	2500
16	2310	3900	-	1990	3560	-	1590	3150	3980	1270	2810	3440
20	2900	4900	-	2500	4470	-	2000	3950	5000	1590	3420	4330
25	4440	7520	-	3810	6860	-	3050	6050	7680	2420	5390	6780

## STRIPPING UNIT- PRESSURE PLATE ABSTREIFER - DRUCKPLATTE PIASTRA PREMENTE DELL'ESTRATTORE



### Notes

**Material:** S137

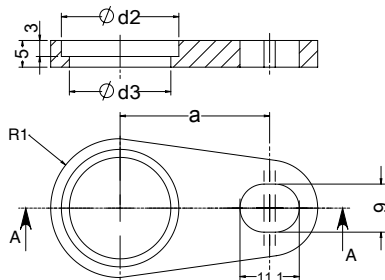


Art.	d1 = 10
C17.18.	010

CODE	d1	R1	A
C17.18.010	10	13	28
C17.18.013	13	15,5	31
C17.18.016	16	18	32,9
C17.18.020	20	20,5	34,8
C17.18.025	25	24	39,8

# C17.19

## STRIPPING UNIT - MOUNTING PLATE ABSTREIFER - HALTEPLATTE PIASTRA DI FISSAGGIO DELL'ESTRATTORE



### Notes

**Material:** S137

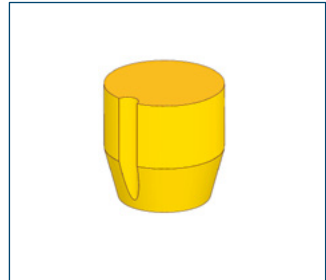
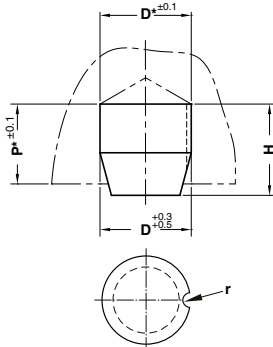


Art.	d1 = 10
C17.19.	010

CODE	d1	d2	d3	R1	A
C17.19.010	10	22	19	13	28
C17.19.013	13	27	24	15,5	31
C17.19.016	16	32	29	18	32,9
C17.19.020	20	37	34	20,5	34,8
C17.19.025	25	44	41	24	39,8

## ELASTOMER CAP - ELASTOMERDRUCKSTÜCK - PUNTALINO IN ELASTOMERO

\* Seat  
Sitz  
Sede



Art.	D=6	H=10
C17.20.	06	10

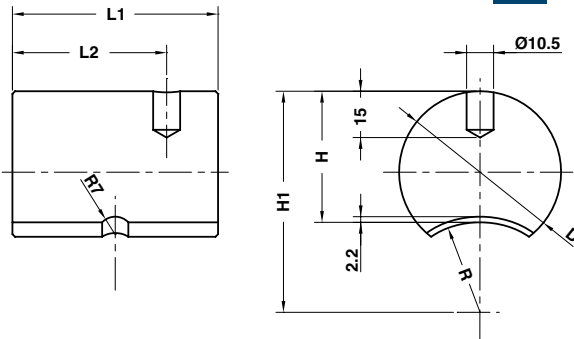
OMCR CODE	D	F max. (N)	H	P	r
C17.20.0610	6	100	10	8	-
C17.20.1015	10	450	15	13	1
C17.20.1625	16	1500	25	21	1,5
C17.20.2425	24	3000	25	20	2
C17.20.4040	40	25000	40	35	3

### Notes

**Material:** Elastomer 90SH

# C17.21

## SHOCK ABSORBER - HALTELEMENT - AMMORTIZZATORE



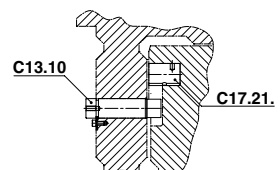
Art.	D=50	L1=80
C17.21.	50	80

OMCR CODE	D	H	H1	L1	L2	R
C17.21.4060	40	32	50	60	45	18
C17.21.5080	50	40	63	80	60	23
C17.21.6380	63	51	86	80	60	35

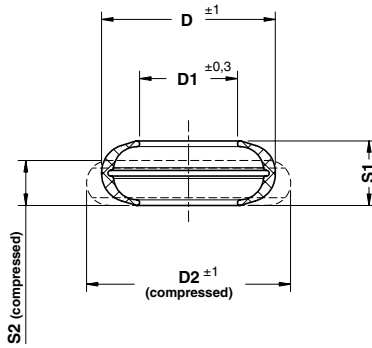
### Notes

**Material:** Elastomer 92SH

### Application example



ANTI-REBOUND ELASTOMER - DÄMPFUNGSELEMENT - AMMORTIZZATORE ANTIRIMBALZO



Notes

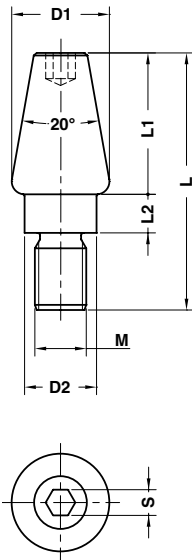
**Material:** CO-Polyester Elastomer

Standard OMCR

ORDER EXAMPLE	Art.	D=32,1	S1=10,8
	C17.27.	321	108

OMCR CODE	D	D1	D2	F max. (daN)	S1	S2
C17.27.262077	26,4	16,3	28,4	550	7,8	5,5
C17.27.321108	32,1	20,3	35,1	900	10,8	6,0
C17.27.463177	45,8	25,3	49,8	2000	17,0	11,6
C17.27.546216	54,6	30,3	61,8	3000	21,3	13,0
C17.27.618215	61,8	36,3	69,9	4600	21,5	13,2
C17.27.782300	78,5	42,8	89,0	7500	29,4	17,9

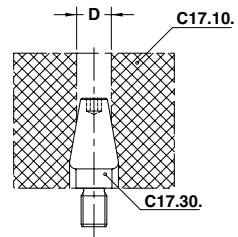
## ELASTOMER SPRING PIN - AUFNAHMEBOLZEN - PERNO PER MOLLE IN ELASTOMERO



### Notes

**Material:** CK45

### Application example

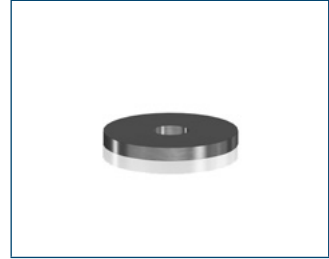


Art.	D1	M=M16
C17.30.	32	M16

OMCR CODE	D	D1	D2	L	L1	L2	M	S
C17.30.28M12	17	28	19	56	30	8	M12	6
C17.30.32M16	21	32	22	74	40	10	M16	8
C17.30.38M20	27	38	28	100	55	15	M20	10



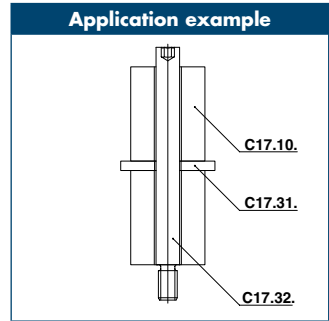
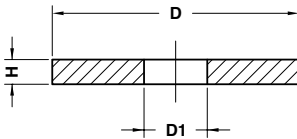
## WASHER FOR ELASTOMER SPRINGS - FEDERSCHEIBE - RONDELLA PER MOLLE IN ELASTOMERO



Standard OMCR

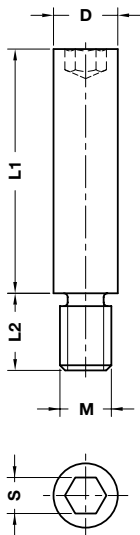


**Notes**  
**Material:** CK45



	Art.	D=20
	C17.31.	020

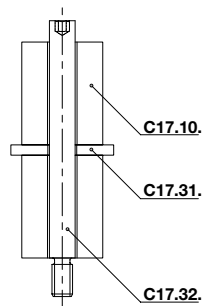
OMCR CODE	D	D1	H
C17.31.020	20	6,5	4
C17.31.025	25	8,5	4
C17.31.030	30	10,5	5
C17.31.040	40	13,5	5
C17.31.050	50	13,5	5
C17.31.060	60	16,5	6
C17.31.080	80	16,5	6
C17.31.100	100	20,5	8
C17.31.120	120	20,5	8
C17.31.150	150	26	8



### Notes

**Material:** CK45

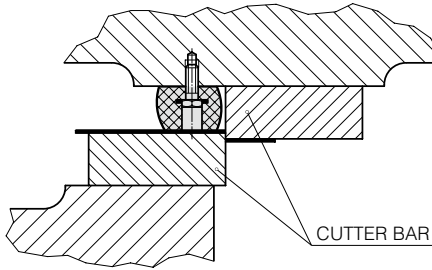
### Application example



Art.	D=6	L1=20
C17.32.	06	020

D	6	8	10	13	16	20	25
L2	6	9	15	15	18	25	30
M	M4	M6	M8	M10	M12	M16	M20
S	3	4	5	6	8	10	14
L1							
20	•	•	•				
25	•	•	•				
32	•	•	•	•			
40		•	•	•	•	•	•
50		•	•	•	•	•	•
63			•	•	•	•	•
80				•	•	•	•
95				•	•	•	•
118					•	•	•
140					•		•
180							•

Application example

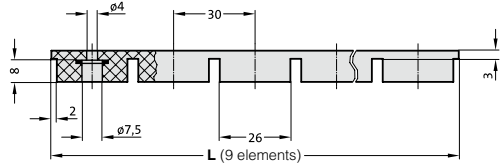
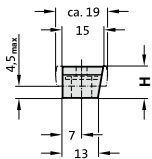


Notes

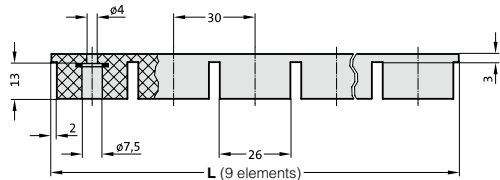
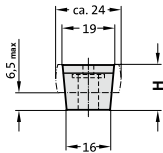
Material: Elastomer 70 SH

Standard OMCR

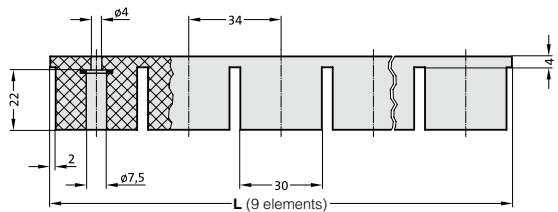
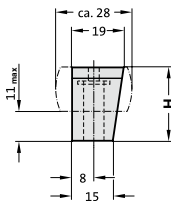
C17.40.11270



C17.40.16270



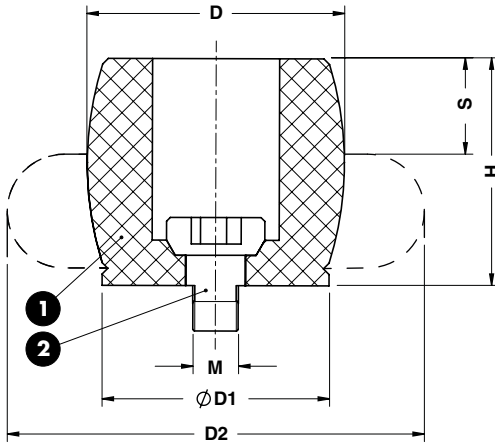
C17.40.27306



Art.	H=11,5	L=270
C17.40.	11	270

OMCR CODE	H	L
C17.40.11270	11,5	270
C17.40.16270	16,5	270
C17.40.27306	27	306

ANTI-REBOUND ELASTOMER - DÄMPFUNGSELEMENT - AMMORTIZZATORE ANTIRIMBALZO

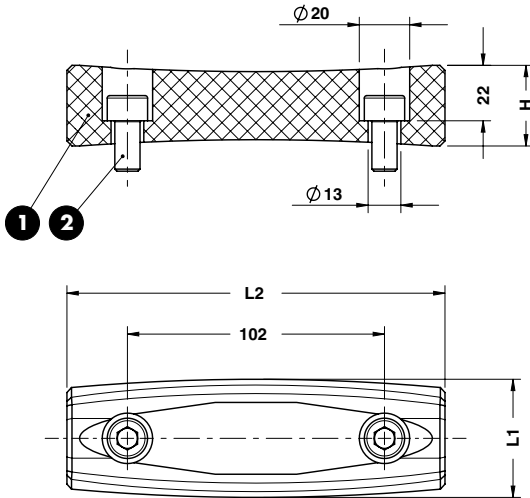


Notes	
1	Material: CO-Polyester Elastomer
2	Screw

ORDER EXAMPLE	Art.
	C17.51.1211

OMCR CODE	D	D1	D2	M	H	S	Nm/S
C17.51.1211	12	11	15	3	11	4	2
C17.51.1716	17	15	22	4	16	6	6
C17.51.2118	21	18	26	5	18	7	10
C17.51.2219	22	19	27	6	19	6	11.5
C17.51.2826	28	25	36	6	26	9	29
C17.51.3430	34	30	43	6	30	10	48
C17.51.3733	37	33	48	8	33	12	65

ANTI-REBOUND ELASTOMER - DÄMPFUNGSELEMENT - AMMORTIZZATORE ANTIRIMBALZO



WEB

Notes

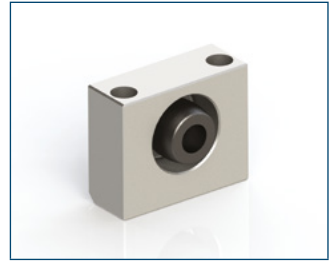
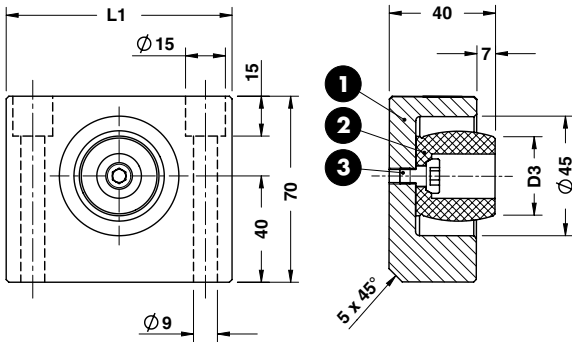
- 1 Material: CO-Polyester Elastomer
- 2 M10 DIN 912

ORDER EXAMPLE	Art.	H=32	L1=47	L2=150
	C17.52.	32	47	150

OMCR CODE	H	L1	L2
C17.52.2952153	29	52	153
C17.52.3247150	32	47	150

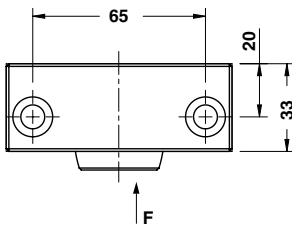
Standard OMCR

## ANTI-REBOUND SLIDE STOP - ARRETIERUNG GEGEN RÜCKFEDERUNG - ARRESTO ANTRIMBALZO



### Notes

- 1** Material: CK45
- 2** C17.51
- 3** Screw

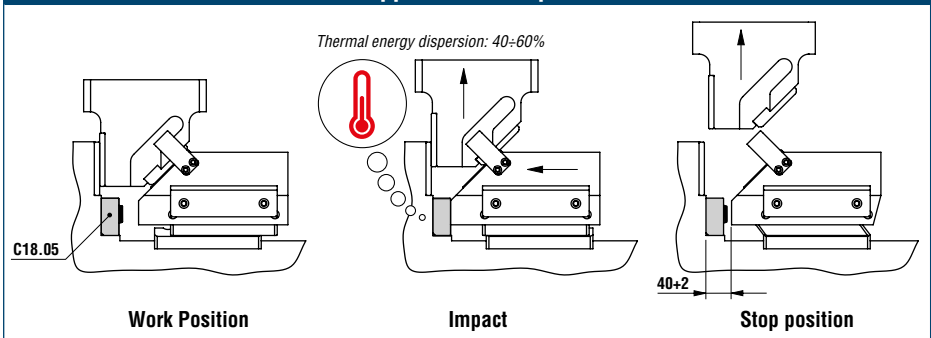


ORDER EXAMPLE	Art.	L1=85	D3=30
	C18.05.	85	30

\* Maximum absorbed energy  
Energieaufnahme  
Massima energia assorbita

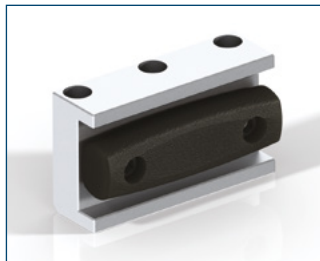
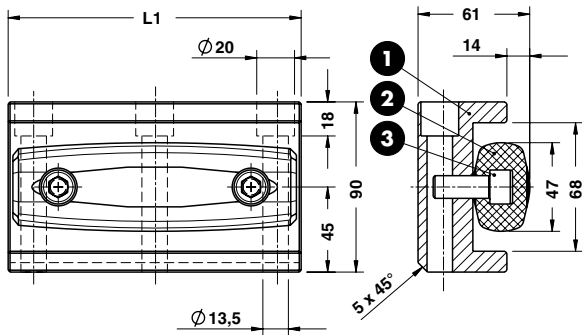
OMCR CODE	L1	D3	F max (kN)	Max Energy Absorbed (J)*	Max Stroke (mm)
C18.05.8530	85	30	3,75	8	7

### Application example



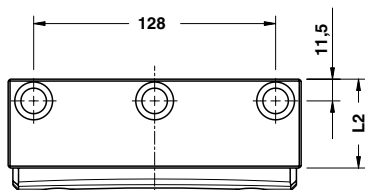
ANTI-REBOUND SLIDE STOP - ARRETERUNG GEGEN RÜCKFEDERUNG - ARRESTO ANTRIMBALZO

Standard OMCR



Notes

- 1 Material: CK45
- 2 C17.52
- 3 M10 DIN 912



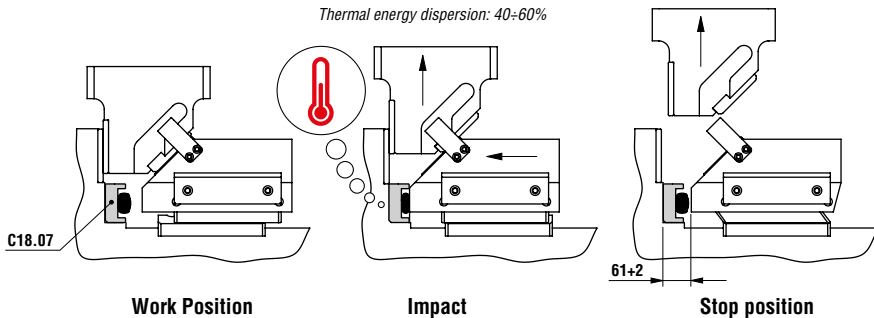
ORDER EXAMPLE	Art.	L1=155	L2=47
	C18.07.	155	47

\* Maximum absorbed energy  
Energieaufnahme  
Massima energia assorbita

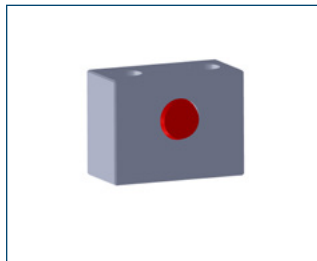
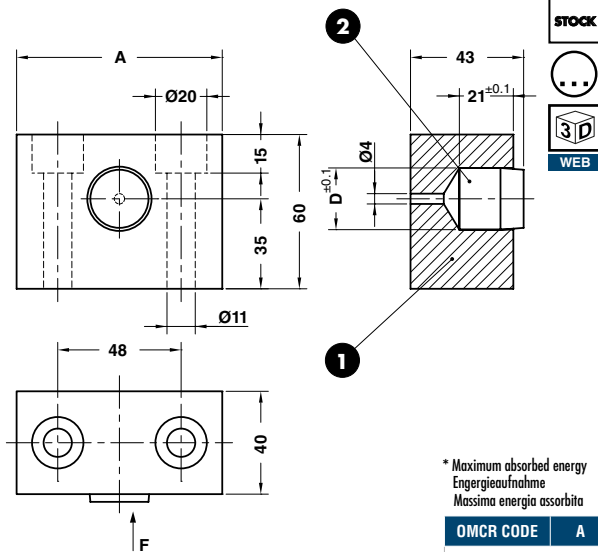
OMCR CODE	L1	L2	F max (kN)	Max Energy Absorbed (J)*	Max Stroke (mm)
C18.07.15547	155	47	47	160	14

Application example

Thermal energy dispersion: 40-60%



## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



### Notes

- 1 Material: CK45
- 2 C17.20.2425

\* Maximum absorbed energy  
Energieaufnahme  
Massima energia assorbita

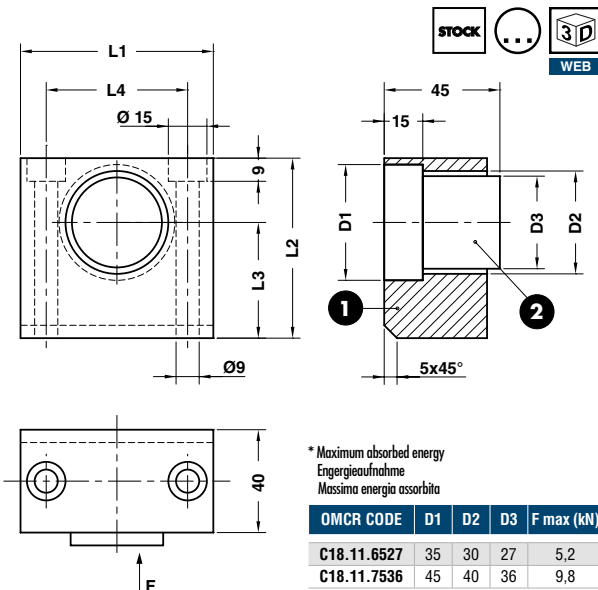


Art.	A=80	D=24
C18.10.	80	24

OMCR CODE	A	D	F max (kN)	Max Energy Absorbed (J)*
C18.10.8024	80	24	3	4,8

# C18.11

## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



### Notes

- 1 Material: CK45
- 2 Material: Elastomer 90 SH

\* Maximum absorbed energy  
Energieaufnahme  
Massima energia assorbita

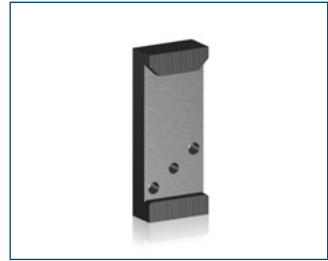
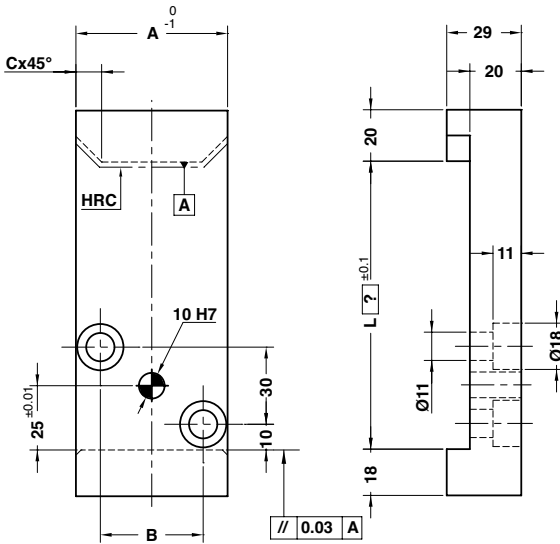


Art.	L1=65	D3=27
C18.11.	65	27

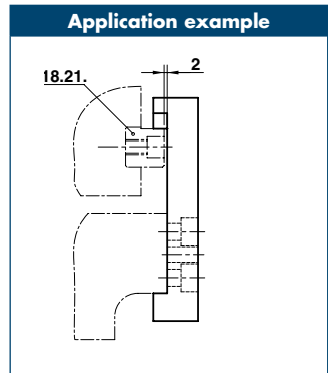
OMCR CODE	D1	D2	D3	F max (kN)	L1	L2	L3	L4	Max Energy Absorbed (J)*
C18.11.6527	35	30	27	5,2	65	60	40	45	13
C18.11.7536	45	40	36	9,8	75	70	45	55	24,5



POSITIVE RETURN PLATE - ZWANGSRÜCKHOLER - GANCIO DI SICUREZZA



**Notes**  
**Material:** CK45 - HRC: 52±54



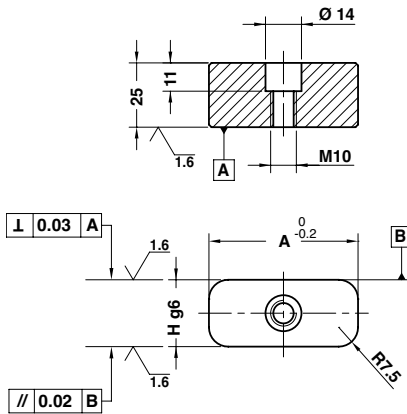
ORDER EXAMPLE	Art.	A=35	L=?
	C18.20.	35	80

OMCR CODE	A	B	C
C18.20.35	35	15	7
C18.20.60	60	40	10

Standard OMCR



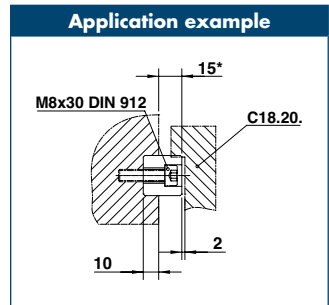
KEY - PASSFEDER - CHIAVETTA



\* For adjustment  
Für umrüsten  
Per adattamento



**Notes**  
Material: 90MnCrV8 - HRC: 58÷60



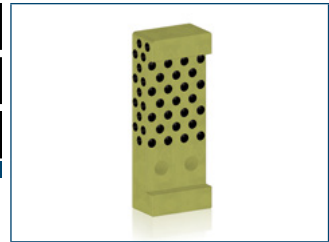
ORDER EXAMPLE	Art.	H=26	A=35
	C18.21.	26	35

OMCR CODE	H	A
C18.21.2635	26	35
C18.21.2660	26	60

CAM BLANK-HOLDER GUIDE - FÜHRUNG FÜR ZIEHKISSEN - GUIDA PER PREMILAMIERA

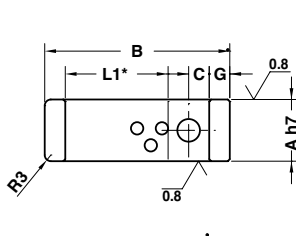
Notes

Material: Bronze + Graphite - HB >190

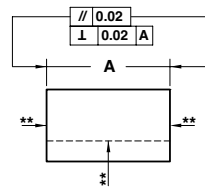
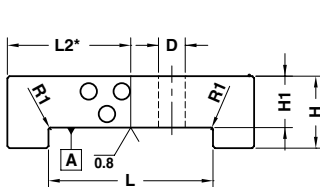
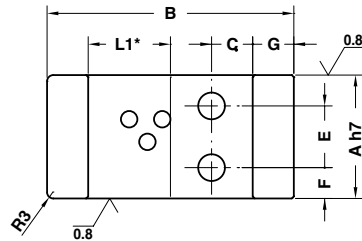


Standard OMCR

"FORM A"



"FORM B"



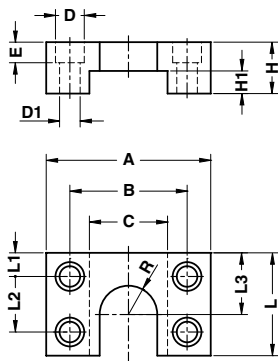
Art.	A=30	B=70
C18.25.	030	070

\* Surface with solid lubricant / Oberfläche mit Festschmierstoff / Superficie con inserti autolubrificanti  
 \*\* Sliding Surface / Geißfläche / Superficie di Scorrimento

OMCR CODE	A	B	C	D	E	F	G	H	H1	L	L1	L2	FORM
C18.25.030070	30	70	10	11	-	-	10	17	12	50	30	40	A
C18.25.030090	30	90	10	11	-	-	10	17	12	70	50	60	A
C18.25.045070	45	70	10	11	22	11,5	10	25	15	50	30	40	B
C18.25.045090	45	90	10	11	22	11,5	10	25	15	70	50	60	B
C18.25.060120	60	120	20	13	30	15	20	35	25	80	40	60	B
C18.25.060140	60	140	20	13	30	15	20	35	25	100	60	80	B
C18.25.060160	60	160	20	13	30	15	20	35	25	120	80	100	B



## COUPLING PLATE – BEFESTIGUNGSPLATTE - STAFFA DI REAZIONE



### Notes

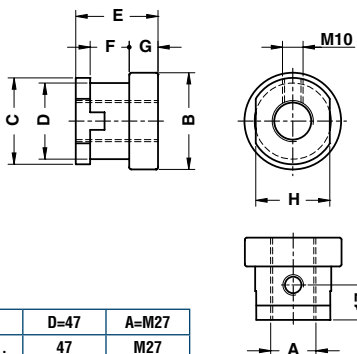
Material: CK45

ORDER EXAMPLE	Art.	A=80	R=14
	C18.30.	080	14

OMCR CODE	A	B	C	D	D1	E	H	H1	L	L1	L2	L3	R
C18.30.08014	080	57	38	18	11	10	25	11	50	11,5	27	30	14
C18.30.10020	100	75	50	20	13	12	32	15	55	12,5	30	35	20
C18.30.12025	120	88	60	26	17	16	40	20	65	16	33	45	25
C18.30.15033	150	114	80	33	22	26	45	20	100	18	64	64	33

# C18.31

## COUPLING NUT - KUPPLUNGSMUTTER - AGGANCIAMENTO STAFFA



### Notes

Material: CK45

ORDER EXAMPLE	Art.	D=47	A=M27
	C18.31.	47	M27

OMCR CODE	A	B	C	D	E	F	G	H	Air cyl. (I.S.O.) bore size	Using with coupling plate
C18.31.25M10	M10x1,25	35	30	25	30	16	10	24	32	C18.30.08014
C18.31.25M12	M12x1,25	35	30	25	30	16	10	24	40	C18.30.08014
C18.31.37M16	M16x1,5	47	42	37	40	19	14	36	50, 63	C18.30.10020
C18.31.37M20	M20x1,5	47	42	37	40	19	14	36	80, 100	C18.30.10020
C18.31.37M27	M27x2	47	42	37	40	19	14	36	125	C18.30.10020
C18.31.47M27	M27x2	57	52	47	50	24	19	46	125	C18.30.12025
C18.31.47M36	M36x2	57	52	47	50	24	19	46	160, 200	C18.30.12025
C18.31.59M42	M42x2	76	64	59	76	50	19	60	250	C18.30.15033









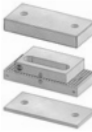






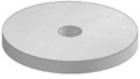




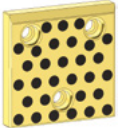





# Die Components Normalien Componenti



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

<p><b>B2 2101 16</b></p>  <p>Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento</p> <p>140</p>	<p><b>B2 2305 16</b></p>  <p>Gage Einweiser Riferimento</p> <p>140</p>	<p><b>B2 2305 17</b></p>  <p>Gage hardened Einweiser gehärtet Riferimento indurito</p> <p>141</p>	<p><b>B2 2305 22</b></p>  <p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p> <p>141</p>	<p><b>B2 2305 22</b></p>  <p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p> <p>142</p>
<p><b>B2 2305 24</b></p>  <p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p> <p>142</p>	<p><b>B2 2305 24</b></p>  <p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p> <p>143</p>	<p><b>B2 2506 12</b></p>  <p>Hook for chute Haken Gancio</p> <p>143</p>	<p><b>B2 2604 12</b></p>  <p>Air pin Druckbolzen Candela</p> <p>144</p>	<p><b>B2 2615 002</b></p>  <p>Air pin Druckbolzen Candela</p> <p>145</p>
<p><b>B2 2625 11</b></p>  <p>Retainer Sicherungsplatte Piastrina</p> <p>146</p>	<p><b>B2 2625 11</b></p>  <p>Retainer Sicherungsplatte Piastrina</p> <p>146</p>	<p><b>B2 2705 11</b></p>  <p>Stop block Abstandsblock Distanziale</p> <p>147</p>	<p><b>B2 2705 11</b></p>  <p>Stop block Abstandsblock Distanziale</p> <p>147</p>	<p><b>B2 2705 11</b></p>  <p>Shim Ausgleichs Scheib Spessore</p> <p>147</p>
<p><b>B2 2708 11</b></p>  <p>Spacer Distanzstück Distanziale</p> <p>148</p>	<p><b>B2 2709 11</b></p>  <p>Backing plate Distanzkappe Reazione per cilindro</p> <p>149</p>	<p><b>B2 2709 20</b></p>  <p>Backing plate Distanzkappe Reazione per cilindro</p> <p>149</p>	<p><b>B2 2715 11</b></p>  <p>Locating cone Kegeldistanz Cono di centraggio</p> <p>150</p>	<p><b>B2 2715 11</b></p>  <p>Shim Ausgleichs Scheib Spessore</p> <p>150</p>



<b>B2 2715 14</b>	<b>B2 2715 14</b>	<b>B2 2717 12a -13a</b>	<b>B2 2904 9</b>	<b>B2 2904 11</b>
				
Locating cone Kegeldistanz Cono di centraggio	Shim Ausgleichs Scheib Spessore	Spacer plate toothed Distanzplatte gezahnt Tassello di compensazione	Retainer Sicherungsplatte Piastrina	Retaining bolt Sicherungsbolzen Perno di bloccaggio
151	151	152	152	153
<b>B2 2920 001</b>	<b>B2 2920 001</b>	<b>B2 2920 001</b>	<b>B2 2920 001</b>	<b>B2 2920 001</b>
				
Guide post Führungssäule Colonna guida	Guide post Führungssäule Colonna guida	Guide post Führungssäule Colonna guida	Guide post Führungssäule Colonna guida	Washer Federscheibe Rondella per colonne
154	155	156	157	158
<b>B2 2920 001</b>	<b>B2 2933 1</b>	<b>B2 2933 2</b>	<b>B2 2933 2</b>	<b>B2 2960 12</b>
				
Toe clamp Haltestück Ritegno per boccola	Guide bush DIN 9834 Führungsbuchse DIN 9834 Boccola DIN 9834	Guide bush Führungsbuchse Boccola	Guide bush Führungsbuchse Boccola	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357
158	159	159	160	161
<b>B2 2960 12</b>	<b>B2 2961 11</b>	<b>B2 2961 11</b>	<b>B2 2969 11</b>	<b>B2 2975 11</b>
				
Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357	Gib VDI 3387 Führungslasche VDI 3387 Guida VDI 3387	Guide bar VDI 3357 Führungsleiste VDI 3357 Lardone VDI 3357
162	163	164	165	165

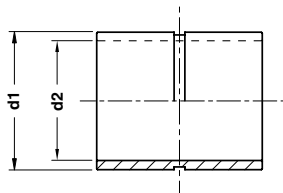
<b>B2 2978 21</b>	<b>B2 2978 21</b>	<b>B2 2978 21</b>	<b>B2 2978 21</b>	<b>B2 2978 23</b>
				
<p>"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357</p>	<p>"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357</p>	<p>"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357</p>	<p>"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357</p>	<p>Distance plate for "V" driver Höhenausgleich für Prismenführung Distanziale per guida a "V"</p>
<p>166</p>	<p>166</p>	<p>167</p>	<p>167</p>	<p>168</p>
<b>B2 3001 021</b>	<b>B2 3001 021</b>	<b>B2 3001 021</b>	<b>B2 3001 021</b>	<b>B2 3001 021</b>
				
<p>Slide stop block Schieberranschlag Arresto slitta</p>	<p>Slide stop block Schieberranschlag Arresto slitta</p>	<p>Anti-rebound elastomer Dämpfungselement Ammortizzatore antirimbalzo</p>	<p>Slide stop block Schieberranschlag Arresto slitta</p>	<p>Anti-rebound elastomer Dämpfungselement Ammortizzatore antirimbalzo</p>
<p>168</p>	<p>169</p>	<p>169</p>	<p>170</p>	<p>170</p>
<b>B2 3302 21</b>	<b>B2 3302 21</b>	<b>B2 3602 15</b>	<b>B2 3602 15</b>	<b>B2 3765 1</b>
				
<p>Coupling plate Befestigungsplatte Staffa di reazione</p>	<p>Coupling nut Kupplungsmutter Aggancio staffa</p>	<p>Shim Prägestempel Spessore</p>	<p>Visual locator setting punch Stempel f. entgasungsnoppen Punzone di visualizzazione</p>	<p>Key Passfeder Chiavetta</p>
<p>171</p>	<p>171</p>	<p>172</p>	<p>172</p>	<p>173</p>
<b>B2 3925 11</b>	<b>B2 4010 1</b>	<b>B2 4068 1</b>	<b>B2 4068 2</b>	<b>B2 4069 1</b>
				
<p>Elastomer spring pin Aufnahmebolzen Perno per molle</p>	<p>Backing plate Distanzkappe Reazione per cilindro</p>	<p>Locating pin Zentrierbolzen Centraggio</p>	<p>Locating pin Zentrierbolzen Centraggio</p>	<p>Key Passfeder Chiavetta</p>
<p>173</p>	<p>174</p>	<p>174</p>	<p>175</p>	<p>175</p>

<b>B2 5601 11</b>	<b>B2 5602 11</b>	<b>B2 5602 12</b>	<b>B2 5605 11</b>	<b>B2 5605 11a</b>
				
Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento	Lifting bracket with rope stop safety Tragzapfen mit Seilsicherung Staffa di sollevamento con sicurezza fermafune	Lifting pin VDI 3366 Tragschraube VDI 3366 Perno di sollevamento VDI 3366	Lifting bracket with pin and locating pins Tragwange mit Tragbolzen und Zentrierbolzen Staffa di sollevamento completa di perno e centraggi	Lifting bracket with pin and keys Tragwange mit Tragbolzen und Passfeder Staffa di sollevamento completa di perno e chivette
176	177	178	179	180
<b>B2 5605 12</b>	<b>B2 5702 12</b>	<b>B2 5702 12</b>	<b>B2 6201 11</b>	<b>B2 6201 12</b>
				
Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento	Pad retainer pin Steckbolzen Perno di arresto	Pad retainer pin Steckbolzen Perno di arresto	Washer Scheibe Rondella	Spacer tube Distanzbuchse Tubo distanziale
181	182	182	183	183
<b>B2 6202 1</b>	<b>B2 6202 1</b>	<b>B2 6202 1</b>	<b>B2 6204 12</b>	
				
Buffer Stossdämpfer Ammortizzatore	Washer Scheibe Rondella	Washer Scheibe Rondella	Shock absorber Halteelement Ammortizzatore	
184	184	184	185	

## BUSH FOR LIFTING PIN - BUCHSE FÜR TRAGBOLZEN - BOCCOLA PER PERNO DI SOLLEVAMENTO



**FORM A**



**FORM B**

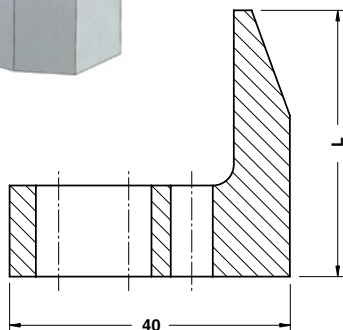
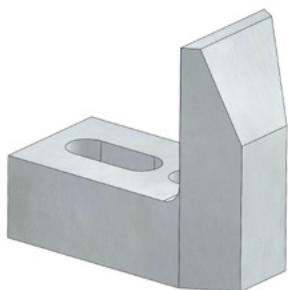
### Notes

**Material:** Si35

STOCK

BMW CODE	d1	d2	FORM
2 173 599	44	34	A
2 173 600	52	42	A
2 173 601	62	52	A
2 173 602	75	65	A
2 173 603	100	78	B
2 173 604	105	78	B

## GAGE - EINWEISER - RIFERIMENTO



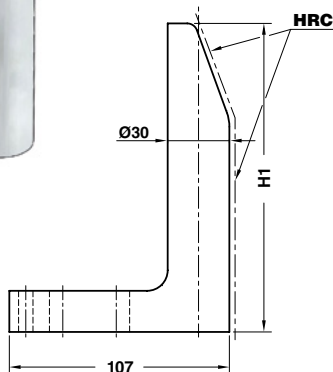
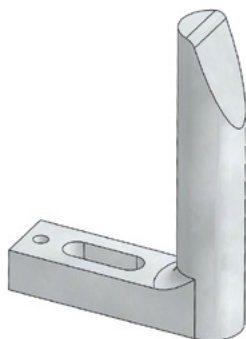
### Notes

**Material:** 21MnCr5 - HRC: 58÷60

STOCK

BMW CODE	L
2 175 119	28
2 175 120	38
2 175 121	48
5 792 350	68
5 792 351	88

**GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO**



**Notes**

**Material:** CK60 - **HRC:** 58+60

**STOCK**



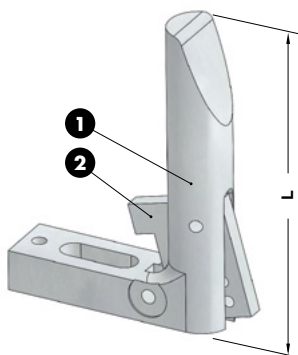
**BMW CODE**

2 173 836

BMW CODE	H1
2 173 835	65
2 173 836	90
2 173 837	120
2 173 838	150
2 173 839	180
2 175 927	210
2 173 840	250
2 175 127	300
2 175 128	350

Standard BMW

**GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE**



**STOCK**

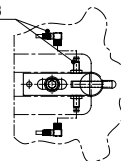


**Notes**

- 1** Material: CK60
- 2** Material: Si37 - **HRC:** 50+55

**Application example**

B2 3503 23

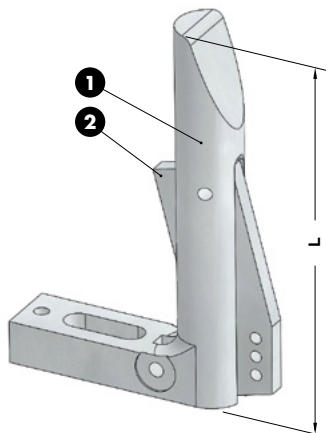


**BMW CODE**

2 173 842

BMW CODE	L	Sensor
2 173 841	120	included
2 173 842	120	not included
2 173 843	150	included
2 173 844	150	not included

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE



STOCK

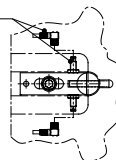


### Notes

- 1 Material: CK60
- 2 Material: Si37 - HRC: 50±5

### Application example

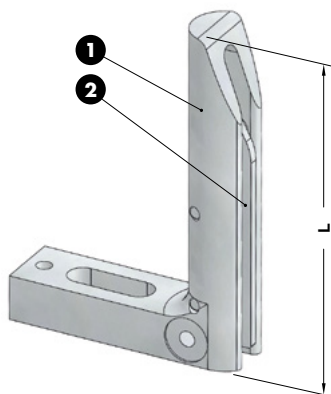
B2 3503 23



BMW CODE  
2 173 846

BMW CODE	L	Sensor
2 173 845	180	included
2 173 846	180	not included
2 173 847	250	included
2 173 848	250	not included

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE



### Notes

- 1 Material: CK60
- 2 Material: Si37 - HRC: 58±60

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK

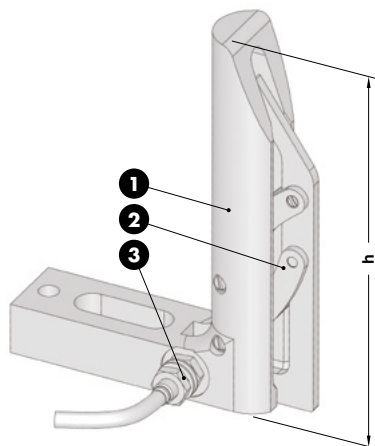


BMW CODE  
2 173 850

BMW CODE	L
2 173 849	120
2 173 850	150
2 173 851	180
2 173 852	250
2 173 853*	250

\* With short plate  
Mit Kurzschild  
Con piastra corta

**GAGE WITH SENSOR - EINWEISER MIT TEILLAGEKONTROLLE - RIFERIMENTO CON SENSORE**

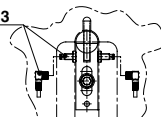


**Notes**

- 1** Material: CK60 - HRC: 58÷60
- 2** Material: 16MnCr5 - HRC: 58÷60
- 3** Proximity sensor with cable coupling

**Application example**

B2 3503 23



**BMW CODE**  
2 175 999

BMW CODE	h
2 175 998	120
2 175 999	150
2 176 000	180
2 176 001	250

Standard BMW

**HOOK FOR CHUTE - HAKEN - GANCIO**



**Notes**

**Material:** Si37

**STOCK**



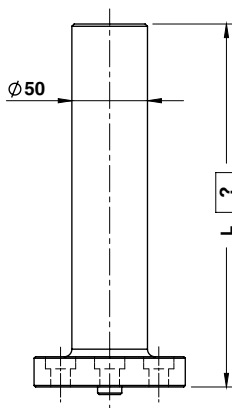
**BMW CODE**  
2 168 287

BMW CODE
2 168 287

**AIR PIN - DRUCKBOLZEN - CANDELA**



**FORM A**



**FORM B**



**FORM C**




85 < L ≤ 500 mm

**Notes**

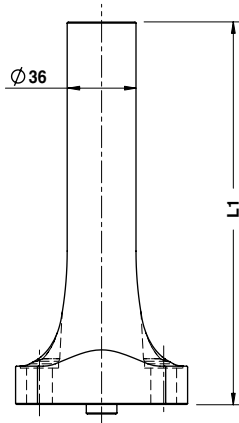
**Material:** CK45 - 800±1000 N/mm<sup>2</sup>



	<b>BMW CODE</b>	<b>L=355</b>
	6 293 157	355
<b>BMW CODE</b>		<b>FORM</b>
6 293 156		A
6 293 157		B
6 293 158		C

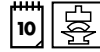


**AIR PIN - DRUCKBOLZEN - CANDELA**



**Notes**

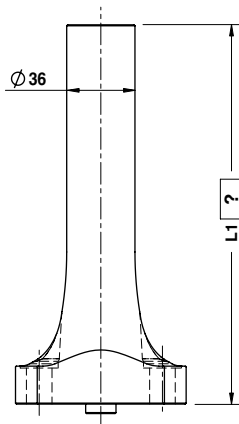
**Material:** 42CrMo4  
800±1000 N/mm<sup>2</sup>



<b>ORDER EXAMPLE</b>	<b>BMW CODE</b>	
	2 175 218	
<b>BMW CODE</b>	<b>L1</b>	
2 175 217	150	
2 175 218	175	
2 175 219	200	
2 175 220	225	
2 175 221	250	

Standard BMW

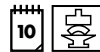
**AIR PIN - DRUCKBOLZEN - CANDELA**



L max = 250 mm

**Notes**

**Material:** 42CrMo4  
800±1000 N/mm<sup>2</sup>



<b>ORDER EXAMPLE</b>	<b>BMW CODE</b>	<b>L1=185</b>
	2 175 222	185
<b>BMW CODE</b>		
2 175 222		

**RETAINER - SICHERUNGSPLATTE - PIASTRINA**



**Notes**

**Material:** St37

**STOCK**



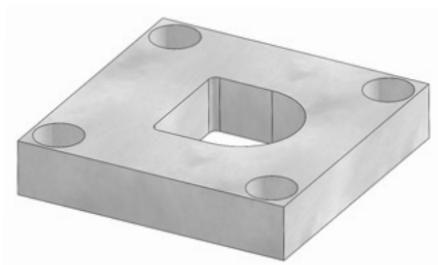
**BMW CODE**

2 171 716

**BMW CODE**

2 171 716

**RETAINER - SICHERUNGSPLATTE - PIASTRINA**



**Notes**

**Material:** 90MnCrV8 - **HRC:** 60÷62

**STOCK**



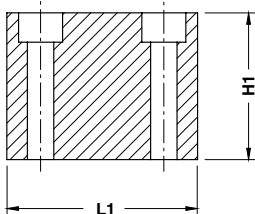
**BMW CODE**

2 172 935

**BMW CODE**

2 172 935

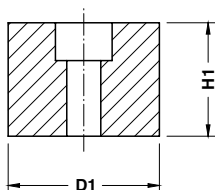
**STOP BLOCK - ABSTANDSBLOCK - DISTANZIALE**



**STOCK**

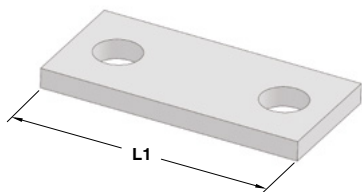
Notes		
<b>Material:</b> St37		
<b>ORDER EXAMPLE</b> 	<b>BMW CODE</b>	
	2 175 075	
BMW CODE	L1	H1
2 175 074	65	30
2 175 075	65	50
2 175 076	100	30
2 175 077	100	50
2 175 375	80	30
2 175 376	100	30

**STOP BLOCK - ABSTANDSBLOCK - DISTANZIALE**



Notes		
<b>Material:</b> CK45		
<b>STOCK</b>	<b>BMW CODE</b>	
	2 175 079	
BMW CODE	D1	H1
2 175 078	40	30
2 175 079	40	50

**SHIM - ABSTIMMSCHEIBE - SPESSORE**



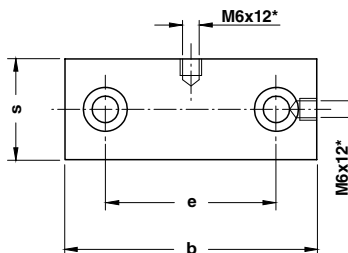
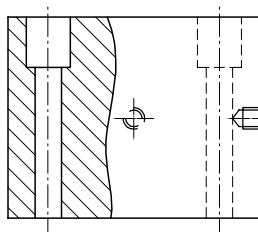
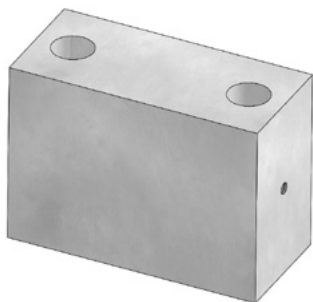
Notes	
<b>Material:</b> St52	
<b>STOCK</b>	<b>BMW CODE</b>
	6554390
BMW CODE	L1
6554389	65
6554390	100

## SPACER - DISTANZSTÜCK - DISTANZIALE

### Notes

**Material:** St37

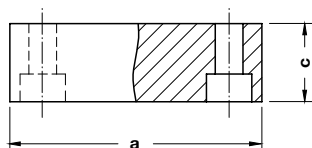
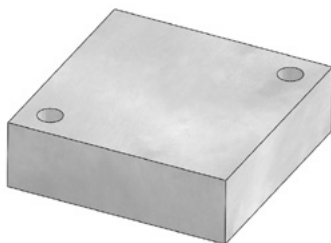
**STOCK**



**BMW CODE**  
2 172 065

BMW CODE	b	e	s	Max load (kN)	BMW CODE *(without thread M6)	b	e	s	Max load (kN)
2 172 064	65	35	30	270	2 173 866	65	35	30	270
2 172 065	100	68	40	700	2 173 867	100	68	40	700
2 168 316	160	98	40	1100	2 173 868	160	98	40	1100
2 172 066	110	78	50	1000	2 173 869	110	78	50	1000
2 168 317	180	114	50	1600	2 173 870	180	114	50	1600
2 172 067	130	90	60	1500	2 173 871	130	90	60	1500
2 175 145	130	90	60	1500	2 175 146	130	90	60	1500
2 168 318	200	130	60	2300	2 173 872	200	130	60	2300
2 174 518	200	125	60	2300	2 174 519	200	125	60	2300
2 168 319	160	115	80	2350	2 173 873	160	115	80	2350
2 175 003	160	115	80	2350	2 175 004	160	115	80	2350
2 168 320	250	160	80	3650	2 173 874	250	160	80	3650
2 174 520	250	155	80	3650	2 174 521	250	155	80	3650

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



### Notes

**Material:** 90MnCrV8 - **HRC:** 49÷52

STOCK



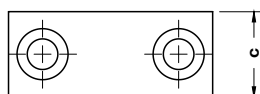
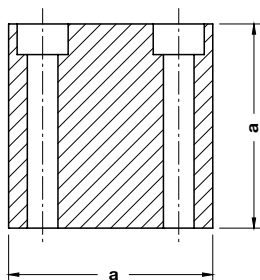
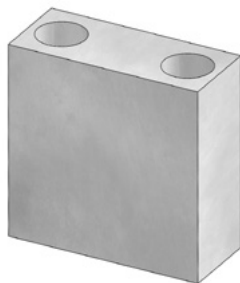
### BMW CODE

2 171 494

BMW CODE	a	c
2 171 493	60	48
2 171 494	60	43
2 171 495	70	39
2 171 496	100	36
2 171 497	100	31
2 172 219	60	30
2 172 220	60	25
2 172 221	70	20
2 172 222	100	20
2 172 223	100	15

Standard BMW

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



### Notes

**Material:** 90MnCrV8 - **HRC:** 49÷52

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK

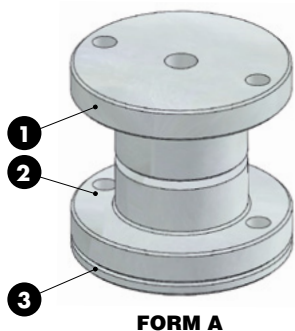


### BMW CODE

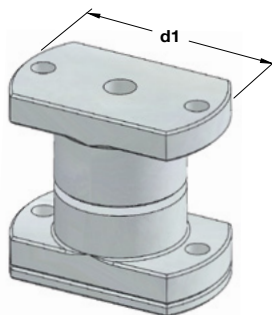
2 173 596

BMW CODE	Nom. load (daN)	a	c
2 173 596	750÷1500	60	25
2 173 597	3000	70	25
2 173 598	5000÷7500	100	30

## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



**FORM A**



**FORM B**

### Notes

**1 2**

**Material:** 16MnCr5 - **HRC:** 60÷62

**3 Material:** CK45

STOCK

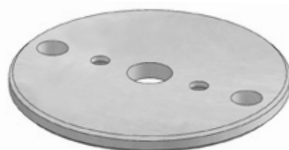


**BMW CODE**

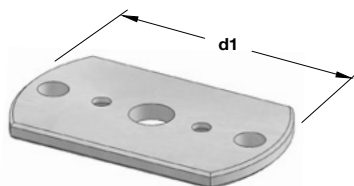
2 171 883

BMW CODE	d1	FORM
2 171 882	100	A
2 171 883	100	B
2 171 884	120	A
2 171 885	120	B

## SHIM - ABSTIMMSCHEIBE - SPESSORE



**FORM A**



**FORM B**

### Notes

**Material:** CK45

STOCK

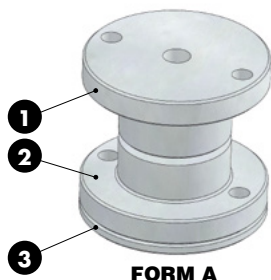


**BMW CODE**

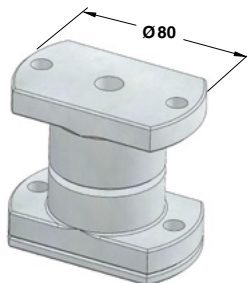
2 171 887

BMW CODE	d1	FORM
2 171 886	100	A
2 171 887	100	B
2 171 888	120	A
2 171 889	120	B

**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**



**FORM A**



**FORM B**

**Notes**

**1 2**

**Material:** 16MnCr5 - **HRC:** 60÷62

**3 Material:** CK45



<b>BMW CODE</b>	2 173 124
-----------------	-----------

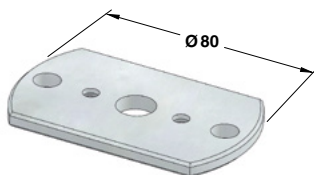
BMW CODE	FORM
2 173 123	A
2 173 124	B

Standard BMW

**SHIM - ABSTIMMSCHEIBE - SPESSORE**



**FORM A**



**FORM B**

**Notes**

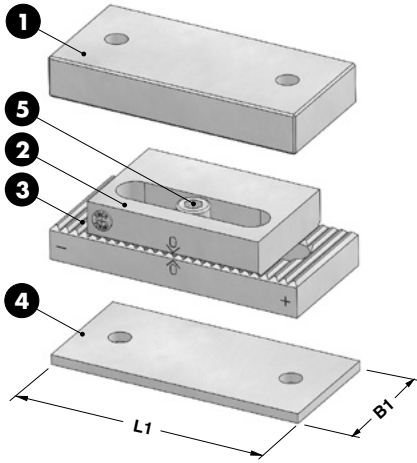
**Material:** CK45



<b>BMW CODE</b>	2 173 126
-----------------	-----------

BMW CODE	FORM
2 173 125	A
2 173 126	B

**SPACER PLATE TOOTHED - DISTANZPLATTE GEZAHNT - TASSELLO DI COMPENSAZIONE**



**Notes**

**1 2 3**

**Material:** 90MnCrV8 - **HRC:** 58÷60

**4 Material:** Si52

**5** DIN 912

**STOCK**



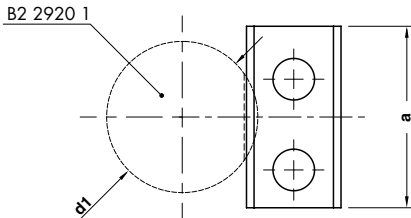
**BMW CODE**

**2 171 715**

BMW CODE	B1	L1	*
2 171 714	60	130	12a
2 171 715	80	160	13a

**B2 2904 9**

**RETAINER - SICHERUNGSPLATTE - PIASTRINA**



**Notes**

**Material:** Si37

**STOCK**



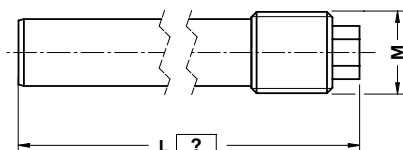
**BMW CODE**

**2 174 517**

BMW CODE	a	d1
2 174 516	40	25÷32
2 174 517	48	40÷50



**RETAINING BOLT - SICHERUNGSBOLZEN - PERNO DI BLOCCAGGIO**



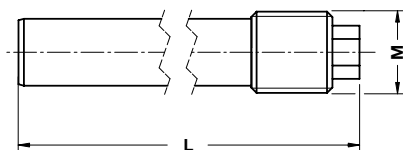
**Notes**  
**Material:** CK45



<b>ORDER EXAMPLE</b> 	<b>BMW CODE</b>	<b>L=240</b>
	2 174 247	240
<b>BMW CODE</b>	<b>L</b>	<b>M</b>
2 174 247	≤ 300	M 30

Standard BMW

**RETAINING BOLT - SICHERUNGSBOLZEN - PERNO DI BLOCCAGGIO**



**Notes**  
**Material:** CK45

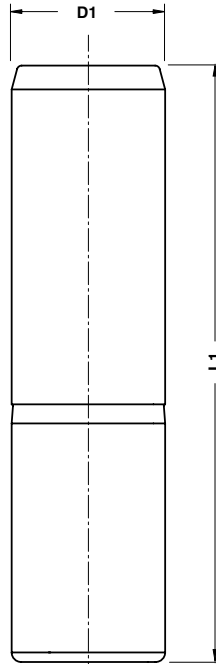


<b>ORDER EXAMPLE</b> 	<b>BMW CODE</b>	
	2 174 246	
<b>BMW CODE</b>	<b>L</b>	<b>M</b>
2 174 780	180	M 30
2 174 246	230	M 30
2 175 009	200	M 20

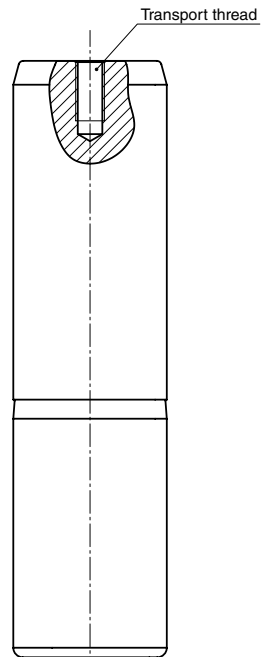
**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - HRC 60÷62



**FORM A**



**FORM B**

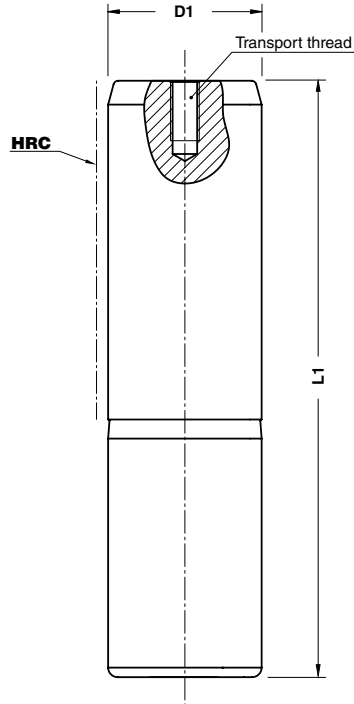
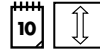
	<b>BMW CODE</b>
	<b>2 168 678</b>

BMW CODE	D1	L1	FORM	BMW CODE	D1	L1	FORM
2 168 677	63	200	A	2 168 682	80	250	B
2 168 678	63	250	A	2 168 684	80	280	B
2 175 085	63	280	A	2 168 686	80	315	B
2 168 679	63	315	A	2 168 688	80	355	B
2 168 680	63	355	A				

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - HRC 60÷62



Standard BMW

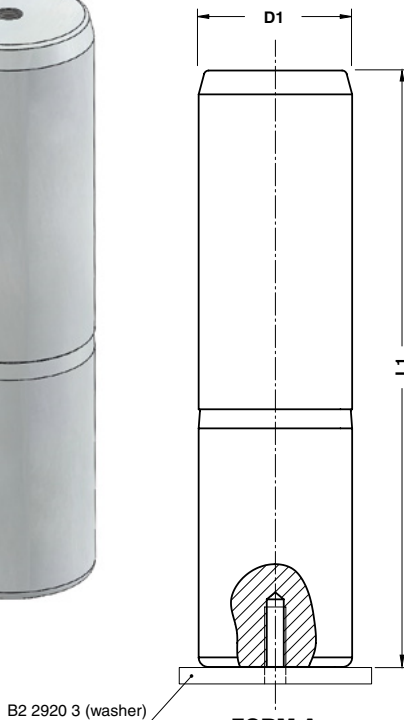
<b>ORDER EXAMPLE</b>	<b>BMW CODE</b>
	2 175 006

BMW CODE	D1	L1	BMW CODE	D1	L1
2 175 005	80	250	2 171 214	100	355
2 175 006	80	280	2 171 216	100	400
2 175 007	80	315	2 171 218	125	355
2 175 008	80	355	2 172 239	125	400
2 174 777	100	280	2 171 220	125	450
2 174 778	100	315			

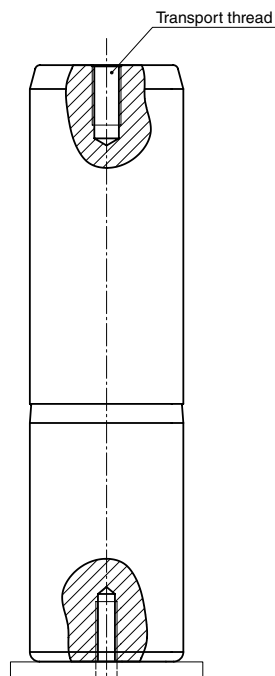
**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - HRC 60÷62



**FORM A**



**FORM B**



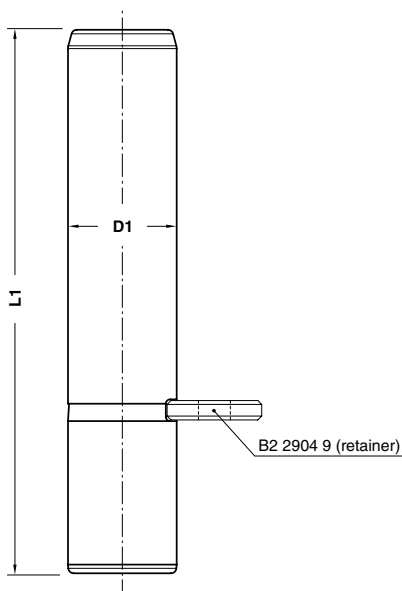
**BMW CODE**  
**2 173 907**

BMW CODE	D1	L1	FORM	Washer Code	BMW CODE	D1	L1	FORM	Washer Code	BMW CODE	D1	L1	FORM	Washer Code
2 173 906	40	160	A	2173912	2 173 914	50	200	A	2173919	2 175 086	63	280	A	2173925
2 173 907	40	180	A	2173912	2 173 915	50	250	A	2173919	2 173 922	63	315	A	2173925
2 173 908	40	200	A	2173912	2 173 916	50	280	A	2173919	2 173 923	63	355	A	2173925
2 173 909	40	224	A	2173912	2 173 917	50	315	A	2173919	2 173 926	80	250	B	2 173 930
2 173 910	40	250	A	2173912	2 173 918	50	355	A	2173919	2 173 927	80	280	B	2 173 930
2 173 911	40	280	A	2173912	2 173 920	63	200	A	2173925	2 173 928	80	315	B	2 173 930
2 173 913	50	160	A	2173919	2 173 921	63	250	A	2173925	2 173 929	80	355	B	2 173 930

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - HRC 60÷62



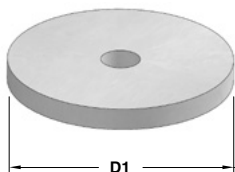
Standard BMW



<b>BMW CODE</b>
<b>2 174 493</b>

BMW CODE	D1	L1	Retainer Code	BMW CODE	D1	L1	Retainer Code	BMW CODE	D1	L1	Retainer Code
<b>2 174 492</b>	25	125	2 174 516	<b>2 174 499</b>	40	160	2 174 517	<b>2 174 506</b>	50	200	2 174 517
<b>2 174 493</b>	25	140	2 174 516	<b>2 174 500</b>	40	180	2 174 517	<b>2 174 507</b>	50	250	2 174 517
<b>2 174 494</b>	25	160	2 174 516	<b>2 174 501</b>	40	200	2 174 517	<b>2 174 508</b>	50	280	2 174 517
<b>2 174 495</b>	25	180	2 174 516	<b>2 174 502</b>	40	224	2 174 517	<b>2 174 509</b>	50	315	2 174 517
<b>2 174 496</b>	25	200	2 174 516	<b>2 174 503</b>	40	250	2 174 517	<b>2 174 510</b>	50	355	2 174 517
<b>2 174 497</b>	32	160	2 174 516	<b>2 174 504</b>	40	280	2 174 517				
<b>2 174 498</b>	32	200	2 174 516	<b>2 174 505</b>	50	160	2 174 517				

**WASHER - FEDERSCHEIBE - RONDELLA PER COLONNE**

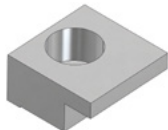


Notes	
<b>Material:</b> CK45	

**STOCK**

ORDER EXAMPLE					
<table border="1"> <thead> <tr> <th colspan="2">BMW CODE</th> </tr> <tr> <td colspan="2">2 173 919</td> </tr> </thead> </table>		BMW CODE		2 173 919	
BMW CODE					
2 173 919					
BMW CODE	D1				
2 173 912	60				
2 173 919	70				
2 173 925	83				
2 173 930	100				

**TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA**



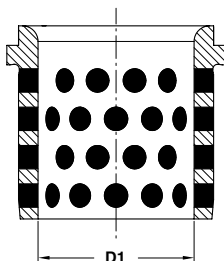
**STOCK**

Notes	
<b>Material:</b> CK45	

**Application example**

ORDER EXAMPLE					
<table border="1"> <thead> <tr> <th colspan="2">BMW CODE</th> </tr> <tr> <td colspan="2">2 168 842</td> </tr> </thead> </table>		BMW CODE		2 168 842	
BMW CODE					
2 168 842					
BMW CODE	d1				
2 168 834	25÷50				
2 168 842	63÷160				
2 172 560	16				
2 172 561	20				

**GUIDE BUSH DIN 9834 - FÜHRUNGSBUCHSE DIN 9834 - BOCCOLA DIN 9834**



**Notes**

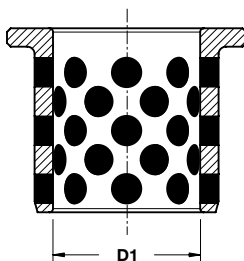
**Material:** Bronze + Graphite  
**HB > 190**



	<b>BMW CODE</b>
	2 168 700
<b>BMW CODE</b>	<b>D1</b>
2 168 699	25
2 168 700	32
2 168 701	40
2 168 702	50
2 168 703	63
2 168 704	80
2 168 705	100
2 168 706	125
2 168 707	160

Standard BMW

**GUIDE BUSH - FÜHRUNGSBUCHSE - BOCCOLA**



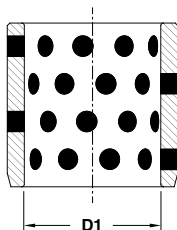
**Notes**

**Material:** Bronze + Graphite  
**HB > 190**



	<b>BMW CODE</b>
	2 172 557
<b>BMW CODE</b>	<b>D1</b>
2 172 556	16
2 172 557	20


**GUIDE BUSH - FÜHRUNGSBUCHSE - BOCCOLA**



**Notes**

**Material:** Bronze + Graphite  
**HB > 190**



	<b>BMW CODE</b>	
	2 172 559	
	<b>BMW CODE</b>	<b>D1</b>
	2 172 558	16
	2 172 559	20



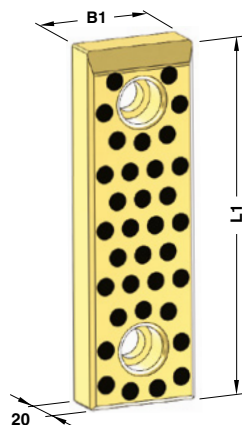
## WEAR PLATE SELF-LUBRICATING VDI 3357 GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357 PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357

### Notes

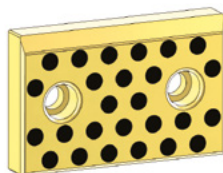
**Material:** Bronze + Graphite

**HB** > 190

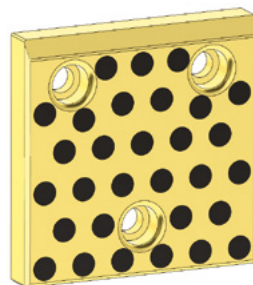
STOCK



**FORM A**



**FORM B**



**FORM C**



**BMW CODE**  
2 168 338

BMW CODE	B1	L1	FORM	BMW CODE	B1	L1	FORM
2 168 337	50	80	A	2 168 352	100	160	B
2 168 338	50	100	A	2 168 353	100	200	B
2 168 339	50	125	A	2 168 354	125	50	B
2 168 340	50	160	A	2 168 355	125	80	B
2 168 341	50	200	A	2 168 356	125	100	C
2 168 342	80	50	B	2 168 357	125	125	C
2 168 343	80	80	A	2 168 358	125	160	C
2 168 344	80	100	A	2 168 359	125	200	C
2 168 345	80	125	A	2 168 360	160	50	B
2 168 346	80	160	A	2 168 361	160	80	B
2 168 347	80	200	A	2 168 362	160	100	C
2 168 348	100	50	B	2 168 363	160	125	C
2 168 349	100	80	B	2 168 364	160	160	C
2 168 350	100	100	A	2 168 365	160	200	C
2 168 351	100	125	A				

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**

**Notes**

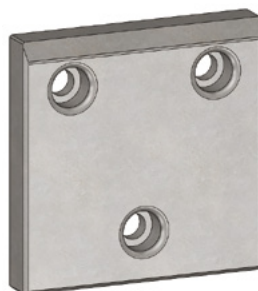
**Material:** X153CrMoV12 - HRC 58÷60



**FORM A**



**FORM B**



**FORM C**



**BMW CODE**  
**2 168 367**

BMW CODE	B1	L1	FORM	BMW CODE	B1	L1	FORM
2 168 366	50	80	A	2 168 381	100	160	B
2 168 367	50	100	A	2 168 382	100	200	B
2 168 368	50	125	A	2 168 383	125	50	B
2 168 369	50	160	A	2 168 384	125	80	B
2 168 370	50	200	A	2 168 385	125	100	C
2 168 371	80	50	B	2 168 386	125	125	C
2 168 372	80	80	A	2 168 387	125	160	C
2 168 373	80	100	A	2 168 388	125	200	C
2 168 374	80	125	A	2 168 389	160	50	B
2 168 375	80	160	A	2 168 390	160	80	B
2 168 376	80	200	A	2 168 391	160	100	C
2 168 377	100	50	B	2 168 392	160	125	C
2 168 378	100	80	B	2 168 393	160	160	C
2 168 379	100	100	A	2 168 394	160	200	C
2 168 380	100	125	A				

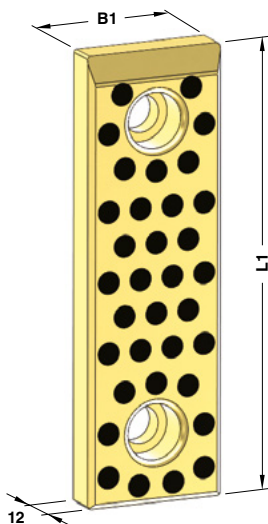
## WEAR PLATE SELF-LUBRICATING VDI 3357 GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357 PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357

### Notes

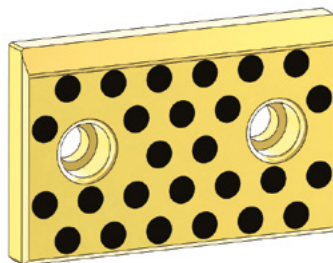
**Material:** Bronze + Graphite

**HB** > 190

STOCK



**FORM A**



**FORM B**

Standard BMW

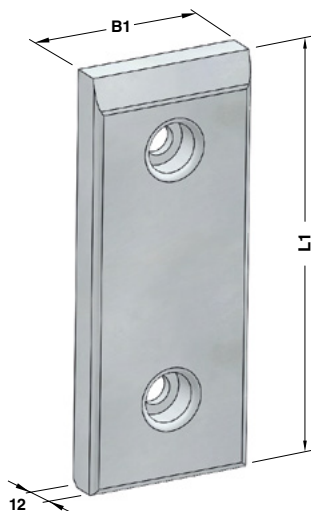
	BMW CODE
	2 169 172

BMW CODE	B1	L1	FORM	BMW CODE	B1	L1	FORM
2 169 171	30	80	A	2 169 184	50	160	A
2 169 172	30	100	A	2 169 185	50	200	A
2 169 173	30	125	A	2 169 186	60	80	A
2 169 174	30	160	A	2 169 187	60	100	A
2 169 175	30	200	A	2 169 188	60	125	A
2 169 176	40	80	A	2 169 189	60	160	A
2 169 177	40	100	A	2 169 190	60	200	A
2 169 178	40	125	A	2 169 191	80	80	A
2 169 179	40	160	A	2 169 192	80	100	A
2 169 180	40	200	A	2 169 193	80	125	A
2 169 181	50	80	A	2 169 194	80	160	A
2 169 182	50	100	A	2 169 195	80	200	A
2 169 183	50	125	A	3 007 727	80	50	B

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**

**Notes**

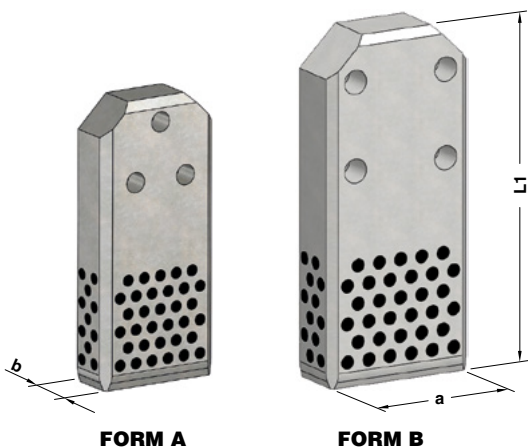
**Material:** 16MnCr5 - HRC 58±60



	<b>BMW CODE</b>
	2 170 889

BMW CODE	B1	L1	BMW CODE	B1	L1
2 170 888	30	80	2 170 901	50	160
2 170 889	30	100	2 170 902	50	200
2 170 890	30	125	2 170 903	60	80
2 170 891	30	160	2 170 904	60	100
2 170 892	30	200	2 170 905	60	125
2 170 893	40	80	2 170 906	60	160
2 170 894	40	100	2 170 907	60	200
2 170 895	40	125	2 170 908	80	80
2 170 896	40	160	2 170 909	80	100
2 170 897	40	200	2 170 910	80	125
2 170 898	50	80	2 170 911	80	160
2 170 899	50	100	2 170 912	80	200
2 170 900	50	125			

**GIB VDI 3387 - FÜHRUNGLASCHE VDI 3387 - GUIDA VDI 3387**



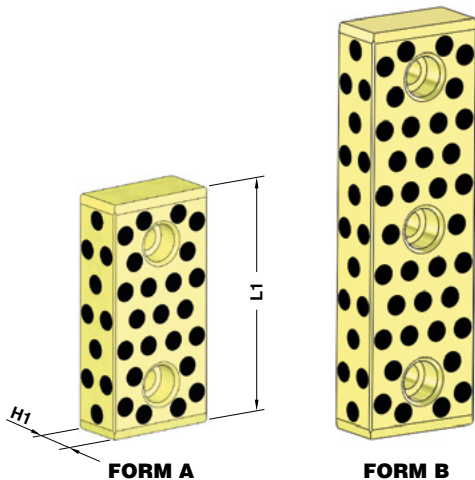
**Notes**  
**Material:** CK45 + Graphite  
**HRC:** 58÷60  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**

	<b>BMW CODE</b>			
	2 168 880			
<b>BMW CODE</b>	<b>a</b>	<b>b</b>	<b>L1</b>	<b>FORM</b>
2 168 879	112	45	250	A
2 168 880	140	45	315	B
2 168 881	190	56	400	B
2 174 248	240	56	500	B

Standard BMW

**GUIDE BAR VDI 3357 - FÜHRUNGSLEISTE VDI 3357 - LARDONE VDI 3357**

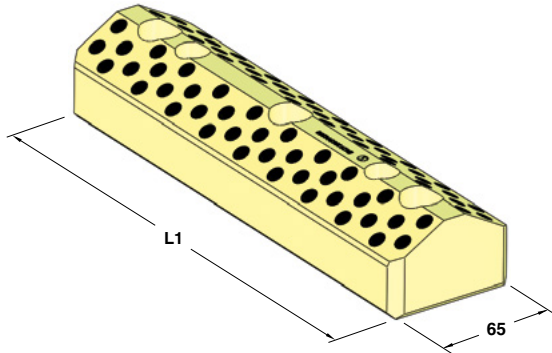


**Notes**  
**Material:** Bronze + Graphite - HB >190

**STOCK**

	<b>BMW CODE</b>		
	2 168 884		
<b>BMW CODE</b>	<b>H1</b>	<b>L1</b>	<b>FORM</b>
2 168 883	30	125	A
2 168 884	30	160	A
2 168 885	30	200	B
2 168 886	40	125	A
2 168 887	40	160	A
2 168 888	40	200	B

**"V" DRIVER SELF-LUBRICATING VDI 3357  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**

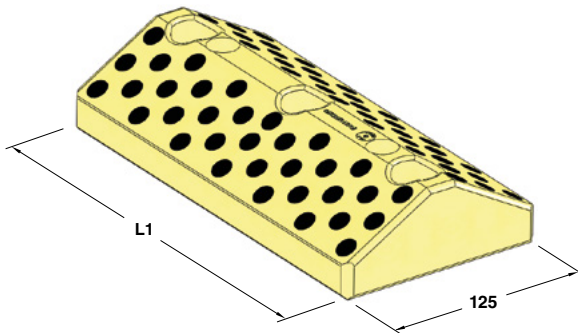


**Notes**  
**Material:** Bronze + Graphite - **HB** >190

**STOCK**

	<b>BMW CODE</b>
	<b>2 168 900</b>
<b>BMW CODE</b>	<b>L1</b>
2 168 899	150
2 168 900	200
2 168 901	250
2 168 902	300

**"V" DRIVER SELF-LUBRICATING VDI 3357  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**

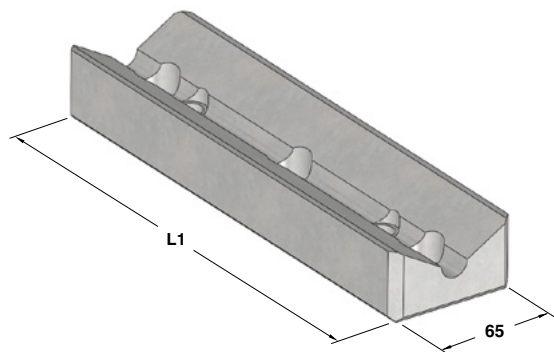


**Notes**  
**Material:** Bronze + Graphite - **HB** >190

**STOCK**

	<b>BMW CODE</b>
	<b>2 168 904</b>
<b>BMW CODE</b>	<b>L1</b>
2 168 903	150
2 168 904	200
2 168 905	250
2 168 906	300

**"V" DRIVER VDI 3357 - PRISMENFÜHRUNG VDI 3357 - GUIDA A "V" VDI 3357**



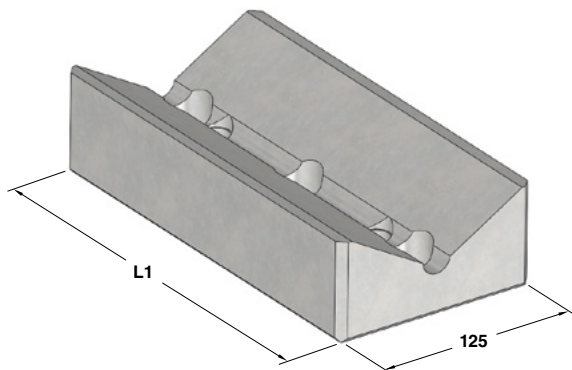
**Notes**  
**Material:** CK45 - HRC: 58÷60

**STOCK**

	<b>BMW CODE</b>
	2 168 919
<b>BMW CODE</b>	<b>L1</b>
2 168 918	150
2 168 919	200
2 168 920	250
2 168 921	300

Standard BMW

**"V" DRIVER VDI 3357 - PRISMENFÜHRUNG VDI 3357 - GUIDA A "V" VDI 3357**

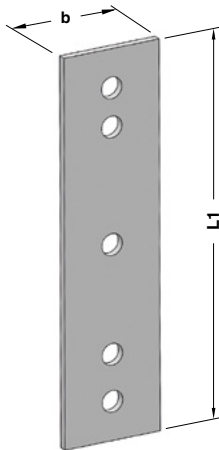


**Notes**  
**Material:** CK45 - HRC: 58÷60

**STOCK**

	<b>BMW CODE</b>
	2 168 923
<b>BMW CODE</b>	<b>L1</b>
2 168 922	150
2 168 923	200
2 168 924	250
2 168 925	300

**DISTANCE PLATE FOR "V" DRIVER  
HÖHENAUSGLEICH FÜR PRISMENFUHRUNG  
DISTANZIALE PER GUIDA A "V"**



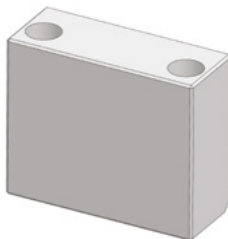
**Notes**  
**Material:** St52

**STOCK**

	<b>BMW CODE</b>
	2 172 953

BMW CODE	b	L1
2 172 952	65	150
2 172 953	65	200
2 172 954	65	250
2 172 955	65	300
2 172 956	125	150
2 172 957	125	200
2 172 958	125	250
2 172 959	125	300

**SLIDE STOP BLOCK - SCHIEBERRANSCHLAG - ARRESTO SLITTA**



**Notes**  
**Material:** CK45

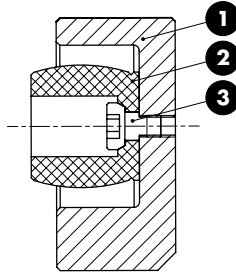
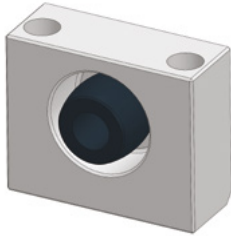
**STOCK**

	<b>BMW CODE</b>
	2 175 393

BMW CODE
2 175 393



**SLIDE STOP BLOCK - SCHIEBERRANSCHLAG - ARRESTO SLITTA**



**Notes**

- 1** Material: CK45
- 2** Material: CO-Polyester Elastomer
- 3** Screw

STOCK



<b>BMW CODE</b>
2 174 768

<b>BMW CODE</b>
2 174 768

Standard BMW

**ANTI-REBOUND ELASTOMER - DÄMPFUNGSELEMENT - AMMORTIZZATORE ANTIRIMBALZO**



**Notes**

**Material:** CO-Polyester Elastomer

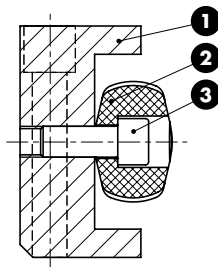
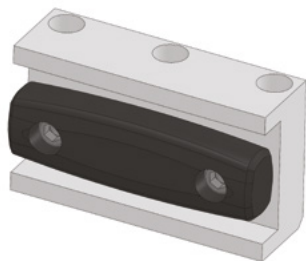
STOCK



<b>BMW CODE</b>
2 174 767

<b>BMW CODE</b>
2 174 767

**SLIDE STOP BLOCK - SCHIEBERRANSCHLAG - ARRESTO SLITTA**



**Notes**

- 1** Material: CK45
- 2** Material: CO-Polyester Elastomer
- 3** M10x30 DIN 912

STOCK

	BMW CODE
	2 174 838
BMW CODE	
2 174 838	

**ANTI-REBOUND ELASTOMER - DÄMPFUNGSELEMENT - AMMORTIZZATORE ANTIRIMBALZO**



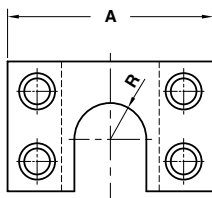
**Notes**

**Material:** CO-Polyester Elastomer

STOCK

	BMW CODE
	2 174 837
BMW CODE	
2 174 837	

**COUPLING PLATE – BEFESTIGUNGSPLATTE - STAFFA DI FISSAGGIO**



**Notes**

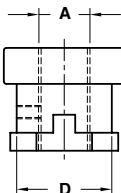
**Material:** CK45

**STOCK**

<b>ORDER EXAMPLE</b> 	<b>BMW CODE</b>	
	2 175 052	
<b>BMW CODE</b>	<b>A</b>	<b>R</b>
2 175 051	100	20
2 175 052	120	25

Standard BMW

**COUPLING NUT - KUPPLUNGSMUTTER - AGGANCIAMENTO STAFFA**



**Notes**

**Material:** CK45

**STOCK**

<b>ORDER EXAMPLE</b> 	<b>BMW CODE</b>	
	2 175 054	
<b>BMW CODE</b>	<b>A</b>	<b>D</b>
2 175 053	M16x1,5	37
2 175 054	M20x1,5	37
2 175 055	M27x2	47
2 175 056	M36x2	47

## SHIM - PRÄGESTEMPEL - SPESSORE



### Notes

**Material:** St37

**STOCK**



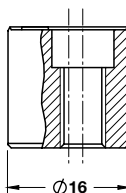
**BMW CODE**

2 168 546

**BMW CODE**

2 168 546

## VISUAL LOCATOR SETTING PUNCH STEMPEL F. ENTGASUNGSNIPPEN PUNZONE DI VISUALIZZAZIONE



### Notes

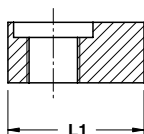
**Material:** X155CrVMo12 - **HRC:** 55±58

**STOCK**

	<b>BMW CODE</b>	<b>Option</b>
	2 171 527	U 25

BMW CODE	Option	BMW CODE	Option	BMW CODE	Option
2 169 003	2 digit number	2 171 529	B + 2 digit number	2 173 812	P + number 3
2 171 527	U + 2 digit number	2 171 530	2 digit number	2 173 813	P + number 4
2 171 528	A + 2 digit number	2 171 531	L	2 173 714	LP + number 1
2 175 080	CN	2 171 532	R	2 173 715	LP + number 2
2 171 530	C	2 174 593	-	2 173 716	RP + number 1
2 169 002	-	2 173 712	P + number 1	2 173 717	RP + number 2
2 171 533	2 digit number	2 173 713	P + number 2		

**KEY - PASSFEDER - CHIAVETTA**



**Notes**

**Material:** CK45

**STOCK**



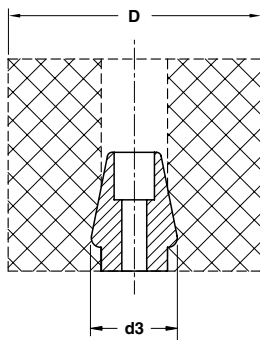
**BMW CODE**

2 175 929

BMW CODE	L1
2 175 928	16
2 175 929	18
2 175 930	20
2 175 931	22
2 175 932	26
2 175 933	32
2 175 934	35
2 175 935	40

Standard BMW

**ELASTOMER SPRING PIN - AUFNAHMEBOLZEN - PERNO PER MOLLE**



**Notes**

**Material:** CK45

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

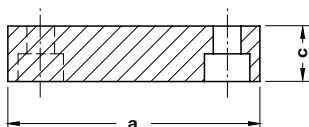
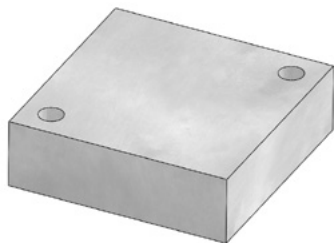


**BMW CODE**

2 169 345

BMW CODE	D	d3
2 169 344	63	28
2 169 345	80-100	32
2 169 346	125	38

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



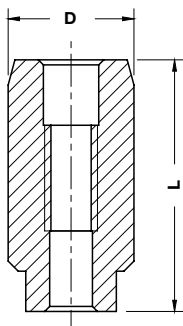
### Notes

**Material:** 90MnCrV8 - **HRC:** 50±52

STOCK

ORDER EXAMPLE	BMW CODE	
	2 171 499	
BMW CODE	a	c
2 171 498	40	12
2 171 499	60	15
2 171 500	70	15
2 171 501	100	20
2 175 147	110	20

## LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO



### Notes

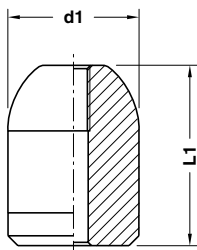
**Material:** 16MnCr5 - **HRC:** 58±60

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK

ORDER EXAMPLE	BMW CODE	
	2 169 053	
BMW CODE	D	L
0 970 435	25	50
2 169 053	25	65
0 970 413	32	50
2 169 054	32	65
0 970 412	40	50
2 169 055	40	65
0 970 411	50	50
2 169 056	50	65

## LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO



### Notes

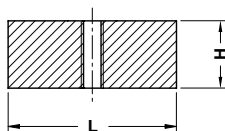
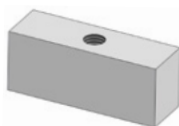
**Material:** 16MnCr5 - **HRC:** 58÷60

STOCK

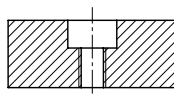
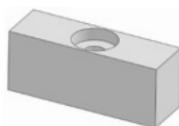
ORDER EXAMPLE	BMW CODE	
	2 172 411	
BMW CODE	d1	L1
2 172 410	22	45
2 172 411	32	50
2 172 412	40	55
2 172 413	50	55
2 173 658	56	80

Standard BMW

## KEY - PASSFEDER - CHIAVETTA



**FORM A**



**FORM B**

### Notes

**Material:** CK45

STOCK

ORDER EXAMPLE	BMW CODE	FORM	
	2 172 224	A	
BMW CODE	H	L	FORM
2 172 053	14	80	A
2 172 224	30	80	A
2 172 808	14	50	A
2 172 809	30	120	A
2 174 226 A	20	50	A
2 174 226 B	20	50	B
2 174 227 A	20	80	A
2 174 227 B	20	80	B
2 174 835	10	50	B
2 174 836	10	80	B

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

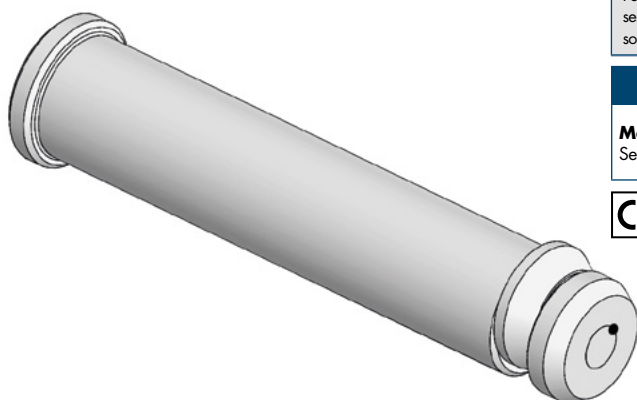
Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

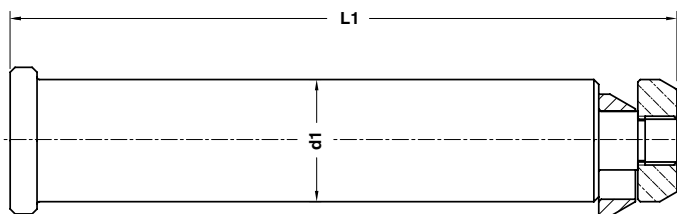
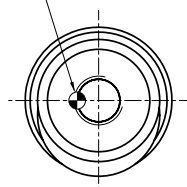
**Notes**

**Material:**

See table - siehe Tabelle - vedi tabella



Security Pin

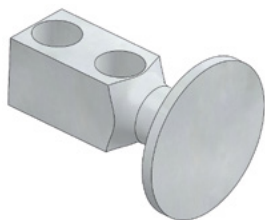


	<b>BMW CODE</b>
	2 168 396

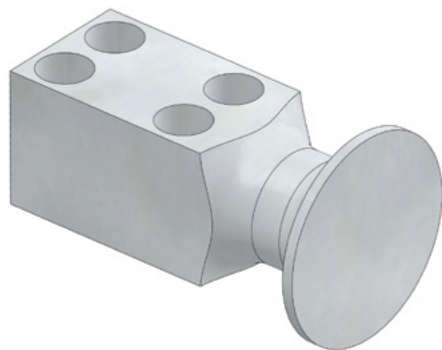
BMW CODE	Max load (kg)	Max die weight (kg)	L1	d1	Material
2 168 395	3200	6400	175	32	CK45
2 168 396	5000	10000	225	40	CK45
2 168 397	8000	16000	273	50	CK45
2 168 398	12500	25000	347	63	CK45
2 168 399	31500	63000	422	76	42CrMo4 + QT



**LIFTING BRACKET WITH ROPE STOP SAFETY**  
**TRAGZAPFEN MIT SEILSICHERUNG**  
**STAFFA DI SOLLEVAMENTO CON SICUREZZA FERMAFUNE**



**FORM A**



**FORM B**



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>

Screws not included



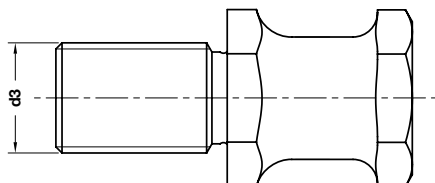
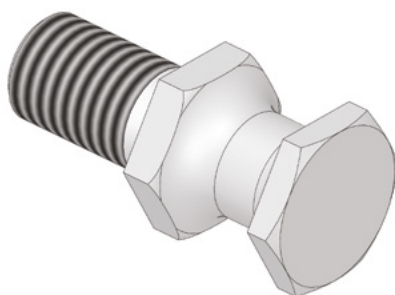
Standard BMW



**BMW CODE**  
**3 275 834**

BMW CODE	Max load (kg)	Max die weight (kg)	FORM	BMW CODE	Max load (kg)	Max die weight (kg)	FORM
2 169 231	320	640	A	3 275 839	5000	10000	A
3 275 834	630	1260	A	3 275 840	8000	16000	B
3 275 835	1250	2500	A	2 169 238	12500	25000	B
3 275 836	2000	4000	A	2 169 239	20000	40000	B
3 275 838	3200	6400	A				

**LIFTING PIN VDI 3366**  
**TRAGSCHRAUBE VDI 3366**  
**PERNO DI SOLLEVAMENTO VDI 3366**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

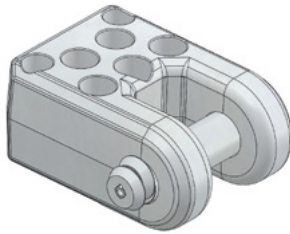
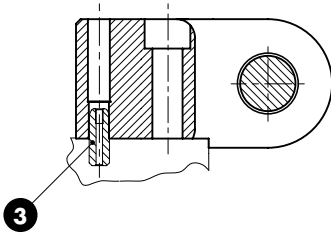
**Material:** CK45 - 700÷800 N/mm<sup>2</sup>



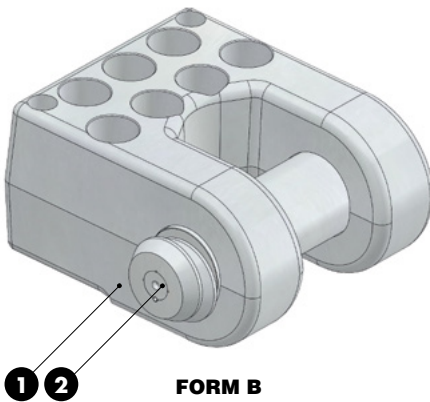
	<b>BMW CODE</b>
	2 172 289

BMW CODE	Max load (kg)	Max die weight (kg)	d3
2 172 288	320	640	M16
2 172 289	500	1000	M20

**LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CENTRAGGI**



**FORM A**



**FORM B**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

- 1** Material: St52
- 2** Material: CK45
- 3** B2 4068 2  
 Material: 16MnCr5 - HRC: 58÷60

Screws not included



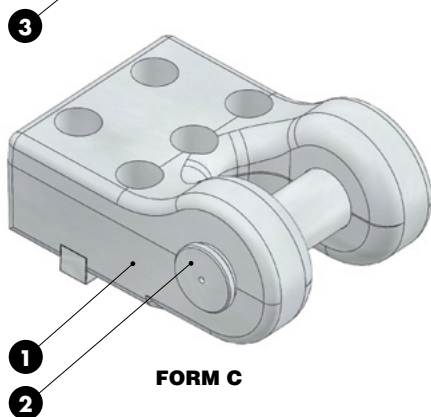
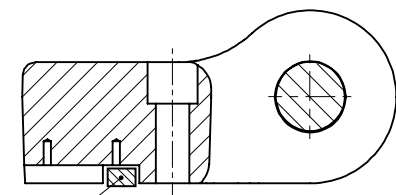
Standard BMW



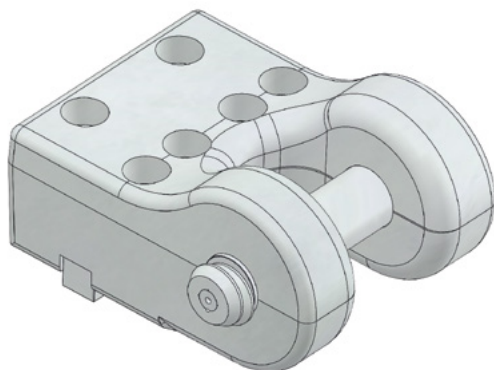
<b>BMW CODE</b>
2 174 861

BMW CODE	Max load (kg)	Max die weight (kg)	FORM	BMW CODE	Max load (kg)	Max die weight (kg)	FORM
2 174 690	3200	6400	A	2 175 233	12500	25000	A
2 174 861	5000	10000	A	2 174 694	18000	36000	B
2 174 692	8000	16000	A				

## LIFTING BRACKET WITH PIN AND KEYS TRAGWANGE MIT TRAGBOLZEN UND PASSFEDER STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CHIAVETTE



**FORM C**



**FORM D**



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

### Notes

- 1** Material: St52
- 2** Material: CK45 - **FORM C**
- 2** Material: 42CrMo4 - **FORM D**
- 3** C14.20 - Material: CK45

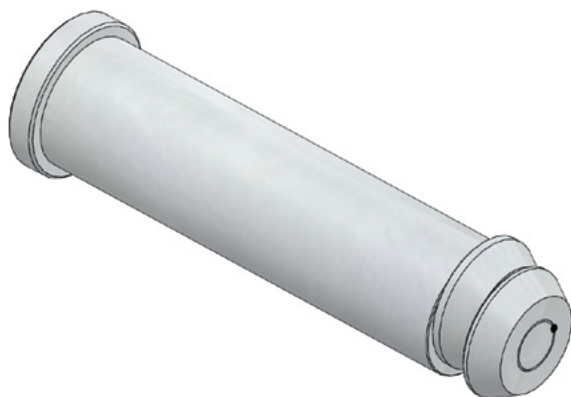
Screws not included



	<b>BMW CODE</b>
	2 174 864

BMW CODE	Max load (kg)	Max die weight (kg)	FORM
2 174 863	25000	50000	C
2 174 864	31500	63000	D

## REPLACEMENT LIFTING PIN FOR LIFTING BRACKET BMW ERSATZTRAGBOLZEN FÜR TRAGWANGE BMW PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO BMW



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

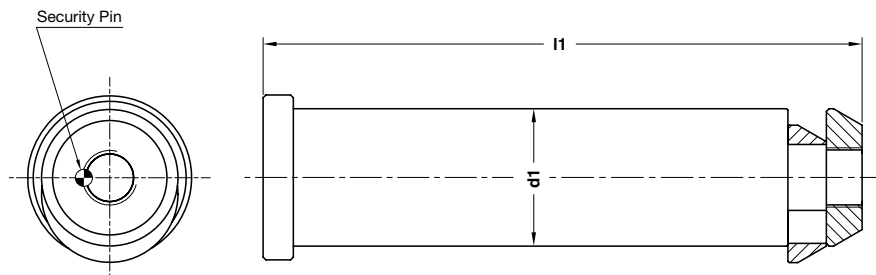
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.



Standard BMW



	<b>BMW CODE</b>
	2 174 867

BMW CODE	Max load (kg)	Max die weight (kg)	l1	d1	Material
2 168 400	3200	6400	158	30	CK45
2 174 867	5000	10000	187	40	CK45
2 168 402	8000	16000	220	50	CK45
2 174 868	12500	25000	246	60	CK45
2 168 404	18000	36000	305	80	CK45
2 174 865	25000	50000	360	80	CK45
2 174 866	31500	63000	405	80	42CrMo4 + QT

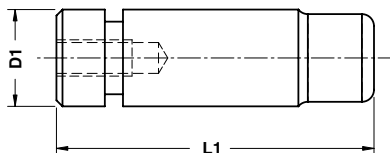
## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

**Material:** 42CrMo4  
800÷1000 N/mm<sup>2</sup>

STOCK



**BMW CODE**  
2 173 660

BMW CODE	D1	L1	BMW CODE	D1	L1
2 173 659	32	111	2 173 663	32	128
2 173 660	40	145	2 173 664	40	165
2 173 661	50	171	2 173 665	50	196
2 173 662	63	206	2 173 666	63	241

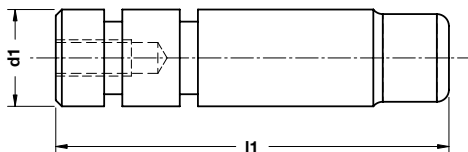
## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

**Material:** 42CrMo4  
Only for replacement  
Nur für Reparatur  
Solo per riparazione

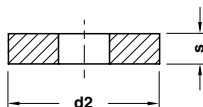
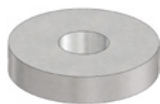
STOCK



**BMW CODE**  
2 173 668

BMW CODE	d1	l1	BMW CODE	d1	l1
2 173 667	32	136	2 173 671	32	153
2 173 668	40	177	2 173 672	40	197
2 173 669	50	211	2 173 673	50	236
2 173 670	63	256	2 173 674	63	291

## WASHER - SCHEIBE - RONDELLA



**STOCK**

### Notes

**Material:** CK45 - HRC: 45÷50



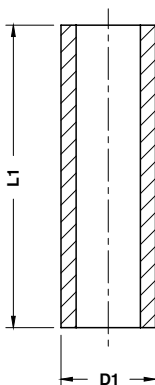
### BMW CODE

**0 281 619**

BMW CODE	d2	s
<b>0 281 618</b>	56	10
<b>0 281 619</b>	42	8
<b>0 281 620</b>	35	6
<b>2 171 891</b>	68	10

# B2 6201 12

## SPACER TUBE - DISTANZBUCHSE - TUBO DISTANZIALE



### Notes

**Material:** St37 - HRC: 60÷64

Delivery time  
Lieferzeit in Werktagen  
Tempi di spedizione

**STOCK** = ●

**10** = ○

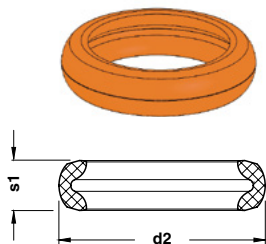


### BMW CODE

**2 168 800**

BMW CODE	D1	L1	Delivery Time	BMW CODE	D1	L1	Delivery Time	BMW CODE	D1	L1	Delivery Time	BMW CODE	D1	L1	Delivery Time
<b>0 266 957</b>	16	125	●	<b>2 168 816</b>	25	80	●	<b>2 168 830</b>	36	150	●	<b>2 173 792</b>	16	<200	○
<b>2 168 802</b>	16	50	●	<b>2 168 817</b>	25	100	●	<b>2 168 831</b>	36	200	●	<b>2 173 793</b>	20	<200	○
<b>2 168 803</b>	16	63	●	<b>2 168 818</b>	25	125	●	<b>2 168 832</b>	42	150	●	<b>2 173 794</b>	25	<200	○
<b>2 168 804</b>	16	80	●	<b>2 168 819</b>	25	200	●	<b>2 168 833</b>	42	200	●	<b>2 173 795</b>	30	<200	○
<b>2 168 807</b>	16	200	●	<b>2 168 820</b>	30	50	●	<b>2 171 893</b>	16	>200	○	<b>2 173 796</b>	36	<200	○
<b>2 168 808</b>	20	50	●	<b>2 168 821</b>	30	63	●	<b>2 171 894</b>	20	>200	○	<b>2 173 797</b>	42	<200	○
<b>2 168 809</b>	20	63	●	<b>2 168 822</b>	30	80	●	<b>2 171 895</b>	25	150	●	<b>3 021 663</b>	16	100	●
<b>2 168 811</b>	20	100	●	<b>2 168 823</b>	30	100	●	<b>2 171 896</b>	25	>200	○	<b>3 021 664</b>	36	100	●
<b>2 168 812</b>	20	125	●	<b>2 168 824</b>	30	125	●	<b>2 171 897</b>	30	>200	○	<b>3 021 666</b>	20	80	●
<b>2 168 813</b>	20	200	●	<b>2 168 825</b>	30	150	●	<b>2 171 898</b>	36	>200	○				
<b>2 168 814</b>	25	50	●	<b>2 168 826</b>	30	200	●	<b>2 171 899</b>	42	>200	○				
<b>2 168 815</b>	25	63	●	<b>2 168 829</b>	36	125	●	<b>2 172 153</b>	36	80	●				

## BUFFER - STOSSDÄMPFER - AMMORTIZZATORE



STOCK

### Notes

**Material:** CO-Polyester Elastomer

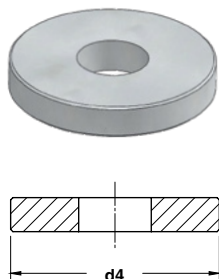


### BMW CODE

2 173 881

BMW CODE	d2	s1	Shore	Max load (kN)
2 173 880	26,2	7,7	55D	5500
2 173 881	32,1	10,8	72D	9000
2 173 882	46,3	17,7	72D	20000
2 173 883	54,6	21,6	55D	30000
2 173 884	61,8	21,5	55D	46000
2 173 885	78,2	30	55D	75000

## WASHER - SCHEIBE - RONDELLA



STOCK

### Notes

**Material:** CK45

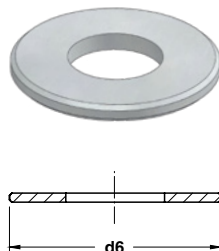


### BMW CODE

2 175 382

BMW CODE	d4
2 175 381	30
2 175 382	35
2 175 383	50
2 175 384	65
2 175 385	70
2 175 386	90

## WASHER - SCHEIBE - RONDELLA



STOCK

### Notes

**Material:** 90MnCrV8 - HRC: 56



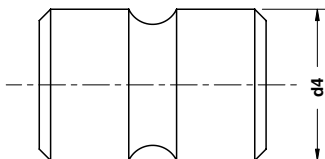
### BMW CODE

2 175 388

BMW CODE	d6
2 175 387	30
2 175 388	35
2 175 389	50
2 175 390	65
2 175 391	70
2 175 392	90



**SHOCK ABSORBER - HALTELEMENT - AMMORTIZZATORE**



**Notes**

**Material:** CO-Polyester Elastomer

**STOCK**



<b>BMW CODE</b>
<b>2 173 698</b>

BMW CODE	d4
2 173 697	40
2 173 698	50
2 173 699	63
2 173 700	80

Standard BMW





# Die Components Normalien Componenti

# FCA

FIAT CHRYSLER AUTOMOBILES

# OMCR<sup>®</sup>







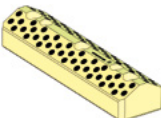





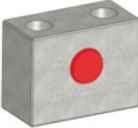







STANDARD DIE COMPONENTS



MAIN  
INDEX

010.90.05	010.90.05	010.90.10	010.90.50	010.90.55
				
Stamp Buchstabenstempel Gruppo punzone	Backing plate Druckplatte Distanziale	Stamp Buchstabenstempel Gruppo punzone marchio emblematico	Visual locator punch Endkontrollstempel Punzone di visualizzazione	Adjustment plate Scheibe Rondella di registro
194	194	195	196	196
010.90.60	010.90.61	010.90.85	025.90.05	025.90.10
				
Key Passfeder Chiavetta	Key Passfeder Chiavetta	Locating cone Kegeldistanz Cono di centraggio	Ball caster Kugelrollensystem Sfera portante	Trestle guide group Führungsgruppe Gruppo guida traliccio
197	197	198	198	199
025.90.35	025.90.40	025.90.45	025.90.55	025.90.60
				
Coil guide roller Bandführung Guida nastro mobile	Coil guide roller Bandführung Guida nastro fisso	Roller group Förderrolle Gruppo rullini	Roller Rolle Rotella	Spring group Federeinheit Gruppo molla
200	200	201	202	202
025.90.65	025.90.70	025.90.75	025.90.80	025.90.85
				
Spring group Federeinheit Gruppo molla	Lifter stop Anschlag Heber Gruppo arresto traliccio	Spring group Federeinheit Gruppo molla	Stripper for blanking dies Abstreifer für platinenschnitte Estrattore per stampi tranciasviluppo	Roller stock lifter Federnde lauffrolle Rullino sollevamento nastro
203	203	204	204	205











<p><b>025.90.90</b></p>  <p>Spring group Federeinheit Gruppo molla</p> <p>205</p>	<p><b>025.90.95</b></p>  <p>Pad retainer Zugbolzensatz Gruppo di arresto</p> <p>206</p>	<p><b>025.90.95</b></p>  <p>Pad retainer Zugbolzensatz Gruppo di arresto</p> <p>206</p>	<p><b>025.90.105</b></p>  <p>Roller Rolle Gruppo rullo di evacuazione</p> <p>207</p>	<p><b>025.90.155</b></p>  <p>Guide post group Führungssäule mit führungs-lager Gruppo colonna</p> <p>208</p>
<p><b>025.90.160</b></p>  <p>Spring group Federeinheit Gruppo molla</p> <p>209</p>	<p><b>030.90.05</b></p>  <p>Compensation block Abstandsblock Tassello di compensazione</p> <p>210</p>	<p><b>030.90.10</b></p>  <p>Spacer plate toothed Distanzplatte gezahnt Tassello di compensazione</p> <p>210</p>	<p><b>030.90.15</b></p>  <p>Pre-centering punch Stempelvonzentrierung Precentraggio punzone</p> <p>211</p>	<p><b>030.90.20</b></p>  <p>Air pin Unterluftbolzen Candela</p> <p>211</p>
<p><b>030.90.40</b></p>  <p>Gage Einweiser Riferimento</p> <p>212</p>	<p><b>030.90.41</b></p>  <p>Gage hardened Einweiser gehärtet Riferimento indurito</p> <p>212</p>	<p><b>030.90.45</b></p>  <p>Gage for sensor Einweiser für teillagekontrolle Riferimento per sensore</p> <p>213</p>	<p><b>030.90.165</b></p>  <p>Air relief tubing Tube Tubetto sfogo aria</p> <p>213</p>	<p><b>040.90.10</b></p>  <p>Flange lifter Abstreifer Sflangiatore</p> <p>214</p>
<p><b>045.90.90</b></p>  <p>Key Passfeder Chiavetta</p> <p>214</p>	<p><b>050.85.10</b></p>  <p>Roller cam units CRX Rollenschieber CRX Camma a rullo CRX</p> <p>215</p>	<p><b>050.90.30</b></p>  <p>Aerial cam unit CHD Oben hängender schieber CHD Unità a camme sospesa CHD</p> <p>216</p>	<p><b>050.90.30</b></p>  <p>Aerial cam unit CHV Oben hängender schieber CHV Unità a camme sospesa CHV</p> <p>217</p>	<p><b>050.90.30</b></p>  <p>Aerial cam unit CLB Oben hängender schieber CLB Unità a camme sospesa CLB</p> <p>218</p>

<b>050.90.65</b>	<b>050.90.70</b>	<b>050.90.75</b>	<b>050.90.90</b>	<b>050.90.95</b>
				
Distance plate for wear plate Höhenausgleich für gleitplatte Distanziale per piastra	Wear plate self-lubricating Gleitplatte bronze mit festschmierstoff Piastra guida autolubrificante	Wear plate steel Gleitplatte stahl Piastra guida in acciaio	Wear plate steel Deckleiste Stahl Piastra guida in acciaio	Wear plate steel Deckleiste Stahl Piastra guida in acciaio
219	219	220	220	221
<b>050.90.105</b>	<b>050.90.110</b>	<b>050.90.115</b>	<b>050.90.120</b>	<b>050.90.150</b>
				
"V" driver steel Prismenführung Guida a "V" in acciaio	"V" driver self-lubricating Prismenführung bronze mit festschmierstoff Guida a "V" autolubrificante	Distance plate for "V" driver Höhenausgleich für Prismenführung Distanziale per guida a "V"	Angular guide Winkelleiste Guida angolare	Fork pawl Befestigungsplatte Forcella nottolino
221	222	222	223	224
<b>050.90.177</b>	<b>050.90.200</b>	<b>050.90.205</b>	<b>065.90.30</b>	<b>065.90.35</b>
				
Positive return plate Zwangsrückholer Gancio di sicurezza	Stop block Anschlag Arresto	Slide stop block Schieberanschlag Arresto slitta	Retainer bolt Zugbolzensatz Gruppo tirante	Retainer bolt Zugbolzensatz Gruppo tirante
224	225	225	226	227
<b>065.90.40</b>	<b>065.90.45</b>	<b>065.90.65</b>	<b>065.90.70</b>	<b>065.90.70</b>
				
Retainer bolt Zugbolzensatz Gruppo tirante	Retainer bolt Zugbolzensatz Gruppo tirante	Shock absorber Halteelement Ammortizzatore	Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida DIN 9833	Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida DIN 9833
228	229	230	231	232

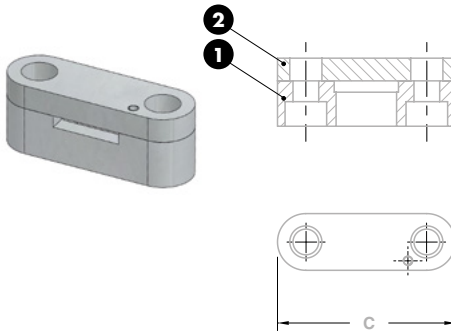
<p><b>065.90.75</b></p>  <p>Guide post Führungssäule Colonna guida</p> <p>233</p>	<p><b>065.90.80</b></p>  <p>Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida DIN 9833</p> <p>234</p>	<p><b>065.90.85</b></p>  <p>Bush self-lubricating DIN 9834 Führungsbuchse DIN 9834 Boccola autolubrificante DIN 9834</p> <p>235</p>	<p><b>065.90.90</b></p>  <p>Toe clamp Haltestück Ritegno per boccola</p> <p>235</p>	<p><b>065.90.96</b></p>  <p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p> <p>236</p>
<p><b>065.90.102</b></p>  <p>Toe clamp Haltestück Ritegno per boccola</p> <p>236</p>	<p><b>065.90.120</b></p>  <p>Guide bar self-lubricating VDI 3357 Führungsleite bronze mit festschmierstoff VDI 3357 Lardone autolubrificante VDI 3357</p> <p>237</p>	<p><b>065.90.120</b></p>  <p>Wear plate steel VDI 3357 Gleitplatte stahl VDI 3357 Piastra guida in acciaio VDI 3357</p> <p>238</p>	<p><b>065.90.125</b></p>  <p>Distance plate for wear plate Höhenausgleich für gleitplatte</p> <p>239</p>	<p><b>065.90.130</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>240</p>
<p><b>065.90.190</b></p>  <p>Locating pin Zentrierbolzen Centraggio</p> <p>240</p>	<p><b>065.90.195</b></p>  <p>Balance block Distanzstück Distanziale</p> <p>241</p>	<p><b>065.90.200</b></p>  <p>Guide pin retainer plate Sicherungsplatte Ritegno per colonna</p> <p>241</p>	<p><b>075.90.45</b></p>  <p>Spring plunger Federne druckstücke Espulsore a molla</p> <p>242</p>	<p><b>075.90.110</b></p>  <p>Pressure plate Druckplatte Piastra di reazione</p> <p>243</p>
<p><b>075.90.115</b></p>  <p>Pressure plate Druckplatte Piastra di reazione</p> <p>243</p>	<p><b>075.90.120</b></p>  <p>Pressure plate Druckplatte Piastra di reazione</p> <p>244</p>	<p><b>080.90.60</b></p>  <p>Clamp Befestigungselement Morsetto</p> <p>244</p>	<p><b>080.90.65</b></p>  <p>Union nut Befestigungselemen Dado di unione</p> <p>245</p>	<p><b>080.90.70</b></p>  <p>Union nut Befestigungselemen Dado di unione</p> <p>245</p>

080.90.75	080.90.80	080.90.90	085.90.135	085.90.140
				
Sleeve Führungseinheit Canotto guida	Guide post Führungs- saule Colonna per traliccio	Elastomer cap Elastomerdruckstück Puntalino elastico	Coupling plate Befestigungs- platte Staffa di reazione	Coupling nut Kupplungs- mutter Aggancio staffa
246	246	247	247	248
095.90.10	095.90.20	095.90.25	095.90.30	095.90.30
				
Threaded steel insert Gewindeinsatz Aus Stahl Inserto filettato in acciaio	Elastomer spring Elastomerfeder Molla in elastomero	Elastomer spring pin Aufnahmebolzen Perno per molle in elastomero	Replacement lifting pin for lifting bracket Ersatztragbolzen für tragwange Perno di ricambio per staffa di sollevamento	Replacement lifting pin for lifting bracket Ersatztragbolzen für tragwange Perno di ricambio per staffa di sollevamento
248	249	249	250	251
095.90.35	095.90.40	095.90.60	095.90.71	095.90.75
				
Lifting pin Tragbolzen mit fallringsicherung Perno di sollevamento	Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento	Lifting bracket Tragwange mit fallringsicherung Staffa di sollevamento	Lifting bracket with pin and locating pins Tragwange mit Tragbolzen und Zentrierbolzen Staffa di sollevamento completa di perno e centraggi	Lifting pin Tragbolzen mit fallringsicherung Perno di sollevamento
252	253	254	255	256
095.90.75	STQ 10012 - BR	STQ 10012 - ACC	STQ 10012 - TIPO	STQ 10012 - BR
				
Lifting pin Tragbolzen mit fallringsicherung Perno di sollevamento	Wear plate self-lubricating Gleitplatte bronze mit festschmierstoff Piastra guida autolubrificante	Wear plate steel Gleitplatte stahl Piastra guida in acciaio	Distance plate for wear plate Höhenausgleich für gleitplatte Distanziale per piastra	Guide bar self-lubricating Führungsleite bronze mit festschmierstoff Lardone autolubrificante
257	258	259	260	261



STQ 10012 - ACC	STQ 20027 - RIF M18	STQ 40005 - ST	STQ 40005 - PIA-PA	STQ 40005 - PIA-PA
				
Guide bar steel Führungsleite stahl Lardone in acciaio	Front gage Einlaufanschlag Portasensore	Bracket for clamps Klammern für clamps Staffe per clamps	Plate for clamps Haltestücke für clamps Piastrina per clamps	Plate for clamps Haltestücke für clamps Piastrina per clamps
261	262	263	264	264
STQ 40005 - PIA-PA	STQ 40005 - PIA-PR	STQ 40010 - CNT	STQ 40011 - CTN	STQ 40013 - CH
				
Plate for clamps Haltestücke für clamps Piastrina per clamps	Plate for clamps Haltestücke für clamps Piastrina per clamps	Locating Zentrierung Centraggio stampo	Stop block Anschlag Fine corsa dritto e a "V"	Key Passfeder Chiavetta di reazione
265	265	266	266	266

## STAMP - BUCHSTABENSTEMPEL - GRUPPO PUNZONE



## Notes

**1 2** Material: CK45

STOCK



WEB

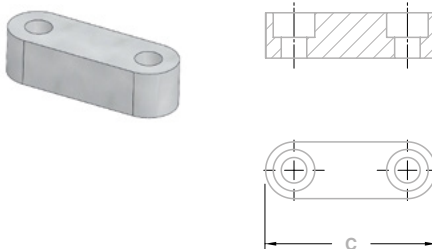


FCA CODE

GRLO\_4P\_163247

FCA CODE	C	Nr. of Punch
GRLO_3P_123045	45	3
GRLO_4P_163247	47	4
GRLO_8P_324863	63	8

## BACKING PLATE - DRUCKPLATTE - DISTANZIALE



## Notes

Material: 90MnVCr8KU - HRC: 56÷58

STOCK



WEB



FCA CODE

TCON\_4P\_163247

FCA CODE	C	Nr. of punch
TCON_3P_123045	45	3
TCON_4P_163247	47	4
TCON_8P_324863	63	8

STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO EMBLEMATICO



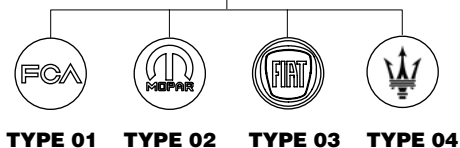
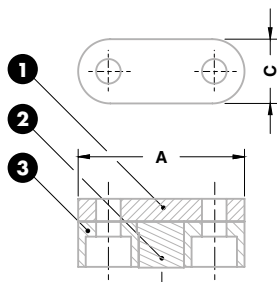
**Notes**

**1 2**  
**Material:** 90MnCrV8 - **HRC:** 54÷56

**3** **Material:** 36CrNiMo4 - **HRC:** 48÷50



\* Specify the type of trademark punch  
 Typ Markenstempel angeben  
 Specificare il tipo di punzone marchio

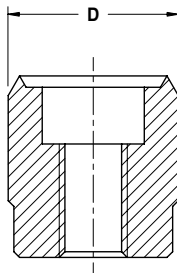


Standard FCA

ORDER EXAMPLE	FCA CODE	TYPE
	GRME_N15052022	02

FCA CODE	A	C
GRME_N10044017	44	17
GRME_N15052022	52	22

## VISUAL LOCATOR PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE



## Notes

**Material:** X155CrVNo121**HRC:** 58±60

STOCK



WEB

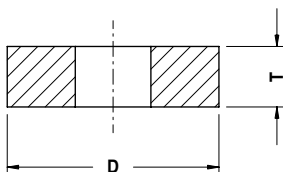


## COMMODITY CODE

21-750-0028

COMMODITY CODE	D
21-750-0019	13
21-750-0028	15
21-750-0038	18
21-750-0048	21

## ADJUSTMENT PLATE - SCHEIBE - RONDELLA DI REGISTRO



## Notes

**Material:** 42CrMo4

STOCK



WEB

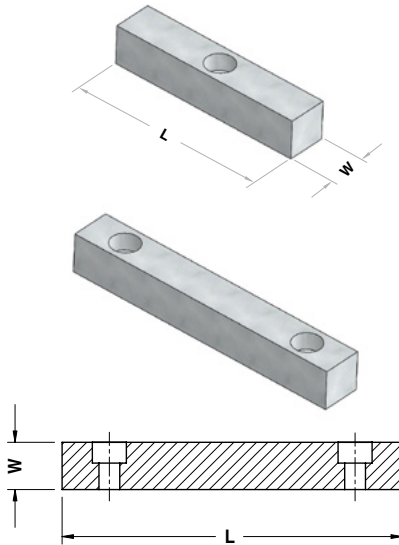


## COMMODITY CODE

19-010-0119

COMMODITY CODE	D	T
19-010-0121	12	3
19-010-0119	14	4
19-010-0118	17.5	4
19-010-0117	20.5	4

## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



## Notes

Material: CK45

STOCK



WEB



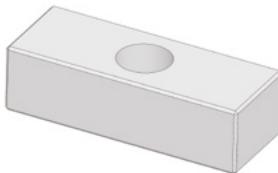
## COMMODITY CODE

19-010-9430

COMMODITY CODE	L	W	Holes
19-010-0089	80	25	1
19-010-9430	125	25	1
19-010-9431	180	25	2
19-010-0088	80	30	1
19-010-9432	125	30	1
19-010-9433	180	30	2

Standard FCA

## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



## Notes

Material: CK45

STOCK



WEB



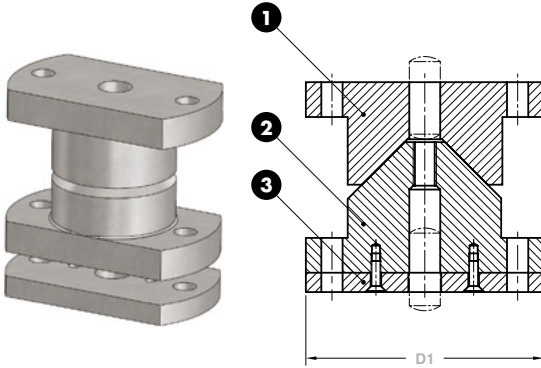
## FCA CODE

Ch\_R\_034090

## FCA CODE

Ch\_R\_034090

## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



## Notes

① ②

**Material:** 16MnCr5 - HRC: 60÷62③ **Material:** CK45

STOCK



WEB

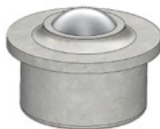
ORDER  
EXAMPLE

FCA CODE

CN\_120\_B

FCA CODE	COMMODITY CODE	D1
CN_100_B	19-010-0082	100
CN_120_B	19-010-0085	120

## BALL CASTER - KUGELROLLENSYSTEM - SFERA PORTANTE



## Notes

**Material:** Steel

STOCK



WEB

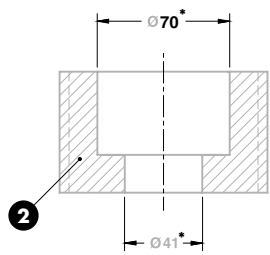
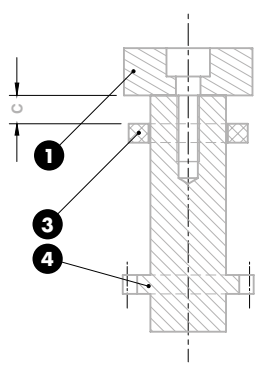
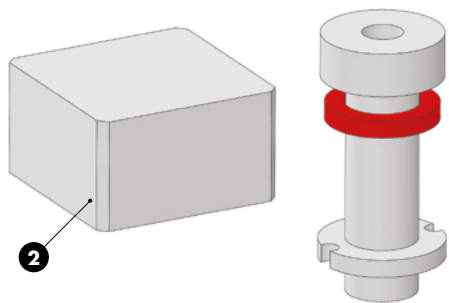
ORDER  
EXAMPLE

FCA CODE

SF\_KU30

FCA CODE
SF_KU30

TRESTLE GUIDE GROUP - FÜHRUNGSGRUPPE - GRUPPO GUIDA TRALICCIO



\* To be performed after assembling with trestle.  
 Muss nach dem Zusammenbau mit der Schiene durchgeführt werden.  
 Da eseguire dopo assemblaggio con traliccio.

**Notes**

- 1 2 **Material:** CK45
- 3 **Material:** Urelast 92 SH
- 4 **Material:** 16MnCr5 - HRC: 58÷60

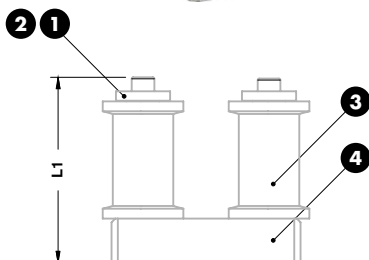
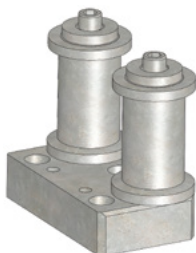
**Application example**

STOCK WEB

Standard FCA

	FCA CODE
	GRG_TRA_C25
FCA CODE	C
GRG_TRA_C15	15
GRG_TRA_C25	25
GRG_TRA_C30	50

## COIL GUIDE ROLLER - BANDFÜHRUNG - GUIDA NASTRO FISSO



## Notes

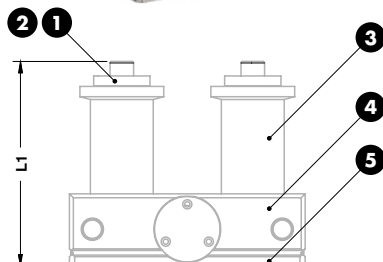
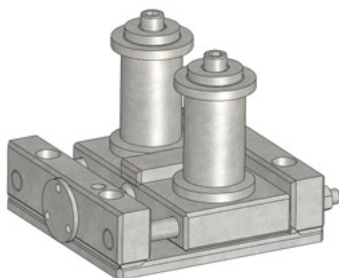
- 1 2 Material:** CK45
- 3 Material:** 16MnCr5 - HRC: 58÷60
- 4 Material:** Si37



ORDER EXAMPLE	FCA CODE
	GUN_F_73159

FCA CODE	L1	Stroke
GUN_F_55141	141	13 - 23
GUN_F_73159	159	48

## COIL GUIDE ROLLER - BANDFÜHRUNG - GUIDA NASTRO MOBILE



## Notes

- 1 2 Material:** CK45
- 3 Material:** 16MnCr5 - HRC: 58÷60
- 4 5 Material:** Si37

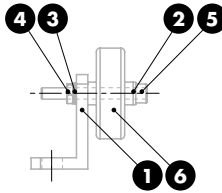
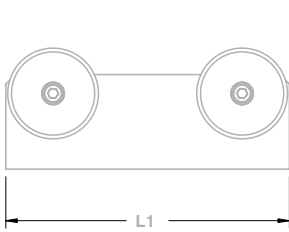


ORDER EXAMPLE	FCA CODE
	GUN_M_73157

FCA CODE	L1	Stroke
GUN_M_55150	150	13
GUN_M_73157	157	23

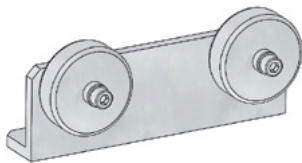


ROLLER GROUP - FÖRDERROLLE - GRUPPO RULLINI

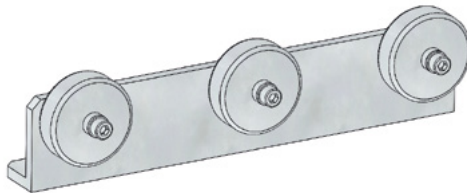


Notes

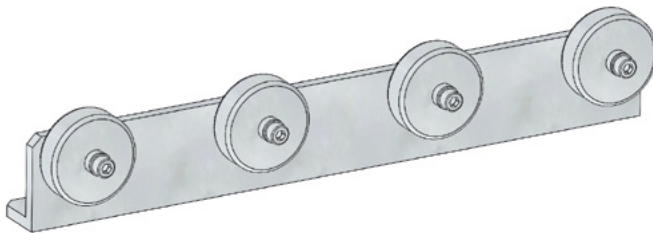
- 1 Material: St52
- 2 3 Washer for M6
- 4 Nut for M6
- 5 M6x50 DIN 912
- 6 025.90.55



FORM A



FORM B

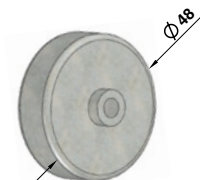


FORM C

ORDER EXAMPLE	FCA CODE
	SP_R_250

FCA CODE	L1	FORM
SP_R_150	150	A
SP_R_250	250	B
SP_R_350	350	C

## ROLLER - ROLLE - ROTELLA



## Notes

**Material:** Steel

STOCK



WEB



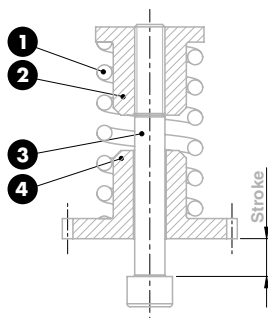
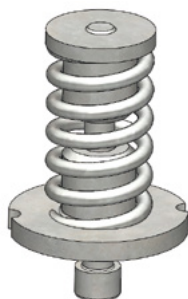
FCA CODE

ROT\_048015

FCA CODE

ROT\_048015

## SPRING GROUP - FEDEREINHEIT - GRUPPO MOLLA



## Notes

- 1 Spring
- 2 4 **Material:** CK45
- 3 M12x150 DIN 912

STOCK



WEB



FCA CODE

GR\_MTR\_C15

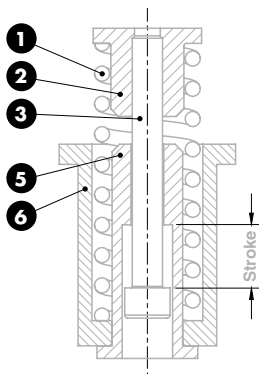
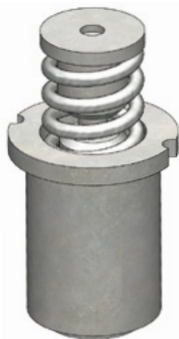
FCA CODE

Stroke

GR\_MTR\_C15

15

## SPRING GROUP - FEDEREINHEIT - GRUPPO MOLLA



## Notes

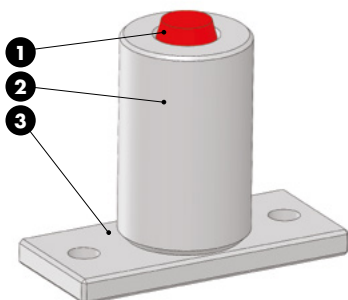
- 1 Spring
- 2 5 6 Material: CK45
- 3 M12x150 DIN 912



ORDER EXAMPLE	FCA CODE
	GR_MO_C50
FCA CODE	Stroke
GR_MO_C25	25
GR_MO_C50	50

Standard FCA

## LIFTER STOP - ANSCHLAG HEBER - GRUPPO ARRESTO TRALICCIO



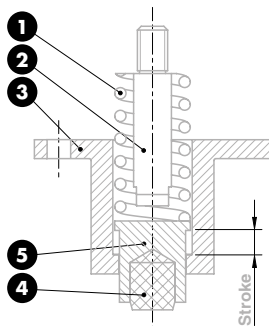
## Notes

- 1 Material: Elastomer 90SH
- 2 Material: C40
- 3 Material: Fe320



ORDER EXAMPLE	FCA CODE
	GRA_TRA1
FCA CODE	
GRA_TRA1	

## SPRING GROUP - FEDEREINHEIT - GRUPPO MOLLA



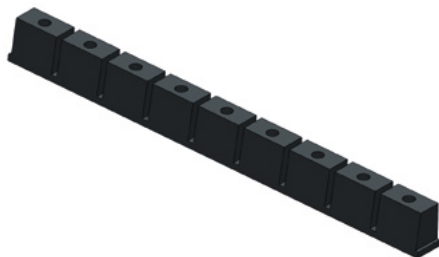
## Notes

- ① Spring
- ② ③ **Material:** 16MnCr5
- ④ **Material:** Urelast 90 SH
- ⑤ **Material:** 36CrNiMo4



ORDER EXAMPLE 	FCA CODE
	GR_RIM_TRA1
FCA CODE	Stroke
GR_RIM_TRA1	13

STRIPPER FOR BLANKING DIES  
 ABSTREIFER FÜR PLATINENSCHNITTE  
 ESTRATTORE PER STAMPI TRANCIASVILUPPO



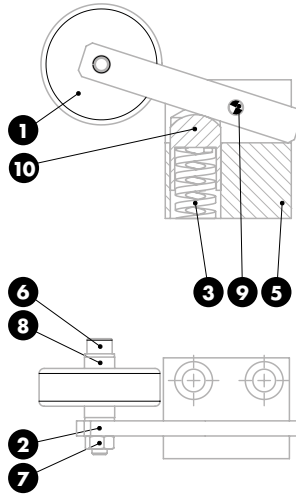
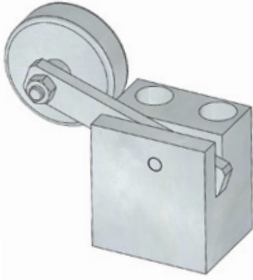
## Notes

**Material:** Elastomer 70SH



ORDER EXAMPLE 	FCA CODE
	ES_EL_027306
FCA CODE	
ES_EL_027306	

ROLLER STOCK LIFTER - FEDERENDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO



Notes

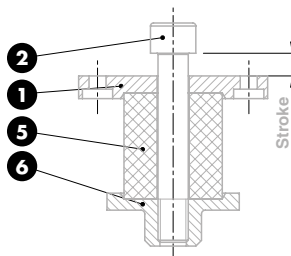
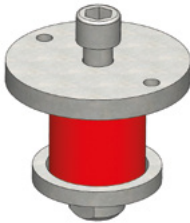
- 1 Material:** Steel  
ROT\_048015 - 025.90.55
- 2 5 Material:** St37
- 3** Spring - load = 2 kg
- 6** M6x40 DIN 912
- 7** M6 DIN 934
- 8** DIN 127
- 9** 6x30 DIN 6325
- 10 Material:** 16MnCr5



ORDER EXAMPLE	FCA CODE
	GRRU_SN_040080
FCA CODE	
GRRU_SN_040080	

Standard FCA

SPRING GROUP - FEDEREINHEIT - GRUPPO MOLLA



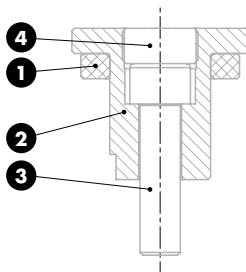
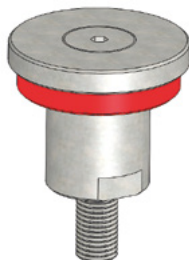
Notes

- 1 Material:** CK45
- 2** M16x100 DIN 912
- 5 Material:** Elastomer 92 SH
- 6 Material:** 36NiCrMo4



ORDER EXAMPLE	FCA CODE
	GR_MTR_C12
FCA CODE	Stroke
GR_MTR_C12	12

## PAD RETAINER - ZUGBOLZENSATZ - GRUPPO DI ARRESTO



## Notes

- 1 Material:** Elastomer 90SH
- 3** M16x60 DIN 912
- 4 Material:** CK45
- 2 Material:** 36CrNiMo4



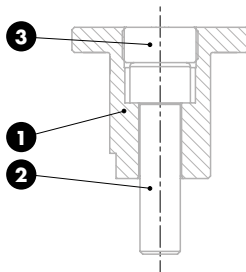
FCA CODE

GR\_AR\_070100

FCA CODE

GR\_AR\_070100

## PAD RETAINER - ZUGBOLZENSATZ - GRUPPO DI ARRESTO



## Notes

- 1 Material:** 36CrNiMo4
- 2** M16x60 DIN 912
- 3 Material:** CK45



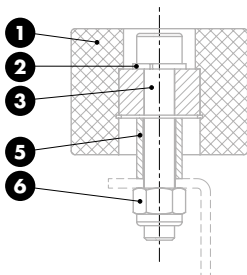
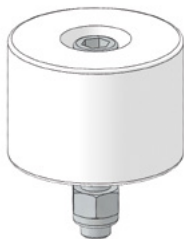
FCA CODE

GR\_SI\_070100

FCA CODE

GR\_SI\_070100

## ROLLER - ROLLE - GRUPPO RULLO DI EVACUAZIONE



## Notes

- 1 **Material:** Nylon
- 2 DIN 127
- 3 M12x70 DIN 912
- 5 **Material:** CK45
- 6 M12 DIN 6924



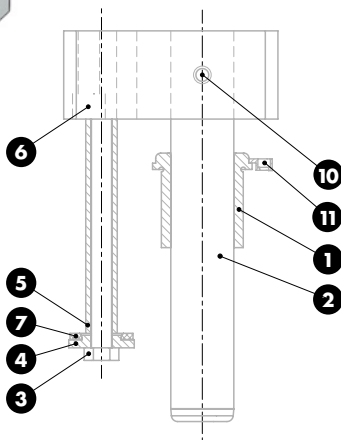
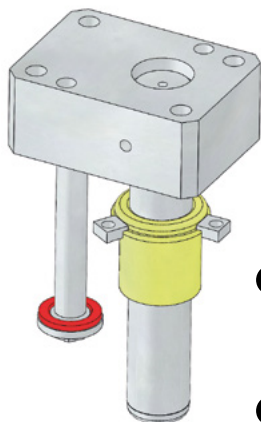
FCA CODE

GRRU\_EV\_070050

FCA CODE

GRRU\_EV\_070050

## GUIDE POST GROUP - FUHRUNGSSÄULE MIT FÜHRUNGSLAGER - GRUPPO COLONNA



## Notes

- 1** Material: Bronze - HB>190
- 2** Material: 16MnCr5 - HRC: 58÷60
- 3** **4** Material: CK45
- 5** Material: C12
- 6** Material: St52
- 7** Material: Elastomer 90 SH
- 10** M12x30 DIN 913
- 11** Material: St37

STOCK



WEB

ORDER  
EXAMPLE

FCA CODE

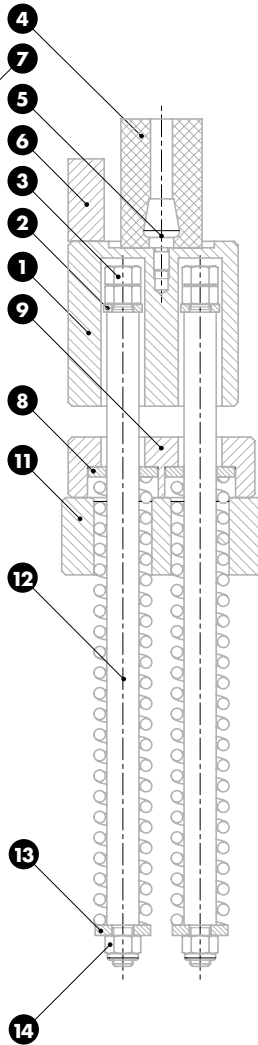
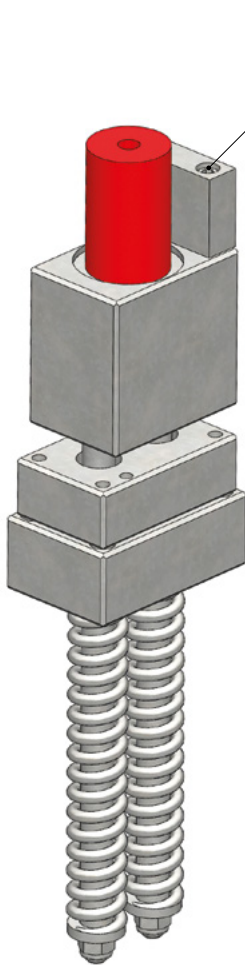
GRC\_AR\_D50300

FCA CODE

GRC\_AR\_D50300



SPRING GROUP - FEDEREINHEIT - GRUPPO MOLLA



Notes

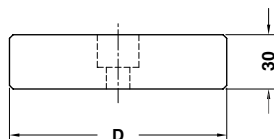
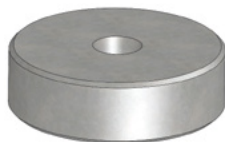
- 1 9 11 Material:** St37
- 2 8 13 Material:** CK45
- 3** M16 DIN 934
- 4 5** 095.90.20 - 095.90.25
- 6 12 Material:** 36NiCrMo4
- 7** M10x60 DIN912
- 14** M16 DIN 6924

STOCK WEB

Standard FCA

	FCA CODE
	GR_MTR_C120
FCA CODE	Stroke
GR_MTR_C120	120

## COMPENSATION BLOCK - ABSTANDSBLOCK - TASSELLO DI COMPENSAZIONE



## Notes

**Material:** 42CrMo4 - **HRC:** 46÷48

STOCK



WEB

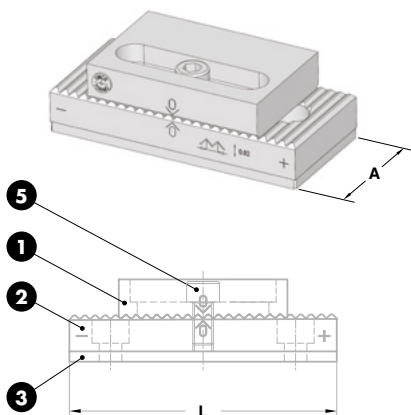


FCA CODE

TC\_100030

FCA CODE	COMMODITY CODE	D
TC_080030	19-235-0058	80
TC_100030	19-235-0057	100
TC_120030	19-235-0054	120

## SPACER PLATE TOOTHED - DISTANZPLATTE GEZAHNT - TASSELLO DI COMPENSAZIONE



5

1

2

3

## Notes

**1 2 Material:** 90MnCrV8  
**HRC:** 58÷60

**3 Material:** X155CrVMo12

**5** DIN 912

STOCK



WEB

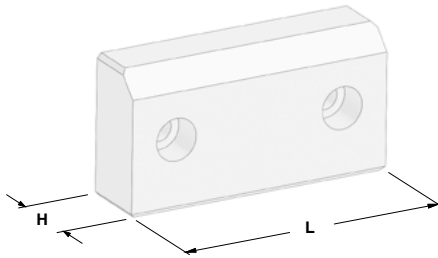


FCA CODE

TCRS\_16080

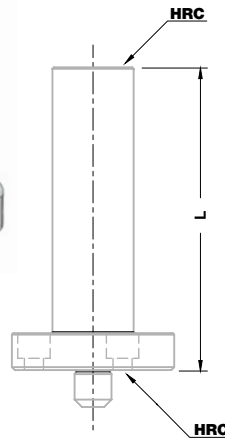
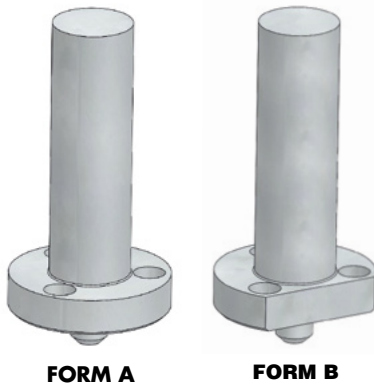
FCA CODE	COMMODITY CODE	A	L
TCRS_13060	19-010-0123	60	130
TCRS_16080	19-010-0122	80	160

PRE-CENTERING PUNCH - STEMPELVORZENTRIERUNG - PRECENTRAGGIO PUNZONE



Notes		
<b>Material:</b> Ertalon		
<b>STOCK</b>	<b>3D</b>	<b>WEB</b>
<b>ORDER EXAMPLE</b>	<b>FCA CODE</b>	
	PPSP_90SH	
<b>FCA CODE</b>	<b>L</b>	<b>H</b>
PPSP_100SH	100	20
PPSP_90SH	115	31

AIR PIN - UNTERLUFTBOLZEN - CANDELA

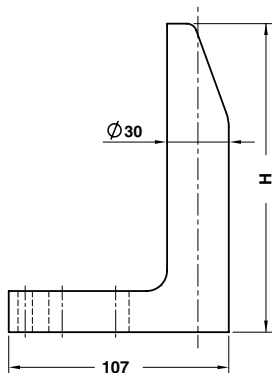


Notes	
<b>Material:</b> 42CrMo4 - <b>HRC:</b> 50÷52	
<b>10</b>	<b>3D</b>
	<b>WEB</b>

<b>ORDER EXAMPLE</b>	<b>FCA CODE</b>
	CA_A_50

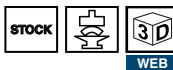
FCA CODE	COMMODITY CODE	L	FORM	FCA CODE	COMMODITY CODE	L	FORM
CA_A_25	19-235-0142	25	A	CA_B_25	19-235-0068	25	B
CA_A_50	19-235-0141	50	A	CA_B_50	19-235-0067	50	B
CA_A_75	19-235-0140	75	A	CA_B_75	19-235-0066	75	B
CA_A_100	19-235-0143	100	A	CA_B_100	19-235-0065	100	B
CA_A_125	19-235-0139	125	A	CA_B_125	19-235-0064	125	B
CA_A_150	19-235-0138	150	A	CA_B_150	19-235-0063	150	B
CA_A_175	19-235-0073	175	A	CA_B_175	19-235-0062	175	B
CA_A_200	19-235-0071	200	A	CA_B_200	19-235-0061	200	B
CA_A_225	19-235-0070	225	A	CA_B_225	19-235-0060	225	B
CA_A_250	19-235-0069	250	A	CA_B_250	19-235-0059	250	B

## GAGE - EINWEISER - RIFERIMENTO



## Notes

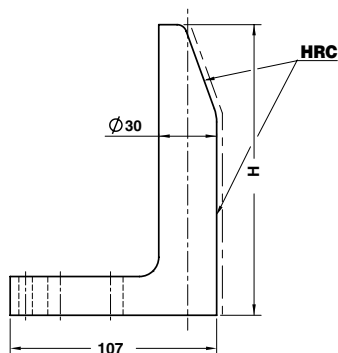
Material: CK60



ORDER EXAMPLE	FCA CODE
	RIF_L_090

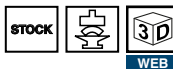
FCA CODE	COMMODITY CODE	H
RIF_L_065	19-010-1706	65
RIF_L_090	19-010-1709	90
RIF_L_120	19-010-1712	120
RIF_L_150	19-010-1715	150
RIF_L_180	19-010-1718	180
RIF_L_250	19-010-1725	250

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



## Notes

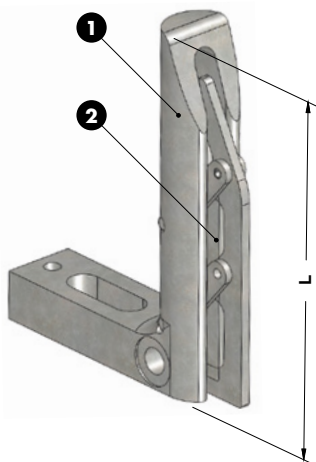
Material: CK60 - HRC: 56÷60



ORDER EXAMPLE	COMMODITY CODE
	19-010-0209

COMMODITY CODE	H
19-010-0208	65
19-010-0209	90
19-010-0210	120
19-010-0211	150
19-010-0212	180
19-010-0213	250

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE



## Notes

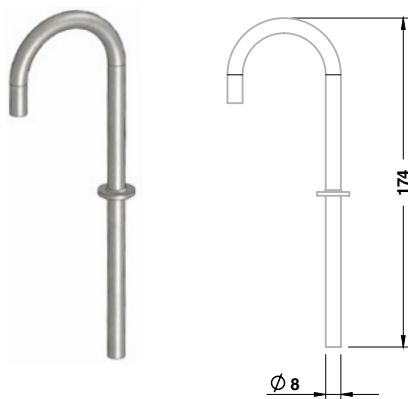
- 1 Material: CK60  
 2 Material: St37 - HRC: 58±60



ORDER EXAMPLE	FCA CODE
	RIF_M12L150
FCA CODE	L
RIF_M12L120	120
RIF_M12L150	150
RIF_M12L180	180
RIF_M12L250	250

Standard FCA

## AIR RELIEF TUBING - TUBE - TUBETTO SFOGO ARIA



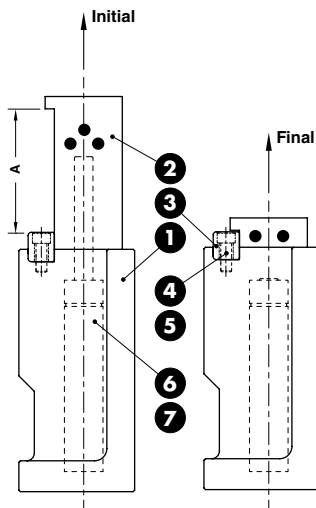
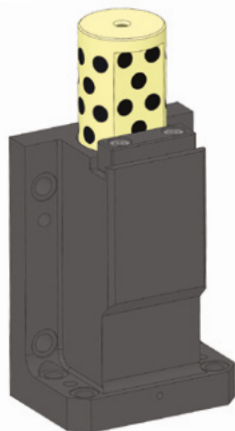
## Notes

Material: Steel



ORDER EXAMPLE	FCA CODE
	TU_08174
FCA CODE	
TU_08174	

## FLANGE LIFTER - ABSTREIFER - SFLANGIATORE



## Notes

- 1 **Material:** EN-GJL300
- 2 **Material:** Bronze + Graphite - **HB**>190
- 3 **Material:** 36NiCrMo4
- 4 M8x30 DIN 912
- 5 Schnorr Ø8
- 6 Gas Spring
- 7 M6x12 DIN 7991

STOCK



WEB

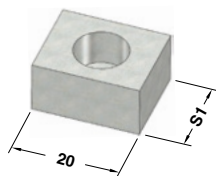


## FCA CODE

C16.30.50100

Supplier No.	A	Initial (daN)	Final (daN)
C16.30.50050	50	50	86
C16.30.50100	50	100	172
C16.30.50150	50	150	258
C16.30.50200	50	200	344
C16.30.80050	80	50	86
C16.30.80100	80	100	172
C16.30.80150	80	150	258
C16.30.80200	80	200	344

## KEY - PASSFEDER - CHIAVETTA



## Notes

**Material:** CK45

STOCK



WEB



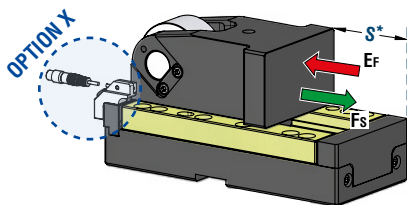
## FCA CODE

CH\_MA\_101620

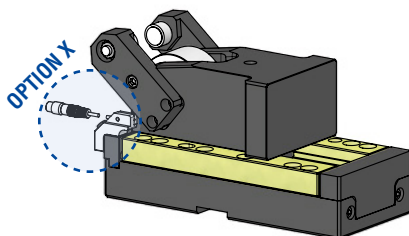
FCA CODE	S1
CH_MA_081220	12
CH_MA_101620	16

ROLLER CAM UNITS CRX - ROLLENSCHIEBER CRX - CAMMA A RULLO CRX

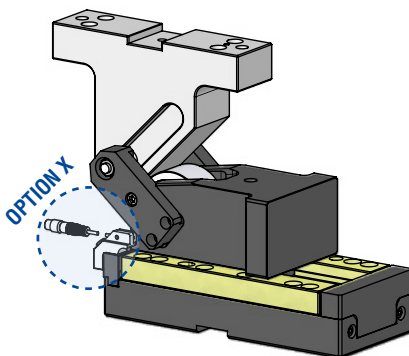
Without Positive Return - **OPTION X**



With Positive Return - **OPTION P**



With Driver - **OPTION DRIVER**

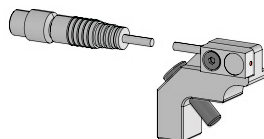


Notes

For technical info see pages 874-898



Back Position Check - **OPTION X**



Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

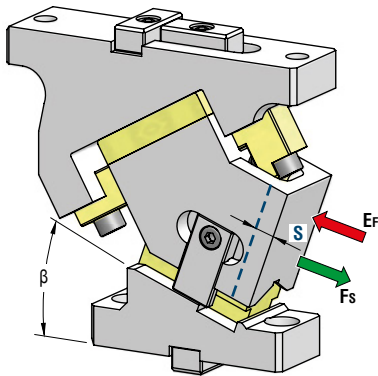
Standard FCA



**FCA CODE**  
SEE ORDER CODE ON OMCR CAM UNITS PAGES

CRX TYPE	Work Angle $\beta$	Slider Width (mm)	Work Area W x H (mm)	Max Work Force 10° cycles (kN)	Extraction Force (kN)	OMCR cam units pages
				F <sub>S</sub>	E <sub>F</sub>	
CRX01	-15°÷50°	78	78x63	45	2,5÷3,4	874
CRX03	-15°÷50°	98	98x63	76	3,4÷3,6	880
CRX05	-15°÷50°	118	118x74	142	6,36÷6,46	886
CRX15	-15°÷50°	170	170x94	166	6,45÷6,61	892
CRX20	-15°÷50°	240	240x110	258	9,29÷9,38	898

**AERIAL CAM UNIT CHD**  
**OBEN HÄNGENDER SCHIEBER CHD**  
**UNITÀ A CAMME SOSPESA CHD**



## Notes

For technical info see pages 634-666

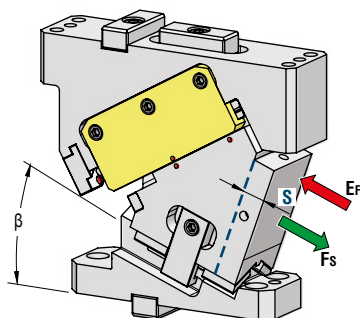


ORDER EXAMPLE 	FCA CODE
	SEE ORDER CODE ON OMCR CAM UNITS PAGES

CHD TYPE	Work Angle $\beta$	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)		OMCR cam units pages
						E <sub>f</sub>		
						F <sub>s</sub>	Spring	
CHD050	0°÷65° (5° steps)	50	180	50x65	60	1,14÷1,31	1,44÷1,72	634
CHD065	0°÷65° (5° steps)	65	180	65x65	60	1,14÷1,31	1,44÷1,72	638
CHD080	0°÷65° (5° steps)	80	275	80x88	149	1,13÷1,37	1,50÷1,85	642
CHD100	0°÷65° (5° steps)	100	275	100x88	149	1,13÷1,37	1,50÷1,85	646
CHD150	0°÷65° (5° steps)	150	355	150x120	391	2,29	7,15	650
CHD180	0°÷65° (5° steps)	180	355	180x120	396	2,29	7,15	654
CHD200	0°÷65° (5° steps)	200	355	200x120	396	2,29	7,15	658
CHD250	0°÷65° (5° steps)	250	355	250x160	645	4,58	14,30	662
CHD300	0°÷65° (5° steps)	300	355	300x160	645	4,58	14,30	666



**AERIAL CAM UNIT CHV**  
**OBEN HÄNGENDER SCHIEBER CHV**  
**UNITÀ A CAMME SOSPESA CHV**



## Notes

For technical info see pages 712÷760

STOCK

3D

WEB

WEB

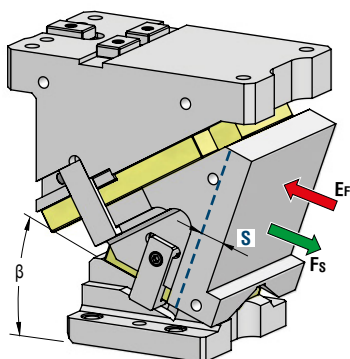


## FCA CODE

SEE ORDER CODE ON OMCR CAM UNITS PAGES

CHV TYPE	Work Angle $\beta$	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	OMCR cam units pages
					F <sub>s</sub>	E <sub>f</sub>	
CHV050	0°÷75° (5° steps)	50	175÷195	60x100	92÷110	4,5÷6,1	712
CHV060	0°÷75° (5° steps)	60	210	60x100	136÷143	5,1÷6,2	716
CHV085	0°÷75° (5° steps)	85	225	85x120	229÷293	7,10÷12	720
CHV110	0°÷75° (5° steps)	110	275	110x160	357÷407	6,2÷16,8	724
CHV150	0°÷75° (5° steps)	150	300	150x160	421÷584	17,3÷20,8	728
CHV180	0°÷75° (5° steps)	180	300	180x160	474÷598	17,1÷20,5	732
CHV220	0°÷75° (5° steps)	220	300	220x160	635÷732	16,6÷46,2	736
CHV260	0°÷75° (5° steps)	260	300	260x160	536÷767	16,6÷46,2	740
CHV330	0°÷75° (5° steps)	330	375	330x180	1005÷1020	46,5÷94,9	744
CHV400	0°÷75° (5° steps)	400	375	400x180	1052÷1055	48÷87,1	748
CHV500	0°÷75° (5° steps)	500	375	500x180	1155	64,5÷87,0	752
CHV600	0°÷75° (5° steps)	600	400	600x200	1202	84,2÷98,2	758

**AERIAL CAM UNIT CLB**  
**OBEN HÄNGENDER SCHIEBER CLB**  
**UNITÀ A CAMME SOSPESA CLB**



## Notes

For technical info see pages 804+820



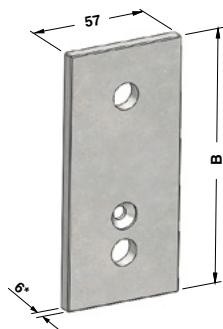
## FCA CODE

SEE ORDER CODE ON OMCR CAM UNITS PAGES

CLB TYPE	Work Angle $\beta$	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)  Fs	Extraction Force (kN)		OMCR cam units pages
						Ef		
						Spring	Gas Spring	
<b>CLB200</b>	0°÷60° (5° steps)	200	350	200x180	302	2,12÷2,73	8,88÷11,42	804
<b>CLB300</b>	0°÷60° (5° steps)	300	350	300x180	411	4,25÷5,46	17,76÷22,83	808
<b>CLB400</b>	0°÷60° (5° steps)	400	350	400x180	526	4,25÷5,46	17,76÷22,83	812
<b>CLB500</b>	0°÷60° (5° steps)	500	350	500x180	743	6,37÷8,19	26,64÷34,25	816
<b>CLB600</b>	0°÷60° (5° steps)	600	350	600x180	865	8,50÷10,92	35,52÷45,67	820

### DISTANCE PLATE FOR WEAR PLATE HÖHENAUSGLEICH FÜR GLEITPLATTE DISTANZIALE PER PIASTRA

\* Provided 0,5 mm plus for adjustment  
wird mit 0,5 mm Aufmaß geliefert, zur Anpassung am Werkzeug  
Fornita maggiorata di 0,5 mm per adattamento su stampo



FORM A



FORM B

## Notes

**Material:** S137

STOCK



WEB

ORDER  
EXAMPLE

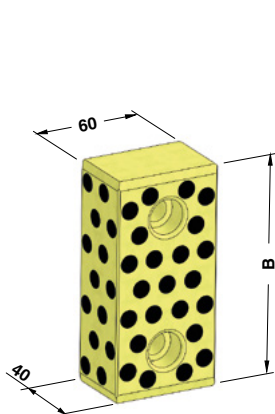
FCA CODE

PSP2S\_057006158

FCA CODE	COMMODITY CODE	B	FORM
PSP2S_057006123	19-005-0161	123	A
PSP2S_057006158	19-005-0162	158	A
PSP2S_057006198	19-005-0163	198	B
PSP2S_057006248	19-005-0164	248	B
PSP2S_057006318	19-005-0165	318	B

Standard FCA

### WEAR PLATE SELF-LUBRICATING GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE



FORM A



FORM B

## Notes

**Material:** Bronze + Graphite - HB > 190

STOCK



WEB

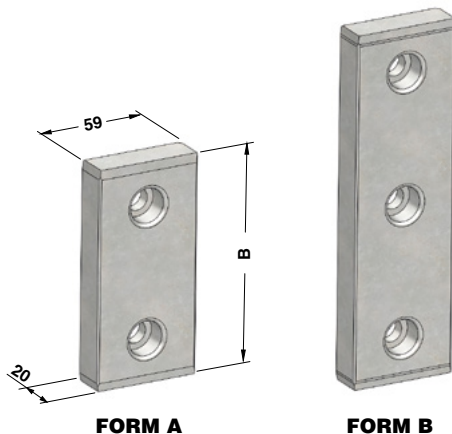
ORDER  
EXAMPLE

FCA CODE

P2S\_060040160

FCA CODE	COMMODITY CODE	B	FORM
P2S_060040125	19-205-0179	125	A
P2S_060040160	19-205-0178	160	A
P2S_060040200	19-205-0177	200	B

**WEAR PLATE STEEL**  
**GLEITPLATTE STAHL**  
**PIASTRA GUIDA IN ACCIAIO**

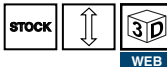


FORM A

FORM B

## Notes

**Material:** 16MnCr5 - **HRC:** 58÷62

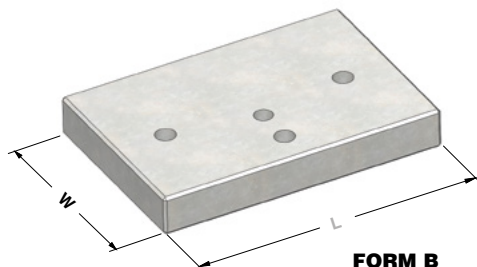


ORDER EXAMPLE	FCA CODE		
	PA2S_059020160		
FCA CODE	COMMODITY CODE	B	FORM
PA2S_059020125	19-205-0176	125	A
PA2S_059020160	19-205-0180	160	A
PA2S_059020200	19-205-0181	200	B
PA2S_059020250	19-205-0182	250	B
PA2S_059020320	19-205-0183	320	B

**WEAR PLATE STEEL - DECKLEISTE STAHL - PIASTRA GUIDA IN ACCIAIO**



FORM A



FORM B

## Notes

**Material:** 42CrMo4 - **HRC:** 58÷62

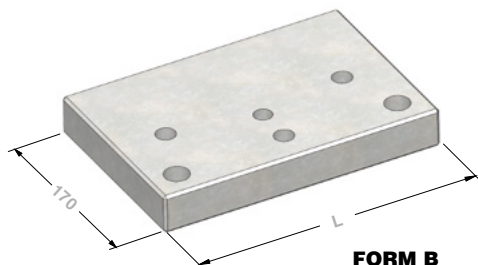


ORDER EXAMPLE	FCA CODE		
	LA_130200_S		
FCA CODE	W	L	FORM
LA_130160_S	130	160	A
LA_130200_S	130	200	A
LA_170250_S	170	250	B
LA_170320_S	170	320	B

## WEAR PLATE STEEL - DECKLEISTE STAHL - PIASTRA GUIDA IN ACCIAIO



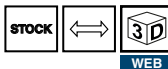
FORM A



FORM B

## Notes

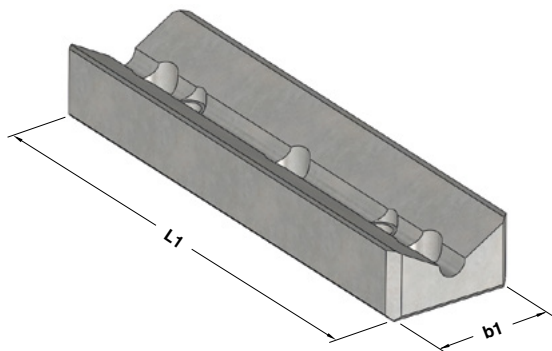
**Material:** 42CrMo4 - **HRC:** 58÷62



ORDER EXAMPLE	FCA CODE	
	LA_170200_C	
FCA CODE	L	FORM
LA_170160_C	160	A
LA_170200_C	200	A
LA_170250_C	250	B
LA_170320_C	320	B

Standard FCA

"V" DRIVER STEEL VDI 3357  
 PRISMENFÜHRUNG STAHL VDI 3357  
 GUIDA A "V" IN ACCIAIO VDI 3357



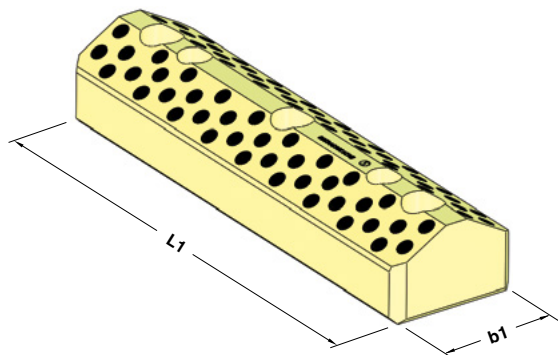
## Notes

**Material:** CK45 - **HRC:** 58÷60



ORDER EXAMPLE	FCA CODE		
	G_V_200065_F		
FCA CODE	COMMODITY CODE	b1	L1
G_V_150065_F	19-205-0213	65	150
G_V_200065_F	19-205-0214	65	200
G_V_250065_F	19-205-0215	65	250
G_V_300065_F	19-205-0216	65	300
G_V_150125_F	19-205-0217	125	150
G_V_200125_F	19-205-0218	125	200
G_V_250125_F	19-205-0219	125	250
G_V_300125_F	19-205-0221	125	300

**"V" DRIVER SELF-LUBRICATING VDI 3357**  
**PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**



## Notes

**Material:** Bronze + Graphite - HB > 190

STOCK



WEB

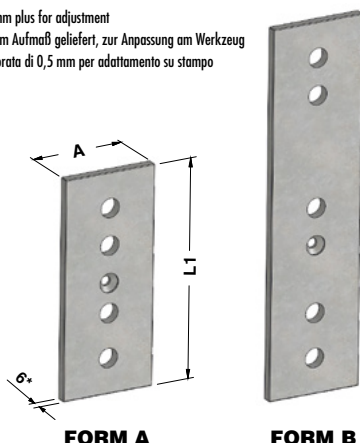


FCA CODE	
G_V_200065_M	

FCA CODE	COMMODITY CODE	b1	L1
G_V_150065_M	19-205-0205	65	150
G_V_200065_M	19-205-0206	65	200
G_V_250065_M	19-205-0207	65	250
G_V_300065_M	19-205-0208	65	300
G_V_150125_M	19-205-0209	125	150
G_V_200125_M	19-205-0210	125	200
G_V_250125_M	19-205-0211	125	250
G_V_300125_M	19-205-0212	125	300

**DISTANCE PLATE FOR "V" DRIVER**  
**HÖHENAUSGLEICH FÜR PRISMENFUHRUNG**  
**DISTANZIALE PER GUIDA A "V"**

\* Provided 0,5 mm plus for adjustment  
 wird mit 0,5 mm Aufmaß geliefert, zur Anpassung am Werkzeug  
 Fornita maggiorata di 0,5 mm per adattamento su stampo



## Notes

**Material:** St37

STOCK



WEB



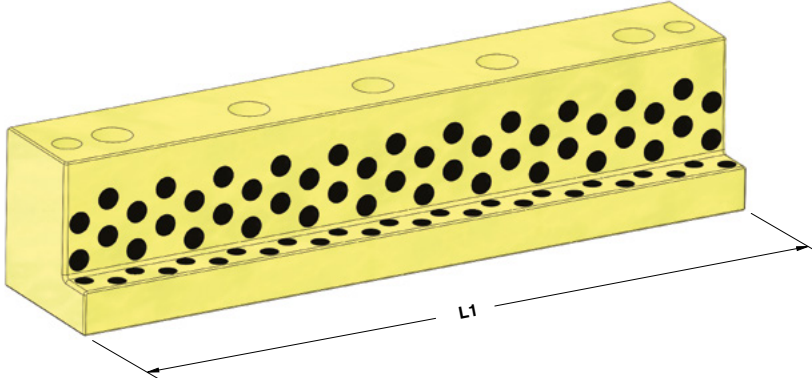
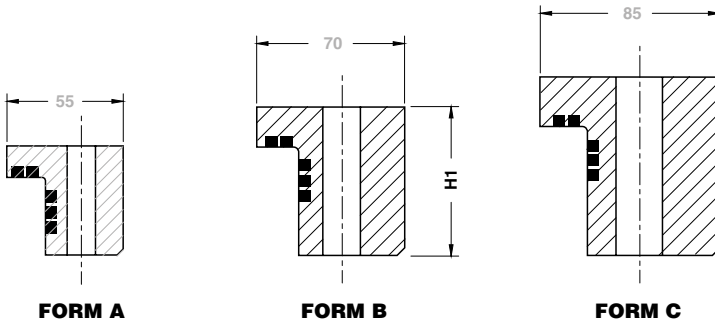
FCA CODE	
SP_V_06200065	

FCA CODE	A	L1	FORM
SP_V_06150065	63	148	A
SP_V_06200065	63	198	A
SP_V_06250065	63	248	A
SP_V_06300065	63	298	A
SP_V_06150125	123	148	B
SP_V_06200125	123	198	B
SP_V_06250125	123	248	B
SP_V_06300125	123	298	B

ANGULAR GUIDE - WINKELLEISTE - GUIDA ANGOLARE

Notes

Material: Bronze + Graphite - HB > 190



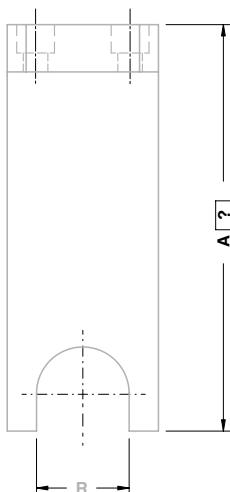
Standard FCA



FCA CODE
G_L_055055160

FCA CODE	COMMODITY CODE	L1	H1	FORM	FCA CODE	COMMODITY CODE	L1	H1	FORM
G_L_055055100	19-205-0165	100	55,5	A	G_L_070075400	19-205-0170	400	75,5	B
G_L_055055160	19-205-0166	160	55,5	A	G_L_085090160	19-205-0171	160	90,5	C
G_L_070075160	19-205-0167	160	75,5	B	G_L_085090200	19-205-0172	200	90,5	C
G_L_070075200	19-205-0168	200	75,5	B	G_L_085090250	19-205-0173	250	90,5	C
G_L_070075250	19-205-0169	250	75,5	B	G_L_085090400	19-205-0174	400	90,5	C

## FORK PAWL - BEFESTIGUNGSPLATTE - FORCELLA NOTTOLINO


 $150 \leq A \leq 220$ 

## Notes

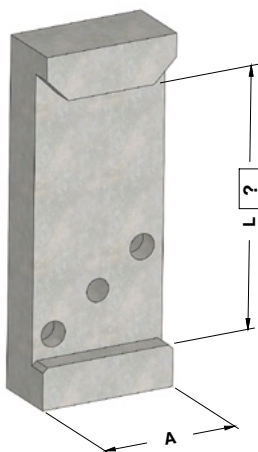
Material: Si37



FCA CODE	A=?
FOR_49	160

FCA CODE	R
FOR_39	39
FOR_49	49

## POSITIVE RETURN PLATE - ZWANGSRÜCKHOLER - GANCIO DI SICUREZZA



## Notes

Material: CK45 - HRC: 52÷54

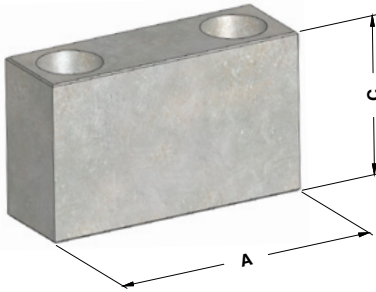


FCA CODE	L=80
GA_60	80

FCA CODE	A
GA_35	35
GA_60	60



## STOP BLOCK - ANSCHLAG - ARRESTO



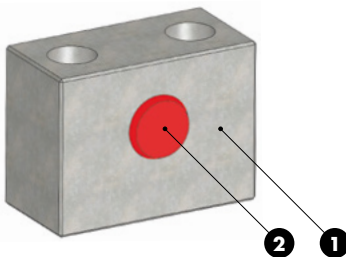
## Notes

**Material:** CK45

ORDER EXAMPLE 	FCA CODE	
	ARR_752545	
FCA CODE	A	C
ARR_502545	50	45
ARR_502565	50	65
ARR_752545	75	45
ARR_752565	75	65

Standard FCA

## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



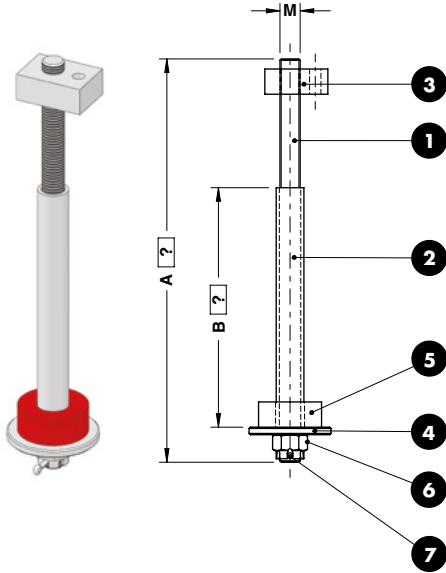
## Notes

- 1 **Material:** CK45
- 2 **Material:** Urelast 92SH  
PU\_EL\_24 - 080.90.90



ORDER EXAMPLE 	FCA CODE	
	ARR_AMM_D24	
FCA CODE		
ARR_AMM_D24		

RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



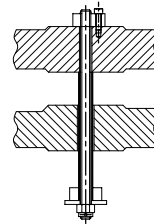
Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

Notes

- 1 **Material:** Thread rod cl 8.8
- 2 **3 Material:** St37
- 4 **Material:** CK45
- 5 **Material:** Elastomer 92SH
- 6 **Material:** DIN 935 cl. 8.8
- 7 **Material:** DIN 94



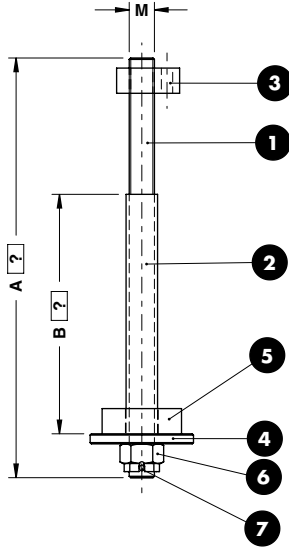
Application example



ORDER EXAMPLE	FCA CODE	A=100	B=60
	GRTI_M16	A100	B60

FCA CODE	M	Max load (kg)
GRTI_M16AB	M16	250

RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



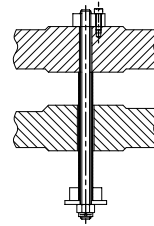
Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

Notes

- 1 **Material:** Thread rod cl 8.8
- 2 3 **Material:** St37
- 4 **Material:** CK45
- 5 **Material:** Elastomer 92SH
- 6 **Material:** DIN 935 cl. 8.8
- 7 **Material:** DIN 94



Application example

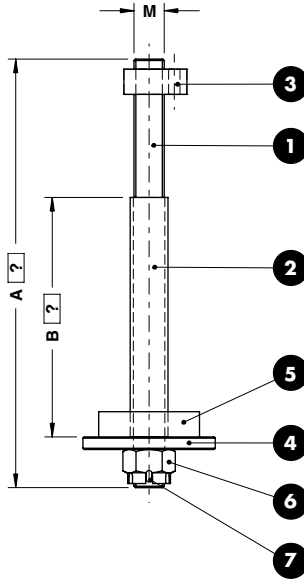


Standard FCA

ORDER EXAMPLE	FCA CODE	A=100	B=60
	GRTI_M20	A100	B60

FCA CODE	M	Max load (kg)
GRTI_M20AB	M20	450

## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



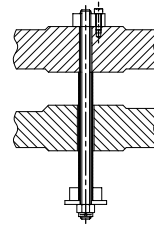
Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

## Notes

- 1 Material:** Thread rod cl 8.8
- 2 3 Material:** St37
- 4 Material:** CK45
- 5** Elastomer 92SH
- 6** DIN 935 cl. 8.8
- 7** DIN 94



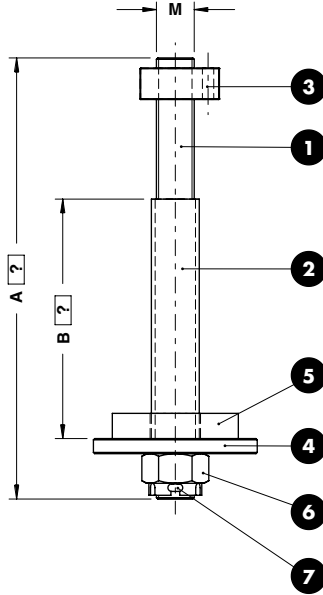
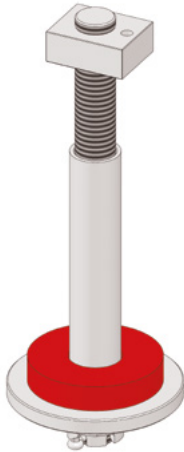
## Application example



FCA CODE	A=100	B=60
GRTI_M24	A100	B60

FCA CODE	M	Max load (kg)
GRTI_M24AB	M24	750

RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



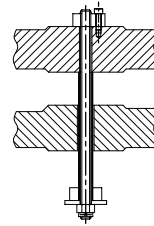
Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

Notes

- 1 **Material:** Thread rod cl 8.8
- 2 3 **Material:** St37
- 4 **Material:** CK45
- 5 Elastomer 92SH
- 6 DIN 935 cl. 8.8
- 7 DIN 94



Application example

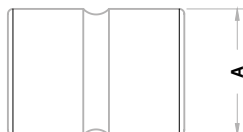
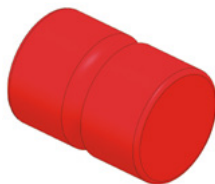


Standard FCA

ORDER EXAMPLE	FCA CODE	A=100	B=60
	GRTI_M30	A100	B60

FCA CODE	M	Max load (kg)
GRTI_M30AB	M30	1250

## SHOCK ABSORBER - HALTEELEMENT - AMMORTIZZATORE



## Notes

**Material:** Elastomer 92 SH



	FCA CODE	
	AMM_06380	
FCA CODE	COMMODITY CODE	A
AMM_05070	19-001-0072	50
AMM_06380	19-001-0073	63

## GUIDE POST DIN 9833 - FÜHRUNGSSÄULE DIN 9833 - COLONNA GUIDA DIN 9833

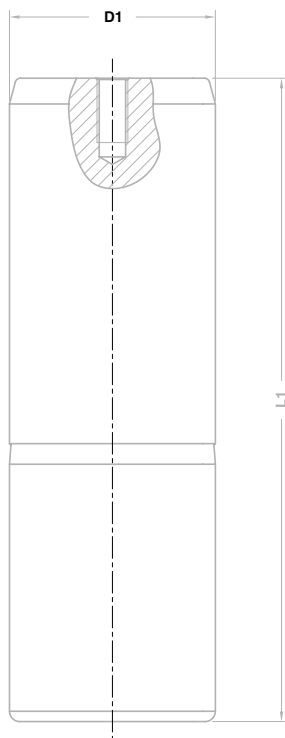


## Notes

Material: 16MnCr5 - HRC 60±62



WEB



Standard FCA



FCA CODE

COL\_080315\_V

FCA CODE	COMMODITY CODE	D1	L1	FCA CODE	COMMODITY CODE	D1	L1
COL_080250_V	19-245-7210	80	250	COL_100400_V	19-245-7416	100	400
COL_080280_V	19-245-7211	80	280	COL_125355_V	-	125	355
COL_080315_V	19-245-7212	80	315	COL_125400_V	19-245-7816	125	400
COL_080355_V	19-245-7214	80	355	COL_125450_V	19-245-7818	125	450
COL_100315_V	19-245-7412	100	315	COL_125500_V	19-245-7820	125	500
COL_100355_V	19-245-7414	100	355	COL_125550_V	19-245-7822	125	550

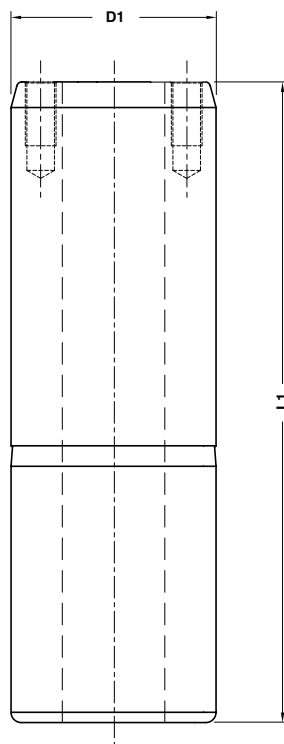
## GUIDE POST DIN 9833 - FÜHRUNGSSÄULE DIN 9833 - COLONNA GUIDA DIN 9833

## Notes

Material: 16MnCr5 - HRC 60÷62



WEB



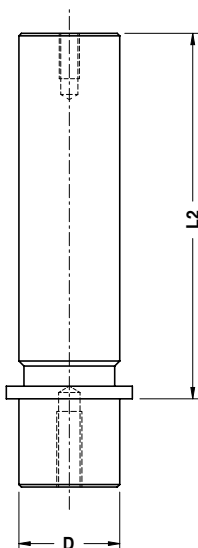
FCA CODE

COLH\_080280\_V

FCA CODE	COMMODITY CODE	D1	L1	FCA CODE	COMMODITY CODE	D1	L1
COLH_080250_V	19-245-0034	80	250	COLH_100400_V	19-245-0027	100	400
COLH_080280_V	19-245-0033	80	280	COLH_125355_V	19-245-0039	125	355
COLH_080315_V	19-245-0032	80	315	COLH_125400_V	19-245-0038	125	400
COLH_080355_V	19-245-0031	80	355	COLH_125450_V	19-245-0037	125	450
COLH_100315_V	19-245-0029	100	315	COLH_125500_V	19-245-0036	125	500
COLH_100355_V	19-245-0028	100	355	COLH_125550_V	19-245-0035	125	550



## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



## Notes

**Material:** 16MnCr5 - HRC 60±62



WEB

Supplied with retainers and screws.

Befestigungsklammern und Schrauben im Lieferumfang enthalten.

Formite con staffette di fissaggio e viti.



FCA CODE

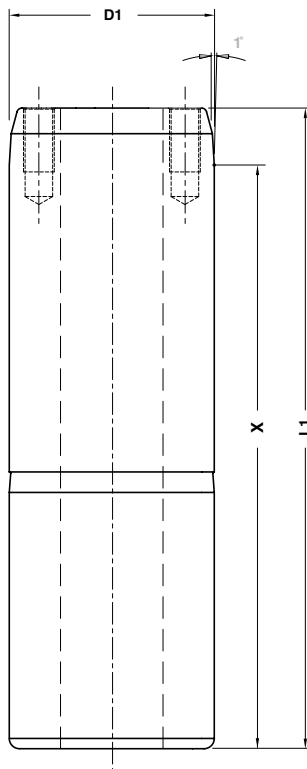
COL\_SL\_25110

FCA CODE	COMMODITY CODE	D	L2	FCA CODE	COMMODITY CODE	D	L2
COL_SL_25100	19-250-0053	25	100	COL_SL_40180	19-250-0077	40	180
COL_SL_25110	19-250-0054	25	110	COL_SL_40200	19-250-0076	40	200
COL_SL_25120	19-250-0055	25	120	COL_SL_40220	19-250-0075	40	220
COL_SL_25130	19-250-0056	25	130	COL_SL_40240	19-250-0074	40	240
COL_SL_25140	19-250-0057	25	140	COL_SL_50110	19-250-0073	50	110
COL_SL_25160	19-250-0058	25	160	COL_SL_50120	19-250-0072	50	120
COL_SL_25170	19-250-0059	25	170	COL_SL_50130	19-250-0071	50	130
COL_SL_25180	19-250-0060	25	180	COL_SL_50140	19-250-0070	50	140
COL_SL_25200	19-250-0061	25	200	COL_SL_50160	19-250-0069	50	160
COL_SL_32100	19-250-0062	32	100	COL_SL_50170	19-250-0068	50	170
COL_SL_32110	19-250-0063	32	110	COL_SL_50180	19-250-0092	50	180
COL_SL_32120	19-250-0064	32	120	COL_SL_50200	19-250-0091	50	200
COL_SL_32130	19-250-0065	32	130	COL_SL_50220	19-250-0090	50	220
COL_SL_32140	19-250-0066	32	140	COL_SL_50240	19-250-0089	50	240
COL_SL_32160	19-250-0067	32	160	COL_SL_63130	19-250-0100	63	130
COL_SL_32170	19-250-0004	32	170	COL_SL_63140	19-250-0088	63	140
COL_SL_32180	19-250-0080	32	180	COL_SL_63160	19-250-0099	63	160
COL_SL_32200	19-250-0081	32	200	COL_SL_63170	19-250-0098	63	170
COL_SL_32220	19-250-0082	32	220	COL_SL_63180	19-250-0097	63	180
COL_SL_32240	19-250-0083	32	240	COL_SL_63200	19-250-0096	63	200
COL_SL_40110	19-250-0084	40	110	COL_SL_63220	19-250-0095	63	220
COL_SL_40120	19-250-0085	40	120	COL_SL_63240	19-250-0101	63	240
COL_SL_40130	19-250-0086	40	130	COL_SL_80200	19-250-0094	80	200
COL_SL_40140	19-250-0079	40	140	COL_SL_80220	19-250-0093	80	220
COL_SL_40160	19-250-0087	40	160	COL_SL_80240	19-250-0102	80	240
COL_SL_40170	19-250-0078	40	170				

GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA

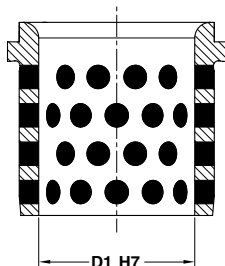
Notes

Material: 16MnCr5 - HRC 60÷62



	FCA CODE		
	COLH100355_T		
FCA CODE	D1	L1	X
COLH100315_T	100	315	250
COLH100355_T	100	355	290

**BUSH SELF-LUBRICATING DIN 9834**  
**FÜHRUNGSBUCHSE DIN 9834**  
**BOCCOLA AUTOLUBRIFICANTE DIN 9834**



## Notes

**Material:** Bronze + Graphite  
**HB > 190**

STOCK



WEB



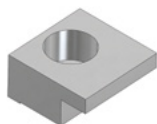
FCA CODE

BOC\_032050\_V

FCA CODE	COMMODITY CODE	D1
BOC_025040_V	19-029-0023	25
BOC_032050_V	19-029-0024	32
BOC_040063_V	19-029-0025	40
BOC_050071_V	19-029-0026	50
BOC_063080_V	19-029-0029	63
BOC_080100_V	19-029-0027	80
BOC_100125_V	19-029-0028	100
BOC_125160_V	19-029-0030	125

Standard FCA

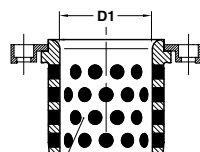
**TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA**



## Notes

**Material:** CK45

## Application example



065.090.85

STOCK



WEB

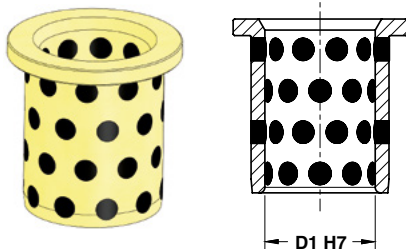


FCA CODE

RIT\_323216

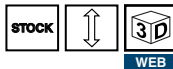
FCA CODE	COMMODITY CODE	D1
RIT_202010	19-010-0106	25-50
RIT_323216	19-010-0105	63-160

## BUSH SELF LUBRICATING - FÜHRUNGSBUCHSE - BOCCOLA AUTOLUBRIFICANTE



## Notes

**Material:** Bronze + Graphite  
**HB** >190



ORDER EXAMPLE	FCA CODE
	BO_PR_50_H7

FCA CODE	D1
BO_PR_25_H7	25
BO_PR_32_H7	32
BO_PR_40_H7	40
BO_PR_50_H7	50
BO_PR_63_H7	63
BO_PR_80_H7	80
BO_PR_100_H7	100
BO_PR_125_H7	125

## 065.90.102

## TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA



## Notes

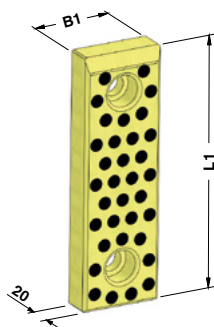
**Material:** CK45



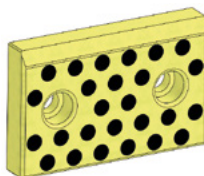
ORDER EXAMPLE	COMMODITY CODE
	19-029-0100

COMMODITY CODE
19-029-0100

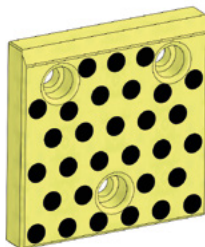
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



**FORM A**



**FORM B**



**FORM C**

**Notes**

**Material:** Bronze + Graphite - HB > 190

Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK

↑ ↓

3D

WEB



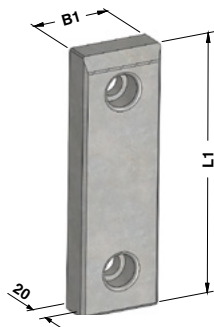
**FORM D**

ORDER EXAMPLE	FCA CODE
	PBR_05020100

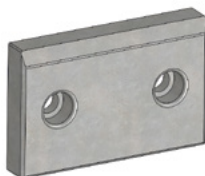
FCA CODE	COMMODITY CODE	B1	L1	FORM	FCA CODE	COMMODITY CODE	B1	L1	FORM
PBR_05020080	19-290-0069	50	80	A	PBR_10020315	-	100	315	A
PBR_05020100	19-290-3204	50	100	A	PBR_12520050	19-290-0071	125	50	B
PBR_05020125	19-290-3205	50	125	A	PBR_12520080	19-290-3503	125	80	B
PBR_05020160	19-290-3206	50	160	A	PBR_12520100	19-290-3504	125	100	C
PBR_05020200	19-290-3208	50	200	A	PBR_12520125	19-290-3505	125	125	C
PBR_08020050	19-290-0067	80	50	B	PBR_12520160	19-290-3506	125	160	C
PBR_08020080	19-290-0066	80	80	A	PBR_12520200	19-290-3508	125	200	C
PBR_08020100	19-290-3304	80	100	A	PBR_12520250	-	125	250	C
PBR_08020125	19-290-3305	80	125	A	PBR_12520315	-	125	315	C
PBR_08020160	19-290-3306	80	160	A	PBR_16020050	19-290-0075	160	50	C
PBR_08020200	19-290-3308	80	200	A	PBR_16020080	19-290-0073	160	80	C
PBR_10020050	19-290-3402	100	50	B	PBR_16020100	19-290-3604	160	100	C
PBR_10020080	19-290-3403	100	80	B	PBR_16020125	19-290-3605	160	125	C
PBR_10020100	19-290-3404	100	100	A	PBR_16020160	19-290-3606	160	160	C
PBR_10020125	19-290-3405	100	125	A	PBR_16020200	19-290-3608	160	200	C
PBR_10020160	19-290-3406	100	160	A	PBR_16020250	-	160	250	D
PBR_10020200	19-290-3408	100	200	A	PBR_16020315	-	160	315	D
PBR_10020250	-	100	250	A					

Standard FCA

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**



**FORM A**



**FORM B**



**FORM C**



**FORM D**

**Notes**

**Material:** 16MnCr5 - **HRC:** 58÷62

STOCK

	FCA CODE
	PAC_05020100

FCA CODE	COMMODITY CODE	B1	L1	FORM	FCA CODE	COMMODITY CODE	B1	L1	FORM
PAC_05020080	19-290-0070	50	80	A	PAC_10020315	-	100	315	A
PAC_05020100	19-290-4204	50	100	A	PAC_12520050	19-290-0072	125	50	B
PAC_05020125	19-290-4205	50	125	A	PAC_12520080	19-290-4503	125	80	B
PAC_05020160	19-290-4206	50	160	A	PAC_12520100	19-290-4504	125	100	C
PAC_05020200	19-290-4208	50	200	A	PAC_12520125	19-290-4505	125	125	C
PAC_08020050	19-290-0068	80	50	B	PAC_12520160	19-290-4506	125	160	C
PAC_08020080	19-290-0065	80	80	A	PAC_12520200	19-290-4508	125	200	C
PAC_08020100	19-290-4304	80	100	A	PAC_12520250	-	125	250	C
PAC_08020125	19-290-4305	80	125	A	PAC_12520315	-	125	315	C
PAC_08020160	19-290-4306	80	160	A	PAC_16020050	19-290-0076	160	50	C
PAC_08020200	19-290-4308	80	200	A	PAC_16020080	19-290-0074	160	80	C
PAC_10020050	19-290-4402	100	50	B	PAC_16020100	19-290-4604	160	100	C
PAC_10020080	19-290-4403	100	80	B	PAC_16020125	19-290-4605	160	125	C
PAC_10020100	19-290-4404	100	100	A	PAC_16020160	19-290-4606	160	160	C
PAC_10020125	19-290-4405	100	125	A	PAC_16020200	19-290-4608	160	200	C
PAC_10020160	19-290-4406	100	160	A	PAC_16020250	-	160	250	D
PAC_10020200	19-290-4408	100	200	A	PAC_16020315	-	160	315	D
PAC_10020250	-	100	250	A					

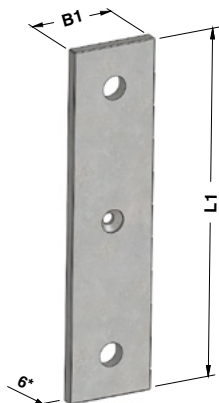
**DISTANCE PLATE FOR WEAR PLATE  
HÖHENAUSGLEICH FÜR GLEITPLATTE  
Distanziale per piastra**

\* Provided 0,5 mm plus for adjustment  
wird mit 0,5 mm Aufmaß geliefert, zur Anpassung am Werkzeug  
Fornita maggiorata di 0,5 mm per adattamento su stampo

**Notes**

**Material:** S37

STOCK  WEB



**FORM A**




**FORM B**



**FORM C**



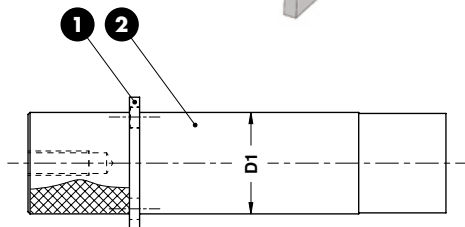
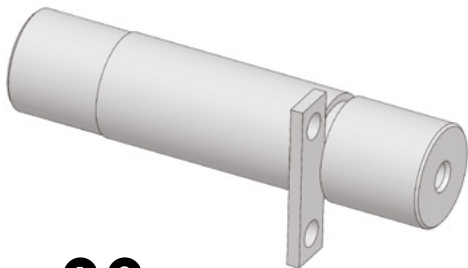
**FORM D**

	FCA CODE
	PSP_08006050

FCA CODE	B1	L1	FORM	FCA CODE	B1	L1	FORM	FCA CODE	B1	L1	FORM
PSP_05006200	48	198	A	PSP_10006160	98	158	A	PSP_12506315	123	313	C
PSP_08006050	78	48	B	PSP_10006200	98	198	A	PSP_16006050	158	48	B
PSP_08006080	78	78	A	PSP_10006250	98	248	A	PSP_16006100	158	98	C
PSP_08006100	78	98	A	PSP_10006315	98	313	A	PSP_16006125	158	123	C
PSP_08006125	78	123	A	PSP_12506050	123	48	B	PSP_16006160	158	158	C
PSP_08006160	78	158	A	PSP_12506100	123	98	C	PSP_16006200	158	198	C
PSP_08006200	78	198	A	PSP_12506125	123	123	C	PSP_16006250	158	248	D
PSP_10006050	98	48	B	PSP_12506160	123	158	C	PSP_16006315	158	313	D
PSP_10006100	98	98	A	PSP_12506200	123	198	C				
PSP_10006125	98	123	A	PSP_12506250	123	248	C				

Standard FCA

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



## Notes

- 1 **Material:** St37
- 2 **Material:** 36CrNiMo4

Screws not included



WEB



FCA CODE

PRN\_050206

FCA CODE	COMMODITY CODE	D1
PRN_040172	19-010-0098	40
PRN_050206	19-010-0097	50
-	19-010-0101	63

## LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO



## Notes

**Material:** 16MnCr5 - **HRC:** 58÷60

WEB



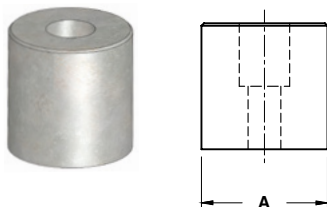
FCA CODE

PDC\_04055

FCA CODE	COMMODITY CODE
PDC_04055	19-010-0104





BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



**Notes**

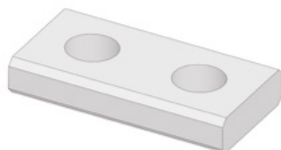
**Material:** CK45

**STOCK**  **WEB**

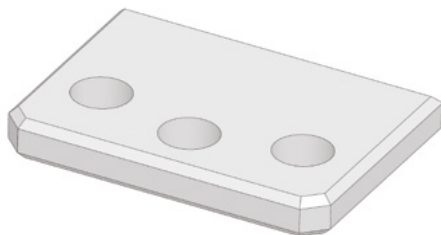
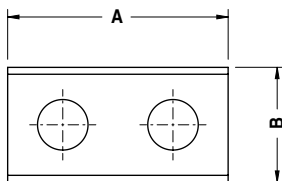
**ORDER EXAMPLE**  **FCA CODE**  
DST\_090050

FCA CODE	COMMODITY CODE	A
DST_050050	19-010-0102	50
DST_090050	19-010-0103	90

GUIDE PIN RETAINER PLATE - SICHERUNGSPLATTE - RITEGNO PER COLONNA



FORM A



FORM B

**Notes**

**Material:** CK45

**STOCK**  **WEB**

**ORDER EXAMPLE**  **FCA CODE**  
19-010-0205

FCA CODE	A	B	FORM
19-010-0204	40	20	A
19-010-0205	48	25	A
19-010-0206	60	34	A
19-010-0251	80	57	B

## SPRING PLUNGER - FEDERNE DRUCKSTÜCKE - ESPULSORE A MOLLA

## Notes

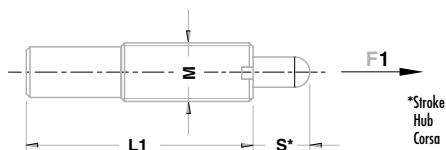
Material: Steel



Spring plungers can be fitted/removed by means of the slot or internal hexagon.

Montage/demontage mit Innensechskant und Schlitz möglich.

Il montaggio/smontaggio avviene sia tramite l'esagono incassato, che tramite l'intaglio frontale.



\*Stroke  
Hub  
Corsa

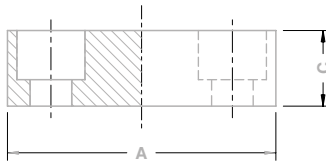


FCA CODE

ESP\_H\_M1615

FCA CODE	COMMODITY CODE	M	L1	S	F1 (N/mm <sup>2</sup> )	F2 (N/mm <sup>2</sup> )
ESP_H_M1210	42-497-0104	M12	45	10	7	40
ESP_H_M1615	42-497-0220	M16	60	15	15	80
ESP_H_M1630	42-497-0093	M16	125	30	20	80

## PRESSURE PLATE - DRUCKPLATTE - PIASTRA DI REAZIONE



## Notes

**Material:** 90MnCrV8 - **HRC:** 50÷52



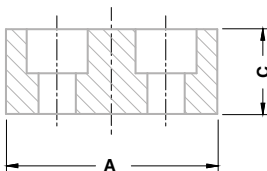
## FCA CODE

RE\_565620\_Q

FCA CODE	COMMODITY CODE	A	C
RE_404015_Q	19-010-0151	40	15
RE_565620_Q	19-010-0154	56	20
RE_717120_Q	19-010-0153	71	20
RE_909020_Q	19-010-0152	90	20
RE_14014020_Q	19-010-0150	140	20

Standard FCA

## PRESSURE PLATE - DRUCKPLATTE - PIASTRA DI REAZIONE



## Notes

**Material:** 90MnCrV8 - **HRC:** 50÷52

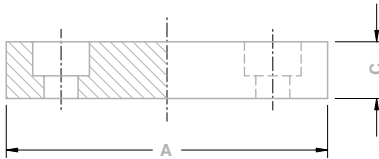
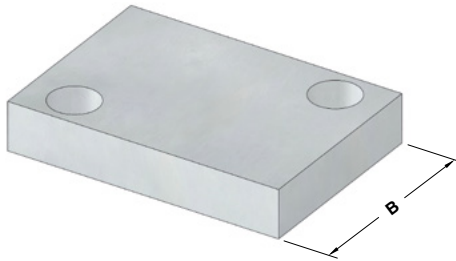


## FCA CODE

RE\_70SP20\_C

FCA CODE	COMMODITY CODE	A	C
RE_50SP15_C	19-010-0155	50	15
RE_70SP20_C	19-010-0149	70	20
RE_94SP20_C	19-010-0148	94	20

## PRESSURE PLATE - DRUCKPLATTE - PIASTRA DI REAZIONE



## Notes

**Material:** 90MnCrV8 - **HRC:** 50÷52



FCA CODE

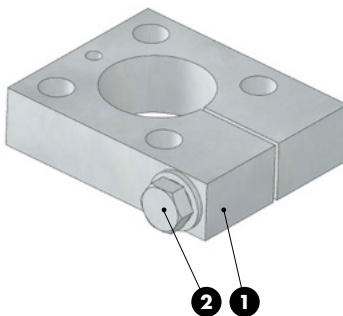
RE\_553012\_R

FCA CODE	COMMODITY CODE	A	B	C
RE_502512_R	19-010-0147	50	25	12
RE_503012_R	19-010-0144	50	30	12
RE_703515_R	19-010-0146	70	35	15
RE_755015_R	19-010-0143	75	50	15
RE_856015_R	19-010-0142	85	60	15
RE_1008020_R	19-010-0141	100	80	20
RE_11010020_R	19-010-0139	110	100	20

## CLAMP - BEFESTIGUNGSELEMENT - MORSETTO

## Notes

- Material:** CK45
- M12x70 DIN 931



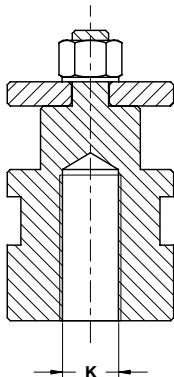
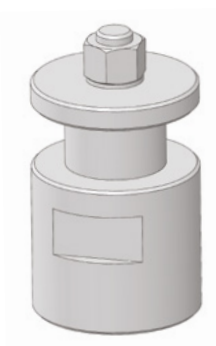
FCA CODE

MOR\_025080100

FCA CODE

MOR\_025080100

## UNION NUT - BEFESTIGUNGSELEMEN - DADO DI UNIONE



## Notes

Material: CK45



FCA CODE

DU\_M20\_2B

FCA CODE

K

DU\_M16\_2A

M16x1,5

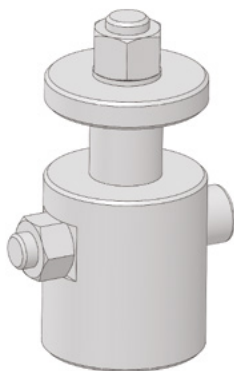
DU\_M20\_2B

M20x1,5

DU\_M27\_2C

M27x2

## UNION NUT - BEFESTIGUNGSELEMEN - DADO DI UNIONE



## Notes

Material: CK45



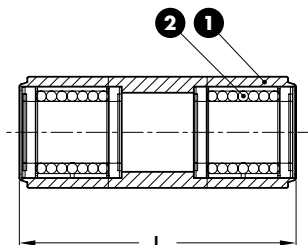
FCA CODE

DU\_025045

FCA CODE

DU\_025045

## SLEEVE - FÜHRUNGSEINHEIT - CANOTTO GUIDA



## Notes

- 1 **Material:** CK45
- 2 **Material:** STAR 0658-225-40

STOCK



WEB

ORDER  
EXAMPLE

FCA CODE

BOC\_025200\_4B

FCA CODE

L

BOC\_025112\_4A

230

BOC\_025200\_4B

315

## 080.90.80

## GUIDE POST - FÜHRUNGSSAULE - COLONNA PER TRALICCIO



## Notes

**Material:** CK45 - HRC: 56÷58

STOCK



WEB

ORDER  
EXAMPLE

FCA CODE

COL\_025315\_3B

FCA CODE

L

COL\_025230\_3A

230

COL\_025315\_3B

315

COL\_025365\_3C

365

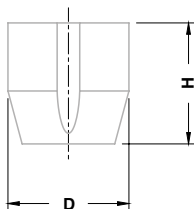
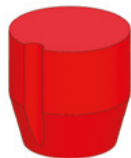
COL\_025415\_3D

415

COL\_025465\_3E

465

## ELASTOMER CAP - ELASTOMERDRUCKSTÜK - PUNTALINO ELASTICO



## Notes

Material: Urelast 92 SH

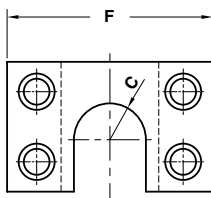


ORDER EXAMPLE	FCA CODE
	PU_EL_10

FCA CODE	D	H	F max (N)	FCA CODE	D	H	F max (N)
PU_EL_06	6	9,5	100	PU_EL_30	30	35	3000
PU_EL_10	10	15,5	450	PU_EL_32	32	32	12000
PU_EL_16	16	25	1500	PU_EL_39,5	39,5	40	25000
PU_EL_24	24	25	3000				

## 085.90.135

## COUPLING PLATE - BEFESTIGUNGSPLATTE - STAFFA DI REAZIONE



## Notes

Material: CK45



ORDER EXAMPLE	FCA CODE		
	FO_NO_4740		
FCA CODE	COMMODITY CODE	F	C
FO_NO_3530	19-010-2360	80	14
FO_NO_4740	19-010-2365	100	20
FO_NO_5750	19-010-2370	120	25
N/A	19-010-2375	150	33

## COUPLING NUT - KUPPLUNGSMUTTER - AGGANCIO STAFFA

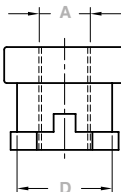
## Notes

Material: CK45

STOCK



WEB



## FCA CODE

NO\_3530M12

FCA CODE	COMMODITY CODE	D	A
NO_3530M10	39-295-0032	25	M10 x 1,25
NO_3530M12	39-295-0031	25	M12 x 1,25
NO_4740M16	39-295-0029	37	M16 x 1,5
NO_4740M20	39-811-0667	37	M20 x 1,5
NO_5750M27	39-811-0416	47	M27 x 2
NO_5750M36	39-811-0455	47	M36 x 2
N/A	39-295-0033	59	M42 x 2

## THREADED STEEL INSERT - GEWINDEINSATZ AUS STAHL - INSERTO FILETTATO IN ACCIAIO

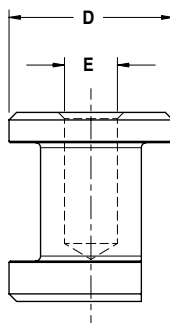
## Notes

Material: 42CrMo4

STOCK



WEB



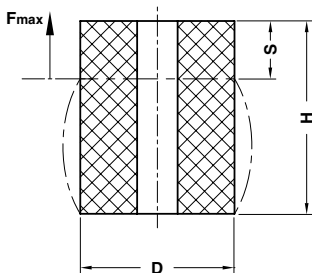
## COMMODITY CODE

19-235-0148

COMMODITY CODE	Max load 1 point (kg)	Max load 2÷4 point (kg)	D	E	COMMODITY CODE	Max load 1 point (kg)	Max load 2÷4 point (kg)	D	E
19-235-0149	2800	5600	65	M22 x 2,5	19-235-0146	6500	13000	107	M36 x 4,0
19-235-0148	3000	6000	65	M24 x 3,0	19-235-0145	7200	14400	107	M42 x 4,5
19-235-0147	5000	10000	85	M30 x 3,5					



ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



Notes

Material: Elastomer 92SH



S = max. 30% H

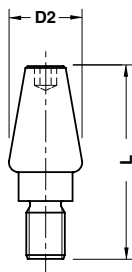


ORDER EXAMPLE	FCA CODE
	MOL_080080

FCA CODE	D	H	S	Fmax (N)	FCA CODE	D	H	S	Fmax (N)	FCA CODE	D	H	S	Fmax (N)
MOL_063100	63	100	30	2600	MOL_100080	100	80	24	5900	MOL_125125	125	125	37,5	9900
MOL_080080	80	80	24	4300	MOL_100100	100	100	30	5900	MOL_125160	125	160	48	9900
MOL_080100	80	100	30	4300	MOL_100125	100	125	37,5	5900					
MOL_080125	80	125	37,5	4300	MOL_125100	125	100	30	9900					

Standard FCA

ELASTOMER SPRING PIN - AUFNAHMEBOLZEN - PERNO PER MOLLE IN ELASTOMERO



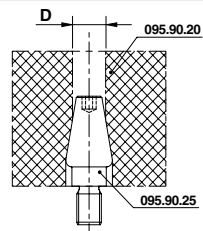
STOCK

Notes

Material: CK45



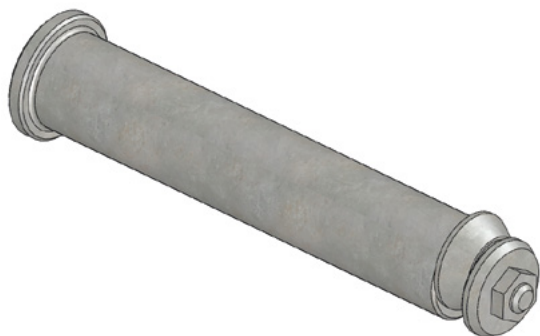
Application example



ORDER EXAMPLE	FCA CODE
	PRN_MO_M16

FCA CODE	D	D2	L
PRN_MO_M12	63÷80	28	56
PRN_MO_M16	100	32	74
PRN_MO_M20	125	38	100

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

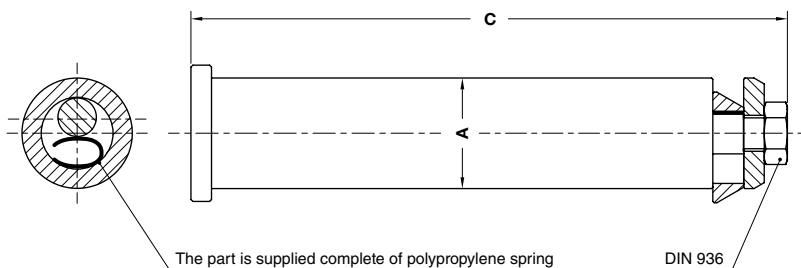
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** 42CrMo4 + QT



WEB

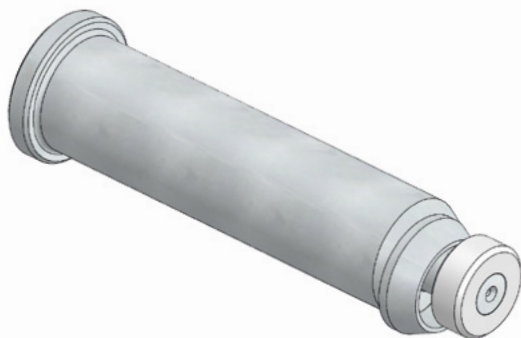


FCA CODE

SOL\_KG7000\_HL

FCA CODE	COMMODITY CODE	Max load (kg)	Max die weight (kg)	C	A
SOL_KG4000_HL	-	4000	8000	178,5	29
SOL_KG7000_HL	-	7000	14000	200,5	33

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

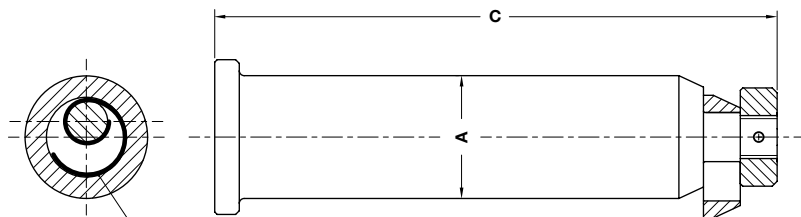
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** 42CrMo4 + QT



WEB



The part is supplied complete of steel spring

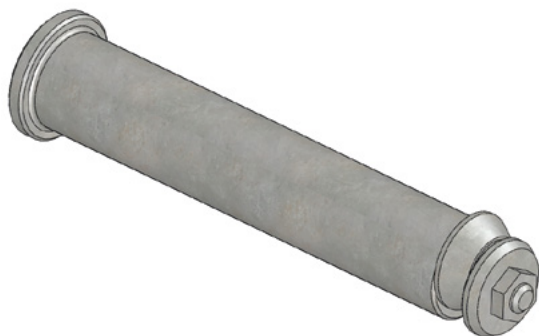


COMMODOTY CODE

19-255-0252

FCA CODE	COMMODITY CODE	Max load (kg)	Max die weight (kg)	C	A
-	19-255-0200	10000	20000	230	50
-	19-255-0252	20000	40000	320	63
-	19-255-0320	40000	80000	370	80

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

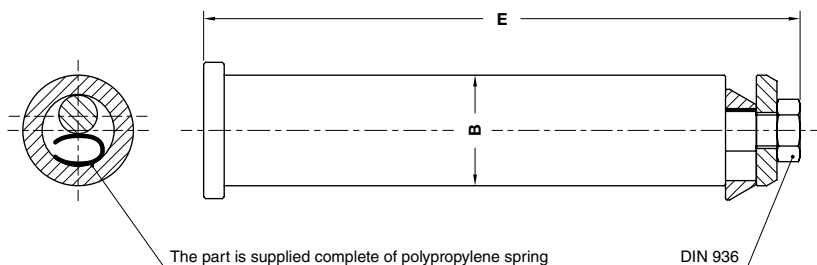
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** 42CrMo4 + QT



WEB

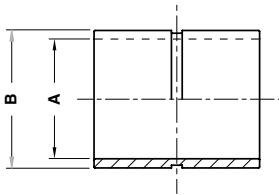


FCA CODE

SOL\_KG26000\_T\_HL

FCA CODE	Max load (kg)	Max die weight (kg)	E	B
SOL_KG16000_T_HL	16000	32000	227	53
SOL_KG26000_T_HL	26000	52000	272,5	63

## BUSH FOR LIFTING PIN - BUCHSE FÜR TRAGBOLZEN - BOCCOLA PER PERNO DI SOLLEVAMENTO



## Notes

**Material:** S135

STOCK



WEB



ORDER  
EXAMPLE

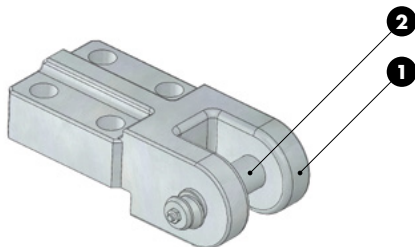
COMMODITY CODE

19-232-0252

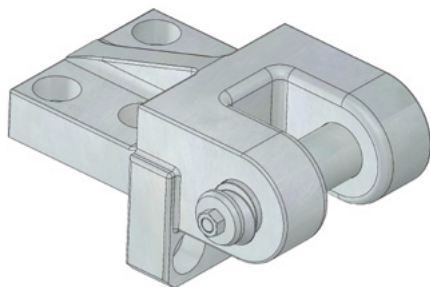
COMMODITY CODE	A	B
19-232-0200	52,4	60,33
19-232-0252	65,10	73,03
19-232-0320	82,50	92,08

Standard FCA

**LIFTING BRACKET WITH LIFTING BOLT**  
**TRAGWANGE MIT TRAGBOLZEN MIT FALLRINGSICHERUNG**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO**



FORM A



FORM B



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

## Notes

① **Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

② **Material:** CK45

Screws not included



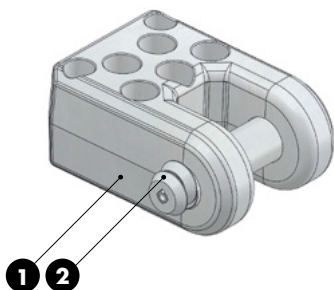
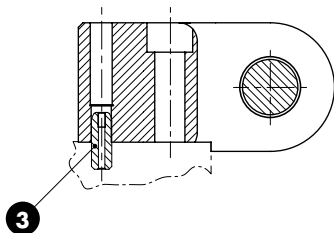
WEB



FCA CODE  
 GR\_ST\_KG1000

FCA CODE	Max load (kg)	Max die weight (kg)	FORM	LIFTING BRACKET	LIFTING BOLT
GR_ST_KG600	600	1200	A	ST_KG600_S	ST_KG600_P
GR_ST_KG1000	1000	2000	A	ST_KG1000_S	ST_KG1000_P
GR_ST_KG2000	2000	4000	A	ST_KG2000_S	ST_KG2000_P
GR_ST_KG4000	4000	8000	B	ST_KG4000_S	ST_KG4000_P
GR_ST_KG7000	7000	14000	B	ST_KG7000_S	ST_KG7000_P

**LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CENTRAGGI**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

#### Notes

- 1 Material:** St52
- 2 Material:** CK45
- 3 Material:** 16MnCr5 - HRC: 58÷60

Screws not included



WEB

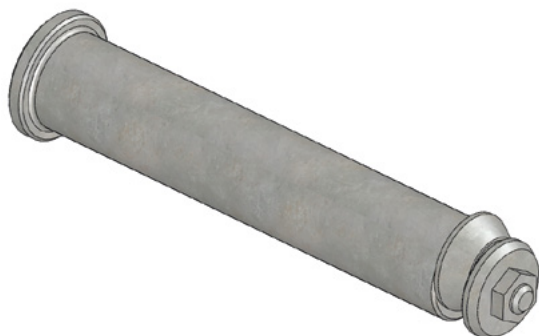


FCA CODE

ST\_KG12500

FCA CODE	Max load (kg)	Max die weight (kg)	LIFTING BRACKET	LIFTING BOLT
ST_KG12500	12500	25000	ST_KG12500_S	ST_KG12500_P

**REPLACEMENT LIFTING PIN FOR LIFTING BRACKET**  
**ERSATZTRAGBOLZEN FÜR TRAGWANGE**  
**PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

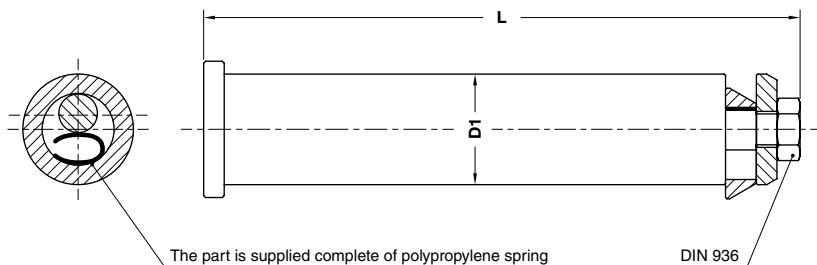
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** CK45



WEB



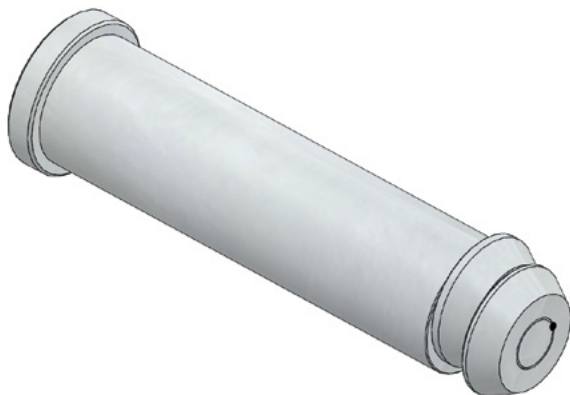
FCA CODE

ST\_KG1000\_P

FCA CODE	Max load (kg)	Max die weight (kg)	L	D1
ST_KG600_P	600	1200	102,5	15,6
ST_KG1000_P	1000	2000	113,5	20,6
ST_KG2000_P	2000	4000	128,5	25,6
ST_KG4000_P	4000	8000	166,5	33
ST_KG7000_P	7000	14000	210,5	43



**REPLACEMENT LIFTING PIN FOR LIFTING BRACKET**  
**ERSATZTRAGBOLZEN FÜR TRAGWANGE**  
**PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

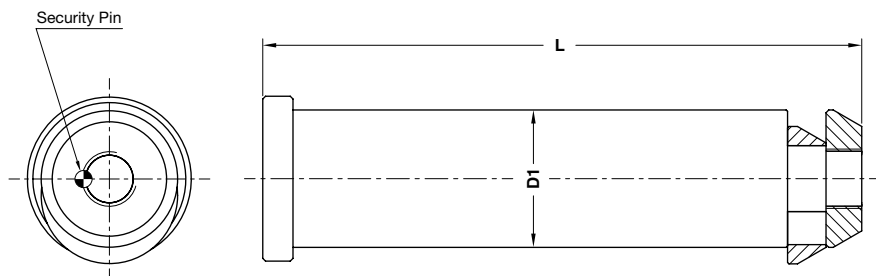
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** CK45



WEB



ORDER EXAMPLE 	FCA CODE
	ST_KG12500_P

FCA CODE	Max load (kg)	Max die weight (kg)	L	D1
ST_KG12500_P	12500	25000	246	60

## WEAR PLATE SELF-LUBRICATING GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE

### Notes

**Material:** Bronze + Graphite -

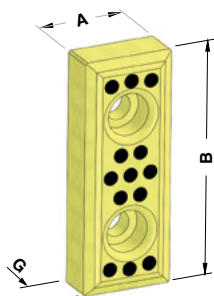
Only for replacement

Nur für Reparatur

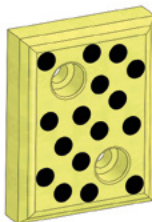
Solo per riparazione



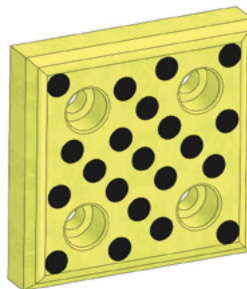
WEB



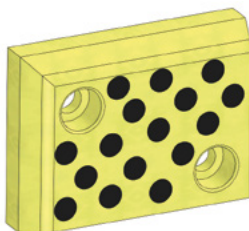
**FORM A**



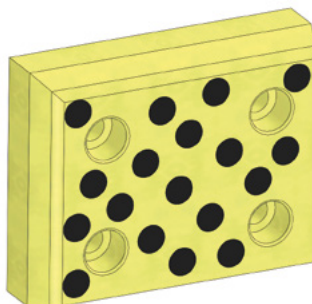
**FORM B**



**FORM C**



**FORM D**



**FORM E**



FCA CODE

BR2

FCA CODE	A	B	G	FORM	FCA CODE	A	B	G	FORM
BR1	38	100	20	A	BR6	100	150	20	C
BR2	38	150	20	A	BR10	100	75	18	D
BR3	75	100	20	B	BR11	125	100	25	E
BR4	75	150	20	A	BR12	150	125	25	E
BR5	100	100	20	C					

**WEAR PLATE STEEL**  
**GLEITPLATTE STAHL**  
**PIASTRA GUIDA IN ACCIAIO**

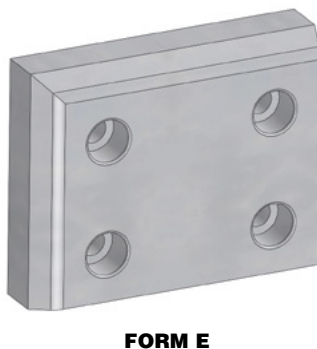
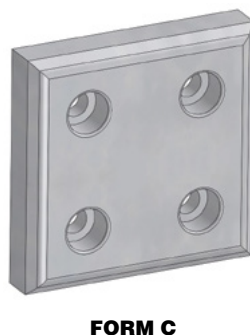
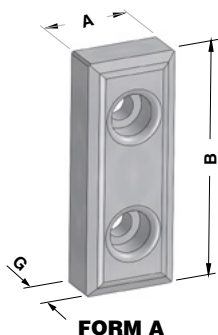
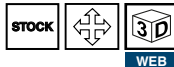
**Notes**

**Material:** 16MnCr5 - HRC: 58÷60

Only for replacement

Nur für Reparatur

Solo per riparazione



<b>FCA CODE</b>
ACC2

FCA CODE	A	B	G	FORM	FCA CODE	A	B	G	FORM
ACC1	38	100	20	A	ACC6	100	150	20	C
ACC2	38	150	20	A	ACC10	100	75	18	D
ACC3	75	100	20	B	ACC11	125	100	25	E
ACC4	75	150	20	A	ACC12	150	125	25	E
ACC5	100	100	20	C					

Standard FCA

## DISTANCE PLATE FOR WEAR PLATE HÖHEN AUSGLEICH FÜR GLEITPLATTE DISTANZIALE PER PIASTRA GUIDA

### Notes

**Material:** Si37

Only for replacement

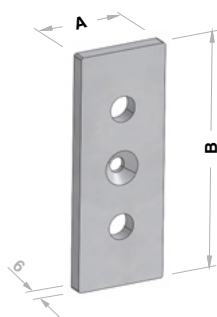
Nur für Reparatur

Solo per riparazione

STOCK



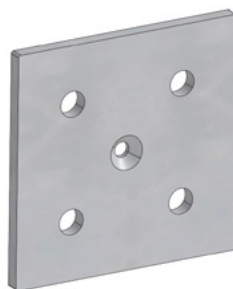
WEB



**FORM A**



**FORM B**



**FORM C**



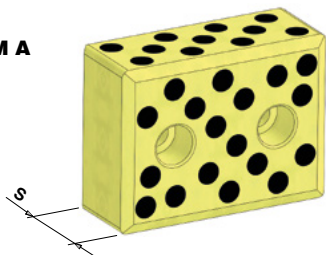
FCA CODE

TIPO 2-S-B

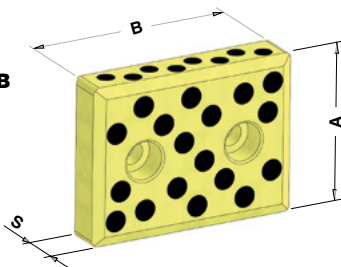
FCA CODE	A	B	FORM	FCA CODE	A	B	FORM
TIPO 1-S-B	38	100	A	TIPO 6-S-B	100	150	C
TIPO 2-S-B	38	150	A	TIPO 10-S-B	100	75	B
TIPO 3-S-B	75	100	B	TIPO 11-S-B	125	100	C
TIPO 4-S-B	75	150	A	TIPO 12-S-B	150	125	C
TIPO 5-S-B	100	100	C				

## GUIDE BAR SELF-LUBRICATING FÜHRUNGSLEITE BRONZE MIT FESTSCHMIERSTOFF LARDONE AUTOLUBRIFICANTE

**FORM A**



**FORM B**



### Notes

**Material:** Bronze + Graphite -

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK



WEB



FCA CODE

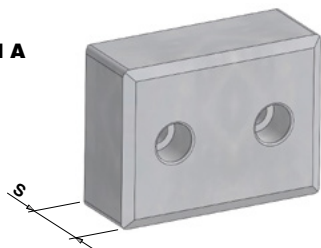
BR31

FCA CODE	A	B	S	FORM
BR30	48	100	20	B
BR31	48	150	20	B
BR32	75	100	20	B
BR33	75	150	20	B
BR7	75	100	38	A
BR8	75	150	38	A

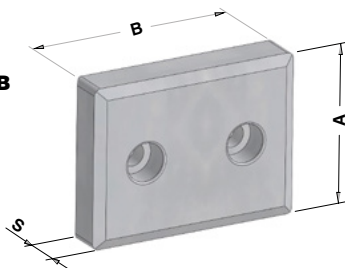
Standard FCA

## GUIDE BAR STEEL FÜHRUNGSLEITE STAHL LARDONE IN ACCIAIO

**FORM A**



**FORM B**



### Notes

**Material:** 16MnCr5 - HRC: 58÷60

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK



WEB

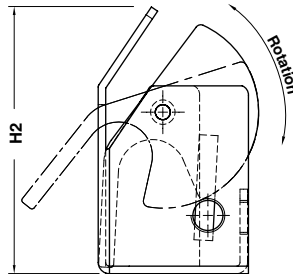
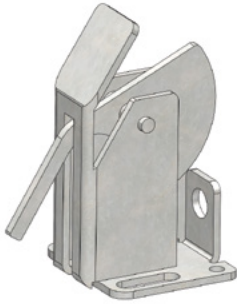


FCA CODE

ACC31

FCA CODE	A	B	S	FORM
ACC30	48	100	20	B
ACC31	48	150	20	B
ACC32	75	100	20	B
ACC33	75	150	20	B
ACC7	75	100	38	A
ACC8	75	150	38	A

FRONT GAGE - EINLAUFANSCHLAG - PORTASENSORE



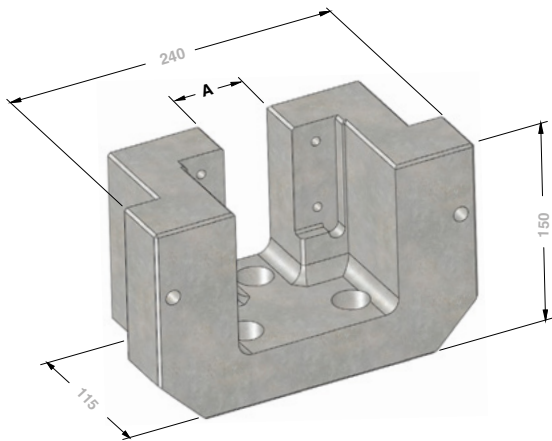
Notes

**Material:** Si37  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

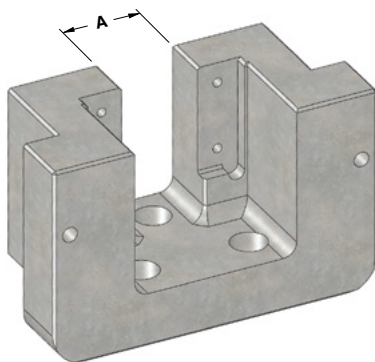


	FCA CODE
	RIF_M18L150
FCA CODE	H2
RIF_M18L120	117
RIF_M18L150	142
RIF_M18L180	192

**BRACKET FOR CLAMPS - KLAMMERN FÜR CLAMPS - STAFFE PER CLAMPS**



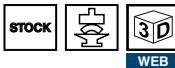
**ST\_S01**



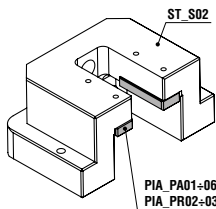
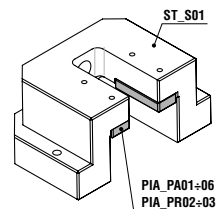
**ST\_S02**

**Notes**

**Material:** 36CrNiMo4  
950 ± 1000 N/mm<sup>2</sup>



**Application example\***



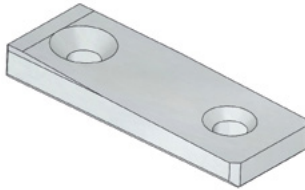
\* See STD 10062  
Sehen STD 10062  
Vedi STD 10062

Standard FCA

	<b>FCA CODE</b>
	<b>ST_S02</b>

FCA CODE	A
ST_S01	51
ST_S02	56

**PLATE FOR BRACKET - HALTESTÜCKE FÜR KLAMMERN - PIASTRINA PER STAFFE**



**Notes**

**Material:** 36CrNiMo4 - **HRC:** 50+52



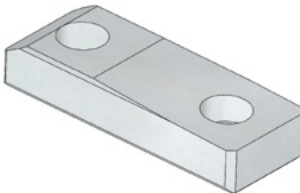
FCA CODE

PIA\_PA01

FCA CODE

PIA\_PA01

**PLATE FOR BRACKET - HALTESTÜCKE FÜR KLAMMERN - PIASTRINA PER STAFFE**



**Notes**

**Material:** 36CrNiMo4 - **HRC:** 50+52



FCA CODE

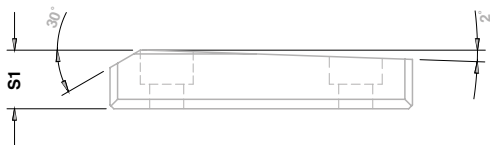
PIA\_PA02

FCA CODE

PIA\_PA02



**PLATE FOR BRACKET - HALTESTÜCKE FÜR KLAMMERN - PIASTRINA PER STAFFE**



**Notes**

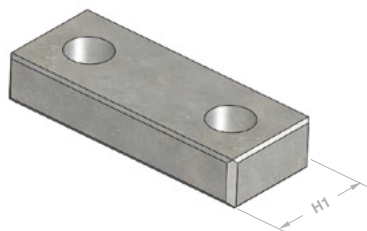
**Material:** 36CrNiMo4 · **HRC:** 50±52



	FCA CODE
	PIA_PA05
FCA CODE	S1
PIA_PA05	15.5
PIA_PA06	20.5

Standard FCA

**PLATE FOR BRACKET - HALTESTÜCKE FÜR KLAMMERN - PIASTRINA PER STAFFE**



**Notes**

**Material:** 36CrNiMo4 · **HRC:** 50±52



	FCA CODE
	PIA_PR03
FCA CODE	H1
PIA_PR02	32.5
PIA_PR03	35

## LOCATING - ZENTRIERUNG - CENTRAGGIO STAMPO



### Notes

**Material:** 36CrNiMo4

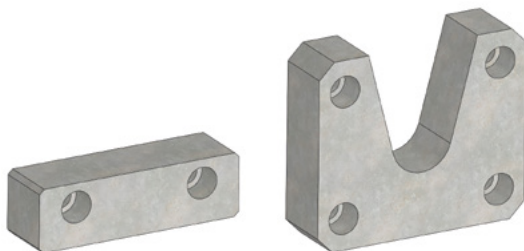


ORDER EXAMPLE 	FCA CODE
	CNT_ST_01

FCA CODE

CNT\_ST\_01

## STOP BLOCK - ANSCHLAG - FINE CORSA DIRITTO E A "V"



CTN\_ST\_02

CTN\_ST\_03

### Notes

**Material:** 36CrNiMo4



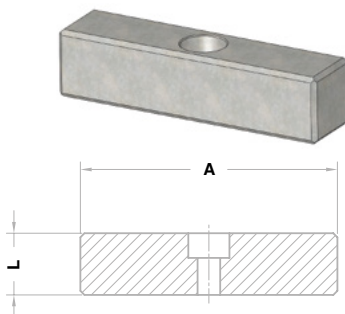
ORDER EXAMPLE 	FCA CODE
	CTN_ST_03

FCA CODE

CTN\_ST\_02

CTN\_ST\_03

## KEY - PASSFEDER - CHIAVETTA DI REAZIONE



### Notes

**Material:** CK45

ORDER EXAMPLE 	FCA CODE
	CH_R_025125

FCA CODE

A

L

CH\_R\_025080

80

25

CH\_R\_025125

125

25

CH\_R\_030080

80

30

CH\_R\_030125

125

30

CH\_R\_034090

90

34



**OMCR**  
STANDARD DIE COMPONENTS










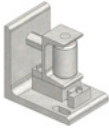








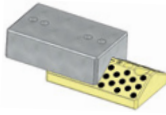
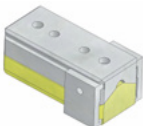

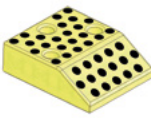







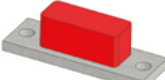



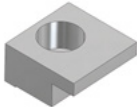

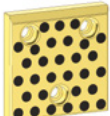










Die Components  
Normalien  
Componenti






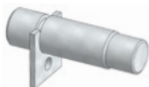





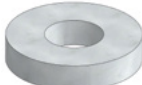


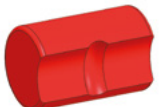







**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS


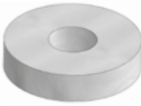



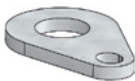








<b>WDX3-60-0165</b>	<b>WDX3-70 0101÷103</b>	<b>WDX3-70-0201</b>	<b>WDX3-70-2001-A</b>	<b>WDX3-70-2002-A</b>
				
Stripper for blanking dies Abstreifer für platinenschnitte Estrattore Per Stampi 276	Stock Keeper Plate Platte Piastra 276	Shoulder screw Stift Perno 277	Coil guide roller Bandführung Guidanastro 278	Coil guide roller Bandführung Guidanastro 278
<b>WDX3-70-2101-A</b>	<b>WDX3-80 2401÷2402</b>	<b>WDX4-70 0301÷0401</b>	<b>WDX4-70 0501÷0502</b>	<b>WDX4-70-0801</b>
				
Coil guide roller Bandführung Guidanastro 278	Visual locator setting punch Endkontrollstempel Punzone di visualizzazione 279	Locating cone Kegeldistanz Cono di centraggio 279	Distance Plate Abstimmzscheibe Distanziale 280	Locating Cone Zentrierbolzen Centraggio 280
<b>WDX7-60 1101÷1102</b>	<b>WDX7-60 1701÷1704</b>	<b>WDX7-60 1802÷1807</b>	<b>WDX7-65 01075200÷01150450</b>	<b>WDX7-65 03165150÷03165300</b>
				
Positive return wear plate Platte Piastra di reazione 281	Coupling plate Befestigungsplatte Staffa di reazione 281	Coupling nut Kupplungsmutter Aggancio Staffa 282	Wear plate steel Deckleiste stahl Piastra Guida in acciaio 283	"V" driver Prismenführung Guida a "V" 284
<b>WDX7-65 05111÷05243-A</b>	<b>WDX7-65 09100125÷09160170</b>	<b>WDX7-65 09100125÷09160170</b>	<b>WDX7-65-0445</b>	<b>WDX7-65- 11175100÷11175200</b>
				
"V" driver with positive return Prismenführung mit Zwangsrückholer Guida a "V" con gancio di ritorno 285	Cam dwell wear plate Überlaufkeile Cuneo 286	Cam dwell wear plate Überlaufkeile Cuneo 287	Positive return Zwangsrückholer Gancio 288	Cam slide cover plate Deckleiste für Schieber Supporto per camme 288

<b>WDX7-70-1001-A</b>	<b>WDX7-70-1536</b>	<b>WDX7-70 16080÷16130</b>	<b>WDX7-70 18050÷18100</b>	<b>WDX7-70 19090÷19140</b>
				
<p>Upper cam safety screw Sicherheitschraube für oberschieber Tirante di sicurezza</p>	<p>Slide stop block Schieberanschlag Arresto slitta</p>	<p>Stop block Anschlag Bocchetto di arresto</p>	<p>Cam buffer Anschlag Arresto</p>	<p>Buffer support Dämpferhalterung Supporto ammortizzatore</p>
<p>289</p>	<p>289</p>	<p>290</p>	<p>290</p>	<p>291</p>
<b>WDX13-60 08025÷08125-A</b>	<b>WDX13-60 08025÷08125</b>	<b>WDX13-60-1001</b>	<b>WDX13-65 01050100X-01160315X</b>	<b>WDX13-65 01050100Y-01160315Y</b>
				
<p>Guide bush NAAMS Führungsbuchse NAAMS Boccola autolubrificante NAAMS</p>	<p>Guide bush NAAMS Führungsbuchse NAAMS Boccola autolubrificante NAAMS</p>	<p>Toe clamp Haltestück Ritegno</p>	<p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p>	<p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p>
<p>291</p>	<p>292</p>	<p>292</p>	<p>293</p>	<p>294</p>
<b>WDX13-65 04040÷04152-1</b>	<b>WDX13-65 10080315÷10080400-A</b>	<b>WDX13-65 10080315÷10080400</b>	<b>WDX13-65 11080315÷11080400</b>	<b>WDX13-65 12125400÷12125500-A</b>
				
<p>Stop block Abstandsblock Distanziale</p>	<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post Führungssäule Colonna guida</p>
<p>295</p>	<p>296</p>	<p>296</p>	<p>297</p>	<p>297</p>
<b>WDX13-65 12125400÷12125500</b>	<b>WDX13-65 13125400÷13125500</b>	<b>WDX13-65 20025140÷20100500-A</b>	<b>WDX13-65 20025140÷20100500</b>	<b>WDX13-65 22025140÷22100500</b>
				
<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post NAAMS Führungssäule NAAMS Colonna guida NAAMS</p>	<p>Guide post Führungssäule Colonna guida</p>	<p>Guide post NAAMS Führungssäule NAAMS Colonna guida NAAMS</p>
<p>298</p>	<p>298</p>	<p>299</p>	<p>300</p>	<p>301</p>

<p><b>WDX14-60</b> <b>0125÷0163</b></p>  <p>Pad retainer plate Platte Piastra</p> <p>302</p>	<p><b>WDX14-60</b> <b>025501-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>302</p>	<p><b>WDX14-60</b> <b>025502-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>303</p>	<p><b>WDX14-60</b> <b>0325÷0363-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>304</p>	<p><b>WDX14-60-0406</b></p>  <p>Securing disc Scheibe Rondella di sicurezza</p> <p>304</p>
<p><b>WDX14-60</b> <b>0425÷0463-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>305</p>	<p><b>WDX14-60</b> <b>0516÷0530</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>306</p>	<p><b>WDX14-60</b> <b>0612÷0620</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>307</p>	<p><b>WDX14-60</b> <b>0901÷0904</b></p>  <p>Buffer Stoßdämpfer Ammortizzatore</p> <p>308</p>	<p><b>WDX14-60</b> <b>1001÷1004</b></p>  <p>Washer retainer Scheibe Rondella</p> <p>308</p>
<p><b>WDX14-60</b> <b>1006÷1009</b></p>  <p>Threaded Block Dübel Tassello</p> <p>308</p>	<p><b>WDX14-60</b> <b>1310÷1320</b></p>  <p>Washer retainer Scheibe Rondella</p> <p>308</p>	<p><b>WDX14-60</b> <b>1425÷1463-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>309</p>	<p><b>WDX14-60</b> <b>1525÷1563-A</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>310</p>	<p><b>WDX14-60</b> <b>1701÷1703</b></p>  <p>Shock absorber Halteelement Ammortizzatore</p> <p>310</p>
<p><b>WDX14-62-0175</b></p>  <p>Locating cone Kegeldistanz Cono di centraggio</p> <p>311</p>	<p><b>WDX14-65</b> <b>1110÷1116</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>311</p>	<p><b>WDX14-65</b> <b>0150180÷015250</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>313</p>	<p><b>WDX14-65</b> <b>0263200÷0263465</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>313</p>	<p><b>WDX14-65</b> <b>0380250÷0380400</b></p>  <p>Retainer bolt Zugbolzensatz Gruppo tirante</p> <p>314</p>

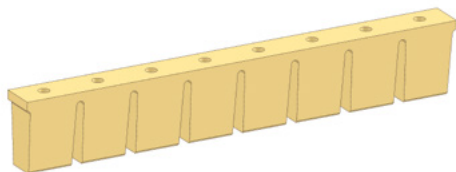


<b>WDX14-65</b> <b>04050180÷04080400</b>	<b>WDX14-70</b> <b>194032÷1980125</b>	<b>WDX15-70 0101</b>	<b>WDX15-70-0201</b>	<b>WDX15-70-0301</b>
				
Guide post Führungssäule Colonna guida	Elastomer spring Elastomerfeder Molla in elastomero	Bush Buchse Boccola	Washer Scheibe Rondella	Shim Spannschlitz Spessore
315	316	316	317	317
<b>WDX15-70-0401</b>	<b>WDX16-60</b> <b>01065÷01250</b>	<b>WDX16-70</b> <b>0301R÷0301L</b>	<b>WDX16-70</b> <b>0701R÷0701L</b>	<b>WDX16-70</b> <b>0901R÷0901L</b>
				
Locating Pin Zentrierbolzen Centraggio	Gage Hardened Einweiser Gehärtet Riferimento indurito	Support for sensor Lagekontrolle für platinen Supporto sensore	Support for sensor Lagekontrolle für platinen Supporto sensore	Support for sensor Lagekontrolle für platinen Supporto sensore
317	318	319	319	320
<b>WDX17-70-0501</b>	<b>WDX17-60</b> <b>0236175÷0245360</b>	<b>WDX17-60</b> <b>0345175÷0345360</b>	<b>WDX17-70</b> <b>0736175÷0745360</b>	<b>WDX17-70</b> <b>0845175÷0845360</b>
				
Clamp Haltestück Staffa	Air Pin Druckbolzen Candela	Air Pin Druckbolzen Candela	Air Pin Druckbolzen Candela	Air Pin Druckbolzen Candela
320	321	321	322	322
<b>WDX19-70</b> <b>0701÷0703</b>	<b>WDX20-65</b> <b>0310÷0325</b>	<b>WDX20-65-0601</b>	<b>WDX20-66</b> <b>0110-A÷0119-A</b>	<b>WDX20-66</b> <b>02110÷02119</b>
				
Bracket Bügel Staffa	Trademark stamp Buchstabenstempel Punzone marchio	Visual locator punch Endkontrollstempel Punzone di visualizzazione	Retainer for stamps Halteplatte Portatimbri	Retainer for stamps Halteplatte Portatimbri
323	323	323	324	324

<p><b>WDX20-66</b> 02210÷02219</p>  <p>Backing plate Druckplatte Distanziale</p> <p>324</p>	<p><b>WDX20-66</b> 03120÷03220-A</p>  <p>Retainer for stamps Halteplatte Portatimbri</p> <p>325</p>	<p><b>WDX20-66</b> 03115÷03112</p>  <p>Retainer for stamps Halteplatte Portatimbri</p> <p>325</p>	<p><b>WDX20-66</b> 03205÷03208</p>  <p>Backing plate Druckplatte Distanziale</p> <p>325</p>	<p><b>WDX20-66</b> 04120-A÷04121-A</p>  <p>Retainer for stamps Halteplatte Portatimbri</p> <p>326</p>
<p><b>WDX20-66</b> 04115÷04119</p>  <p>Retainer for stamps Halteplatte Portatimbri</p> <p>326</p>	<p><b>WDX20-66</b> 04205÷04277</p>  <p>Backing plate Druckplatte Distanziale</p> <p>326</p>	<p><b>WDX20-66</b> 0601÷0610</p>  <p>Stamps Buchstabenstempel Punzone marchio</p> <p>327</p>	<p><b>WDX20-70-0101</b></p>  <p>Visual locator punch Endkontrollstempel Punzone di visualizzazione</p> <p>327</p>	<p><b>WDX20-70</b> 0330÷0372</p>  <p>Retainer for stamps Halteplatte Portatimbri</p> <p>328</p>
<p><b>WDX20-70</b> 0430÷0472</p>  <p>Backing plate Druckplatte Distanziale</p> <p>328</p>	<p><b>WDX22-70</b> 0135÷0180</p>  <p>Lifting pin Tragbolzen mit fallringsicherung Perno di sollevamento</p> <p>329</p>	<p><b>WDX22-70-0501</b></p>  <p>Lifting bracket Tragzapfen Staffa di sollevamento</p> <p>330</p>	<p><b>WDX30-60</b> 0125125÷0130180</p>  <p>Standard key Passfeder Chiavetta</p> <p>330</p>	<p><b>WDX30-60</b> 02080÷02125</p>  <p>Standard key Passfeder Chiavetta</p> <p>331</p>
<p><b>WDX35-70</b> 1401÷1502</p>  <p>Air coupling bracket Luftanschlussblock Supporto innesti rapidi</p> <p>331</p>	<p><b>WDX35-70</b> 1611÷1662</p>  <p>Color mark air connection Farbige Scheibe Coperchio colorato</p> <p>331</p>			



## STRIPPER FOR BLANKING DIES - ABSTREIFER FUR PLATINENSCHNITTE - ESTRATTORE PER STAMPI



### Notes

**Material:** Urelast 90 SH

**STOCK**



**FORD CODE**

WDX3-60-0165

**FORD CODE**

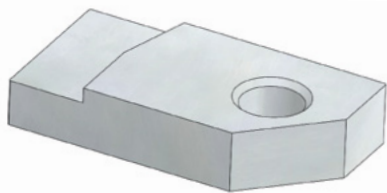
WDX3-60-0165

# WDX3-70

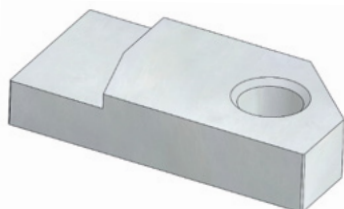
## STOCK KEEPER PLATE - PLATTE - PIASTRA



**WDX3-70-0101**



**WDX3-70-0102**



**WDX3-70-0103**

### Notes

**Material:** Si37

**STOCK**

\*Stanzwerkzeuge  
Stampi di tranciatura

\*\*Folgeverbundwerkzeuge  
Stampi progressivi



**FORD CODE**

WDX3-70-0102

**FORD CODE**

**Using**

WDX3-70-0101

Blank dies\*

WDX3-70-0102

Progressive dies\*\*

WDX3-70-0103

Progressive dies\*\*

**SHOULDER SCREW - STIFT - PERNO**



**Notes**

**Material:** CK45

**STOCK**



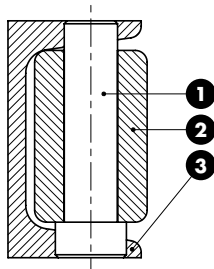
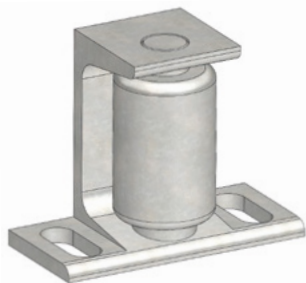
**FORD CODE**

**WDX3-70-0201**

**FORD CODE**

**WDX3-70-0201**

**COIL GUIDE ROLLER - BANDFÜHRUNG - GUIDANASTRO**



**Notes**

**2** Material: Steel - HRC: 58+60

**1 3** Material: Steel



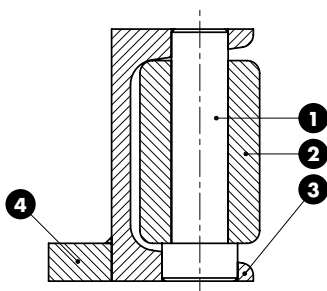
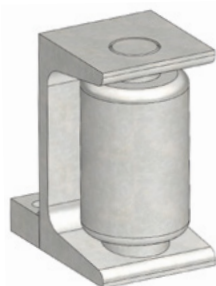
FORD CODE

WDX3-70-2001-A

FORD CODE

WDX3-70-2001-A

**COIL GUIDE ROLLER - BANDFÜHRUNG - GUIDANASTRO**



**Notes**

**2** Material: Steel - HRC: 58+60

**1 3 4** Material: Steel



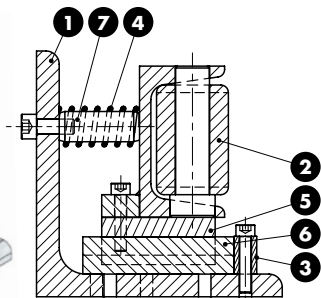
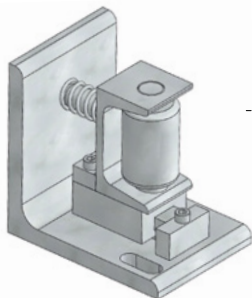
FORD CODE

WDX3-70-2002-A

FORD CODE

WDX3-70-2002-A

**COIL GUIDE ROLLER - BANDFÜHRUNG - GUIDANASTRO MOBILE**



**Notes**

**2** WDX3-70-2202-A

**1 3 4** Material: Steel

**5 6 7**



FORD CODE

WDX3-70-2101-A

FORD CODE

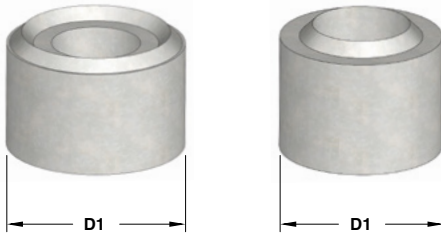
WDX3-70-2101-A

**VISUAL LOCATOR SETTING PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE**

**Notes**

**Material:** X155CrVMo  
**HRC:** 58÷60

**STOCK**



	<b>FORD CODE</b>	
	WDX3-80-2402	
<b>FORD CODE</b>	<b>D1</b>	
WDX3-80-2401	30	
WDX3-80-2402	25	

Standard Ford

**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**

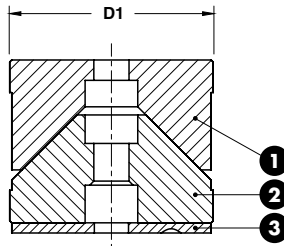
**Notes**

**1 2 Material:** 16MnCr5  
**HRC:** 58÷60

**3 Material:** St37

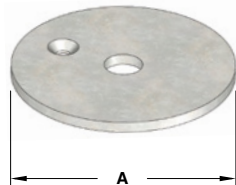
Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**



	<b>FORD CODE</b>	
	WDX4-70-0401-A	
<b>FORD CODE</b>	<b>D1</b>	
WDX4-70-0301-A	100	
WDX4-70-0401-A	75	

**DISTANCE PLATE - ABSTIMMSCHEIBE - DISTANZIALE**



**Notes**

**Material:** Si37  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**



<b>FORD CODE</b>
WDX4-70-0502

FORD CODE	A	For cone assembly
WDX4-70-0501	73	WDX4-70-0401-A
WDX4-70-0502	98	WDX4-70-0301-A

**LOCATING CONE - ZENTRIERBOLZEN - CENTRAGGIO**



**Notes**

**Material:** CK45  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**



<b>FORD CODE</b>
WDX4-70-0801

FORD CODE
WDX4-70-0801

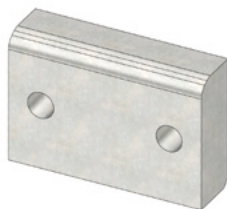


**POSITIVE RETURN WEAR PLATE - PLATTE - PIASTRA DI REAZIONE**

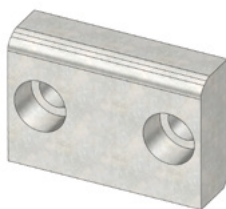
**Notes**

**Material:** CK45 - **HRC:** 58±60

**STOCK**



**WDX7-60-1101**



**WDX7-60-1102**

	FORD CODE
	WDX7-60-1102
FORD CODE	
WDX7-60-1101	
WDX7-60-1102	

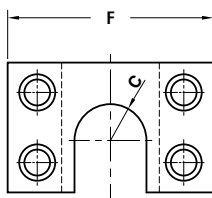
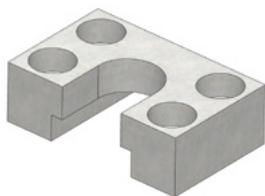
Standard Ford

**COUPLING PLATE - BEFESTIGUNGSPLATTE - STAFFA DI REAZIONE**

**Notes**

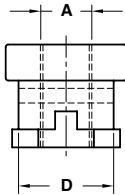
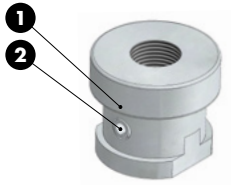
**Material:** CK45

**STOCK**



	FORD CODE	
	WDX7-60-1702	
FORD CODE	F	C
WDX7-60-1701	80	14
WDX7-60-1702	100	20
WDX7-60-1703	120	25
WDX7-60-1704	150	33

## COUPLING NUT - KUPPLUNGSMUTTER - AGGANCIO STAFFA



### Notes

- 1 **Material:** CK45
- 2 Spring-type straight pin  
DIN EN ISO 8752

STOCK

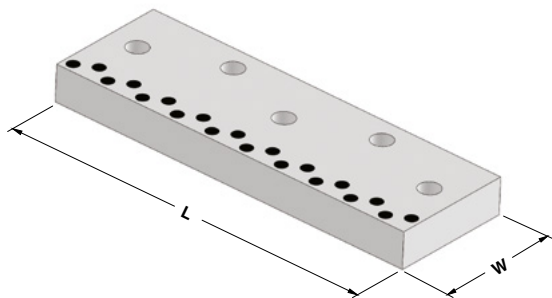


### FORD CODE

WDX7-60-1803

FORD CODE	A	D
WDX7-60-1802	M12x1.25	25
WDX7-60-1803	M16x1.5	37
WDX7-60-1804	M20x1.5	37
WDX7-60-1808	M27x2	37
WDX7-60-1806	M36x2	47
WDX7-60-1807	M42x2	59

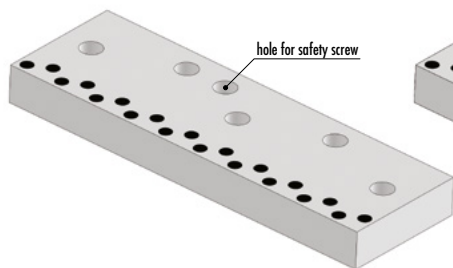
## WEAR PLATE STEEL SELF-LUBRICATING DECKLEISTE STAHL MIT FESTSCHMIERSTOFF PIASTRA GUIDA IN ACCIAIO AUTOLUBRIFICANTE



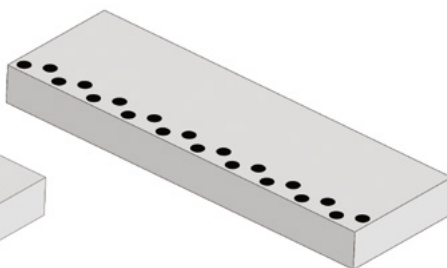
**Notes**  
**Material:** CK45 + Graphite  
**HRC:** 58÷60



Standard Ford



**OPTION S**



**OPTION N**

**OPTION**

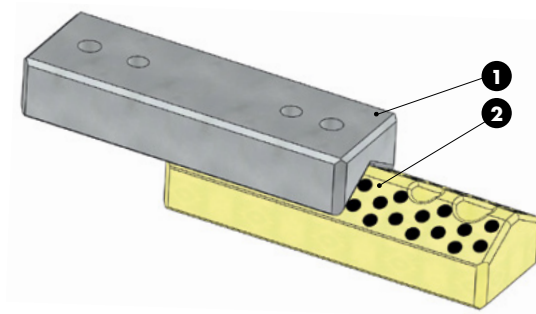
S: With holes and hole for safety screw / mit Löchern und Bohrung für Sicherheitsschrauben / Con fori e foro per vite di sicurezza

N: Without holes / Ohne Löcher / Senza fori

	<b>FORD CODE</b>	<b>OPTION</b>
	WDX7-65-01075253	S

FORD CODE	W	L	Holes	FORD CODE	W	L	Holes
WDX7-65-01075200	75	200	3	WDX7-65-01125200	125	200	3
WDX7-65-01075253	75	250	3	WDX7-65-01125253	125	250	3
WDX7-65-01075315	75	315	5	WDX7-65-01125315	125	315	5
WDX7-65-01075350	75	350	5	WDX7-65-01125350	125	350	5
WDX7-65-01075400	75	400	5	WDX7-65-01125400	125	400	5
WDX7-65-01075450	75	450	5	WDX7-65-01125450	125	450	5
WDX7-65-01100200	100	200	3	WDX7-65-01150200	150	200	3
WDX7-65-01100253	100	250	3	WDX7-65-01150253	150	250	3
WDX7-65-01100315	100	315	5	WDX7-65-01150315	150	315	5
WDX7-65-01100350	100	350	5	WDX7-65-01150350	150	350	5
WDX7-65-01100400	100	400	5	WDX7-65-01150400	150	400	5
WDX7-65-01100450	100	450	5	WDX7-65-01150450	150	450	5

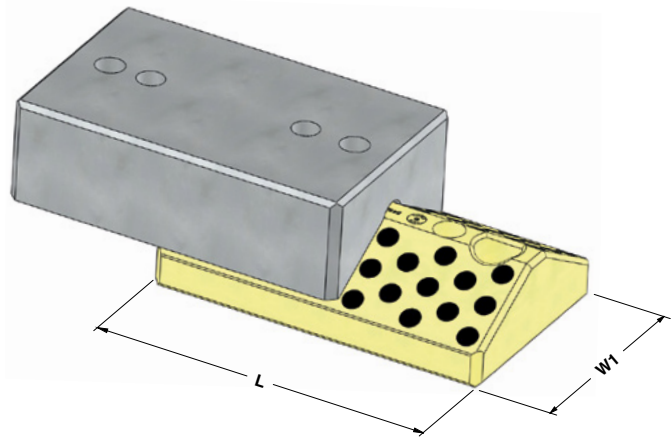
**"V" DRIVER - PRISMENFÜHRUNG - GUIDA A "V"**




**Notes**

- 1 Material:** CK45  
**HRC:** 58÷60
- 2 Material:** Bronze + Graphite  
**HB** > 190

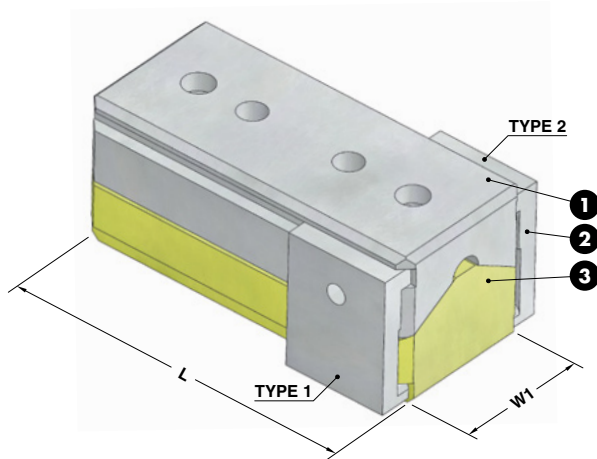
STOCK  



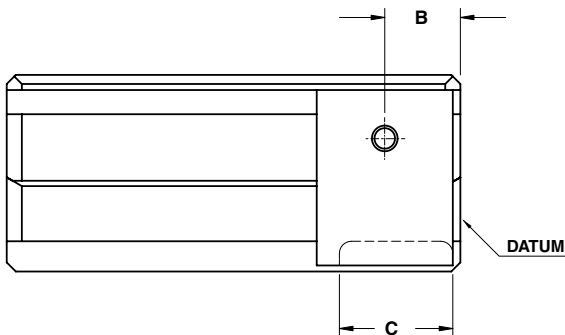
<b>ORDER EXAMPLE</b> 	<b>FORD CODE</b>
	WDX7-65-03065200

FORD CODE	W1	H1	L
WDX7-65-03065150	65	65	150
WDX7-65-03065200	65	65	200
WDX7-65-03065250	65	65	250
WDX7-65-03065300	65	65	300
WDX7-65-03125150	125	85	150
WDX7-65-03125200	125	85	200
WDX7-65-03125250	125	85	250
WDX7-65-03125300	125	85	300

## "V" DRIVER WITH POSITIVE RETURN PRISMENFÜHRUNG MIT ZWANGSRÜCKHOLER GUIDA A "V" CON GANCIO DI RITORNO



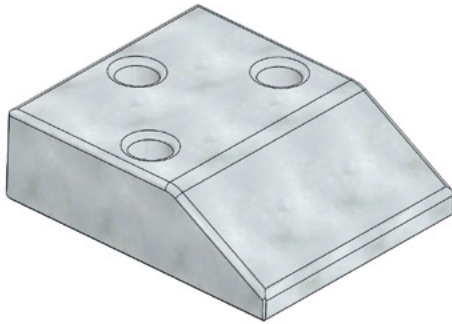
Notes	
1	<b>Material:</b> CK45 - HRC: 58÷60
2	<b>Material:</b> 42CrMo4
3	<b>Material:</b> Bronze + Graphite <b>HB</b> > 190



ORDER EXAMPLE	FORD CODE	B=26	C=24
	WDX7-65-05112-A	B26	C24

FORD CODE	W1	L	Clamp	FORD CODE	W1	L	Clamp
WDX7-65-05111-A	65	150	RIGHT	WDX7-65-05211-A	125	150	RIGHT
WDX7-65-05112-A	65	150	LEFT	WDX7-65-05212-A	125	150	LEFT
WDX7-65-05113-A	65	150	BOTH	WDX7-65-05213-A	125	150	BOTH
WDX7-65-05121-A	65	200	RIGHT	WDX7-65-05221-A	125	200	RIGHT
WDX7-65-05122-A	65	200	LEFT	WDX7-65-05222-A	125	200	LEFT
WDX7-65-05123-A	65	200	BOTH	WDX7-65-05223-A	125	200	BOTH
WDX7-65-05131-A	65	250	RIGHT	WDX7-65-05231-A	125	250	RIGHT
WDX7-65-05132-A	65	250	LEFT	WDX7-65-05232-A	125	250	LEFT
WDX7-65-05133-A	65	250	BOTH	WDX7-65-05233-A	125	250	BOTH
WDX7-65-05141-A	65	300	RIGHT	WDX7-65-05241-A	125	300	RIGHT
WDX7-65-05142-A	65	300	LEFT	WDX7-65-05242-A	125	300	LEFT
WDX7-65-05143-A	65	300	BOTH	WDX7-65-05243-A	125	300	BOTH

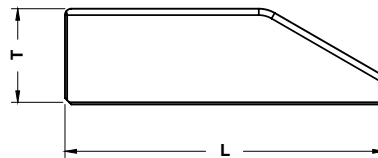
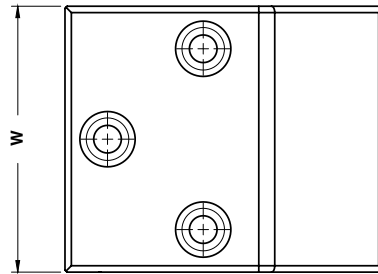
**CAM DWELL WEAR PLATE STEEL**  
**UBERLAUFKEILE STAHL**  
**CUNEO IN ACCIAIO**



**Notes**

**Material:** 20MnCr5  
**HRC:** 56÷60

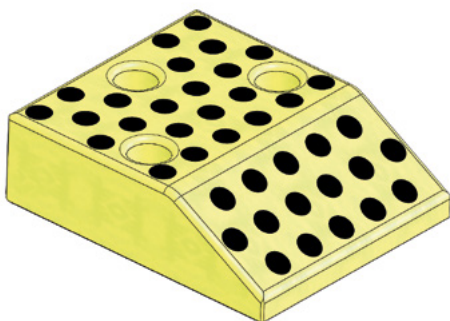
STOCK



	<b>FORD CODE</b>
	WDX7-65-09100150X

FORD CODE	T	W	L
WDX7-65-09100125X	30	100	125
WDX7-65-09100150X	45	100	150
WDX7-65-09100170X	60	100	170
WDX7-65-09125125X	30	125	125
WDX7-65-09125150X	45	125	150
WDX7-65-09125170X	60	125	170
WDX7-65-09160125X	30	160	125
WDX7-65-09160150X	45	160	150
WDX7-65-09160170X	60	160	170

## CAM DWELL WEAR PLATE SELF-LUBRICATING UBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF CUNEO AUTOLUBRIFICANTE



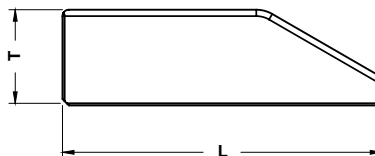
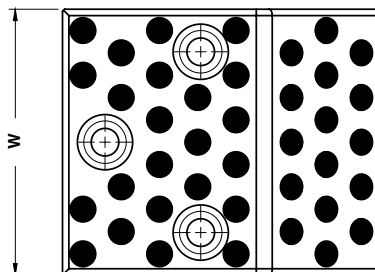
### Notes

**Material:** Bronze + Graphite  
**HB** > 190

STOCK



Standard Ford



	FORD CODE
	WDX7-65-09100150Y

FORD CODE	T	W	L
WDX7-65-09100125Y	30	100	125
WDX7-65-09100150Y	45	100	150
WDX7-65-09100170Y	60	100	170
WDX7-65-09125125Y	30	125	125
WDX7-65-09125150Y	45	125	150
WDX7-65-09125170Y	60	125	170
WDX7-65-09160125Y	30	160	125
WDX7-65-09160150Y	45	160	150
WDX7-65-09160170Y	60	160	170

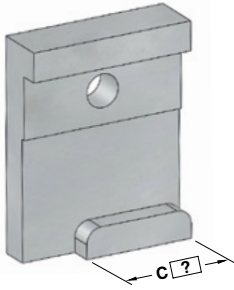
**POSITIVE RETURN - ZWANGRÜCKHOLER - GANCIO**

**Notes**

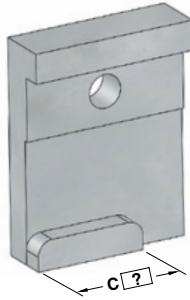
**Material:** CK45 - HRC: 28÷30



**TYPE 1**



**TYPE 2**



	<b>FORD CODE</b>	<b>TYPE</b>	<b>C=24</b>
	WDX7-65-0445	1	C24

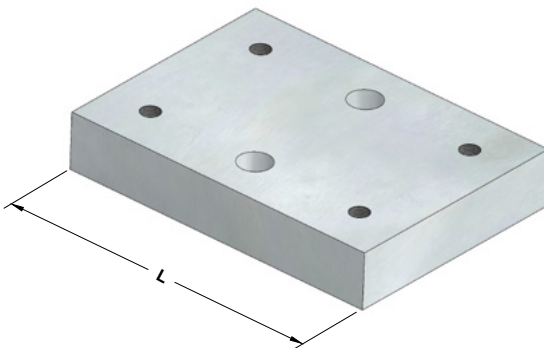
**FORD CODE**

WDX7-65-0445

**CAM SLIDE COVER PLATE - DECKLEISTE FÜR SCHIEBER - SUPPORTO PER CAMME**

**Notes**

**Material:** S137

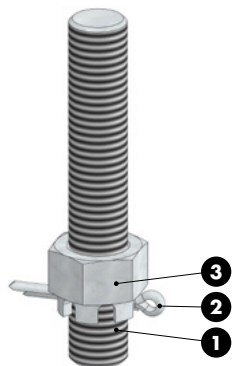


	<b>FORD CODE</b>
	WDX7-65-11175125

<b>FORD CODE</b>	<b>L</b>
WDX7-65-11175100	100
WDX7-65-11175125	125
WDX7-65-11175160	160
WDX7-65-11175200	200



## UPPER CAM SAFETY SCREW SICHERHEITSSCHRAUBE FÜR OBERSCHIEBER TIRANTE DI SICUREZZA



Max load= 1000 kg

### Notes

- 1 Thread rod cl. 8.8
- 2 DIN EN ISO 1234 - 4x32
- 3 DIN 935 cl. 8.8

STOCK



FORD CODE

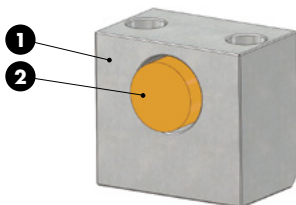
WDX7-70-1001-A

FORD CODE

WDX7-70-1001-A

Standard Ford

## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



### Notes

- 1 Material: CK45
- 2 Material: Urethan 90 SH

STOCK



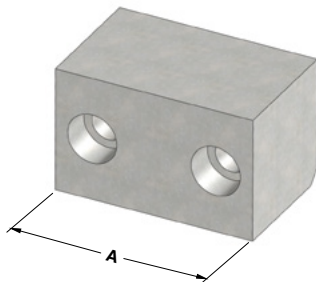
FORD CODE

WDX7-70-1536

FORD CODE

WDX7-70-1536

## STOP BLOCK - ANSCHLAG - BLOCCHETTO DI ARRESTO



### Notes

**Material:** CK45

**STOCK**

\*Eigesetz mit nockendämpfer  
Usato con cam buffer



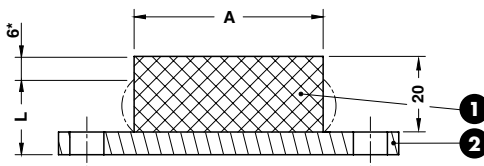
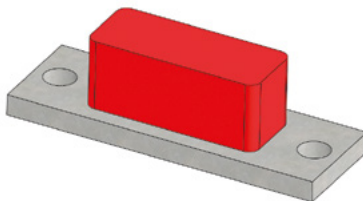
**FORD CODE**

WDX7-70-16130

FORD CODE	A	Used with cam buffer*
WDX7-70-16080	80	WDX7-60-1501
WDX7-70-16130	130	WDX7-60-1502

# WDX7-70

## CAM BUFFER - ANSCHLAG - ARRESTO



### Notes

**1 Material:** Polyurethane 90 SH

**2 Material:** St37

**STOCK**

\*Max. deflection  
Max. zul. Federweg  
Deflessione massima

\*\*Gegenkraft bei 6mm max. zul. Federweg  
Max. reaction force with 6 mm deflection  
Forza di reazione massima per deflessione di 6mm

\*\*\*Maximal absorbierte Energie bei 6 mm max. zul. Federweg  
Massima energia assorbita con deflessione di 6 mm

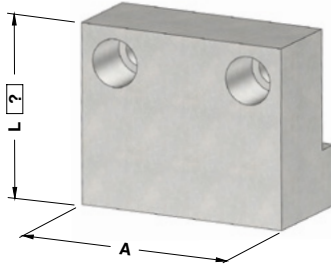


**FORD CODE**

WDX7-70-18100

FORD CODE	A	Force for length "L" (kN)**	Max energy absorbtion with 6 mm deflection (J)***
WDX7-70-18050	50	10	30
WDX7-70-18100	100	20	60

## BUFFER SUPPORT - DÄMPFERHALTERUNG - SUPPORTO AMMORTIZZATORE



### Notes

**Material:** CK45



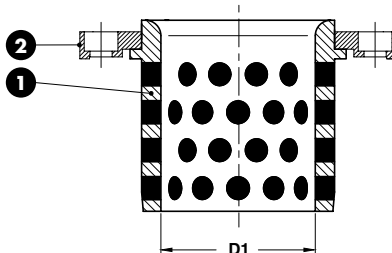
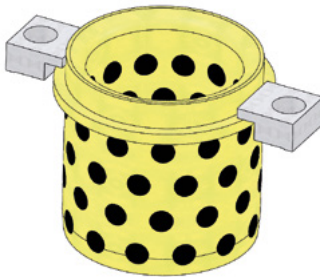
\*Eigesetz mit nockendämpfer  
Usato con cam buffer

	<b>FORD CODE</b>	L=100
	WDX7-70-19140	L100

FORD CODE	A	Used with cam buffer*
WDX7-70-19090	90	WDX7-70-18050
WDX7-70-19140	140	WDX7-70-18100

# WDX13-60

## GUIDE BUSH NAAMS - FÜHRUNGSBUCHSE NAAMS - BOCCOLA AUTOLUBRIFICANTE NAAMS



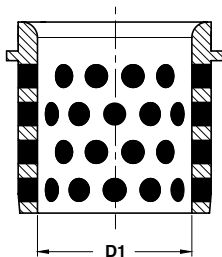
### Notes

- Material:** Bronze + Graphite  
HB > 190
- Material:** CK45 - WDX13-60-1001



	<b>FORD CODE</b>
	WDX13-60-08032-A

FORD CODE	D1	Toe clamp qty.
WDX13-60-08025-A	25	1
WDX13-60-08032-A	32	1
WDX13-60-08040-A	40	1
WDX13-60-08050-A	50	1
WDX13-60-08063-A	63	2
WDX13-60-08080-A	80	2
WDX13-60-08100-A	100	2
WDX13-60-08125-A	125	2



### Notes

**Material:** Bronze + Graphite  
**HB** > 190

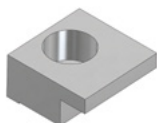
STOCK



### FORD CODE

WDX13-60-08032

FORD CODE	D1
WDX13-60-08025	25
WDX13-60-08032	32
WDX13-60-08040	40
WDX13-60-08050	50
WDX13-60-08063	63
WDX13-60-08080	80
WDX13-60-08100	100
WDX13-60-08125	125



### Notes

**Material:** CK45

STOCK



### FORD CODE

WDX13-60-1001

FORD CODE
WDX13-60-1001

## WEAR PLATE STEEL - GLEITPLATTE STAHL - PIASTRA GUIDA IN ACCIAIO

### Notes

**Material:** 16MnCr5  
**HRC:** 58÷60

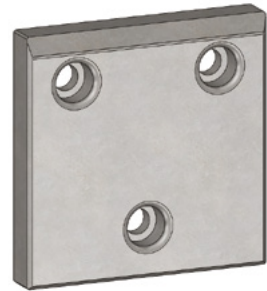
STOCK



**FORM A**



**FORM B**



**FORM C**

Standard Ford

	FORD CODE
	WDX13-65-01050125X

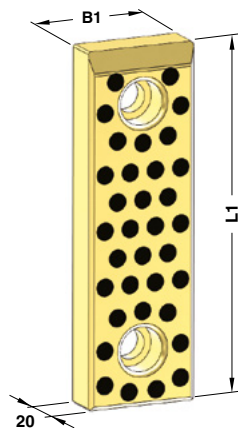
FORD CODE	B1	L1	FORM	FORD CODE	B1	L1	FORM
WDX13-65-01050100X	50	100	A	WDX13-65-01100250X	100	250	A
WDX13-65-01050125X	50	125	A	WDX13-65-01100315X	100	315	A
WDX13-65-01050160X	50	160	A	WDX13-65-01125100X	125	100	C
WDX13-65-01050200X	50	200	A	WDX13-65-01125125X	125	125	C
WDX13-65-01080100X	80	100	A	WDX13-65-01125160X	125	160	C
WDX13-65-01080125X	80	125	A	WDX13-65-01125200X	125	200	C
WDX13-65-01080160X	80	160	A	WDX13-65-01125250X	125	250	C
WDX13-65-01080200X	80	200	A	WDX13-65-01125315X	125	315	C
WDX13-65-01080250X	80	250	A	WDX13-65-01160100X	160	100	C
WDX13-65-01080315X	80	315	A	WDX13-65-01160125X	160	125	C
WDX13-65-01100050X	100	50	B	WDX13-65-01160160X	160	160	C
WDX13-65-01100100X	100	100	A	WDX13-65-01160200X	160	200	C
WDX13-65-01100125X	100	125	A	WDX13-65-01160250X	160	250	C
WDX13-65-01100160X	100	160	A	WDX13-65-01160315X	160	315	C
WDX13-65-01100200X	100	200	A				

## WEAR PLATE SELF-LUBRICATING GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE

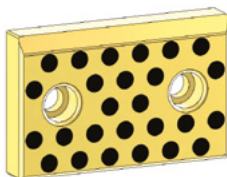
### Notes

**Material:** Bronze + Graphite  
**HB** > 190

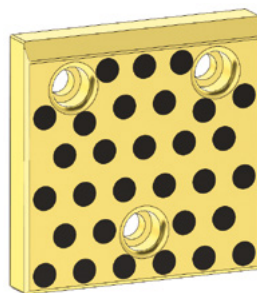
STOCK



**FORM A**



**FORM B**



**FORM C**

	FORD CODE
	WDX13-65-01050125Y

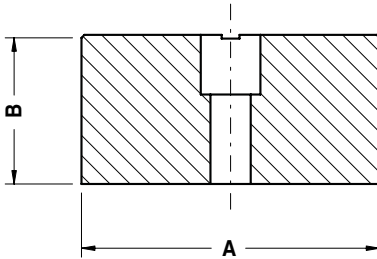
FORD CODE	B1	L1	FORM	FORD CODE	B1	L1	FORM
WDX13-65-01050100Y	50	100	A	WDX13-65-01100250Y	100	250	A
WDX13-65-01050125Y	50	125	A	WDX13-65-01100315Y	100	315	A
WDX13-65-01050160Y	50	160	A	WDX13-65-01125100Y	125	100	C
WDX13-65-01050200Y	50	200	A	WDX13-65-01125125Y	125	125	C
WDX13-65-01080100Y	80	100	A	WDX13-65-01125160Y	125	160	C
WDX13-65-01080125Y	80	125	A	WDX13-65-01125200Y	125	200	C
WDX13-65-01080160Y	80	160	A	WDX13-65-01125250Y	125	250	C
WDX13-65-01080200Y	80	200	A	WDX13-65-01125315Y	125	315	C
WDX13-65-01080250Y	80	250	A	WDX13-65-01160100Y	160	100	C
WDX13-65-01080315Y	80	315	A	WDX13-65-01160125Y	160	125	C
WDX13-65-01100050Y	100	50	B	WDX13-65-01160160Y	160	160	C
WDX13-65-01100100Y	100	100	A	WDX13-65-01160200Y	160	200	C
WDX13-65-01100125Y	100	125	A	WDX13-65-01160250Y	160	250	C
WDX13-65-01100160Y	100	160	A	WDX13-65-01160315Y	160	315	C
WDX13-65-01100200Y	100	200	A				

**STOP BLOCK  
ABSTANDBLOCK  
DISTANZIALE**


**Notes**

**Material:** CK45

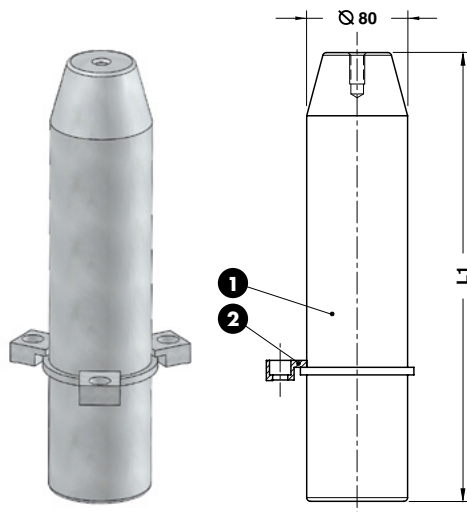
**STOCK**



Standard Ford

	<b>FORD CODE</b>	
	<b>WDX13-65-04060 1</b>	
<b>FORD CODE</b>	<b>A</b>	<b>B</b>
<b>WDX13-65-04040 1</b>	40	30
<b>WDX13-65-04060 1</b>	60	50
<b>WDX13-65-04100 1</b>	100	50
<b>WDX13-65-04152 1</b>	152	50

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



### Notes

**1** Material: 16MnCr5  
HRC: 58÷60

**2** Material: CK45  
WDX13-60-1001

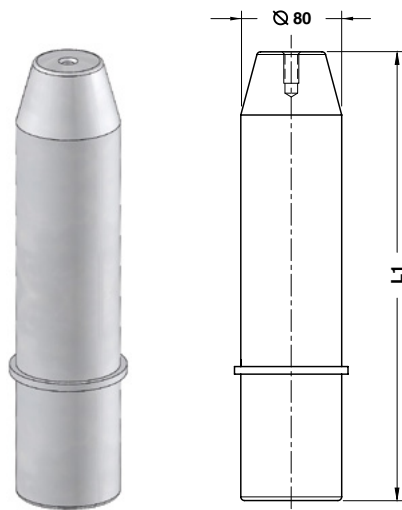


### FORD CODE

WDX13-65-10080355-A

FORD CODE	L1	Toe clamp qty.
WDX13-65-10080315-A	315	3
WDX13-65-10080355-A	355	3
WDX13-65-10080400-A	400	3

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



### Notes

Material: 16MnCr5  
HRC: 58÷60



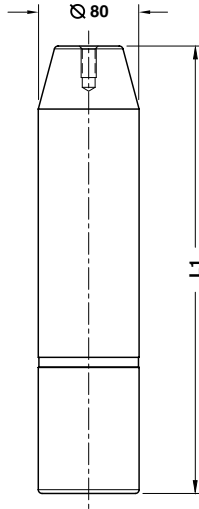
### FORD CODE

WDX13-65-10080355

FORD CODE	L1
WDX13-65-10080315	315
WDX13-65-10080355	355
WDX13-65-10080400	400



**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**



**Notes**

**Material:** 16MnCr5  
**HRC:** 58÷60

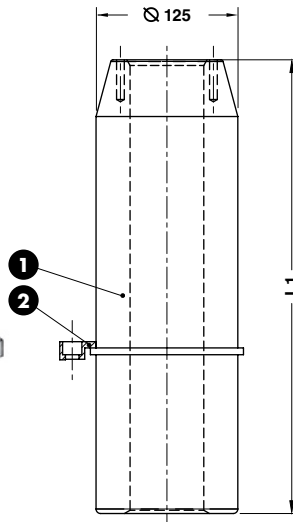


<b>FORD CODE</b>
<b>WDX13-65-11080355</b>

FORD CODE	L1
WDX13-65-11080315	315
WDX13-65-11080355	355
WDX13-65-11080400	400

Standard Ford

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**



**Notes**

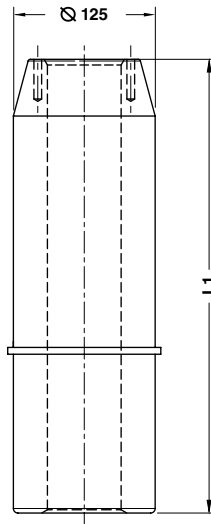
- 1 Material:** 16MnCr5  
**HRC:** 60÷62
- 2 Material:** CK45  
WDX13-60-1001



<b>FORD CODE</b>
<b>WDX13-65-12125450-A</b>

FORD CODE	L1	Toe clamp qty.
WDX13-65-12125400-A	400	3
WDX13-65-12125450-A	450	3
WDX13-65-12125500-A	500	3

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



### Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

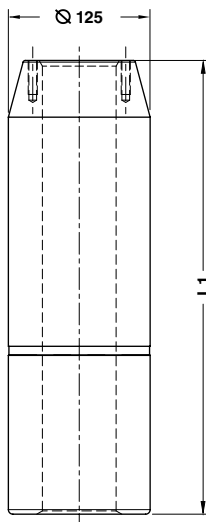


### FORD CODE

WDX13-65-12125450

FORD CODE	L1
WDX13-65-12125400	400
WDX13-65-12125450	450
WDX13-65-12125500	500

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



### Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

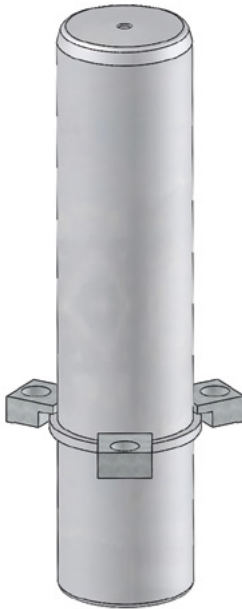


### FORD CODE

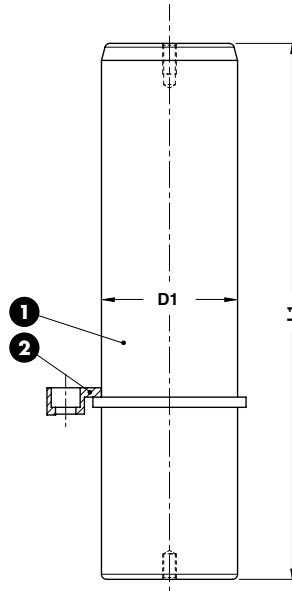
WDX13-65-13125400

FORD CODE	L1
WDX13-65-13125355	355
WDX13-65-13125400	400
WDX13-65-13125450	450
WDX13-65-13125500	500

## GUIDE POST NAAMS - FÜHRUNGSSÄULE NAAMS - COLONNA GUIDA NAAMS



Notes	
1	<b>Material:</b> 16MnCr5 <b>HRC:</b> 60÷62
2	<b>Material:</b> CK45 WDX13-60-1001



Standard Ford

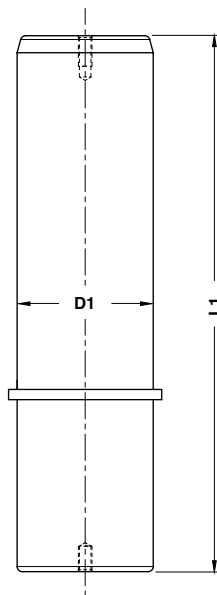
ORDER EXAMPLE	FORD CODE
	WDX13-65-20025160-A

FORD CODE	D1	L1	Toe clamp qty.	FORD CODE	D1	L1	Toe clamp qty.
WDX13-65-20025140-A	25	140	2	WDX13-65-20050315-A	50	315	2
WDX13-65-20025160-A	25	160	2	WDX13-65-20063200-A	63	200	3
WDX13-65-20025180-A	25	180	2	WDX13-65-20063224-A	63	224	3
WDX13-65-20032140-A	32	140	2	WDX13-65-20063250-A	63	250	3
WDX13-65-20032160-A	32	160	2	WDX13-65-20063280-A	63	280	3
WDX13-65-20032180-A	32	180	2	WDX13-65-20063315-A	63	315	3
WDX13-65-20032200-A	32	200	2	WDX13-65-20063355-A	63	355	3
WDX13-65-20040160-A	40	160	2	WDX13-65-20063400-A	63	400	3
WDX13-65-20040180-A	40	180	2	WDX13-65-20080250-A	80	250	3
WDX13-65-20040200-A	40	200	2	WDX13-65-20080280-A	80	280	3
WDX13-65-20040224-A	40	224	2	WDX13-65-20080315-A	80	315	3
WDX13-65-20040250-A	40	250	2	WDX13-65-20080355-A	80	355	3
WDX13-65-20050160-A	50	160	2	WDX13-65-20080400-A	80	400	3
WDX13-65-20050180-A	50	180	2	WDX13-65-20080500-A	80	500	3
WDX13-65-20050200-A	50	200	2	WDX13-65-20100315-A	100	315	3
WDX13-65-20050224-A	50	224	2	WDX13-65-20100355-A	100	355	3
WDX13-65-20050250-A	50	250	2	WDX13-65-20100400-A	100	400	3
WDX13-65-20050280-A	50	280	2	WDX13-65-20100500-A	100	500	3

## GUIDE POST NAAMS - FÜHRUNGSSÄULE NAAMS - COLONNA GUIDA NAAMS



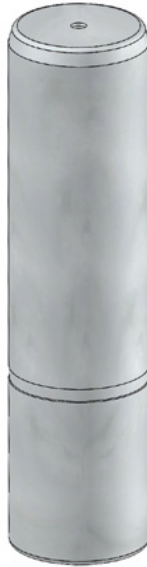
**Notes**  
**Material:** 16MnCr5  
**HRC:** 60±62



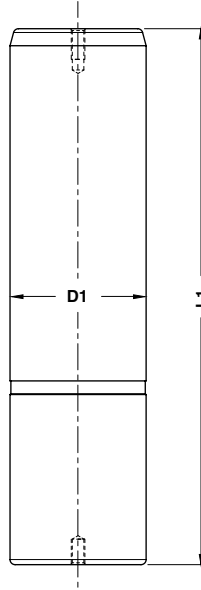
	FORD CODE
	WDX13-65-20025160

FORD CODE	D1	L1	FORD CODE	D1	L1
WDX13-65-20025140	25	140	WDX13-65-20050315	50	315
WDX13-65-20025160	25	160	WDX13-65-20063200	63	200
WDX13-65-20025180	25	180	WDX13-65-20063224	63	224
WDX13-65-20032140	32	140	WDX13-65-20063250	63	250
WDX13-65-20032160	32	160	WDX13-65-20063280	63	280
WDX13-65-20032180	32	180	WDX13-65-20063315	63	315
WDX13-65-20032200	32	200	WDX13-65-20063355	63	355
WDX13-65-20040160	40	160	WDX13-65-20063400	63	400
WDX13-65-20040180	40	180	WDX13-65-20080250	80	250
WDX13-65-20040200	40	200	WDX13-65-20080280	80	280
WDX13-65-20040224	40	224	WDX13-65-20080315	80	315
WDX13-65-20040250	40	250	WDX13-65-20080355	80	355
WDX13-65-20050160	50	160	WDX13-65-20080400	80	400
WDX13-65-20050180	50	180	WDX13-65-20080500	80	500
WDX13-65-20050200	50	200	WDX13-65-20100315	100	315
WDX13-65-20050224	50	224	WDX13-65-20100355	100	355
WDX13-65-20050250	50	250	WDX13-65-20100400	100	400
WDX13-65-20050280	50	280	WDX13-65-20100500	100	500

**GUIDE POST NAAMS - FÜHRUNGSSÄULE NAAMS - COLONNA GUIDA NAAMS**



**Notes**  
**Material:** 16MnCr5  
**HRC:** 60÷62



Standard Ford

ORDER EXAMPLE	FORD CODE
	WDX13-65-22025160

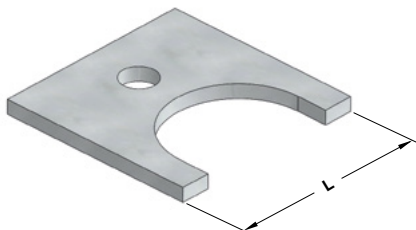
FORD CODE	D1	L1	FORD CODE	D1	L1
WDX13-65-22025140	25	140	WDX13-65-22050315	50	315
WDX13-65-22025160	25	160	WDX13-65-22063200	63	200
WDX13-65-22025180	25	180	WDX13-65-22063224	63	224
WDX13-65-22032140	32	140	WDX13-65-22063250	63	250
WDX13-65-22032160	32	160	WDX13-65-22063280	63	280
WDX13-65-22032180	32	180	WDX13-65-22063315	63	315
WDX13-65-22032200	32	200	WDX13-65-22063355	63	355
WDX13-65-22040160	40	160	WDX13-65-22063400	63	400
WDX13-65-22040180	40	180	WDX13-65-22080250	80	250
WDX13-65-22040200	40	200	WDX13-65-22080280	80	280
WDX13-65-22040224	40	224	WDX13-65-22080315	80	315
WDX13-65-22040250	40	250	WDX13-65-22080355	80	355
WDX13-65-22050160	50	160	WDX13-65-22080400	80	400
WDX13-65-22050180	50	180	WDX13-65-22080500	80	500
WDX13-65-22050200	50	200	WDX13-65-22100315	100	315
WDX13-65-22050224	50	224	WDX13-65-22100355	100	355
WDX13-65-22050250	50	250	WDX13-65-22100400	100	400
WDX13-65-22050280	50	280	WDX13-65-22100500	100	500

## RETAINER PLATE - PLATTE - PIASTRA

### Notes

**Material:** Si37

STOCK



### FORD CODE

WDX14-60-0135

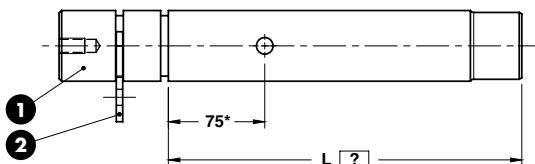
FORD CODE	L	Pin Size
WDX14-60-0125	40	25
WDX14-60-0135	50	35
WDX14-60-0150	60	50
WDX14-60-0155	70	55
WDX14-60-0163	80	63

# WDX14-60

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO

### Notes

- ① **Material:** CK45
- ② **Material:** Si37  
WDX14-60-0155



\*Only with L>500, supplied with safety pin WDX14-60-0280

Nur für L>500, mit Stift zugeführt WDX14-60-0280

Solo per L>500, fornito con perno di sicurezza WDX14-60-0280



### FORD CODE

WDX14-60-025501-A

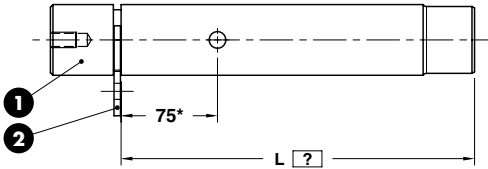
L=275

L275

### FORD CODE

WDX14-60-025501-A

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



\*Only with L>500, supplied with safety pin WDX14-60-0280  
 Nur für L>500, mit Stift zugeführt WDX14-60-0280  
 Solo per L>500, fornito con perno di sicurezza WDX14-60-0280

### Notes

- 1 **Material:** CK45
- 2 **Material:** Si37  
WDX14-60-0155

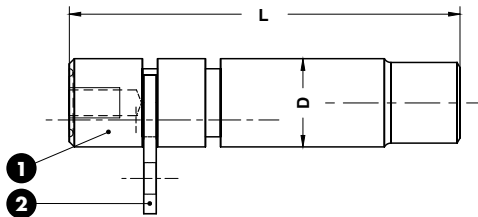
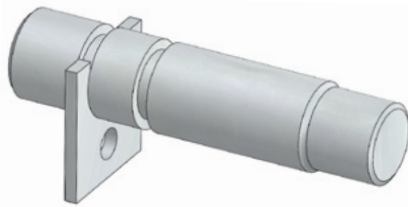


	<b>FORD CODE</b>	L=275
	WDX14-60-025502-A	L275

### FORD CODE

WDX14-60-025502-A

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

- 1 Material: CK45
- 2 Material: St37

STOCK



ORDER EXAMPLE 	FORD CODE
	WDX14-60-0335-A

FORD CODE	Retainer plate (2)	D	L
WDX14-60-0325-A	WDX14-60-0125	25	130
WDX14-60-0335-A	WDX14-60-0135	35	155
WDX14-60-0350-A	WDX14-60-0150	50	200
WDX14-60-0363-A	WDX14-60-0163	63	250

## SECURING DISC - SCHEIBE - RONDELLA DI SICUREZZA



### Notes

**Material:** CK45  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK

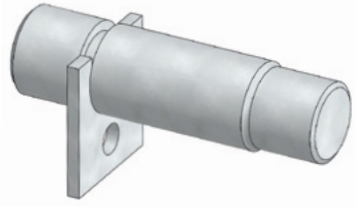
ORDER EXAMPLE 	FORD CODE
	WDX14-60-0406

FORD CODE

WDX14-60-0406



**PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO**

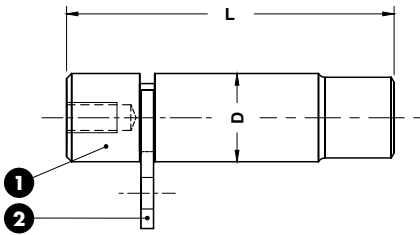


**Notes**

**1** Material: CK45

**2** Material: St37

STOCK

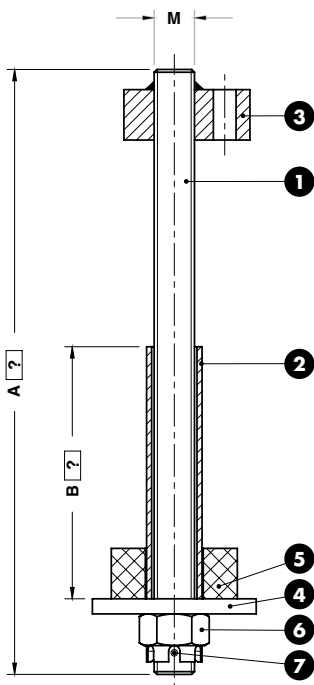


Standard Ford

	<b>FORD CODE</b>
	WDX14-60-0435-A

FORD CODE	Retainer plate (2)	D	L
WDX14-60-0425-A	WDX14-60-0125	25	110
WDX14-60-0435-A	WDX14-60-0135	35	130
WDX14-60-0450-A	WDX14-60-0150	50	170
WDX14-60-0463-A	WDX14-60-0163	63	210

## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

- 1 Material:** Thread rod cl 8.8
- 2** Tube DIN 2391
- 3 Material:** St37
- 4 Material:** CK45
- 5 Material:** Elastomer 92SH
- 6** Hexagon castle nut DIN 935
- 7** Split Pin, DIN EN ISO 1234

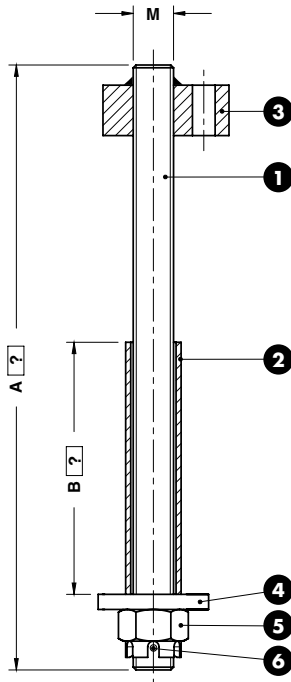
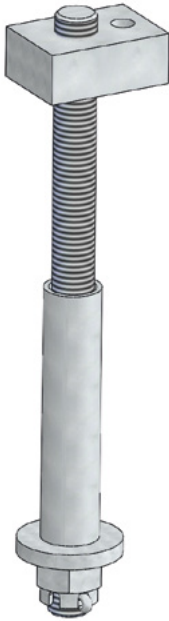


FORD CODE	A=290	B=170
WDX14-60-0520	A290	B170

FORD CODE	Max load (kg)
WDX14-60-0516	250
WDX14-60-0520	450
WDX14-60-0524	750
WDX14-60-0530	1250

\*Drill hole in rod for copper pin at assembly  
 Bohrung für Splint durchzuführen bei der Montage  
 Foro per coppiglia da eseguire al montaggio

## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

- 1 Material:** Thread rod cl 8.8
- 2** Tube DIN 2391
- 3 Material:** St37
- 4 Material:** CK45
- 5** Hexagon castle nut DIN 935
- 6** Split Pin. DIN EN ISO 1234

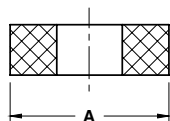
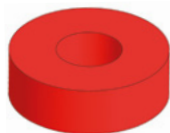


FORD CODE	A=290	B=170
WDX14-60-0620	A290	B170

FORD CODE	Max load (kg)
WDX14-60-0612	550
WDX14-60-0616	1000
WDX14-60-0620	1400

\*Drill hole in rod for copper pin at assembly  
 Bohrung für Splint durchzuführen bei der Montage  
 Foro per coppiglia da eseguire al montaggio

## BUFFER - STOSSDÄMPFER - AMMORTIZZATORE



STOCK

### Notes

**Material:** Elastomer 92 SH

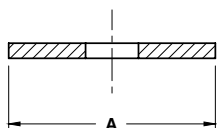
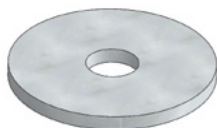


### FORD CODE

WDX14-60-0902

FORD CODE	Size	A
WDX14-60-0901	M16	50
WDX14-60-0902	M20	63
WDX14-60-0903	M24	80
WDX14-60-0904	M30	100

## WASHER RETAINER - SCHEIBE - RONDELLA



STOCK

### Notes

**Material:** CK45

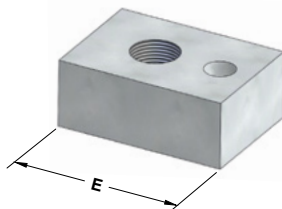


### FORD CODE

WDX14-60-1002

FORD CODE	Size	A
WDX14-60-1001	M16	65
WDX14-60-1002	M20	82
WDX14-60-1003	M24	105
WDX14-60-1004	M30	130

## THREADED BLOCK - DÜBEL - TASSELLO



STOCK

### Notes

**Material:** St37

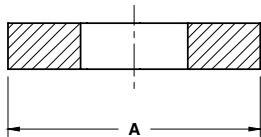


### FORD CODE

WDX14-60-1007

FORD CODE	Size	E
WDX14-60-1005	M12	25
WDX14-60-1006	M16	35
WDX14-60-1007	M20	40
WDX14-60-1008	M24	45
WDX14-60-1009	M30	50

## WASHER RETAINER - SCHEIBE - RONDELLA



### Notes

**Material:** CK45

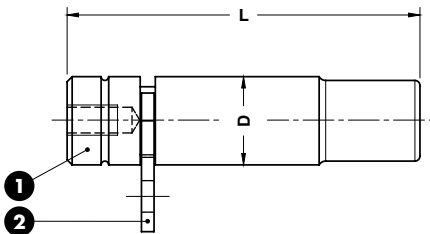
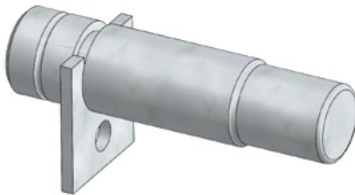
STOCK

	<b>FORD CODE</b>
	WDX14-60-1312

FORD CODE	Size	A
WDX14-60-1310	M10	25
WDX14-60-1312	M12	30
WDX14-60-1316	M16	40
WDX14-60-1320	M20	44

Standard Ford

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

- 1 **Material:** CK45
- 2 **Material:** St37  
WDX14-60-0155

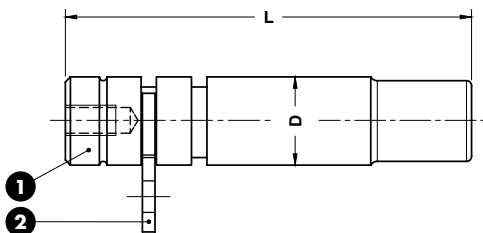
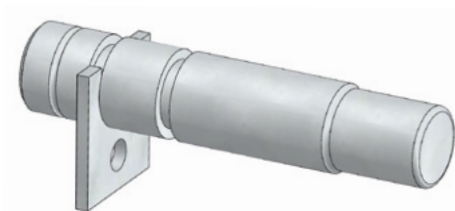
STOCK



	<b>FORD CODE</b>
	WDX14-60-1435-A

FORD CODE	D	L
WDX14-60-1425-A	25	120
WDX14-60-1435-A	35	140
WDX14-60-1450-A	50	180
WDX14-60-1463-A	63	210

**PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO**



**Notes**

- 1 Material:** CK45
- 2 Material:** Si37  
WDX14-60-0155

**STOCK**

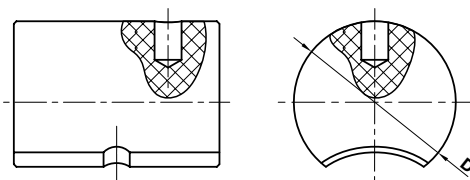
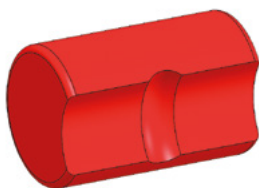


**FORD CODE**

**WDX14-60-1535-A**

FORD CODE	D	L
WDX14-60-1525-A	25	145
WDX14-60-1535-A	35	170
WDX14-60-1550-A	50	215
WDX14-60-1563-A	63	255

**SHOCK ABSORBER - HALTELEMENT - AMMORTIZZATORE**



**Notes**

**Material:** Elastomer 92SH

**STOCK**

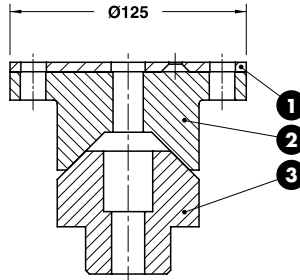
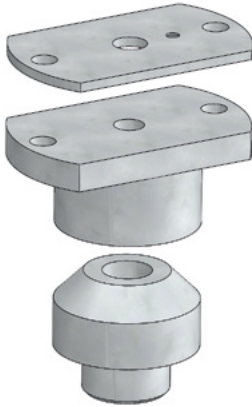


**FORD CODE**

**WDX14-60-1702**

FORD CODE	Pad side pin	D
WDX14-60-1701	25	40
WDX14-60-1702	35	50
WDX14-60-1703	50	63
	63	63

LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



**Notes**

1 **Material:** St37

2 3 **Material:** 42CrMo4 - HRC: 58÷60

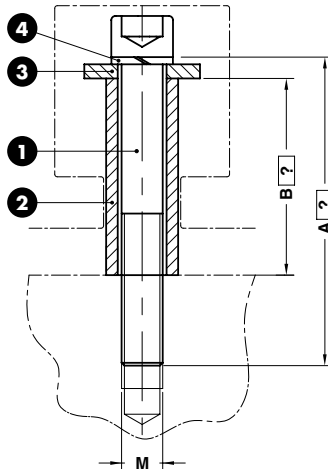
STOCK

	FORD CODE
	WDX14-62-0175

FORD CODE
WDX14-62-0175

Standard Ford

RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.

**Notes**

1 DIN 912

2 Tube DIN 2391

3 **Material:** CK45

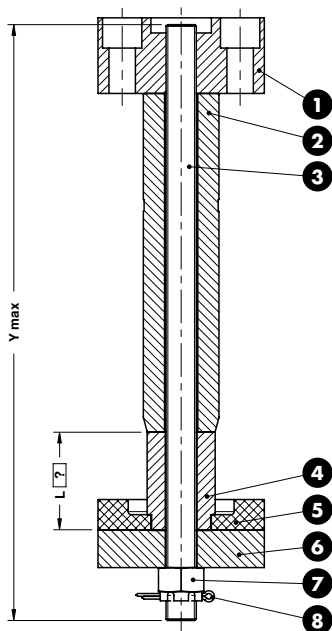
4 DIN 127

10

	FORD CODE	A=290	B=170
	WDX14-65-1112	A290	B170

FORD CODE	M	Max load (kg)
WDX14-65-1110	M10	100
WDX14-65-1112	M12	150
WDX14-65-1116	M16	250

## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

- ❶ WDX14-65-06110
- ❷ WDX146504050180/200/224/250
- ❸ WDX14650820350/370/394/420
- ❹ WDX14-65-05050
- ❺ WDX14-65-07110
- ❻ WDX14-65-05110
- ❼ M20 Hexagon slotted nut DIN 935
- ❽ Split Pin. DIN EN ISO 1234

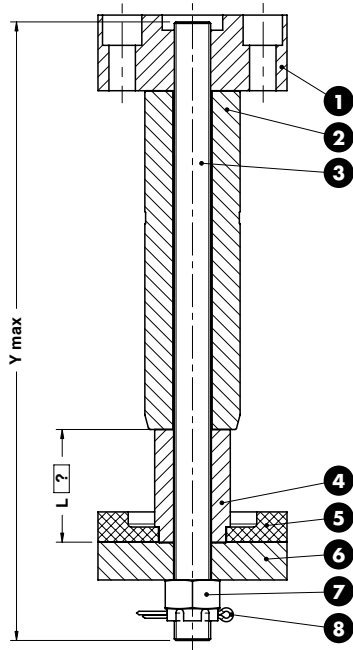


ORDER EXAMPLE	FORD CODE	L=50
	WDX14-65-0150200	L50

FORD CODE	Y max	Max load (kg)
WDX14-65-0150180	350	450
WDX14-65-0150200	370	450
WDX14-65-0150224	394	450
WDX14-65-0150250	420	450
WDX14-65-0150280	450	450



## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

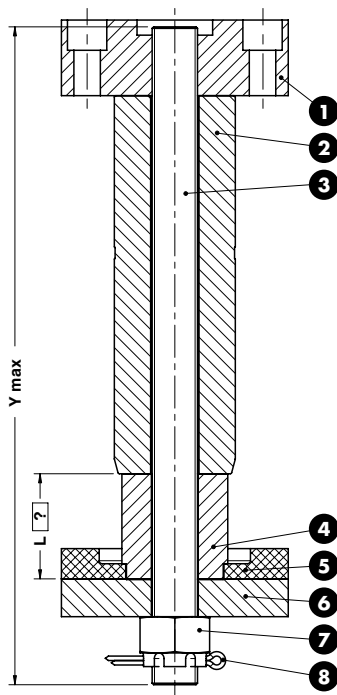
- 1 WDX14-65-06150
- 2 WDX14-65-04063200/224/250/280/315
- 3 WDX14-65-0824385/409/435/465
- 4 WDX14-65-05063
- 5 WDX14-65-07125
- 6 WDX14-65-05125
- 7 M24 Hexagon slotted nut DIN 935
- 8 Split Pin. DIN EN ISO 1234



ORDER EXAMPLE	FORD CODE	L=70
	WDX14-65-0263224	L70

FORD CODE	Y max	Max load (kg)
WDX14-65-0263200	385	750
WDX14-65-0263224	409	750
WDX14-65-0263250	435	750
WDX14-65-0263280	465	750

## RETAINER BOLT - ZUGBOLZENSATZ - GRUPPO TIRANTE



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

### Notes

- 1 WDX14-65-06150
- 2 WDX14-65-04080250/280/315/ 355/340
- 3 WDX14-65-0830435/465/500/ 540/585
- 4 WDX14-65-05080
- 5 WDX14-65-07150
- 6 WDX14-65-05150
- 7 M30 Hexagon slotted nut DIN 935
- 8 Split Pin. DIN EN ISO 1234



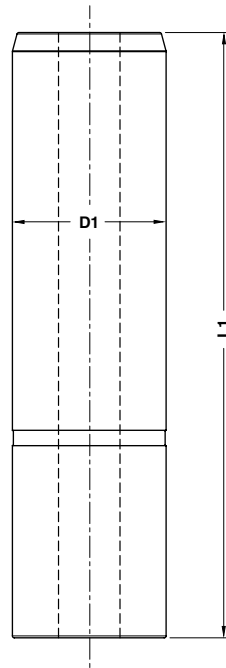
ORDER EXAMPLE	FORD CODE	L=65
	WDX14-65-0380280	L65

FORD CODE	Y max	Max load (kg)
WDX14-65-0380250	435	1250
WDX14-65-0380280	465	1250
WDX14-65-0380315	500	1250
WDX14-65-0380355	540	1250
WDX14-65-0380400	585	1250

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA

### Notes

**Material:** 16MnCr5 - **HRC:** 57±62



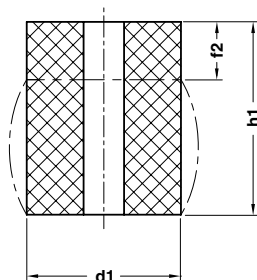
Standard Ford



<b>FORD CODE</b>
WDX14-65-04050200

FORD CODE	D1	L1	FORD CODE	D1	L1
WDX14-65-04050180	50	180	WDX14-65-04063280	63	280
WDX14-65-04050200	50	200	WDX14-65-04063315	63	315
WDX14-65-04050224	50	224	WDX14-65-04080250	80	250
WDX14-65-04050250	50	250	WDX14-65-04080280	80	280
WDX14-65-04050280	50	280	WDX14-65-04080315	80	315
WDX14-65-04063200	63	200	WDX14-65-04080355	80	355
WDX14-65-04063224	63	224	WDX14-65-04080400	80	400
WDX14-65-04063250	63	250			

## ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



### Notes

**Material:** Elastomer 90SH



S = max. 30% H

**STOCK**

	FORD CODE
	WDX14-70-194040

FORD CODE	d1	f2	h1	FORD CODE	d1	f2	h1	FORD CODE	d1	f2	h1
WDX14-70-194032	40	2,5	32	WDX14-70-195080	50	6,4	80	WDX14-70-198032	80	2,5	32
WDX14-70-194040	40	3,2	40	WDX14-70-1950100	50	8	100	WDX14-70-198040	80	3,2	40
WDX14-70-194050	40	4	50	WDX14-70-196332	63	2,5	32	WDX14-70-198050	80	4	50
WDX14-70-194063	40	5	63	WDX14-70-196340	63	3,2	40	WDX14-70-198063	80	5	63
WDX14-70-194080	40	6,4	80	WDX14-70-196350	63	4	50	WDX14-70-198080	80	6,4	80
WDX14-70-195032	50	2,5	32	WDX14-70-196363	63	5	63	WDX14-70-1980100	80	8	100
WDX14-70-195040	50	3,2	40	WDX14-70-196380	63	6,4	80	WDX14-70-1980125	80	10	125
WDX14-70-195050	50	4	50	WDX14-70-1963100	63	8	100				
WDX14-70-195063	50	5	63	WDX14-70-1963125	63	10	125				

# WDX15-70

## BUSH - BUCHSE - BOCCOLA



### Notes

**Material:** Si2

**STOCK**

	FORD CODE
	WDX15-70-0101

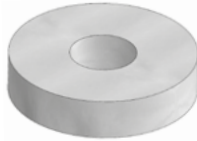
FORD CODE

WDX15-70-0101

# WDX15-70



WASHER - SCHEIBE - RONDELLA



## Notes

**Material:** 42CrMo4

STOCK



FORD CODE

WDX15-70-0201

FORD CODE

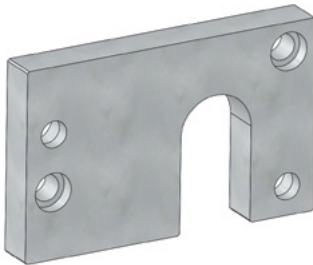
WDX15-70-0201

Standard Ford

# WDX15-70



SHIM - SPANNSCHLITZ - SPESSORE



## Notes

**Material:** St52

STOCK



FORD CODE

WDX15-70-0301

FORD CODE

WDX15-70-0301

# WDX15-70



LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO



## Notes

**Material:** CK45

STOCK



FORD CODE

WDX15-70-0401

FORD CODE

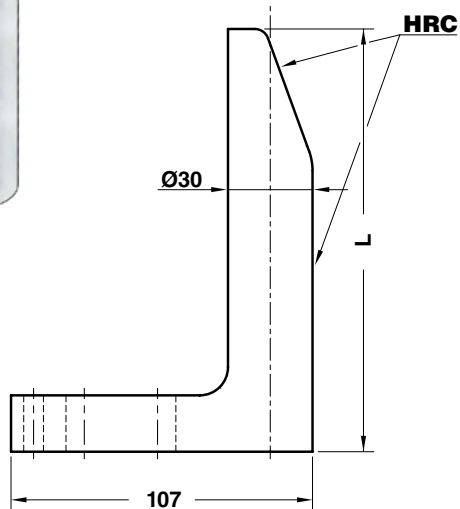
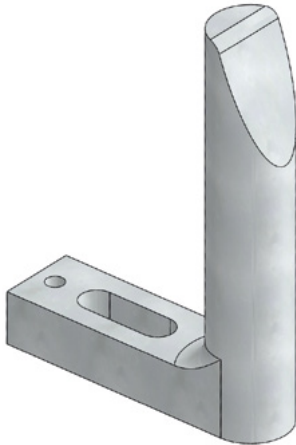
WDX15-70-0401

**GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO**

**Notes**

**Material:** CK60 - **HRC:** 56÷60

**STOCK**

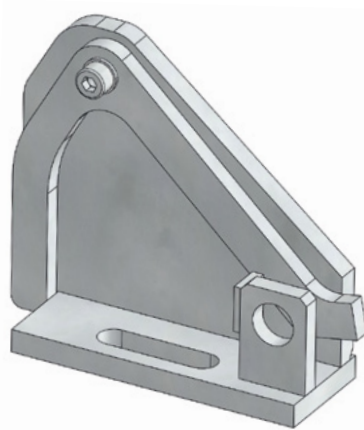


**FORD CODE**

**WDX16-60-01090**

FORD CODE	L
WDX16-60-01065	65
WDX16-60-01090	90
WDX16-60-01120	120
WDX16-60-01150	150
WDX16-60-01180	180
WDX16-60-01250	250

**SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE**



**Notes**

**Material:** Si37

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

\*Gemäß zeichnung  
Come a disegno

\*\*Spiegelverkehrt  
Opposto al disegno

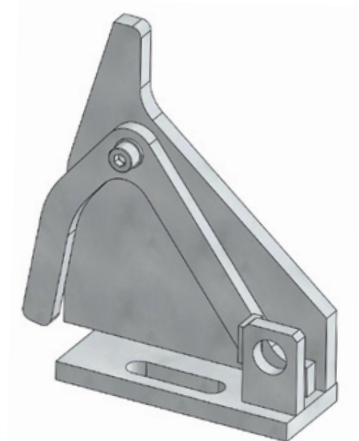


<b>FORD CODE</b>	<b>FORD CODE</b>
	<b>WDX16-70-0301R</b>

FORD CODE	FORM
<b>WDX16-70-0301R</b>	As shown in drawing *
<b>WDX16-70-0301L</b>	Opposite to drawing **

Standard Ford

**SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE**



**Notes**

**Material:** Si37

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

\*Gemäß zeichnung  
Come a disegno

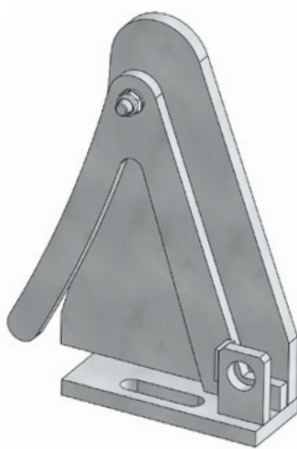
\*\*Spiegelverkehrt  
Opposto al disegno



<b>FORD CODE</b>	<b>FORD CODE</b>
	<b>WDX16-70-0701R</b>

FORD CODE	FORM
<b>WDX16-70-0701R</b>	As shown in drawing *
<b>WDX16-70-0701L</b>	Opposite to drawing **

## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE



### Notes

**Material:** St37

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

\*Gemäß zeichnung  
Come a disegno

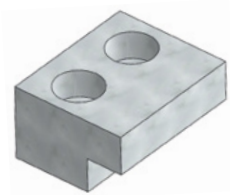
\*\*Spiegelverkehrt  
Opposto al disegno



FORD CODE	
WDX16-70-0901R	

FORD CODE	FORM
WDX16-70-0901R	As shown in drawing*
WDX16-70-0901L	Opposite to drawing**

## CLAMP - HALTESTÜCK - STAFFA



### Notes

**Material:** St37

**STOCK**

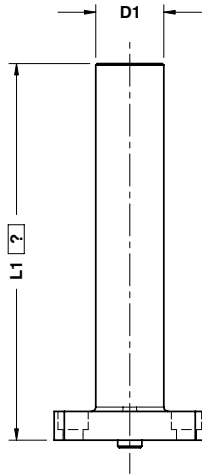


FORD CODE	
WDX17-70-0501	

FORD CODE
WDX17-70-0501



## AIR PIN - DRUCKBOLZEN - CANDELA



L1 max = 350

### Notes

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

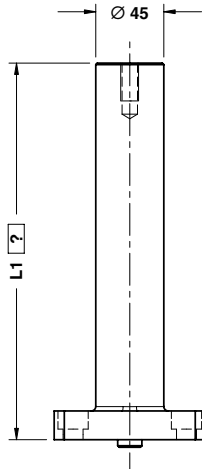


ORDER EXAMPLE	FORD CODE	L1=095
	WDX17-60-0245	095

FORD CODE	D1
WDX17-60-0236	36
WDX17-60-0245	45

Standard Ford

## AIR PIN - DRUCKBOLZEN - CANDELA



L1 max = 350

### Notes

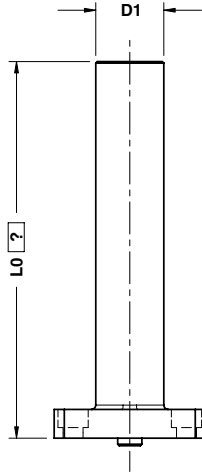
**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>



ORDER EXAMPLE	FORD CODE	L1=095
	WDX17-60-0345	095

FORD CODE	D1
WDX17-60-0345	45

## AIR PIN - DRUCKBOLZEN - CANDELA



L0 max = 360

### Notes

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

Only for replacement  
Nur für Reparatur  
Solo per riparazione

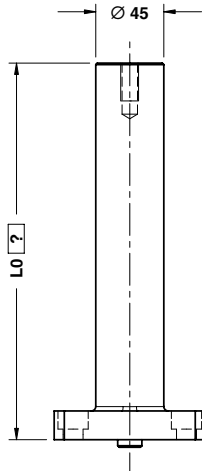


FORD CODE	L0=345
WDX17-70-0736250	L0345

FORD CODE	D1	L0
WDX17-70-0736175	36	30÷175
WDX17-70-0736250	36	176÷250
WDX17-70-0736360	36	251÷360
WDX17-70-0745175	45	30÷175
WDX17-70-0745250	45	176÷250
WDX17-70-0745360	45	251÷360

# WDX17-70

## AIR PIN - DRUCKBOLZEN - CANDELA



L0 max = 360

### Notes

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

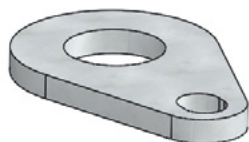
Only for replacement  
Nur für Reparatur  
Solo per riparazione



FORD CODE	L0=345
WDX17-70-0845250	L0345

FORD CODE	L0
WDX17-70-0845175	30÷175
WDX17-70-0845250	176÷250
WDX17-70-0845360	251÷360

## BRACKET - BÜGEL - STAFFA



### Notes

**Material:** Si37

**STOCK**



**FORD CODE**

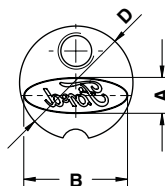
WDX19-70-0702

**FORD CODE**

WDX19-70-0703

# WDX20-65

## TRADEMARK STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



### Notes

**Material:** X155CrVMo12

**HRC:** 60÷62

**STOCK**



**FORD CODE**

WDX20-65-0313

**FORD CODE**

**A**

**B**

**D**

WDX20-65-0310

2.2

6

10

WDX20-65-0313

3.6

10

13

WDX20-65-0325

7.3

20

25

# WDX20-65

## VISUAL LOCATOR PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE



### Notes

**Material:** X210Cr12 - **HRC:** 60÷62

**STOCK**



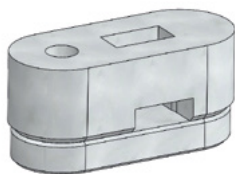
**FORD CODE**

WDX20-65-0601

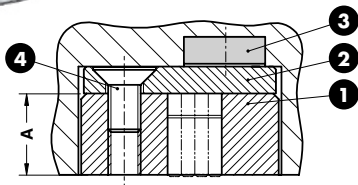
**FORD CODE**

WDX20-65-0601

## RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI



Only for replacement  
Nur für Reparatur  
Solo per riparazione

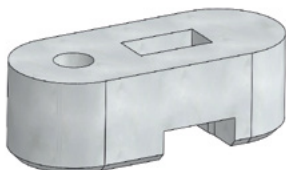


Notes	
1	WDX20-66-02110/02119
2	WDX20-66-02210/02219
3	Magnet Ø15x5 - Force=40N
4	M6x12 DIN EN ISO 10642

ORDER EXAMPLE	FORD CODE
	WDX20-66-0119-A

FORD CODE	A
WDX20-66-0110-A	15
WDX20-66-0119-A	12

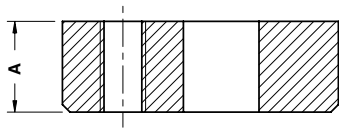
## RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI



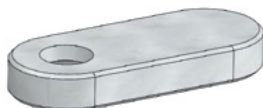
Notes	
<b>Material:</b> 90MnV8Ku - <b>HRC:</b> 60÷62	
Only for replacement Nur für Reparatur Solo per riparazione	

ORDER EXAMPLE	FORD CODE
	WDX20-66-02119

FORD CODE	A
WDX20-66-02110	15
WDX20-66-02119	12



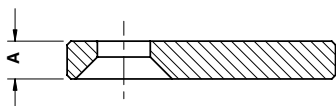
## BACKING PLATE - DRUCKPLATTE - DISTANZIALE



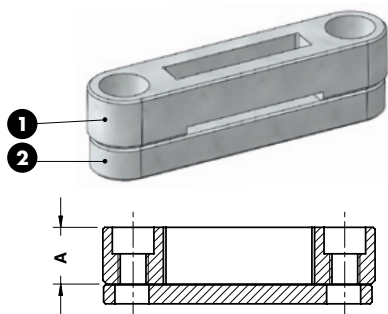
Notes	
<b>Material:</b> 90MnV8Ku - <b>HRC:</b> 60÷62	
Only for replacement Nur für Reparatur Solo per riparazione	

ORDER EXAMPLE	FORD CODE
	WDX20-66-02219

FORD CODE	A
WDX20-66-02210	5
WDX20-66-02219	7.7



## RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI

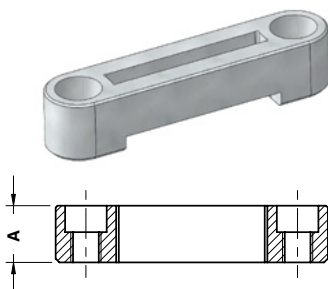


STOCK ...

Notes	
1	WDX20-66-03112/03115
2	WDX20-66-03205/03208
Only for replacement Nur für Reparatur Solo per riparazione	

ORDER EXAMPLE		FORD CODE	
		WDX20-66-03220-A	
FORD CODE	A	FORD CODE	A
WDX20-66-03120-A	15	WDX20-66-03220-A	12

## RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI

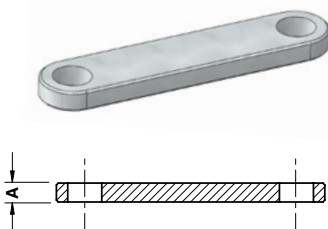


STOCK

Notes	
<b>Material:</b> 90MnV8Ku - <b>HRC:</b> 60÷62	
Only for replacement Nur für Reparatur Solo per riparazione	

ORDER EXAMPLE		FORD CODE	
		WDX20-66-03115	
FORD CODE	A	FORD CODE	A
WDX20-66-03112	12	WDX20-66-03115	15

## BACKING PLATE - DRUCKPLATTE - DISTANZIALE

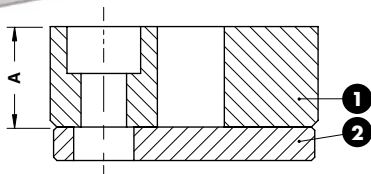
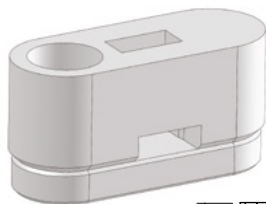


STOCK

Notes	
<b>Material:</b> 90MnV8Ku - <b>HRC:</b> 60÷62	
Only for replacement Nur für Reparatur Solo per riparazione	

ORDER EXAMPLE		FORD CODE	
		WDX20-66-03208	
FORD CODE	A	FORD CODE	A
WDX20-66-03205	5	WDX20-66-03208	7.7

**RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI**



**Notes**

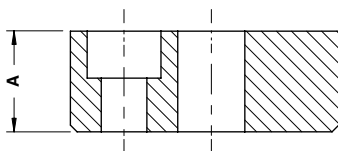
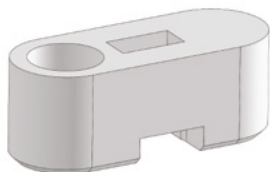
- 1 WDX20-66-04115/04119
- 2 WDX20-66-04205/04277

**STOCK**

	<b>FORD CODE</b>
	WDX20-66-04121-A

FORD CODE	A
WDX20-66-04120-A	15
WDX20-66-04121-A	12

**RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI**



**Notes**

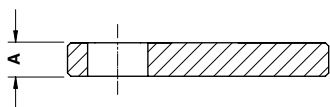
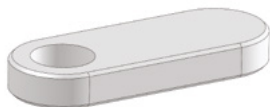
**Material:** 90MnV8Ku - **HRC:** 60÷62

**STOCK**

	<b>FORD CODE</b>
	WDX20-66-04119

FORD CODE	A
WDX20-66-04115	15
WDX20-66-04119	12

**BACKING PLATE - DRUCKPLATTE - DISTANZIALE**



**Notes**

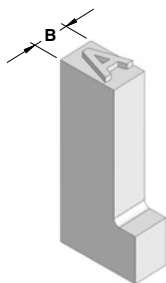
**Material:** 90MnV8Ku - **HRC:** 60÷62

**STOCK**

	<b>FORD CODE</b>
	WDX20-66-04277

FORD CODE	A
WDX20-66-04205	5
WDX20-66-04277	7,7

## STAMPS - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



### Notes

**Material:** X155CrVMo121 - **HRC:** 60-62

**STOCK**

- \* Stamp kit all letters, numbers and blanks  
Stempel-Kit mit allen Buchstaben, Zahlen und Leerzeichen  
Serie punzoni marchio tutte le lettere, i numeri ed i riempitivi
- \*\* Stamp kit all numbers and blanks  
Stempel-Kit mit allen Zahlen und Leerzeichen  
Serie punzoni marchio tutti i numeri ed i riempitivi

	<b>FORD CODE</b>
	WDX20-66-0601-1

FORD CODE	B	Stamp	FORD CODE	B	Stamp	FORD CODE	B	Stamp
WDX20-66-0601-0	2,5	0	WDX20-66-0602-F	2,5	F	WDX20-66-0602-V	2,5	V
WDX20-66-0601-1	2,5	1	WDX20-66-0602-G	3,0	G	WDX20-66-0602-W	3,5	W
WDX20-66-0601-2	2,5	2	WDX20-66-0602-H	3,0	H	WDX20-66-0602-X	2,5	X
WDX20-66-0601-3	2,5	3	WDX20-66-0602-I	2,5	I	WDX20-66-0602-Y	2,5	Y
WDX20-66-0601-4	2,5	4	WDX20-66-0602-J	2,5	J	WDX20-66-0602-Z	2,5	Z
WDX20-66-0601-5	2,5	5	WDX20-66-0602-K	3,0	K	WDX20-66-0603	0,5	FILLER
WDX20-66-0601-6	2,5	6	WDX20-66-0602-L	2,5	L	WDX20-66-0604	1,0	FILLER
WDX20-66-0601-7	2,5	7	WDX20-66-0602-M	3,5	M	WDX20-66-0605	1,5	FILLER
WDX20-66-0601-8	2,5	8	WDX20-66-0602-N	3,0	N	WDX20-66-0606	2,0	FILLER
WDX20-66-0601-9	2,5	9	WDX20-66-0602-P	3,0	P	WDX20-66-0607	2,5	FILLER
WDX20-66-0602-A	3,0	A	WDX20-66-0602-Q	3,0	Q	WDX20-66-0608	22,0	FILLER
WDX20-66-0602-B	3,0	B	WDX20-66-0602-R	3,0	R	WDX20-66-0609	6,0	FILLER
WDX20-66-0602-C	3,0	C	WDX20-66-0602-S	3,0	S	*WDX20-66-0610	-	-
WDX20-66-0602-D	3,0	D	WDX20-66-0602-T	2,5	T	**WDX20-66-0611	-	-
WDX20-66-0602-E	3,0	E	WDX20-66-0602-U	3,0	U			

Standard Ford

# WDX20-70

## VISUAL LOCATOR PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE



**STOCK**

### Notes

**Material:** X210Cr12 - **HRC:** 60-62

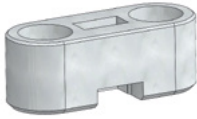
Only for replacement  
Nur für Reparatur  
Solo per riparazione

	<b>FORD CODE</b>
	WDX20-70-0101

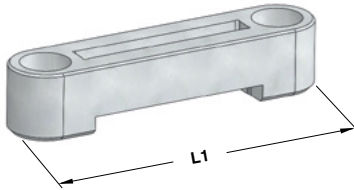
**FORD CODE**

WDX20-70-0101

**RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI**



**FORM A**



**FORM B**

**Notes**

**Material:** X155CrVMo12  
**HRC:** 60÷62

Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**

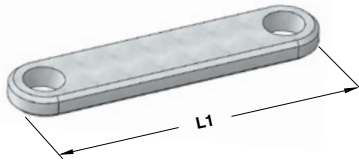
ORDER EXAMPLE 	<b>FORD CODE</b>
	WDX20-70-0333

FORD CODE	FORM	L1
WDX20-70-0330	A	30
WDX20-70-0333	A	32,5
WDX20-70-0352	B	52
WDX20-70-0372	B	72

**BACKING PLATE - DRUCKPLATTE - DISTANZIALE**



**FORM A**



**FORM B**

**Notes**

**Material:** 90MnV8KU - **HRC:** 60÷62

Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**

ORDER EXAMPLE 	<b>FORD CODE</b>
	WDX20-70-0432

FORD CODE	FORM	L1
WDX20-70-0430	A	30
WDX20-70-0432	A	32
WDX20-70-0452	B	52
WDX20-70-0472	B	72



## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

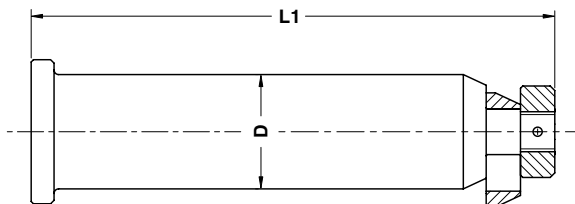
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** 42CrMo4 + QT



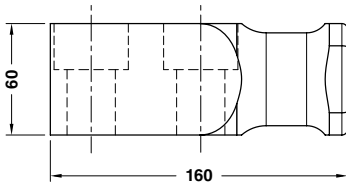
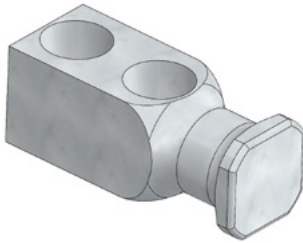
Standard Ford



	FORD CODE
	WDX22-70-0150

FORD CODE	Max load (kg)	Max die weight (kg)	D	L1
WDX22-70-0150	5500	10050	50	230
WDX22-70-0163	23000	45500	63	320
WDX22-70-0180	30000	60000	80	370

**LIFTING BRACKET - TRAGZAPFEN - STAFFA DI SOLLEVAMENTO**



**STOCK**



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>

Screws not included

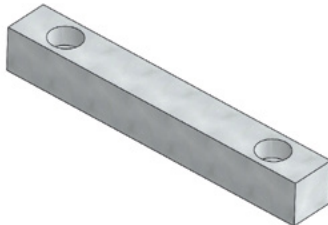
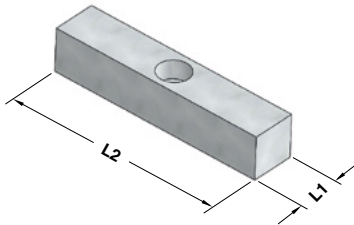


**FORD CODE**

**WDX22-70-0501**

FORD CODE	Max load (kg)	Max die weight (kg)
WDX22-70-0501	5000	10000

**STANDARD KEY - PASSFEDER - CHIAVETTA**



**Notes**

**Material:** CK45

**STOCK**

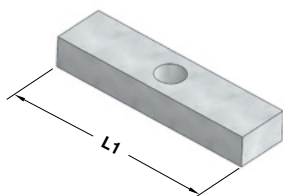


**FORD CODE**

**WDX30-60-0125180**

FORD CODE	L1	L2	Holes
WDX30-60-0125125	25	125	1
WDX30-60-0125180	25	180	2
WDX30-60-0130125	30	125	1
WDX30-60-0130180	30	180	2

## STANDARD KEY - PASSFEDER - CHIAVETTA



### Notes

**Material:** CK45

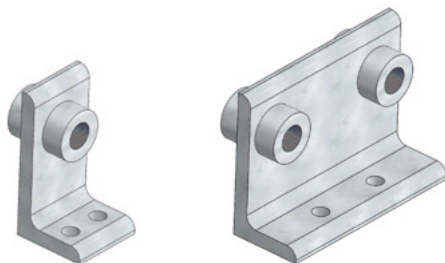
**STOCK**

	<b>FORD CODE</b>
	WDX30-60-02125

FORD CODE	L1
WDX30-60-02080	80
WDX30-60-02125	125

# WDX35-70

## AIR COUPLING BRACKET - LUFTANSCHLUSSBLOCK - SUPPORTO INNESTI RAPIDI



WDX35-70-1401

WDX35-70-1502

### Notes

**Material:** St37

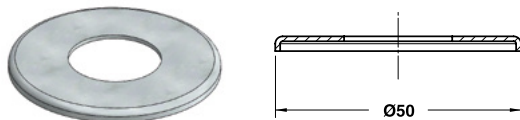
**STOCK**

	<b>FORD CODE</b>
	WDX35-70-1502

FORD CODE
WDX35-70-1401
WDX35-70-1502

# WDX35-70

## COLOR MARK AIR CONNECTION - FARBIGE SCHEIBE - COPERCHIO COLORATO



### Notes

**Material:** St37

**STOCK**

	<b>FORD CODE</b>
	WDX35-70-1612

FORD CODE	Color designation	Paint number	FORD CODE	Color designation	Paint number	FORD CODE	Color designation	Paint number
WDX35-70-1611	Flamed red	RAL 3000	WDX35-70-1631	Jet black	RAL 9005	WDX35-70-1652	Deep orange	RAL 2011
WDX35-70-1612	Zinc yellow	RAL 1018	WDX35-70-1632	Gray white	RAL 9002	WDX35-70-1661	Iron grey	RAL 7011
WDX35-70-1621	Azure blue	RAL 5009	WDX35-70-1641	Clay brown	RAL 8003	WDX35-70-1662	Light pink	RAL 3015
WDX35-70-1622	Pastel green	RAL 6019	WDX35-70-1651	Patina green	RAL 6000			





Die Components  
Normalien  
Componenti



















**Mercedes-Benz**

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



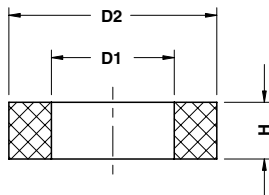
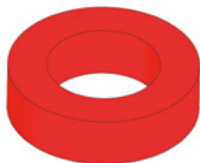
B8 0110 100 008 804	B8 0110 100 008 805	B8 0110 100 008 806	B8 0111 131 008 812	B8 0111 131 008 814
Elastomer Washer Daempfungsscheibe Rondella in elastomero	Washer Scheibe Rondella	Washer Scheibe Rondella	Key Passfeder Chiavetta	Spacer Abstimplatte Distanziale
337	337	338	338	339
B8 0111 431 008 801	B8 0161 121 008 802	B8 0162 410 008 801	B8 0301 231 108 801	B8 0441 123 408 802
Round retainer for proximity sensor Halteplatte rund für Näherungsschalter Staffa per sensore	Toe clamp Haltestück Ritegno	Bracket for lifting pin Bügel für Tragbolzen Staffa per perno di sollevamento	Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento	Bush self-lubricating DIN 9834 Führungsbuchse DIN 9834 Boccola autolubrificante DIN 9834
340	340	341	341	342
B8 0450 200 009 001	B8 0450 200 009 001	B8 0450 200 009 001	B8 0450 200 009 001	B8 0460 219 008 801
Guide post Führungssäule Colonna guida	Guide Post Führungssäule Colonna Guida	Guide Post Führungssäule Colonna Guida	Guide Post Führungssäule Colonna Guida	Wear plate Gleitplatte Piastra guida
343	344	345	346	347
B8 0460 231 009 002	B8 0460 231 008 801	B8 0460 231 009 003	B8 0460 850 000 101	B8 0461 131 000 101
Wear plate Gleitplatte Piastra guida	Wear plate Gleitplatte Piastra guida	Wear plate Gleitplatte Piastra guida	Locating block Fangbacke Tassello di centraggio	"V" driver Prismenführung Guida a "V"
348	349	350	351	352

B8 0461 110 000 101	B8 0467 000 009 001	B8 0467 000 009 001	B8 0467 111 000 101	B8 0541 000 009 001
				
"V" driver Prismenführung Guida a "V"	Cam dwell Überlaufkeile Cuneo	Cam dwell Überlaufkeile Cuneo	Locating block Fangbacke Tassello di centraggio	Gage Einweiser Riferimento
352	353	354	355	355
B8 0541 000 009 003	B8 0541 000 009 005	B8 0541 000 009 007	B8 0541 000 009 008	B8 0550 100 008 801
				
Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore	Gage Einweiser Riferimento	Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore	Gage Einweiser Riferimento	Spacer Distanzscheibe Distanziale
356	356	357	358	359
B8 0561 131 008 801	B8 0561 131 008 802	B8 0561 131 008 803	B8 0561 131 008 804	B8 0561 131 008 805
				
Distance plate Abstimmzscheibe Distanziale	Distance plate Abstimmzscheibe Distanziale	Backing plate Distanzkappe Reazione per cilindro	Shim Ausgleichscheib Spessore	Stop Block Abstandsblock Distanziale
359	360	360	361	361
B8 0561 152 000 001	B8 0602 104 008 803	B8 0602 321 008 801	B8 0604 100 001 102	B8 0604 100 008 801
				
Cylinder connection plate Zylinderanschlussplatte Piastra di collegamento cilindri	Locating pin Zentrierbolzen Centraggio	Locating pin Zentrierbolzen Perno di centraggio	Spring pin Aufnahmebolzen Perno per molla	Locating cone Zentrierzapfen Cono di centraggio
362	362	363	363	364

<b>B8 0604 100 008 802</b>	<b>B8 0624 108 800 001</b>	<b>B8 0624 108 800 002</b>	<b>B8 1001 110 008 801</b>	<b>B8 1013 110 008 802</b>
				
Locating cone Zentrierzapfen Cono di centraggio  364	Locating Cone Kegelaufsatz Cono Di Centraggio  365	Locating Cone Kegelaufsatz Cono Di Centraggio  365	Spacer Abstimschraube Distanziale  366	Collar Screw Schulter Passschraube Vite con colletto  366
<b>B8 1013 310 008 802</b>	<b>B8 1087 100 000 001</b>	<b>B8 1123 120 000 102</b>	<b>B8 1240 300 009 001</b>	<b>B8 2002 231 009 001</b>
				
Retainer bolt Haltebolzen Tirante  367	Post ring Sprengring Anello per colonna  368	Elastomer spring Elastomerfeder Molla in elastomero  368	Lifting bracket VDI 3366 Tragzapfen VDI 3366 Staffa di sollevamento VDI 3366  369	Lifting Pin Tragbolzen mit Fallringsicherung Perno di sollevamento  370
<b>B8 2002 310 008 801</b>	<b>B8 2002 521 008 801</b>	<b>B8 2002 621 008 802</b>	<b>B8 2002 731 000 002</b>	<b>B8 7007 000 008 808</b>
				
Retainer bolt Haltebolzen Tirante  371	Pin Ankerbolzen Perno  372	Pad retainer pin Steckbolzen Perno di arresto  372	Air pin Druckbolzen Candela  373	Coil guide roller Führungsrolle Guida nastro  373
<b>B8 7007 000 008 809</b>	<b>B8 7007 000 008 810</b>	<b>B8 7466 100 009 001</b>		
				
Coil guide roller Führungsrolle Guida nastro  374	Coil guide roller Führungsrolle Guida nastro  374	Cam roller Rollenbock Supporto con rullo  375		



ELASTOMER WASHER - DAEMPfungSSCHEIBE - RONDELLA IN ELASTOMERO



**Notes**

**Material:** Elastomer 92 SH  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

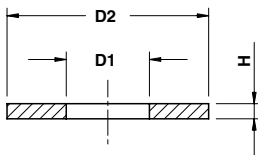
STOCK

ORDER EXAMPLE	MERCEDES-BENZ CODE
	B8 0110 0332828

MERCEDES-BENZ CODE	D1	D2	H
B8 0110 0332827	17	34	8
B8 0110 0332828	21	47	8
B8 0110 03 32829	32,5	55	15
B8 0110 0373385	38,5	63	15

Standard  
Mercedes-Benz

WASHER - SCHEIBE - RONDELLA



**Notes**

**Material:** CK45  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK

ORDER EXAMPLE	MERCEDES-BENZ CODE
	B8 0110 0332957

MERCEDES-BENZ CODE	D1	D2	H	MERCEDES-BENZ CODE	D1	D2	H	MERCEDES-BENZ CODE	D1	D2	H
B8 0110 0332956	14	40	6	B8 0110 0332962	17	80	6	B8 0110 0587878	33	60	6
B8 0110 0332957	14	50	6	B8 0110 0332963	17	80	12	B8 0110 0332945	33	80	6
B8 0110 0332958	14	50	8	B8 0110 0332964	21	50	6	B8 0110 0332946	33	100	8
B8 0110 0332959	17	36	4	B8 0110 0332965	21	100	8	B8 0110 0377008	39	100	8
B8 0110 0332960	17	60	6	B8 0110 0332966	21	100	14	B8 0110 0377011	39	110	8
B8 0110 0332961	17	60	10	B8 0110 0332967	21	120	10				

**WASHER - SCHEIBE - RONDELLA**



**Notes**

**Material:** CK45

**STOCK**



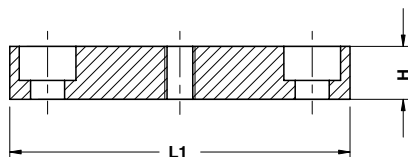
**MERCEDES-BENZ CODE**

**B8 0110 0373388**

**MERCEDES-BENZ CODE**

**B8 0110 0373388**

**KEY - PASSFEDER - CHIAVETTA**



**Notes**

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

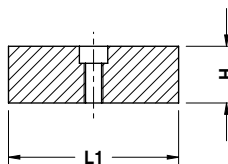
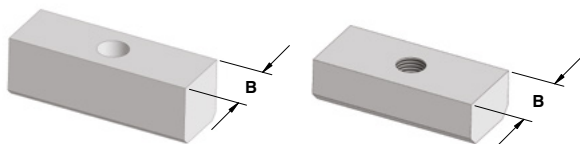


**MERCEDES-BENZ CODE**

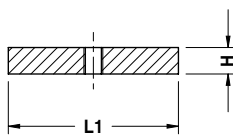
**B8 0111 0455442**

MERCEDES-BENZ CODE	B	H	L1	Material	MERCEDES-BENZ CODE	B	H	L1	Material
B8 0111 0455258	22 0/+0,01	14	50	CK45	B8 0111 1269325	22 +0,3/+0,4	14	240	CK45
B8 0111 0455442	22 0/+0,01	14	90	CK45	B8 0111 1197100	30 h11	30	150	St37
B8 0111 0455443	22 0/+0,01	14	150	CK45	B8 0111 0370158	30 h11	30	175	St37
B8 0111 0455444	22 0/+0,01	14	240	CK45	B8 0111 1195191	30 h11	30	240	St37
B8 0111 1269321	22 +0,3/+0,4	14	50	CK45	B8 0111 0333602	30 h11	30	250	St37
B8 0111 1269322	22 +0,3/+0,4	14	90	CK45	B8 0111 0332735	22 h9	14	150	CK45
B8 0111 1269323	22 +0,3/+0,4	14	150	CK45	B8 0111 0534548	22 h9	14	240	CK45

**KEY - PASSFEDER - CHIAVETTA**



**FORM A**



**FORM B**

**Notes**

**Material:** CK45  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK

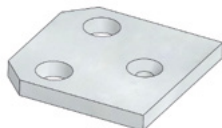


**MERCEDES-BENZ CODE**  
 B8 0111 1197103

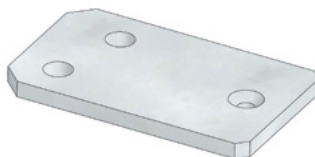
MERCEDES-BENZ CODE	B	H	L1	FORM
<b>B8 0111 1081863</b>	30 h11	30	100	A
<b>B8 0111 1197103</b>	30 h11	30	90	A
<b>B8 0111 1081865</b>	22 h9	14	50	B
<b>B8 0111 1081867</b>	22 h9	14	90	B

Standard  
Mercedes-Benz

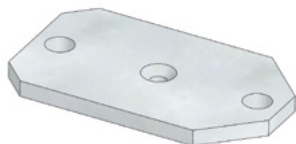
**SPACER - ABSTIMMPLATTE - DISTANZIALE**



**B8 0111 0529571**



**B8 0111 0529572**



**B8 0111 0529573**



**B8 0111 0535157**

**Notes**

**Material:** 90MnCrV8

STOCK



**MERCEDES-BENZ CODE**  
 B8 0111 0529572

MERCEDES-BENZ CODE
B8 0111 0529571
B8 0111 0529572
B8 0111 0529573
B8 0111 0535157

**ROUND RETAINER FOR PROXIMITY SENSOR  
HALTEPLATTE RUND FÜR NÄHERUNGSSCHALTER  
STAFFA PER SENSORE**



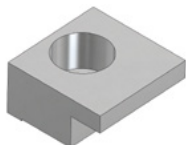
Notes
<b>Material:</b> St37

**STOCK**

	<b>MERCEDES-BENZ CODE</b>
	B8 0111 0277051

MERCEDES-BENZ CODE
B8 0111 0277051

**TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA**



Notes
<b>Material:</b> CK45

**Application example**

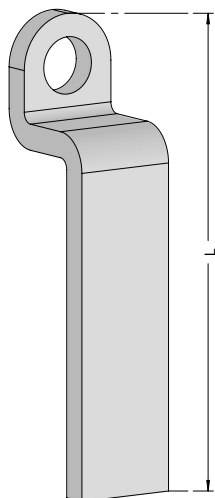
B8 0441 0331931-0331939

**STOCK**

	<b>MERCEDES-BENZ CODE</b>
	B8 0161 0331941

MERCEDES-BENZ CODE	D1
B8 0161 0331940	25-50
B8 0161 0331941	63-160

**BRACKET FOR LIFTING PIN - BÜGEL FÜR TRAGBOLZEN - STAFFA PER PERNO DI SOLLEVAMENTO**



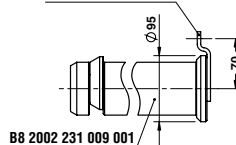
**STOCK**

**Notes**

**Material:** Si37  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**Application example**

**B8 0162 410 008 801**



**MERCEDES-BENZ CODE**

**B8 0162 0530492**

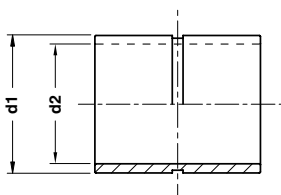
MERCEDES-BENZ CODE	L
B8 0162 0530492	100
B8 0162 1045384	82
B8 0162 1104475	90

Standard  
Mercedes-Benz

**BUSH FOR LIFTING PIN - BUCHSE FÜR TRAGBOLZEN - BOCCOLA PER PERNO DI SOLLEVAMENTO**



**FORM A**



**Notes**

**Material:** Si35

**STOCK**



**FORM B**

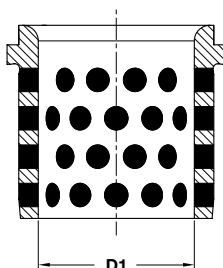


**MERCEDES-BENZ CODE**

**B8 0301 0274833**

MERCEDES-BENZ CODE	d1	d2	FORM
B8 0301 0274828	44	34	A
B8 0301 0274833	52	42	A
B8 0301 0274835	62	52	A
B8 0301 0274836	75	65	A
B8 0301 0274838	100	78	B
B8 0301 0274842	105	78	B

**BUSH SELF-LUBRICATING DIN 9834  
 FÜHRUNGSBUCHSE DIN 9834  
 BOCCOLA AUTOLUBRIFICANTE DIN 9834**



**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



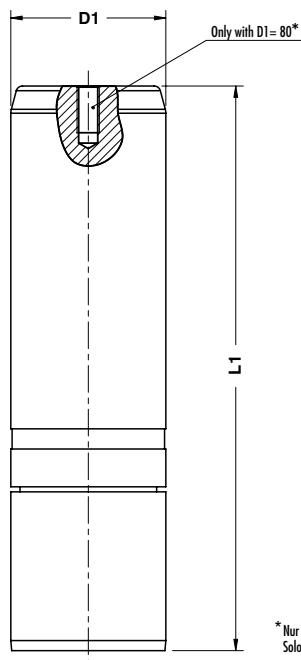
	<b>MERCEDES-BENZ CODE</b>
	B8 0441 0331932

MERCEDES-BENZ CODE	D1
B8 0441 0331931	25
B8 0441 0331932	32
B8 0441 0331933	40
B8 0441 0331934	50
B8 0441 0331935	63
B8 0441 0331936	80
B8 0441 0331937	100
B8 0441 0331938	125
B8 0441 0331939	160

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - **HRC:** 60÷62



\* Nur mit D1= 80  
Solo per D1= 80



**MERCEDES-BENZ CODE**

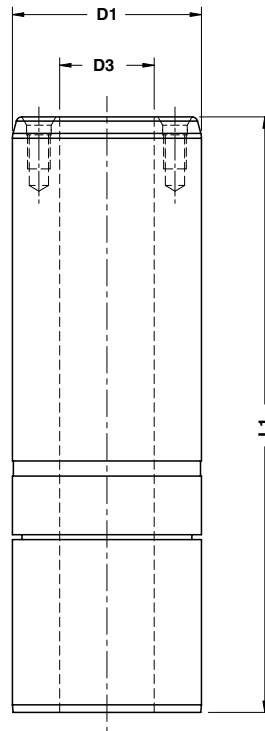
**B8 0450 0333406**

MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1
B8 0450 0333405	40	160	B8 0450 0333415	50	250	B8 0450 0333425	63	355
B8 0450 0333406	40	180	B8 0450 0333416	50	280	B8 0450 0333426	63	400
B8 0450 0333407	40	200	B8 0450 0333417	50	315	B8 0450 0333427	80	224
B8 0450 0333408	40	224	B8 0450 0333418	50	355	B8 0450 0333428	80	250
B8 0450 0333409	40	250	B8 0450 0333419	63	180	B8 0450 0333429	80	280
B8 0450 0333410	40	280	B8 0450 0333420	63	200	B8 0450 0333430	80	315
B8 0450 0333411	50	160	B8 0450 0333421	63	224	B8 0450 0333431	80	355
B8 0450 0333412	50	180	B8 0450 0333422	63	250	B8 0450 0333432	80	400
B8 0450 0333413	50	200	B8 0450 0333423	63	280			
B8 0450 0333414	50	224	B8 0450 0333424	63	315			

Standard  
Mercedes-Benz

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**  
**Material:** 16MnCr5 - **HRC:** 60÷62



**MERCEDES-BENZ CODE**  
**B8 0450 0333434**

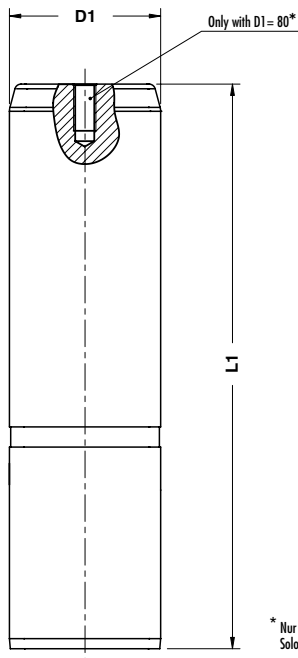
MERCEDES-BENZ CODE	D1	D3	L1	MERCEDES-BENZ CODE	D1	D3	L1	MERCEDES-BENZ CODE	D1	D3	L1
B8 0450 0333433	100	50	280	B8 0450 0333437	125	65	355	B8 0450 0333440	160	95	450
B8 0450 0333434	100	50	315	B8 0450 0333438	125	65	400	B8 0450 0333441	160	95	500
B8 0450 0333435	100	50	355	B8 0450 0333439	125	65	450	B8 0450 0333442	160	95	560
B8 0450 0333436	100	50	400	B8 0450 0584356	160	95	400				



**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5 - **HRC:** 60÷62



\* Nur mit D1 = 80  
Solo per D1 = 80

Standard  
Mercedes-Benz



**MERCEDES-BENZ CODE**

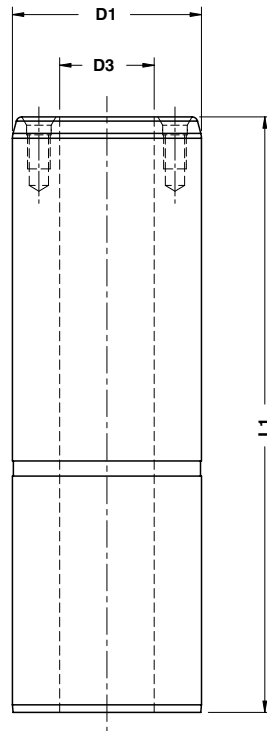
**B8 0450 0528717**

MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1
B8 0450 0528716	25	125	B8 0450 0332526	40	250	B8 0450 0332537	63	250
B8 0450 0528717	25	140	B8 0450 0333401	40	280	B8 0450 0332538	63	280
B8 0450 0528718	25	160	B8 0450 0332527	50	160	B8 0450 0332539	63	315
B8 0450 0528719	25	180	B8 0450 0332528	50	180	B8 0450 0332540	63	355
B8 0450 0531827	32	140	B8 0450 0332529	50	200	B8 0450 0332541	63	400
B8 0450 0332519	32	160	B8 0450 0332530	50	224	B8 0450 0332542	80	224
B8 0450 0332520	32	180	B8 0450 0332531	50	250	B8 0450 0332543	80	250
B8 0450 0332521	32	200	B8 0450 0332532	50	280	B8 0450 0332544	80	280
B8 0450 0531828	40	140	B8 0450 0332533	50	315	B8 0450 0332545	80	315
B8 0450 0332522	40	160	B8 0450 0332639	50	355	B8 0450 0332546	80	355
B8 0450 0332523	40	180	B8 0450 0332534	63	180	B8 0450 0332547	80	400
B8 0450 0332524	40	200	B8 0450 0332535	63	200			
B8 0450 0332525	40	224	B8 0450 0332536	63	224			

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**



**Notes**  
**Material:** 16MnCr5 - **HRC:** 60÷62



	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0450 0332549</b>

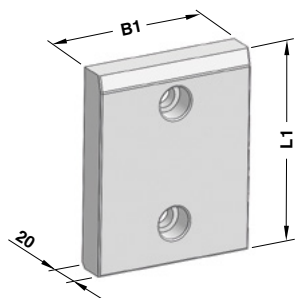
MERCEDES-BENZ CODE	D1	D3	L1	MERCEDES-BENZ CODE	D1	D3	L1	MERCEDES-BENZ CODE	D1	D3	L1
B8 0450 0332548	100	50	280	B8 0450 0332552	125	65	355	B8 0450 0332555	160	95	450
B8 0450 0332549	100	50	315	B8 0450 0332553	125	65	400	B8 0450 0332556	160	95	500
B8 0450 0332550	100	50	355	B8 0450 0332554	125	65	450	B8 0450 0332557	160	95	560
B8 0450 0332551	100	50	400	B8 0450 0584357	160	95	400				

**WEAR PLATE STEEL - GLEITPLATTE STAHL - PIASTRA GUIDA IN ACCIAIO**

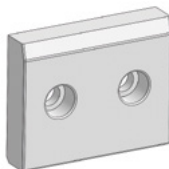
**Notes**

**Material:** 16MnCr5

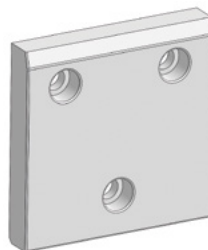
**HRC:** 60±62



**FORM A**



**FORM B**



**FORM C**

Standard  
Mercedes-Benz

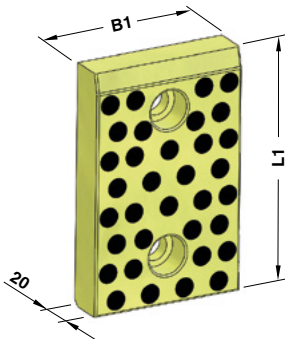
	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0460 0332861</b>

MERCEDES-BENZ CODE	B1	L1	FORM	MERCEDES-BENZ CODE	B1	L1	FORM
B8 0460 0332860	60	80	A	B8 0460 0332875	110	160	A
B8 0460 0332861	60	100	A	B8 0460 0332876	110	200	A
B8 0460 0332862	60	125	A	B8 0460 0332877	135	50	B
B8 0460 0332863	60	160	A	B8 0460 0332878	135	80	B
B8 0460 0332864	60	200	A	B8 0460 0332879	135	100	C
B8 0460 0332865	90	50	B	B8 0460 0332880	135	125	C
B8 0460 0332866	90	80	A	B8 0460 0332881	135	160	C
B8 0460 0332867	90	100	A	B8 0460 0332882	135	200	C
B8 0460 0332868	90	125	A	B8 0460 0332883	170	50	B
B8 0460 0332869	90	160	A	B8 0460 0332884	170	80	B
B8 0460 0332870	90	200	A	B8 0460 0332885	170	100	C
B8 0460 0332871	110	50	B	B8 0460 0332886	170	125	C
B8 0460 0332872	110	80	B	B8 0460 0332887	170	160	C
B8 0460 0332873	110	100	A	B8 0460 0332888	170	200	C
B8 0460 0332874	110	125	A				

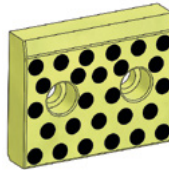
**WEAR PLATE SELF-LUBRICATING VDI 3357  
GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**

**Notes**

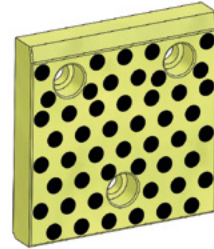
**Material:** Bronze + Graphite  
**HB > 190**



**FORM A**



**FORM B**



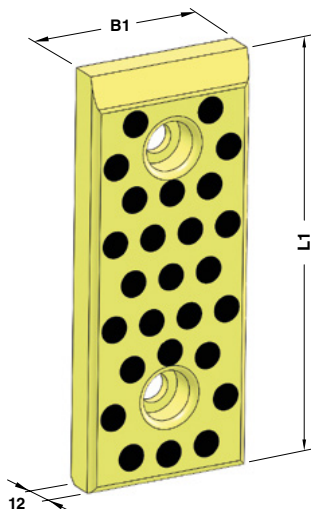
**FORM C**

	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0460 0332588</b>

MERCEDES-BENZ CODE	B1	L1	FORM	MERCEDES-BENZ CODE	B1	L1	FORM
B8 0460 0332587	50	80	A	B8 0460 0332602	100	160	A
B8 0460 0332588	50	100	A	B8 0460 0332603	100	200	A
B8 0460 0332589	50	125	A	B8 0460 0332604	125	50	B
B8 0460 0332590	50	160	A	B8 0460 0332605	125	80	B
B8 0460 0332591	50	200	A	B8 0460 0332606	125	100	C
B8 0460 0332592	80	50	B	B8 0460 0332607	125	125	C
B8 0460 0332593	80	80	A	B8 0460 0332608	125	160	C
B8 0460 0332594	80	100	A	B8 0460 0332609	125	200	C
B8 0460 0332595	80	125	A	B8 0460 0332610	160	50	B
B8 0460 0332596	80	160	A	B8 0460 0332611	160	80	B
B8 0460 0332597	80	200	A	B8 0460 0332612	160	100	C
B8 0460 0332598	100	50	B	B8 0460 0332613	160	125	C
B8 0460 0332599	100	80	B	B8 0460 0332614	160	160	C
B8 0460 0332600	100	100	A	B8 0460 0332615	160	200	C
B8 0460 0332601	100	125	A				

**WEAR PLATE SELF-LUBRICATING VDI 3357  
GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



Standard  
Mercedes-Benz

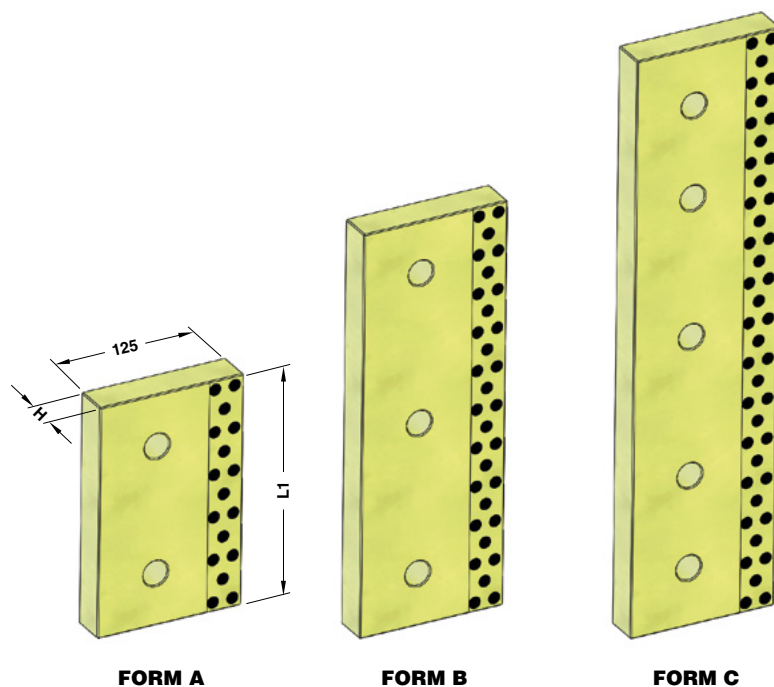
	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0460 0333604</b>

MERCEDES-BENZ CODE	B1	L1	MERCEDES-BENZ CODE	B1	L1
<b>B8 0460 0333603</b>	30	80	<b>B8 0460 0333613</b>	60	80
<b>B8 0460 0333604</b>	30	100	<b>B8 0460 0333614</b>	60	100
<b>B8 0460 0333605</b>	30	125	<b>B8 0460 0333615</b>	60	125
<b>B8 0460 0333606</b>	30	160	<b>B8 0460 0333616</b>	60	160
<b>B8 0460 0333607</b>	30	200	<b>B8 0460 0333617</b>	60	200
<b>B8 0460 0333608</b>	40	80	<b>B8 0460 0789442</b>	80	80
<b>B8 0460 0333609</b>	40	100	<b>B8 0460 0789444</b>	80	100
<b>B8 0460 0333610</b>	40	125	<b>B8 0460 0789446</b>	80	125
<b>B8 0460 0333611</b>	40	160	<b>B8 0460 0789447</b>	80	160
<b>B8 0460 0333612</b>	40	200	<b>B8 0460 0789448</b>	80	200

**WEAR PLATE SELF-LUBRICATING  
GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF  
PIASTRA GUIDA AUTOLUBRIFICANTE**

**Notes**

**Material:** Bronze + Graphite  
**HB > 190**



<b>ORDER EXAMPLE</b> 	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0460 0528244</b>

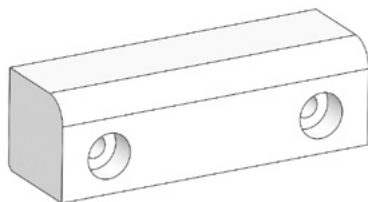
MERCEDES-BENZ CODE	H	L1	FORM	MERCEDES-BENZ CODE	H	L1	FORM	MERCEDES-BENZ CODE	H	L1	FORM
<b>B8 0460 0528243</b>	25	160	A	<b>B8 0460 0528246</b>	25	400	C	<b>B8 0460 0528249</b>	30	250	B
<b>B8 0460 0528244</b>	25	200	A	<b>B8 0460 0528247</b>	30	160	A	<b>B8 0460 0528250</b>	30	400	C
<b>B8 0460 0528245</b>	25	250	B	<b>B8 0460 0528248</b>	30	200	B				

**LOCATING BLOCK - FANGBACKE - TASSELLO DI CENTRAGGIO**

**Notes**

**Material:** Polyamide PA6

**STOCK**



**MERCEDES-BENZ CODE**

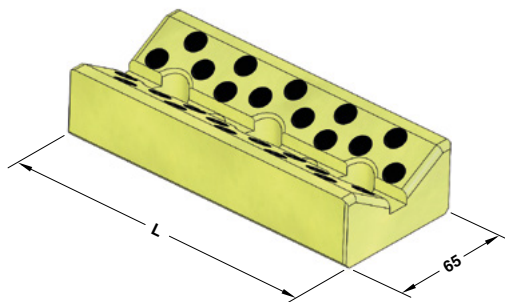
**B8 0460 0331968**

**MERCEDES-BENZ CODE**

**B8 0460 0331968**

Standard  
Mercedes-Benz

**"V" DRIVER SELF-LUBRICATING  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF  
GUIDA A "V" AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite  
**HB** > 190

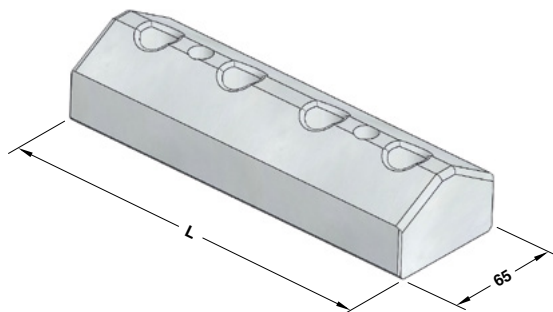
**STOCK**



**MERCEDES-BENZ CODE**  
**B8 0461 0330550**

MERCEDES-BENZ CODE	L
B8 0461 0330549	150
B8 0461 0330550	200
B8 0461 0330551	250
B8 0461 0330552	300

**"V" DRIVER STEEL - PRISMENFÜHRUNG STAHL - GUIDA A "V" IN ACCIAIO**



**Notes**

**Material:** CK45  
**HRC:** 58÷60

**STOCK**

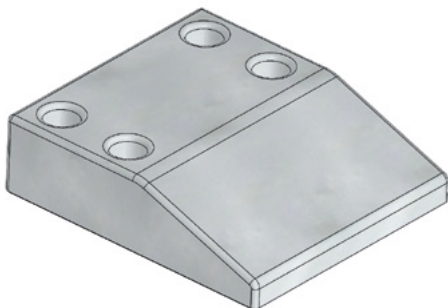


**MERCEDES-BENZ CODE**  
**B8 0461 0330554**

MERCEDES-BENZ CODE	L
B8 0461 0330553	150
B8 0461 0330554	200
B8 0461 0330555	250
B8 0461 0330556	300



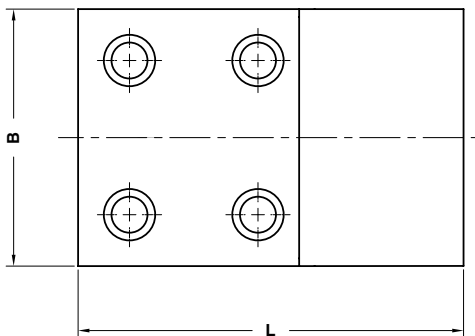
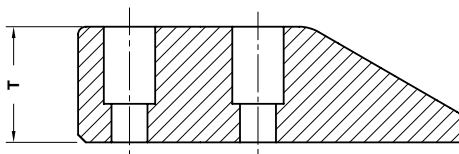
**CAM DWELL STEEL  
UBERLAUFKEILE STAHL  
CUNEO IN ACCIAIO**



**Notes**  
**Material:** X155CrVMo121KU  
**HRC:** 58÷62

**STOCK**

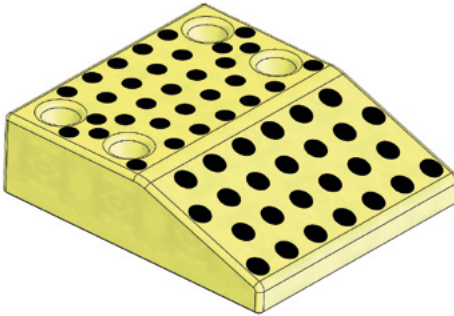
Standard  
Mercedes-Benz



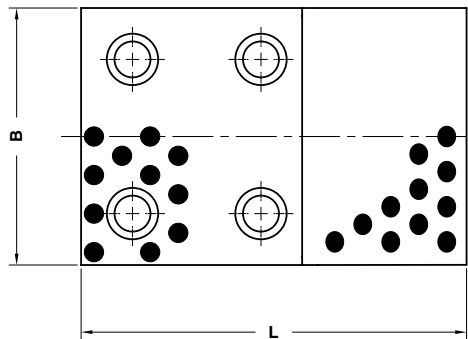
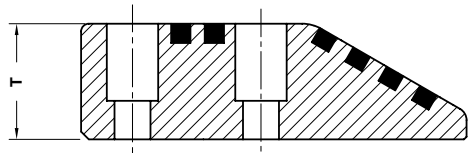
	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0467 0528448</b>

MERCEDES-BENZ CODE	B	L	T
<b>B8 0467 0528447</b>	100	150	45
<b>B8 0467 0528448</b>	100	170	60
<b>B8 0467 0528449</b>	125	150	45
<b>B8 0467 0528450</b>	125	170	60
<b>B8 0467 0528451</b>	150	150	45
<b>B8 0467 0528452</b>	150	170	60

**CAM DWELL WEAR PLATE SELF-LUBRICATING  
 UBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF  
 CUNEO AUTOLUBRIFICANTE**



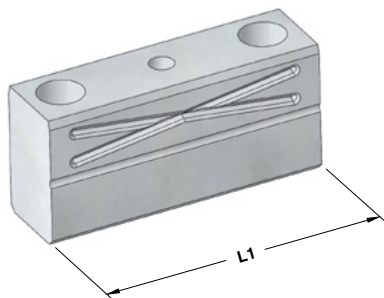
**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0467 0528753</b>

MERCEDES-BENZ CODE	B	L	T
B8 0467 0528752	100	150	45
B8 0467 0528753	100	170	60
B8 0467 0528754	125	150	45
B8 0467 0528755	125	170	60
B8 0467 0528756	150	150	45
B8 0467 0528757	150	170	60

**LOCATING BLOCK - FANGBACKE - TASSELLO DI CENTRAGGIO**



**Notes**

**Material:** 16MnCr5

**HRC:** 60÷62

**STOCK**



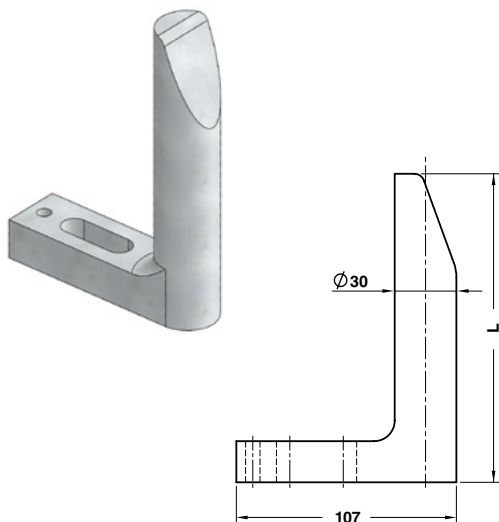
**MERCEDES-BENZ CODE**

**B8 0467 0091639**

MERCEDES-BENZ CODE	L1
B8 0467 0091638	100
B8 0467 0091639	160

Standard  
Mercedes-Benz

**GAGE - EINWEISER - RIFERIMENTO**



**Notes**

**Material:** CK60

**STOCK**

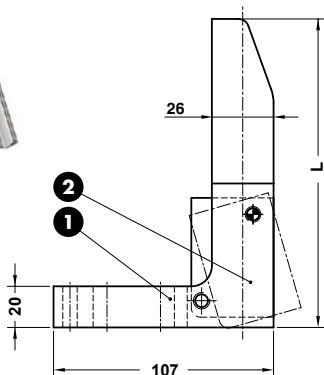
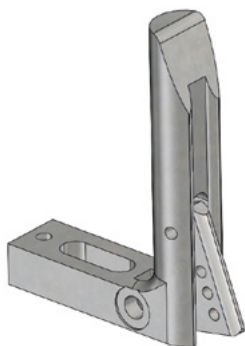


**MERCEDES-BENZ CODE**

**B8 0541 0332635**

MERCEDES-BENZ CODE	L
B8 0541 0332634	65
B8 0541 0332635	90
B8 0541 0332636	120
B8 0541 0332637	150
B8 0541 0332638	180
B8 0541 0332641	250

**GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE**



**Notes**

- 1 Material:** CK60
- 2 Material:** St37 - **HRC:** 58±60

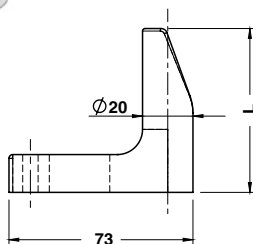
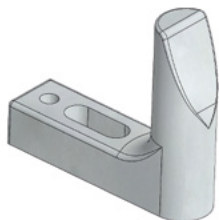
Only for replacement  
Nur für Reparatur  
Solo per riparazione



**MERCEDES-BENZ CODE**  
**B8 0541 0574962**

MERCEDES-BENZ CODE	L
B8 0541 0574961	120
B8 0541 0574962	150
B8 0541 0574963	180
B8 0541 0574964	250

**GAGE - EINWEISER - RIFERIMENTO**



**Notes**

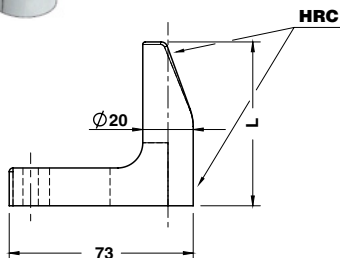
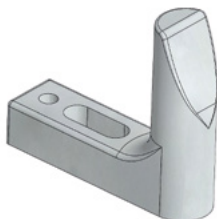
**Material:** CK60



**MERCEDES-BENZ CODE**  
**B8 0541 0093838**

MERCEDES-BENZ CODE	L
B8 0541 0093836	65
B8 0541 0093838	90

**GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO**



**Notes**

**Material:** CK60 - HRC: 58÷60



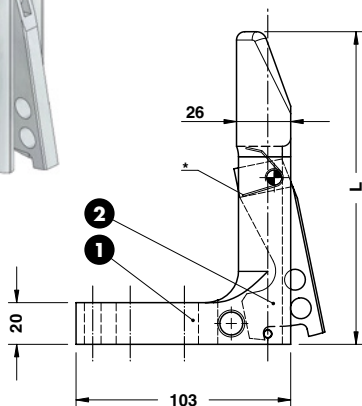
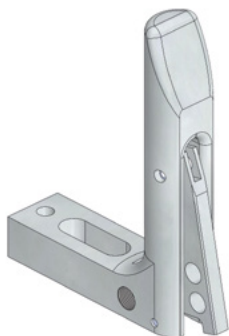
**MERCEDES-BENZ CODE**

**B8 0541 0093840**

MERCEDES-BENZ CODE	L
B8 0541 0093839	65
B8 0541 0093840	90

Standard  
Mercedes-Benz

**GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE**



**Notes**

- 1 Material:** CK60
- 2 Material:** Si37 - HRC: 58÷60



\*Spring - Feder - Molla

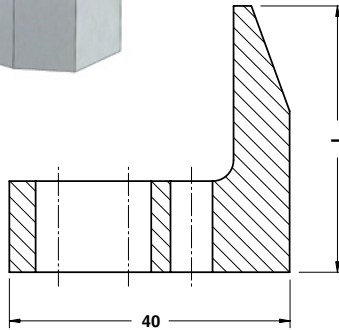
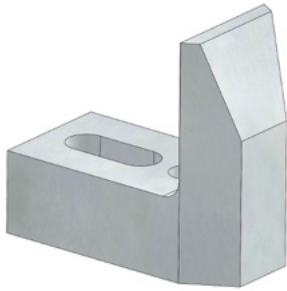


**MERCEDES-BENZ CODE**

**B8 0541 1049306**


MERCEDES-BENZ CODE	L
B8 0541 1049305	120
B8 0541 1049306	150
B8 0541 1049307	180
B8 0541 1049308	250

**GAGE - EINWEISER - RIFERIMENTO**

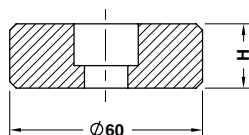


**Notes**  
**Material:** 21MnCr5 - **HRC:** 58÷60

**STOCK**

	<b>MERCEDES-BENZ CODE</b>	
	<b>B8 0541 1086749</b>	
<b>BMW CODE</b>	<b>L</b>	
<b>B8 0541 1086747</b>	28	
<b>B8 0541 1086749</b>	38	
<b>B8 0541 1086750</b>	48	
<b>B8 0541 138392</b>	58	
<b>B8 0541 138393</b>	68	
<b>B8 0541 138395</b>	78	

**SPACER - DISTANZSCHEIBE - DISTANZIALE**



**Notes**

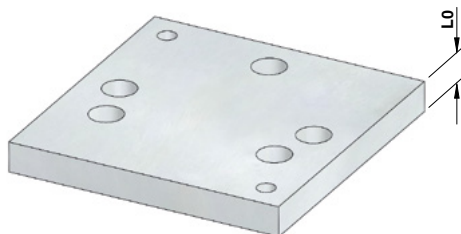
**Material:** CK45

**STOCK**

	<b>MERCEDES-BENZ CODE</b> B8 0550 0333523	
	<b>MERCEDES-BENZ CODE</b>	<b>H</b>
	B8 0550 0333522	20
	B8 0550 0333523	30
	B8 0550 0528689	40

Standard Mercedes-Benz

**DISTANCE PLATE - ABSTIMMSCHEIBE - DISTANZIALE**



**Notes**

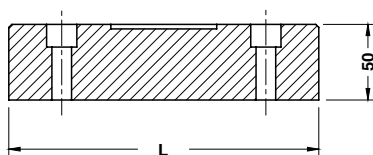
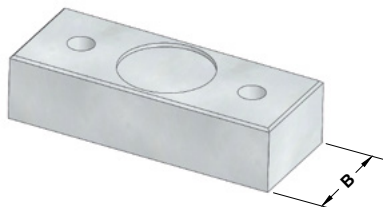
**Material:** St37

Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**

	<b>MERCEDES-BENZ CODE</b> B8 0561 0565393	
	<b>MERCEDES-BENZ CODE</b>	<b>L0</b>
	B8 0561 0331204	10
	B8 0561 0565393	11
	B8 0561 0565396	12

**DISTANCE PLATE - ABSTIMMSCHEIBE - DISTANZIALE**



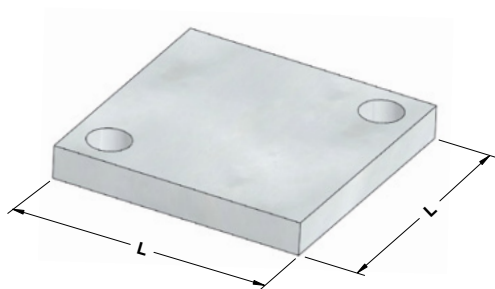
**Notes**

**Material:** St37  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**

	<b>MERCEDES-BENZ CODE</b> B8 0561 0331960	
	<b>MERCEDES-BENZ CODE</b>	<b>B</b>
B8 0561 0331959	80	205
B8 0561 0331960	100	245
B8 0561 0331961	120	305

**BACKING PLATE - DRUCKPLATTE - REAZIONE PER CILINDRO**



**Notes**

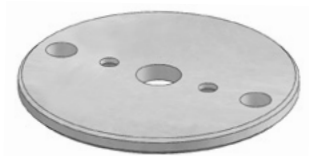
**Material:** 90MnCrV8  
**HRC:** 49÷52

**STOCK**

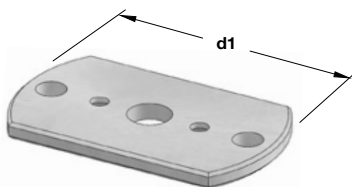
	<b>MERCEDES-BENZ CODE</b> B8 0561 0544586	
	<b>MERCEDES-BENZ CODE</b>	<b>L</b>
B8 0561 0347055	90	
B8 0561 0544586	60	
B8 0561 0343592	100	



**SHIM - ABSTIMMSCHEIBE - SPESSORE**



**FORM A**



**FORM B**

**Notes**

**Material:** CK45

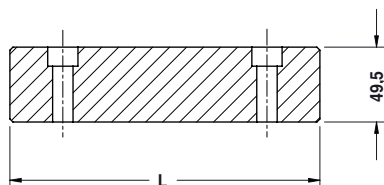
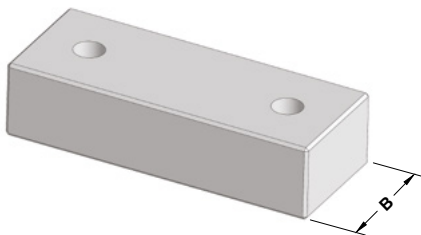
**STOCK**

<b>ORDER EXAMPLE</b> 	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0561 0372843</b>

MERCEDES-BENZ CODE	d1	FORM
B8 0561 0372843	100	A
B8 0561 0345926	100	B

Standard Mercedes-Benz

**STOP BLOCK - ABSTANDBLOCK - DISTANZIALE**



**Notes**

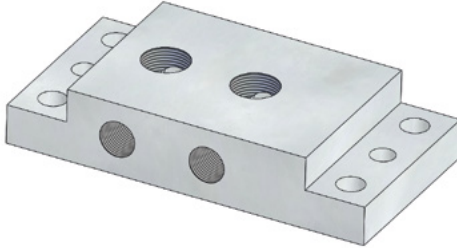
**Material:** CK45

**STOCK**

<b>ORDER EXAMPLE</b> 	<b>MERCEDES-BENZ CODE</b>
	<b>B8 0561 0376641</b>

MERCEDES-BENZ CODE	B	L
B8 0561 0377769	80	155
B8 0561 0376641	80	205
B8 0561 0376642	100	245

**CYLINDER CONNECTION PLATE  
ZYLINDERANSCHLUSSPLATTE  
PIASTRA DI COLLEGAMENTO CILINDRI**



**Notes**

**Material:** CK45  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

**STOCK**



**MERCEDES-BENZ CODE**

**B8 0561 0544587**

**MERCEDES-BENZ CODE**

**B8 0561 0544587**

**LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO**



**Notes**

**Material:** 16MnCr5  
**HRC:** 60÷62

**STOCK**



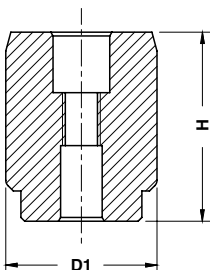
**MERCEDES-BENZ CODE**

**B8 0602 0533447**

**MERCEDES-BENZ CODE**

**B8 0602 0533447**

**LOCATING PIN - ZENTRIERBOLZEN - PERNO DI CENTRAGGIO**



**Notes**

**Material:** 16MnCr5 - HRC: 60÷62

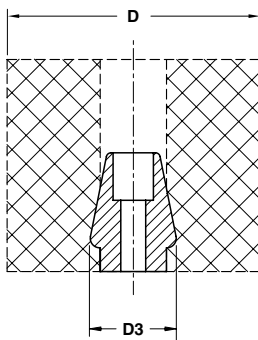
**STOCK**

ORDER EXAMPLE	<b>MERCEDES-BENZ CODE</b>	
	B8 0602 0333315	

MERCEDES-BENZ CODE	D1	H
B8 0602 1061335	11	70
B8 0602 0333314	22	50
B8 0602 0333315	25	50
B8 0602 0333316	32	50
B8 0602 1061342	15	70
B8 0602 0333317	40	50
B8 0602 0333318	50	50

Standard  
Mercedes-Benz

**SPRING PIN - AUFNAHMEBOLZEN - PERNO PER MOLLA**



**Notes**

**Material:** CK45

**STOCK**

ORDER EXAMPLE	<b>MERCEDES-BENZ CODE</b>	
	B8 0604 0333553	

MERCEDES-BENZ CODE	D	D3
B8 0604 0333552	63	28
B8 0604 0333553	80÷100	32
B8 0604 0333554	125÷140	38

**LOCATING CONE - ZENTRIERZAPFEN - CONO DI CENTRAGGIO**



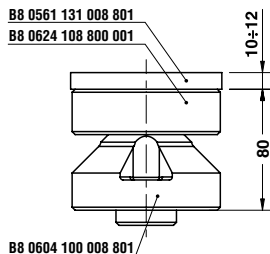
Only for replacement  
Nur für Reparatur  
Solo per riparazione



**Notes**

**Material:** 100Cr6 - **HRC:** 63÷65

**Application example**



**MERCEDES-BENZ CODE**

**B8 0604 0331202**

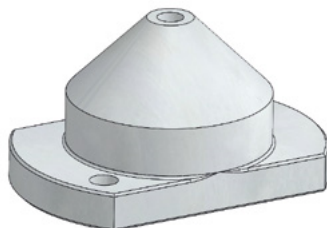
**MERCEDES-BENZ CODE**

**B8 0604 0331202**

**LOCATING CONE - ZENTRIERZAPFEN - CONO DI CENTRAGGIO**



**FORM A**



**FORM B**

**Notes**

**Material:** 16MnCr5 - **HRC:** 60÷64

**STOCK**



**MERCEDES-BENZ CODE**

**B8 0604 0345936**

MERCEDES-BENZ CODE	FORM
B8 0604 0372845	A
B8 0604 0345936	B

**LOCATING CONE - KEGELAUFSATZ - CONO DI CENTRAGGIO**



**Notes**

**Material:** 100Cr6 - **HRC:** 63÷65

Only for replacement  
Nur für Reparatur  
Solo per riparazione



**MERCEDES-BENZ CODE**

**B8 0624 0331203**

**MERCEDES-BENZ CODE**

**B8 0624 0331203**

Standard  
Mercedes-Benz

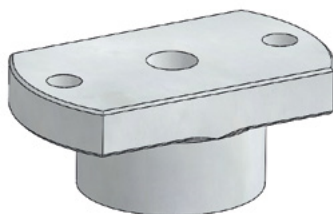
**LOCATING CONE - KEGELAUFSATZ - CONO DI CENTRAGGIO**



**FORM A**

**Notes**

**Material:** 16MnCr5 - **HRC:** 60÷64



**FORM B**



**MERCEDES-BENZ CODE**

**B8 0624 0345931**

**MERCEDES-BENZ CODE**

**FORM**

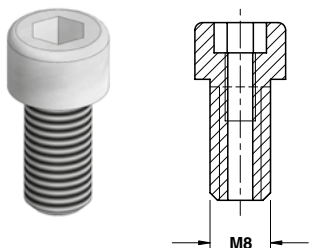
**B8 0624 0372844**

**A**

**B8 0624 0345931**

**B**

**SPACER - ABSTIMMSCHRAUBE - DISTANZIALE**



**Notes**  
DIN 912 8.8

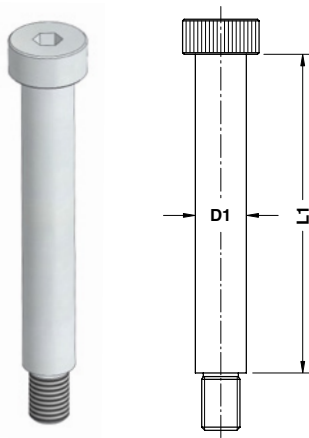
**STOCK**

**ORDER EXAMPLE**

**MERCEDES-BENZ CODE**  
**B8 1001 0333539**

**MERCEDES-BENZ CODE**  
**B8 1001 0333539**

**COLLAR SCREW - SCHULTER PASSSCHRAUBE - VITE CON COLLETO**



**Notes**  
DIN 898 cl. 12.9

**STOCK**

**ORDER EXAMPLE**

**MERCEDES-BENZ CODE**  
**B8 1013 0789539**

MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1	MERCEDES-BENZ CODE	D1	L1
B8 1013 0528837	16	70	B8 1013 0528845	20	60	B8 1013 0789540	16	35
B8 1013 0528838	16	80	B8 1013 0528846	20	70	B8 1013 0789542	16	40
B8 1013 0528839	16	90	B8 1013 0528847	20	80	B8 1013 0789543	16	45
B8 1013 0528840	16	100	B8 1013 0528848	20	90	B8 1013 1018326	8	16
B8 1013 0528841	16	120	B8 1013 0528849	20	100	B8 1013 1043713	8	50
B8 1013 0528842	16	60	B8 1013 0528850	20	120	B8 1013 1060773	12	30
B8 1013 0528843	16	50	B8 1013 0571679	16	30			
B8 1013 0528844	20	50	B8 1013 0789539	16	25			

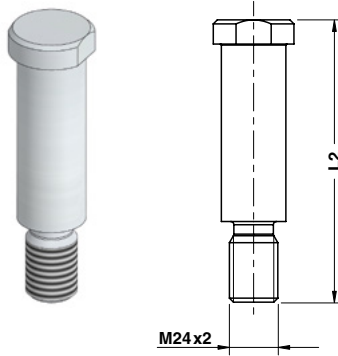
**RETAINER BOLT - HALTEBOLZEN - TIRANTE**

**Notes**

**Material:** 42CrMo4  
1000±1200 N/mm<sup>2</sup>

Only for replacement  
Nur für Reparatur  
Solo per riparazione

**STOCK**

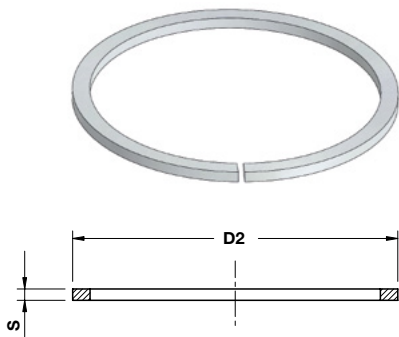


Standard  
Mercedes-Benz

	<b>MERCEDES-BENZ CODE</b>
	<b>B8 1013 0331113</b>

MERCEDES-BENZ CODE	L2	MERCEDES-BENZ CODE	L2	MERCEDES-BENZ CODE	L2
B8 1013 0331112	140	B8 1013 0331117	240	B8 1013 0331930	120
B8 1013 0331113	160	B8 1013 0331118	260	B8 1013 0534378	320
B8 1013 0331114	180	B8 1013 0331119	280	B8 1013 0534379	340
B8 1013 0331115	200	B8 1013 0331120	300		
B8 1013 0331116	220	B8 1013 0331929	100		

## POST RING - SPRENGRING - ANELLO PER COLONNA



MERCEDES-BENZ CODE  
B8 1087 0333185

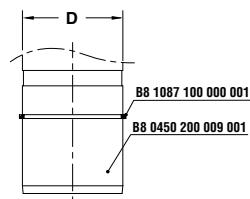
MERCEDES-BENZ CODE	D	D2	S	MERCEDES-BENZ CODE	D	D2	S	MERCEDES-BENZ CODE	D	D2	S
B8 1087 0333184	40	43	1,5	B8 1087 0333187	80	83,2	2	B8 1087 0333190	160	164,3	2,5
B8 1087 0333185	50	53	1,5	B8 1087 0333188	100	103,8	2,5				
B8 1087 0333186	63	66	1,5	B8 1087 0333189	125	128,8	2,5				

### Notes

**Material:** EN 10270

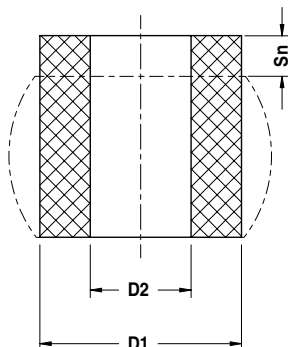
STOCK

### Application example



# B8 1123 120 000 102

## ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



Sn max = 24 mm

### Notes

**Material:** Elastomer 92 SH

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK



MERCEDES-BENZ CODE  
B8 1123 0377012

MERCEDES-BENZ CODE	D1	D2
B8 1123 0332947	63	33
B8 1123 0332948	80	33
B8 1123 0377012	80	40
B8 1123 0377013	90	40



LIFTING BRACKET VDI 3366 - TRAGZAPFEN VDI 3366 - STAFFA DI SOLLEVAMENTO VDI 3366

Notes

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>  
Screws not included

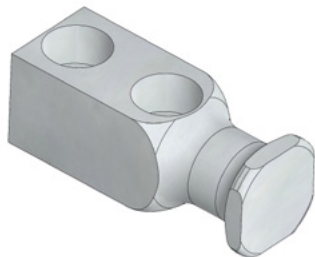


Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

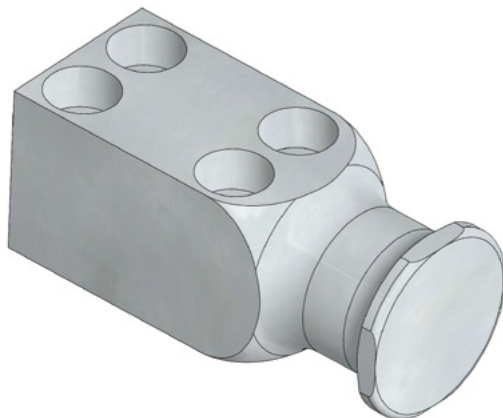
**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.



FORM A



FORM B

Standard  
Mercedes-Benz

ORDER EXAMPLE 	MERCEDES-BENZ CODE
	B8 1240 0333079

MERCEDES-BENZ CODE	Max load (kg)	Max die weight (kg)	FORM	MERCEDES-BENZ CODE	Max load (kg)	Max die weight (kg)	FORM
B8 1240 0333078	320	640	A	B8 1240 0333083	5000	10000	A
B8 1240 0333079	630	1260	A	B8 1240 0333084	8000	16000	B
B8 1240 0333080	1250	2500	A	B8 1240 0333085	12500	25000	B
B8 1240 0333081	2000	4000	A	B8 1240 0333086	20000	40000	B
B8 1240 0333082	3200	6400	A				

LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO

Notes

**Material:** 42CrMo4 + QT



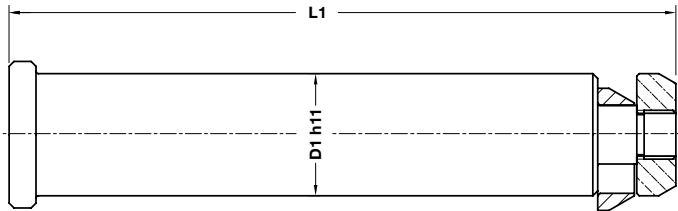
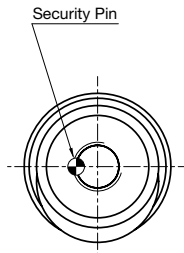
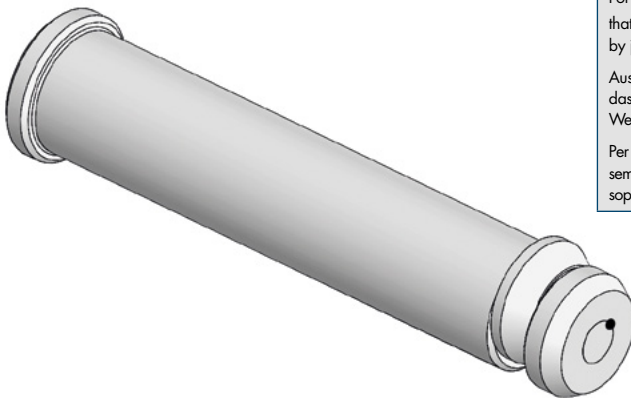
Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.



MERCEDES-BENZ CODE

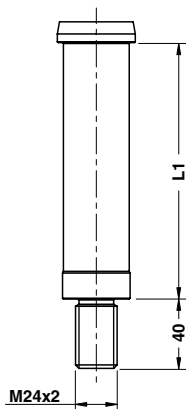
B8 2002 0370694

MERCEDES-BENZ CODE	Max load (kg)	Max die weight (kg)	L1	D1
B8 2002 0370693	3200	6400	175	32
B8 2002 0370694	5000	10000	225	40
B8 2002 0537341	8000	16000	273	50
B8 2002 0537342	12500	25000	347	63
B8 2002 0537343	31500	63000	422	76

**RETAINER BOLT - HALTEBOLZEN - TIRANTE**

**Notes**  
**Material:** 42CrMo4  
 1000±1200 N/mm<sup>2</sup>

**STOCK**



Standard  
Mercedes-Benz

<b>ORDER EXAMPLE</b>	<b>MERCEDES-BENZ CODE</b>
	<b>B8 2002 0373390</b>

MERCEDES-BENZ CODE	L1	MERCEDES-BENZ CODE	L1	MERCEDES-BENZ CODE	L1
<b>B8 2002 0373389</b>	48	<b>B8 2002 0373405</b>	148	<b>B8 2002 0373412</b>	248
<b>B8 2002 0373390</b>	68	<b>B8 2002 0373406</b>	168	<b>B8 2002 0373413</b>	268
<b>B8 2002 0373391</b>	88	<b>B8 2002 0373407</b>	188	<b>B8 2002 0373414</b>	288
<b>B8 2002 0373392</b>	108	<b>B8 2002 0373409</b>	208		
<b>B8 2002 0373393</b>	128	<b>B8 2002 0373410</b>	228		

**PIN - ANKERBOLZEN - PERNO**



**Notes**

**Material:** 42CrMo4

**STOCK**



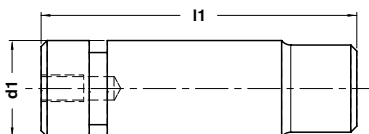
**MERCEDES-BENZ CODE**

**B8 2002 0332361**

**MERCEDES-BENZ CODE**

**B8 2002 0332361**

**PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO**



**Notes**

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

**STOCK**

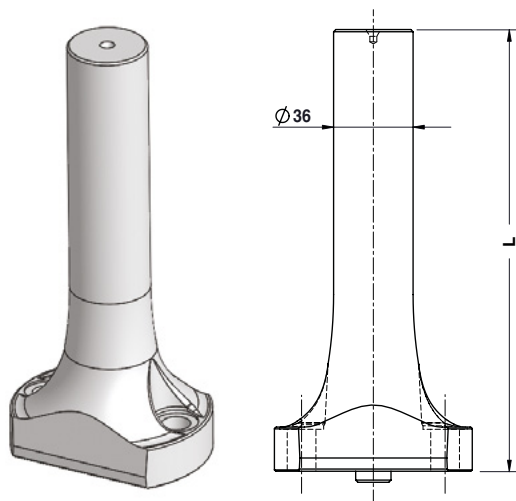


**MERCEDES-BENZ CODE**

**B8 2002 0333932**

MERCEDES-BENZ CODE	d1	l1
<b>B8 2002 0333400</b>	32	122
<b>B8 2002 0332932</b>	40	139
<b>B8 2002 0332933</b>	50	167

AIR PIN - DRUCKBOLZEN - CANDELA



Notes

**Material:** 42CrMo4  
800±1000 N/mm<sup>2</sup>

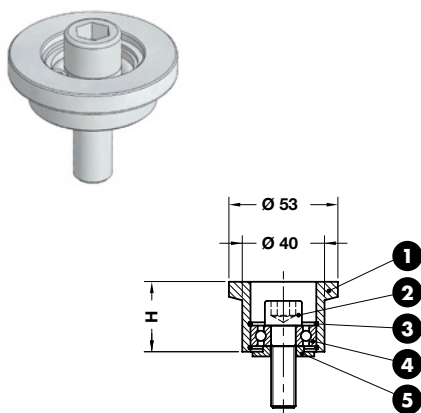


ORDER EXAMPLE	MERCEDES-BENZ CODE
	B8 2002 1152052

MERCEDES-BENZ CODE	L
B8 2002 1152051	150
B8 2002 1152052	175
B8 2002 1152053	200
B8 2002 1152054	225
B8 2002 1152055	250
B8 2002 1410472	275
B8 2002 1410473	300
B8 2002 1410474	325
B8 2002 1410475	350

Standard Mercedes-Benz

COIL GUIDE ROLLER - FÜHRUNGSRÖLLE - GUIDA NASTRO



Notes

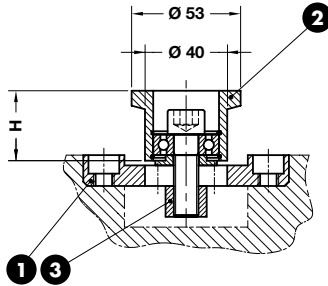
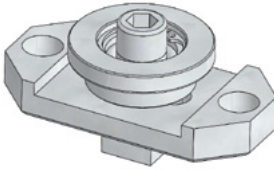
- 1 **Material:** 16MnCr5 - HRC: 55±58
- 2 M12x40 DIN 472
- 3 I32 DIN 472
- 4 6201 2Z VA DIN 625
- 5 **Material:** CK45



ORDER EXAMPLE	MERCEDES-BENZ CODE
	B8 7007 0332935

MERCEDES-BENZ CODE	H
B8 7007 0332934	17
B8 7007 0332935	34
B8 7007 0530090	80

**COIL GUIDE ROLLER - FÜHRUNGSROLLE - GUIDA NASTRO**



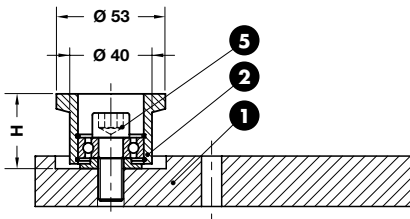
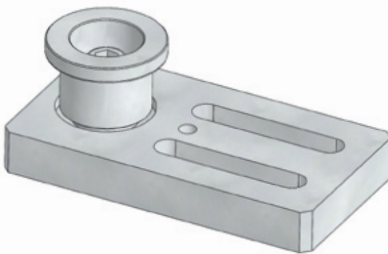
**Notes**

- 1 Material:** St37  
B8 7007 0332934
- 2** B8 7007 0332935  
B8 7007 0530090
- 3 Material:** CK45



	<b>MERCEDES-BENZ CODE</b>
	B8 7007 0332632
<b>MERCEDES-BENZ CODE</b>	<b>H</b>
B8 7007 0332631	17
B8 7007 0332632	34
B8 7007 0557701	80

**COIL GUIDE ROLLER - FÜHRUNGSROLLE - GUIDA NASTRO**



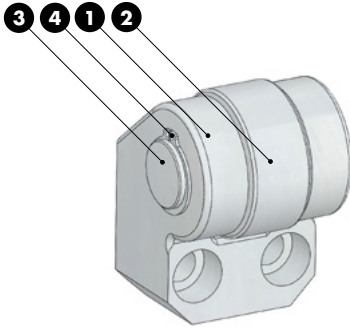
**Notes**

- 1 Material:** St37  
B8 7007 0332935  
B8 7007 0530090
- 2**
- 5** M12x25 DIN 472



	<b>MERCEDES-BENZ CODE</b>
	B8 7007 0530089
<b>MERCEDES-BENZ CODE</b>	<b>H</b>
B8 7007 0530088	34
B8 7007 0530089	80

**CAM ROLLER - ROLLENBOCK - SUPPORTO CON RULLO**



**Notes**

- 1** Material: 42CrMo4
- 2** NUTR 2552
- 3** Material: X210Cr12 - HRC 60±62
- 4** E25 DIN 471



**MERCEDES-BENZ CODE**

**B8 7466 0333319**

**MERCEDES-BENZ CODE**

**B8 7466 0333319**

Standard  
Mercedes-Benz



OMCR





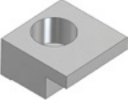







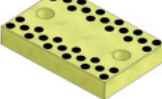
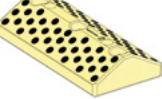


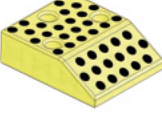







# Die Components Normalien Componenti



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

F33010001÷0049	F33010038÷0059	F33010060÷0076	F33020019÷0026	F33020036÷0037
				
Guide post Führungssäule Colonna guida  383	Guide post Führungssäule Colonna guida  384	Guide post Führungssäule Colonna guida  385	Bush self-lubricating Führungsbuchse Boccola autolubrificante  386	Toe clamp Haltestück Ritegno  386
F33030001÷0040	F33030041÷0070	F3304000÷0138	F33040121÷F33050012	F33040024÷0035
				
Matrix Retainer Aufnahmeplatte Portamatrice  387	Distance Plate Druckplatte Distanziale  388	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357  389	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357  390	Wear plate self-lubricating Gleitplatte bronze mit festschmierstoff Piastra guida autolubrificante  391
F33040036÷0044	F33040084÷0164	F33040085÷0112	F33040090÷0093	F33040100÷0111
				
Wear plate self-lubricating Gleitplatte mit festschmierstoff Piastra guida autolubrificante  392	Cam positive return follower Gleitstück Reazione gancio  392	Wear plate self-lubricating Gleitplatte bronze mit festschmierstoff Piastra guida autolubrificante  393	"V" driver VDI 3357 Prismenführung mit festschmierstoff VDI 3357 Guida a "V" VDI 3357  393	Angular guide Winkelleiste Guida angolare  394
F33040139÷0147	F33040148÷0156	F33040165÷0176	F33040177÷0183	F33040287÷0289
				
Cam dwell wear plate steel Überlaufkeile stahl Cuneo in acciaio  395	Cam dwell wear plate self-lubricating Überlaufkeile bronze mit festschmierstoff Cuneo autolubrificante  396	Wear plate Gleitplatte Piastra guida  397	Wear plate Gleitplatte Piastra guida  397	Positive Return Zwangsrückholer Gancio  398

F33040288÷0290	F33040305÷0320	F33050018÷0026	F33050069÷0072	F33050081÷0083
				
Positive Return Zwangsrückholer Gancio	Wear plate Gleitplatte Piastra guida	Wear plate Gleitplatte Piastra guida	"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357	"V" driver VDI 3357 Prismenführung mit festschmierstoff VDI 3357 Guida a "V" VDI 3357
398	399	400	400	401
F33050084÷0086	F33050087	F33050088	F33050089÷0100	F33050101÷0107
				
"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357	"V" driver Prismenführung Guida a "V"	"V" driver self-lubricating Prismenführung bronze mit festschmierstoff Guida a "V" autolubrificante	Wear plate Gleitplatte Piastra guida	Wear plate Gleitplatte Piastra guida
401	402	402	403	403
F33150011÷0015	F33150037÷0044	F33150045÷0048	F33150060÷0061	F33150087÷0091
				
Pad Retainer Steckbolzen Perno di arresto	Aerial Pin Luftbolzen Candela	Air Pin Druckbolzen Candela	Locating Pin Zentrierbolzen Centraggio	Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento
404	404	405	405	406
F33160106÷0107	F33160108÷0204	F33160157÷0188	F33160218	F33160230÷0250
				
Fixing plate Befestigungsplatte Piastra di fissaggio	Distance plate Abstimscheibe Distanziale	Shim plate Ausgleichbleche Piastra di spessoramento	Fastening plates Halteplatte Piastre di ritegno	Shim punch retainer Druckplatte Spessore per portapunzione
407	407	408	409	409

<b>F33160226÷0344</b>	<b>F33160345÷0371</b>	<b>F33180007÷0012</b>	<b>F33180020÷0021</b>	<b>F33190003 ÷0038</b>
				
Striker plate Distanzkappe Reazione per cilindro	Striker plate Distanzkappe Reazione per cilindro	Washer Scheibe Rondella	Distance plate Abstimmzscheibe Distanziale	Locating Cone Kegeldistanz Cono di centraggio
410	411	412	412	413
<b>F33190005÷0026</b>	<b>F33190031÷0034</b>	<b>F33190035÷0036</b>	<b>F33260009÷0033</b>	<b>F33220332÷0343</b>
				
Spacer Distanzstück Distanziale	Bottoming block Abstandblock Distanziale	Spacer Distanzstück Distanziale	Key Passfeder Chiavetta	Roller cam unit Rollenschieber Camma a rullo
413	414	414	415	416
<b>F33260004÷0397</b>	<b>F33260014÷0024</b>	<b>F33260032</b>	<b>F33260203÷0205</b>	<b>F33260223÷0342</b>
				
Gage Einweiser Riferimento	Acceleration cam Schiebervorbeschleunigung Camma di accelerazione	Cam roller Rollenbock Supporto con rullo	Front gage Einlaufanschlag Portasensore	Slide stop block Schieberanschlag Arresto slitta
417	417	418	418	419
<b>F33290002</b>	<b>F33290041</b>	<b>F33290043÷0164</b>	<b>F33290063</b>	<b>F33290068</b>
				
Stamp rack pillar Markierstempelkonsole Colonna portatimbrì	Counter-pressure plate Gegendruckplatte Piastrina di reazione	Stamp Buchstabenstempel Marchio	Stamp Buchstabenstempel Marchio	Visual locator punch Endkontrollstempel Punzone di visualizzazione
420	420	421	421	422

<b>F33310014-0022</b>	<b>F33310023-0024</b>	<b>F33310029-0036</b>	<b>F33910001</b>	<b>F33910002</b>
				
<p>Clamping flange for gas springs Klemmflansch für Gasdruckfedern Supporto per molle a gas</p>	<p>Urethane spring retainer Elastomerhalterung Ritegno per elastomero</p>	<p>Clamping flange for gas springs Klemmflansch für Gasdruckfedern Supporto per molle a gas</p>	<p>Air coupling bracket Luftanschlussblock Supporto innesti rapidi</p>	<p>Air coupling bracket Luftanschlussblock Supporto innesti rapidi</p>
<p>422</p>	<p>423</p>	<p>423</p>	<p>424</p>	<p>424</p>
<b>F33910003</b>	<b>F33910043</b>	<b>F33910044</b>	<b>F33910110-0115</b>	<b>J06910069-70</b>
				
<p>Air coupling bracket Luftanschlussblock Supporto innesti rapidi</p>	<p>Retainer for stamps Halteplatte Portatimbri</p>	<p>Retainer for stamps Halteplatte Portatimbri</p>	<p>Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento</p>	<p>Sensor mounting brackets Sensorhalterungen Staffa per sensore</p>
<p>424</p>	<p>425</p>	<p>425</p>	<p>426</p>	<p>426</p>
<b>M16045182-184</b>	<b>M36600070-0073</b>			
				
<p>Shock absorber Halteelement Ammortizzatore</p>	<p>Washer Scheibe Rondella</p>			
<p>427</p>	<p>427</p>			



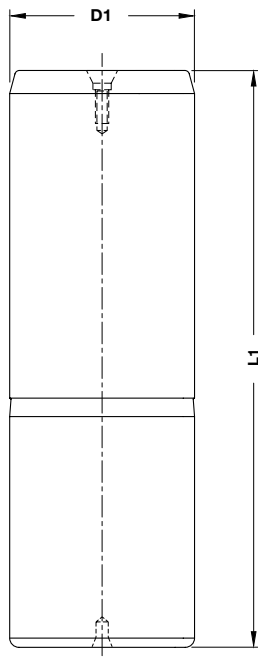
## GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



### Notes

**Material:** 16MnCr5

**HRC:** 60±62



Standard Opel

	OPEL CODE
	F3301002

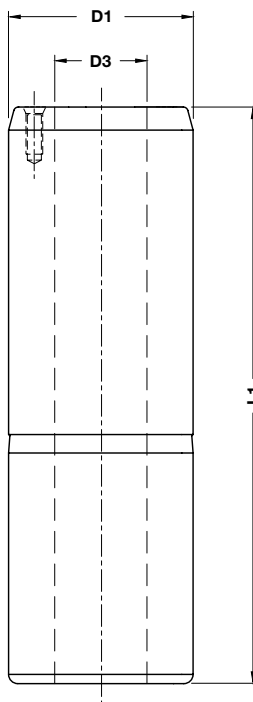
OPEL CODE	D1	L1	OPEL CODE	D1	L1	OPEL CODE	D1	L1
F33010001	25	125	F33010015	40	280	F33010029	63	315
F33010002	25	140	F33010016	50	160	F33010030	63	355
F33010003	25	160	F33010017	50	180	F33010031	63	400
F33010004	25	180	F33010018	50	200	F33010032	80	224
F33010005	32	140	F33010019	50	224	F33010033	80	250
F33010006	32	160	F33010020	50	250	F33010034	80	280
F33010007	32	180	F33010021	50	280	F33010035	80	315
F33010008	32	200	F33010022	50	315	F33010036	80	355
F33010009	40	140	F33010023	50	355	F33010037	80	400
F33010010	40	160	F33010024	63	180	F33010046	63	450
F33010011	40	180	F33010025	63	200	F33010047	63	500
F33010012	40	200	F33010026	63	224	F33010048	80	450
F33010013	40	224	F33010027	63	250	F33010049	80	500
F33010014	40	250	F33010028	63	280			

**GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA**

**Notes**

**Material:** 16MnCr5

**HRC:** 60±62



<b>ORDER EXAMPLE</b>	<b>OPEL CODE</b>
	F33010038

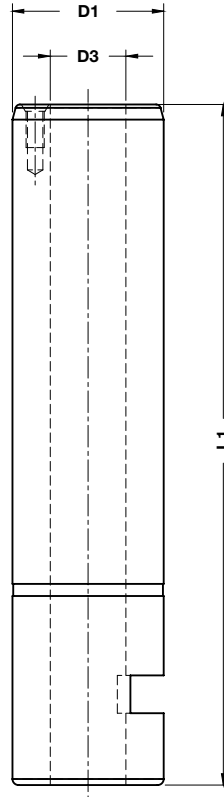
OPEL CODE	D1	D3	L1	OPEL CODE	D1	D3	L1
F33010038	100	50	280	F33010051	100	50	500
F33010039	100	50	315	F33010052	100	50	550
F33010040	100	50	355	F33010053	100	50	600
F33010041	100	50	400	F33010054	100	50	650
F33010042	125	65	315	F33010055	125	65	500
F33010043	125	65	355	F33010056	125	65	550
F33010044	125	65	400	F33010057	125	65	600
F33010045	125	65	450	F33010058	125	65	650
F33010050	100	50	450				



GUIDE POST - FÜHRUNGSSÄULE - COLONNA GUIDA



**Notes**  
**Material:** 16MnCr5  
**HRC:** 60±62



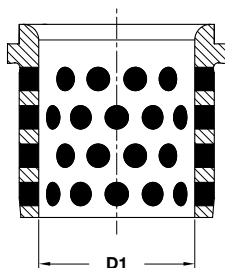
Standard Opel



<b>OPEL CODE</b>
<b>F33010061</b>

OPEL CODE	D1	D3	L1	OPEL CODE	D1	D3	L1	OPEL CODE	D1	D3	L1
F33010060	100	50	280	F33010066	100	50	550	F33010072	125	65	450
F33010061	100	50	315	F33010067	100	50	600	F33010073	125	65	500
F33010062	100	50	355	F33010068	100	50	650	F33010074	125	65	550
F33010063	100	50	400	F33010069	125	65	315	F33010075	125	65	600
F33010064	100	50	450	F33010070	125	65	355	F33010076	125	65	650
F33010065	100	50	500	F33010071	125	65	400				

## BUSH SELF-LUBRICATING - FÜHRUNGSBUCHSE - BOCCOLA AUTOLUBRIFICANTE



### Notes

**Material:** Bronze + Graphite  
**HB > 190**

STOCK



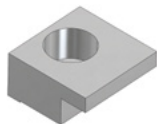
ORDER  
EXAMPLE

OPEL CODE

F33020020

OPEL CODE	D1
F33020019	25
F33020020	32
F33020021	40
F33020022	50
F33020023	63
F33020024	80
F33020025	100
F33020026	125

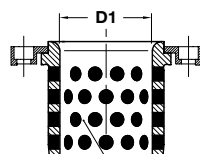
## TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA



### Notes

**Material:** CK45

### Application example



F33020019-F33020026

STOCK



ORDER  
EXAMPLE

OPEL CODE

F33020037

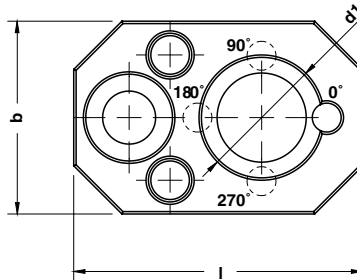
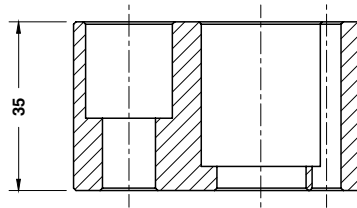
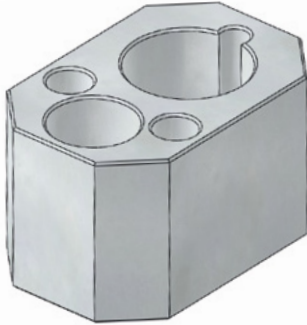
OPEL CODE	D1
F33020036	25-50
F33020037	63-125

MATRIX RETAINER - AUFNAHMEPLATTE - PORTAMATRICE

Notes

Material: CK45

STOCK



Standard Opel

ORDER EXAMPLE	OPEL CODE
	F3303002

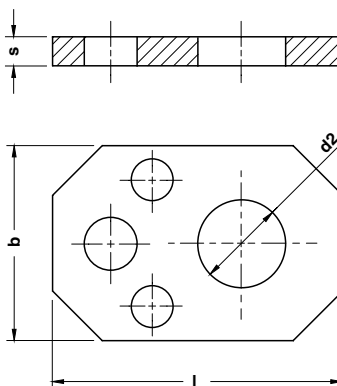
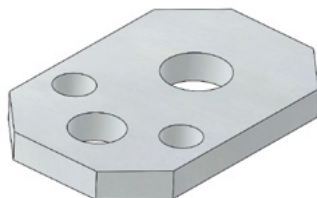
OPEL CODE				b	d1	l
DOWEL PIN LOCATION						
0°	90°	180°	270°			
F33030001	F33030011	F33030021	F33030031	40	10	60
F33030002	F33030012	F33030022	F33030032	40	13	60
F33030003	F33030013	F33030023	F33030033	40	16	60
F33030004	F33030014	F33030024	F33030034	40	20	60
F33030006	F33030016	F33030026	F33030036	40	25	60
F33030007	F33030017	-	F33030037	40	32	60
F33030008	F33030018	F33030028	F33030038	60	38	80
F33030009	F33030019	F33030029	F33030039	60	45	80
F33030010	F33030020	-	F33030040	60	50	80

## DISTANCE PLATE - DRUCKPLATTE - DISTANZIALE

### Notes

**Material:** CK45

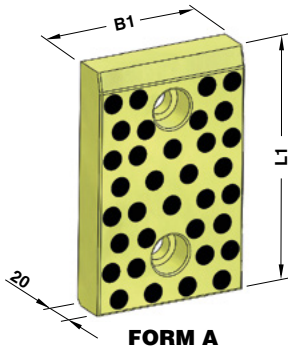
**STOCK**



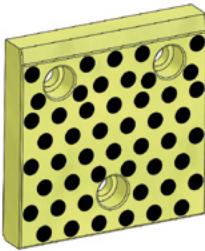
ORDER EXAMPLE	OPEL CODE
	F33030042

OPEL CODE	b	d2	l	s	OPEL CODE	b	d2	l	s
F33030041	40	6,5	60	2	F33030058	40	19	60	6
F33030042	40	6,5	60	4	F33030059	40	22,5	60	2
F33030043	40	6,5	60	6	F33030060	40	22,5	60	4
F33030044	40	9,5	60	2	F33030061	40	22,5	60	6
F33030045	40	9,5	60	4	F33030062	60	28,5	80	2
F33030046	40	9,5	60	6	F33030063	60	28,5	80	4
F33030047	40	11	60	2	F33030064	60	28,5	80	6
F33030048	40	11	60	4	F33030065	60	37,5	80	2
F33030049	40	11	60	6	F33030066	60	37,5	80	4
F33030050	40	13,5	60	2	F33030067	60	37,5	80	6
F33030051	40	13,5	60	4	F33030068	60	42,5	80	2
F33030052	40	13,5	60	6	F33030069	60	42,5	80	4
F33030056	40	19	60	2	F33030070	60	42,5	80	6
F33030057	40	19	60	4					

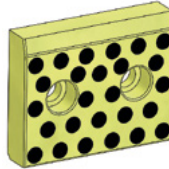
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



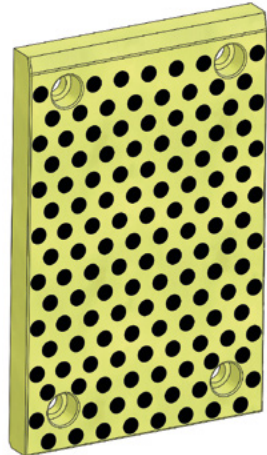
**FORM A**



**FORM B**



**FORM C**



**FORM D**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



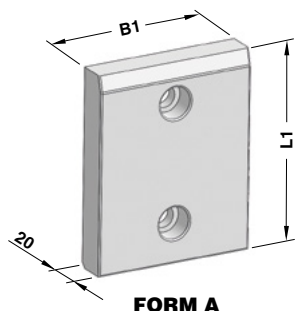
Standard Opel

ORDER EXAMPLE	OPEL CODE
	F33040001

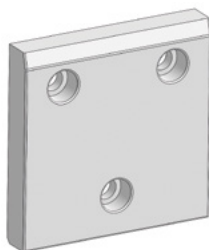
\* Not in accordance with VDI3357  
 Nicht mit Entspricht VDI3357  
 Non conforme alla norma VDI3357

OPEL CODE	B1	L1	FORM	OPEL CODE	B1	L1	FORM
F33040000	50	100	A	F33040015	125	100	B
F33040001	50	125	A	F33040016	125	125	B
F33040002	50	160	A	F33040017	125	160	B
F33040003	50	200	A	F33040018	160	100	B
F33040004	80	100	A	F33040019	160	125	B
F33040005	80	125	A	F33040020	160	160	B
F33040006	80	160	A	F33040113*	100	250	D
F33040007	80	200	A	F33040114*	125	200	D
F33040008	100	50	C	F33040115*	160	200	D
F33040009	100	80	C	F33040116*	160	250	D
F33040010	100	100	A	F33040117*	160	300	D
F33040011	100	125	A	F33040118*	200	200	D
F33040012	100	160	A	F33040119*	200	250	D
F33040013	100	200	A	F33040120*	200	300	D
F33040014	125	80	C	F33040138*	125	250	D

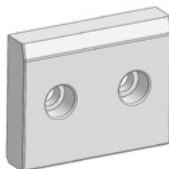
**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**



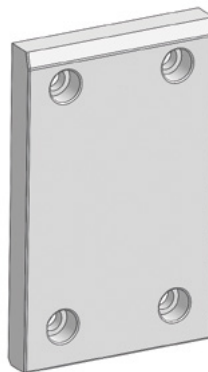
**FORM A**



**FORM B**



**FORM C**



**FORM D**

**Notes**

**Material:** 16MnCr5

**HRC:** 58÷60

STOCK

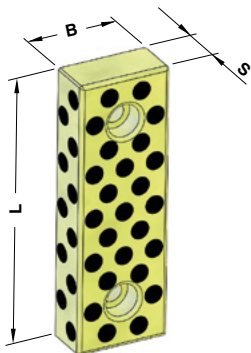


	OPEL CODE
	F33040121

\* Not in accordance with VDI3357  
 entspricht nicht VDI3357  
 Non conforme alla norma VDI3357

OPEL CODE	B1	L1	FORM	OPEL CODE	B1	L1	FORM
F33040121	100	50	C	F33040136*	200	250	D
F33040122	100	80	C	F33040137*	200	300	D
F33040123*	100	250	D	F33050000	50	100	A
F33040124	125	80	C	F33050001	50	125	A
F33040125	125	100	B	F33050002	50	160	A
F33040126	125	125	B	F33050003	50	200	A
F33040127*	125	200	D	F33050004	80	100	A
F33040128*	125	250	D	F33050005	80	125	A
F33040129	160	100	B	F33050006	80	160	A
F33040130	160	125	B	F33050007	80	200	A
F33040131	160	160	B	F33050008	100	100	A
F33040132*	160	200	D	F33050009	100	125	A
F33040133*	160	250	D	F33050010	100	160	A
F33040134*	160	300	D	F33050011	100	200	A
F33040135*	200	200	D	F33050012	125	160	B

**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**



**FORM A**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



**FORM B**



**FORM C**



**FORM D**



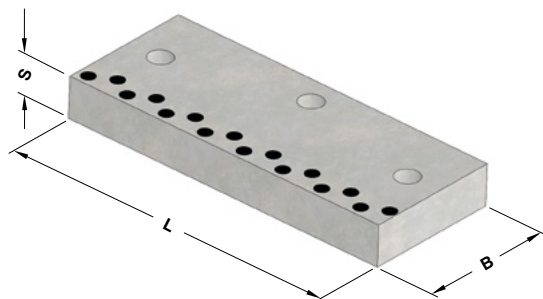
**FORM E**

ORDER EXAMPLE	OPEL CODE
	F33040025

OPEL CODE	B	L	S	FORM	OPEL CODE	B	L	S	FORM
F33040024	35	100	10	E	F33040030	50	150	25	A
F33040025	35	150	10	E	F33040031	50	200	25	A
F33040026	35	200	10	E	F33040032	50	250	25	B
F33040027	35	250	10	E	F33040033	75	150	25	C
F33040028	35	300	10	E	F33040034	75	200	25	D
F33040029	35	350	10	E	F33040035	75	250	25	D

Standard Opel

## WEAR PLATE SELF-LUBRICATING GLEITPLATTE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE



### Notes

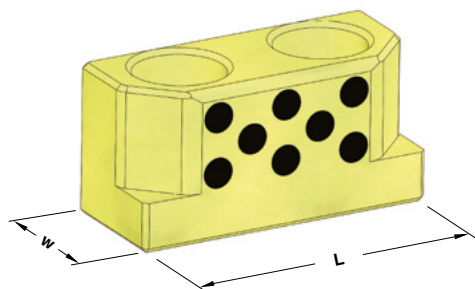
**Material:** CK45 + Graphite  
**HRC:** 60÷62



**OPEL CODE**  
F33040037

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33040036	100	160	20	F33040041	125	250	30
F33040037	100	200	20	F33040042	125	300	30
F33040038	100	250	20	F33040043	125	350	30
F33040039	100	300	20	F33040044	125	400	30
F33040040	125	160	30				

## CAM POSITIVE RETURN FOLLOWER GLEITSTÜCK REAZIONE GANCIO



### Notes

**Material:** Bronze + Graphite  
**HB > 190**

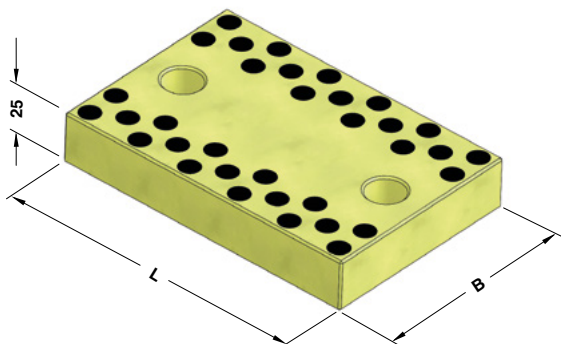


**OPEL CODE**  
F33040163

OPEL CODE	L	W
F33040084	60	25
F33040163	60	32
F33040164	80	32



**WEAR PLATE SELF-LUBRICATING  
GLEITPLATTE MIT FESTSCHMIERSTOFF  
PIASTRA GUIDA AUTOLUBRIFICANTE**



**Notes**

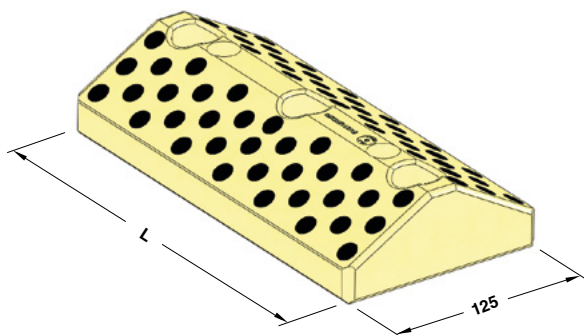
**Material:** Bronze + Graphite  
**HB > 190**



<b>ORDER EXAMPLE</b> 	<b>OPEL CODE</b>	
	F33040086	
<b>OPEL CODE</b>	<b>B</b>	<b>L</b>
F33040085	100	100
F33040086	100	150
F33040112	120	150

Standard Opel

**"V" DRIVER SELF-LUBRICATING VDI 3357  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**



**Notes**

**Material:** Bronze + Graphite  
**HB > 190**



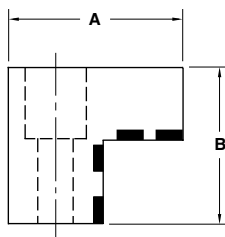
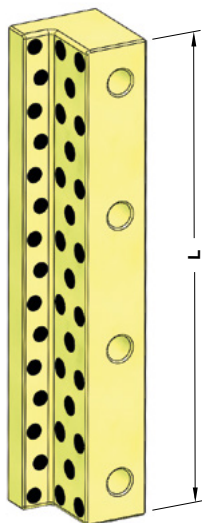
<b>ORDER EXAMPLE</b> 	<b>OPEL CODE</b>	
	F33040091	
<b>OPEL CODE</b>	<b>L</b>	
F33040090	150	
F33040091	200	
F33040092	250	
F33040093	300	

## ANGULAR GUIDE - WINKELLEISTE - GUIDA ANGOLARE

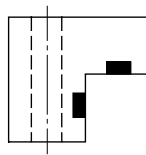
### Notes

**Material:** Bronze + Graphite  
**HB** > 190

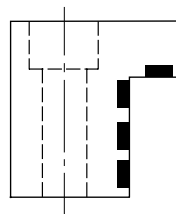
STOCK



**FORM A**



**FORM B**

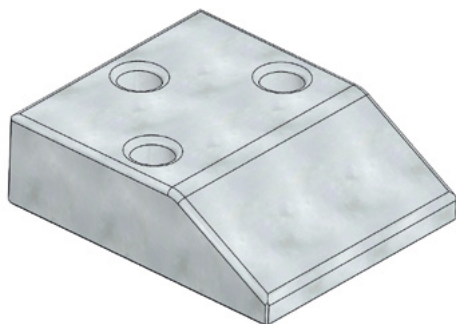


**FORM C**

	OPEL CODE
	F33040101

OPEL CODE	A	B	L	FORM	OPEL CODE	A	B	L	FORM
F33040100	50	45	200	A	F33040106	32	30	150	B
F33040101	50	45	250	A	F33040107	32	30	250	B
F33040102	50	45	300	A	F33040108	32	30	300	B
F33040103	50	45	350	A	F33040109	50	50	200	C
F33040104	50	45	400	A	F33040110	50	50	250	C
F33040105	50	45	500	A	F33040111	50	50	300	C

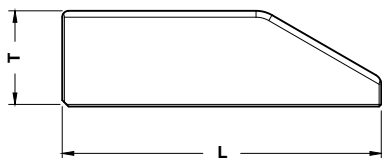
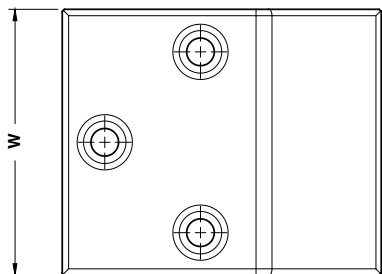
**CAM DWELL WEAR PLATE STEEL  
 UBERLAUFKEILE STAHL  
 CUNEO IN ACCIAIO**



**Notes**  
**Material:** 42CrMo4  
**HRC:** 58÷60



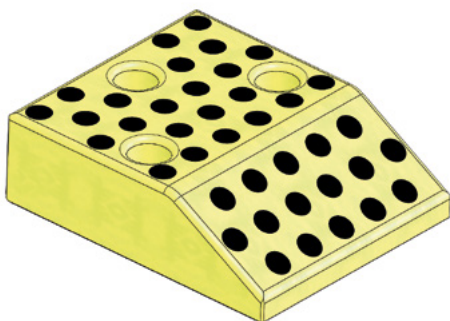
Standard Opel



	<b>OPEL CODE</b>
	<b>F33040140</b>

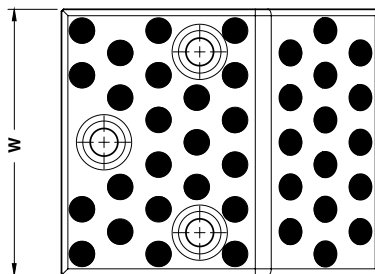
OPEL CODE	L	T	W
F33040139	125	30	100
F33040140	125	30	125
F33040141	125	30	160
F33040142	150	45	100
F33040143	150	45	125
F33040144	150	45	160
F33040145	170	60	100
F33040146	170	60	125
F33040147	170	60	160

## CAM DWELL WEAR PLATE SELF-LUBRICATING UBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF CUNEO AUTOLUBRIFICANTE



**Notes**

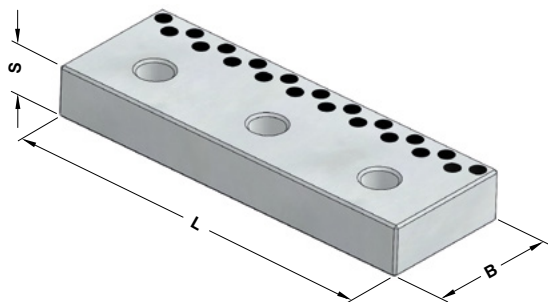
**Material:** Bronze + Graphite  
**HB > 190**



	OPEL CODE
	F33040149

OPEL CODE	L	T	W
F33040148	125	30	100
F33040149	125	30	125
F33040150	125	30	160
F33040151	150	45	100
F33040152	150	45	125
F33040153	150	45	160
F33040154	170	60	100
F33040155	170	60	125
F33040156	170	60	160

## WEAR PLATE - GLEITPLATTE - PIASTRA GUIDA



### Notes

**Material:** CK45 + Graphite  
**HRC:** 58÷60

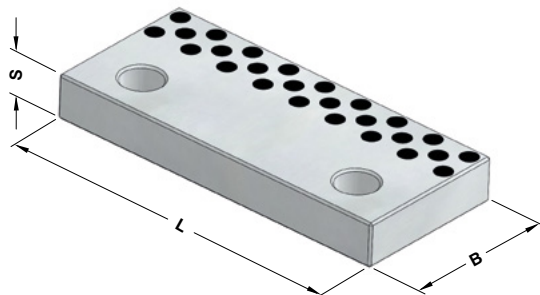


OPEL CODE
F33040166

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33040165	52	150	20	F33040171	77	150	35
F33040166	52	200	20	F33040172	77	200	35
F33040167	52	250	20	F33040173	77	250	35
F33040168	72	150	30	F33040174	82	150	40
F33040169	72	200	30	F33040175	82	200	40
F33040170	72	250	30	F33040176	82	250	40

Standard Opel

## WEAR PLATE - GLEITPLATTE - PIASTRA GUIDA



### Notes

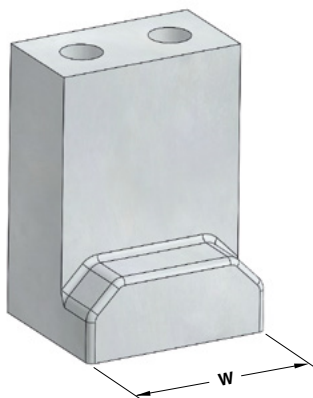
**Material:** CK45 + Graphite  
**HRC:** 58÷60



OPEL CODE
F33040178

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33040177	70	160	25	F33040181	85	240	28
F33040178	70	200	25	F33040182	85	300	28
F33040179	70	240	25	F33040183	85	350	28
F33040180	85	200	28				

## POSITIVE RETURN - ZWANGSRÜCKHOLER - GANCIO



### Notes

**Material:** C45

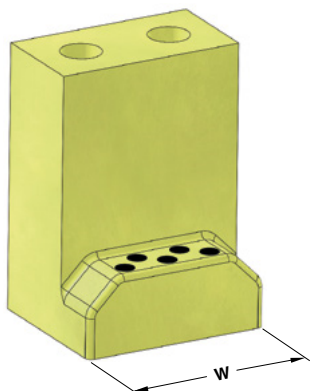
**HRC:** 58÷60

STOCK

	OPEL CODE
	F33040289

OPEL CODE	W
F33040287	60
F33040289	80

## POSITIVE RETURN - ZWANGSRÜCKHOLER - GANCIO



### Notes

**Material:** Bronze + Graphite

**HB** > 190

STOCK

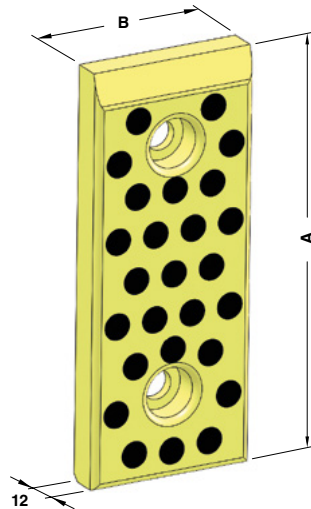
	OPEL CODE
	F33040290

OPEL CODE	W
F33040288	60
F33040290	80

**WEAR PLATE SELF-LUBRICATING VDI 3357  
GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**

**Notes**

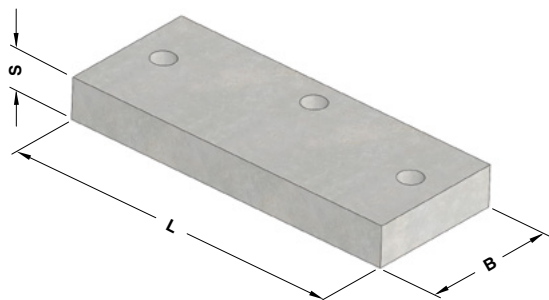
**Material:** Bronze + Graphite  
**HB > 190**



	<b>OPEL CODE</b>
	<b>F33040306</b>

OPEL CODE	B	A	OPEL CODE	B	A
F33040305	30	80	F33040313	50	80
F33040306	30	100	F33040314	50	100
F33040307	30	125	F33040315	50	125
F33040308	30	200	F33040316	50	200
F33040309	40	80	F33040317	60	80
F33040310	40	100	F33040318	60	100
F33040311	40	125	F33040319	60	125
F33040312	40	200	F33040320	60	200

## WEAR PLATE - GLEITPLATTE - PIASTRA GUIDA



### Notes

**Material:** 16MnCr5  
**HRC:** 58÷60

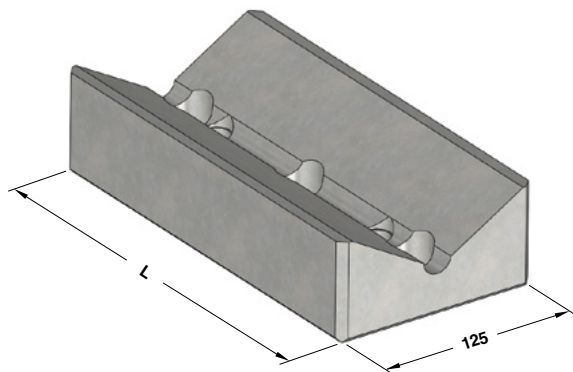


**OPEL CODE**  
F33050019

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33050018	100	160	20	F33050023	125	250	30
F33050019	100	200	20	F33050024	125	300	30
F33050020	100	250	20	F33050025	125	350	30
F33050021	100	300	20	F33050026	125	400	30
F33050022	125	160	30				

# F3305

## "V" DRIVER STEEL VDI 3357 PRISMENFÜHRUNG STAHL VDI 3357 GUIDA A "V" IN ACCIAIO VDI 3357



### Notes

**Material:** CK45  
**HRC:** 58÷60

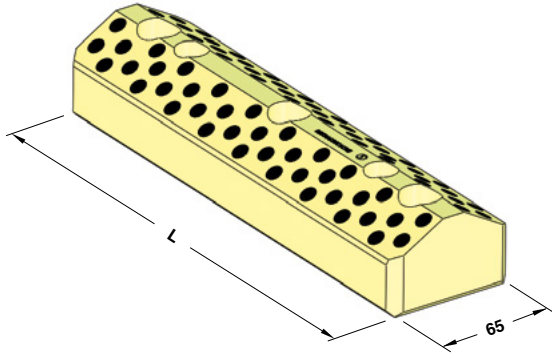


**OPEL CODE**  
F33050070

OPEL CODE	L
F33050069	150
F33050070	200
F33050071	250
F33050072	300



**"V" DRIVER SELF-LUBRICATING  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF  
GUIDA A "V" AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite  
**HB > 190**

**STOCK**

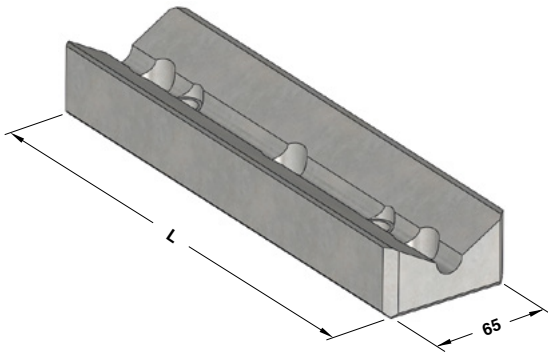


<b>OPEL CODE</b>
F33050082

OPEL CODE	L
F33050081	150
F33050082	200
F33050083	250

Standard Opel

**"V" DRIVER STEEL - PRISMENFÜHRUNG STAHL - GUIDA A "V" IN ACCIAIO**



**Notes**

**Material:** CK45  
**HRC: 58÷60**

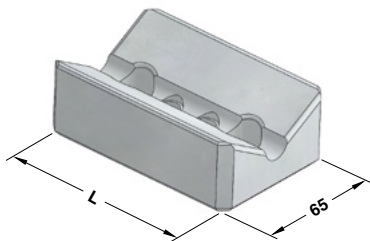
**STOCK**



<b>OPEL CODE</b>
F33050085

OPEL CODE	L
F33050084	150
F33050085	200
F33050086	250

**"V" DRIVER STEEL - PRISMENFÜHRUNG - GUIDA A "V" IN ACCIAIO**



**Notes**

**Material:** CK45

**HRC:** 58÷60

**STOCK**



**OPEL CODE**

F33050087

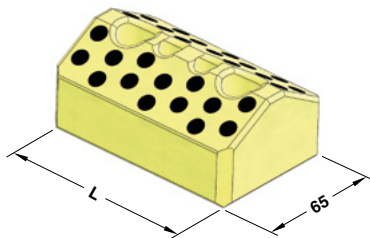
**OPEL CODE**

F33050087

**L**

100

**"V" DRIVER SELF-LUBRICATING  
PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF  
GUIDA A "V" AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite

**HB** > 190

**STOCK**



**OPEL CODE**

F33050088

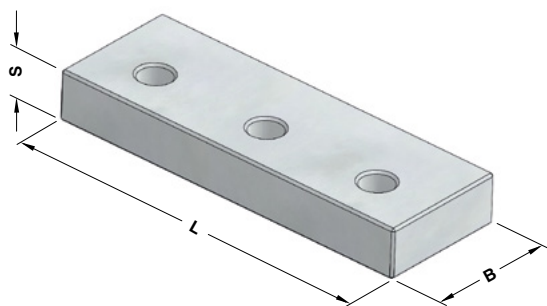
**OPEL CODE**

F33050088

**L**

100

## WEAR PLATE - GLEITPLATTE - PIASTRA GUIDA



### Notes

**Material:** CK45

**HRC:** 58÷60



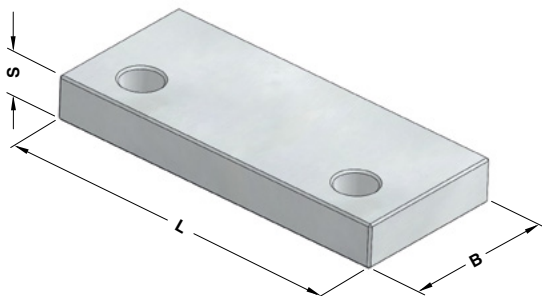
OPEL CODE

F33050090

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33050089	52	150	20	F33050095	77	150	35
F33050090	52	200	20	F33050096	77	200	35
F33050091	52	250	20	F33050097	77	250	35
F33050092	72	150	30	F33050098	82	150	40
F33050093	72	200	30	F33050099	82	200	40
F33050094	72	250	30	F33050100	82	250	40

Standard Opel

## WEAR PLATE - GLEITPLATTE - PIASTRA GUIDA



### Notes

**Material:** CK45

**HRC:** 58÷60

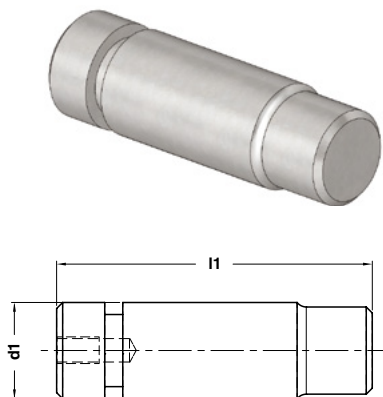


OPEL CODE

F33050102

OPEL CODE	B	L	S	OPEL CODE	B	L	S
F33050101	70	160	25	F33050105	85	240	28
F33050102	70	200	25	F33050106	85	300	28
F33050103	70	240	25	F33050107	85	350	28
F33050104	85	200	28				

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

**Material:** 42CrMo4  
900±1000 N/mm<sup>2</sup>

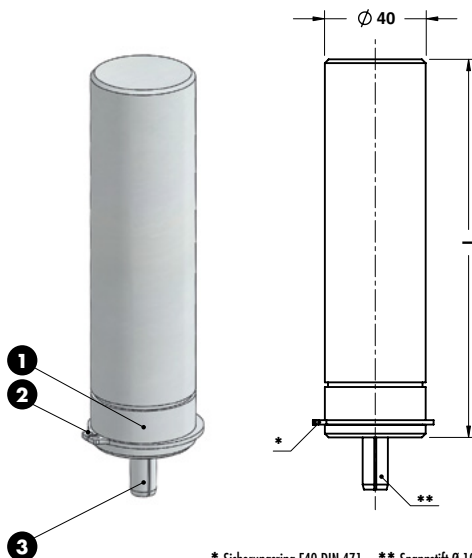
STOCK



**OPEL CODE**  
F33150012

OPEL CODE	d1	l1
F33150011	32	130
F33150012	40	155
F33150013	50	185
F33150014	56	190
F33150015	63	210

## AERIAL PIN - LUFTBOLZEN - CANDELA



### Notes

- 1 **Material:** CK45
- 2 E Ring E40 - DIN 471
- 3 Elastic Pin Ø10x35 - DIN 8752

STOCK

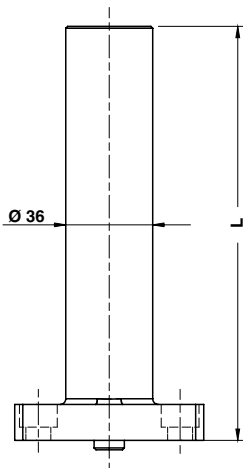


**OPEL CODE**  
F33150038

OPEL CODE	l
F33150037	125
F33150038	150
F33150039	175
F33150040	200
F33150041	225
F33150042	250
F33150043	275
F33150044	300

\* Sicherungsring E40 DIN 471    \*\* Spannstift Ø 10x35 DIN 8752  
Anello elastico E40 DIN 471    Spina elastica Ø 10x35 DIN 8752

**AIR PIN - DRUCKBOLZEN - CANDELA**



**Notes**

**Material:** CK45  
800÷1000 N/mm<sup>2</sup>



<b>OPEL CODE</b>	
<b>F33150046</b>	

OPEL CODE	L
F33150045	150
F33150046	175
F33150047	200
F33150048	225

Standard Opel

**LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO**



**Notes**

**Material:** 16MnCr5  
**HRC:** 56÷60



<b>OPEL CODE</b>	
<b>F33150061</b>	

OPEL CODE	d
F33150060	40
F33150061	50

## LIFTING PIN OPEL-GM TRAGBOLZEN MIT FALLRINGSICHERUNG OPEL-GM NORM PERNO DI SOLLEVAMENTO OPEL-GM



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

### WARNING - ACHTUNG - ATTENZIONE:

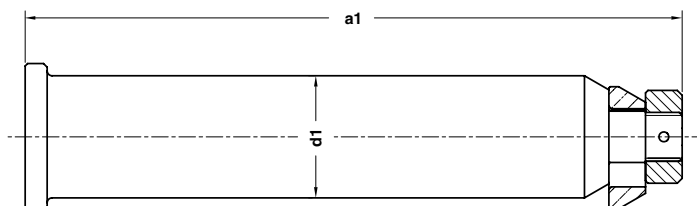
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

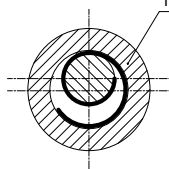
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

### Notes

**Material:** 42CrMo4 + QT



The part is supplied complete of steel spring

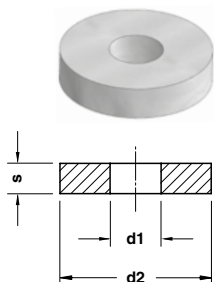


OPEL CODE

F33150088

OPEL CODE	a1	d1	Max load (kg)	Max die weight (kg)
F33150087	177	32	3400	6800
F33150088	220	40	5650	11300
F33150089	270	50	8950	17900
F33150090	342	63	14350	28700
F33150091	387	80	26700	53400

## FIXING PLATE - BEFESTIGUNGSPLATTE - PIASTRA DI FISSAGGIO



### Notes

**Material:** CK45

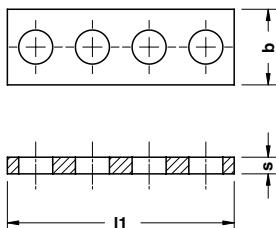
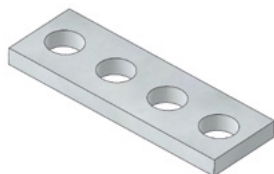
STOCK



**OPEL CODE**  
F33160107

OPEL CODE	d1	d2	s
F33160106	21	70	10
F33160107	25	80	15

## DISTANCE PLATE - ABSTIMMSCHEIBE - DISTANZIALE



### Notes

**Material:** S137

STOCK



**OPEL CODE**  
F33160109

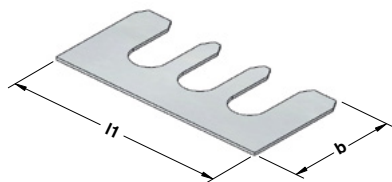
OPEL CODE	b	l1	s	OPEL CODE	b	l1	s
F33160108	20	60	4,4	F33160122	12,5	42	4,4
F33160109	20	60	4,6	F33160123	12,5	42	4,6
F33160110	20	60	4,8	F33160124	12,5	42	4,8
F33160111	20	60	5,0	F33160125	12,5	42	5,0
F33160112	20	60	5,2	F33160126	12,5	42	5,2
F33160113	20	60	5,4	F33160127	12,5	42	5,4
F33160114	20	60	5,6	F33160128	12,5	42	5,6
F33160115	16	65	4,4	F33160199	12,5	42	5,8
F33160116	16	65	4,6	F33160200	12,5	42	7,8
F33160117	16	65	4,8	F33160201	16	65	5,8
F33160118	16	65	5,0	F33160202	16	65	7,8
F33160119	16	65	5,2	F33160203	20	60	5,8
F33160120	16	65	5,4	F33160204	20	60	7,8
F33160121	16	65	5,6				

**SHIM PLATE - AUSGLEICHBLECHE - PIASTRA DI SPESSORAMENTO**

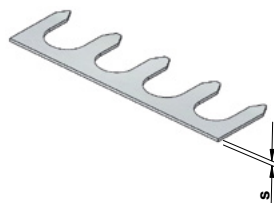
**Notes**

**Material:** St37

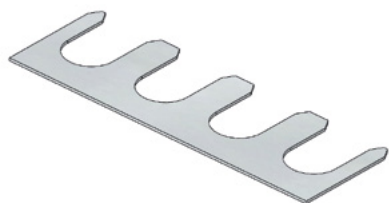
**STOCK**



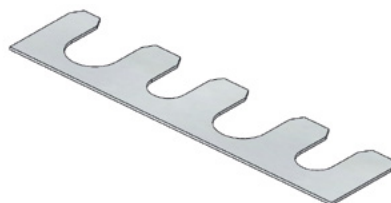
**FORM A**



**FORM B**



**FORM C**



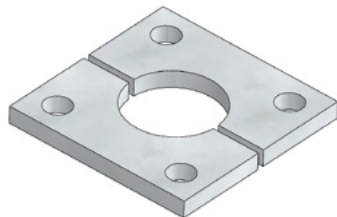
**FORM D**

	<b>OPEL CODE</b>
	F33160158

OPEL CODE	b	l1	s	FORM	OPEL CODE	b	l1	s	FORM
F33160157	20	60	0,5	C	F33160169	15	40	0,5	A
F33160158	20	60	1	C	F33160170	15	40	1	A
F33160159	20	60	2	C	F33160171	15	40	2	A
F33160160	20	45	0,5	A	F33160172	20	52	0,5	A
F33160161	20	45	1	A	F33160173	20	52	1	A
F33160162	20	45	2	A	F33160174	20	52	2	A
F33160163	15	45	0,5	A	F33160183	12,4	42	0,5	B
F33160164	15	45	1	A	F33160184	12,4	42	1	B
F33160165	15	45	2	A	F33160185	12,4	42	2	B
F33160166	20	40	0,5	A	F33160186	15,8	65	0,5	D
F33160167	20	40	1	A	F33160187	15,8	65	1	D
F33160168	20	40	2	A	F33160188	15,8	65	2	D

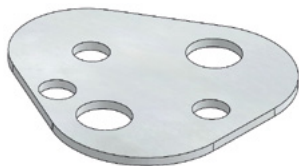


**FASTENING PLATES - HALTEPLATTE - PIASTRE DI RITEGNO**

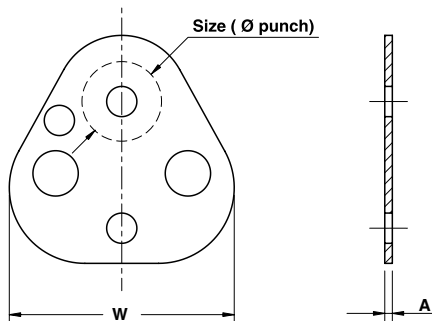


Notes	
<b>Material:</b> St37	
<b>STOCK</b>	
	OPEL CODE
	F33160218
OPEL CODE	
F33160218	

**SHIM PUNCH RETAINER - DRUCKPLATTE - SPESSORE PER PORTAPUNZONE**



Notes	
<b>Material:</b> C20	
<b>STOCK</b>	



	OPEL CODE
	F33160231

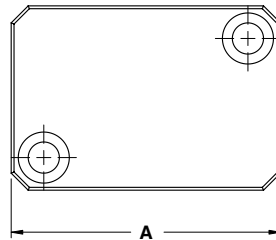
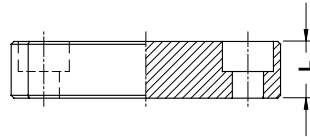
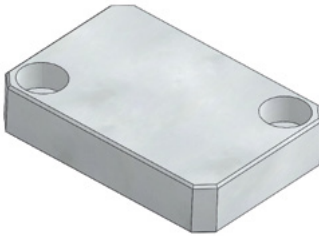
OPEL CODE	A	W	Size	OPEL CODE	A	W	Size	OPEL CODE	A	W	Size
F33160230	2	43,7	10	F33160237	4	53,2	16	F33160244	6	69,1	25
F33160231	4	43,7	10	F33160238	6	53,2	16	F33160245	2	69,1	32
F33160232	6	43,7	10	F33160239	2	59,5	20	F33160246	4	69,1	32
F33160233	2	50,0	13	F33160240	4	59,5	20	F33160247	6	69,1	32
F33160234	4	50,0	13	F33160241	6	59,5	20	F33160248	2	76,7	40
F33160235	6	50,0	13	F33160242	2	69,1	25	F33160249	4	76,7	40
F33160236	2	53,2	16	F33160243	4	69,1	25	F33160250	6	76,7	40

STRIKER PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO

Notes

**Material:** 16MnCr5  
**HRC:** 60±63

STOCK



	OPEL CODE
	F33160227

OPEL CODE	A	L	OPEL CODE	A	L	OPEL CODE	A	L	OPEL CODE	A	L	OPEL CODE	A	L
F33160226	50	20	F33160277	80	23	F33160286	95	35	F33160327	80	22	F33160336	130	20
F33160227	80	20	F33160278	80	26	F33160287	110	23	F33160328	80	24	F33160337	130	22
F33160228	95	20	F33160279	80	29	F33160288	110	26	F33160329	80	28	F33160338	130	23
F33160229	110	20	F33160280	80	32	F33160289	110	29	F33160330	95	22	F33160339	130	24
F33160272	50	23	F33160281	80	35	F33160290	110	32	F33160331	95	24	F33160340	130	26
F33160273	50	26	F33160282	95	23	F33160291	110	35	F33160332	95	28	F33160341	130	28
F33160274	50	29	F33160283	95	26	F33160324	50	22	F33160333	110	22	F33160342	130	29
F33160275	50	32	F33160284	95	29	F33160325	50	24	F33160334	110	24	F33160343	130	32
F33160276	50	35	F33160285	95	32	F33160326	50	28	F33160335	110	28	F33160344	130	35

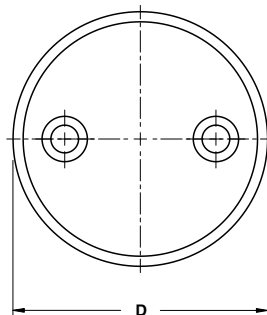
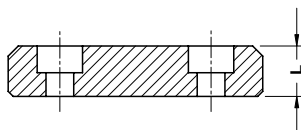
## STRIKER PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO

### Notes

**Material:** 42CrMo4

**HRC:** 48÷55

STOCK

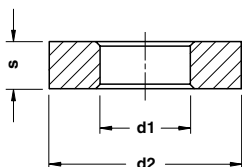


Standard Opel

	OPEL CODE
	F33160346

OPEL CODE	D	L	OPEL CODE	D	L	OPEL CODE	D	L
F33160345	63	20	F33160354	101	20	F33160363	133	20
F33160346	63	22	F33160355	101	22	F33160364	133	22
F33160347	63	23	F33160356	101	23	F33160365	133	23
F33160348	63	24	F33160357	101	24	F33160366	133	24
F33160349	63	26	F33160358	101	26	F33160367	133	26
F33160350	63	28	F33160359	101	28	F33160368	133	28
F33160351	63	29	F33160360	101	29	F33160369	133	29
F33160352	63	32	F33160361	101	32	F33160370	133	32
F33160353	63	35	F33160362	101	35	F33160371	133	35

## WASHER - SCHEIBE - RONDELLA



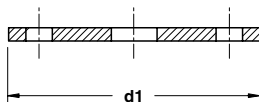
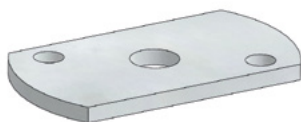
### Notes

**Material:** CK45

**STOCK**

ORDER EXAMPLE	OPEL CODE		
	F33180008		
OPEL CODE	d1	d2	s
F33180007	6	16	3.5
F33180008	12	24.5	5
F33180009	16	32	6.5
F33180010	20	40	8
F33180011	24	50	10
F33180012	30	60	12

## DISTANCE PLATE - ABSTIMMSCHEIBE - DISTANZIALE



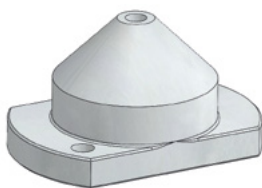
### Notes

**Material:** CK45

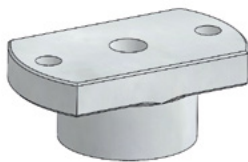
**STOCK**

ORDER EXAMPLE	OPEL CODE	
	F33180021	
OPEL CODE	d1	
F33180020	105	
F33180021	125	

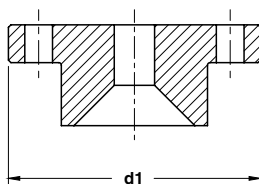
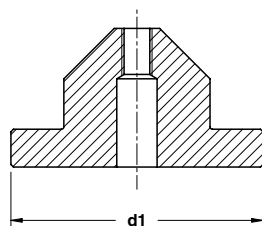
## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



**FORM A**



**FORM B**



### Notes

**Material:** 16MnCr5

**HRC:** 60÷62

STOCK



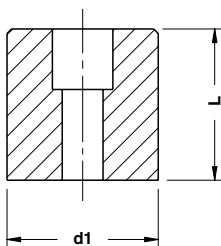
OPEL CODE

F33190004

OPEL CODE	d1	FORM
F33190003	100	B
F33190004	120	B
F33190037	100	A
F33190038	120	A

Standard Opel

## SPACER - DISTANZSTÜCK - DISTANZIALE



### Notes

**Material:** CK45

STOCK

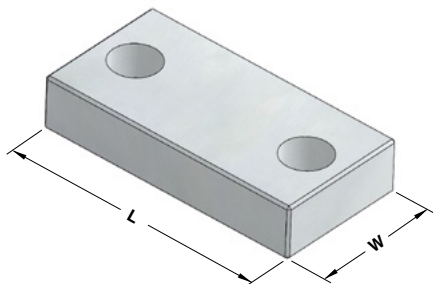


OPEL CODE

F33190006

OPEL CODE	d1	L
F33190005	50	50
F33190006	80	50
F33190025	100	50
F33190026	80	160

## BOTTOMING BLOCK - ABSTANDBLOCK - DISTANZIALE



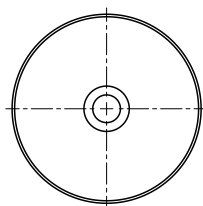
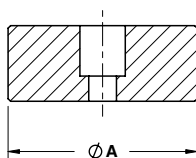
### Notes

**Material:** CK45

**STOCK**

	OPEL CODE	
	F33190032	
OPEL CODE	L	W
F33190031	100	30
F33190032	100	40
F33190033	80	40
F33190034	100	50

## SPACER - DISTANZSTÜCK - DISTANZIALE



### Notes

**Material:** CK45

**STOCK**

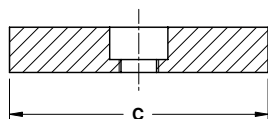
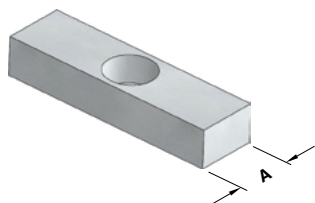
	OPEL CODE	
	F33190036	
OPEL CODE	A	
F33190035	50	
F33190036	75	

**KEY - PASSFEDER - CHIAVETTA**

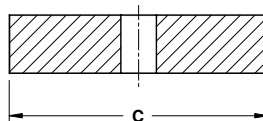
**Notes**

**Material:** CK45

**STOCK**



**FORM A**



**FORM B**

Standard Opel

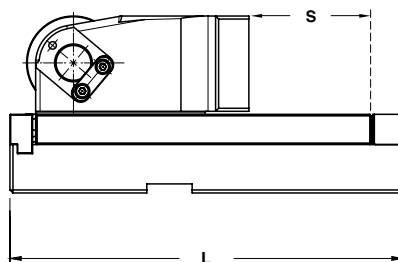
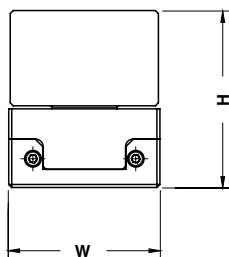
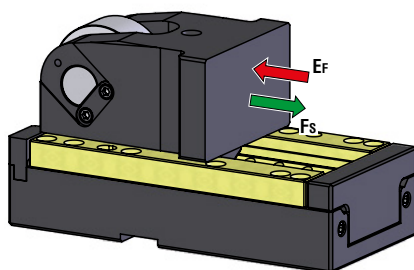
	<b>OPEL CODE</b>
	<b>F33200010</b>

OPEL CODE	A	C	FORM	OPEL CODE	A	C	FORM	OPEL CODE	A	C	FORM
F33200009	22	50	A	F33200018	25	50	A	F33200025	32	100	B
F33200010	22	80	A	F33200019	25	80	A	F33200026	25	100	A
F33200011	22	100	A	F33200023	32	50	B	F33200033	32	100	A
F33200017	20	80	A	F33200024	32	80	B				

## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

### Notes

For technical info see pages 860÷897

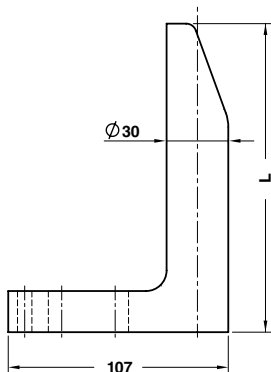
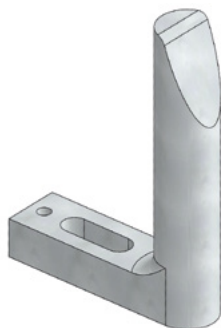


OPEL CODE  
F33220333

OPEL CODE	L	H	W	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)
				S	Fs	Ef
						Gas Spring
F33220332	200	117	98	50	76	2,86
F33220333	230	117	98	80	76	2,89
F33220334	260	117	98	100	76	3,09
F33220335	200	140	118	50	162	6,5
F33220336	230	140	118	80	162	6,62
F33220337	260	140	118	100	162	7,26
F33220338	220	165	170	50	166	6,36
F33220339	250	165	170	80	166	6,43
F33220340	270	165	170	100	166	6,46
F33220341	250	205	240	50	258	9,29
F33220342	280	205	240	80	258	9,36
F33220343	300	205	240	100	258	9,38



GAGE - EINWEISER - RIFERIMENTO



Notes

Material: CK60

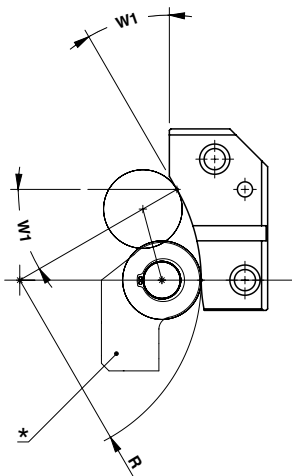
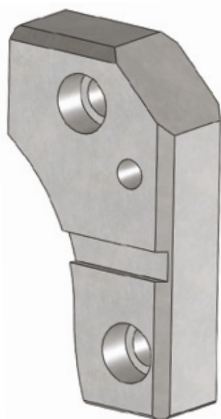


OPEL CODE  
F33260005

OPEL CODE	L
F33260004	65
F33260005	90
F33260006	120
F33260007	150
F33260008	180
F33260009	250
F33260396	300
F33260397	350

Standard Opel

ACCELERATION CAM - SCHIEBERVORBESCHLEUNIGUNG - CAMMA DI ACCELERAZIONE



Notes

Materials: 90MnCrV8 - HRC 60÷62

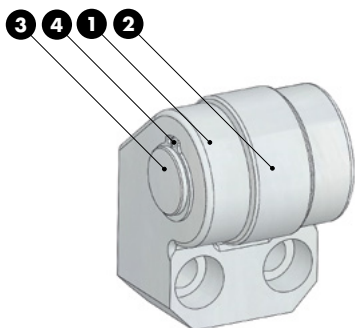


OPEL CODE  
F33260015

OPEL CODE	R	W1
F33260014	90	40°
F33260015	90	37.5°
F33260016	100	37.5°
F33260017	100	35°
F33260020	75	42.5°
F33260021	75	45°
F33260022	75	47.5°
F33260023	65	50°
F33260024	65	52.5°

\* Cam roller  
Rollenbock  
Supporto con rullo

**CAM ROLLER - ROLLENBOCK - SUPPORTO CON RULLO**



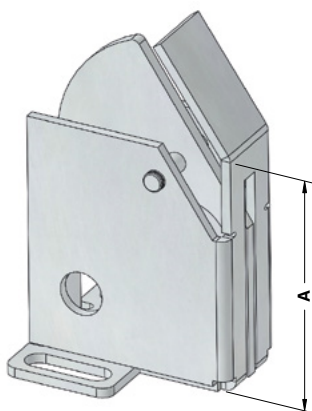
**Notes**

- 1** Material: 42CrMo4
- 2** NUTR 25-52
- 3** Material: 16MnCr5  
HRC: 60±62
- 4** E25 DIN 471



	OPEL CODE
	F33260032
OPEL CODE	
F33260032	

**FRONT GAGE - EINLAUFANSLAG - PORTASENSORE**



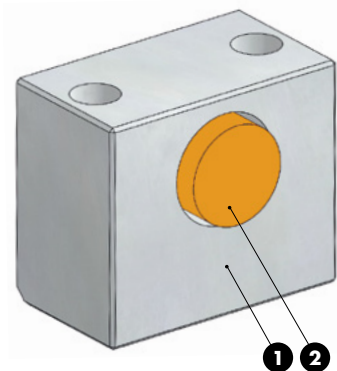
**Notes**

**Material:** Si37



	OPEL CODE
	F33260204
OPEL CODE	
A	A
F33260203	75
F33260204	100
F33260205	150

SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA

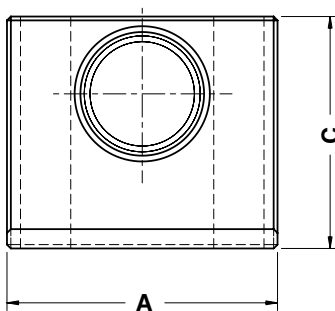
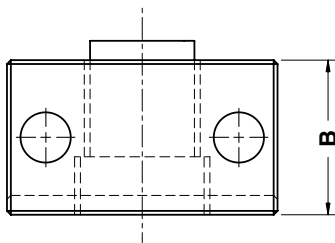


Notes

- 1 Material: CK45
- 2 Material: Elastomer 90 SH



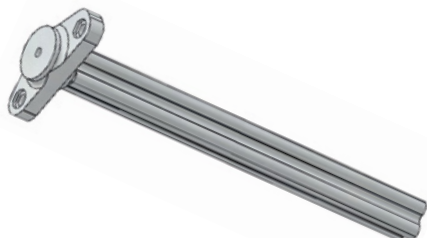
Standard Opel



	OPEL CODE
	F33260264

OPEL CODE	A	B	C
F33260223	80	80	70
F33260264	80	40	70
F33260342	70	40	60

## STAMP RACK PILLAR - MARKIERSTEMPELKONSOLE - COLONNA PORTATIMBRI



## Notes

Material: CK45

STOCK

ORDER  
EXAMPLE

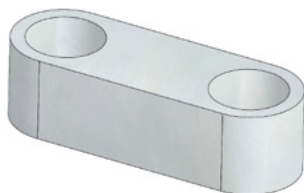
OPEL CODE

F33290002

OPEL CODE

F33290002

## COUNTER-PRESSURE PLATE - GEGENDRUCKPLATTE - PIASTRINA DI REAZIONE



## Notes

Material: Si37

STOCK

ORDER  
EXAMPLE

OPEL CODE

F33290041

OPEL CODE

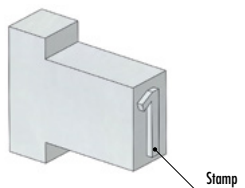
F33290041

STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO

Notes

**Material:** 90MnCrV8  
**HRC:** 60÷64

STOCK



Standard Opel



OPEL CODE

F33290044

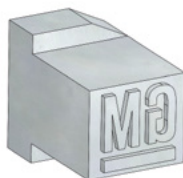
OPEL CODE	Stamp	OPEL CODE	Stamp	OPEL CODE	Stamp	OPEL CODE	Stamp
F33290043	0	F33290052	9	F33290150	J	F33290159	U
F33290044	1	F33290142	A	F33290151	K	F33290160	V
F33290045	2	F33290143	B	F33290152	L	F33290161	W
F33290046	3	F33290144	C	F33290153	M	F33290162	X
F33290047	4	F33290145	D	F33290154	N	F33290163	Y
F33290048	5	F33290146	E	F33290155	P	F33290164	Z
F33290049	6	F33290147	F	F33290156	R		
F33290050	7	F33290148	G	F33290157	S		
F33290051	8	F33290149	H	F33290158	T		

STAMP - BUCHSTABENSTEMPEL - MARCHIO

Notes

**Material:** 90MnCrV8  
**HRC:** 60÷64

STOCK



OPEL CODE

F33290063

OPEL CODE

F33290063

**VISUAL LOCATOR PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE**



**Notes**

**Material:** X155CrVMo121KU  
**HRC:** 60÷64

**STOCK**

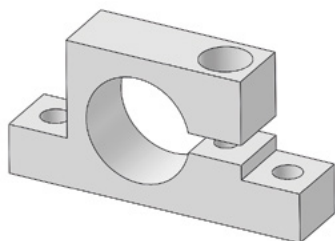


**OPEL CODE**  
**F33290068**

**OPEL CODE**

**F33290068**

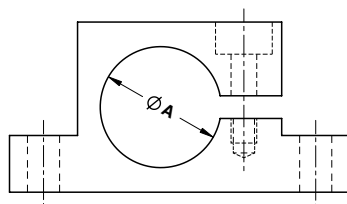
**CLAMPING FLANGE FOR GAS SPRINGS  
 KLEMMFLANSCH FÜR GASDRUCKFEDERN  
 SUPPORTO PER MOLLE A GAS**



**Notes**

**Material:** CK45

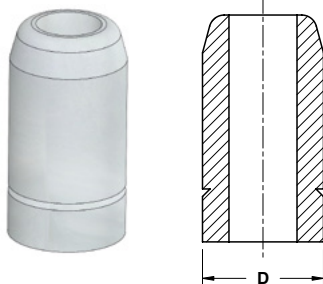
**STOCK**



**OPEL CODE**  
**F33310015**

OPEL CODE	A
F33310014	32.35
F33310015	38.35
F33310016	45.35
F33310017	50.35
F33310018	75.35
F33310019	95.35
F33310020	120.35
F33310021	150.35
F33310022	195.35

**URETHANE SPRING RETAINER - ELASTOMERHALTERUNG - RITEGNO PER ELASTOMERO**



**Notes**

**Material:** CK25

**STOCK**

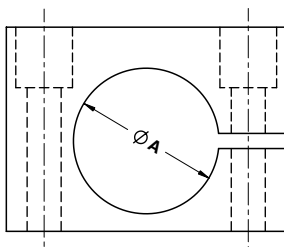
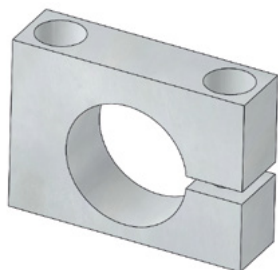


**OPEL CODE**

**F33310024**

OPEL CODE	D
F33310023	16
F33310024	24

**CLAMPING FLANGE FOR GAS SPRINGS  
KLEMMFLANSCH FÜR GASDRUCKFEDERN  
SUPPORTO PER MOLLE A GAS**



**Notes**

**Material:** CK45

**STOCK**

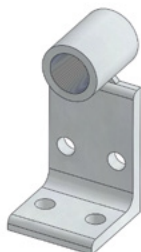


**OPEL CODE**

**F33310030**

OPEL CODE	A
F33310029	32.5
F33310030	38.5
F33310031	45.5
F33310032	50.5
F33310033	75.5
F33310034	95.5
F33310035	120.5
F33310036	150.5

**AIR COUPLING BRACKET - LUFTANSCHLUSSBLOCK - SUPPORTO INNESTI RAPIDI**



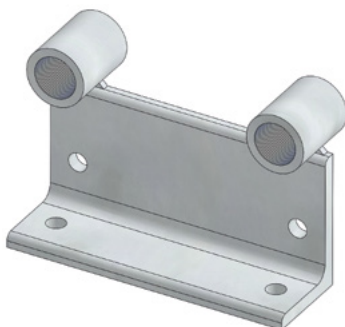
Notes	
<b>Material:</b> Si37	
<b>STOCK</b>	
<b>ORDER EXAMPLE</b> 	OPEL CODE
	F33910001
<b>OPEL CODE</b>	
F33910001	

**AIR COUPLING BRACKET - LUFTANSCHLUSSBLOCK - SUPPORTO INNESTI RAPIDI**



Notes	
<b>Material:</b> Si37	
<b>STOCK</b>	
<b>ORDER EXAMPLE</b> 	OPEL CODE
	F33910002
<b>OPEL CODE</b>	
F33910002	

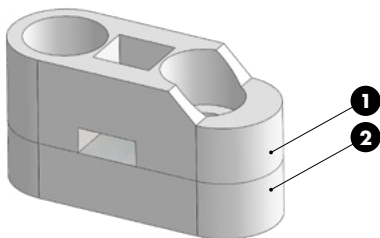
**AIR COUPLING BRACKET - LUFTANSCHLUSSBLOCK - SUPPORTO INNESTI RAPIDI**



Notes	
<b>Material:</b> Si37	
<b>STOCK</b>	
<b>ORDER EXAMPLE</b> 	OPEL CODE
	F33910003
<b>OPEL CODE</b>	
F33910003	



**RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI**



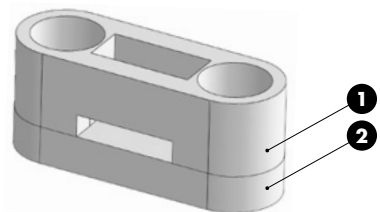
Notes	
1	F33290065 - <b>Material:</b> St37
2	F33290066 - <b>Material:</b> CK45



	OPEL CODE
	F33910043
OPEL CODE	
F33910043	

Standard Opel

**RETAINER FOR STAMPS - HALTEPLATTE - PORTATIMBRI**

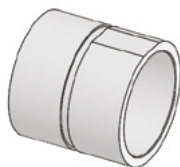


Notes	
1	F33290039 - <b>Material:</b> CK45
2	F33290040 - <b>Material:</b> CK45

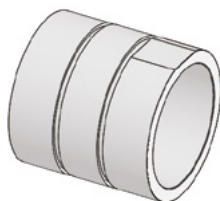
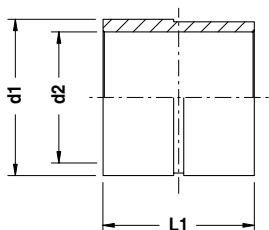


	OPEL CODE
	F33910044
OPEL CODE	
F33910044	

**BUSH FOR LIFTING PIN - BUCHSE FÜR TRAGBOLZEN - BOCCOLA PER PERNO DI SOLLEVAMENTO**



**FORM A**



**FORM B**

**Notes**

**Material:** Si35

**STOCK**

	<b>OPEL CODE</b>
	F33910111

OPEL CODE	d1	d2	L1	FORM
F33910110	44	34	40	A
F33910111	52	42	50	A
F33910112	62	52	60	A
F33910113	75	65	80	A
F33910114	75	65	75	A
F33910115	100	82	100	B

**SENSOR MOUNTING BRACKET - SENSORHALTERUNGEN - STAFFA PER SENSORE**



**J06910069**



**J06910070**

**Notes**

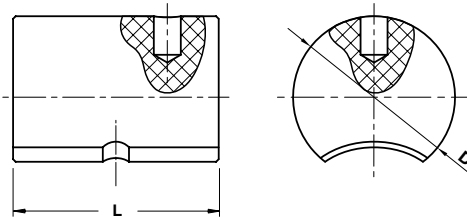
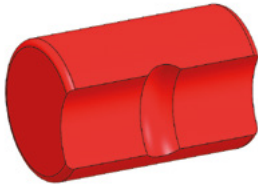
**Material:** Si37

**STOCK**

	<b>OPEL CODE</b>
	J06910070

OPEL CODE
J06910069
J06910070

SHOCK ABSORBER - HALTELEMENT - AMMORTIZZATORE



Notes

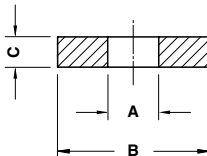
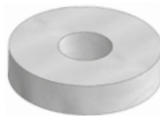
**Material:** Polyurethane 92 SH

STOCK

	OPEL CODE		
	M16045183		
OPEL CODE	D	L	
M16045182	40	60	
M16045183	50	80	
M16045184	63	80	

Standard Opel

WASHER - SCHEIBE - RONDELLA

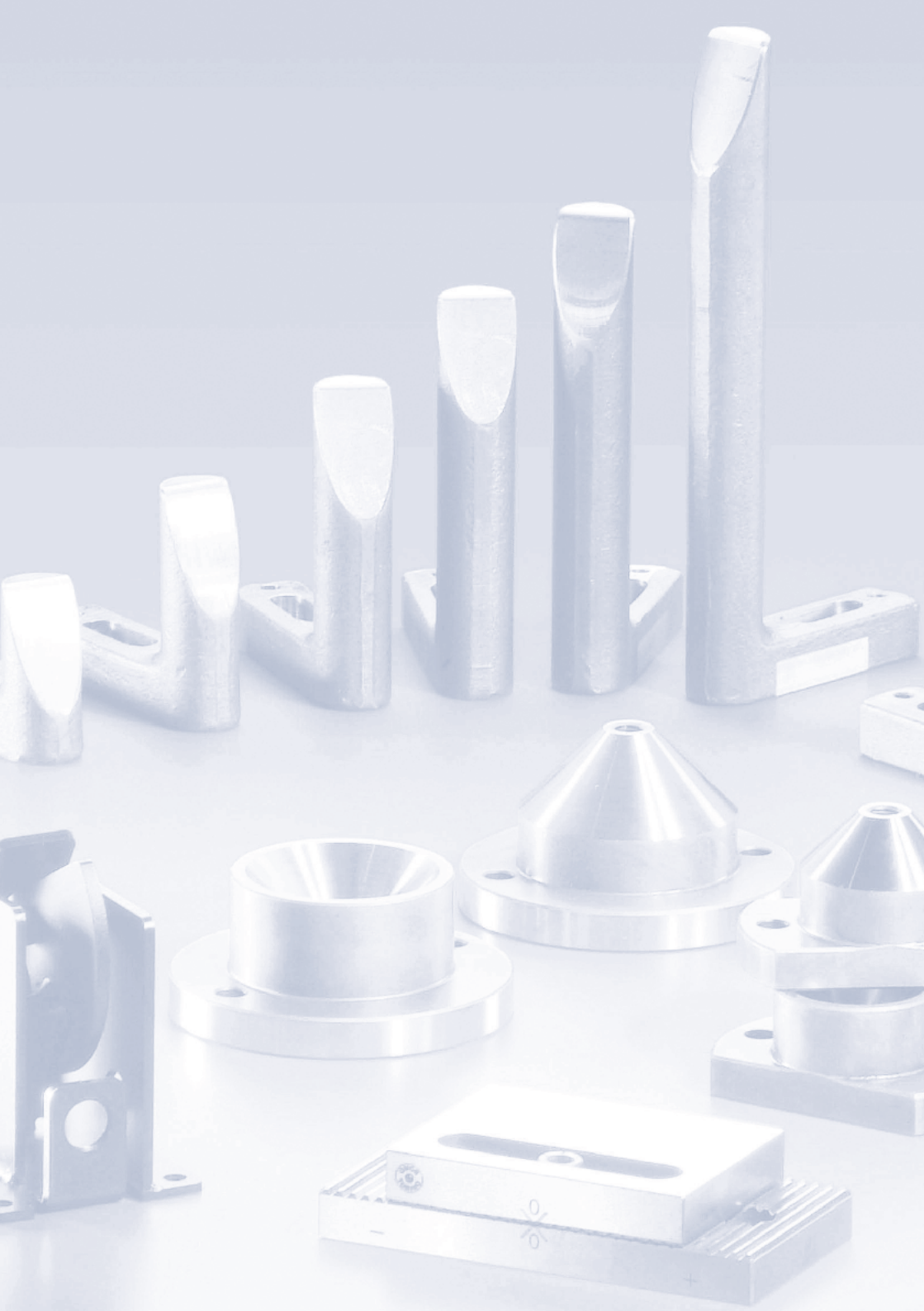


Notes

**Material:** CK45

STOCK

	OPEL CODE		
	M36600071		
OPEL CODE	A	B	C
M36600070	8,4	21	4
M36600071	10,5	25	4
M36600072	13	30	6
M36600073	17	40	6





# Die Components Normalien Componenti

**PSA**  
GROUPE

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



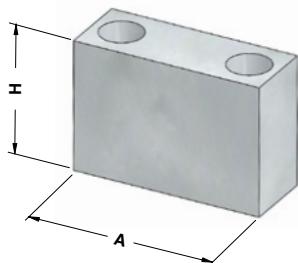
<p><b>E24.51.930.G</b></p>  <p>Balance block Distanzstück Distanziale</p> <p>433</p>	<p><b>E24.51.930.G</b></p>  <p>Stop block Abstandsblock Distanziale</p> <p>433</p>	<p><b>E24.52.105.G</b></p>  <p>Guide post Führungssäule Colonna</p> <p>434</p>	<p><b>E24.52.105.G</b></p>  <p>Anfor Clamping Flange Spannflansch Anfor Ritegno Per Colonna Anfor</p> <p>435</p>	<p><b>E24.52.105.G</b></p>  <p>Anfor Retaining Flange Sicherungsflansch Anfor Ritegno Anfor</p> <p>435</p>
<p><b>E24.52.105.G</b></p>  <p>Guide post Führungssäule Colonna</p> <p>436</p>	<p><b>E24.52.105.G</b></p>  <p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p> <p>437</p>	<p><b>E24.52.105.G</b></p>  <p>Toe clamp for bush Haltestück für Buchse Ritegno per boccola</p> <p>438</p>	<p><b>E24.52.305.G</b></p>  <p>Toe clamp for bush Haltestück für Buchse Ritegno per boccola</p> <p>438</p>	<p><b>E24.52.504.G</b></p>  <p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p> <p>439</p>
<p><b>E24.52.504.G</b></p>  <p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p> <p>440</p>	<p><b>E24.52.504.G</b></p>  <p>Wear plate Anfor Gleitplatte Anfor Piastra guida Anfor</p> <p>441</p>	<p><b>E24.52.504.G</b></p>  <p>Wear Plate Anfor Gleitplatte Anfor Piastra guida Anfor</p> <p>442</p>	<p><b>E24.52.535.G</b></p>  <p>Wear plate Gleitplatte Piastra guida</p> <p>443</p>	<p><b>E24.52.535.G</b></p>  <p>Wear plate Gleitplatte Piastra guida</p> <p>443</p>
<p><b>E24.54.410.G</b></p>  <p>Elastomer spring Elastomerfeder Molla in elastomero</p> <p>444</p>	<p><b>E24.54.410.G</b></p>  <p>Elastomer Spring Pin Aufnahmebolzen Perno per molle</p> <p>444</p>	<p><b>E24.54.420.G</b></p>  <p>Elastomer cap Elastomerdruckstück Puntalino in elastomero</p> <p>445</p>	<p><b>E24.55.265.G</b></p>  <p>Shock absorber Halteelemente Ammortizzatore</p> <p>445</p>	<p><b>E24.55.265.G</b></p>  <p>Retainer pin Steckbolzen Perno di arresto</p> <p>446</p>

<b>E24.56.200.G</b>	<b>E24.56.200.G</b>	<b>E24.56.630.G</b>	<b>E24.56.630.G</b>	<b>E24.56.630.G</b>
				
Gage hardened Einweiser gehärtet Riferimento indurito	Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore	Key Passfedern Chiavetta	Key Passfedern Chiavetta	Key Passfedern Chiavetta
446	447	448	449	449
<b>E24.56.700.G</b>	<b>E24.57.370.G</b>	<b>E24.57.370.G</b>	<b>E24.57.370.G</b>	<b>E24.57.370.G</b>
				
Locating cone Kegeldistanz Cono di centraggio	Sleeve Führungseinheit Canotto Guida	Clamp Befestigungselement Morsetto	Lifting column Führungssäule für Heber Colonna per sollevatore	Union block Befestigungselement Tassello di unione
450	450	451	451	452
<b>E24.57.370.G</b>	<b>E24.61.100.G</b>	<b>E24.61.100.G</b>	<b>E24.64.100.G</b>	<b>E24.64.100.G</b>
				
Clevis Gabelförmig Forcella	Sensor support Halterung Supporto sensore	Plate Gleitplatte Piastra	Stamp retainer Halteplatte Portatimbri	Backing plate Druckplatte Distanziale
452	453	453	454	454
<b>E24.64.100.G</b>	<b>E24.64.100.G</b>	<b>E24.64.110.G</b>	<b>E24.65.000.G</b>	
				
Stamp Buchstabenstempel Punzone marchio	Stamp Buchstabenstempel Punzone marchio	Stamp retainer Halteplatte Portatimbri	Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento	
455	455	456	457	





## BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE



## Notes

Material: CK45

STOCK



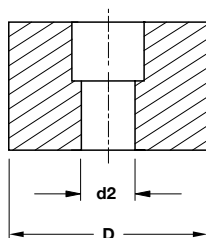
## PSA CODE

A 699 101 804

PSA CODE	A	H
A 699 101 605	80	55
A 699 101 804	110	55
J 856 750 087	100	137
J 859 912 001	80	101

Standard PSA

## STOP BLOCK - ABSTANDBLOCK - DISTANZIALE



## Notes

Material: 25CrMo4

HRC: 240+300

STOCK



## PSA CODE

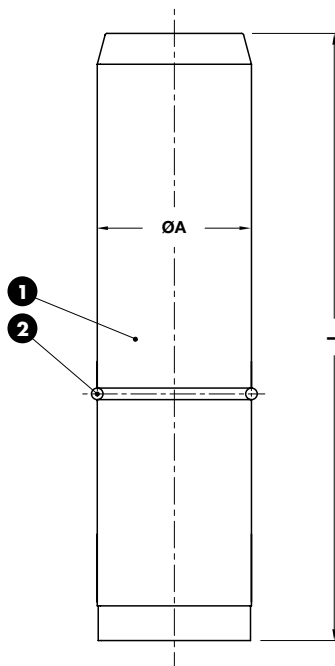
N 001 107 798

PSA CODE	OMCR CODE	D	d2
N 001 107 798	A08070030M12	70	13
N 001 796 935	A08070030M08	70	9
N 001 107 801	A08040020M12	40	13

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA

### Notes

- 1** Material: 16MnCr5 - HRC: 60÷62
- 2** Material: St37

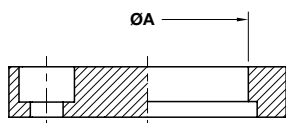
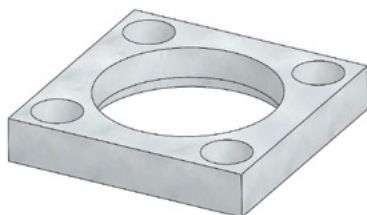


PSA CODE

Z 000 495 749

PSA CODE	A	L	PSA CODE	A	L
Z 000 115 378	25	100	P 446 118 170	50	220
Z 000 495 749	25	125	P 446 118 174	50	250
Z 000 306 386	32	125	P 446 118 101	50	280
Z 000 325 846	32	220	P 446 118 701	63	250
P 446 117 470	40	180	P 446 118 702	63	315
P 446 117 401	40	200	P 446 119 200	80	315
P 446 117 476	40	220	P 446 119 270	80	355

## AFNOR CLAMPING FLANGE - SPANNFLANSCH AFNOR - RITEGNO PER COLONNA AFNOR



## Notes

Material: CK45

STOCK



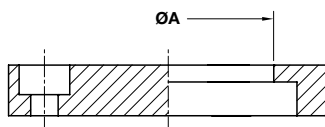
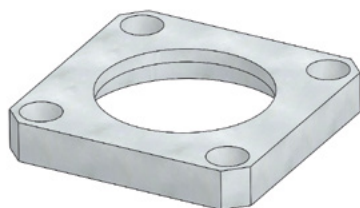
PSA CODE

P 446 932 711

PSA CODE	A
Z 000 248 844	25
P 446 932 711	32
P 446 932 701	40
P 446 932 702	50
P 446 932 703	63
P 446 932 704	80

Standard PSA

## AFNOR RETAINING FLANGE - SICHERUNGSFLANSCH AFNOR - RITEGNO AFNOR



## Notes

Material: CK45

STOCK



PSA CODE

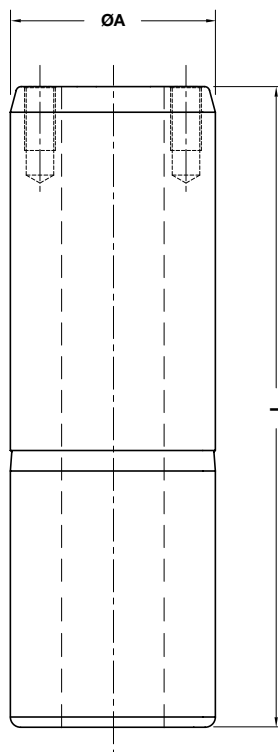
P 446 932 720

PSA CODE	A
P 446 932 719	50
P 446 932 720	60
P 446 932 721	80
P 446 932 722	100

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA

### Notes

**Material:** 16MnCr5 - **HRC:** 60÷62

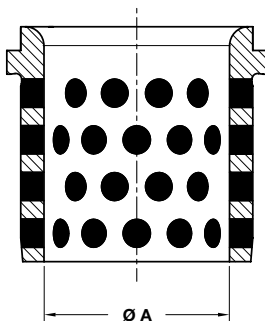


PSA CODE

N 000 829 460

PSA CODE	A	L	PSA CODE	A	L
N 000 622 562	100	280	Z 000 499 647	100	355
N 000 829 460	100	250	Z 000 508 422	100	400
Z 000 508 424	100	315			

## BUSH SELF-LUBRICATING - FÜHRUNGSBUCHSE - BOCCOLA AUTOLUBRIFICANTE



## Notes

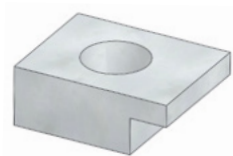
**Material:** Bronze + Graphite  
**HB** > 190

STOCK



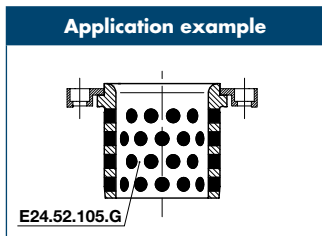
	PSA CODE	
	Z 000 499 644	
	PSA CODE	A
	Z 000 499 644	100

**TOE CLAMP FOR BUSH - HALTESTÜCK FÜR BUCHSE - RITEGNO PER BOCCOLA**



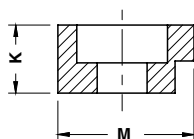
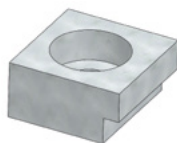
**Notes**  
**Material:** CK45

**STOCK**



<b>ORDER EXAMPLE</b> 	<b>PSA CODE</b>
	Z 000 263 005
<b>PSA CODE</b>	
Z 000 263 005	

**TOE CLAMP FOR BUSH - HALTESTÜCK FÜR BUCHSE - RITEGNO PER BOCCOLA**

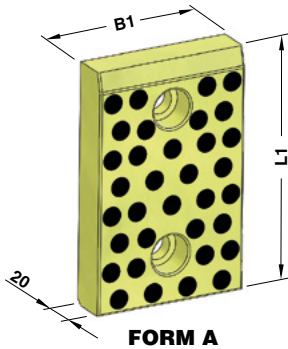


**Notes**  
**Material:** CK45

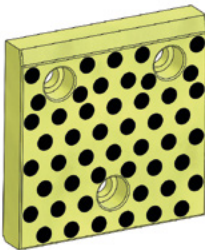
**STOCK**

<b>ORDER EXAMPLE</b> 	<b>PSA CODE</b>		
	P 446 932 708		
	<b>PSA CODE</b>	<b>K</b>	<b>M</b>
	P 446 932 706	9	18
	P 446 932 708	11	22
	P 446 932 709	18	26

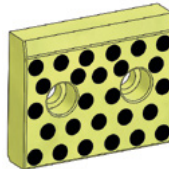
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



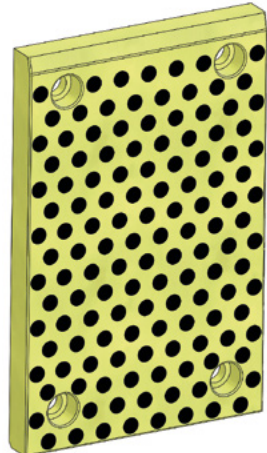
**FORM A**



**FORM B**



**FORM C**



**FORM D**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



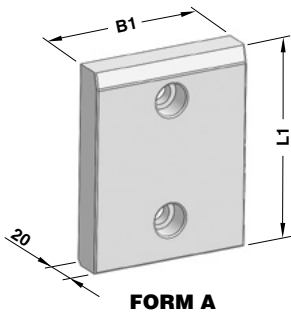
Standard PSA

	PSA CODE
	N 001 275 075

\* Not in accordance with VDI3357  
 Nicht mit Entspricht VDI3357  
 Non conforme alla norma VDI3357

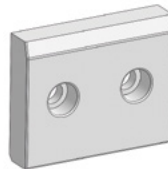
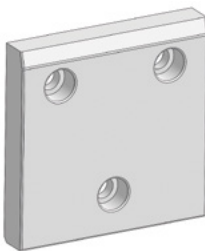
PSA CODE	B1	L1	FORM	PSA CODE	B1	L1	FORM
N 001 337 331	50	80	A	N 001 275 175	100	160	A
N 001 275 075	50	100	A	N 001 275 176	100	200	A
N 001 275 076	50	125	A	N 001 275 436*	100	250	D
N 001 275 095	50	160	A	N 001 275 195	125	80	C
N 001 275 096	50	200	A	N 001 275 215	125	100	B
N 001 334 791	80	50	C	N 001 275 235	125	125	B
N 001 337 333	80	80	A	N 001 275 236	125	160	B
N 001 275 115	80	100	A	N 001 275 255	125	200	B
N 001 275 135	80	125	A	N 001 275 256	160	100	B
N 001 275 136	80	160	A	N 001 275 257	160	125	B
N 001 275 137	80	200	A	N 001 275 295	160	160	B
N 001 275 138	100	50	C	N 001 275 437*	160	200	D
N 001 275 139	100	80	C	N 001 275 438*	160	250	D
N 001 275 155	100	100	A	N 001 275 439*	160	300	D
N 001 275 156	100	125	A				

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**



**Notes**

**Material:** 16MnCr5  
**HRC:** 58÷60



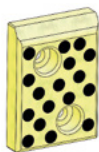
	<b>PSA CODE</b>
	N 001 275 495

\* Not in accordance with VDI3357  
 entspricht nicht VDI3357  
 Non conforme alla linea guida VDI3357

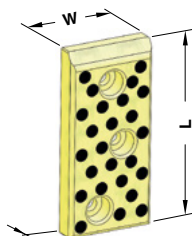
PSA CODE	B1	L1	FORM	PSA CODE	B1	L1	FORM
N 001 337 327	50	80	A	N 001 275 617	100	160	A
N 001 275 495	50	100	A	N 001 275 618	100	200	A
N 001 275 496	50	125	A	N 001 276 057*	100	250	D
N 001 275 497	50	160	A	N 001 275 635	125	80	C
N 001 275 515	50	200	A	N 001 275 655	125	100	B
N 001 334 794	80	50	C	N 001 275 656	125	125	B
N 001 337 329	80	80	A	N 001 275 675	125	160	B
N 001 275 535	80	100	A	N 001 275 676	125	200	B
N 001 275 536	80	125	A	N 001 275 677	160	100	B
N 001 275 537	80	160	A	N 001 275 695	160	125	B
N 001 275 555	80	200	A	N 001 275 696	160	160	B
N 001 275 575	100	50	C	N 001 276 058*	160	200	D
N 001 275 595	100	80	C	N 001 276 059*	160	250	D
N 001 275 615	100	100	A	N 001 275 762*	160	300	D
N 001 275 616	100	125	A				



**WEAR PLATE SELF-LUBRICATING AFNOR**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF AFNOR**  
**PIASTRA GUIDA AUTOLUBRIFICANTE AFNOR**

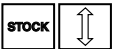


**FORM A**

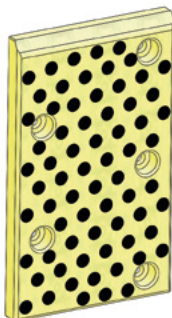


**FORM B**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione



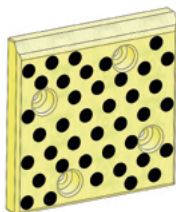
**FORM C**



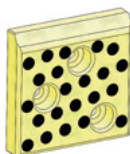
**FORM E**



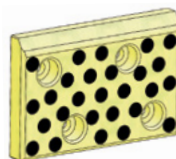
**FORM F**



**FORM D**



**FORM G**



**FORM H**

ORDER EXAMPLE	PSA CODE
	Z 000 166 216

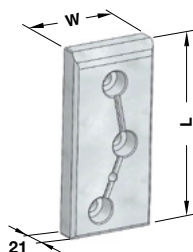
PSA CODE	W	L	FORM	PSA CODE	W	L	FORM
Z 000 166 214	70	100	A	Z 000 166 227	100	300	F
Z 000 166 216	70	150	B	Z 000 166 218	150	100	H
Z 000 166 221	70	200	C	Z 000 166 219	150	150	D
Z 000 166 215	100	100	G	Z 000 166 223	150	200	C
Z 000 166 217	100	150	D	Z 000 166 226	150	250	E
Z 000 166 222	100	200	C	Z 000 166 228	150	300	F
Z 000 166 225	100	250	E	Z 000 166 224	200	100	H

Standard PSA

## WEAR PLATE STEEL AFNOR GLEITPLATTE STAHL AFNOR PIASTRA GUIDA IN ACCIAIO AFNOR



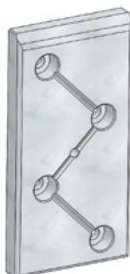
**FORM A**



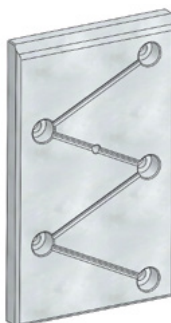
**FORM B**

**Notes**

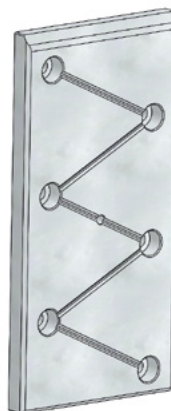
**Material:** 16MnCr5  
**HRC:** 58÷60  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione



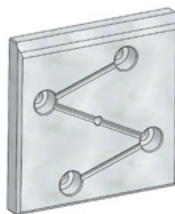
**FORM C**



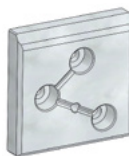
**FORM E**



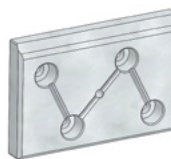
**FORM F**



**FORM D**



**FORM G**



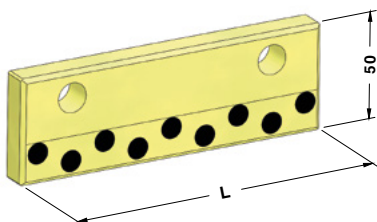
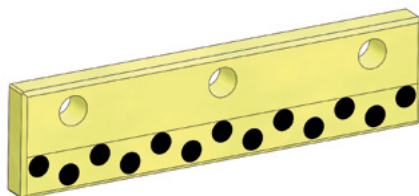
**FORM H**



PSA CODE
P 446 626 558

PSA CODE	W	L	FORM	PSA CODE	W	L	FORM
Z 000 166 213	70	100	A	P 446 627 754	100	300	F
P 446 626 558	70	150	B	P 446 626 560	150	100	H
P 446 627 059	70	200	C	P 446 626 561	150	150	D
P 446 625 855	100	100	G	P 446 627 061	150	200	C
P 446 626 559	100	150	D	P 446 627 455	150	250	E
P 446 627 060	100	200	C	P 446 627 755	150	300	F
P 446 627 454	100	250	E	Z 000 166 220	200	100	H

**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite  
**HB** > 190

STOCK

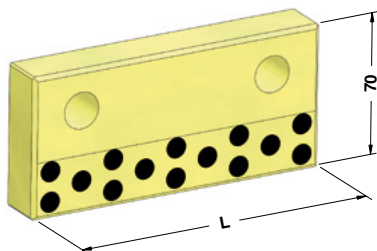
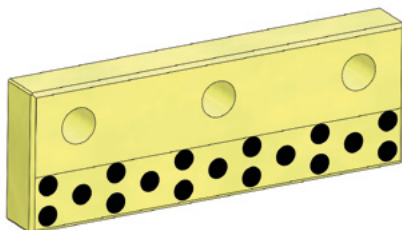


PSA CODE	N 000 577 043
----------	---------------

PSA CODE	L
N 000 577 042	200
N 000 577 043	150

Standard PSA

**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite  
**HB** > 190

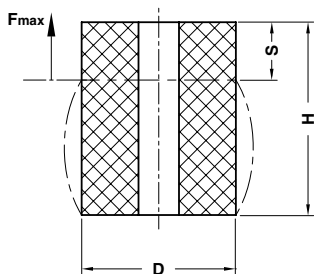
STOCK



PSA CODE	N 000 577 047
----------	---------------

PSA CODE	L
N 000 577 046	200
N 000 577 047	150

## ELASTOMER SPRING - ELASTOMERFEDER - MOLLA IN ELASTOMERO



S = max. 30% H

### Notes

**Material:** Polyurethane 90 SH

STOCK

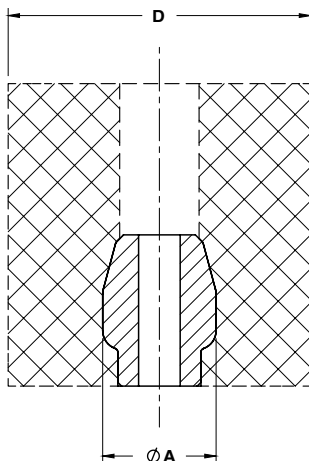


### PSA CODE

X 346 552 171

PSA CODE	D	H	Fmax (daN)	PSA CODE	D	H	Fmax (daN)	PSA CODE	D	H	Fmax (daN)
X 346 552 172	16	20	130	Z 000 163 783	40	32	1250	X 346 555 572	80	80	4300
X 346 552 171	16	25	130	X 346 553 871	40	63	1250	Z 000 163 271	80	100	4300
X 346 552 670	20	25	200	X 346 554 700	50	40	1700	X 346 555 570	80	125	4300
X 346 552 671	20	32	200	X 346 554 772	50	50	1700	X 346 555 372	100	80	5900
Z 000 163 267	25	20	300	X 346 554 770	50	80	1700	X 346 555 373	100	100	5900
X 346 553 173	25	32	300	X 346 554 703	50	100	1700	X 346 555 578	100	125	5900
Z 000 263 272	25	40	300	Z 000 163 269	63	40	2600	Z 000 163 272	125	100	9900
Z 000 163 268	32	40	580	Z 000 163 270	63	80	2600	X 346 556 305	125	160	9900

## ELASTOMER SPRINGS PIN - AUFNAHMEBOLZEN - PERNO PER MOLLE IN ELASTOMERO



### Notes

**Material:** CK45

STOCK

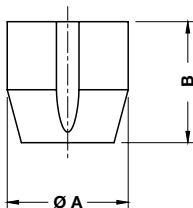
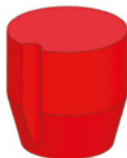


### PSA CODE

G 856 699 005

PSA CODE	A	D
G 856 699 010	25	50÷63
G 856 699 005	30	80÷100
G 856 699 002	38	125

## ELASTOMER CAP - ELASTOMERDRUCKSTÜCK - PUNTALINO IN ELASTOMERO



## Notes

**Material:** Elastomer 92 SH

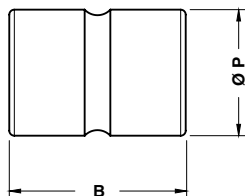
STOCK

ORDER EXAMPLE 	PSA CODE	
	P 399 341 501	

PSA CODE	A	B
P 399 341 500	6	9,5
P 399 341 501	10	15,5
P 399 341 502	16	25
P 399 341 700	24	25

Standard PSA

## SHOCK ABSORBER - HALTELEMENTE - AMMORTIZZATORE



Without silicone  
Ohne silicon  
Senza silicone

## Notes

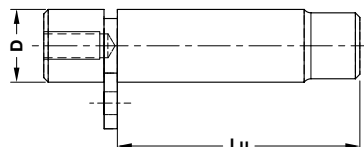
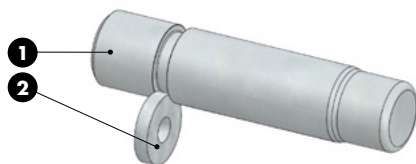
**Material:** Elastomer 92 SH

STOCK

ORDER EXAMPLE 	PSA CODE	
	Z 000 404 676	

PSA CODE	B	P
Z 000 404 675	45	25
Z 000 404 676	50	32
X 346 563 970	60	40
Z 000 404 677	70	50
X 346 564 970	80	63
Z 000 404 678	90	80

## RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



## Notes

1 2 Material: CK45

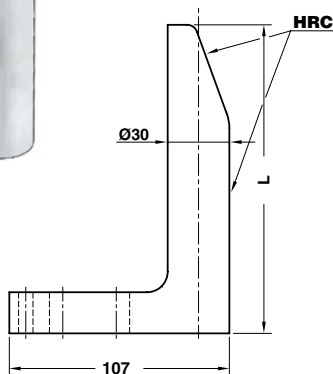
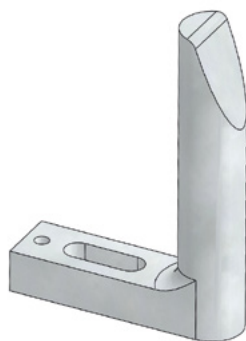
STOCK



ORDER EXAMPLE 	PSA CODE
	Z 000 400 338

PSA CODE	D	Lu	PSA CODE	D	Lu	PSA CODE	D	Lu
Z 000 400 337	20	81	Z 000 400 342	32	148	Z 000 400 350	50	220
Z 000 400 338	25	81	Z 000 400 345	40	132	Z 000 400 353	63	210
Z 000 400 339	25	98	Z 000 400 346	40	192	Z 000 400 354	63	250
Z 000 400 487	32	103	Z 000 400 349	50	165	Z 000 424 846	80	210

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



## Notes

Material: CK60 - HRC: 58÷60

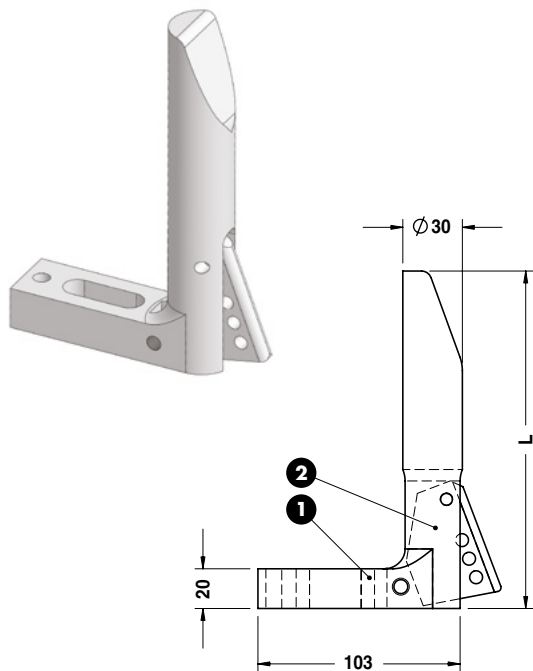
STOCK



ORDER EXAMPLE 	PSA CODE
	N 000 445 401

PSA CODE	L
N 000 445 400	65
N 000 445 401	90
N 000 445 402	120
N 000 445 403	150
N 000 445 404	180
N 000 445 405	250

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTOLLE - RIFERIMENTO PER SENSORE



## Notes

- ① Material: CK60  
 ② Material: St37 - HRC: 58÷60



ORDER EXAMPLE	PSA CODE	
	N 001 281 615	
PSA CODE	L	
N 001 281 595	120	
N 001 281 615	150	
N 001 281 635	180	
N 001 281 655	250	

KEY - PASSFEDERN - CHIAVETTA

Notes

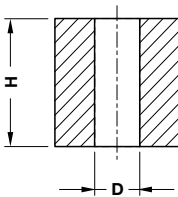
Material: CK45

Only for replacement

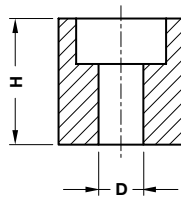
Nur für Reparatur

Solo per riparazione

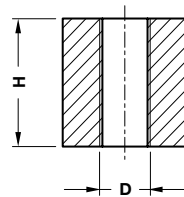
STOCK



FORM A



FORM B



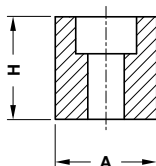
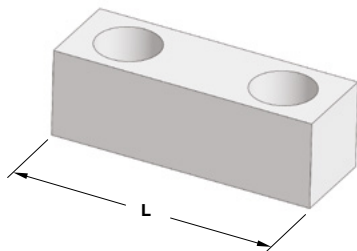
FORM C

	PSA CODE
	J 859 623 008

PSA CODE	H	Nr. hole	D	FORM	PSA CODE	H	Nr. hole	D	FORM
X 548 292 170	20	1	9	A	J 859 623 002	25	2	M8	C
J 859 623 008	25	1	9	A	J 859 623 006	25	1	M10	C
X 548 299 870	32	2	11	A	J 859 623 007	25	2	M10	C
J 859 623 003	25	1	9	B	J 859 623 011	32	1	M8	C
J 859 623 004	25	2	9	B	J 859 623 012	32	2	M8	C
J 859 623 013	32	1	9	B	J 859 623 016	32	1	M10	C
J 859 623 014	32	2	9	B	J 859 623 017	32	2	M10	C
J 859 623 001	25	1	M8	C					



**KEY - PASSFEDERN - CHIAVETTA**



**Notes**

**Material:** CK45

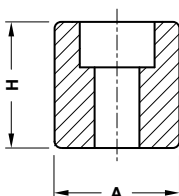
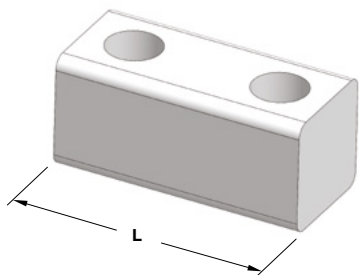
**STOCK**

	<b>PSA CODE</b>		
	J 859 623 008		

PSA CODE	A	H	L
J 859 623 004	25	25	75
J 859 623 014	32	32	75

Standard PSA

**KEY - PASSFEDERN - CHIAVETTA**



**Notes**

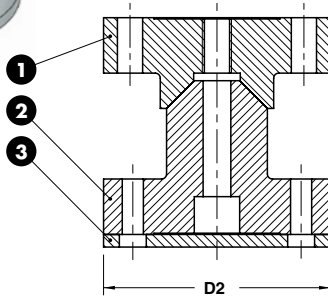
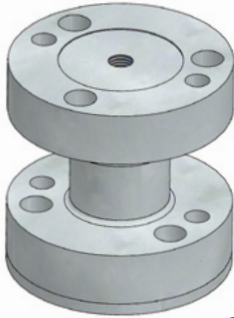
**Material:** 16MnCr5 - **HRC:** 60÷62

**STOCK**

	<b>PSA CODE</b>		
	N 001 327 512		

PSA CODE	A	H	L
N 001 327 511	45 h6	45	100
N 001 327 512	45 h6	45	200

**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**



**Notes**

**1 2**

**Material:** X155CrMo12 - **HRC:** 58±60

**3**

**Material:** 36CrNiMo4

**STOCK**



**PSA CODE**

Z 000 400 140

**PSA CODE**

**D2**

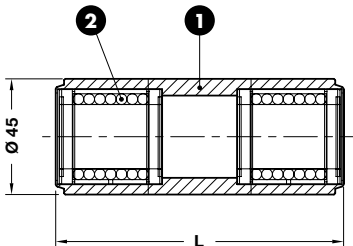
Z 000 400 139

90

Z 000 400 140

110

**SLEEVE - FÜHRUNGSEINHEIT - CANOTTO GUIDA**



**Notes**

**1**

**Material:** CK45

**2**

STAR 0658-225-40

**STOCK**



**PSA CODE**

P 446 905 006

**PSA CODE**

**L**

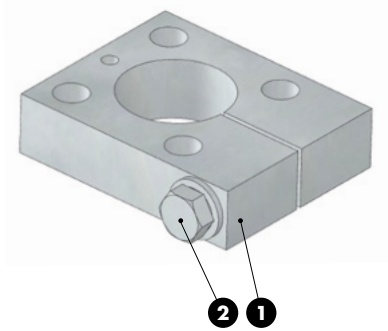
P 446 905 005

112

P 446 905 006

200

CLAMP - BEFESTIGUNGSELEMENT - MORSETTO



Notes

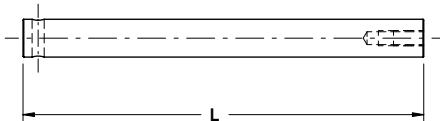
- 1 Material: CK45
- 2 M12x70 DIN 931



ORDER EXAMPLE	PSA CODE
	P 446 932 718
PSA CODE	
P 446 932 718	

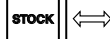
Standard PSA

LIFTING COLUMN - FÜHRUNGSSÄULE FÜR HEBER - COLONNA PER SOLLEVATORE



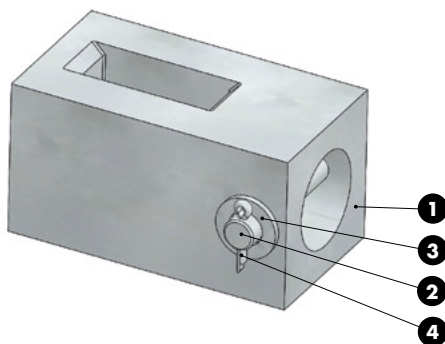
Notes

Material: 16MnCr5 - HRC: 60÷62



ORDER EXAMPLE	PSA CODE
	P446 940 701
PSA CODE	L
P 446 940 700	265
P 446 940 701	350
P 446 940 702	400
P 446 940 703	450
P 446 940 704	500

## UNION BLOCK - BEFESTIGUNGSELEMENT - TASSELLO DI UNIONE



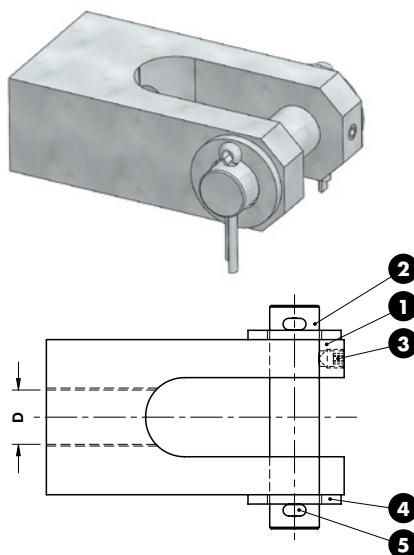
### Notes

- 1** Material: 36NiCrMo4 - HV > 700
- 2** Material: CK45
- 3** DIN 126
- 4** DIN 94



	PSA CODE
	P 446 942 700
PSA CODE	
P 446 942 700	

## CLEVIS - GABELFÖRMIG - FORCELLA



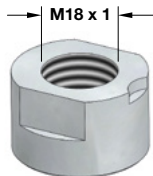
### Notes

- 1 2** Material: CK45
- 3** DIN 914
- 4** DIN 126
- 5** DIN 94

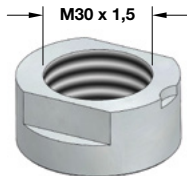


	PSA CODE
	X 652 131 326
PSA CODE	D
Z 000 228 984	M16 x 1,5
X 652 131 326	M20 x 1,5

**SENSOR SUPPORT - HALTERUNG - SUPPORTO SENSORE**



**G 858 900 077-18**



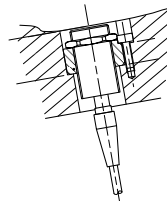
**G 858 900 077-30**

**Notes**

**Material:** CK45

**STOCK**

**Application example**



**PSA CODE**

**G 858 900 077-30**

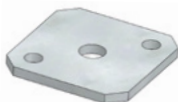
**PSA CODE**

**G 858 900 077-18**

**G 858 900 077-30**

Standard PSA

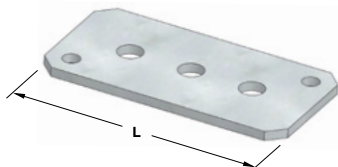
**PLATE - GLEITPLATTE - PIASTRA**



**G 858 900 134-1**



**G 858 900 134-2**



**G 858 900 134-3**

**Notes**

**Material:** CK45

**STOCK**



**PSA CODE**

**G 858 900 134-2**

**PSA CODE**

**L**

**G 858 900 134-1**

80

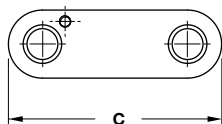
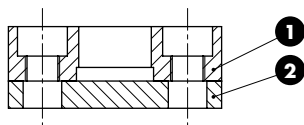
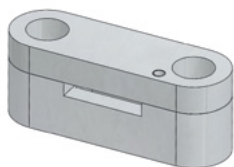
**G 858 900 134-2**

120

**G 858 900 134-3**

160

## STAMP RETAINER - HALTEPLATTE - PORTATIMBRI



## Notes

**1 2** Material: CK45

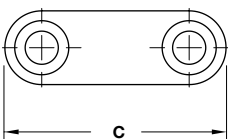
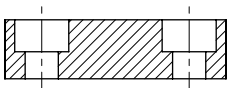
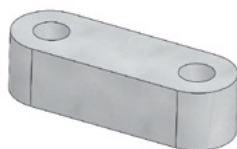
STOCK



PSA CODE
P 399 391 701

PSA CODE	C	N° of punch
P 399 391 701	47	4
N 000 467 867	55	6
P 399 391 702	63	8
P 399 391 703	71	10

## BACKING PLATE - DRUCK PLATTE - DISTANZIALE



## Notes

Material: CK45

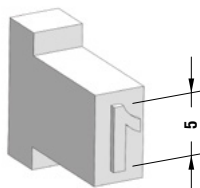
STOCK



PSA CODE
N 000 467 866

PSA CODE	C	N° of punch
Z 000 151 091	47	4
N 000 467 866	56	6
Z 000 151 092	63	8
Z 000 151 093	71	10

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



## Notes

**Material:** X153CrMoV12  
**HRC:** 54÷56

STOCK

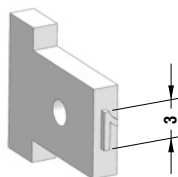


PSA CODE  
P 785 150 102

PSA CODE	Stamp	PSA CODE	Stamp	PSA CODE	Stamp	PSA CODE	Stamp
P 785 150 002	0 or O	Z 000 504 318	Dash "-"	P 785 172 104	I	P 785 153 202	T
P 785 150 102	1	N 000 464 606	Dash " _ "	P 785 152 202	J	P 785 153 302	U
P 785 150 202	2	P 785 151 302	A	P 785 152 302	K	P 785 153 402	V
P 785 150 302	3	P 785 151 402	B	P 785 152 402	L	P 785 153 502	W
P 785 150 402	4	P 785 151 502	C	P 785 152 503	M	P 785 153 602	X
P 785 150 502	5	P 785 151 602	D	P 785 152 602	N	P 785 153 702	Y
P 785 150 602	6 or 9	P 785 151 702	E	P 785 152 802	P	P 785 153 802	Z
P 785 150 702	7	P 785 151 802	F	P 785 152 902	Q		
P 785 150 802	8	P 785 151 902	G	P 785 153 002	R		
P 785 289 002	Space	P 785 152 002	H	P 785 153 102	S		

Standard PSA

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



## Notes

**Material:** X153CrMoV12  
**HRC:** 54÷56

STOCK



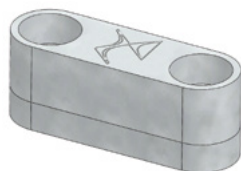
PSA CODE  
Z 000 491 957

PSA CODE	Stamp	PSA CODE	Stamp	PSA CODE	Stamp	PSA CODE	Stamp
Z 000 491 893	0 or O	Z 000 504 319	Dash "-"	Z 000 491 973	I	Z 000 492 024	T
Z 000 491 957	1	N 000 467 865	Dash " _ "	Z 000 491 974	J	Z 000 492 025	U
Z 000 491 958	2	Z 000 491 965	A	Z 000 491 975	K	Z 000 492 026	V
Z 000 491 959	3	Z 000 491 966	B	Z 000 491 976	L	Z 000 492 027	W
Z 000 491 960	4	Z 000 491 967	C	Z 000 491 977	M	Z 000 492 028	X
Z 000 491 961	5	Z 000 491 968	D	Z 000 491 978	N	Z 000 492 029	Y
Z 000 491 962	6 or 9	Z 000 491 969	E	Z 000 491 979	P	Z 000 492 030	Z
Z 000 491 963	7	Z 000 491 970	F	Z 000 491 980	Q		
Z 000 491 964	8	Z 000 491 971	G	Z 000 492 022	R		
Z 000 492 408	Space	Z 000 491 972	H	Z 000 492 023	S		

**STAMP RETAINER - HALTEPLATTE - PORTATIMBRI**



**N 001 648 906**



**N 001 162 511**

**Notes**

- 1 Material:** X100CDV5-T5  
**HRC:** 56÷58
- 2 Material:** XC70



	<b>PSA CODE</b>
	N 001 162 511

PSA CODE	Punchs
N 001 648 906	Groupe PSA
N 001 162 511	DS



## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

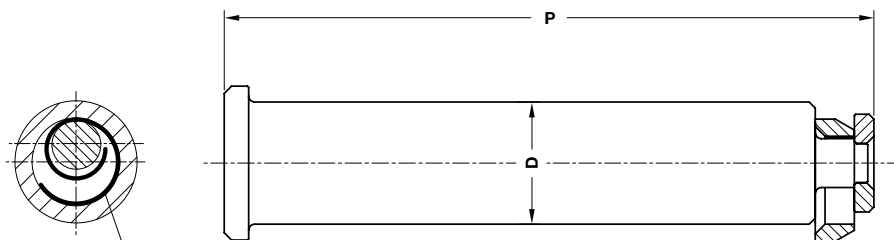
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** St52



Standard PSA



The part is supplied complete of steel spring



PSA CODE

P 953 255 870

PSA CODE	Max load (kg)	Max die weight (kg)	P	D
P 953 254 770	6000	12000	154	32
P 953 255 870	9000	18000	197,75	40
P 953 256 670	14000	28000	247,50	50
P 953 257 470	22500	45000	309	63





# Die Components Normalien Componenti






**RENAULT**

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



MAIN  
INDEX

<p><b>EM24.50.001</b></p>  <p>Compliance system Federeinheit Gruppo molla</p> <p>462</p>	<p><b>EM24.50.400</b></p>  <p>Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno</p> <p>463</p>	<p><b>EM24.50.400/G</b></p>  <p>Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento</p> <p>464</p>	<p><b>EM24.50.400/G</b></p>  <p>Lifting bracket Tragwange Staffa di Sollevamento</p> <p>465</p>	<p><b>EM24.52.100/J</b></p>  <p>Guide post Führungssäule Colonna</p> <p>466</p>
<p><b>EM24.52.100/J</b></p>  <p>Afnor retaining ring Haltering Afnor Anello di tenuta Afnor</p> <p>467</p>	<p><b>EM24.52.100/J</b></p>  <p>Retaining flange Sicherungsflansch Ritegno per colonna</p> <p>467</p>	<p><b>EM24.52.100/J</b></p>  <p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p> <p>468</p>	<p><b>EM24.52.100/J</b></p>  <p>Afnor toe clamp Afnor Haltestück Ritegno per boccola Afnor</p> <p>468</p>	<p><b>EM24.52.100/J</b></p>  <p>Toe clamp for bush Haltestück für Buchse Ritegno per boccola</p> <p>469</p>
<p><b>EM24.52.100/J</b></p>  <p>Locating cone Kegeldistanz Cono di centraggio</p> <p>469</p>	<p><b>EM24.52.300/C</b></p>  <p>Wear plate Afnor Gleitplatte Afnor Piastra guida Afnor</p> <p>470</p>	<p><b>EM24.52.300/C</b></p>  <p>Wear plate Afnor Gleitplatte Afnor Piastra guida Afnor</p> <p>471</p>	<p><b>EM24.52.500/B</b></p>  <p>Angular guide Winkelleiste Guida angolare</p> <p>472</p>	<p><b>EM24.52.500/B</b></p>  <p>Slider Führungsleite Guida</p> <p>472</p>
<p><b>EM24.55.100/G</b></p>  <p>Retainer pin Steckbolzen Perno di arresto</p> <p>473</p>	<p><b>EM24.55.100/G</b></p>  <p>Retainer pin Steckbolzen Perno di arresto</p> <p>473</p>	<p><b>EM24.55.100/G</b></p>  <p>Shock absorber Halteelemente Ammortizzatore</p> <p>474</p>	<p><b>EM24.59.500/K</b></p>  <p>Visual locator setting punch Endkontrolstempel Punzone di visualizzazione</p> <p>474</p>	<p><b>EM24.59.500/K</b></p>  <p>Stamp retainer Halteplatte Portatimbrì</p> <p>475</p>

EM24.59.500/K	EM24.59.500/K	EM24.59.500/K
		
<p>Backing plate Druckplatte Distanziale</p>	<p>Stamp Buchstabenstempel Punzone marchio</p>	<p>Stamp Buchstabenstempel Punzone marchio</p>
<p>475</p>	<p>476</p>	<p>476</p>



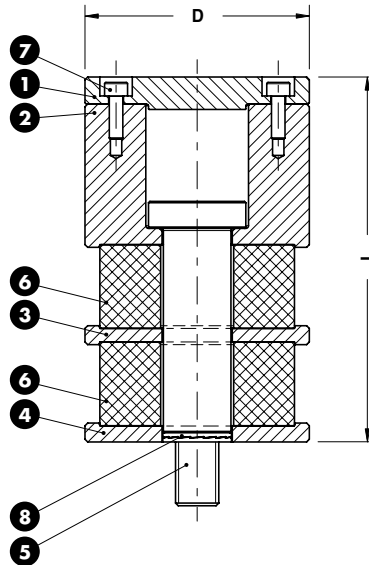
FORM A



FORM B

**Notes**

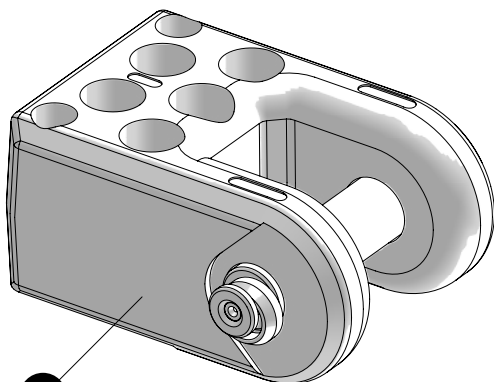
① ② ③ ④ ⑤  
**Material:** 42CrMo4 + QT  
 ⑥ Co-polymer DUREL®  
 ⑦ Screw M5x16 - DIN 912  
 ⑧ Nordlock



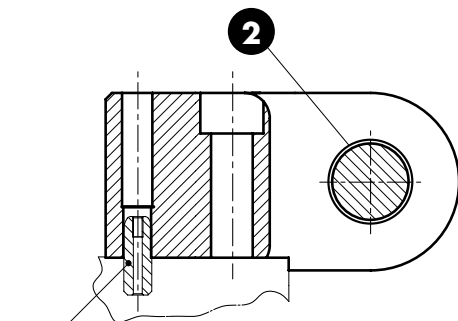
ORDER EXAMPLE 	RENAULT CODE
	R100 776 099

RENAULT CODE	D	L	FORM
R100 776 100	83	125	A
R100 776 099	83	135	B

**LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CENTRAGGI**



1



3



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

Screw the brackets on steel  
 (minimum quality Fe510 - S355)  
 Die Tragwangen auf Stahl  
 (mit Mindestqualität Fe510 - S355 verschrauben)  
 Avvitare le staffe su acciaio  
 (qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

- 1 **Material:** St52
  - 2 B02.30.
  - 3 C11.20.2245 (2x)
- Screws not included



ORDER EXAMPLE	RENAULT CODE
	R100 800 105

RENAULT CODE	Max load (kg)	Max die weight (kg)
R100 800 105	8000	16000
R100 800 108	12500	25000

**LIFTING PIN**  
**TRAGBOLZEN MIT FALLRINGSICHERUNG**  
**PERNO DI SOLLEVAMENTO**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

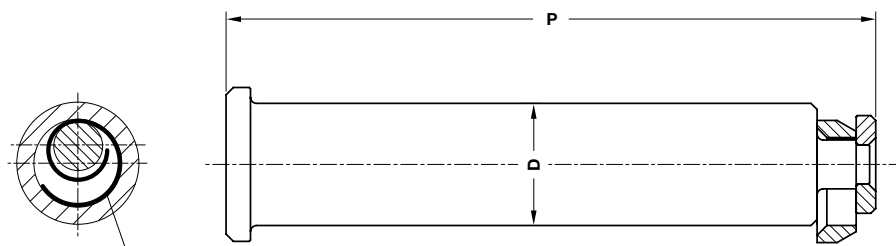
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** S152



The part is supplied complete of steel spring



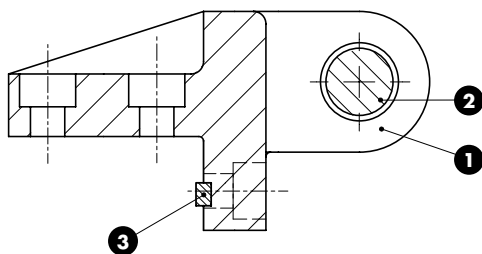
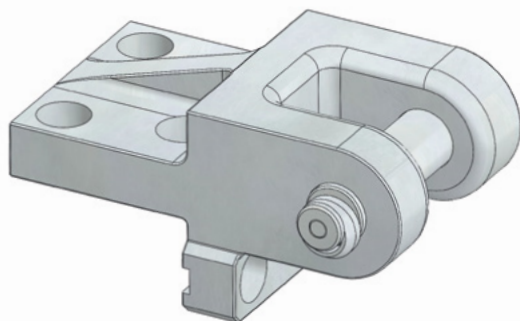
**RENAULT CODE**

**R100 609 711**

RENAULT CODE	Max load (kg)	Max die weight (kg)	P	D
R100 609 710	6000	12000	154	32
R100 609 711	9000	18000	197,75	40
R100 448 866	14000	28000	247,60	50
R100 609 712	22500	45000	309	63



**LIFTING BRACKET WITH PIN AND KEYS**  
**TRAGWANGE MIT TRAGBOLZEN UND PASSFEDER**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CHIAVETTE**



Respect the max. load  
 Maximale Nutzlast beachten  
 Rispettare il carico max.

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwangen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

- 1** Material: CK45  
800÷1000 N/mm<sup>2</sup>
- 2** Material: St52
- 3** Key DIN 6885

Screws not included



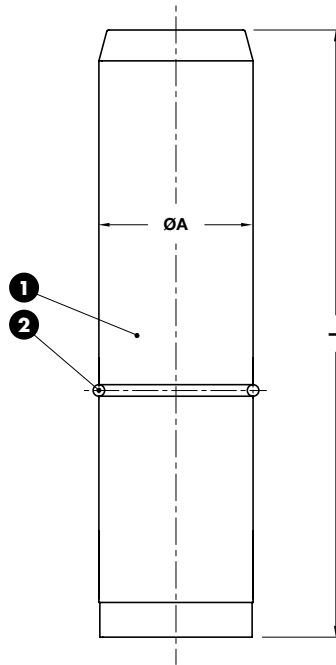
ORDER EXAMPLE	RENAULT CODE	
	P953 548 070	

RENAULT CODE	Max load (kg)	Max die weight (kg)
P953 548 270	4000	8000
P953 549 070	6300	12600

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA

### Notes

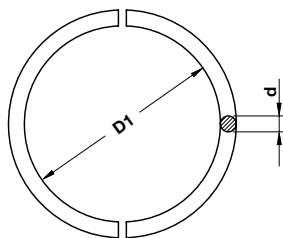
- 1** Material: 16MnCr5 - HRC: 60÷62
- 2** EM24.52.100/J



RENAULT CODE  
P446 116 817

RENAULT CODE	A	L	RENAULT CODE	A	L
R100 018 363	25	125	P446 118 707	63	280
P446 116 817	32	140	P446 118 702	63	315
P446 116 815	32	160	P446 119 200	80	315
P446 116 816	32	200	P446 119 201	80	355
P446 118 100	50	224	R100 221 692	80	400
P446 118 101	50	280	P446 119 800	100	400
P446 118 701	63	250	P446 119 801	100	450

## AFNOR RETAINING RING - HALTERING AFNOR - ANELLO DI TENUTA AFNOR



## Notes

Material: Si37

STOCK



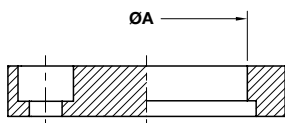
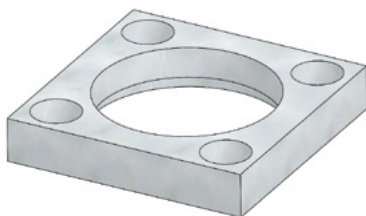
## RENAULT CODE

P446 180 200

RENAULT CODE	For guide post Ø	D1	d
P446 180 200	25	22,5	2.5
P446 180 300	32	28	4
P446 180 400	40	36	4
P446 180 500	50	46	4
P446 180 600	63	57	6
P446 180 700	80	74	6
P446 180 800	100	94	6

Standard Renault

## AFNOR RETAINING FLANGE - SPANNFLANSCH AFNOR - RITEGNO PER COLONNA AFNOR



## Notes

Material: CK45

STOCK

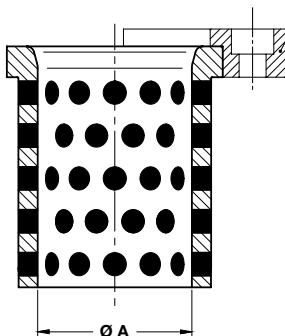


## RENAULT CODE

P483 784 100

RENAULT CODE	A
P483 784 100	25
P483 784 600	32
P483 795 100	40
P483 795 401	50
P483 795 801	63
P483 796 001	80
P483 796 401	100

## AFNOR BUSH SELF-LUBRICATING AFNOR FÜHRUNGSBUCHSE BOCCOLA AUTOLUBRIFICANTE AFNOR



**Notes**

**Material:** Bronze + Graphite  
**HB** > 190



M321 534 500 ÷ M321 562 700

ORDER EXAMPLE	RENAULT CODE
	M764 544 501

RENAULT CODE	A
M764 539 401	40
M764 544 501	50
M764 549 501	63
M764 554 601	80
X345 298 500	100

## AFNOR TOE CLAMP - AFNOR HALTESTÜCK - RITEGNO PER BOCCOLA AFNOR



**Notes**

**Material:** CK45



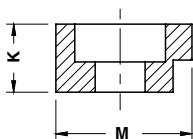
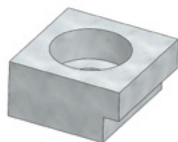
**Application example**

M764  
X345 298 500

ORDER EXAMPLE	RENAULT CODE
	M321 534 500

RENAULT CODE	A	RENAULT CODE	A
M321 534 500	25	M321 556 601	63
M321 544 501	32	M321 560 601	80
M321 548 501	40	M321 562 700	100
M321 552 601	50		

## TOE CLAMP FOR BUSH - HALTESTÜCK FÜR BUCHSE - RITEGNO PER BOCCOLA



## Notes

Material: CK45

STOCK



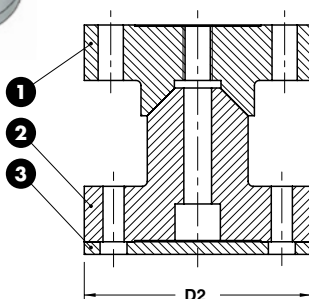
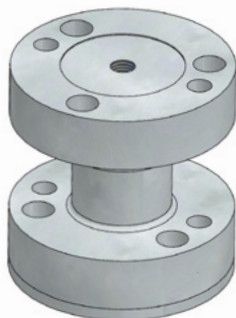
## RENAULT CODE

R100 171 995

RENAULT CODE	K	M
R100 171 981	12	18
R100 171 995	16	22
R100 171 998	20	26
R100 172 000	25	26
R100 172 001	32	26

Standard Renault

## LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



## Notes

1 2

Material: X155CrMo12 - HRC: 58÷60

3

Material: 36CrNiMo4

STOCK

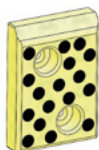


## RENAULT CODE

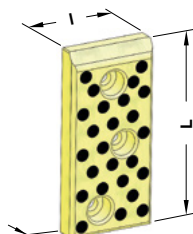
R901 138 223

RENAULT CODE	D2
R901 138 222	90
R901 138 223	110

## WEAR PLATE SELF-LUBRICATING AFNOR GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF AFNOR PIASTRA GUIDA AUTOLUBRIFICANTE AFNOR



**FORM A**

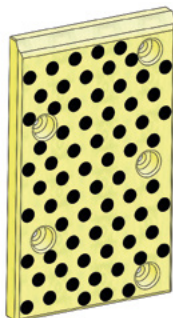


**FORM B**

**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**



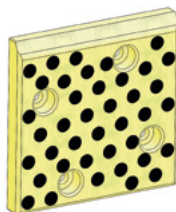
**FORM C**



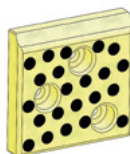
**FORM E**



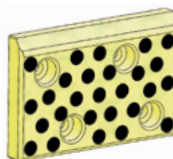
**FORM F**



**FORM D**



**FORM G**



**FORM H**



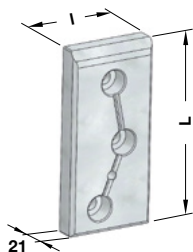
**RENAULT CODE**  
**R100 092 844**

RENAULT CODE	I	L	FORM	RENAULT CODE	I	L	FORM
R100 092 843	70	100	A	R100 092 886	100	300	F
R100 092 844	70	150	B	R100 092 887	150	100	H
R100 092 845	70	200	C	R100 092 888	150	150	D
R100 092 846	100	100	G	R100 092 890	150	200	C
R100 092 883	100	150	D	R100 092 893	150	250	E
R100 092 884	100	200	C	R100 092 894	150	300	F
R100 092 885	100	250	E	R100 092 895	200	100	H

**WEAR PLATE STEEL AFNOR  
GLEITPLATTE STAHL AFNOR  
PIASTRA GUIDA IN ACCIAIO AFNOR**

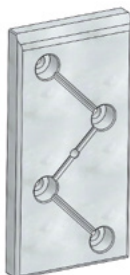


**FORM A**

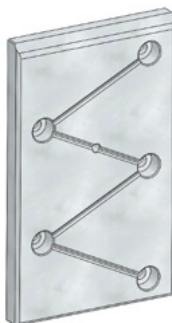


**FORM B**

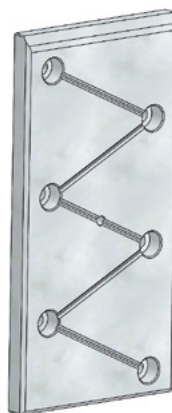
**Notes**  
**Material:** 16MnCr5  
**HRC:** 58÷60



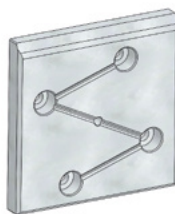
**FORM C**



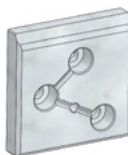
**FORM E**



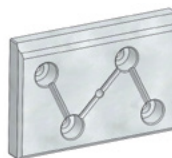
**FORM F**



**FORM D**



**FORM G**



**FORM H**

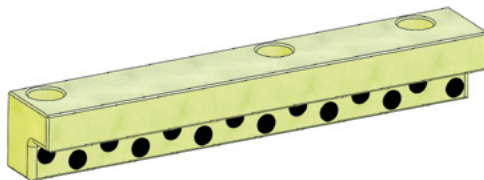
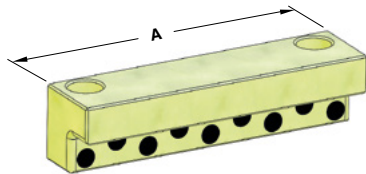


**RENAULT CODE**  
**P446 626 558**

RENAULT CODE	I	L	FORM	RENAULT CODE	I	L	FORM
P446 625 854	70	100	A	P446 627 754	100	300	F
P446 626 558	70	150	B	P446 626 560	150	100	H
P446 627 059	70	200	C	P446 626 561	150	150	D
P446 625 855	100	100	G	P446 627 061	150	200	C
P446 626 559	100	150	D	P446 627 455	150	250	E
P446 627 060	100	200	C	P446 627 755	150	300	F
P446 627 454	100	250	E	P446 627 062	200	100	H

Standard Renault

## ANGULAR GUIDE - WINKELLEISTE - GUIDA ANGOLARE



## Notes

**Material:** Bronze + Graphite  
**HB** > 190

STOCK



RENAULT CODE

M764 523 701

RENAULT CODE

A

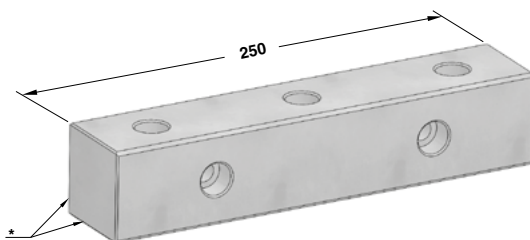
M764 523 701

250

M764 523 702

160

## SLIDER - FÜHRUNGSLEISTE - GUIDA



## Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

10



\* Sides to rework during adjusting  
Anpassung der Flächen zur Abstimmung  
Lati da rilavorare in adattamento



RENAULT CODE

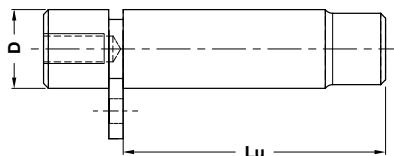
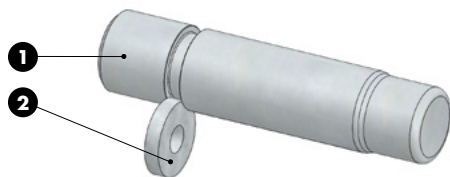
A07.20.50250

RENAULT CODE

A07.20.50250



## RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



**Notes**

**1 2** Material: CK45

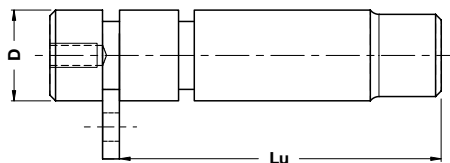
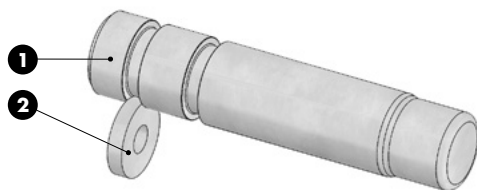
STOCK

	RENAULT CODE
	R100 306 190

RENAULT CODE	D	Lu	RENAULT CODE	D	Lu	RENAULT CODE	D	Lu
R100 306 188	20	81	R100 306 198	32	148	R100 306 209	50	220
R100 306 190	25	81	R100 306 201	40	132	R100 306 210	63	210
R100 306 191	25	98	R100 306 204	40	192	R100 306 213	63	250
R100 306 194	32	103	R100 306 207	50	165	R100 357 232	80	210

Standard Renault

## RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



**Notes**

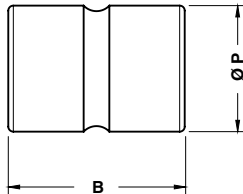
**1 2** Material: CK45

STOCK

	RENAULT CODE
	R100 306 217

RENAULT CODE	D	Lu	RENAULT CODE	D	Lu	RENAULT CODE	D	Lu
R100 306 215	25	81	R100 306 220	40	132	R100 306 226	63	210
R100 306 217	25	98	R100 306 221	40	192	R100 306 227	63	250
R100 306 218	32	103	R100 306 223	50	165			
R100 306 219	32	148	R100 306 225	50	220			

## SHOCK ABSORBER - HALTEELEMENTE - AMMORTIZZATORE



Without silicone  
Ohne silikon  
Senza silicone

## Notes

**Material:** Elastomer 92SH

STOCK

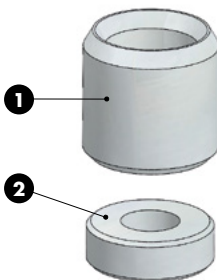


## RENAULT CODE

X346 566 801

RENAULT CODE	B	P
X346 566 000	45	25
X346 566 801	50	32
X346 567 400	60	40
X346 568 100	70	50
X346 568 700	80	63
X346 569 201	90	80

## VISUAL LOCATOR SETTING PUNCH - ENDKONTROLLSTEMPEL - PUNZONE DI VISUALIZZAZIONE



## Notes

**1** Material: X205Cr12KU  
HRC: 60÷62

**2** Material: CK45

STOCK



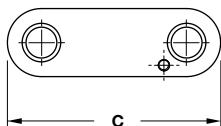
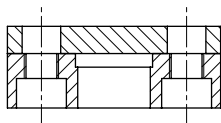
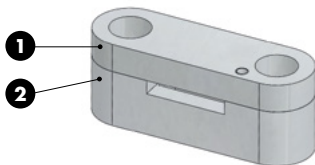
## RENAULT CODE

P785 283 005

## RENAULT CODE

P785 283 005

## STAMP RETAINER - HALTEPLATTE - PORTATIMBRI



## Notes

**1 2** Material: CK45

STOCK



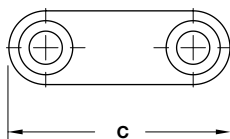
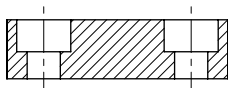
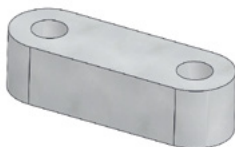
## RENAULT CODE

R100 197 803

RENAULT CODE	C	N° of punch
R100 050 232	47	4
R100 197 803	55	6
R100 050 234	63	8
R100 352 214	71	10

Standard Renault

## BACKING PLATE - DRUCK PLATTE - DISTANZIALE



## Notes

Material: CK45

STOCK

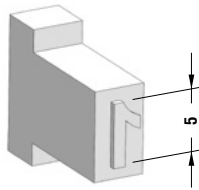


## RENAULT CODE

R100 197 805

RENAULT CODE	C	N° of punch
R100 050 235	47	4
R100 197 805	56	6
R100 050 236	63	8
R100 352 230	71	10

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



## Notes

**Material:** X153CrMoV12  
**HRC:** 54÷56

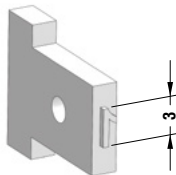
STOCK



RENAULT CODE  
P785 150 102

RENAULT CODE	Stamp	RENAULT CODE	Stamp	RENAULT CODE	Stamp	RENAULT CODE	Stamp
P785 150 002	0	P785 289 002	Spacer	P785 152 202	J	P785 153 102	S
P785 150 102	1	P785 151 302	A	P785 152 302	K	P785 153 202	T
P785 150 202	2	P785 151 402	B	P785 152 402	L	P785 153 302	U
P785 150 302	3	P785 151 502	C	P785 152 503	M	P785 153 402	V
P785 150 402	4	P785 151 602	D	P785 152 602	N	P785 153 502	W
P785 150 502	5	P785 151 702	E	P785 150 002	O	P785 153 602	X
P785 150 602	6 or 9	P785 151 802	F	P785 152 802	P	P785 153 702	Y
P785 150 702	7	P785 151 902	G	P785 152 902	Q	P785 153 802	Z
P785 150 802	8	P785 152 002	H	P785 153 002	R		

## STAMP - BUCHSTABENSTEMPEL - PUNZONE MARCHIO



## Notes

**Material:** X153CrMoV12  
**HRC:** 54÷56

STOCK



RENAULT CODE  
P785 154 103

RENAULT CODE	Stamp	RENAULT CODE	Stamp	RENAULT CODE	Stamp	RENAULT CODE	Stamp
P785 154 003	0	P785 155 003	Spacer	P785 155 308	J	P785 140 952	S
P785 154 103	1	P785 155 300	A	P785 155 309	K	P785 140 953	T
P785 154 203	2	P785 155 301	B	P785 155 310	L	P785 140 954	U
P785 154 303	3	P785 155 302	C	P785 155 311	M	P785 140 955	V
P785 154 403	4	P785 155 303	D	P785 155 312	N	P785 140 956	W
P785 154 503	5	P785 155 304	E	P785 155 313	O	P785 140 957	X
P785 154 603	6 or 9	P785 155 305	F	P785 155 314	P	P785 140 958	Y
P785 154 703	7	P785 155 306	G	P785 140 950	Q	P785 140 959	Z
P785 154 803	8	P785 155 307	H	P785 140 951	R		

CCIB



OMCR  
STANDARD DIE COMPONENTS










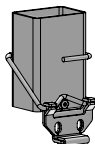












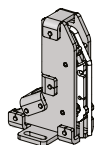

Die Components  
Normalien  
Componenti



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS








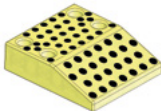











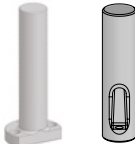
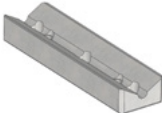

MAIN  
INDEX

<p><b>39D 506</b></p>  <p>Sleeve Führungseinheit Canotto Guida</p> <p>486</p>	<p><b>39D 528</b></p>  <p>Gage Einweiser Riferimento</p> <p>486</p>	<p><b>39D 543</b></p>  <p>Brace Verluschung Bretella</p> <p>487</p>	<p><b>39D 571</b></p>  <p>Tie Rod Führungsbolzen Tirante</p> <p>487</p>	<p><b>39D 578</b></p>  <p>Spacing bar Abstellbolzen Distanziale</p> <p>488</p>
<p><b>39D 578</b></p>  <p>Spacing bar Abstellbolzen Distanziale</p> <p>489</p>	<p><b>39D 578</b></p>  <p>Backing plate Distanzkappe Reazione per cilindro</p> <p>491</p>	<p><b>39D 582</b></p>  <p>Angular guide Winkelleiste Guida angolare</p> <p>492</p>	<p><b>39D 592</b></p>  <p>Spacer Rückfalldistanz Distanziale</p> <p>493</p>	<p><b>39D 599</b></p>  <p>Tie rod Druck und Zuganker Tirante</p> <p>494</p>
<p><b>39D 599</b></p>  <p>Tie rod Druck und Zuganker Tirante</p> <p>494</p>	<p><b>39D 599</b></p>  <p>Tie rod Druck und Zuganker Tirante</p> <p>495</p>	<p><b>39D 630</b></p>  <p>Slide stop block Schieberanschlag Arresto slitta</p> <p>495</p>	<p><b>39D 630</b></p>  <p>Slide stop block Schieberanschlag Arresto slitta</p> <p>496</p>	<p><b>39D 630</b></p>  <p>Slide stop block Schieberanschlag Arresto slitta</p> <p>496</p>
<p><b>39D 638</b></p>  <p>Air pin Druckbolzen Candela</p> <p>497</p>	<p><b>39D 638</b></p>  <p>Air pin Druckbolzen Candela</p> <p>498</p>	<p><b>39D 639</b></p>  <p>Support for sensor Lagekontrolle für Platinen Supporto sensore</p> <p>499</p>	<p><b>39D 639</b></p>  <p>Support for sensor Lagekontrolle für Platinen Supporto sensore</p> <p>499</p>	<p><b>39D 639</b></p>  <p>Gage for sensor Einweiser für Teillagekontrolle Riferimento per sensore</p> <p>500</p>



<p><b>39D 649</b></p>  <p>Shim Spannschlitz Spessore</p> <p>500</p>	<p><b>39D 650</b></p>  <p>Retainer bolt Haltebolzen Gruppo tirante</p> <p>501</p>	<p><b>39D 651</b></p>  <p>Polyuretan spring Federblock Ammortizzatore</p> <p>502</p>	<p><b>39D 807</b></p>  <p>Gage Einweiser Riferimento</p> <p>502</p>	<p><b>39D 807</b></p>  <p>Precision gage Feinweiser Riferimento di precisione</p> <p>503</p>
<p><b>39D 807</b></p>  <p>Gage Einweiser Riferimento</p> <p>503</p>	<p><b>39D 807</b></p>  <p>Gage Einweiser Riferimento</p> <p>504</p>	<p><b>39D 826</b></p>  <p>Key Passfeder Chiavetta</p> <p>505</p>	<p><b>39D 828</b></p>  <p>Pad retainer Halteelement Gruppo tirante</p> <p>505</p>	<p><b>39D 828</b></p>  <p>Washer Scheibe Rondella</p> <p>506</p>
<p><b>39D 828</b></p>  <p>Elastomer washer Dämpfungscheibe Ammortizzatore</p> <p>506</p>	<p><b>39D 828</b></p>  <p>Anti-rebound pad retainer Halteelement mit Dämpfung Gruppo tirante antirimbalzo</p> <p>507</p>	<p><b>39D 839</b></p>  <p>Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno</p> <p>508</p>	<p><b>39D 847</b></p>  <p>Block Druckplatten für Gasdruckfedern Reazione per cilindro</p> <p>509</p>	<p><b>39D 847</b></p>  <p>Block Druckplatten für Gasdruckfedern Reazione per cilindro</p> <p>509</p>
<p><b>39D 851</b></p>  <p>Sliding pin Führungssäule Perno scorrevole</p> <p>510</p>	<p><b>39D 851</b></p>  <p>Sliding pin Führungssäule Perno scorrevole</p> <p>510</p>	<p><b>39D 854</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>511</p>	<p><b>39D 854</b></p>  <p>Pad retainer pin Steckbolzen Perno di arresto</p> <p>511</p>	<p><b>39D 854</b></p>  <p>Pad retainer pin Absteckbolzen Perno di arresto</p> <p>512</p>

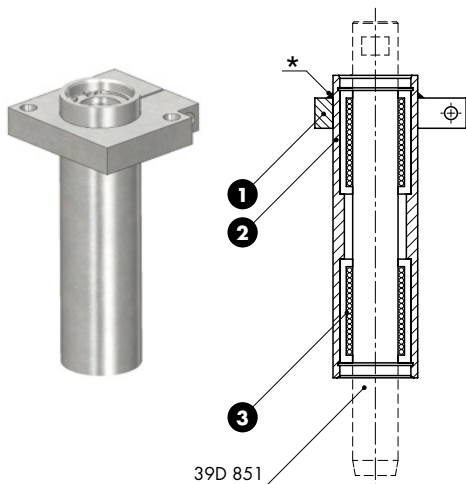
<p><b>39D 855</b></p>  <p>Bush Dämpfungsbuchse Boccola</p> <p>512</p>	<p><b>39D 856</b></p>  <p>Retainer Sicherungsplatte Piastrina</p> <p>513</p>	<p><b>39D 860</b></p>  <p>Bush DIN 9834 Buchse DIN 9834 Boccola DIN 9834</p> <p>513</p>	<p><b>39D 861</b></p>  <p>Toe clamp Haltestück Ritegno per boccola</p> <p>514</p>	<p><b>39D 861</b></p>  <p>Toe clamp Haltestück Ritegno per boccola</p> <p>514</p>
<p><b>39D 862</b></p>  <p>Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida DIN 9833</p> <p>515</p>	<p><b>39D 862</b></p>  <p>Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida DIN 9833</p> <p>516</p>	<p><b>39D 863</b></p>  <p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p> <p>517</p>	<p><b>39D 863</b></p>  <p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p> <p>518</p>	<p><b>39D 863</b></p>  <p>Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357</p> <p>519</p>
<p><b>39D 866</b></p>  <p>Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento</p> <p>520</p>	<p><b>39D 866</b></p>  <p>Lifting pin Tragbolzen mit Fallringsicherung Perno di sollevamento</p> <p>521</p>	<p><b>39D 867</b></p>  <p>Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento</p> <p>522</p>	<p><b>39D 869</b></p>  <p>Washer Scheibe Rondella</p> <p>523</p>	<p><b>39D 870</b></p>  <p>Air cylinder fixing Verschraubung Fissaggio cilindro</p> <p>523</p>
<p><b>39D 872</b></p>  <p>Cam roller Rollenbock Supporto con rullo</p> <p>524</p>	<p><b>39D 873</b></p>  <p>Acceleration cam Schiebervorbeschleunigung Camma di accelerazione</p> <p>525</p>	<p><b>39D 876</b></p>  <p>Lifting bracket VDI 3366 Tragzapfen VDI 336 Staffa di sollevamento VDI 336</p> <p>526</p>	<p><b>39D 882</b></p>  <p>Air cylinder fixing Ziehteilheber Fissaggio cilindro</p> <p>527</p>	<p><b>39D 887</b></p>  <p>Air cylinder adapter Teilheber Adattatore per cilindro</p> <p>527</p>

<b>39D 887</b>	<b>39D 890</b>	<b>39D 890</b>	<b>39D 890</b>	<b>39D 892</b>
				
Air cylinder adapter Teilheber Adattatore per cilindro	Wear plate self-lubricating Deckleiste bronze mit festschmierstoff Piastra guida autolubrificante	Wear plate Deckleiste Schieberführung Piastra guida	Wear plate Deckleiste Schieberführung Piastra guida	Guide bar VDI 3357 Führungsleiste VDI 3357 Lardone VDI 3357
527	528	529	530	531
<b>39D 894</b>	<b>39D 894</b>	<b>39D 895</b>	<b>39D 896</b>	<b>39D 896</b>
				
Cam dwell wear plate VDI 3357 Überlaufkeile VDI 3357 Cuneo VDI 3357	Cam dwell wear plate VDI 3357 Überlaufkeile VDI 3357 Cuneo VDI 3357	Balance block Enddruckplatte Distanziale di battuta	Compensation pin group Ausgleichsdruckbolzen Gruppo perno di compensazione	Compensation pin group Ausgleichsdruckbolzen Gruppo perno di compensazione
532	533	534	535	535
<b>39D 896</b>	<b>39D 896</b>	<b>39D 896</b>	<b>39D 896</b>	<b>39D 896</b>
				
Compensation pin group Ausgleichsdruckbolzen Gruppo perno di compensazione	Compensation pin group Ausgleichsdruckbolzen Gruppo perno di compensazione	Backing plate Distanzkappe Reazione per cilindro	Retainer Sicherungsplatte Piastrina	Retainer Sicherungsplatte Piastrina
536	536	537	537	537
<b>39D 896</b>	<b>39D 951</b>	<b>39D 951</b>	<b>39D 952</b>	<b>39D 952</b>
				
Retainer Sicherungsplatte Piastrina	Air pin Unterluftbolzen Candela	Air pin Unterluftbolzen Candela	"V" driver VDI 3357 Prismenführung VDI 3357 Guida a "V" VDI 3357	""V" driver VDI 3357 Prismenführung VDI 3357 Guida a ""V" VDI 3357
538	539	540	541	541

39D 952	39D 952	39D 954	39D 954	39D 954
"V" driver VDI 3357 Prismenführung mit festschmierstoff VDI 3357 Guida a "V" VDI 3357	"V" driver VDI 3357 Prismenführung mit festschmierstoff VDI 3357 Guida a "V" VDI 3357	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357	Wear plate VDI 3357 Gleitplatte VDI 3357 Piastra guida VDI 3357
542	542	543	544	545
39D 956	39D 958	39D 969	39D 972	39D 976
Guide bush Führungsbuchse Boccola autolubrificante	Stop pin Haltebolzen Perno di arresto	Guide post DIN 9833 Führungssäule DIN 9833 Colonna guida tipo DIN 9833	Lifter Federbolzen Sollevatore	Spacer plate toothed Distanzplatte gezahnt Tassello di compensazione
546	546	547	548	549
39D 993	39D 995	39D 995	39D 995	39D 1392
Plate for sensor Halterung Piastrina portasensore	Spacer Distanzstück Distanziale	Washer/stop block Scheibe/halteplatte Rondella/tassello	Retainer pin Ziehteilheber Perno con rondella	Distributor Verteilerblocke Distributore
550	550	551	551	552
39D 1430	39D 1497	39V 863	39V 1071	39V 1159
Distributor Verteilerblocke Distributore	Distributor Verteilerblocke Distributore	Visual locator setting punch Stempel f. entgasungsnoppen Punzone di visualizzazione	Threaded bush Genwindebuchse Boccola filettata	Gib VDI 3387 Führungslasche VDI 3387 Guida VDI 3387
552	552	553	553	554

<p><b>39V 1162</b></p>  <p>Stop block Abstandsblock Distanziale</p> <p>555</p>	<p><b>39V 1162</b></p>  <p>Stop block Abstandsblock Distanziale</p> <p>555</p>	<p><b>39V 1168</b></p>  <p>Locating cone Kegeldistanz Cono di centraggio</p> <p>556</p>	<p><b>39V 1176</b></p>  <p>Coil spring Schraubenfedern Molla a filo</p> <p>557</p>	<p><b>39V 1178</b></p>  <p>Stripper for blanking dies Abstreifer für Platinenschnitte Estrattore per stampi</p> <p>558</p>
<p><b>39V 1199</b></p>  <p>Lifting pin VDI 3366 Tragschraube VDI 3366 Perno di sollevamento VDI 3366</p> <p>559</p>	<p><b>39V 1205</b></p>  <p>Locating pin Zentrierbolzen Centraggio</p> <p>559</p>	<p><b>39V 1234</b></p>  <p>Ejector Abdrückstift Espulsore</p> <p>560</p>	<p><b>39V 1242</b></p>  <p>Gage Einweiser Riferimento</p> <p>561</p>	<p><b>39V 1254</b></p>  <p>Locating block Fangbacke Tassello di centraggio</p> <p>561</p>
<p><b>39V 1304</b></p>  <p>Key Passfeder Chiavetta</p> <p>562</p>	<p><b>39V 1304</b></p>  <p>Key Passfeder Chiavetta</p> <p>562</p>	<p><b>39V 1569</b></p>  <p>Roller stock lifter Federnde laufrolle Rullino sollevamento nastro</p> <p>563</p>	<p><b>39V 1569</b></p>  <p>Roller stock lifter Federnde laufrolle Rullino sollevamento nastro</p> <p>564</p>	<p><b>39V 1569</b></p>  <p>Roller stock lifter Federnde laufrolle Rullino sollevamento nastro</p> <p>565</p>
<p><b>1D 301260</b></p>  <p>Gage with position control Klappenweiser mit Lagekontrolle Riferimento con controllo di posizione</p> <p>566</p>				

## SLEEVE - FÜHRUNGSEINHEIT - CANOTTO GUIDA



### Notes

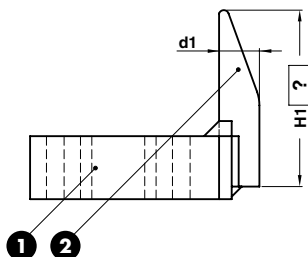
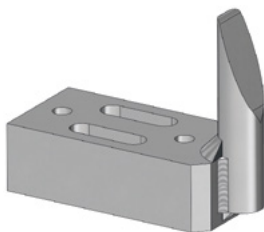
- 1 **Material:** St37
- 2 **Material:** CK45
- 3 Linear ball bearing



\* Fixing at assembly with 3 spot welding  
Bei der montage mit schweißpunkten befestigen  
Fissare al montaggio con tre punti di saldatura

ORDER EXAMPLE	VW CODE
	39D 506/10
VW CODE	
39D 506/10	

## GAGE - EINWEISER - RIFERIMENTO



### Notes

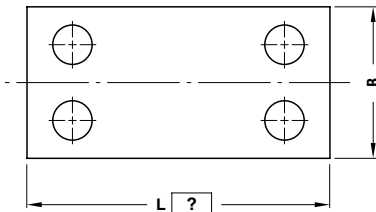
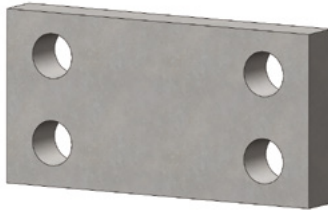
- 1 **Material:** St37
- 2 **Material:** CK15 - HRC: 58÷60

Only for replacement  
Nur für Reparatur  
Solo per riparazione



ORDER EXAMPLE	VW CODE	H1=200
	39D 528/3	200
VW CODE		d1
39D 528/1		16
39D 528/2		20
39D 528/3		25

BRACE - VERLASCHUNG - BRETELLA



Notes

Material: CK45



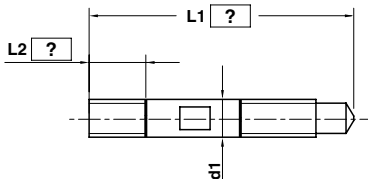
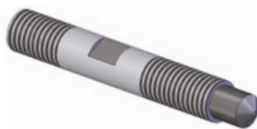
VW CODE	L=200
39D 543/2	200

VW CODE	B
39D 543/1	80
39D 543/2	100

Standard VW/Audi

39D 571

TIE ROD - FÜHRUNGSBOLZEN - TIRANTE



Notes

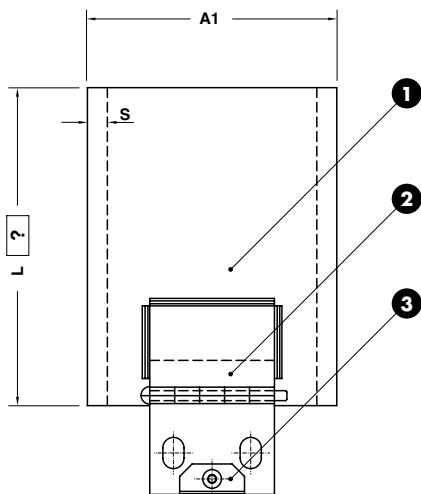
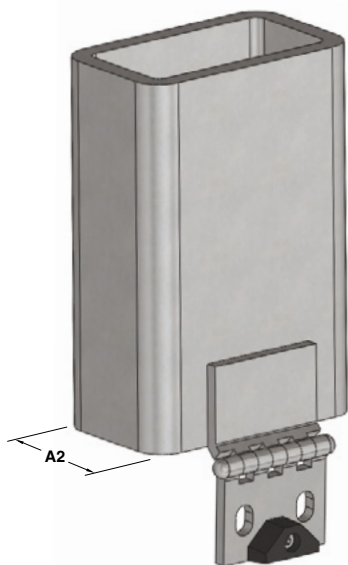
Material: 9SMn28



VW CODE	L1=300	L2=100
39D 571/13	300	100

VW CODE	d1
39D 571/10	10
39D 571/13	13
39D 571/16	16
39D 571/20	20

SPACING BAR - ABSTELLBOLZEN - DISTANZIALE



80 < L < 400

Notes

- 1 **Material:** St37
- 2 **AHA Hinge**\*\*\*
- 3 **Material:** Elastomer 68SH

Only for replacement  
Nur für Reparatur  
Solo per riparazione



\* To storage dies without gas springs  
Zum Abstellen von Presswerkzeugen ohne Gasdruckfedern  
Per il deposito di stamper senza molla a gas

\*\* To storage dies with gas springs  
Zum Abstellen von Presswerkzeugen mit Gasdruckfedern  
Per il deposito di stamper con molla a gas

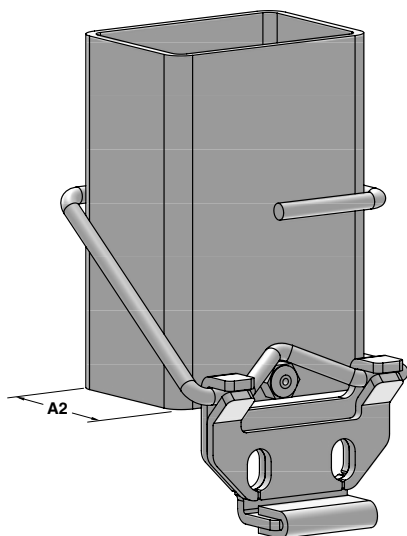
\*\*\* Scharnier  
Cerniera

ORDER EXAMPLE	VW CODE	L=150
	39D 578/30	150

VW CODE	A1	A2	S
39D 578/30*	100	60	7-8
39D 578/40**	70	50	3



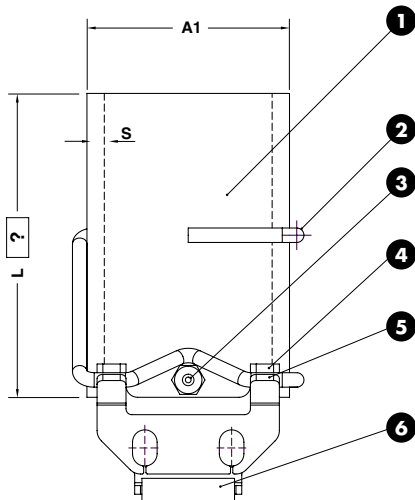
SPACING BAR - ABSTELLBOLZEN - DISTANZIALE



80 < L < 400

Notes

- 1 Material: St37
- 2 Steel spring
- 3 Rivet
- 4 Plate
- 5 Plate
- 6 PVC

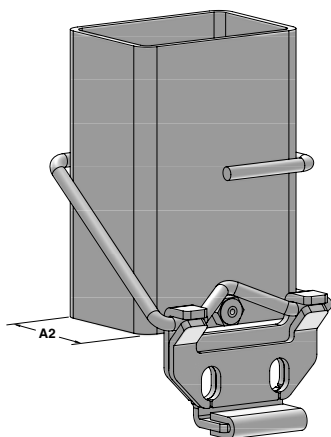


ORDER EXAMPLE	VW CODE	L=150
	39D 578/70	150

VW CODE	A1	A2	S
39D 578/70	70	50	5
39D 578/80	70	50	3

Standard VW/Audi

SPACING BAR - ABSTELLBOLZEN - DISTANZIALE

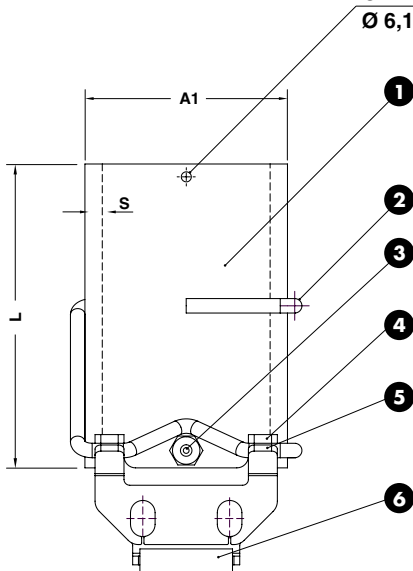


Notes

- 1 Material: St37
- 2 Steel spring
- 3 Rivet
- 4 Plate
- 5 Plate
- 6 PVC



ONLY FOR CODE 71-81



ORDER EXAMPLE 	VW CODE
	39D 578/71

VW CODE	L	A1	A2	S
39D 578/71	480	70	50	5
39D 578/81	480	70	50	3
39D 578/82	215	70	50	3

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



## Notes

**Material:** 16MnCr5 - **HRC:** 60÷62  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK



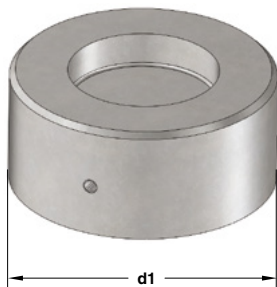
**VW CODE**  
 39D 578/2

**VW CODE**

39D 578/2

Standard VW/Audi

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



## Notes

**Material:** CK45

STOCK



**VW CODE**  
 39D 578/56

**VW CODE****d1**

39D 578/55

90

39D 578/56

100

## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



## Notes

**Material:** CK45

STOCK



**VW CODE**  
 39D 578/65

**VW CODE**

39D 578/65

ANGULAR GUIDE - WINKELLEISTE - GUIDA ANGOLARE

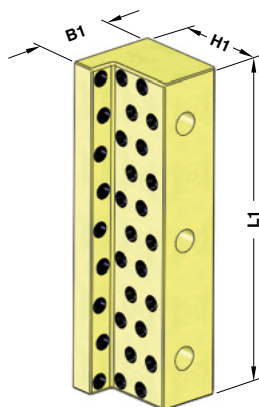
Notes

**Material:** Bronze + Graphite  
**HB > 190**

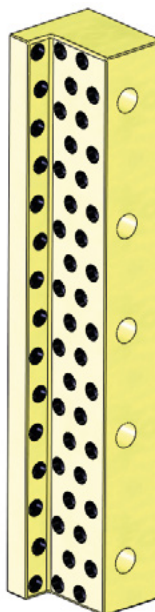
STOCK



FORM A



FORM B

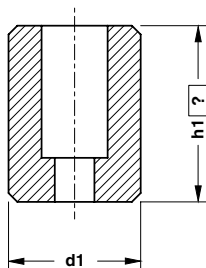


FORM C

	VW CODE
	39D 582/1

VW CODE	L1	B1	H1	FORM	VW CODE	L1	B1	H1	FORM
39D 582/1	125	25	15	A	39D 582/12	200	70	75	A
39D 582/2	160	25	15	A	39D 582/13	250	70	75	B
39D 582/3	125	32	30	A	39D 582/15	400	70	75	C
39D 582/4	160	32	30	A	39D 582/16	160	85	90	A
39D 582/5	200	32	30	A	39D 582/17	200	85	90	A
39D 582/6	100	55	55	A	39D 582/18	250	85	90	B
39D 582/7	160	55	55	A	39D 582/20	400	85	90	C
39D 582/11	160	70	75	A					

SPACER - RÜCKFALLDISTANZ - DISTANZIALE



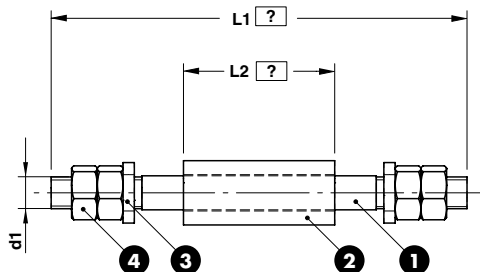
**Notes**  
**Material:** CK45



	VW CODE	h1=30
	39D 592/11	30
VW CODE		d1
39D 592/10		25
39D 592/11		30
39D 592/12		40
39D 592/13		50

Standard VW/Audi

## TIE ROD - DRUCK UND ZUGANKER - TIRANTE



### Notes

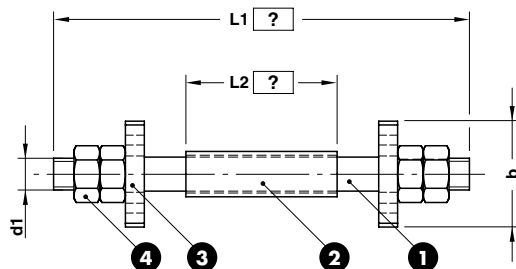
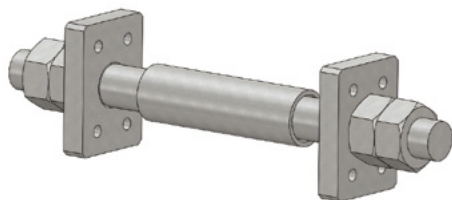
- 1** Material: 34Cr4
- 2** Material: St37
- 3** Material: CK45
- 4** DIN 934



ORDER EXAMPLE	VW CODE	L1=550	L2=200
	39D 599/1	550	200

VW CODE	d1
39D 599/1	M42x1,5

## TIE ROD - DRUCK UND ZUGANKER - TIRANTE



### Notes

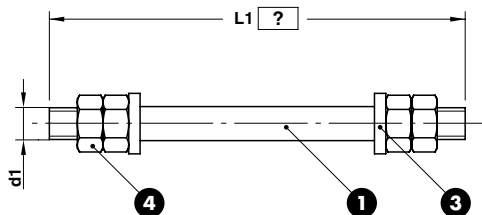
- 1** Material: 34Cr4
- 2** Material: St37
- 3** Material: CK45
- 4** DIN 934



ORDER EXAMPLE	VW CODE	L1=550	L2=200
	39D 599/2B	550	200

VW CODE	b	d1
39D 599/2	140	M42x1,5
39D 599/5	160	M42x1,5

## TIE ROD - DRUCK UND ZUGANKER - TIRANTE



### Notes

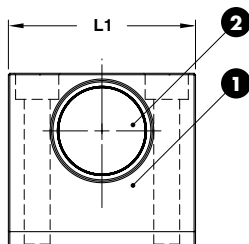
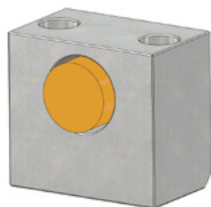
- 1 **Material:** 34Cr4
- 3 **Material:** CK45
- 4 DIN 934



ORDER EXAMPLE	VW CODE	L1=550
	39D 599/3	550
VW CODE		d1
39D 599/3		M42 x 1.5
39D 599/4		M56 x 1.5

Standard VW/Audi

## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



### Notes

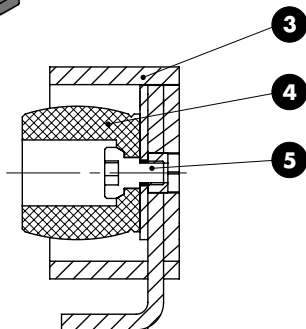
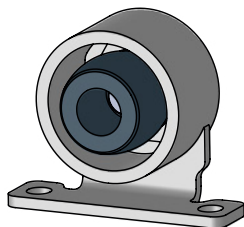
- 1 **Material:** CK45
- 2 **Material:** Elastomer 90 SH

Only for replacement  
Nur für Reparatur  
Solo per riparazione



ORDER EXAMPLE	VW CODE	
	39D 630/8	
VW CODE		L1
39D 630/8		65
39D 630/10		75

## SLIDE STOP BLOCK - SCHIEBERANSCHLAG - ARRESTO SLITTA



## Notes

- 3** Material: St37
- 4** Material: CO-Polyester Elastomer
- 5** M6x12 DIN 912



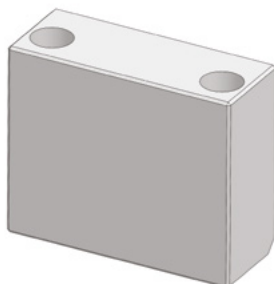
VW CODE

39D 630/22

VW CODE

39D 630/22

## SLIDE STOP BLOCK - SCHIEBERRANSCHLAG - ARRESTO SLITTA



## Notes

**Material:** CK45

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK



VW CODE

39D 630/25

VW CODE

39D 630/21

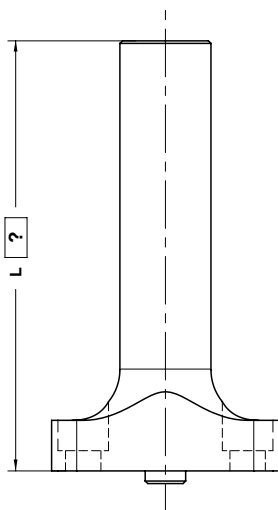
39D 630/25



## AIR PIN - DRUCKBOLZEN - CANDELA



**39D 638/2**



L max = 360

**Notes**

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>

Only for replacement  
Nur für Reparatur  
Solo per riparazione



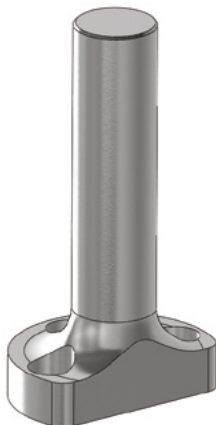
	<b>VW CODE</b>	<b>L=150</b>
	39D 638/3	150

VW CODE	
39D 638/2	
39D 638/3	
39D 638/4	
39D 638/5	

Standard VW/Audi



**39D 638/3**

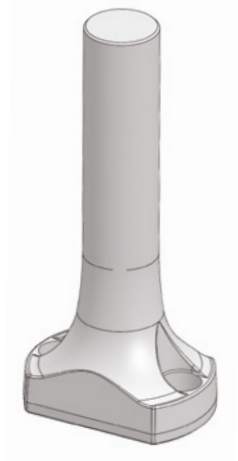


**39D 638/4**

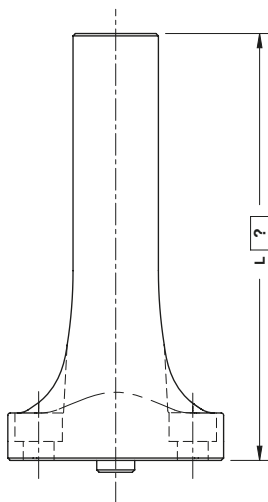


**39D 638/5**

AIR PIN - DRUCKBOLZEN - CANDELA



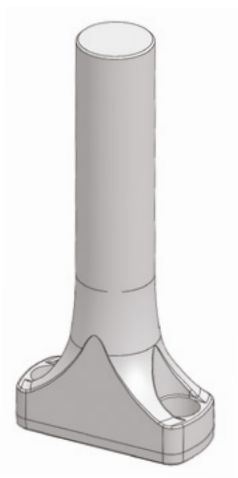
39D 638/10



L max = 360

**Notes**

**Material:** C45 - 800÷1000 N/mm<sup>2</sup>



39D 638/11



39D 638/12

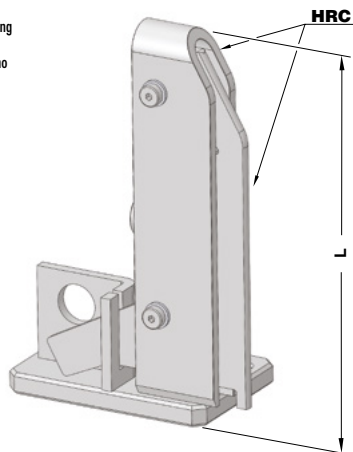
	<b>VW CODE</b>	<b>L=150</b>
	39D 638/11	150

VW CODE	
39D 638/10	
39D 638/11	
39D 638/12	

## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE

\* As shown in drawing  
Gemäß zeichnung  
Come a disegno

\*\* Opposite to drawing  
Spiegelverkehrt  
Opposto al disegno



STOCK

## Notes

**Material:** Steel - **HRC:** 58÷60

Only for replacement  
Nur für Reparatur  
Solo per riparazione



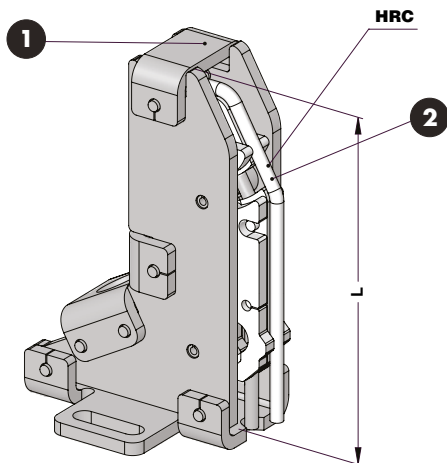
VW CODE

39D 639/3

VW CODE	L	SIDE
39D 639/1	145	LEFT**
39D 639/2	145	RIGHT*
39D 639/3	185	LEFT**
39D 639/4	185	RIGHT*
39D 639/25	225	LEFT**
39D 639/26	225	RIGHT*
39D 639/30	145	LEFT**
39D 639/31	145	RIGHT*
39D 639/32	185	LEFT**
39D 639/33	185	RIGHT*
39D 639/34	225	LEFT**
39D 639/35	225	RIGHT*

Standard VW/Audi

## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE



## Notes

1 **Material:** Si37

2 **Material:** Steel HRC:40-45

STOCK

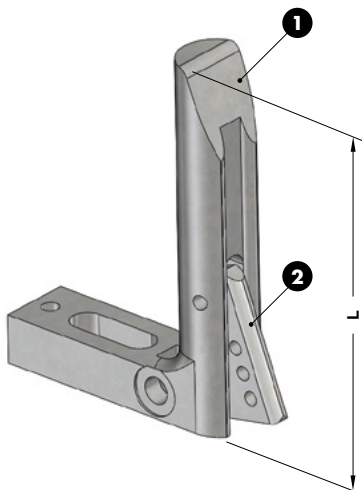


VW CODE

39D 639/40

VW CODE	L
39D 639/40	145
39D 639/41	185
39D 639/42	225

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTOLLE - RIFERIMENTO PER SENSORE



### Notes

**1** Material: CK60

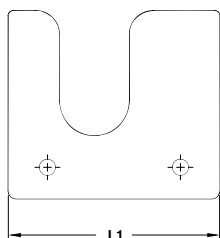
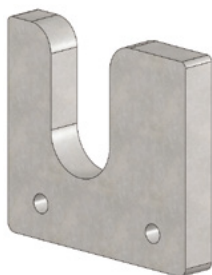
**2** Material: St37



	VW CODE
	39D 639/22

VW CODE	L
39D 639/20	120
39D 639/21	150
39D 639/22	180
39D 639/23	250

## SHIM - SPANNSCHLITZ - SPESSORE



### Notes

Material: St52

STOCK

	VW CODE
	39D 649/2

VW CODE	L1
39D 649/1	110
39D 649/2	135
39D 649/3	185
39D 649/4	160

## RETAINER BOLT - HALTEBOLZEN - GRUPPO TIRANTE

### Notes

- 1 3 Material:** 42CrMo4
- 2 4 Material:** CK45
- 5 Material:** Elastomer Black 68 SH  
Elastomer Red 90 SH
- 6 Split Pin** DIN EN ISO 1234

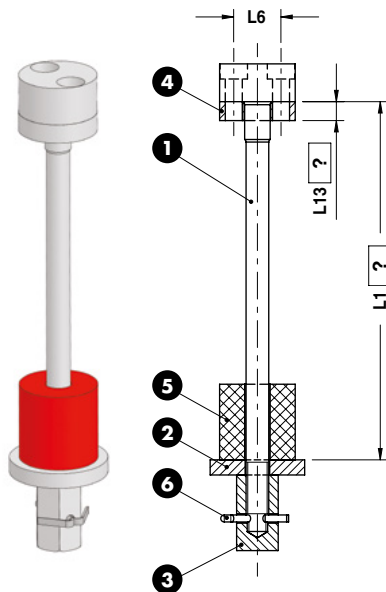
Only for replacement  
Nur für Reparatur  
Solo per riparazione



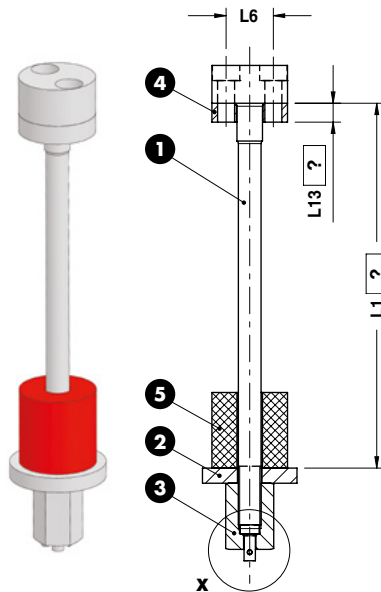
Respect the max. load  
Maximale Nutzlast beachten  
Rispettare il carico max.



### 39D 650/31÷38



### 39D 650/51÷58



X



**DETAIL X**

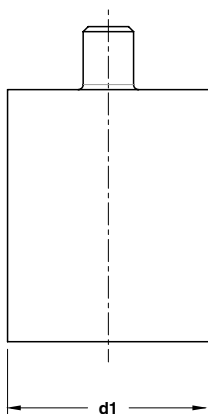
\*Max. capacity load  
Belastbarkeit max.  
Portata massima

\*\*Optional washer, L13=?  
Scheibe optional, L13=?  
Rondella opzionale, L13=?

ORDER EXAMPLE	VW CODE	L1=190	L13=10**
	39D 650/32	190	10

VW CODE	L6	MCL*(N)	Elastomer Shore (SH)	VW CODE	L6	MCL*(N)	Elastomer Shore (SH)
39D 650/31	25	15000	68	39D 650/51	25	15000	68
39D 650/32	30	25000	68	39D 650/52	30	25000	68
39D 650/33	30	25000	68	39D 650/53	30	25000	68
39D 650/34	34	45000	68	39D 650/54	34	45000	68
39D 650/35	25	15000	90	39D 650/55	25	15000	90
39D 650/36	30	25000	90	39D 650/56	30	25000	90
39D 650/37	30	25000	90	39D 650/57	30	25000	90
39D 650/38	34	45000	90	39D 650/58	34	45000	90

## POLYURETAN SPRING - FEDERBLOCK - AMMORTIZZATORE



## Notes

**Material:** Elastomer 92 SH

STOCK



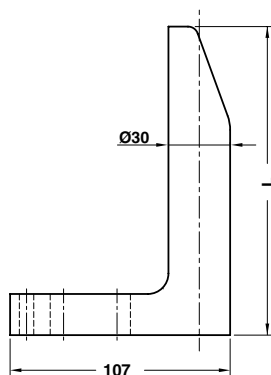
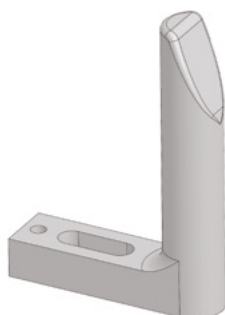
## VW CODE

39D 651/2

VW CODE	d1
39D 651/1	63
39D 651/2	80
39D 651/3	100
39D 651/4	125

## 39D 807

## GAGE - EINWEISER - RIFERIMENTO



## Notes

**Material:** CK60

STOCK

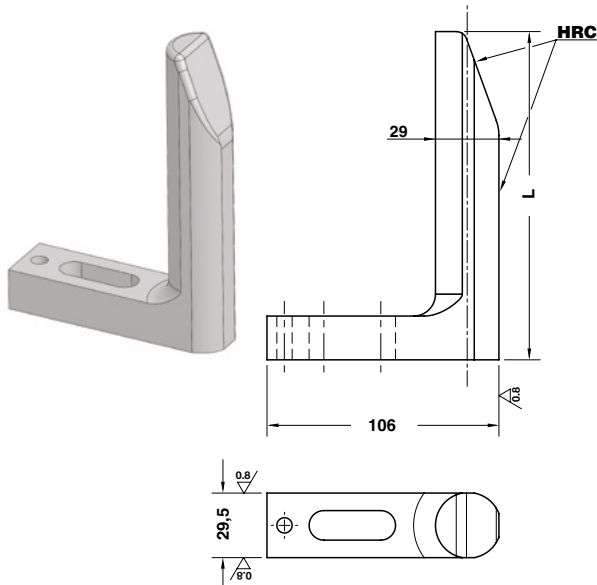


## VW CODE

39D 807/1 L=90

VW CODE	L
39D 807/1 L=65	65
39D 807/1 L=90	90
39D 807/1 L=120	120
39D 807/1 L=150	150
39D 807/1 L=180	180
39D 807/1 L=250	250
39D 807/1 L=300	300
39D 807/1 L=350	350

## PRECISION GAGE - FEINENWEISER - RIFERIMENTO DI PRECISIONE



**Notes**  
**Material:** CK60 - HRC: 58÷60

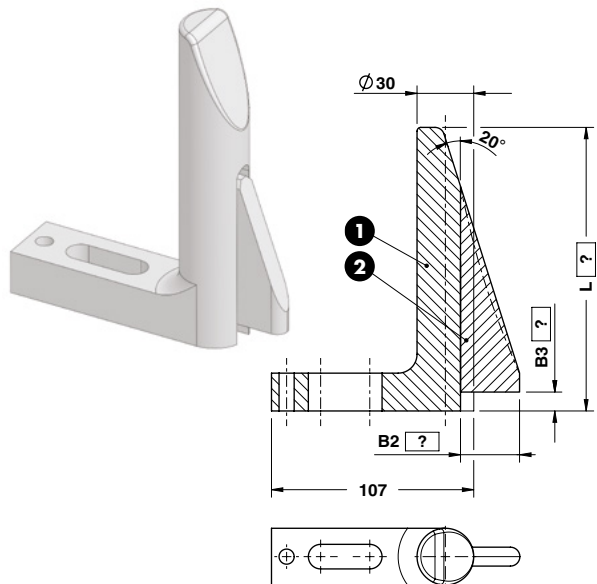


ORDER EXAMPLE	VW CODE
	39D 807/2 L=90

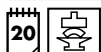
VW CODE	L
39D 807/2 L=65	65
39D 807/2 L=90	90
39D 807/2 L=120	120
39D 807/2 L=150	150
39D 807/2 L=180	180
39D 807/2 L=250	250
39D 807/2 L=300	300
39D 807/2 L=350	350

Standard VW/Audi

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



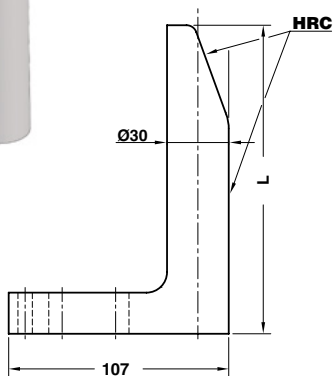
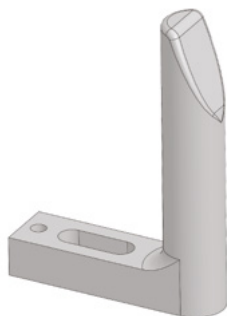
**Notes**  
**1 2**  
**Material:** CK60 - HRC: 58÷60



ORDER EXAMPLE	VW CODE	L=90	B2=20	B3=5
	39D 807/3	90	20	5

VW CODE	L
39D 807/3	≥ 65 - 350

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



### Notes

**Material:** CK60 - **HRC:** 58÷60

STOCK



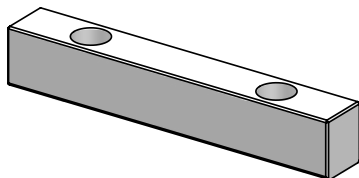
### VW CODE

39D 807/4 L=90

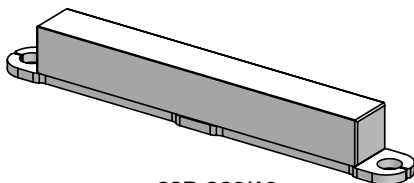
VW CODE	L
39D 807/4 L=65	65
39D 807/4 L=90	90
39D 807/4 L=120	120
39D 807/4 L=150	180
39D 807/4 L=180	150
39D 807/4 L=250	250
39D 807/4 L=300	300
39D 807/4 L=350	350



## KEY - PASSFEDER - CHIAVETTA



**39D 826/1**



**39D 826/10**

### Notes

**Material:** CK45+C

STOCK



**VW CODE**  
39D 826/1

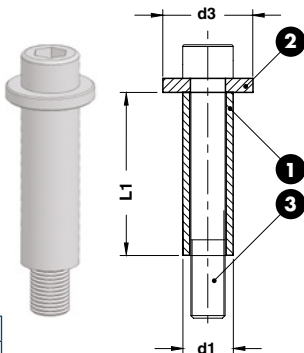
### VW CODE

39D 826/1  
39D 826/10

Standard VW/Audi

# 39D 828

## PAD RETAINER - HALTEELEMENT - GRUPPO TIRANTE



### Notes

- 1** Material: Si37
- 2** Material: CK45
- 3** DIN 912 cl. 8.8

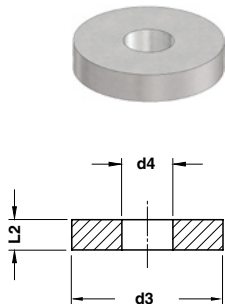
STOCK



**VW CODE**  
39D 828/5

VW CODE	d1 x L1	d3	Screw DIN 912 cl. 8.8	VW CODE	d1 x L1	d3	Screw DIN 912 cl. 8.8	VW CODE	d1 x L1	d3	Screw DIN 912 cl. 8.8
39D 828/4	16 x 40	25	M10x60	39D 828/12	20 x 100	30	M12x130	39D 828/20	36 x 80	55	M24x130
39D 828/5	16 x 50	25	M10x70	39D 828/13	25 x 63	38	M16x100	39D 828/21	36 x 100	55	M24x150
39D 828/6	16 x 63	25	M10x90	39D 828/14	25 x 80	38	M16x110	39D 828/22	36 x 125	55	M24x180
39D 828/8	16 x 100	25	M10x120	39D 828/15	25 x 100	38	M16x130	39D 828/23	42 x 80	65	M30x140
39D 828/9	20 x 50	30	M12x80	39D 828/16	25 x 125	38	M16x160	39D 828/24	42 x 100	65	M30x160
39D 828/10	20 x 63	30	M12x90	39D 828/17	30 x 80	45	M20x120	39D 828/25	42 x 125	65	M30x200
39D 828/11	20 x 80	30	M12x110	39D 828/19	30 x 125	45	M20x180				

## WASHER - SCHEIBE - RONDELLA



### Notes

**Material:** CK45

**STOCK**



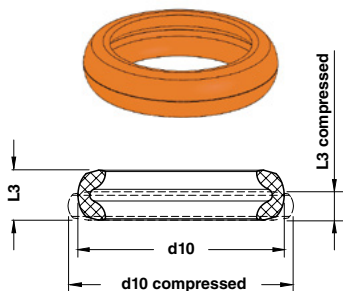
**VW CODE**

**39D 828/42**

VW CODE	d3	d4	L2
39D 828/41	25	10,5	5
39D 828/42	30	13,2	5
39D 828/43	38	17,0	6
39D 828/44	45	21,0	8
39D 828/45	55	25,0	10
39D 828/46	30	10,5	5
39D 828/47	35	13,0	5
39D 828/48	50	17,0	6
39D 828/49	65	21,0	8
39D 828/50	70	25,0	10
39D 828/57	65	32,0	15
39D 828/58	90	32,0	15

# 39D 828

## ELASTOMER WASHER - DÄMPFUNGSCHEIBE - AMMORTIZZATORE



### Notes

**Material:** CO-Polyester Elastomer

**STOCK**

\*Die höchste Belastung  
Carico massimo ammissibile

\*\*Komprimiert  
Compresso

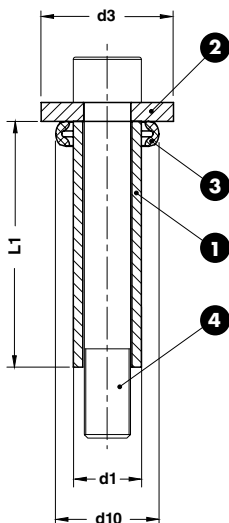


**VW CODE**

**39D 828/52**

VW CODE	d10	d10 (compressed**)	L3	L3 (compressed**)	Shore	Load* (N)
39D 828/51	26,2	28,4	7,8 ±0,3	5,5 ±0,3	55D	5500
39D 828/52	32,1	35,1	10,8 ±0,3	6,0 ±0,3	72D	9000
39D 828/53	46,3	49,8	17,0 ±0,4	11,6 ±0,3	72D	20000
39D 828/54	54,6	61,8	21,3 ±0,4	13,0 ±0,3	55D	30000
39D 828/55	61,8	69,9	21,5 ±0,4	13,2 ±0,3	55D	46000
39D 828/56	78,2	89,0	29,8 ±0,5	17,9 ±0,3	55D	75000

## ANTI-REBOUND PAD RETAINER HALTELEMENT MIT DÄMPFUNG GRUPPO TIRANTE ANTIRIMBALZO



### Notes

- 1** Material: Si37
- 2** Material: CK45
- 3** Material: CO-Polyester Elastomer
- 4** DIN 912 cl. 8.8

STOCK



Standard VW/Audi

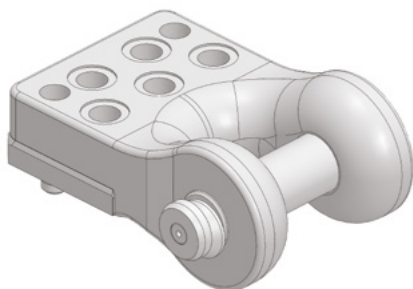
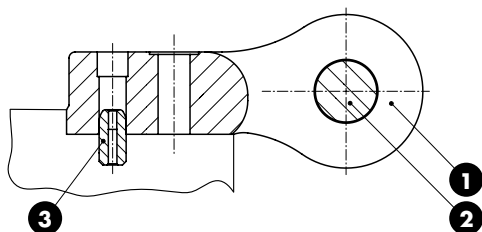


VW CODE

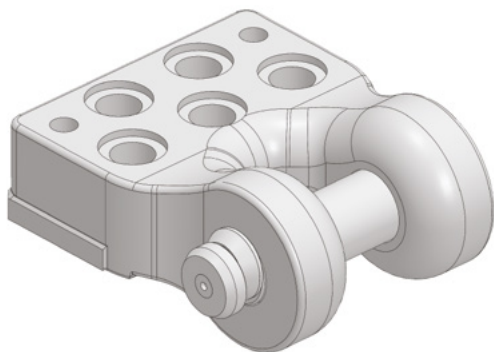
39D 828/74

VW CODE	d1 x L1	d3	d10	Screw DIN 912 cl. 8.8	Shore	VW CODE	d1 x L1	d3	d10	Screw DIN 912 cl. 8.8	Shore
39D 828/73	16 x 40	30	26,2	M10x60	55D	39D 828/84	25 x 100	50	46,3	M16x130	72D
39D 828/74	16 x 50	30	26,2	M10x70	55D	39D 828/85	25 x 125	50	46,3	M16x160	72D
39D 828/75	16 x 63	30	26,2	M10x90	55D	39D 828/86	30 x 80	65	54,6	M20x120	55D
39D 828/77	16 x 100	30	26,2	M10x120	55D	39D 828/88	30 x 125	65	54,6	M20x180	55D
39D 828/78	20 x 50	35	32,1	M12x80	72D	39D 828/89	36 x 80	70	61,8	M24x130	55D
39D 828/79	20 x 63	35	32,1	M12x90	72D	39D 828/90	36 x 100	70	61,8	M24x150	55D
39D 828/80	20 x 80	35	32,1	M12x110	72D	39D 828/91	36 x 125	70	61,8	M24x180	55D
39D 828/81	20 x 100	35	32,1	M12x130	72D	39D 828/92	42 x 80	90	78,2	M30x140	55D
39D 828/82	25 x 63	50	46,3	M16x100	72D	39D 828/93	42 x 100	90	78,2	M30x160	55D
39D 828/83	25 x 80	50	46,3	M16x110	72D	39D 828/94	42 x 125	90	78,2	M30x200	55D

**LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN**  
**STAFFA DI SOLLEVAMENTO COMPLETA DI PERNO E CENTRAGGI**



FORM A



FORM B



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

## Notes

- ① **Material:** St52
- ② 39D 866 - **Material:** CK45
- ③ 39V 1205/1  
**Material:** 16MnCr5 - **HRC:** 58÷62

Screws not included

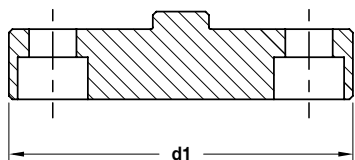


VW CODE

39D 839/2

VW CODE	Max load (kg)	Max die weight (kg)	FORM
39D 839/1	8000	16000	A
39D 839/2	12500	25000	B

## BLOCK - DRUCKPLATTEN FÜR GASDRUCKFEDERN - REAZIONE PER CILINDRO



## Notes

**Material:** 16MnCr5 - HRC: 58÷60

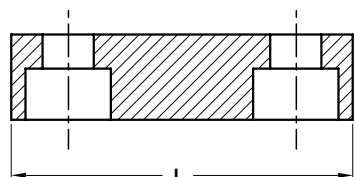
STOCK



VW CODE
39D 847/2

VW CODE	d1
39D 847/1	98
39D 847/2	113
39D 847/3	128
39D 847/4	143

## BLOCK - DRUCKPLATTEN FÜR GASDRUCKFEDERN - REAZIONE PER CILINDRO



## Notes

**Material:** 16MnCr5 - HRC: 58÷60

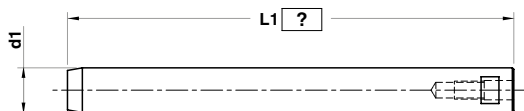
STOCK



VW CODE
39D 847/11

VW CODE	L
39D 847/10	40
39D 847/11	60
39D 847/12	70
39D 847/13	100
39D 847/14	140

## SLIDING PIN - FÜHRUNGSSÄULE - PERNO SCORREVOLE



### Notes

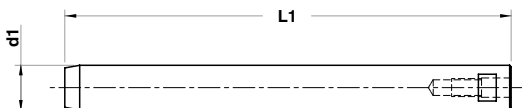
**Material:** CK45 - HRC: 60÷62



VW CODE	L1=300
39D 851/20	300

VW CODE	d1
39D 851/20	20
39D 851/25	25
39D 851/30	30

## SLIDING PIN - FÜHRUNGSSÄULE - PERNO SCORREVOLE



### Notes

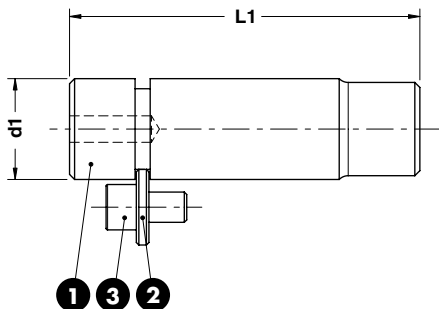
**Material:** CK45 - HRC: 60÷62



VW CODE
39D 851/32

VW CODE	d1	L1
39D 851/32	30	270
39D 851/34	30	425

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

- 1 **Material:** 42CrMo4 - 1000 N/mm<sup>2</sup>
- 2 39D 828/42
- 3 DIN EN ISO 4762 M12x20

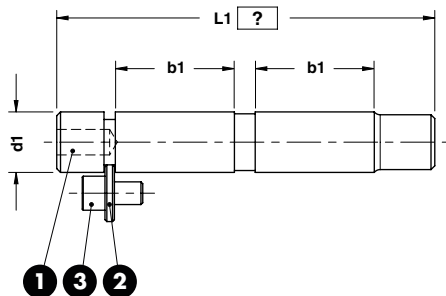
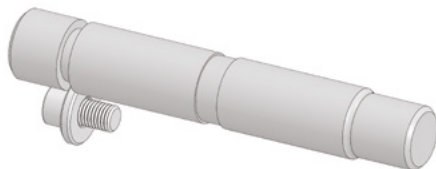


ORDER EXAMPLE	VW CODE
	39D 854/2

VW CODE	d1	L1
39D 854/1	32	105
39D 854/2	32	122
39D 854/3	40	139
39D 854/4	40	159
39D 854/5	50	167
39D 854/6	50	192
39D 854/7	63	202
39D 854/8	63	237

Standard VW/Audi

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



### Notes

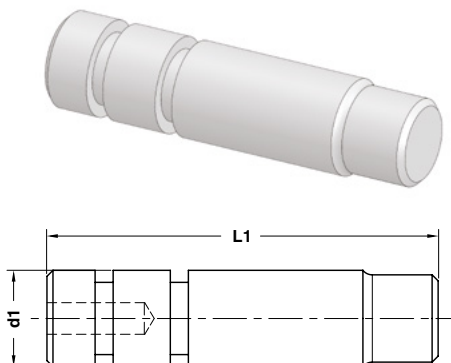
- 1 **Material:** 42CrMo4 - 1000 N/mm<sup>2</sup>
- 2 39D 828/42
- 3 DIN EN ISO 4762 M12x20



ORDER EXAMPLE	VW CODE	L1=150
	39D 854/13	150

VW CODE	b1	d1
39D 854/11	63	32
39D 854/13	80	40
39D 854/15	100	50
39D 854/17	125	63
39D 854/21	80	32
39D 854/23	100	40
39D 854/25	125	50
39D 854/27	160	63

## PAD RETAINER PIN - ABSTECKBOLZEN - PERNO DI ARRESTO



## Notes

**Material:** 42CrMo4 - 800=1000 N/mm<sup>2</sup>

Only for replacement  
Nur für Reparatur  
Solo per riparazione

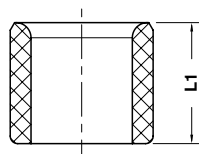


## VW CODE

39D 854/442

VW CODE	d1	L1
39D 854/441	32	130
39D 854/442	32	147
39D 854/443	40	171
39D 854/444	40	191
39D 854/445	50	207
39D 854/446	50	232
39D 854/447	63	252
39D 854/448	63	287

## BUSH - DÄMPFBUCHSE - BOCCOLA



## Notes

**Material:** Nylatron GSM P30

Only for replacement  
Nur für Reparatur  
Solo per riparazione

STOCK



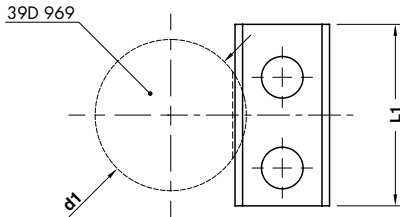
## VW CODE

39D 855/5

VW CODE	L1
39D 855/4	32
39D 855/5	40
39D 855/6	50



RETAINER - SICHERUNGSPLATTE - PIASTRINA



Notes

**Material:** St37

STOCK



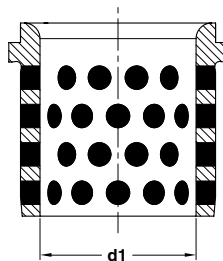
VW CODE  
39D 856/2

VW CODE	d1	L1
39D 856/2	25	40
	32	40
39D 856/4	40	48
	50	48
39D 856/6	63	60
	80	60

Standard VW/Audi

39D 860

BUSH SELF-LUBRICATING DIN 9834  
FUHRUNGSBUCHSE DIN 9834  
BOCCOLA AUTOLUBRIFICANTE DIN 9834



Notes

**Material:** Bronze + Graphite  
**HB** > 190

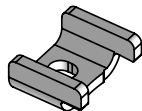
STOCK



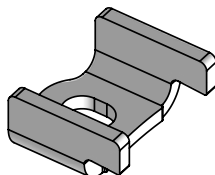
VW CODE  
39D 860/32

VW CODE	d1
39D 860/31	25
39D 860/32	32
39D 860/33	40
39D 860/34	50
39D 860/35	63
39D 860/36	80
39D 860/37	100
39D 860/38	125
39D 860/40	160

## TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA



**39D 861/12**



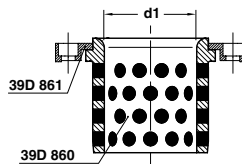
**39D 861/14**

### Notes

**Material:** CK45

**STOCK**

### Application example



**ORDER EXAMPLE**

**VW CODE**

39D 861/12

**VW CODE**

**d1**

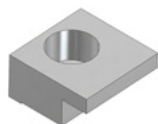
39D 861/12

25-50

39D 861/14

63-160

## TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA



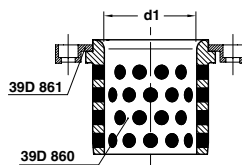
**STOCK**

### Notes

**Material:** CK45

Only for replacement  
Nur für Reparatur  
Solo per riparazione

### Application example



**ORDER EXAMPLE**

**VW CODE**

39D 861/6

**VW CODE**

**d1**

39D 861/6

25-50

39D 861/10

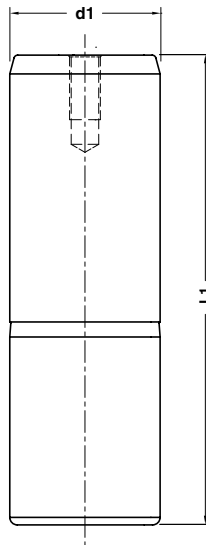
63-160

## GUIDE POST DIN 9833 - FÜHRUNGSSÄULE DIN 9833 - COLONNA GUIDA DIN 9833



**Notes**

**Material:** 16MnCr5  
**HRC:** 60÷62



Standard VW/Audi

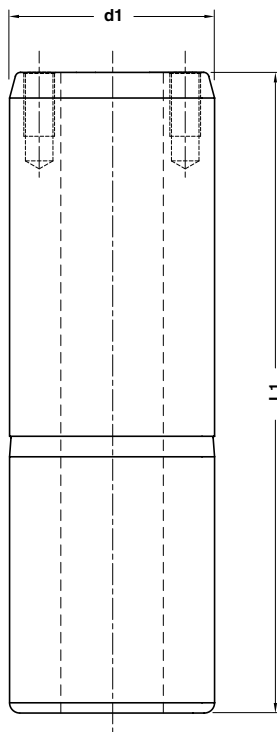
	<b>VW CODE</b>
	39D 862/47

VW CODE	d1	L1	VW CODE	d1	L1
39D 862/13	25	125	39D 862/45	50	250
39D 862/14	25	140	39D 862/46	50	280
39D 862/15	25	160	39D 862/47	50	315
39D 862/16	25	180	39D 862/48	50	355
39D 862/23	32	140	39D 862/51	63	180
39D 862/24	32	160	39D 862/52	63	200
39D 862/25	32	180	39D 862/53	63	224
39D 862/26	32	200	39D 862/54	63	250
39D 862/31	40	140	39D 862/55	63	280
39D 862/32	40	160	39D 862/56	63	315
39D 862/33	40	180	39D 862/57	63	355
39D 862/34	40	200	39D 862/58	63	400
39D 862/35	40	224	39D 862/62	80	224
39D 862/36	40	250	39D 862/63	80	250
39D 862/37	40	280	39D 862/64	80	280
39D 862/41	50	160	39D 862/65	80	315
39D 862/42	50	180	39D 862/66	80	355
39D 862/43	50	200	39D 862/67	80	400
39D 862/44	50	224			

## GUIDE POST DIN 9833 - FÜHRUNGSSÄULE DIN 9833 - COLONNA GUIDA DIN 9833

### Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

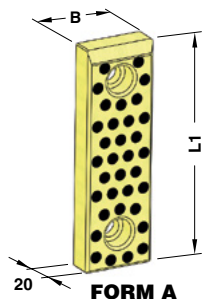


### VW CODE

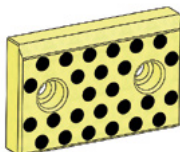
39D 862/75

VW CODE	d1	L1	VW CODE	d1	L1
39D 862/73	100	280	39D 862/85	125	450
39D 862/74	100	315	39D 862/86	125	500
39D 862/75	100	355	39D 862/93	160	400
39D 862/76	100	400	39D 862/94	160	450
39D 862/82	125	315	39D 862/95	160	500
39D 862/83	125	355	39D 862/96	160	560
39D 862/84	125	400			

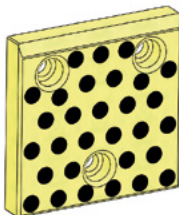
## WEAR PLATE SELF-LUBRICATING VDI 3357 GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357 PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357



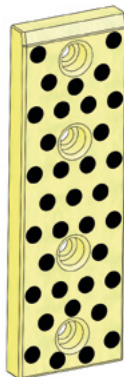
**FORM A**



**FORM B**



**FORM C**



**FORM D**

### Notes

**Material:** Bronze + Graphite  
**HB > 190**

STOCK



**VW CODE**  
**39D 863/12**

VW CODE	B	L1	FORM	VW CODE	B	L1	FORM	VW CODE	B	L1	FORM
39D 863/12	50	80	A	39D 863/44	125	125	C	39D 863/126	80	500	D
39D 863/13	50	100	A	39D 863/45	125	160	C	39D 863/131	100	450	D
39D 863/14	50	125	A	39D 863/46	125	200	C	39D 863/132	100	500	D
39D 863/15	50	160	A	39D 863/51	160	50	B	39D 863/141	125	450	D
39D 863/16	50	200	A	39D 863/52	160	80	B	39D 863/142	125	500	D
39D 863/21	80	50	B	39D 863/53	160	100	C	39D 863/150	100	250	D
39D 863/22	80	80	A	39D 863/54	160	125	C	39D 863/151	100	300	D
39D 863/23	80	100	A	39D 863/55	160	160	C	39D 863/152	100	350	D
39D 863/24	80	125	A	39D 863/56	160	200	C	39D 863/153	100	400	D
39D 863/25	80	160	A	39D 863/111	50	250	D	39D 863/155	125	250	D
39D 863/26	80	200	A	39D 863/112	50	300	D	39D 863/156	125	300	D
39D 863/31	100	50	B	39D 863/113	50	350	D	39D 863/157	125	350	D
39D 863/32	100	80	B	39D 863/114	50	400	D	39D 863/158	125	400	D
39D 863/33	100	100	A	39D 863/115	50	450	D	39D 863/160	160	250	D
39D 863/34	100	125	A	39D 863/116	50	500	D	39D 863/161	160	300	D
39D 863/35	100	160	A	39D 863/121	80	250	D	39D 863/162	160	350	D
39D 863/36	100	200	A	39D 863/122	80	300	D	39D 863/163	160	400	D
39D 863/41	125	50	B	39D 863/123	80	350	D	39D 863/164	160	450	D
39D 863/42	125	80	B	39D 863/124	80	400	D	39D 863/165	160	500	D
39D 863/43	125	100	C	39D 863/125	80	450	D				

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**

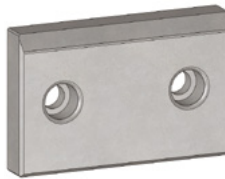
**Notes**

**Material:** 16MnCr5  
**HRC:** 58÷60

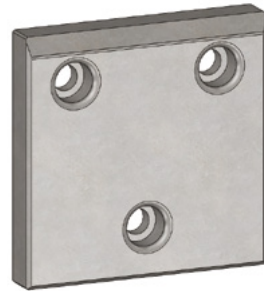
STOCK



**FORM A**



**FORM B**



**FORM C**



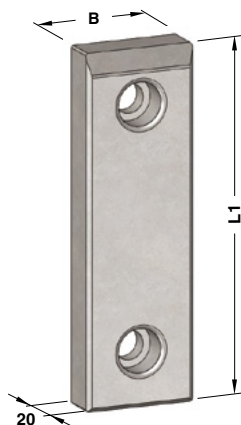
**VW CODE**  
**39D 863/62**

VW CODE	B	L1	FORM	VW CODE	B	L1	FORM	VW CODE	B	L1	FORM
39D 863/62	50	80	A	39D 863/76	80	200	A	39D 863/94	125	125	C
39D 863/63	50	100	A	39D 863/81	100	50	B	39D 863/95	125	160	C
39D 863/64	50	125	A	39D 863/82	100	80	B	39D 863/96	125	200	C
39D 863/65	50	160	A	39D 863/83	100	100	A	39D 863/101	160	50	B
39D 863/66	50	200	A	39D 863/84	100	125	A	39D 863/102	160	80	B
39D 863/71	80	50	B	39D 863/85	100	160	A	39D 863/103	160	100	C
39D 863/72	80	80	A	39D 863/86	100	200	A	39D 863/104	160	125	C
39D 863/73	80	100	A	39D 863/91	125	50	B	39D 863/105	160	160	C
39D 863/74	80	125	A	39D 863/92	125	80	B	39D 863/106	160	200	C
39D 863/75	80	160	A	39D 863/93	125	100	C				

**SINTERED STEEL WEAR PLATE TYPE VDI 3357**  
**GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE TIP VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO SINTERIZZATO TIPO VDI 3357**

**Notes**

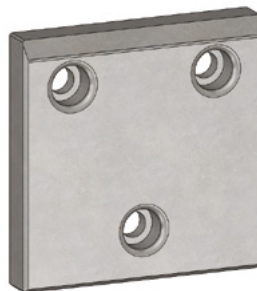
**Material:** Syntered metal



**FORM A**



**FORM B**



**FORM C**

Standard VW/Audi



<b>VW CODE</b>
39D 863/201

VW CODE	B	L1	FORM	VW CODE	B	L1	FORM	VW CODE	B	L1	FORM
39D 863/200	50	80	A	39D 863/210	80	200	A	39D 863/220	125	125	C
39D 863/201	50	100	A	39D 863/211	100	50	B	39D 863/221	125	160	C
39D 863/202	50	125	A	39D 863/212	100	80	B	39D 863/222	125	200	C
39D 863/203	50	160	A	39D 863/213	100	100	A	39D 863/223	160	50	B
39D 863/204	50	200	A	39D 863/214	100	125	A	39D 863/224	160	80	B
39D 863/205	80	50	B	39D 863/215	100	160	A	39D 863/225	160	100	C
39D 863/206	80	80	A	39D 863/216	100	200	A	39D 863/226	160	125	C
39D 863/207	80	100	A	39D 863/217	125	50	B	39D 863/227	160	160	C
39D 863/208	80	125	A	39D 863/218	125	80	B	39D 863/228	160	200	C
39D 863/209	80	160	A	39D 863/219	125	100	C				

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



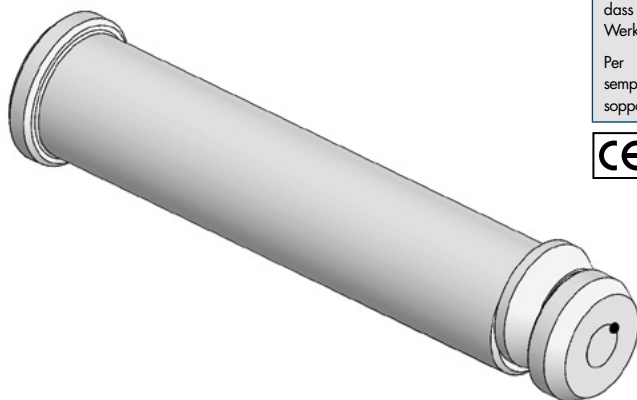
Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

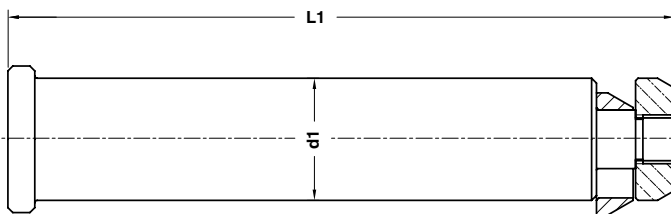
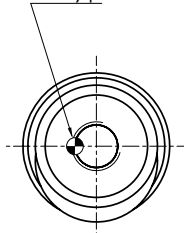
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.



Security pin



ORDER EXAMPLE	VW CODE
	39D 866/4

VW CODE	Max load (kg)	Max die weight (kg)	L1	d1	Material
39D 866/3	3200	6400	175	32	CK45
39D 866/4	5000	10000	225	40	CK45
39D 866/5	8000	16000	273	50	CK45
39D 866/6	12500	25000	347	63	CK45
39D 866/7	31500	63000	422	76	42CrMo4 + QT
39D 866/25	8000	16000	221	50	CK45
39D 866/26	12500	25000	277	63	CK45



## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO

Only for replacement, until exhaustion of stocks  
 Nur zur Reparatur, bis Bestand aufgebraucht ist  
 Solo per riparazione, fino ad esaurimento scorte



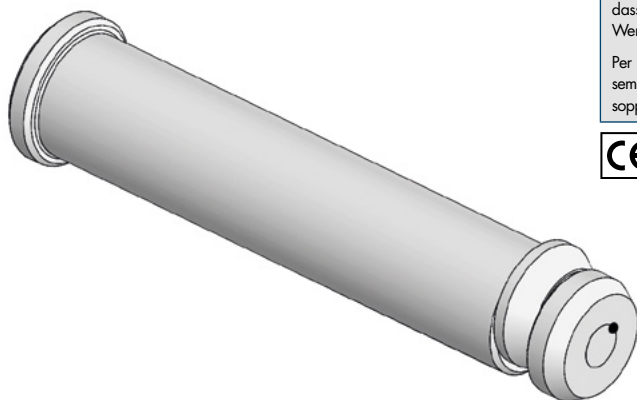
Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

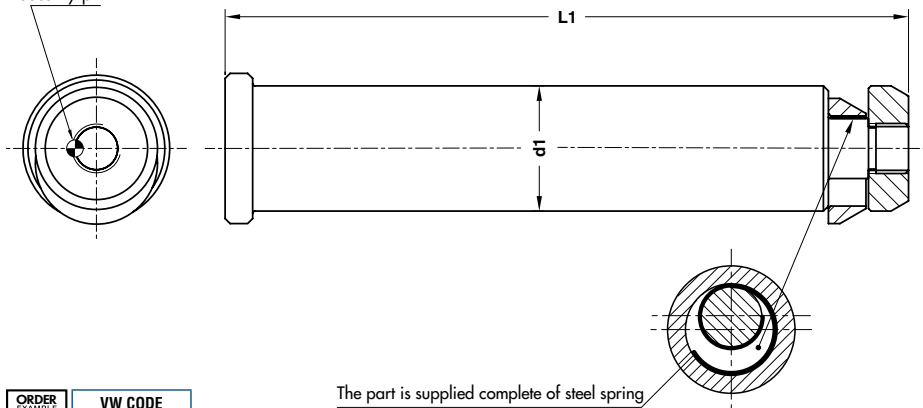
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.



Security pin



The part is supplied complete of steel spring

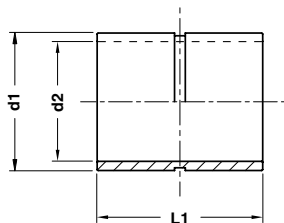
ORDER EXAMPLE 	VW CODE
	39D 866/14

VW CODE	Max load (kg)	Max die weight (kg)	d1	L1	Material
39D 866/13	3200	6400	32	175	CK45
39D 866/14	5000	10000	40	225	CK45
39D 866/15	8000	16000	50	273	CK45
39D 866/16	12500	25000	63	347	CK45
39D 866/17	31500	63000	76	422	42CrMo4 + QT

## BUSH FOR LIFTING PIN - BUCHSE FÜR TRAGBOLZEN - BOCCOLA PER PERNO DI SOLLEVAMENTO



**FORM A**



**FORM B**

### Notes

**Material:** Si35

**STOCK**

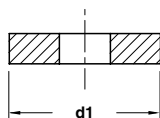
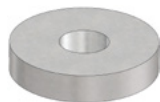


VW CODE

39D 867/11

VW CODE	d1	d2	FORM
39D 867/10	44	34	A
39D 867/11	52	42	A
39D 867/12	62	52	A
39D 867/13	75	65	A
39D 867/14	100	78	B
39D 867/15	105	78	B

## WASHER - SCHEIBE - RONDELLA



### Notes

**Material:** CK45

STOCK



**VW CODE**  
39D 869/10

VW CODE	d1
39D 869/3	35
39D 869/4	40
39D 869/5	50
39D 869/6	65
39D 869/8	80
39D 869/10	100
39D 869/13	130

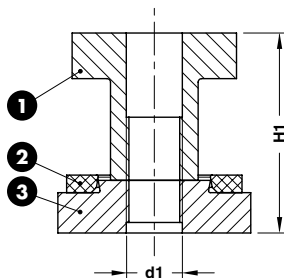
Standard VW/Audi

# 39D 870

## AIR CYLINDER FIXING - VERSCHRAUBUNG - FISSAGGIO CILINDRO



**FORM A**



### Notes

- ① **Material:** CK45
- ② **Material:** Elastomer 90 SH
- ③ **Material:** CK45

STOCK



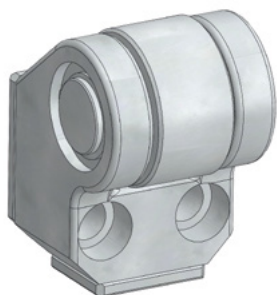
**VW CODE**  
39D 870/20

VW CODE	d1	H1	FORM
39D 870/16	M16x1,5	57	A
39D 870/20	M20x1,5	63	A
39D 870/27	M27x2,0	65	B

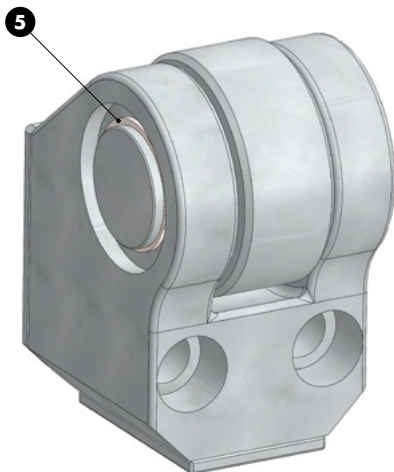


**FORM B**

CAM ROLLER - ROLLENBOCK - SUPPORTO CON RULLO

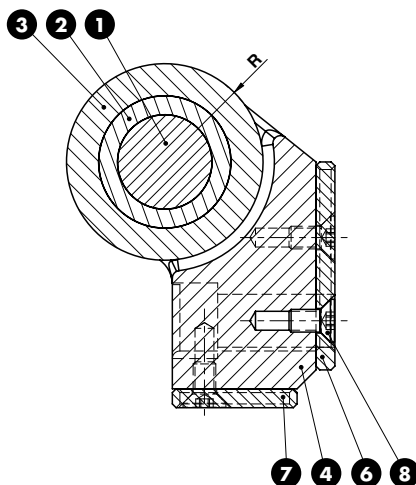


39D 872/20



39D 872/21

Notes	
1	<b>Material:</b> 16MnCr5 <b>HRC:</b> 60÷62
2	<b>Material:</b> Bronze + Graphite <b>HB</b> >190
3	<b>Material:</b> X210Cr12 <b>HRC:</b> 60÷62
4	<b>Material:</b> 42CrMo4
5	E25 DIN 471
6	<b>7</b> <b>Material:</b> Si37
8	DIN EN ISO M6x12 (x5)

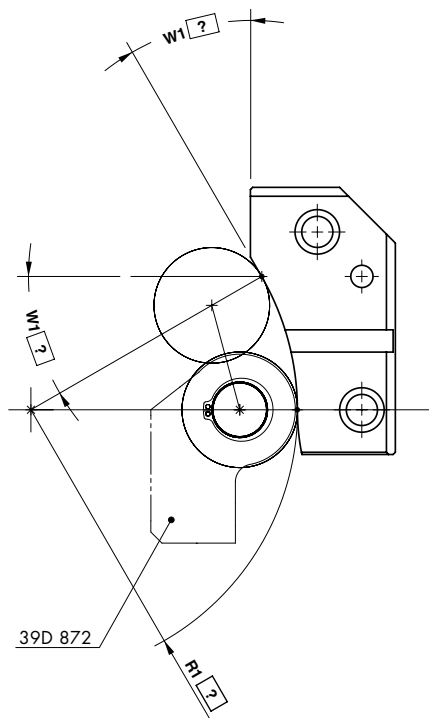
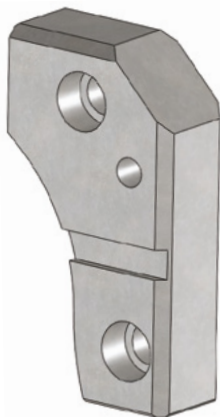


	<b>VW CODE</b>
	39D 872/21
<b>VW CODE</b>	
39D 872/20	
39D 872/21	

ACCELERATION CAM - SCHIEBERVORBESCHLEUNIGUNG - CAMMA DI ACCELERAZIONE

Notes

Materials: 90MnCrV8 - HRC: 60÷62

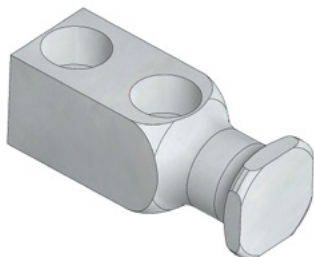


Standard VW/Audi

	VW CODE	W1?	R1?
	39D 873/10	W1=30°	R1=120

VW CODE	SIDE
39D 873/10	RIGHT
39D 873/11	LEFT

## LIFTING BRACKET VDI 3366 - TRAGZAPFEN VDI 3366 - STAFFA DI SOLLEVAMENTO VDI 3366



FORM A



FORM B

## Notes

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>

Screws not included



STOCK



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.



## VW CODE

39D 876/11

VW CODE	Max load (kg)	Max die weight (kg)	FORM	VW CODE	Max load (kg)	Max die weight (kg)	FORM
39D 876/10	320	640	A	39D 876/15	5000	10000	A
39D 876/11	630	1260	A	39D 876/16	8000	16000	B
39D 876/12	1250	2500	A	39D 876/17	12500	25000	B
39D 876/13	2000	4000	A	39D 876/18	20000	40000	B
39D 876/14	3200	6400	A				

AIR CYLINDER FIXING - ZIEHTEILHEBER - FISSAGGIO CILINDRO



39D882/2



39D882/3

STOCK

Notes	
<b>Material:</b>	
39D882/2 - 34Cr4	
39D882/3 - CK45	

ORDER EXAMPLE	VW CODE
	39D 882/2

VW CODE
39D 882/2
39D 882/3

AIR CYLINDER ADAPTER - TEILHEBER - ADATTATORE PER CILINDRO



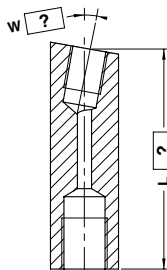
Notes	
<b>Material:</b> CK45	

STOCK

ORDER EXAMPLE	VW CODE
	39D 887/1

VW CODE
39D 887/1

AIR CYLINDER ADAPTER - TEILHEBER - ADATTATORE PER CILINDRO



L max = 100	

Notes	
<b>Material:</b> CK45	

ORDER EXAMPLE	VW CODE	L=75	W=5°
	39D 887/2	75	5°

VW CODE
39D 887/2

Standard VW/Audi

## WEAR PLATE SELF-LUBRICATING DECKLEISTE BRONZE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE

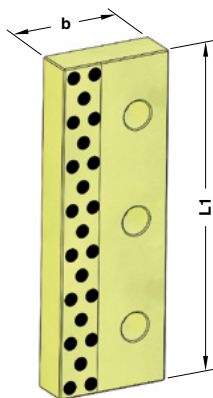
### Notes

**Material:** Bronze + Graphite  
**HB** > 190

STOCK



**FORM A**



**FORM B**



**FORM C**



**VW CODE**  
39D 890/26

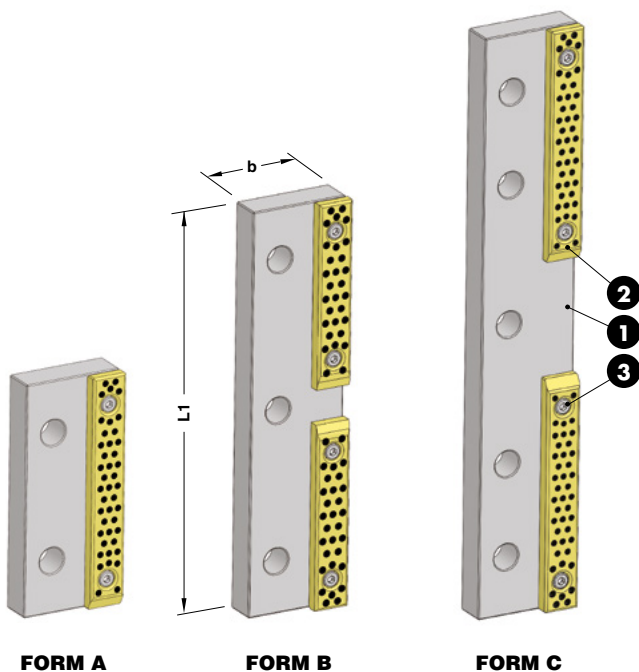
VW CODE	b	L1	FORM	VW CODE	b	L1	FORM
39D 890/25	85	160	A	39D 890/16	125	200	A
39D 890/26	85	200	A	39D 890/17	125	250	B
39D 890/27	85	250	B	39D 890/18	125	300	B
39D 890/28	85	300	B	39D 890/19	125	350	B
39D 890/29	85	350	B	39D 890/20	125	400	C
39D 890/30	85	400	C	39D 890/21	125	450	C
39D 890/15	125	160	A	39D 890/22	125	500	C



## WEAR PLATE DECKLEISTE SCHIEBERFÜHRUNG PIASTRA GUIDA

### Notes

- 1 Material: CK45
- 2 39D 954/11÷39
- 3 DIN 912 M8x16



**FORM A**

**FORM B**

**FORM C**

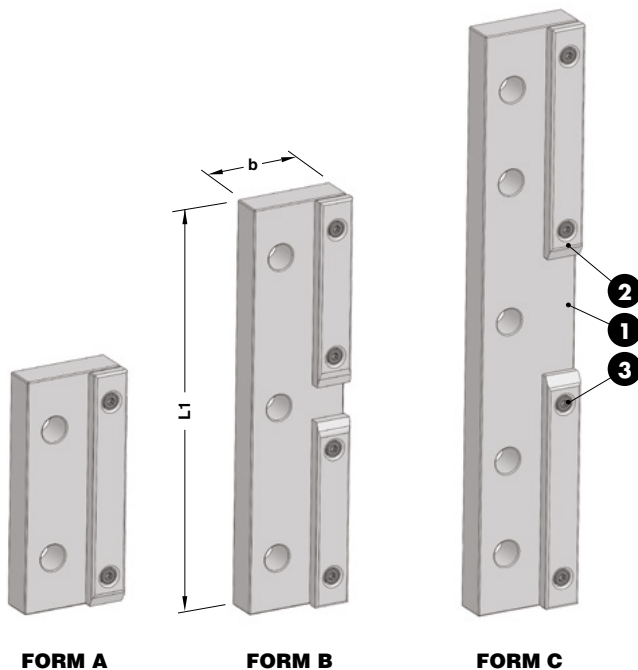
ORDER EXAMPLE	VW CODE 39D 890/51
------------------	-----------------------

VW CODE	b	L1	FORM	VW CODE	b	L1	FORM
39D 890/50	85	160	A	39D 890/60	125	160	A
39D 890/51	85	200	A	39D 890/61	125	200	A
39D 890/52	85	250	B	39D 890/62	125	250	B
39D 890/53	85	300	B	39D 890/63	125	300	B
39D 890/54	85	350	B	39D 890/64	125	350	B
39D 890/55	85	400	C	39D 890/65	125	400	C
39D 890/56	85	450	C	39D 890/66	125	450	C
39D 890/57	85	500	C	39D 890/67	125	500	C

## SINTERED STEEL WEAR PLATE GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE PIASTRA GUIDA IN ACCIAIO SINTERIZZATO

### Notes

- 1 Material: CK45
- 2 39D 954/71÷99
- 3 DIN 912 M8x16



**FORM A**

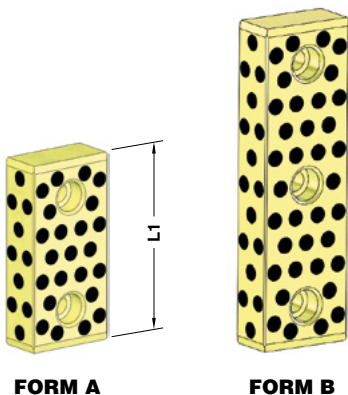
**FORM B**

**FORM C**

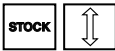
ORDER EXAMPLE	VW CODE
	39D 890/71

VW CODE	b	L1	FORM	VW CODE	b	L1	FORM
39D 890/70	85	160	A	39D 890/80	125	160	A
39D 890/71	85	200	A	39D 890/81	125	200	A
39D 890/72	85	250	B	39D 890/82	125	250	B
39D 890/73	85	300	B	39D 890/83	125	300	B
39D 890/74	85	350	B	39D 890/84	125	350	B
39D 890/75	85	400	C	39D 890/85	125	400	C
39D 890/76	85	450	C	39D 890/86	125	450	C
39D 890/77	85	500	C	39D 890/87	125	500	C

**GUIDE BAR SELF-LUBRICATING VDI 3357**  
**FÜHRUNGSLEISTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**LARDONE AUTOLUBRIFICANTE VDI 3357**



**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**

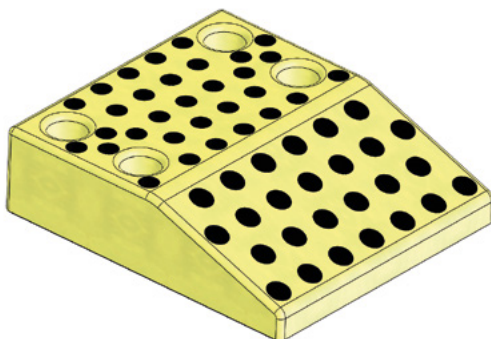


 ORDER EXAMPLE	VW CODE
	39D 892/12

VW CODE	L1	FORM
39D 892/10	125	A
39D 892/11	160	A
39D 892/12	200	B
39D 892/15	125	A
39D 892/16	160	A
39D 892/17	200	B

Standard VW/Audi

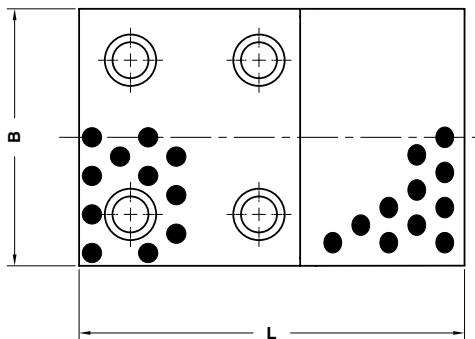
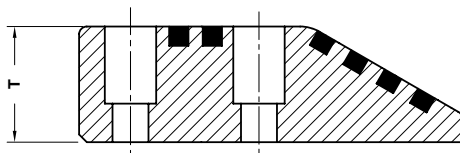
## CAM DWELL WEAR PLATE SELF-LUBRICATING VDI 3357 ÜBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF VDI 3357 CUNEO AUTOLUBRIFICANTE VDI 3357



**Notes**

**Material:** Bronze + Graphite  
**HB > 190**

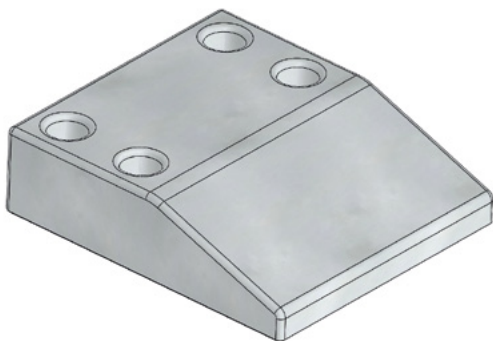
STOCK



	VW CODE
	39D 894/131

VW CODE	B	L	T	VW CODE	B	L	T
39D 894/130	100	170	45	39D 894/136	125	150	45
39D 894/131	125	170	45	39D 894/137	125	170	60
39D 894/132	150	170	45	39D 894/138	150	150	45
39D 894/134	100	150	45	39D 894/139	150	170	60
39D 894/135	100	170	60				

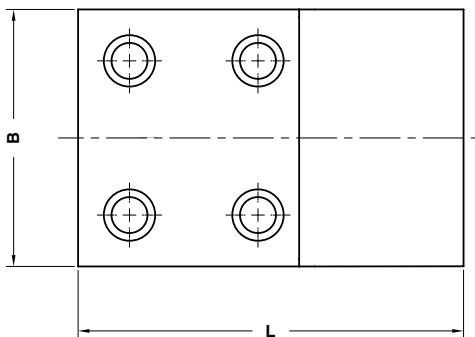
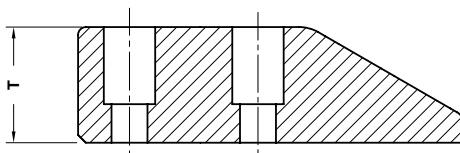
**CAM DWELL WEAR PLATE STEEL VDI 3357**  
**ÜBERLAUFKEILE STAHL VDI 3357**  
**CUNEO IN ACCIAIO VDI 3357**



**Notes**  
**Material:** X155CrVMo121KU  
**HRC:** 58÷62

**STOCK**

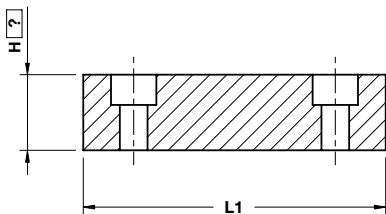
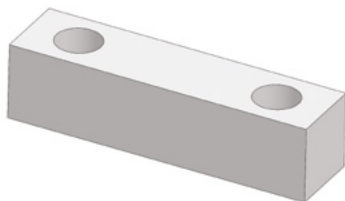
Standard VW/Audi



	<b>VW CODE</b>
	39D 894/151

VW CODE	B	L	T	VW CODE	B	L	T
39D 894/150	100	170	45	39D 894/156	125	150	45
39D 894/151	125	170	45	39D 894/157	125	170	60
39D 894/152	150	170	45	39D 894/158	150	150	45
39D 894/154	100	150	45	39D 894/159	150	170	60
39D 894/155	100	170	60				

BALANCE BLOCK - ENDDRUCKPLATTE - DISTANZIALE DI BATTUTA




H min. = 30

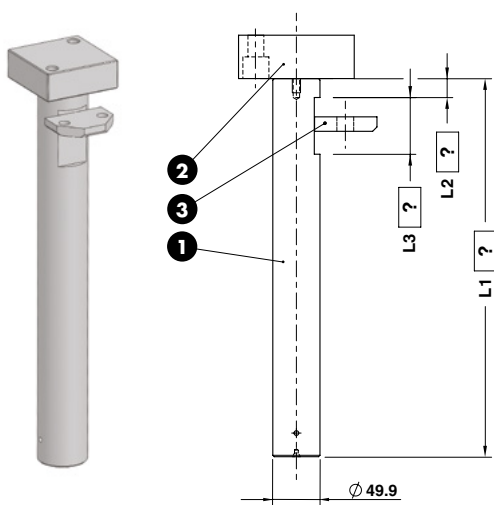
Notes

**Material:** S137  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione



	VW CODE	H=35
	39D 895/11	35
VW CODE		L1
39D 895/1		80
39D 895/2		120
39D 895/3		200
39D 895/11		80
39D 895/12		120
39D 895/13		200

**COMPENSATION PIN GROUP  
 AUSGLEICHSDRUCKBOLZEN  
 GRUPPO PERNO DI COMPENSAZIONE**



**Notes**

**1 2 3**

**Material:** 16MnCr5 - HRC: 60÷64

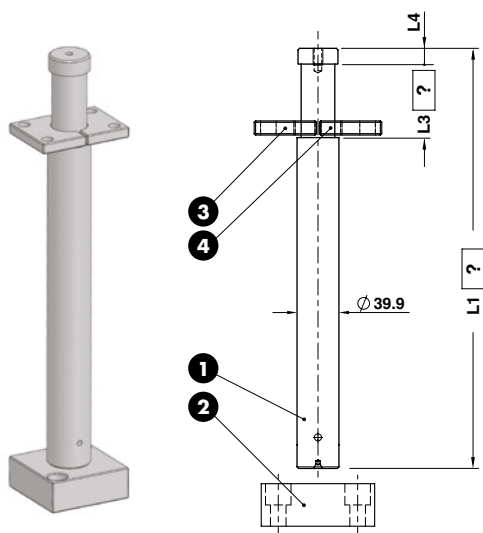


ORDER EXAMPLE	VW CODE	L1=400	L2=20	L3=60
	39D 896/1	400	20	60

VW CODE
39D 896/1

Standard VW/Audi

**COMPENSATION PIN GROUP  
 AUSGLEICHSDRUCKBOLZEN  
 GRUPPO PERNO DI COMPENSAZIONE**



**Notes**

**1 2 3 4**

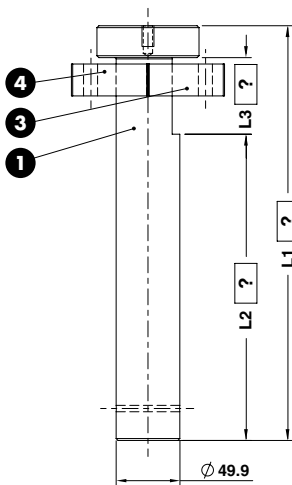
**Material:** 16MnCr5 - HRC: 60÷64



ORDER EXAMPLE	VW CODE	L1=300	L3=60	L4=45
	39D 896/2	300	60	45

VW CODE
39D 896/2

**COMPENSATION PIN GROUP**  
**AUSGLEICHSDRUCKBOLZEN**  
**GRUPPO PERNO DI COMPENSAZIONE**



Notes

1 3 4

Material: 16MnCr5 - HRC: 60÷64

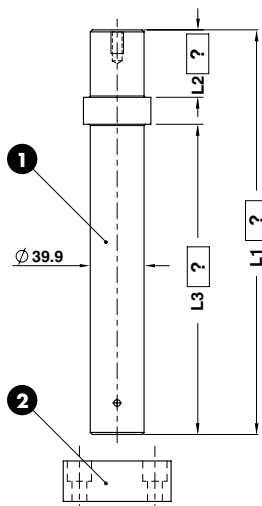


VW CODE	L1=325	L2=240	L3=60
39D 896/3	325	240	60

VW CODE

39D 896/3

**COMPENSATION PIN GROUP**  
**AUSGLEICHSDRUCKBOLZEN**  
**GRUPPO PERNO DI COMPENSAZIONE**



Notes

1 2

Material: 16MnCr5 - HRC: 60÷64



VW CODE	L1=300	L2=50	L3=230
39D 896/4	300	50	230

VW CODE

39D 896/4



## BACKING PLATE - DISTANZKAPPE - REAZIONE PER CILINDRO



## Notes

**Material:** 16MnCr5 - HRC: 60÷64

STOCK



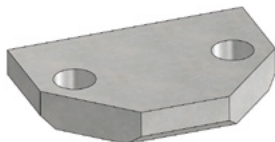
VW CODE

39D 896/1-02

VW CODE

39D 896/1-02

## RETAINER - SICHERUNGSPLATTE - PIASTRINA



## Notes

**Material:** 16MnCr5 - HRC: 60÷64

STOCK



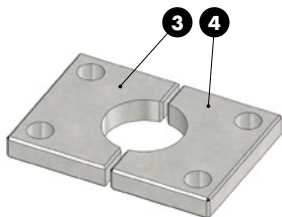
VW CODE

39D 896/1-03

VW CODE

39D 896/1-03

## RETAINER - SICHERUNGSPLATTE - PIASTRINA



## Notes

3 4

**Material:** 16MnCr5 - HRC: 60÷64

STOCK



VW CODE

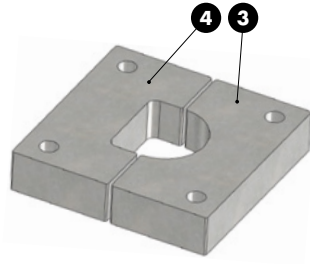
39D 896/2-04

VW CODE

39D 896/2-03

39D 896/2-04

## RETAINER - SICHERUNGSPLATTE - PIASTRINA



## Notes

**3 4**

**Material:** 16MnCr5 - **HRC:** 60÷64

**STOCK**

**ORDER  
EXAMPLE**

**VW CODE**

39D 896/3-04

**VW CODE**

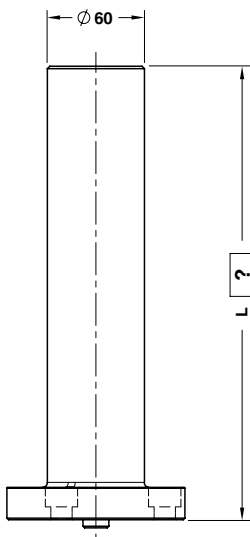
39D 896/3-03

39D 896/3-04

## AIR PIN - UNTERLUFTBOLZEN - CANDELA



**39D 951/1**



L max = 450

**Notes**

**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>  
 Only for replacement  
 Nur für Reparatur  
 Solo per riparazione



Standard VW/Audi



**39D 951/2**

	<b>VW CODE</b>	<b>L=200</b>
	39D 951/1	200

VW CODE	
39D 951/1	
39D 951/2	

## AIR PIN - UNTERLUFTBOLZEN - CANDELA



L max = 450

### Notes

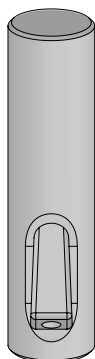
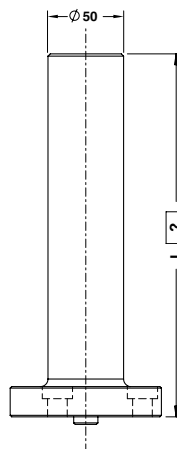
**Material:** CK45 - 800÷1000 N/mm<sup>2</sup>



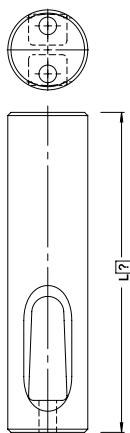
**39D 951/11**



**39D 951/12**



**39D 951/22**

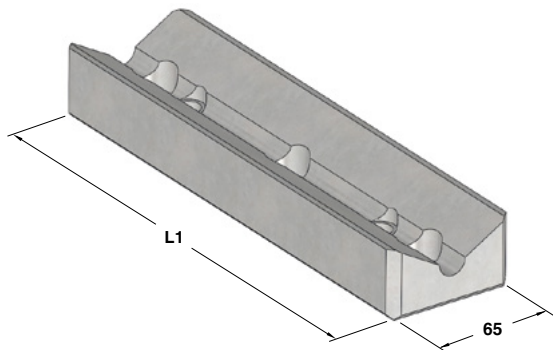


VW CODE	L=200
39D 951/12	200

### VW CODE

39D 951/11  
39D 951/12  
39D 951/22

**"V" DRIVER STEEL VDI 3357  
PRISMENFÜHRUNG STAHL VDI 3357  
GUIDA A "V" IN ACCIAIO VDI 3357**



**Notes**  
**Material:** CK45 - **HRC:** 58÷60

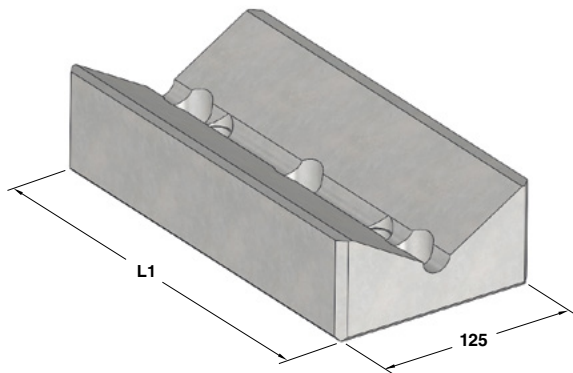
**STOCK**

**ORDER EXAMPLE** **VW CODE**  
39D 952/12

VW CODE	L1
39D 952/10	150
39D 952/11	200
39D 952/12	250
39D 952/13	300

Standard VW/Audi

**"V" DRIVER STEEL VDI 3357  
PRISMENFÜHRUNG STAHL VDI 3357  
GUIDA A "V" IN ACCIAIO VDI 3357**



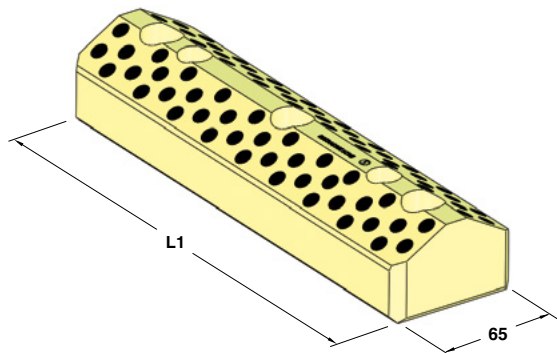
**Notes**  
**Material:** CK45 - **HRC:** 58÷60

**STOCK**

**ORDER EXAMPLE** **VW CODE**  
39D 952/23

VW CODE	L1
39D 952/20	150
39D 952/21	200
39D 952/22	250
39D 952/23	300

**"V" DRIVER SELF-LUBRICATING VDI 3357**  
**PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**



## Notes

**Material:** Bronze + Graphite  
**HB** >190

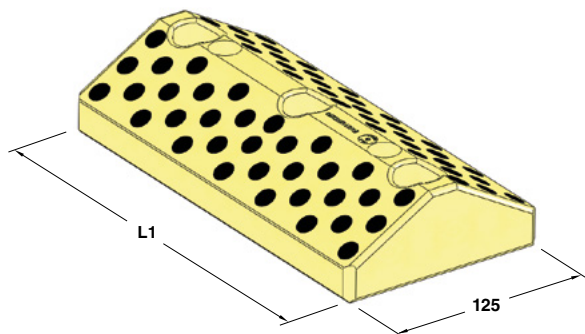
STOCK

ORDER  
EXAMPLE

VW CODE  
 39D 952/43

VW CODE	L1
39D 952/40	150
39D 952/41	200
39D 952/42	250
39D 952/43	300

**"V" DRIVER SELF-LUBRICATING VDI 3357**  
**PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**



## Notes

**Material:** Bronze + Graphite  
**HB** >190

STOCK

ORDER  
EXAMPLE

VW CODE  
 39D 952/52

VW CODE	L1
39D 952/50	150
39D 952/51	200
39D 952/52	250
39D 952/53	300

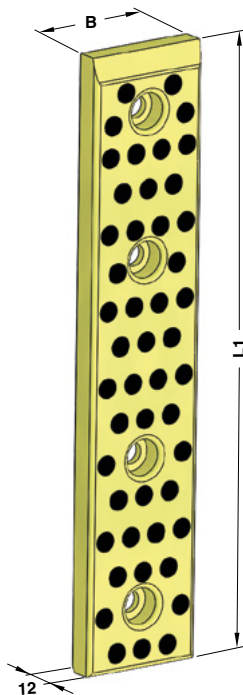
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**

**Notes**

**Material:** Bronze + Graphite  
**HB > 190**



**FORM A**



**FORM B**

	<b>VW CODE</b>
	39D 954/12

VW CODE	B	L1	FORM	VW CODE	B	L1	FORM	VW CODE	B	L1	FORM
39D 954/11	30	80	A	39D 954/21	50	80	A	39D 954/31	80	80	A
39D 954/12	30	100	A	39D 954/22	50	100	A	39D 954/32	80	100	A
39D 954/13	30	125	A	39D 954/23	50	125	A	39D 954/33	80	125	A
39D 954/14	30	160	A	39D 954/24	50	160	A	39D 954/34	80	160	A
39D 954/15	30	200	A	39D 954/25	50	200	A	39D 954/35	80	200	A
39D 954/16	40	80	A	39D 954/26	60	80	A	39D 954/36	50	250	B
39D 954/17	40	100	A	39D 954/27	60	100	A	39D 954/37	50	300	B
39D 954/18	40	125	A	39D 954/28	60	125	A	39D 954/38	50	350	B
39D 954/19	40	160	A	39D 954/29	60	160	A	39D 954/39	50	400	B
39D 954/20	40	200	A	39D 954/30	60	200	A				

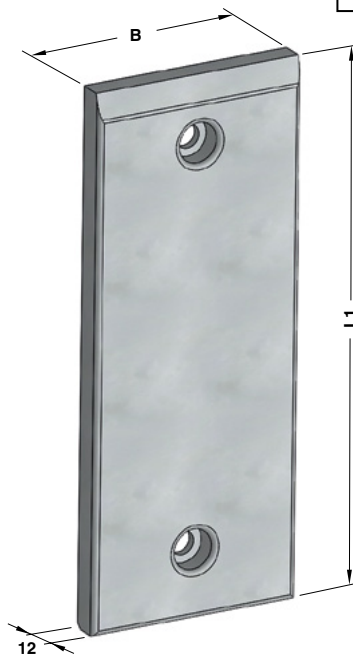
Standard VW/Audi

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**

**Notes**

**Material:** 16MnCr5 - **HRC:** 58÷60

STOCK



**VW CODE**

**39D 954/42**

VW CODE	B	L1	VW CODE	B	L1
39D 954/41	30	80	39D 954/54	50	160
39D 954/42	30	100	39D 954/55	50	200
39D 954/43	30	125	39D 954/56	60	80
39D 954/44	30	160	39D 954/57	60	100
39D 954/45	30	200	39D 954/58	60	125
39D 954/46	40	80	39D 954/59	60	160
39D 954/47	40	100	39D 954/60	60	200
39D 954/48	40	125	39D 954/61	80	80
39D 954/49	40	160	39D 954/62	80	100
39D 954/50	40	200	39D 954/63	80	125
39D 954/51	50	80	39D 954/64	80	160
39D 954/52	50	100	39D 954/65	80	200
39D 954/53	50	125			



**SINTERED STEEL WEAR PLATE TYPE VDI 3357**  
**GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE TIP VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO SINTERIZZATO TIPO VDI 3357**

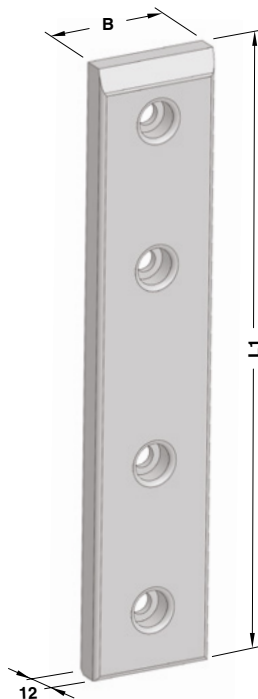
**Notes**

**Material:** Sintered metal

STOCK



**FORM A**



**FORM B**

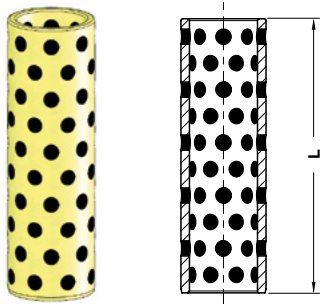


**VW CODE**  
39D 954/72

VW CODE	B	L1	FORM	VW CODE	B	L1	FORM	VW CODE	B	L1	FORM
39D 954/71	30	80	A	39D 954/81	50	80	A	39D 954/91	80	80	A
39D 954/72	30	100	A	39D 954/82	50	100	A	39D 954/92	80	100	A
39D 954/73	30	125	A	39D 954/83	50	125	A	39D 954/93	80	125	A
39D 954/74	30	160	A	39D 954/84	50	160	A	39D 954/94	80	160	A
39D 954/75	30	200	A	39D 954/85	50	200	A	39D 954/95	80	200	A
39D 954/76	40	80	A	39D 954/86	60	80	A	39D 954/96	50	250	B
39D 954/77	40	100	A	39D 954/87	60	100	A	39D 954/97	50	300	B
39D 954/78	40	125	A	39D 954/88	60	125	A	39D 954/98	50	350	B
39D 954/79	40	160	A	39D 954/89	60	160	A	39D 954/99	50	400	B
39D 954/80	40	200	A	39D 954/90	60	200	A				

Standard VW/Audi

## GUIDE BUSH - FÜHRUNGSBUCHSE - BOCCOLA AUTOLUBRIFICANTE



## Notes

**Material:** Bronze + Graphite  
**HB** >190

STOCK



VW CODE

39D 956/1

VW CODE

L

39D 956/1

115

39D 956/2

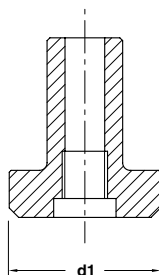
145

39D 956/3

170

## 39D 958

## STOP PIN - HALTEBOLZEN - PERNO DI ARRESTO



## Notes

**Material:** 42CrMo4

Only for replacement  
 Nur für Reparatur  
 Solo per riparazione

STOCK



VW CODE

39D 958/2

VW CODE

d1

39D 958/1

100

39D 958/2

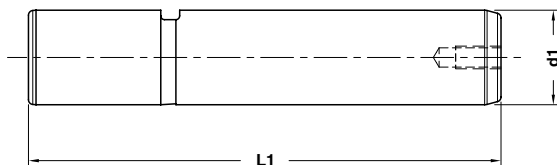
80

## GUIDE POST DIN 9833 TYPE FÜHRUNGSSÄULE DIN 9833 TYP COLONNA GUIDA TIPO DIN 9833

### Notes

**Material:** 1.6MnCr5

**HRC:** 60÷62

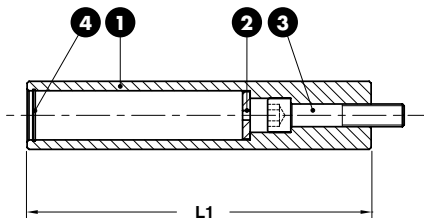


Standard VW/Audi

	VW CODE
	39D 969/47

VW CODE	d1	L1	VW CODE	d1	L1
39D 969/13	25	125	39D 969/45	50	250
39D 969/14	25	140	39D 969/46	50	280
39D 969/15	25	160	39D 969/47	50	315
39D 969/16	25	180	39D 969/48	50	355
39D 969/23	32	140	39D 969/53	63	224
39D 969/24	32	160	39D 969/54	63	250
39D 969/25	32	180	39D 969/55	63	280
39D 969/26	32	200	39D 969/56	63	315
39D 969/32	40	160	39D 969/57	63	355
39D 969/33	40	180	39D 969/58	63	400
39D 969/34	40	200	39D 969/64	80	250
39D 969/35	40	224	39D 969/65	80	280
39D 969/36	40	250	39D 969/66	80	315
39D 969/37	40	280	39D 969/67	80	355
39D 969/43	50	200	39D 969/68	80	400
39D 969/44	50	224			

## LIFTER - FEDERBOLZEN - SOLLEVATORE



## Notes

- 1** Material: CK45 - HRC: 60÷62
- 2** Material: 90MnCrV8  
HRC: 54÷60
- 3** M10x60 DIN 912
- 4** Seeger ring DIN 472

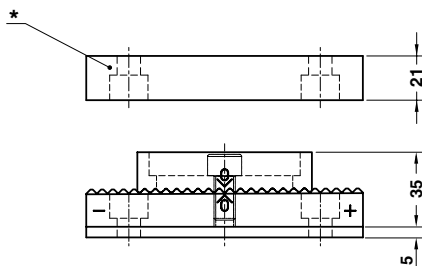
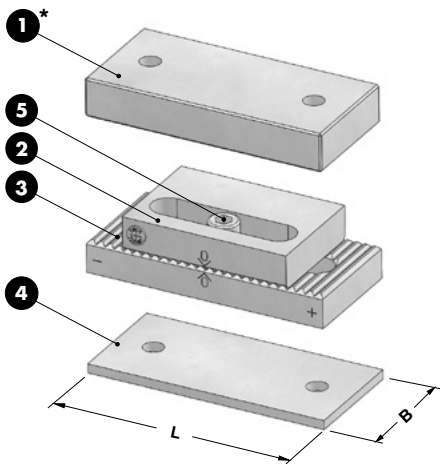
STOCK



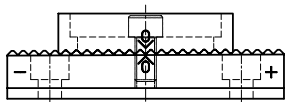
VW CODE	39D 972/11
---------	------------

VW CODE	L1
39D 972/11	182
39D 972/12	200
39D 972/13	220

SPACER PLATE TOOTHED - DISTANZPLATTE GEZAHNT - TASSELLO DI COMPENSAZIONE



FORM A



FORM B

Notes

1 2 3

Material: 90MnCrV8 - HRC: 58±60

4 Material: X155CrVMo12

5 DIN 912



\* Pressure plate only in FORM A  
Druckplatte nur bei Form A enthalten  
Piastra di reazione solo in FORM A

Standard VW/Audi

ORDER EXAMPLE	VW CODE		
	39D 976/11		
VW CODE	L	B	FORM
39D 976/10	130	60	A
39D 976/11	160	80	A
39D 976/20	130	60	B
39D 976/21	160	80	B

## PLATE FOR SENSOR - HALTERUNG - PIASTRINA PORTASENSORE



### Notes

**Material:** Si37

**STOCK**

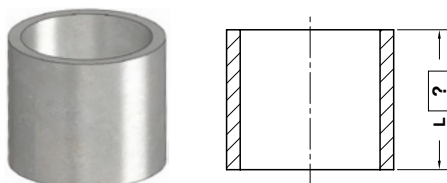


**VW CODE**  
39D 993/1

VW CODE	d1
39D 993/1	19
39D 993/2	31

# 39D 995

## SPACER - DISTANZSTÜCK - DISTANZIALE



### Notes

**Material:** CK45

**10**



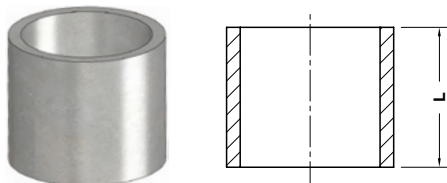
**VW CODE**      **L=37**  
39D 995/4      37

**VW CODE**

39D 995/4

# 39D 995

## SPACER - DISTANZSTÜCK - DISTANZIALE



### Notes

**Material:** CK45

**STOCK**



**VW CODE**  
39D 995/4 L24

VW CODE	L	VW CODE	L	VW CODE	L	VW CODE	L	VW CODE	L
39D 995/4 L17	17	39D 995/4 L28	28	39D 995/4 L37	37	39D 995/4 L47	47	39D 995/4 L57	57
39D 995/4 L24	24	39D 995/4 L29	29	39D 995/4 L38	38	39D 995/4 L48	48	39D 995/4 L57,5	57,5
39D 995/4 L25	25	39D 995/4 L32	32	39D 995/4 L41	41	39D 995/4 L49	49	39D 995/4 L77	77
39D 995/4 L27	27	39D 995/4 L33	33	39D 995/4 L42	42	39D 995/4 L51	51		

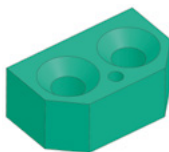
## WASHER/STOP BLOCK - SCHEIBE/HALTEPLATTE - RONDELLA/TASSELLO



**39D 995/5**



**39D 995/6**



**39D 995/8**

### Notes

**Material:**

**39D 995/5** - CK45

**39D 995/6** - 16MnCr5 - **HRC:** 60±62

**39D 995/8** - Polyethylen PE-H

**STOCK**



**VW CODE**

39D 995/6

**VW CODE**

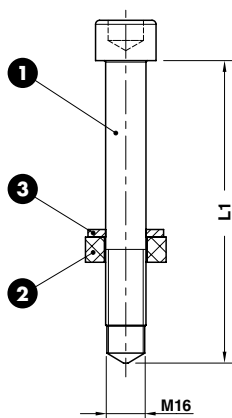
39D 995/5

39D 995/6

39D 995/8

Standard VW/Audi

## RETAINER PIN - ZIEHTEILHEBER - PERNO CON RONDELLA



### Notes

**1** DIN 912

**2** **Material:** Nylatron GSM P30

**3** **Material:** STEEL

**STOCK**



**VW CODE**

39D 995/14

**VW CODE**

**L1**

39D 995/12

120

39D 995/14

135

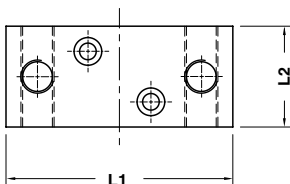
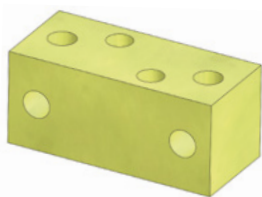
39D 995/15

150

39D 995/16

160

## DISTRIBUTOR - VERTEILERBLOCKE - DISTRIBUTORE



STOCK

### Notes

**Material:** Ms65

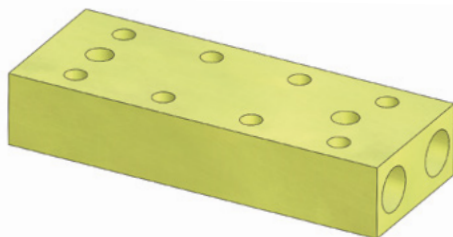


VW CODE

39D 1392/1

VW CODE	L1	L2
39D 1392/1	90	40
39D 1392/2	100	45
39D 1392/3	110	50
39D 1392/4	120	60

## DISTRIBUTOR - VERTEILERBLOCKE - DISTRIBUTORE



### Notes

**Material:** Ms65

STOCK



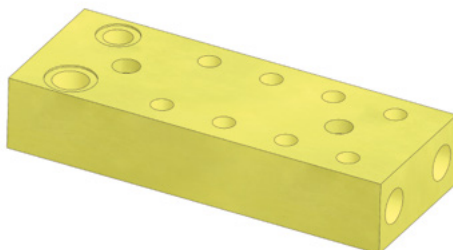
VW CODE

39D 1430/1

VW CODE

39D 1430/1

## DISTRIBUTOR - VERTEILERBLOCKE - DISTRIBUTORE



### Notes

**Material:** Ms65

STOCK



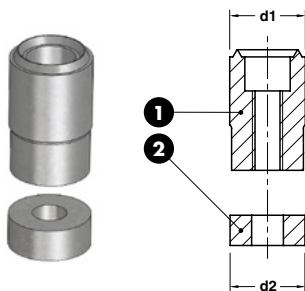
VW CODE

39D 1497/2

VW CODE	CYLINDER DIAMETER
39D 1497/1	≤63
39D 1497/2	>63



**VISUAL LOCATOR SETTING PUNCH**  
**STEMPEL F. ENTGASUNGSNOPPEN**  
**PUNZONE DI VISUALIZZAZIONE**



## Notes

- ① **Material:** X205Cr12KU  
**HRC:** 60÷62
- ② **Material:** X205Cr12KU

STOCK



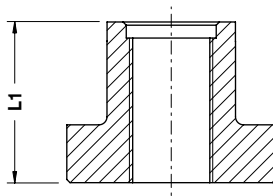
VW CODE

39V 863/10

VW CODE	d1	d2
39V 863/10	10	9,7
39V 863/13	13	12

Standard VW/Audi

**THREADED BUSH - GENWINDEBUCHSE - BOCCOLA FILETTATA**



## Notes

**Material:** CK45

STOCK



VW CODE

39V 1071

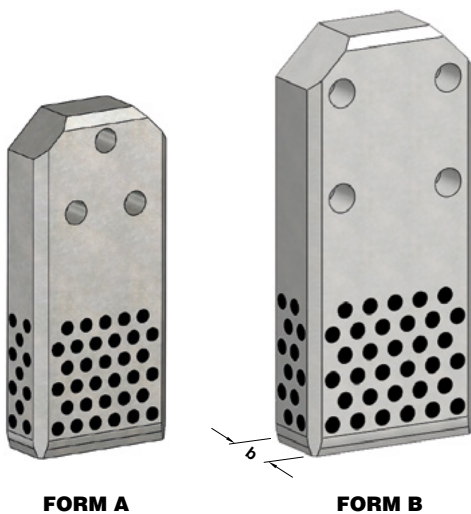
VW CODE	L1
39V 1071/1	50
39V 1071/2	87

**GIB VDI 3387 - FÜHRUNGSLASCHE VDI 3387 - GUIDA VDI 3387**

**Notes**

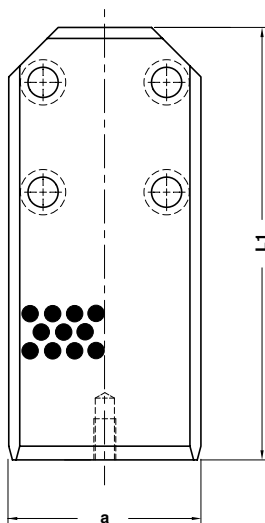
**Material:** CK45 + Graphite  
**HRC:** 58÷60

**STOCK**



**FORM A**

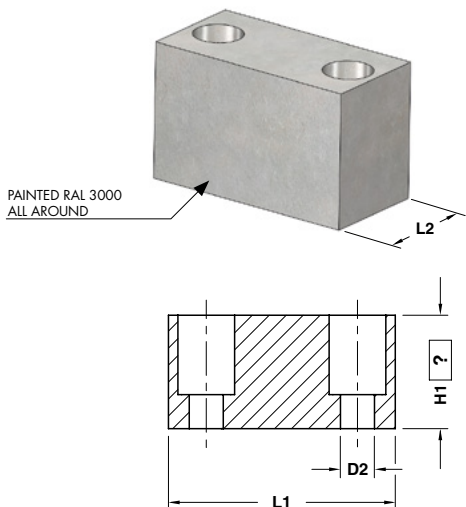
**FORM B**



<b>ORDER EXAMPLE</b> 	<b>VW CODE</b>
	<b>39V 1159/25</b>

VW CODE	a	b	L1	FORM
<b>39V 1159/24</b>	112	45	250	A
<b>39V 1159/25</b>	140	45	315	B
<b>39V 1159/32</b>	190	56	400	B
<b>39V 1159/35</b>	240	56	500	B
<b>39V 1159/36</b>	240	56	630	B
<b>39V 1159/37</b>	140	45	400	B
<b>39V 1159/38</b>	140	56	400	B

## STOP BLOCK - ABSTANDSBLOCK - DISTANZIALE



**Notes**

**Material:** CK45

Only for replacement  
Nur für Reparatur  
Solo per riparazione

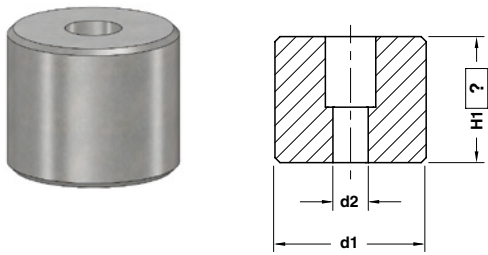
10

	<b>VW CODE</b>	<b>H1=60</b>
	39V 1162/3	60

VW CODE	D2	L1	L2
39V 1162/1	9	60	40
39V 1162/2	11	80	40
39V 1162/3	14	100	40
39V 1162/4	14	100	50
39V 1162/5	14	120	60
39V 1162/6	14	150	80
39V 1162/7	14	160	100
39V 1162/20	18	150	80
39V 1162/21	18	160	100

Standard VW/Audi

## STOP BLOCK - ABSTANDSBLOCK - DISTANZIALE



**Notes**

**Material:** CK45

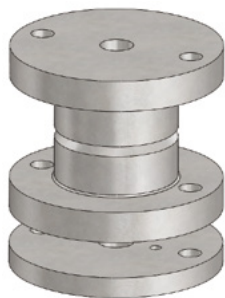
Only for replacement  
Nur für Reparatur  
Solo per riparazione

10

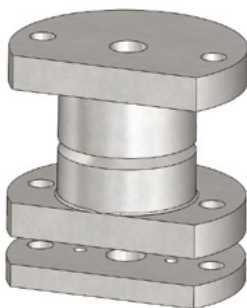
	<b>VW CODE</b>	<b>H1=60</b>
	39V 1162/15	60

VW CODE	d1	d2
39V 1162/14	60	14
39V 1162/26	80	18
39V 1162/15	80	14
39V 1162/17	120	22
39V 1162/18	150	22
39V 1162/25	100	18

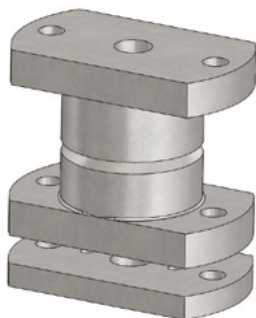
LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO



FORM A



FORM B

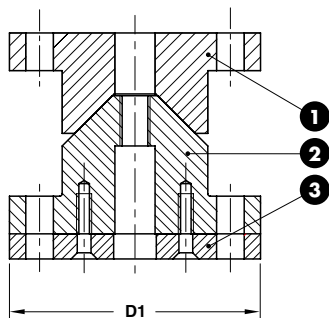



FORM C

**Notes**

1 2 **Material:** 16MnCr5  
**HRC:** 58÷60

3 **Material:** CK45



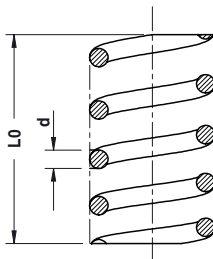
	<b>VW CODE</b>	
	39V 1168/16	
<b>VW CODE</b>	<b>FORM</b>	<b>D1</b>
39V 1168/10	A	100
39V 1168/12	A	120
39V 1168/14	B	100
39V 1168/16	B	120
39V 1168/18	C	100
39V 1168/20	C	120

## COIL SPRING - SCHRAUBENFEDERN - MOLLA A FILO

### Notes

**Material:** 50CrV4

**STOCK**



Standard VW/Audi

	<b>VW CODE</b>
	39V 1176/2

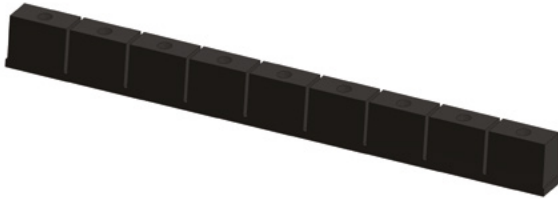
VW CODE	d	axb	L0	VW CODE	d	axb	L0
39V 1176/1	1,00	-	16,5	39V 1176/16	1,75	-	40,0
39V 1176/2	1,00	-	34,5	39V 1176/17	2,00	-	50,0
39V 1176/3	1,25	-	57,5	39V 1176/18	2,00	-	43,5
39V 1176/4	1,50	-	24,5	39V 1176/19	2,00	-	77,5
39V 1176/6	1,50	-	81,0	39V 1176/20	2,00	-	200,0
39V 1176/7	2,00	-	20,0	39V 1176/21	3,00	-	39,5
39V 1176/8	2,10	-	110,0	39V 1176/22	3,00	-	150,0
39V 1176/9	1,50	-	52,5	39V 1176/23	4,00	-	65,0
39V 1176/10	2,20	-	30,5	39V 1176/27	4,00	-	125,0

STRIPPER FOR BLANKING DIES - ABSTREIFER FÜR PLATINENSCHNITTE - ESTRATTORE PER STAMPI

Notes

**Material:** Elastomer 70 SH

STOCK



VW CODE

39V 1178/17

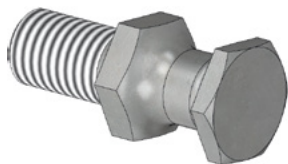
VW CODE

39V 1178/15

39V 1178/16

39V 1178/17

## LIFTING PIN VDI 3366 - TRAGSCHRAUBE VDI 3366 - PERNO DI SOLLEVAMENTO VDI 3366



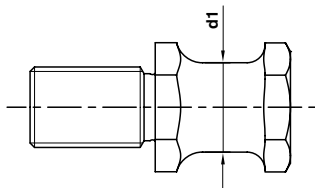
Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragschrauben das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.



**VW CODE**  
 39V 1199/3

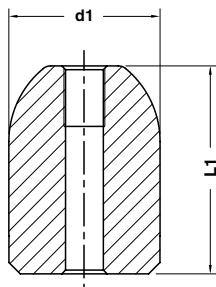
**Notes**

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>

VW CODE	Max load (kg)	Max die weight (kg)	d1	VW CODE	Max load (kg)	Max die weight (kg)	d1
39V 1199/1	320	640	16	39V 1199/4	1500	3000	32
39V 1199/2	500	1000	20	39V 1199/5	2500	5000	40
39V 1199/3	1000	2000	25				

Standard VW/Audi

## LOCATING PIN - ZENTRIERBOLZEN - CENTRAGGIO



**Notes**

**Material:** 16MnCr5 - HRC: 58÷62



**VW CODE**  
 39V 1205/3

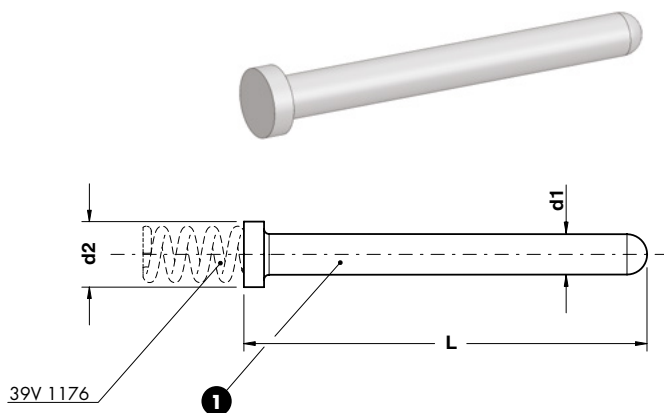
VW CODE	d1	L1
39V 1205/1	22	45
39V 1205/2	22	55
39V 1205/3	40	55
39V 1205/4	40	65
39V 1205/5	40	85

## EJECTOR - ABDRÜCKSTIFT - ESPULSORE

### Notes

**Material:** 16MnCr5  
**HRC:** 58÷60

STOCK



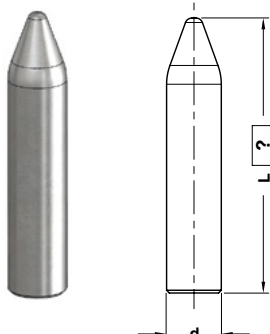
VW CODE

39V 1234/2

VW CODE	d1	d2	L	VW CODE	d1	d2	L	VW CODE	d1	d2	L
39V 1234/1	2,9	8	41	39V 1234/10	5,4	10	42	39V 1234/19	9,9	13	100
39V 1234/2	3,4	8	41	39V 1234/11	5,9	10	42	39V 1234/20	12,9	16	100
39V 1234/3	3,9	8	41	39V 1234/12	6,0	10	30	39V 1234/21	12,9	16	125
39V 1234/4	4,0	8	30	39V 1234/13	6,0	10	40	39V 1234/22	15,9	20	100
39V 1234/5	4,0	8	40	39V 1234/14	6,0	10	60	39V 1234/23	15,9	20	125
39V 1234/6	4,0	8	50	39V 1234/15	6,4	10	42	39V 1234/24	9,9	20	100
39V 1234/7	4,3	10	42	39V 1234/16	8,0	13	80	39V 1234/25	9,9	20	125
39V 1234/8	4,9	10	42	39V 1234/17	8,0	13	100				
39V 1234/9	5,3	10	42	39V 1234/18	9,9	13	80				



## GAGE - EINWEISER - RIFERIMENTO



### Notes

**Material:** 16MnCr5 - **HRC:** 58÷60

Only for replacement

Nur für Reparatur

Solo per riparazione

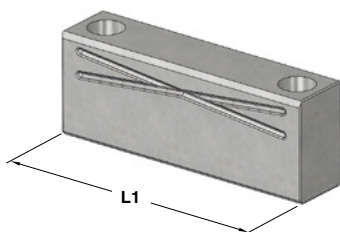


ORDER EXAMPLE 	VW CODE	L=100
	39V 1242/3	100

VW CODE	d
39V 1242/1	16
39V 1242/2	20
39V 1242/3	25

Standard VW/Audi

## LOCATING BLOCK - FANGBACKE - TASSELLO DI CENTRAGGIO



### Notes

**Material:** 16MnCr5 - **HRC:** 60÷62



ORDER EXAMPLE 	VW CODE
	39V 1254/10

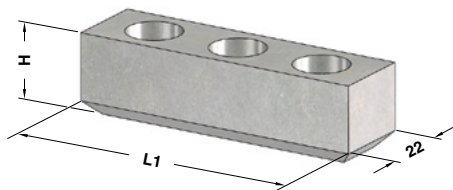
VW CODE	L1
39V 1254/10	100
39V 1254/11	125
39V 1254/12	160
39V 1254/13	200

## KEY - PASSFEDER - CHIAVETTA

### Notes

**Material:** CK45

STOCK



VW CODE

39V 1304/2

VW CODE	H	L1	VW CODE	H	L1	VW CODE	H	L1
39V 1304/1	14	50	39V 1304/7	22	50	39V 1304/11	40	50
39V 1304/2	14	80	39V 1304/8	22	80	39V 1304/12	40	80
39V 1304/3	14	100	39V 1304/9	22	100	39V 1304/13	40	100
39V 1304/4	14	125	39V 1304/10	22	125	39V 1304/14	40	125

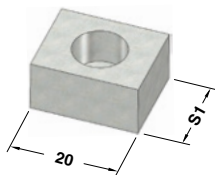
# 39V 1304

## KEY - PASSFEDER - CHIAVETTA

### Notes

**Material:** CK45

STOCK

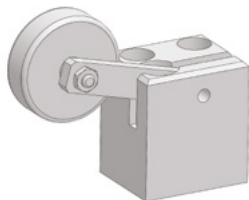


VW CODE

39V 1304/6

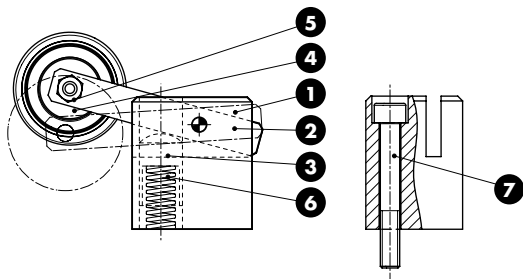
VW CODE	S1
39V 1304/5	12
39V 1304/6	16

**ROLLER STOCK LIFTER - FEDERENDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO**

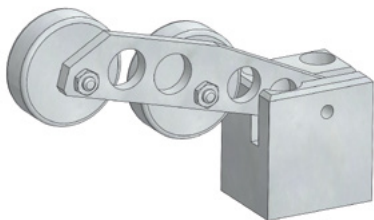


**39V 1569/1**

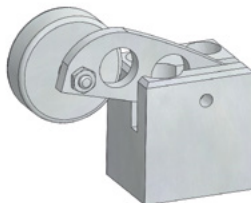
Notes	
<b>1</b>	<b>Material:</b> C15
<b>2</b>	<b>Material:</b> S235JRG2K
<b>3</b>	<b>Material:</b> 42CrMo4
<b>5</b>	<b>Material:</b> Steel
<b>6</b>	Spring
<b>7</b>	Screws M8x60 DIN 912



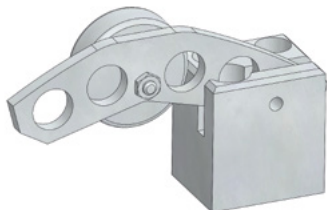
Standard VW/Audi



**39V 1569/2**



**39V 1569/3**



**39V 1569/4**

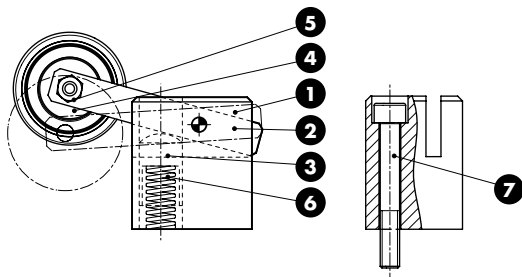
ORDER EXAMPLE	<b>VW CODE</b>
	39V 1569/2

VW CODE
39V 1569/1
39V 1569/2
39V 1569/3
39V 1569/4

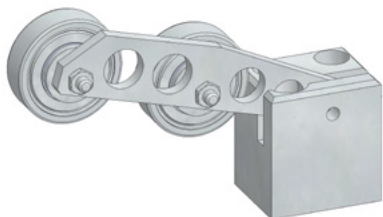
ROLLER STOCK LIFTER - FEDERENDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO



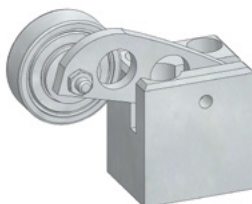
39V 1569/10



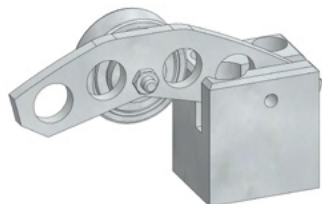
Notes	
1	Material: C15
2	Material: S235JRG2K
3	Material: 42CrMo4
4	Material: Steel
5	DIN 625-1 (6303-2Z)
6	Spring
7	Screws M8x60 DIN 912



39V 1569/11



39V 1569/12  
39V 1569/14



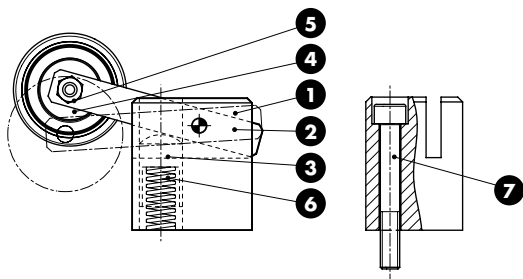
39V 1569/13

ORDER EXAMPLE	VW CODE
	39V 1569/11
VW CODE	
	39V 1569/10
	39V 1569/11
	39V 1569/12
	39V 1569/13
	39V 1569/14

**ROLLER STOCK LIFTER - FEDERENDE LAUFROLLE - RULLINO SOLLEVAMENTO NASTRO**



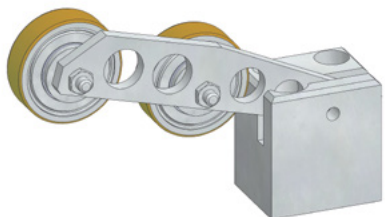
**39V 1569/20**



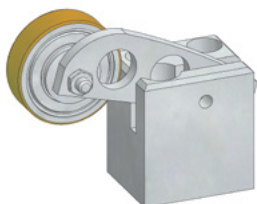
Notes	
<b>1</b>	<b>Material:</b> C15
<b>2</b>	<b>Material:</b> S235JRG2K
<b>3</b>	<b>Material:</b> 42CrMo4
<b>4</b>	<b>Material:</b> Steel
<b>5</b>	<b>Material:</b> Steel + Vulkolan
<b>6</b>	Spring
<b>7</b>	Screws M8x60 DIN 912



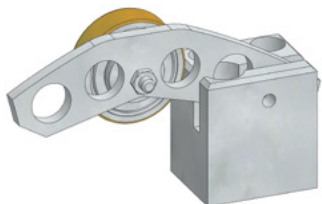
Standard VW/Audi



**39V 1569/21**



**39V 1569/22**

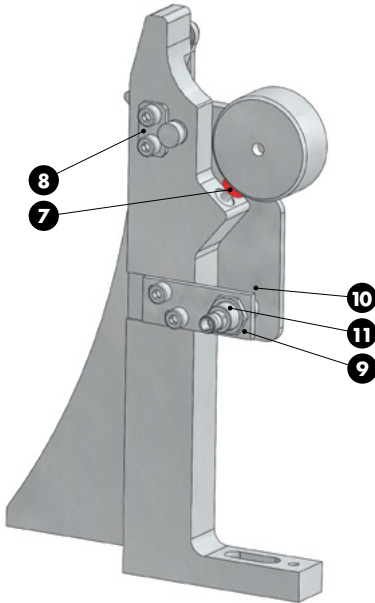


**39V 1569/23**

ORDER EXAMPLE	<b>VW CODE</b>
	39V 1569/21

VW CODE
39V 1569/20
39V 1569/21
39V 1569/22
39V 1569/23

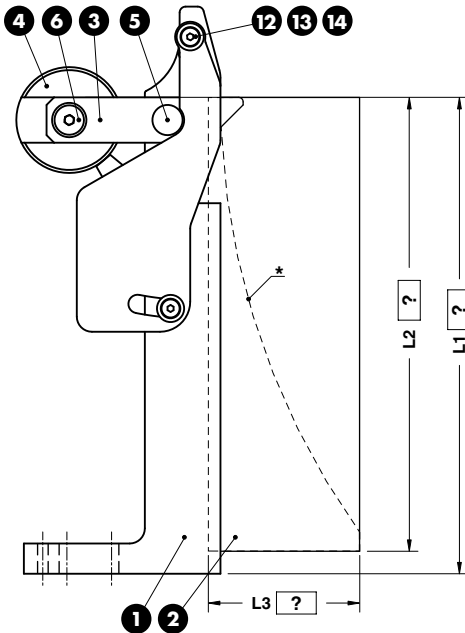
**GAGE WITH POSITION CONTROL**  
**KLAPPEINWEISER MIT LAGEKONTROLLE**  
**RIFERIMENTO CON CONTROLLO DI POSIZIONE**



Notes					
<b>1</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>8</b>	
<b>Material:</b> 16MnCr5					
<b>4</b>	<b>9</b>	<b>10</b>	<b>Material:</b> S235JR2K		
<b>6</b>	M10x30 DIN 7991				
<b>7</b>	DESTACO 202208M				
<b>11</b>	BALLUFF				
<b>12</b>	C13.30.08012 (x2)				
<b>13</b>	Washer PCM 241201.5M				
<b>14</b>	E46.20.008012008				
<b>15</b>	DIN 912 (x4)				



\* Bei Konstruktion festlegen  
 Set in construction  
 Realizzato in costruzione



ORDER EXAMPLE	VW CODE	L1=315	L2=310	L3=50
	1D 301260	315	310	50

VW CODE
1D 301260






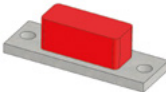










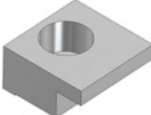

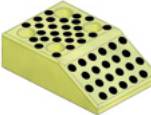











# Die Components Normalien Componenti



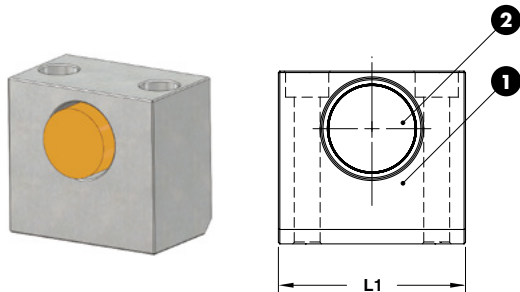
**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

BCD 7247,314	BCD 7247,316	BCD 8265,411	BCD 8265,411	BCD 8271,812
				
Slide stop block Schieberranschlag Arresto slitta	Cam Buffer Anschlag Arresto	Balance block Distanzstück Distanziale	Balance block Distanzstück Distanziale	Lifting pin Tragbolzen mit fallringsicherung Perno di sollevamento
573	573	574	574	575
BCD 8271,862	BCD 8272,22	BCD 8272,22	BCD 8272,411	BCD 8272,411
				
Spacer blocks Distanzstück Distanziale	Wear plate Vdi 3357 Gleitplatte Vdi 3357 Piastra guida Vdi 3357	Wear plate Vdi 3357 Gleitplatte Vdi 3357 Piastra guida Vdi 3357	Guide pillars Führungssäule Colonna	Guide post retainer with retainer ring Führungssäule mit sprengring Ritegno per colonna con anello di tenuta
576	577	578	579	580
BCD 8272,412	BCD 8272,421	BCD 8272,421	BCD 8272,677	BCD 8272,677
				
Guide post DIN 9833 Führungssäule DIN 9833 Colonna DIN 9833	Bush self-lubricating Führungsbuchse Boccola autolubrificante	Toe clamp Haltestück Ritegno per boccola	Cam dwell wear plate VDI 3357 Überlaufkeile VDI 3357 Cuneo VDI 3357	Cam dwell wear plate VDI 3357 Überlaufkeile VDI 3357 Cuneo VDI 3357
581	582	582	583	584
BCD 8272,841	BCD 8272,852	BCD 8272,6729	BCD 8272,6749	BCD 8272,6759
				
Locating cone Kegeldistanz Cono di centraggio	Locating pin Zentrierbolzen Perno di centraggio	Guide bar VDI 3357 Führungsleiste VDI 3357 Lardone VDI 3357	Angular guide Winkelleiste Guida angolare	"V" driver VDI 3357 Prismenführung VDI 3357 Guida A "V" VDI 3357
585	586	586	587	588

<p><b>BCD 8272,6759</b></p>  <p>"V" driver VDI 3357 Prismenführung VDI 3357 Guida A "V" VDI 3357</p> <p>588</p>	<p><b>BCD 8272,6759</b></p>  <p>"V" driver with positive return Prismenführung mit Zwangsrückholer Guida a "V" con gancio Di Ritorno</p> <p>589</p>	<p><b>BCD 8272,6759</b></p>  <p>"V" driver Prismenführung Guida a "V"</p> <p>589</p>	<p><b>BCD 8272,6759</b></p>  <p>"V" driver Prismenführung Guida a "V"</p> <p>590</p>	<p><b>BCD 8272,6759</b></p>  <p>"V" driver Prismenführung Guida a "V"</p> <p>590</p>
<p><b>BCD 8272,6759</b></p>  <p>"V" driver Prismenführung Guida a "V"</p> <p>590</p>	<p><b>BCD 8272,6759</b></p>  <p>Adjustment plate lower Justierplatte unten Piastra di registrazione inferiore</p> <p>591</p>	<p><b>BCD 8272,6759</b></p>  <p>Adjustment plate front Justierplatte vorne Piastra di registrazione frontale</p> <p>591</p>	<p><b>BCD 8272,6759</b></p>  <p>Adjustment plate front Justierplatte vorne Piastra di registrazione frontale</p> <p>591</p>	<p><b>BCD 8272,6759</b></p>  <p>Adjustment plate rear Justierplatte hinten Piastra di registrazione posteriore</p> <p>592</p>
<p><b>BCD 8272,6759</b></p>  <p>Adjustment plate rear Justierplatte hinten Piastra di registrazione posteriore</p> <p>592</p>	<p><b>BCD 8272,6759</b></p>  <p>Positive return Zwangsrückholer Gancio</p> <p>592</p>	<p><b>BCD 8283,133</b></p>  <p>Support for sensor Lagekontrolle für platinen Supporto sensore</p> <p>593</p>	<p><b>BCD 8283,133</b></p>  <p>Gage for sensor Einweiser für teillagekontrolle Riferimento per sensore</p> <p>593</p>	<p><b>BCD 8283,134</b></p>  <p>Gage hardened Einweiser gehärtet Riferimento indurito</p> <p>594</p>
<p><b>BCD 8284,67</b></p>  <p>Stripper for blanking dies Abstreifer für platinenschnitte Estrattore per stampi</p> <p>594</p>	<p><b>BCD 8284,83</b></p>  <p>Pad retainer pin VDI 3365 Steckbolzen VDI 3365 Perno di arresto VDI 3365</p> <p>595</p>	<p><b>BCD 8284,83</b></p>  <p>Lock washer Sicherungsscheibe Piastrina di sicurezza</p> <p>595</p>	<p><b>BCD 8284,83</b></p>  <p>Shock absorber Halteelement Ammortizzatore</p> <p>596</p>	<p><b>BCD 8284,86</b></p>  <p>Elastomer washer Dämpfungsscheibe Ammortizzatore</p> <p>596</p>

BCD 8284,92	BCD 8284,92
	
<p>Ground collar screw Schraube mit distanzrohr Vite con colletto</p>	<p>Buffer Stossdämpfer Ammortizzatore</p>
<p>597</p>	<p>597</p>

## SLIDE STOP BLOCK - SCHIEBERRANSCHLAG - ARRESTO SLITTA



### Notes

- 1 Material:** CK45
- 2 Material:** Elastomer 90 SH

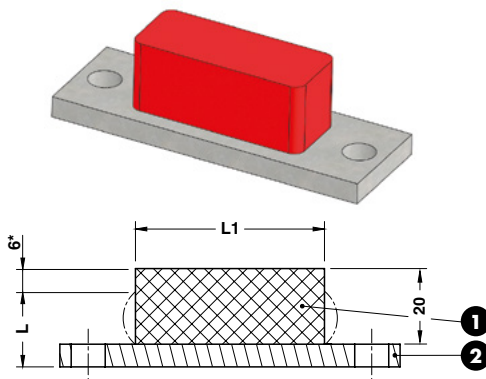
STOCK ...

ORDER EXAMPLE 	<b>VOLVO CODE</b>
	6600014062

VOLVO CODE	L1
6600014061	65
6600014062	75

Standard Volvo

## CAM BUFFER - ANSCHLAG - ARRESTO



### Notes

- 1 Material:** Polyurethane 90 SH
- 2 Material:** Si37

STOCK ...

\*Max. deflection  
Max. zul. Federweg  
Deflessione massima

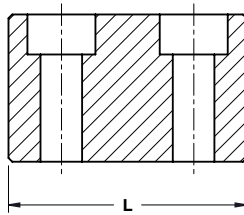
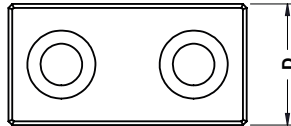
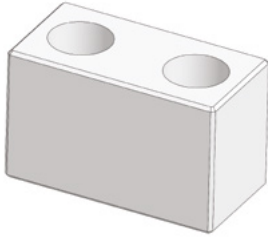
\*\*Gegenkraft bei 6mm max. zul. Federweg  
Max. reaction force with 6 mm deflection  
Forza di reazione massima per deflessione di 6mm

\*\*\*Maximal absorbierte Energie bei 6 mm max. zul. Federweg  
Massima energia assorbita con deflessione di 6 mm

ORDER EXAMPLE 	<b>VOLVO CODE</b>
	9909206

VOLVO CODE	L1	Force for length "L" (kN)**	Max energy absorbtion with 6 mm deflection (J)***
9909205	50	10	30
9909206	100	20	60

**BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE**

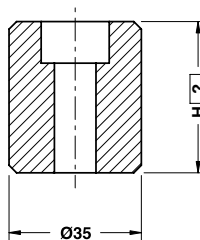


Notes	
<b>Material:</b> CK45	



ORDER EXAMPLE	VOLVO CODE	H=100
	39927347	100
VOLVO CODE		D
39927346		32
39927347		40
		L
		63
		80

**BALANCE BLOCK - DISTANZSTÜCK - DISTANZIALE**



Notes	
<b>Material:</b> CK45	



ORDER EXAMPLE	VOLVO CODE	H=100
	9917782	100
VOLVO CODE		D
39927348		65
9917782		35

## LIFTING PIN - TRAGBOLZEN MIT FALLRINGSICHERUNG - PERNO DI SOLLEVAMENTO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

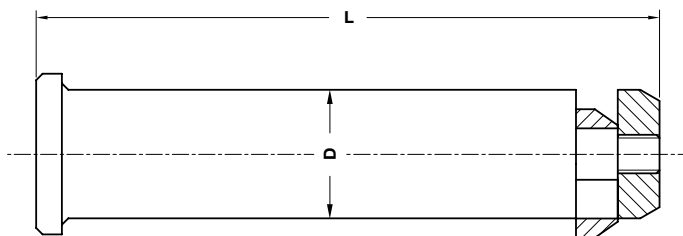
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

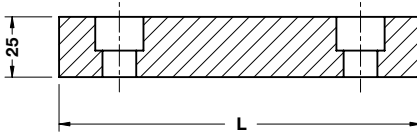
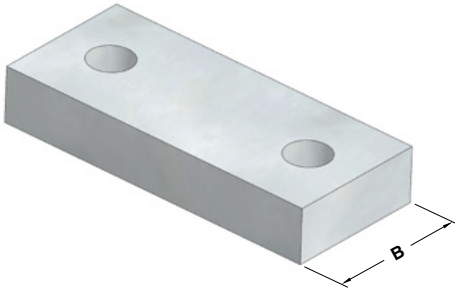
**Material:** St52



	<b>VOLVO CODE</b>
	39919041

VOLVO CODE	Max load (kg)	Max die weight (kg)	D	L
39919040	2500	5000	40	195
39919041	8000	16000	63	285
39919042	12000	24000	63	327
39919043	20000	40000	80	402

**SPACER BLOCK - DISTANZSTÜCK - DISTANZIALE**



**Notes**

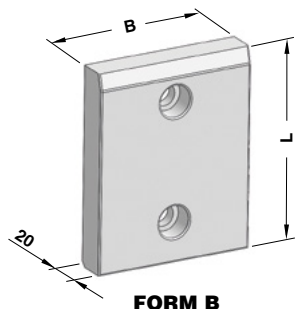
**Material:** CK45

**STOCK**

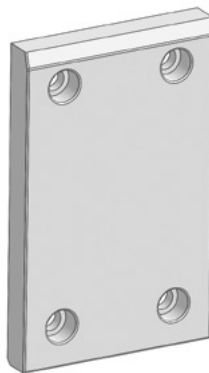
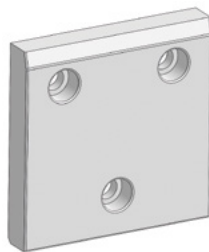
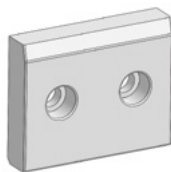
	<b>VOLVO CODE</b>		
	39925954		
<b>VOLVO CODE</b>	<b>B</b>	<b>L</b>	<b>Max Load (t)</b>
39925953	63,5	150	250
39925954	40,5	100	90



**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**



**Notes**  
**Material:** 16MnCr5 - HRC 58±60



	<b>VOLVO CODE</b>
	6303053663

VOLVO CODE	B	L	FORM	VOLVO CODE	B	L	FORM
6303053662	50	160	B	6303052289	100	315	B
6303053663	50	200	B	6303052290	125	100	G
6303052279	80	100	B	6303052291	125	160	G
6303052280	80	160	B	6303052292	125	200	G
6303052281	80	200	B	6303052293	125	250	G
6303052282	80	250	B	6303052294	125	315	G
6303052283	80	315	B	6303052295	160	100	G
6303052284	100	50	D	6303052296	160	160	G
6303052285	100	100	B	6303052297	160	200	G
6303052286	100	160	B	6303052298	160	250	H
6303052287	100	200	B	6303052299	160	315	H
6303052288	100	250	B				

Standard Volvo

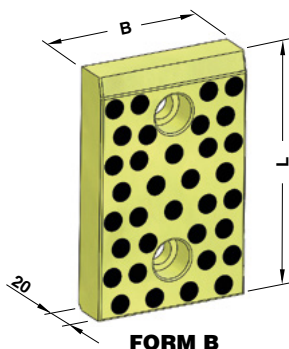
**WEAR PLATE SELF-LUBRICATING VDI 3357  
GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**

**Notes**

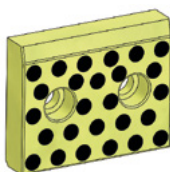
**Material:** Bronze + Graphite

**HB > 190**

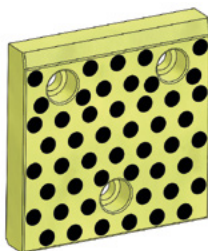
STOCK



**FORM B**



**FORM D**



**FORM G**



**FORM H**



**VOLVO CODE**

**6303053665**

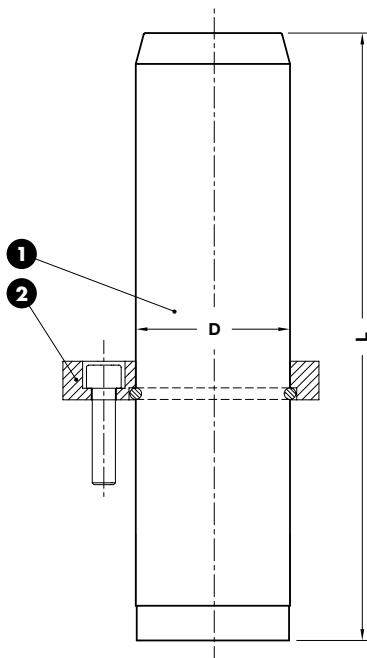
VOLVO CODE	B	L	FORM	VOLVO CODE	B	L	FORM
6303053664	50	160	B	6303052310	100	315	B
6303053665	50	200	B	6303052311	125	100	G
6303052300	80	100	B	6303052312	125	160	G
6303052301	80	160	B	6303052313	125	200	G
6303052302	80	200	B	6303052314	125	250	G
6303052303	80	250	B	6303052315	125	315	G
6303052304	80	315	B	6303052316	160	100	G
6303052305	100	50	D	6303052317	160	160	G
6303052306	100	100	B	6303052318	160	200	G
6303052307	100	160	B	6303052319	160	250	H
6303052308	100	200	B	6303052320	160	315	H
6303052309	100	250	B				

## GUIDE POST - FÜHRUNGSSÄULE - COLONNA

### Notes

**1** Material: 16MnCr5 - HRC: 60÷62

**2** 3053052/3053058

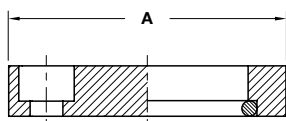
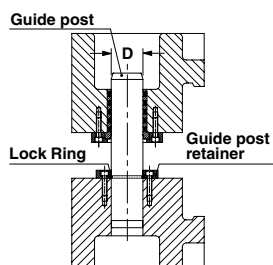


Standard Volvo

	VOLVO CODE
	6303053018

VOLVO CODE	D	L	VOLVO CODE	D	L	VOLVO CODE	D	L
6303053017	25	140	6303053027	40	250	6303053041	63	400
6303053018	25	160	6303053030	50	200	6303053044	80	315
6303053019	25	180	6303053031	50	220	6303053045	80	355
6303053020	32	140	6303053032	50	250	6303053046	80	400
6303053021	32	160	6303053033	50	280	6303053047	80	500
6303053022	32	180	6303053034	50	315	6303053049	100	355
6303053023	32	200	6303053037	63	250	6303053050	100	400
6303053024	40	180	6303053038	63	280	6303053051	100	500
6303053025	40	200	6303053039	63	315			
6303053026	40	220	6303053040	63	355			

**GUIDE POST RETAINER WITH RETAINER RING**  
**FÜHRUNGSSÄULE MIT SPRENGRING**  
**RITEGNO PER COLONNA CON ANELLO DI TENUTA**

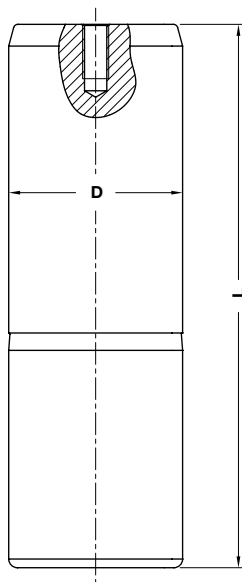
**Notes****Material:** CK45**stock****Application Example****VOLVO CODE****6303053053**

VOLVO CODE	A	D (guide post)
6303053052	45	25
6303053053	56	32
6303053054	70	40
6303053055	80	50
6303053056	100	63
6303053057	110	80
6303053058	140	100

## GUIDE POST DIN 9833 - FÜHRUNGSSÄULE DIN 9833 - COLONNA DIN 9833

### Notes

**Material:** 16MnCr5 - **HRC:** 60±62

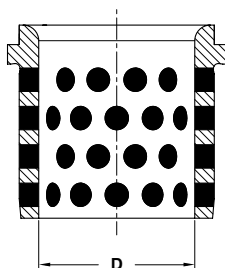


Standard Volvo

	<b>VOLVO CODE</b>
	6303051001

VOLVO CODE	D	L	VOLVO CODE	D	L	VOLVO CODE	D	L
6303053374	25	140	6303051009	50	200	6303051017	80	315
6303051001	25	160	6303051010	50	224	6303053388	80	355
6303053375	25	180	6303053381	50	250	6303051018	80	400
6303053376	32	140	6303051011	50	280	6303053389	100	315
6303051003	32	160	6303053382	50	315	6303053390	100	355
6303051004	32	180	6303053383	63	200	6303051020	100	400
6303051005	32	200	6303053384	63	224	6303051022	100	500
6303053377	40	160	6303051013	63	250	6303051023	125	400
6303051006	40	180	6303053385	63	280	6303051024	125	450
6303051007	40	200	6303051014	63	315	6303051025	125	500
6303053378	40	224	6303051015	63	355	6303051026	160	400
6303051008	40	250	6303051016	63	400	6303051027	160	450
6303053379	50	160	6303053386	80	250	6303051028	160	500
6303053380	50	180	6303053387	80	280			

**BUSH SELF-LUBRICATING DIN 9834**  
**FÜHRUNGSBUCHSE DIN 9834**  
**BOCCOLA AUTOLUBRIFICANTE DIN 9834**



STOCK



## Notes

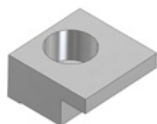
**Material:** Bronze + Graphite  
**HB > 190**



**VOLVO CODE**  
**6303051059**

VOLVO CODE	D
6303051058	25
6303051059	32
6303051060	40
6303051061	50
6303051062	63
6303051063	80
6303051064	100
6303051065	125
6303051066	160

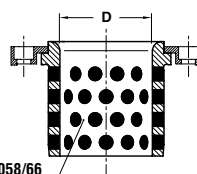
**TOE CLAMP - HALTESTÜCK - RITEGNO PER BOCCOLA**



## Notes

**Material:** CK45

## Application example



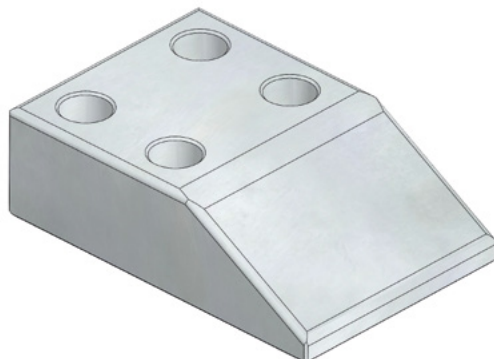
STOCK



**VOLVO CODE**  
**6303053618**

VOLVO CODE	D
6303053617	25-50
6303053618	63-160

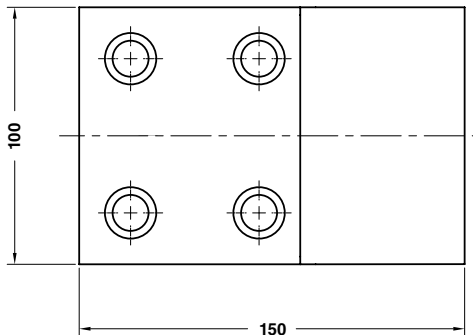
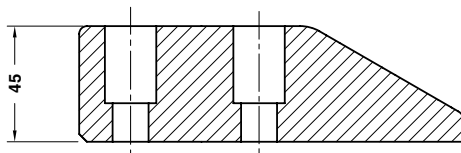
**CAM DWELL WEAR PLATE STEEL VDI 3357  
 UBERLAUFKEILE STAHL VDI 3357  
 CUNEO IN ACCIAIO VDI 3357**



**Notes**  
**Material:** 42CrMo4  
**HRC:** 58÷60

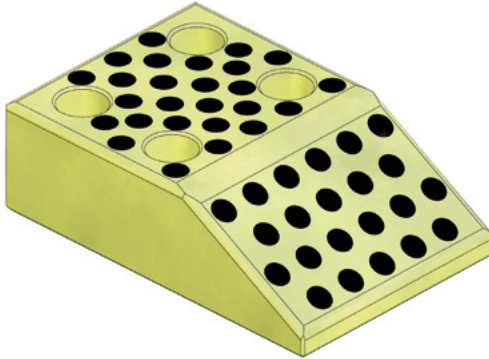
**stock**

Standard Volvo



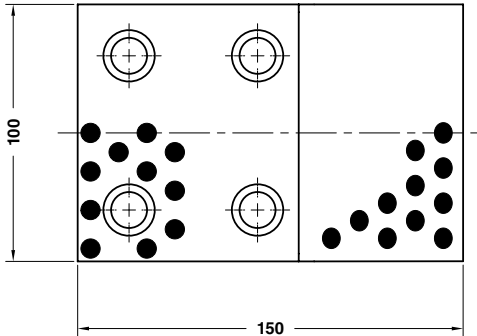
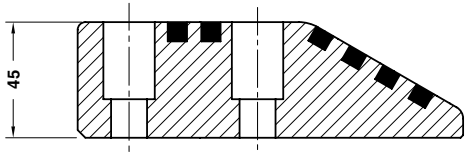
	<b>VOLVO CODE</b>
	3053061
<b>VOLVO CODE</b>	
3053061	

**CAM DWELL WEAR PLATE SELF-LUBRICATING VDI 3357  
 UBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF VDI 3357  
 CUNEO AUTOLUBRIFICANTE VDI 3357**



**Notes**  
**Material:** Bronze + Graphite  
**HB > 190**

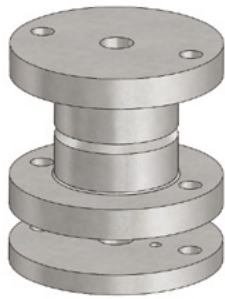
**STOCK**



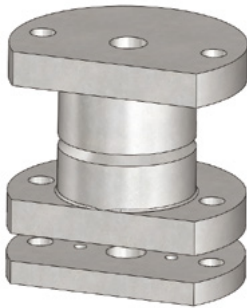
	<b>VOLVO CODE</b>
	3053062
<b>VOLVO CODE</b>	
3053062	



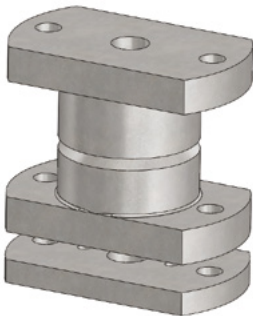
**LOCATING CONE - KEGELDISTANZ - CONO DI CENTRAGGIO**



**FORM A**



**FORM B**

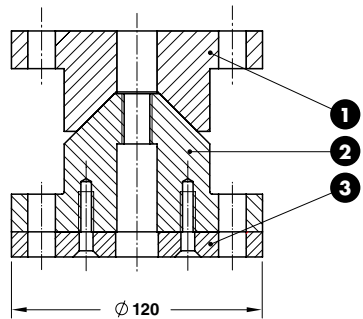


**FORM C**

**Notes**

**1 2** Material: 16MnCr5  
HRC: 58÷60

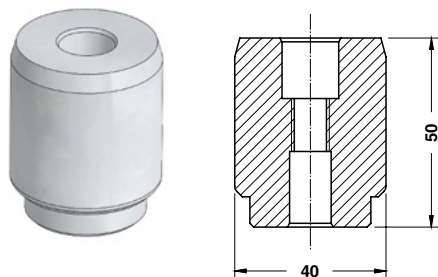
**3** Material: CK45



Standard Volvo

	<b>VOLVO CODE</b>
	3054831
<b>VOLVO CODE</b>	<b>FORM</b>
3054830	A
3054831	B
3051349	C

**LOCATING PIN - ZENTRIERBOLZEN - PERNO DI CENTRAGGIO**



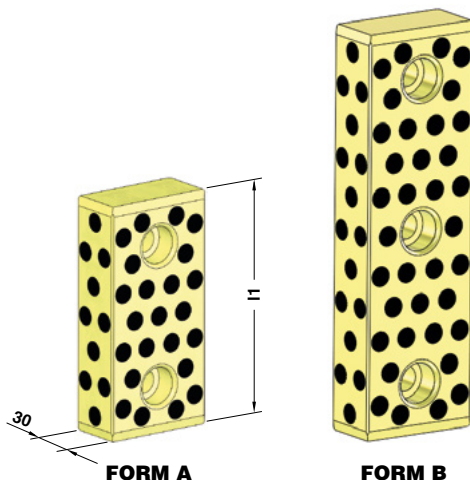
**Notes**

**Material:** 16MnCr5 - **HRC:** 60÷62

STOCK

	<b>VOLVO CODE</b>
	9910244
<b>VOLVO CODE</b>	
9910244	

**GUIDE BAR VDI 3357 - FÜHRUNGSLEISTE VDI 3357 - LARDONE VDI 3357**



**Notes**

**Material:** Bronze + Graphite - **HB** >190

STOCK

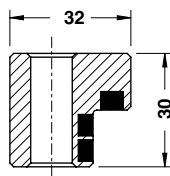
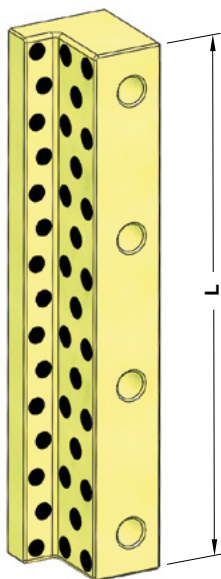


	<b>VOLVO CODE</b>	
	3052827	
<b>VOLVO CODE</b>	<b>l1</b>	<b>FORM</b>
3052826	150	A
3052827	200	B

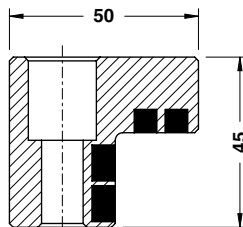
**ANGULAR GUIDE - WINKELLEISTE - GUIDA ANGOLARE**

**Notes**

**Material:** Bronze + Graphite - HB >190



**FORM A**

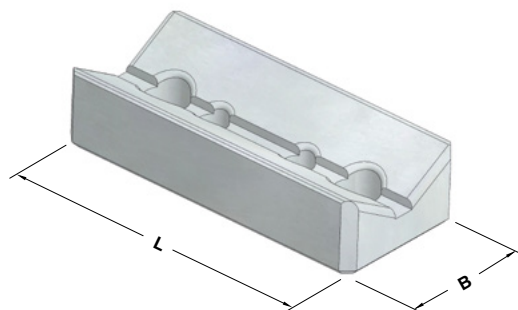


**FORM B**

Standard Volvo

	VOLVO CODE	
	3052834	
<b>VOLVO CODE</b>	<b>FORM</b>	<b>L</b>
3052833	A	150
3052834	A	200
3052835	B	200
3052836	B	250

## "V" DRIVER VDI 3357 - PRISMENFÜHRUNG VDI 3357 - GUIDA A "V" VDI 3357



## Notes

**Material:** CK45 - HRC: 58÷60

STOCK

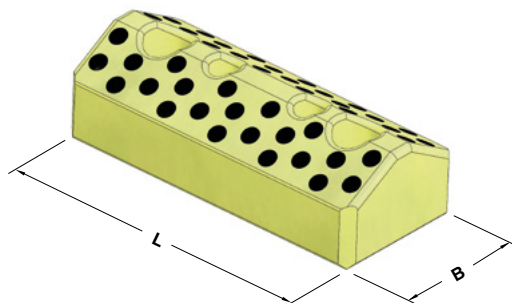


## VOLVO CODE

6303052819

VOLVO CODE	B	L
6303052818	65	150
6303052819	65	200
6303052820	125	150
6303052821	125	200

## "V" DRIVER VDI 3357 - PRISMENFÜHRUNG VDI 3357 - GUIDA A "V" VDI 3357



## Notes

**Material:** Bronze + Graphite - HB >190

STOCK

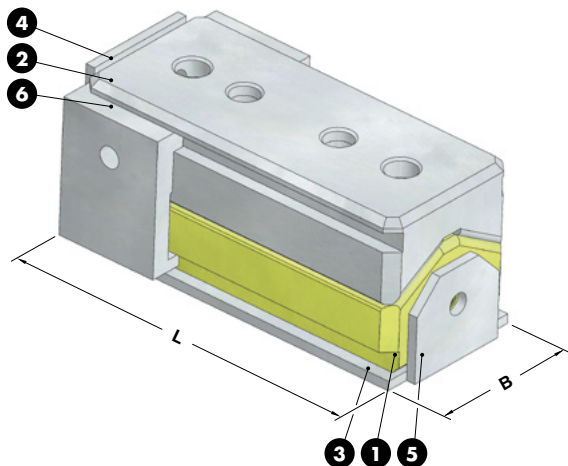


## VOLVO CODE

6303052823

VOLVO CODE	B	L
6303052822	65	150
6303052823	65	200
6303052824	125	150
6303052825	125	200

**"V" DRIVER WITH POSITIVE RETURN  
PRISMENFÜHRUNG MIT ZWANGSRÜCKHOLER  
GUIDA A "V" CON GANCIO DI RITORNO**



**Notes**

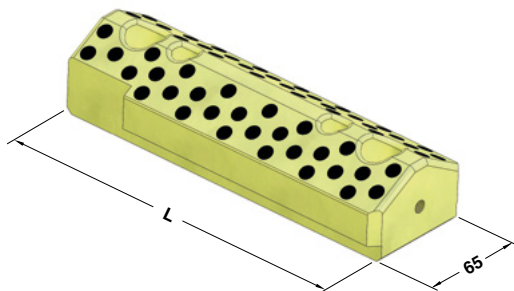
- ❶ 39925989÷92
- ❷ 39925993÷96
- ❸ 39925997÷39926000
- ❹ 39926003÷39926004
- ❺ 39926001÷39926002
- ❻ 39926005



ORDER EXAMPLE 	VOLVO CODE	
	6339925986	
VOLVO CODE	B	L
6339925985	65	150
6339925986	65	200
6339925987	125	150
6339925988	125	200

Standard Volvo

**"V" DRIVER - PRISMENFÜHRUNG - GUIDA A "V"**



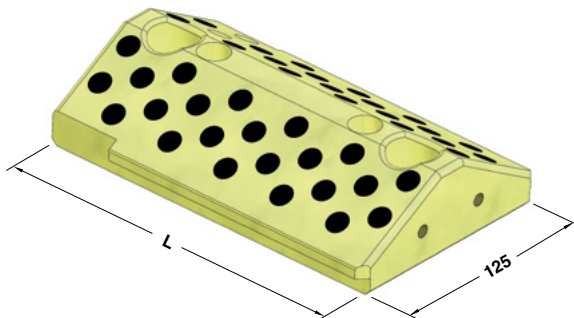
**Notes**

**Material:** Bronze + Graphite - HB >190



ORDER EXAMPLE 	VOLVO CODE	
	6339925990	
VOLVO CODE	L	
6339925989	150	
6339925990	200	

## "V" DRIVER - PRISMENFÜHRUNG - GUIDA A "V"



## Notes

**Material:** Bronze + Graphite - HB >190



VOLVO CODE

6339925992

VOLVO CODE

L

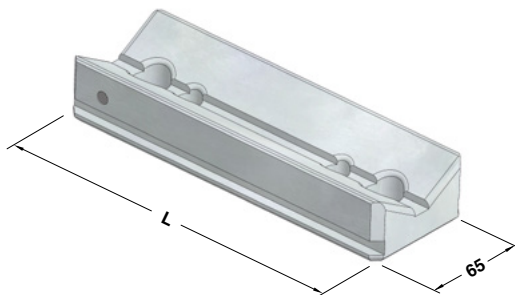
6339925991

150

6339925992

200

## "V" DRIVER - PRISMENFÜHRUNG - GUIDA A "V"



## Notes

**Material:** CK45 - HRC: 58÷60



VOLVO CODE

6339925994

VOLVO CODE

L

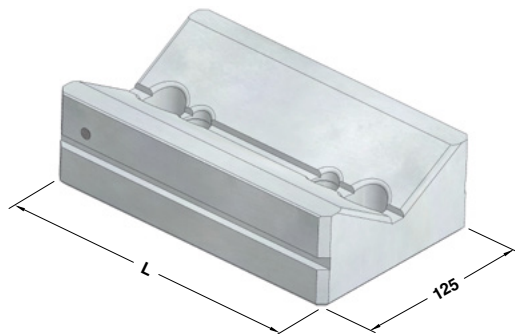
6339925993

150

6339925994

200

## "V" DRIVER - PRISMENFÜHRUNG - GUIDA A "V"



## Notes

**Material:** CK45 - HRC: 58÷60



VOLVO CODE

6339925996

VOLVO CODE

L

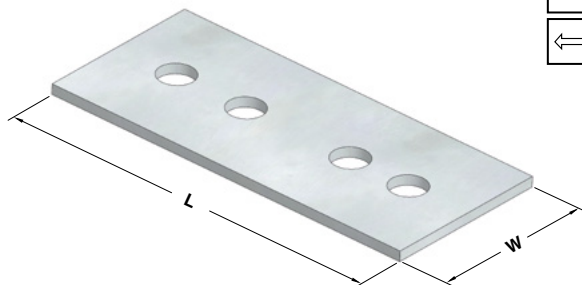
6339925995

150

6339925996

200

## ADJUSTMENT PLATE LOWER - JUSTIERPLATTE UNTEN - PIASTRA DI REGISTRAZIONE INFERIORE



STOCK

## Notes



Material: S355JR

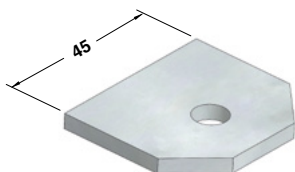


## VOLVO CODE

6339925998

VOLVO CODE	W	L
6339925997	65	150
6339925998	65	200
6339925999	125	150
6339926000	125	200

## ADJUSTMENT PLATE FRONT - JUSTIERPLATTE VORNE - PIASTRA DI REGISTRAZIONE FRONTALE



## Notes

Material: S355JR

STOCK



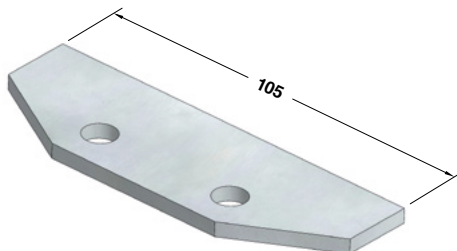
## VOLVO CODE

6339926001

## VOLVO CODE

6339926001

## ADJUSTMENT PLATE FRONT - JUSTIERPLATTE VORNE - PIASTRA DI REGISTRAZIONE FRONTALE



## Notes

Material: S355JR

STOCK



## VOLVO CODE

6339926002

## VOLVO CODE

6339926002

## ADJUSTMENT PLATE REAR - JUSTIERPLATTE HINTEN - PIASTRA DI REGISTRAZIONE POSTERIORE



## Notes

Material: S355JR

STOCK



VOLVO CODE

6339926003

VOLVO CODE

6339926003

## ADJUSTMENT PLATE REAR - JUSTIERPLATTE HINTEN - PIASTRA DI REGISTRAZIONE POSTERIORE



## Notes

Material: S355JR

STOCK



VOLVO CODE

6339926004

VOLVO CODE

6339926004

## POSITIVE RETURN - ZWANGSRÜCKHOLER - GANCIO



## Notes

Material: 34CrNiMo6

STOCK



VOLVO CODE

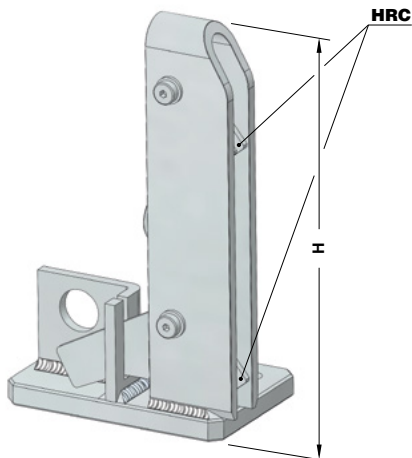
6339926005

VOLVO CODE

6339926005



## SUPPORT FOR SENSOR - LAGEKONTROLLE FÜR PLATINEN - SUPPORTO SENSORE



## Notes

**Material:** Steel - **HRC:** 58÷60

**STOCK**

\* As shown in drawing  
Gemäß zeichnung  
Come a disegno

\*\* Opposite to drawing  
Spiegelverkehrt  
Opposto al disegno



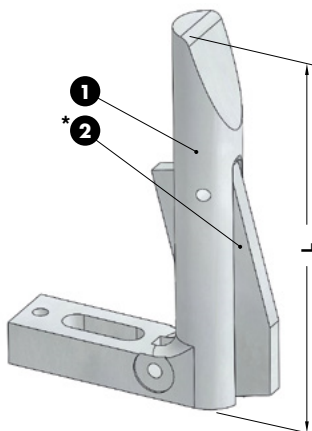
**VOLVO CODE**

6305935476

VOLVO CODE	H	SIDE
6305935475	145	LEFT**
6305935476	145	RIGHT*
6305935477	185	LEFT**
6305935478	185	RIGHT*

Standard Volvo

## GAGE FOR SENSOR - EINWEISER FÜR TEILLAGEKONTROLLE - RIFERIMENTO PER SENSORE



## Notes

**1** **Material:** CK60

**2** **Material:** Si37 **HRC:** 58÷60

**STOCK**



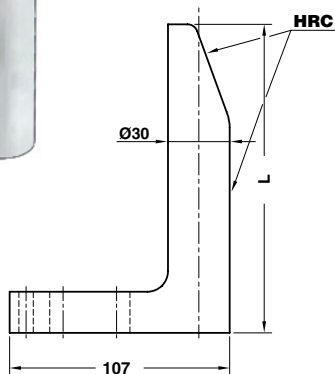
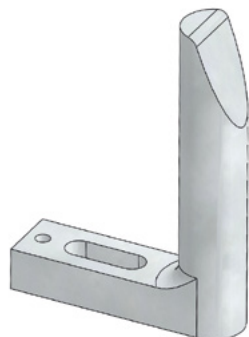
**VOLVO CODE**

6303051761

VOLVO CODE	L
6303051760*	120
6303051761*	150
6303051762	180
6303051763	250

\* With short plate  
Mit kurz platte  
Con piastra corta

## GAGE HARDENED - EINWEISER GEHÄRTET - RIFERIMENTO INDURITO



## Notes

Material: CK60 - HRC: 58÷60

STOCK

ORDER  
EXAMPLE

VOLVO CODE

3051755

VOLVO CODE

L

3051754

65

3051755

90

3051756

120

3051757

150

3051758

180

3051759

250

## STRIPPER FOR BLANKING DIES - ABSTREIFER FÜR PLATINENSCHNITTE - ESTRATTORE PER STAMPI



## Notes

Material: Elastomer 70SH

STOCK

ORDER  
EXAMPLE

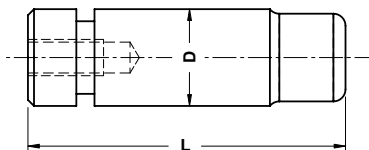
VOLVO CODE

6303042342

VOLVO CODE

6303042342

## PAD RETAINER PIN - STECKBOLZEN - PERNO DI ARRESTO



## Notes

Material: 42CrMo4

STOCK



## VOLVO CODE

9900734

VOLVO CODE	D	L
9900733	25	125
9900734	32	145
9900735	40	150
9900736	50	175
9900737	63	210

Standard Volvo

## LOCK WASHER - SICHERUNGSSCHEIBE - PIASTRINA DI SICUREZZA



## Notes

Material: S235JR

STOCK



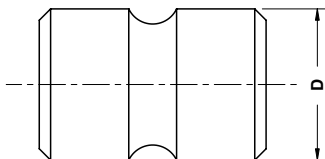
## VOLVO CODE

9900743

## VOLVO CODE

9900743

## SHOCK ABSORBER - HALTELEMENT - AMMORTIZZATORE



## Notes

**Material:** CO-Polyester Elastomer

STOCK

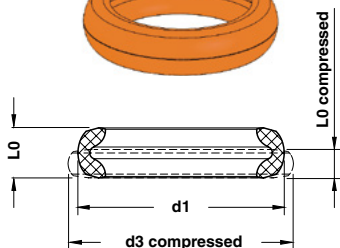


## VOLVO CODE

9934356

VOLVO CODE	D
9934355	40
9934356	50
5937181	63
9934367	80

## ELASTOMER WASHER - DÄMPFUNGSSCHEIBE - AMMORTIZZATORE



## Notes

**Material:** CO-Polyester Elastomer

STOCK

\*Die höchste Belastung  
Carico massimo ammissibile

\*\*Komprimiert  
Compresso

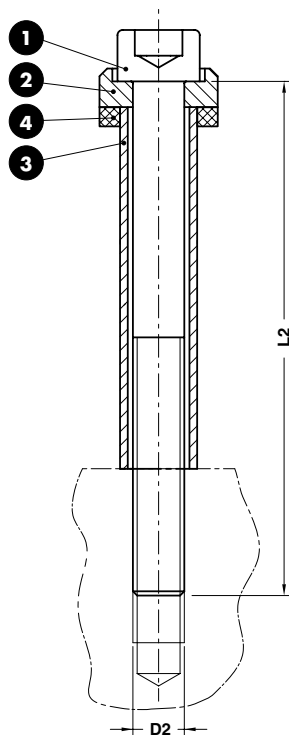


## VOLVO CODE

6305936830

VOLVO CODE	d1	d3 (compressed)**	L0	L0 (compressed)**	Shore	Load* (N)
6600017820	45,8	49,8	17,0	11,6	55D	20000
6305936830	54,6	61,8	21,3	13,0	55D	30000
6305937132	61,8	69,9	21,5	13,2	55D	46000
6305939451	78,2	89,0	29,8	17,9	55D	75000

## GROUND COLLAR SCREW - SCHRAUBE MIT DISTANZROHR - VITE CON COLLETO



## Notes

- 1 DIN 912 cl. 12.9
- 2 **Material:** Steel 1000 N/mm<sup>2</sup>
- 3 **Material:** Steel 1200÷1400 N/mm<sup>2</sup>
- 4 5935907÷5935910

STOCK

ORDER  
EXAMPLE

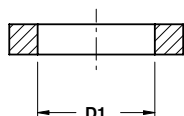
## VOLVO CODE

6305935900

VOLVO CODE	D2	L2
6305935899	M8	80
6305935900	M10	90
6305935901	M10	100
6305935902	M10	110
6305939950	M12	100
6305939951	M12	120
6305939952	M12	140
6305939953	M12	180
6305939954	M16	130
6305939955	M16	140
6305939956	M16	150
6305939957	M16	160
6305939958	M16	180
6305939959	M16	200

Standard Volvo

## BUFFER - STOSSDÄMPFER - AMMORTIZZATORE



STOCK

## Notes

**Material:** Elastomer 90 SHORDER  
EXAMPLE

## VOLVO CODE

6305935908

VOLVO CODE	D1
6305935907	13
6305935908	15,5
6305935909	18
6305935910	26



OMCR  
STANDARD DIE COMPONENTS

C 40 U  
DYNAMIC



Cam Units  
Schieber  
Unità a camme

**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



# Cam Units Schieber Unità a Camme

Ⓞ For more than 15 years **OMCR** has been working in the field of press cam units and has gained wide experience both in designing and producing units in various forms and dimensions. This catalogue offers a wide range of cam units to satisfy most technical requirements. The **Star Cam Series (CHD, CHV, CHW, CLB, CRX e DHC)**, represents the best characteristics of **performance, competitiveness and service.**

Ⓞ Seit mehr als 15 Jahren stellt **OMCR** Schieber her und hat umfangreiche Erfahrungen in der Konstruktion und Produktion von Schiebern in den verschiedensten Ausführungen gesammelt. In diesem Katalog sind viele unterschiedliche Schieber enthalten, um nahezu alle technischen Belange abzudecken.

Hervorragend sind unsere **Star Cam Series (CHD, CHV, CHW, CLB, CRX e DHC)**, Schieber die beste Eigenschaften von **Performance, Wettbewerbsfähigkeit und Service** in sich vereinen.

Ⓞ Da oltre quindici anni **OMCR** opera nel settore delle camme di tranciatura ed ha acquisito un'ampia esperienza sia nella progettazione che nella realizzazione di unità a camme in svariate geometrie e dimensioni. Questo catalogo propone un'ampia gamma per poter far fronte a qualsiasi esigenza tecnica.

Tra queste spicca la **Star Cam Series (CHD, CHV, CHW, CLB, CRX e DHC)**, camme che esprimono le migliori caratteristiche di **performance, competitività e servizio.**





## Aerial Cam Units Oben Hangender Schieber Unità a Camme Sospese



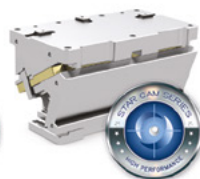
**CHD**



**CHV**  
VDI NORM



**CHW**  
VDI NORM



**CLB**

---

HEAVY DUTY - SCHWERLAST - LAVORI PESANTI



**CHK**



**CHR**



**CLC**



**CLD**



**CLF**

---

LIGHT DUTY - LEICHTE - LAVORI LEGGERI

## Roller Cam Units Rollenschieber Unità a Camme a Rullo

**DCRX**

**CRX**



---

HEAVY DUTY  
SCHWERLAST  
LAVORI PESANTI

## Die Mounted Cam Units Horizontalschieber Unità a Camme a Base Stampo



**DHC**

---

HEAVY DUTY  
SCHWERLAST  
LAVORI PESANTI



**DLD**

---

LIGHT DUTY  
LEICHTE  
LAVORI LEGGERI

## CHD

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOPESE



Ⓞ We recommend the **CHD** range of cam units for heavy-duty applications. Nine models are available with work angles from **0° to 65°** (in 5° steps), **work forces from 60 to 645 kN**, **slider widths from 50 to 300 mm**. It is possible to choose between coil spring or gas spring return.

Ⓞ Unsere **CHD** Schieber sind für schwere Anwendungen geeignet. Neun Modelle mit **Arbeitswinkel von 0° bis 65°** (in 5° Schritten), **Arbeitskraft 60 bis 645 kN**, **Nutzbreite 50 bis 300 mm**. Wahlmöglichkeit zwischen Rückholung mit Schraubendruckfeder oder Gasdruckfeder.

Ⓛ Robuste ed affidabili, le camme **CHD** sono indicate per impieghi gravosi. Nove modelli con **angolo di lavoro da 0° a 65°** (a passi di 5°), **forze di lavoro da 60 a 645 kN**. **Larghezze utili da 50 a 300 mm**. Possibilità di scegliere il ritorno con molla a filo o molla a gas.

## CHV

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOPESE



Ⓞ They are compact, have high work and return forces, are built from high-strength materials which ensure excellent resistance to twisting loads and have very good penetrating precision. They are characterized by easy maintenance thanks to the use of normalized wear plates (VDI3357) and to the possibility to change the gas spring under press. Twelve models are available with work angles from **0° to 75°** (in 5° steps), **work forces from 92 to 1202 kN**, **slider widths from 50 to 600 mm**.

Ⓛ Die **CHV** Schieber sind unser innovativstes Produkt. Kompakte Auslegung, hohe Arbeits- und Rückholkraft auch bei hohen Drehmomenten. Sie sind besonders geeignet, wenn eine hohe Stanzgenauigkeit gefragt ist und werden aus sehr widerstandsfähigen Materialien hergestellt. Einfache Instandhaltung durch genormte Gleitplatten (VDI3357) und in der Presse demontierbare Gasdruckfedern. Zwölf Modelle mit **Arbeitswinkel von 0° bis 75°** (in 5° Schritten), **Arbeitskraft 92 bis 1202 kN**, **Nutzbreite 50 bis 600 mm**.

Ⓛ Le camme **CHV** rappresentano il TOP dell'intera gamma. Hanno dimensioni compatte, forze di lavoro e di estrazione elevate e un'ottima resistenza alle forze torcenti. Sono particolarmente indicate quando è necessaria un'elevata precisione di foratura. Vengono costruite con materiali ad alta resistenza. Garantiscono facilità di manutenzione grazie alle piastre di scorrimento normalizzate (VDI3357) e allo smontaggio delle molle a gas sotto pressa. Dodici modelli con **angolo di lavoro da 0° a 75°** (a passi di 5°), **forze di lavoro da 92 a 1202 kN**. **Larghezze utili da 50 a 600 mm**.

## CHW

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



Ⓞ **CHW** cam units are extremely compact and suitable for applications requiring high work forces. They are equipped with sintered steel sliding elements (SINT300®) and thanks to the new stop system, the cam slider can be easily disassembled for quick maintenance. Four models with **working angles from 0° to 75°** (in 5° steps), **work forces from 210 to 320 kN**. **Working widths from 65 to 110 mm**.

Ⓞ Die **CHW** Schieber sind äußerst kompakt und eignen sich für Anwendungen, die hohe Arbeitskräfte erfordern. Sie sind mit Gleitelementen aus Sinterstahl (SINT300®) ausgestattet und dank des neuen Anschlagssystems kann der Schieberkörper für eine schnelle Wartung leicht demontiert werden. Vier Modelle mit **Arbeitswinkeln von 0° bis 75°** (in 5° Schritten), **Arbeitskraft von 210 bis 320 kN**. **Arbeitsbreiten von 65 bis 110 mm**.

Ⓞ Le camme **CHW** sono estremamente compatte e indicate per applicazioni che richiedono una elevata forza di lavoro, sono dotate di elementi di scorrimento in acciaio sinterizzato (SINT300®) e grazie al nuovo sistema di arresto è possibile eseguire agilmente lo smontaggio della slitta per una rapida manutenzione. Quattro modelli con **angolo di lavoro da 0° a 75°** (a passi di 5°), **forze di lavoro da 210 a 320 kN**. **Larghezze utili da 65, 85, 90 e 110 mm**.

## CLB

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



Ⓞ Our **CLB** cam units offer a very competitive performance /price ratio. Five models are available with **work angles from 0° to 60°** (in 5° steps), **work forces from 302 to 865 kN**, **slider widths from 200 to 600 mm**. It is possible to choose between **coil spring or gas spring return**.

Ⓞ Robust und kompakt bieten die **CLB** Schieber ein sehr wettbewerbsfähiges Preis-/Leistungsverhältnis. Fünf Modelle mit **Arbeitswinkel von 0° bis 60°** (in 5° Schritten), **Arbeitskraft 302 bis 865 kN**, **Nutzbreite 200 bis 600 mm**. Wahlmöglichkeit zwischen Rückholung mit Schraubendruckfeder oder Gasdruckfeder.

Ⓞ Robuste e compatte, le camme **CLB** offrono un rapporto performance/prezzo molto competitivo. Cinque modelli con **angolo di lavoro da 0° a 60°** (a passi di 5°), **forze di lavoro da 302 a 865 kN**. **Larghezze utili da 200 a 600 mm**. Possibilità di scegliere il ritorno con **molla a filo o molla a gas**.

## CHK

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



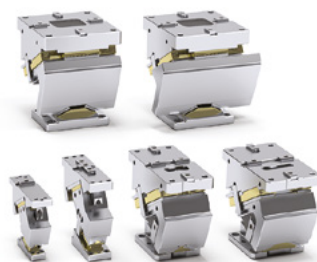
☞ **CHK** aerial cam units are best suited for medium/light drilling and flanging. They look different from CLK due to the presence of a V guide on the Driver to improve alignment precision. **Three models** are available with **work angles from 0° to 70°** (in 5° steps for 65 mm width and 10° steps for 100 and 200 mm widths), **work forces from 58 to 231 kN**. **Slider widths from 65 to 200 mm**. Coil spring return only.

☞ Die oben hängenden Schieber **CHK** sind für leichte und mittlere Bohr- und Bördelarbeiten geeignet. Sie unterscheiden sich vom CLK Modell durch eine zusätzliche Prismenführung am Driver zur Verbesserung der Annäherungsgenauigkeit. Drei Modelle mit **Arbeitswinkel von 0° bis 70°** (in 5° Schritten), **Arbeitskraft von 58 bis 231 kN**, **Nutzbreite von 65 bis 200 mm**. Rückzug nur mit Schraubendruckfeder möglich.

☞ Le camme aeree **CHK** sono adatte a lavorazioni di foratura e flangiatura medio leggere. Differiscono dalle più essenziali CLK per la presenza di una guida a V sul Driver che migliora la precisione di allineamento. Tre modelli con **angolo di lavoro da 0° a 70°** (a passi di 5° per la larghezza 65 mm e a passi di 10° per le larghezze 100 e 200 mm), **forze di lavoro da 58 a 231 kN**. **Larghezze utili da 65 a 200 mm**. Possibilità di ritorno solo con molla a filo.

## CHR

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



☞ **CHR** aerial cam units are best suited for heavy drilling and flanging. **Six models** are available with **work angles from 0° to 60°** (in 5° steps), **work forces from 90 to 521 kN**. **Slider widths from 70 to 400 mm**. Manufactured according to **NAAMS** standards, these cam units are equipped with cam accelerators to quieten the noise level starting from 165 mm width. It is possible to choose between coil spring or gas spring return.

☞ Die oben hängenden Schieber **CHR** sind für schwere Bohr- und Bördelarbeiten geeignet. Sechs Modelle mit **Arbeitswinkel von 0° bis 60°** (in 5° Schritten), **Arbeitskraft von 90 bis 521 kN**, **Nutzbreite von 70 bis 400 mm**. Diese Schieber nach **NAAMS** Norm verfügen ab einer Breite von 165 mm über einen Beschleuniger zur Geräuschkämpfung. Rückzug mit Schraubendruckfeder oder Gasdruckfeder möglich.

☞ Le camme aeree **CHR** sono adatte a lavorazioni di foratura e flangiatura gravose. Sei modelli con **angolo di lavoro da 0° a 60°** (a passi di 5°), **forze di lavoro da 90 a 521 kN**. **Larghezze utili da 70 a 400 mm**. Queste camme, realizzate secondo normativa **NAAMS**, sono dotate di acceleratore per attenuazione della rumorosità a partire dalla larghezza 165. Possibilità di ritorno con molla a filo o molla a gas.

## CLC

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



ⓐ CLC aerial cam units are best suited for medium/light drilling and flanging. **Four models** are available with **work angles from 0° to 70°** (in 5° steps), **work forces from 41 to 140 kN**. Slider widths from 50 to 150 mm. Coil spring return only.

ⓑ Die oben hängenden Schieber **CLC** sind besonders für leichte und mittlere Stanz- und Bördelarbeiten geeignet. Vier Modelle mit **Arbeitswinkel von 0° bis 70°** (in 5° Schritten), **Arbeitskraft von 41 bis 140 kN**, **Nutzbreite von 50 bis 150 mm**. Rückzug nur mit Schraubendruckfeder möglich.

ⓒ Le camme aeree **CLC** sono adatte a lavorazioni di foratura e flangiatura medio-leggere. Quattro modelli con **angolo di lavoro da 0° a 70°** (a passi di 5°), **forze di lavoro da 41 a 140 kN**. **Larghezze utili da 50 a 150 mm**. Possibilità di ritorno solo con molla a filo.

## CLD

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



ⓐ CLD aerial cam units are extremely compact and suited for medium/light drilling. They are not suitable for flanging. **One model** with **work angles from 0° to 80°** (in 5° steps), **work forces 31 kN**. Coil spring return only.

ⓑ Die oben hängenden Schieber **CLD** sind extrem kompakt und für leichte und mittlere Stanzarbeiten geeignet. Für Bördelarbeiten sind sie nicht geeignet. Ein Modell mit **Arbeitswinkel von 0° bis 80°** (in 5° Schritten), **Arbeitskraft 31 kN**. Rückzug nur mit Schraubendruckfeder möglich.

ⓒ Le camme aeree **CLD** sono estremamente compatte e adatte a lavorazioni di foratura medio-leggere. Non sono idonee a lavorazioni di flangiatura. Un modello con **angolo di lavoro da 0° a 80°** (a passi di 5°), **forze di lavoro di 31 kN**. Possibilità di ritorno solo con molla a filo.

## CLF

AERIAL CAM UNITS  
OBEN HÄNGENDER SCHIEBER  
UNITÀ A CAMME SOSPESE



ⓐ CLF aerial cam units are suited to make medium-light drilling and flanging workings. Two models with **work angles from 0° to 70°** (5° steps), **work forces from 116 to 192 kN**. Slider widths from 80 to 150 mm. Extraction only by enhanced coil spring.

ⓑ Die oben hängenden Schieber **CLF** sind für leichte bis mittlere Stanz- und Bördelarbeiten geeignet. Zwei Modelle mit **Arbeitswinkel von 0° bis 70°** (in 5° Schritten), **Arbeitskraft von 116 bis 192 kN**, **Nutzbreite von 80 bis 150 mm**. Rückzug nur mit Schraubendruckfeder möglich.

ⓒ Le camme aeree **CLF** sono adatte a lavorazioni di foratura e flangiatura medio-leggere. Due modelli con **angolo di lavoro da 0° a 70°** (a passi di 5°), **forze di lavoro da 116 a 192 kN**. **Larghezze utili da 80 a 150 mm**. Ritorno solo con molla a filo rinforzata.

## CRX

ROLLER CAM UNITS  
ROLLENSCHIEBER  
UNITÀ A CAMME A RULLO



Ⓞ Thanks to their compact size, **CRX** cam units are particularly suited for close punching. Ease of mounting and flexibility in applications are their strong points. Five models are available with work **angles from -15°** (back-draft punching) to **50°** (free angle steps), **work forces from 45 to 258 kN**, **slider widths from 78 to 240 mm**. **Strokes 30 and 48** available for **CRX01**, **48, 78 and 98 mm** for other models. **Positive returns for extraction**. **Normalized wedges with work angles from -15° to 50°** (in 5° steps). **Slider back position check**.

Ⓞ **CRX** Schieber sind Dank Ihrer kompakten Abmessungen besonders bei nahe aneinander liegenden Stanzdurchbrüchen geeignet. Einfache Montage und flexible Anwendung sind ihre Stärke. Vier Modelle mit **Arbeitswinkel ab -15°** (Stanzen im Hinterschnitt) **bis 50°** (alle Zwischengrade einsetzbar), **Arbeitskraft 45 bis 258 kN**, **Hübe von 30 und 48 mm bei CRX01**, **von 48, 78 und 98 mm bei den anderen Modellen**. **Neue Sicherheits-Zwangsrückholung**. **Genormte Treiber für Arbeitswinkel von -15° bis 50°** (in 5° Schritten). **Sensor zur hinteren Kontrolle der Schieberslage**

Ⓞ L'utilizzo delle camme **CRX**, grazie alle loro dimensioni compatte, è particolarmente indicato nel caso di forature ravvicinate. Facilità di montaggio e flessibilità nell'applicazione sono il loro punto di forza. Cinque modelli con **angolo di lavoro da -15°** (foratura in sottosquadro) **a 50°** (applicabili in tutti i gradi intermedi), **forze di lavoro da 45 a 258 kN**. **Larghezze utili da 78 a 240 mm**. **Corse di 30 e 48 mm per la CRX01**, **di 48, 78 e 98 mm per gli altri modelli**. **Ganci di sicurezza per l'estrazione**. **Cunei di azionamento normalizzati per angoli di lavoro da -15° a 50°** (a passi di 5°). **Sensore per il controllo di posizione del cursore**.

## DHC

DIE MOUNTED CAM UNIT  
HORIZONTALSCHIEBER  
UNITÀ A CAMME A BASE STAMPO



Ⓞ **DHC** die mounted cam units are best suited for heavy drilling and flanging thanks to their spheroid cast iron structure. They are characterized by easy maintenance thanks to the use of self-lubricating wear plates and steel on the most stressed parts. **Seven models** are available with **work forces from 38 to 480kN, slider widths from 52 to 400 mm, work angles 0° for 52, 200, 250, 300 and 400 mm widths, work angles from 0° to 20° (in 5° steps) for 65, 100 and 150 mm widths.** Return by coil spring or gas spring.

Ⓞ Die unten liegenden Schieber **DHC** sind dank Ihrer Struktur aus Kugellguss für schwere Stanz- und Biegearbeiten geeignet. Sie gewährleisten aufgrund der Verwendung von Gleitplatten aus Bronze mit Festschmierstoff/Stahl auf den besonders beanspruchten Gleitflächen eine einfachere Instandhaltung. **Es gibt sieben Modelle mit Arbeitskräften von 38 bis 480 kN, Nutzbreite von 52 bis 400 mm, Arbeitswinkel 0° für die Breiten 52, 200, 250, 300 und 400 mm, Arbeitswinkel von 0° bis 20° (in 5° Schritten) für die Breiten 65, 100 und 150 mm,** Rückzug mit Schraubendruckfeder oder Gasdruckfeder möglich.

Ⓞ Le camme a base stampo **DHC** sono adatte a lavorazioni di foratura e flangiatura gravose grazie alla struttura in ghisa sferoidale; garantiscono una maggiore facilità di manutenzione grazie all'utilizzo di piastre bronzo-grafite/acciaio sugli scorrimenti più sollecitati. Sette modelli con **forze di lavoro da 38 a 480 kN. Larghezze utili da 52 a 400 mm, angolo di lavoro 0° per le larghezze 52, 200, 250, 300 e 400 mm, angolo di lavoro da 0° a 20° (a passi di 5°) per le larghezze 65, 100 e 150 mm.** Possibilità di ritorno con molla a filo o molla a gas.

## DLD

DIE MOUNTED CAM UNIT  
HORIZONTALSCHIEBER  
UNITÀ A CAMME A BASE STAMPO



Ⓞ **DLD** die mounted cam are best suited for medium/light drilling. They are not suitable for flanging. **Two models with work forces from 40 to 79 kN. Widths from 52 to 90 mm, work angle from 0° to 20° (in 5° steps) for 52 mm width and work angle from 0° to 15° (in 5° steps) for 90 mm width.** Coil spring return only.

Ⓞ Die Horizontalschieber **DLD** sind für leichte und mittlere Bohrarbeiten geeignet. Sie sind nicht für Bördelarbeiten geeignet. Zwei Modelle mit **Arbeitskraft von 40 bis 79 kN, Nutzbreite von 52 bis 90 mm, Arbeitswinkel 0° bis 20° (in 5° Schritten) bei Breite 52, Arbeitswinkel von 0° bis 15° (in 5° Schritten) bei Breite 90.** Rückzug nur mit Schraubendruckfeder möglich.

Ⓞ Le camme a base stampo **DLD** sono adatte a lavorazioni di foratura medio leggera. Non sono idonee a lavorazioni di flangiatura. Due modelli con **forze di lavoro da 40 a 79 kN. Larghezze utili da 52 a 90 mm, angolo di lavoro da 0° a 20° (a passi di 5°) per la larghezza 52 e angolo di lavoro da 0° a 15° (a passi di 5°) per la larghezza 90.** Possibilità di ritorno solo con molla a filo.

## GB CUSTOMIZATIONS ON CAM UNITS WORKING SURFACES

**OMCR** cam units can be supplied customized. The customizations allow to reduce cam units insertion time in the die, freeing machine resources and allowing the user to focus on other die construction activities.

The machining are transmitted by the customer in 3D CAD format and the characteristics can be communicated by the use of the colours in the OEM table on page 610 or according with customer specifications.

**3D CAD data must be received at least 10 days in advance on the delivery date.**

## D ANARBEITUNG DER SCHIEBERARBEITSFLÄCHE NACH KUNDENWUNSCH

**OMCR** Schieber können mit Anarbeitung nach Kundenwunsch geliefert werden. Die Anarbeitung führt zu einer Reduzierung der Montagezeit des Schiebers in das Werkzeug, wodurch Maschinenressourcen frei werden und der Werkzeugbauer sich anderen Arbeiten widmen kann.

Die Anarbeitungsdaten werden **OMCR** vom Kunden als 3D CAD Daten übermittelt, die Bearbeitungsart wird über die Farbtabelle der OEMs von Seite 610 oder gemäß Kundenspezifikation mitgeteilt.

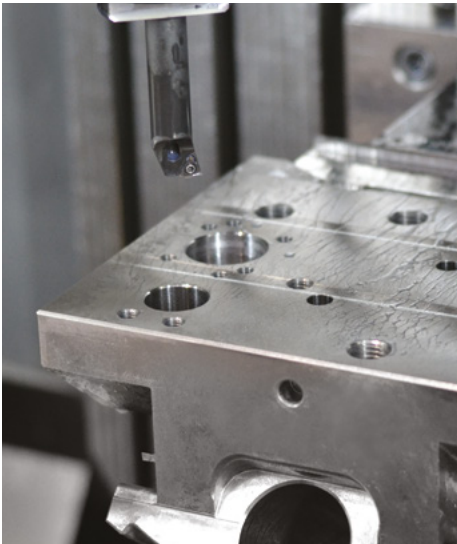
**Die 3D Daten müssen mindestens 10 Arbeitstage vor dem gewünschten Liefertermin bei OMCR eintreffen.**

## I PERSONALIZZAZIONI SU SUPERFICI DI LAVORO DELLE UNITÀ CAMME

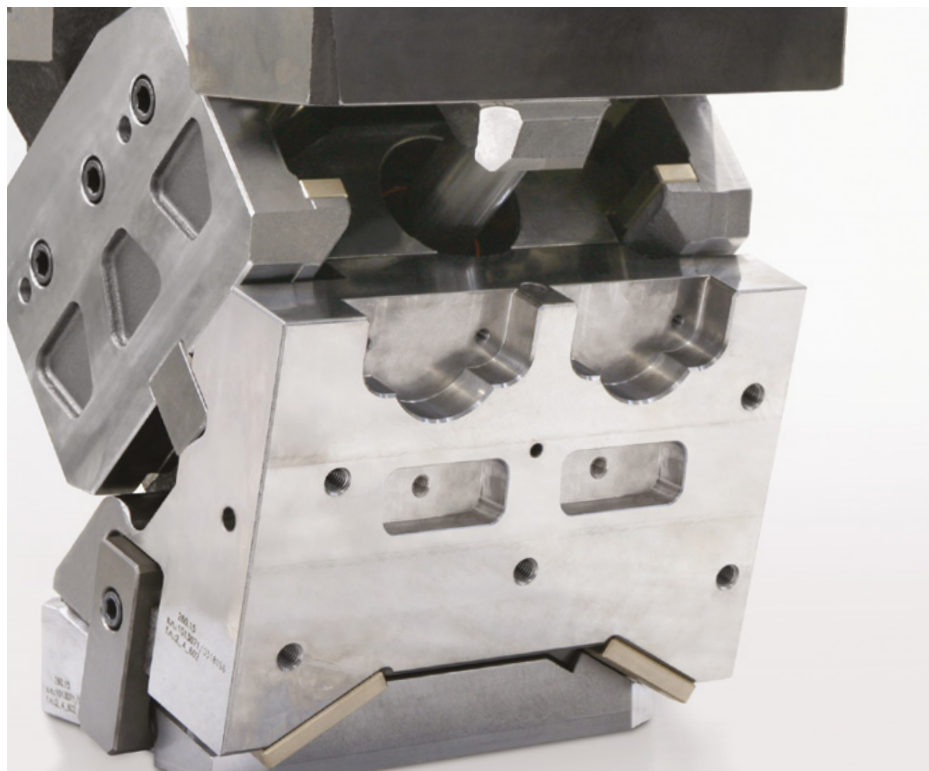
Le unità a camme **OMCR** possono essere fornite personalizzate. Le personalizzazioni permettono di ridurre i tempi d'inserimento delle camme nello stampo liberando risorse macchina e consentono all'utente di dedicarsi ad altre attività di costruzione stampo.

Le lavorazioni vengono trasmesse dal cliente in formato CAD 3D e le caratteristiche possono essere comunicate con l'uso dei colori presenti nella tabella OEM di pagina 610 o secondo specifica del cliente.

**I dati cad 3D devono pervenire con almeno 10 giorni di anticipo sulla data di consegna.**







## HIGHLIGHTS



**Reduction of cam unit assembly time in die.**  
**Reduzierung der Montagezeit des Schiebers in das Werkzeug**  
**Riduzione dei tempi d'inserimento della camma nello stampo**



**3D CAD data management in formats: CATIA V5 / PARASOLID.**  
**3D Datenmanagement in den Formaten: CATIA V5 / PARASOLID.**  
**Gestione dati CAD 3D nei formati: CATIA V5 / PARASOLID / IGES.**

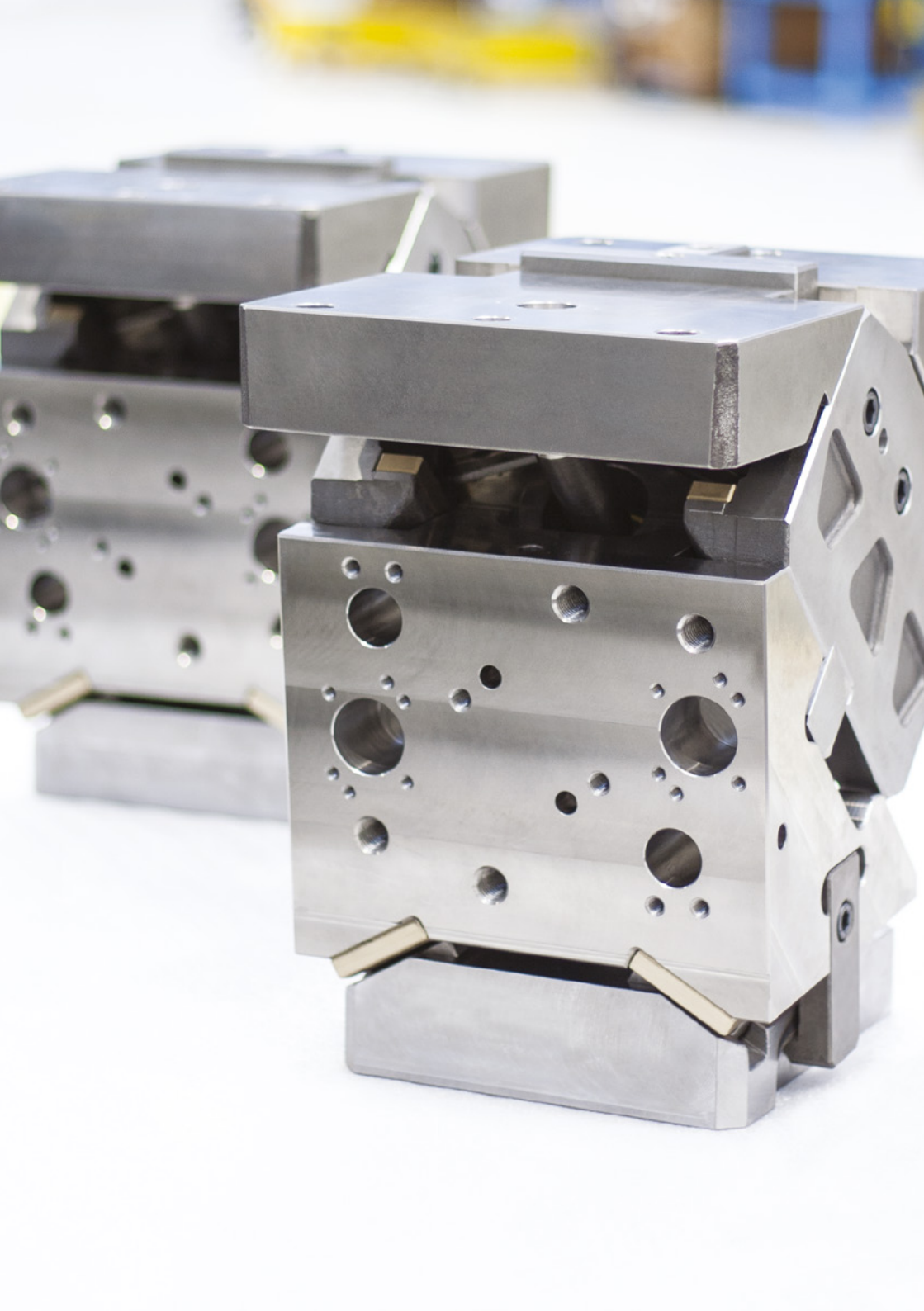


**High precision in additional workings realization.**  
**Hohe Präzision bei der Durchführung von zusätzlichen Bearbeitungen**  
**Elevata precisione di realizzazione delle lavorazioni aggiuntive.**



**Reduction of processing costs.**  
**Reduzierung der Bearbeitungskosten**  
**Riduzione dei costi di lavorazione.**

Machining type Bearbeitungstyp Tipologie di lavorazioni	Comment Bemerkung Commenti	CATIA V5 RGB values - RGB-Werte - Colori RGB			
		Colour Farbe Colore	Red Rot Rosso	Green Grün Verde	Blue Blau Blu
Areas dependent to method plan Methodenplanabhängige Bereiche Aree dipendenti dal piano metodo	All machining which is not performed according to solid model, but according to separate data record Alle Bearbeitungen, die nicht nach Solid-Modell, sondern nach gesondertem Datensatz durchgeführt werden Lavorazioni che non vengono eseguite secondo un modello 3D, ma secondo dati registrati separatamente	Olive green Olivgrün Olive	175	255	175
Smoothing / finishing Schlichten Levigatura / Finitura	Fine machining (for further details, see work instructions) Feinbearbeitung (Zusatzangaben siehe Arbeitsanweisungen) Lavorazione di finitura (per ulteriori dettagli consultare le istruzioni supplementari di lavoro)	Pink Rosa Rosa	255	175	175
Roughing Schruppen Sgrossatura	Rough machining Grobbearbeitung Lavorazione di sgrossatura	Red-Brown Rotbraun Marrone	095	000	000
Fitting bore H11 Passbohrung H11 Forature H11	Also special milling processing Auch Sonderfräsbearbeitung Anche lavorazioni speciali di fresatura	Blue Blau Blu	095	095	175
Fitting bore H8 Passbohrung H8 Forature H8	Also special milling processing Auch Sonderfräsbearbeitung Anche lavorazioni speciali di fresatura	Purple Lila Porpora	095	000	095
Fitting bore H7 Passbohrung H7 Forature H7	Also special milling processing Auch Sonderfräsbearbeitung Anche lavorazioni speciali di fresatura	Blue Blau Blu	000	000	255
Fitting bore H6 Passbohrung H6 Forature H6	Also special milling processing Auch Sonderfräsbearbeitung Anche lavorazioni speciali di fresatura	Dark Blue Dunkelblau Blu scuro	000	095	175
Threads Gewinde Filettatura	Metric right thread according to DIN/ISO Metrisch Rechtsgewinde nach DIN/ISO Filettatura metrica destra secondo DIN/ISO	Yellow Gelb Giallo	255	255	000
Fine threads Feingewinde Filettatura fine	Metric fine thread (right) according to DIN/ISO Metrisch Feingewinde (rechts) nach DIN/ISO Filettatura metrica fine destra secondo DIN/ISO	Orange Orange Arancione	255	175	000
Spiral lock / special thread Spirallock / Spezialgewinde Spirallock / filettatura speciale	All other special threads Alle sonstigen Spezialgewinde Tutte le altre filettature speciali	Orange Orange Arancione	255	095	000
Special bore / stepped bore Sonderbohrung / Stufenbohrung Foratura speciale / Foratura a gradini	Complex bores, combination of bores Komplexe Bohrungen, Kombinationen von Bohrungen Forature complesse, combinazioni di forature	Magenta Magenta Magenta	255	000	255
Free bore / simple bore Freibohrung / einfache Bohrung Foratura libera / foratura semplice	Through holes, etc., other countersinks Durchgangslöcher usw., sonstige Ansenkungen Fori passanti ed altre forature	Cyan Cyan Ciano	000	175	175
Change areas Änderungsbereiche Campi di modifica	Sphere or Solid with transparency 192 Sphäre oder Solid mit Transparenz 192 Sfera o Solido con trasparenza 192	Light Blue Hellblau Azzurro	000	127	255
Assembly bores ZSB-Bohrungen Forature di assemblaggio	Assembly features Zusammenbau-Features Caratteristiche di assemblaggio	White Weiß Bianco	255	255	255



## GB SPECIAL CAM UNIT

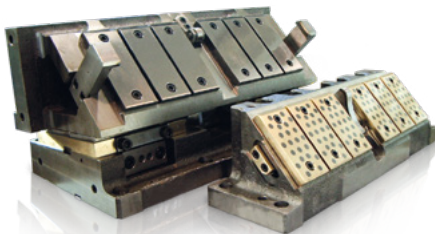
Thanks to the acquired experience in the manufacture of its wide range of cam units, **OMCR** can offer special or multiple cam units to meet every customer's particular production needs. **Moreover, it is possible to ask for additional workings on normalized cam units.** The images on this Page show some examples of a variety of solutions achievable.

## D SONDERSCHIEBER

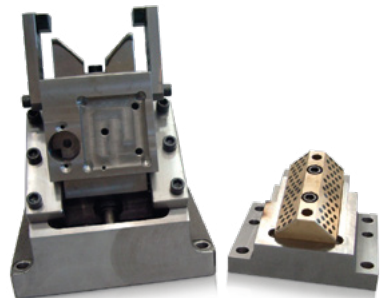
**OMCR** konstruiert und produziert Dank der Erfahrung bei der Herstellung seiner großen Produktpalette an Schiebern auch Sonderschieber nach den spezifischen Projektanforderungen des Kunden, die spezielle Anforderungen bei der Produktion berücksichtigen. **Auch zusätzliche Bearbeitungen an Normschiebern führen wir durch.** Die Bilder auf dieser Seite stellen nur einige Beispiele aus der Vielfalt der realisierbaren Lösungen dar.

## I UNITÀ A CAMME SPECIALI

**OMCR**, grazie all'esperienza acquisita nella realizzazione della sua ampia gamma di unità a camme, progetta e costruisce anche unità a camme speciali o multiple su specifiche progettuali del cliente atte a soddisfare particolari esigenze di produzione. **È possibile inoltre richiedere lavorazioni aggiuntive su unità a camme normalizzate.** Le immagini di questa pagina illustrano alcuni esempi della varietà di soluzioni realizzate.



- GB Die mounted cam unit with 700mm slider width
- D Horizontalschieber mit einer Schieberbreite von 700 mm
- I Camma a base stampo con larghezza slitta da 700mm



- GB Cam units with additional workings on slider
- D Schieber mit angearbeiteter Schieberarbeitsfläche
- I Unità a camme con lavorazioni personalizzate sulla slitta



- GB Multiple aerial cam unit
- D oben hängender zweifacher Schieber
- I Unità a camme sospesa multipla



**GB DOWNLOAD CAM DATA**

On [www.omcr.it](http://www.omcr.it) you can find, besides CAD 3D (CATIA V5, STEP) data, specific technical information and the catalogue in PDF format.

**D DOWNLOAD SCHIEBERDATEN**

Auf [www.omcr.it](http://www.omcr.it) finden Sie abgesehen von den 3D CAD Daten (CATIA V5, STEP) auch spezifische technische Informationen, unseren Katalog als pdf-Datei und Eine Suchmaschine.

**I DOWNLOAD DATI CAMME**

Su [www.omcr.it](http://www.omcr.it) è possibile trovare, oltre ai dati CAD 3D (CATIA V5, STEP), informazioni tecniche specifiche, e il catalogo in formato PDF.



**www.omcr.it**



Download from our web-site all the information about OMCR Cam Units.  
 Alle Informationen über Schieber von OMCR können Sie von unserer Internetseite downloaden.

Scarica dal nostro sito web tutte le informazioni sulle Unità a Camme OMCR.

**GB CAM SEARCH**

By consulting the search engine on our website, you can choose the most suitable cam units for any type of project by way of information regarding **forces, price and delivery time.**

**D SCHIEBERSUCHE**

Über die Suchmaschine auf unserer Internetseite können Sie den für das jeweilige Projekt am besten geeigneten Schieber anhand von Informationen zu **Kraft, Preis und Lieferzeit** auswählen.

**I RICERCA CAMME**

Consultando il motore di ricerca sul nostro sito, puoi scegliere l'unità a camma più adatta ad ogni tipo di progetto attraverso informazioni di **forza, prezzo e tempi di consegna.**



Cam Units

**www.omcr.it**



Visit the Cam Search page on our website.  
 Bitte gehen Sie auf unsere Internetseite und klicken Sie auf „Schiebersuche“.  
 Visita la pagina Ricerca Camme sul nostro sito web.

## Aerial Cam Units Oben Hängender Schieber Unità a Camme Sospese



SLIDER WIDTH (mm)	CHD	CHV	CHW	CLB
	<b>CHD050</b> pag. 628	<b>CHV050</b> pag. 666		
50÷52	 Work Angle 0-65°  Work Force 60 kN	 Work Angle 0-75°  Work Force 92-110 kN		
	<b>CHD065</b> pag. 632	<b>CHV060</b> pag. 670	<b>CHW065</b> pag. 720	
60÷65	 Work Angle 0-65°  Work Force 60 kN	 Work Angle 0-75°  Work Force 136-143 kN	 Work Angle 0-75°  Work Force 210-230 kN	
	<b>CHD080</b> pag. 636	<b>CHV085</b> pag. 674	<b>CHW085</b> pag. 724	
80÷85	 Work Angle 0-65°  Work Force 149 kN	 Work Angle 0-75°  Work Force 229-293 kN	 Work Angle 0-75°  Work Force 210-230 kN	
	<b>CHD100</b> pag. 640		<b>CHW090</b> pag. 728	
90÷100	 Work Angle 0-65°  Work Force 149 kN		 Work Angle 0-75°  Work Force 250-320 kN	
		<b>CHV110</b> pag. 676	<b>CHW110</b> pag. 732	
110		 Work Angle 0-75°  Work Force 357-407 kN	 Work Angle 0-75°  Work Force 250-320 kN	
	<b>CHD150</b> pag. 644	<b>CHV150</b> pag. 680		
150	 Work Angle 0-65°  Work Force 391 kN	 Work Angle 0-75°  Work Force 421-584 kN		
	<b>CHD180</b> pag. 648	<b>CHV180</b> pag. 684		
180	 Work Angle 0-65°  Work Force 396 kN	 Work Angle 0-75°  Work Force 474-598 kN		



## Aerial Cam Units Oben Hängender Schieber Unità a Camme Sospese



SLIDER WIDTH  
(mm)

**CHD**



**CHV**

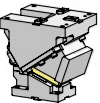
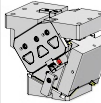
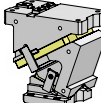
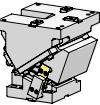

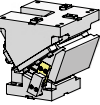
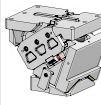
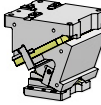
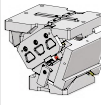
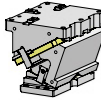
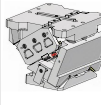
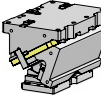

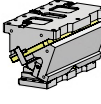


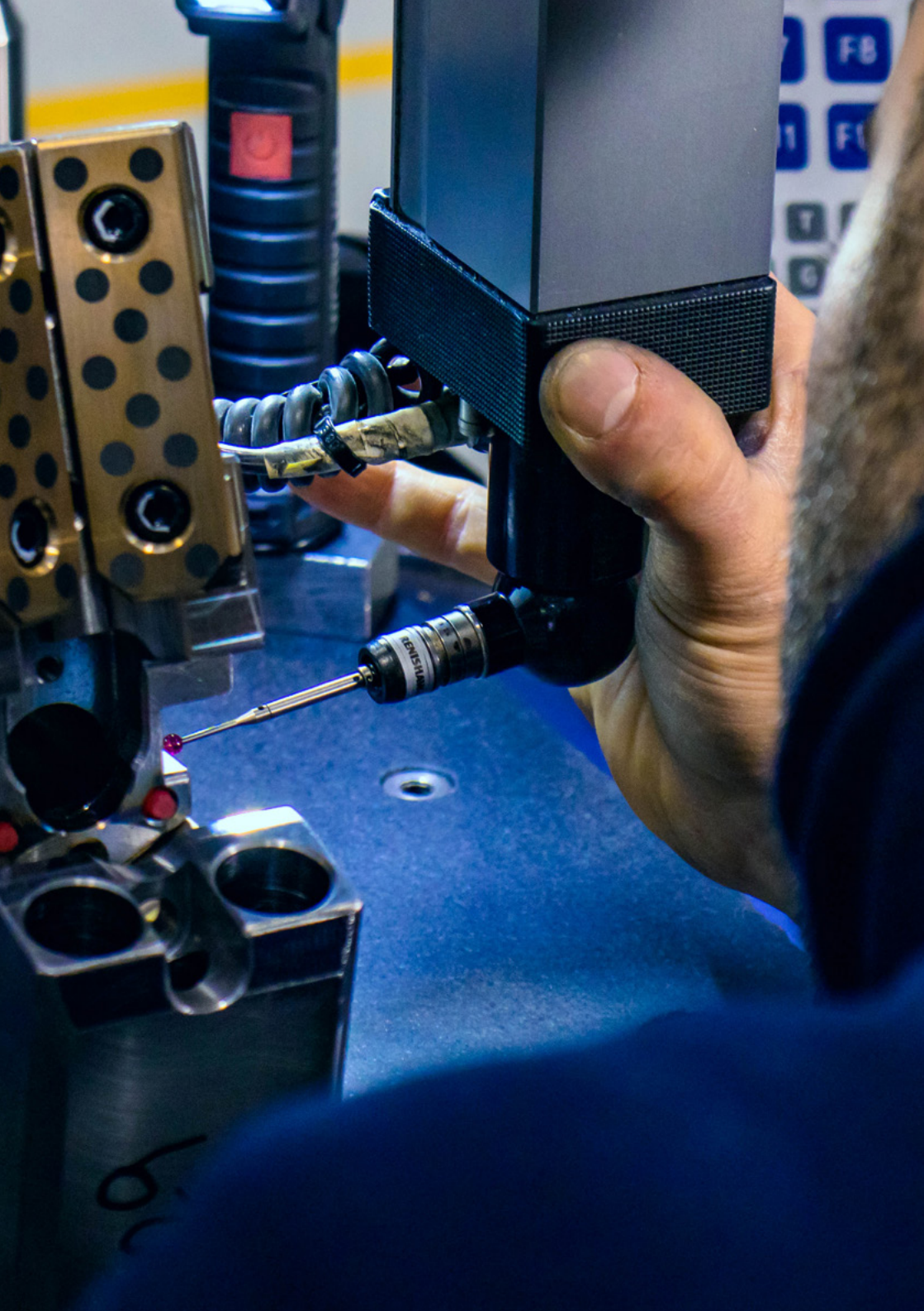
**CHW**



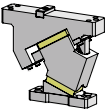
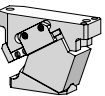
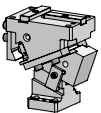
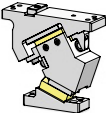
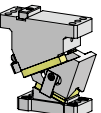
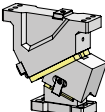
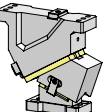
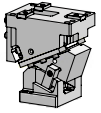
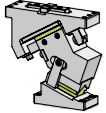
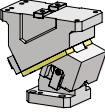
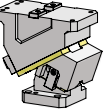
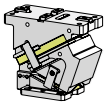
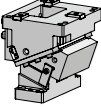
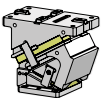
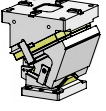
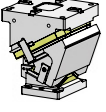
**CLB**



SLIDER WIDTH (mm)	CHD <small>pag. 652</small>	CHV <small>pag. 670</small>	CHW	CLB <small>pag. 738</small>
200÷220	 <p>Work Angle 0÷65° Work Force 396 kN</p>	 <p>Work Angle 0÷75° Work Force 635÷732 kN</p>		 <p>Work Angle 0÷60° Work Force 302 kN</p>
250÷260	 <p>Work Angle 0÷65° Work Force 645 kN</p>	 <p>Work Angle 0÷75° Work Force 536÷767 kN</p>		
300÷330	 <p>Work Angle 0÷65° Work Force 645 kN</p>	 <p>Work Angle 0÷75° Work Force 1006÷1020 kN</p>		 <p>Work Angle 0÷60° Work Force 411 kN</p>
400		 <p>Work Angle 0÷75° Work Force 1052÷1055 kN</p>		 <p>Work Angle 0÷60° Work Force 526 kN</p>
500		 <p>Work Angle 0÷75° Work Force 1155 kN</p>		 <p>Work Angle 0÷60° Work Force 743 kN</p>
600		 <p>Work Angle 0÷75° Work Force 1202 kN</p>		 <p>Work Angle 0÷60° Work Force 865 kN</p>



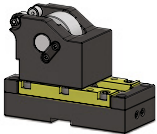
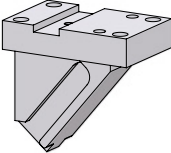
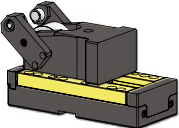
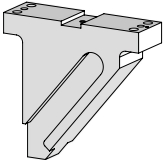
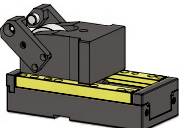
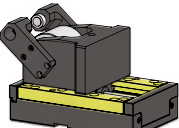
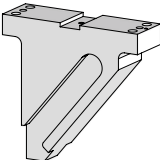
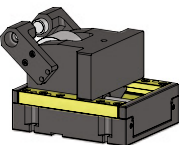


## Aerial Cam Units Oben Hängender Schieber Unità a Camme Sospese


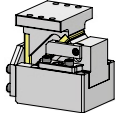
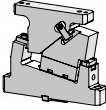
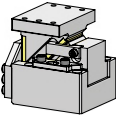
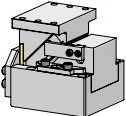
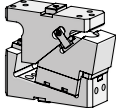
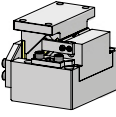
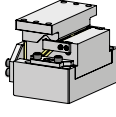
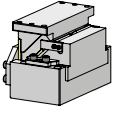
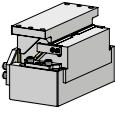
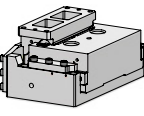
SLIDER WIDTH (mm)	CHK	CHR	CLC	CLD/CLF
50÷52			<b>CLC050</b> pag. 790  Work Angle 0÷70° Work Force 41 kN	<b>CLD052</b> pag. 818  Work Angle 0÷80° Work Force 31 kN
	<b>CHK065</b> pag. 760  Work Angle 0÷70° Work Force 58 kN	<b>CHR070</b> pag. 770  Work Angle 0÷60° Work Force 90 kN	<b>CLC065</b> pag. 804  Work Angle 0÷70° Work Force 42 kN	
65÷70			<b>CLC080</b> pag. 808  Work Angle 0÷70° Work Force 83 kN	<b>CLF080</b> pag. 824  Work Angle 0÷70° Work Force 116 kN
	<b>CHK100</b> pag. 764  Work Angle 0÷70° Work Force 96 kN	<b>CHR080</b> pag. 778  Work Angle 0÷60° Work Force 153 kN		
80÷100			<b>CLC150</b> pag. 812  Work Angle 0÷70° Work Force 140 kN	<b>CLF150</b> pag. 828  Work Angle 0÷70° Work Force 192 kN
		<b>CHR165</b> pag. 782  Work Angle 0÷60° Work Force 340 kN		
150÷165				
	<b>CHK200</b> pag. 768  Work Angle 0÷70° Work Force 231 kN	<b>CHR200</b> pag. 786  Work Angle 0÷60° Work Force 408 kN		
200				
		<b>CHR300</b> pag. 790  Work Angle 0÷60° Work Force 521 kN		
300				
		<b>CHR400</b> pag. 794  Work Angle 0÷60° Work Force 521 kN		
400				

## Roller Cam Units Rollenschieber Unità a Camme a Rullo

## Roller Cam Driver Treiber für rollenschieber Cuneo per camme a rullo

SLIDER WIDTH (mm)	CRX 	ROLLER CAM MODEL	DCRX 
	<b>CRX01</b> pag. 834		<b>DCRX0100</b> pag. 864
<b>78</b>	 <p>Work Angle -15÷50°</p> <p>Work Force 4,4 kN</p>	<p>CRX01.030 CRX01.050</p>	 <p>Work Angle -15÷50°</p>
	<b>CRX03</b> pag. 840		<b>DCRX0305</b> pag. 866
<b>98</b>	 <p>Work Angle -15÷50°</p> <p>Work Force 76 kN</p>	<p>CRX03.050 CRX03.080 CRX03.100</p>	 <p>Work Angle -15÷50°</p>
	<b>CRX05</b> pag. 846		
<b>118</b>	 <p>Work Angle -15÷50°</p> <p>Work Force 162 kN</p>	<p>CRX05.050 CRX05.080 CRX05.100</p>	
	<b>CRX15</b> pag. 852		<b>DCRX1520</b> pag. 868
<b>170</b>	 <p>Work Angle -15÷50°</p> <p>Work Force 166 kN</p>	<p>CRX15.050 CRX15.080 CRX15.100</p>	 <p>Work Angle -15÷50°</p>
	<b>CRX20</b> pag. 858		
<b>240</b>	 <p>Work Angle -15÷50°</p> <p>Work Force 258 kN</p>	<p>CRX20.050 CRX20.080 CRX20.100</p>	

## Die Mounted Cam Units Horizontalschieber Unità a Camme a Base Stampo

SLIDER WIDTH (mm)	DHC 	DLD
	<b>DHC052</b> pag. 872	<b>DLD052</b> pag. 906
52	 <p>Work Angle 0° Work Force 38 kN</p>	 <p>Work Angle 0°÷20° Work Force 40 kN</p>
	<b>DHC065</b> pag. 876	
65	 <p>Work Angle 0°÷20° Work Force 44÷48 kN</p>	
	<b>DHC100</b> pag. 880	<b>DLD090</b> pag. 910
90÷100	 <p>Work Angle 0°÷20° Work Force 75÷82 kN</p>	 <p>Work Angle 0°÷20° Work Force 79 kN</p>
	<b>DHC150</b> pag. 884	
150	 <p>Work Angle 0°÷20° Work Force 120÷127 kN</p>	
	<b>DHC200</b> pag. 888	
200	 <p>Work Angle 0° Work Force 176 kN</p>	
	<b>DHC250</b> pag. 892	
250	 <p>Work Angle 0° Work Force 232 kN</p>	
	<b>DHC300</b> pag. 896	
300	 <p>Work Angle 0° Work Force 272 kN</p>	
	<b>DHC400</b> pag. 900	
400	 <p>Work Angle 0° Work Force 480 kN</p>	

## Order example for replacement Bestellbeispiel für Ersatz Esempio d'ordine per particolari di ricambio

**CHD050**

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

628

**CHD050**

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

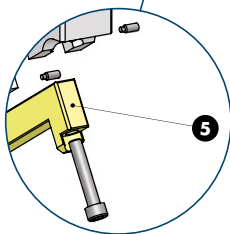
**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Cam Slider	GG-30	1
3	Plate	CuZn36Al5 + Graphite - HB > 190	1
4	Cam Driver	CK45	1
5	Guide Bar	CuZn25Al5 + Graphite - HB > 190	1
6	Spring Spacer	GA45	1
7	Positive Return R	42CrMo4 Nitroded	1
8	Key	CK45	2
9	Key	CK45	1
10	Main V- Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Gas Spring - Return Type G	-	1
11B	Spring - Return Type S	-	1
12	Positive Return L	42CrMo4 Nitroded	1
13	Cam Driver Flanking Screws M12x35 DIN 912	-	2
14	Cam Base Flanking Screws M12x45 DIN 912	-	2
15	Gas Spring Spacer	CK45	1

629

Cam Unit 620



Particular number	
1	
2	
3	
4	
5	



ORDER EXAMPLE	Cam Unit serial number	Omc code	Particular number
	0512390	CHD050.65	5

- Cam serial number
- Schieber Seriennummer
- Numero seriale dell'unità a camme



$$F = (R_m \times S_p \times L) / 1000$$

**CALCULATION OF TRIM FORCE:**

$F$  = Trim force (kN)

$R_m$  = Tensile strength of the material (N/mm<sup>2</sup>)

$S_p$  = Material thickness (mm)

$L$  = Trim profile length (mm)

**BERECHNUNG DER KRÄFTE BEIM STANZEN:**

$F$  = Stanzkraft (kN)

$R_m$  = Scherfestigkeit (N/mm<sup>2</sup>)

$S_p$  = Blechdicke (mm)

$L$  = Stanzumfang (mm)

**CALCOLO DELLA FORZA DI TRANCIATURA:**

$F$  = Forza di tranciatura (kN)

$R_m$  = Resistenza meccanica lamiera (N/mm<sup>2</sup>)

$S_p$  = Spessore lamiera (mm)

$L$  = Lunghezza profilo di tranciatura (mm)

**WORK FORCE DISTRIBUTION EXAMPLE**

w				
88	150	274	150	88
119	202	369	202	119
266	453	464	453	266
204	347	727	347	204
199	339	540	339	199
h				

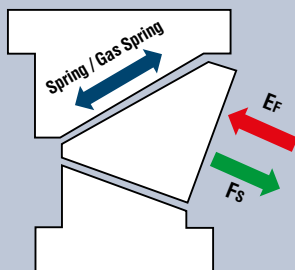
**ⓐ INFOS TO OBTAIN MAXIMUM PERFORMANCE:**

- Fix the Cam Unit to the shoulder (for other applications consult technical info).
- The resultant of the shearing forces should be applied to the central area of the slider and perpendicular to the work surface (for work force diagrams consult the technical info on our website).
- It is recommended that the sliding elements be lubricated during startup and at every 100.000 cycles.

**ⓑ UM BESTE ERGEBNISSE ZU ERZIELEN:**

- Schieber mit Schulterung montieren (andere Anwendung siehe technische Informationen).
- Die Resultante der Schneidkräfte muss im mittleren Bereich des Schiebers und senkrecht zur Arbeitsfläche sein (für die Kraftdiagramme siehe technische Informationen auf unserer Webseite).
- Es wird empfohlen, die Führungselemente bei der Montage des Schiebers und alle 100.000 Zyklen zu schmieren.

**EXTRACTION FORCE DIAGRAM**



**ⓒ PER OTTENERE LE MASSIME PRESTAZIONI:**

- Applicare la camma in spallamento (per altre applicazioni consultare le info tecniche).
- La risultante delle forze di tranciatura deve essere applicata nella zona centrale della slitta e perpendicolare al piano di lavoro (per i diagrammi delle forze di lavoro consultare le info tecniche sul nostro sito internet).
- Si consiglia di lubrificare gli elementi di guida in fase di messa a punto della camma e ogni 100.000 cicli.



**GB** EXTRACTION FORCE CALCULATION

The extraction force  $E_F$  is the available effective force on the slider in the work direction  $\beta$ .

The required extraction force  $E_{FR}$  is about 5% of the force needed ( $F^*$ ) to cut an open profile and 10% of the force needed to cut a closed profile.

$E_{FR} \neq E_F$

The gas spring force ( $G_F$ ) operates in the direction of the gas spring.

The extraction force  $E_F \neq G_F$

For **Aerial Cam Units** the force of extraction of the gas spring, in the work direction ( $G_{FW}$ ) is calculated with the formula:

$G_{FW} = G_F * \cos \alpha$

For **Die Mounted Cam Units** and **Roller Cam Units** the gas spring force should be completely regarded as

$G_{FW} = G_F$

**NOTE:**

If more extraction force is required ( $E_{FR} > E_F$ ), increase  $E_F$  using elastic elements or blank holders in front of the slider in order to help the extraction of the punch.

**D** BERECHNUNG DER RÜCKZUGSKRAFT

Die Rückzugskraft  $E_F$  ist die effektiv am Schieber verfügbare Rückzugskraft in Arbeitsrichtung  $\beta$ .

Die benötigte Rückzugskraft  $E_{FR}$  beträgt ungefähr 5% der notwendigen Arbeitskraft ( $F^*$ ) zum Stanzen eines offenen Schnittes und bis zu 10% der notwendigen Arbeitskraft zum Stanzen eines geschlossenen Schnittes.

$E_{FR} \neq E_F$

Die Gasdruckfederkraft ( $G_F$ ) wirkt in die Hubrichtung der Gasdruckfeder.

Die Rückzugskraft  $E_F \neq G_F$

Für **oben hängende Schieber** wird die Rückzugskraft der Gasdruckfeder in Arbeitsrichtung ( $G_{FW}$ ) mit folgender Formel berechnet:

$G_{FW} = G_F * \cos \alpha$

Für **Schieber am WZ Unterteil** und **Rollenschieber** kann die Kraft der Gasdruckfeder komplett berücksichtigt werden:

$G_{FW} = G_F$

**ANMERKUNG:**

Wird eine höhere Rückzugskraft benötigt ( $E_{FR} > E_F$ ), muss  $E_F$  durch den Einsatz von Elastomer- oder Gasdruckfedern auf der Arbeitsfläche, die in Arbeitsrichtung arbeiten, erhöht werden.

**I** CALCOLO DELLA FORZA D'ESTRAZIONE

La forza di estrazione  $E_F$  è la forza effettiva disponibile sulla slitta nella direzione di lavoro  $\beta$ .

La forza di estrazione richiesta  $E_{FR}$  è circa il 5% della forza necessaria ( $F^*$ ) a tagliare un profilo aperto e il 10% della forza necessaria ( $F^*$ ) a tagliare un profilo chiuso.

$E_{FR} \neq E_F$

La forza della molla a gas ( $G_F$ ) opera nella direzione di corsa della molla a gas.

La forza di estrazione  $E_F \neq G_F$

Per le **Camme Aeree** la forza di estrazione della molla a gas nella direzione di lavoro ( $G_{FW}$ ) è calcolata con la formula:

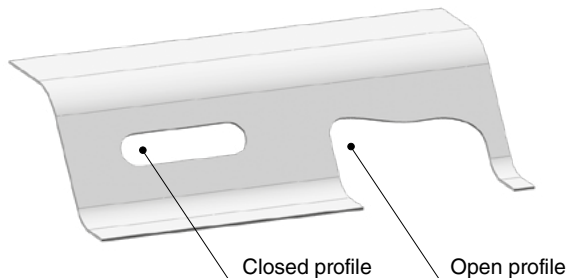
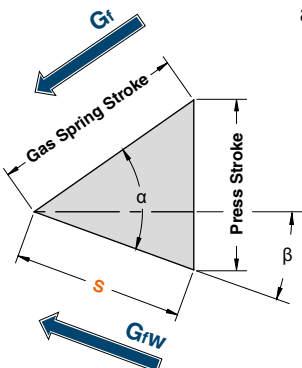
$G_{FW} = G_F * \cos \alpha$

Per le **Camme a Base Stampo** e per le **Camme a Rullo** la forza della molla a gas può essere considerata completamente

$G_{FW} = G_F$

**NOTE:**

Se è necessaria una maggiore forza di estrazione ( $E_{FR} > E_F$ ), incrementare  $E_F$  utilizzando elementi elastici o premilamiera davanti alla slitta per facilitare l'estrazione del punzone dalla matrice.





Cam Units CHD  
Schieber CHD  
Unità a Camme CHD



**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



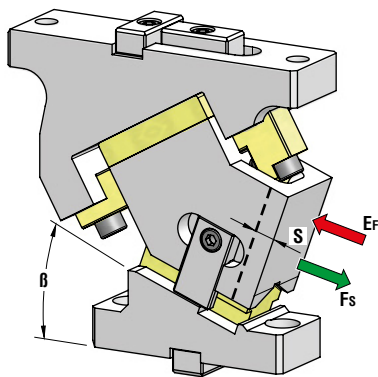
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)		Page number
	$\beta$					E <sub>F</sub>		
						F <sub>s</sub>	Spring	
<b>CHD050</b>	0°÷65° (5° steps)	50	180	50x65	60	1,14÷1,31	1,44÷1,72	628
<b>CHD065</b>	0°÷65° (5° steps)	65	180	65x65	60	1,14÷1,31	1,44÷1,72	632
<b>CHD080</b>	0°÷65° (5° steps)	80	275	80x88	149	1,13÷1,37	1,50÷1,85	636
<b>CHD100</b>	0°÷65° (5° steps)	100	275	100x88	149	1,13÷1,37	1,50÷1,85	640
<b>CHD150</b>	0°÷65° (5° steps)	150	355	150x120	391	2,29	7,15	644
<b>CHD180</b>	0°÷65° (5° steps)	180	355	180x120	396	2,29	7,15	648
<b>CHD200</b>	0°÷65° (5° steps)	200	355	200x120	396	2,29	7,15	652
<b>CHD250</b>	0°÷65° (5° steps)	250	355	250x160	645	4,58	14,30	656
<b>CHD300</b>	0°÷65° (5° steps)	300	355	300x160	645	4,58	14,30	660



High stock availability



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	$\beta$	S	F <sub>s</sub>	Spring	Gas Spring
CHD050.00	0°	14,98	60	1,31	1,72
CHD050.05	5°	15,62	60	1,30	1,67
CHD050.10	10°	15,64	60	1,14	1,60
CHD050.15	15°	16,96	60	1,14	1,60
CHD050.20	20°	18,43	60	1,14	1,60
CHD050.25	25°	18	60	1,29	1,53
CHD050.30	30°	17,36	60	1,17	1,47
CHD050.35	35°	18,87	60	1,17	1,47
CHD050.40	40°	20,57	60	1,17	1,47
CHD050.45	45°	22,54	60	1,17	1,47
CHD050.50	50°	23,34	60	1,17	1,44
CHD050.55	55°	26,05	60	1,17	1,44
CHD050.60	60°	31,51	60	1,17	1,47
CHD050.65	65°	36,57	60	1,17	1,47

### OPTION CODE

SL 1 ÷ 60 (1mm steps)

\*Return Type: G = Gas Spring / S = Spring



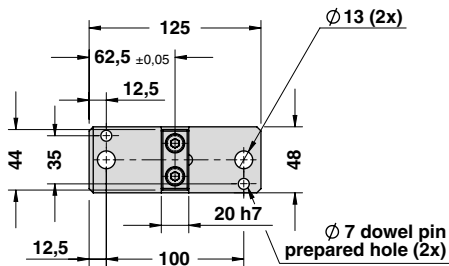
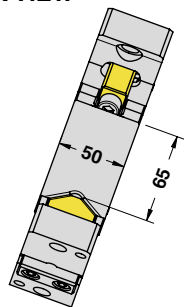
Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHD050	05	G	SL55

OMCR CODE	Work Angle	Overall Dimensions (mm)			
		A	B	C	D
CHD050.00	0°	185	67,50	80	205
CHD050.05	5°	188,04	68,29	75	200
CHD050.10	10°	185,99	69,77	65	190
CHD050.15	15°	188,77	71,95	65	190
CHD050.20	20°	186,34	74,79	55	180
CHD050.25	25°	181,62	80,28	41	166
CHD050.30	30°	180,58	85,39	40	165
CHD050.35	35°	177,15	90,10	25	150
CHD050.40	40°	173,29	95,35	22,5	147,5
CHD050.45	45°	169,94	98,13	10	135
CHD050.50	50°	164,07	99,37	5	130
CHD050.55	55°	158,64	111,04	-15	110
CHD050.60	60°	152,61	118,08	-25	100
CHD050.65	65°	145,95	125,44	-35	90

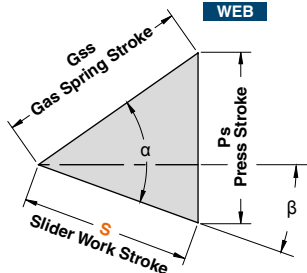


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

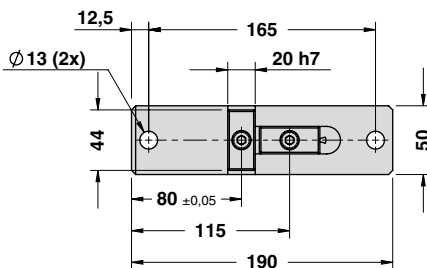
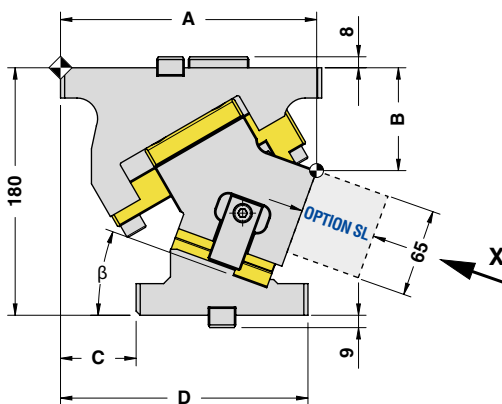
X VIEW



CAM DIAGRAM

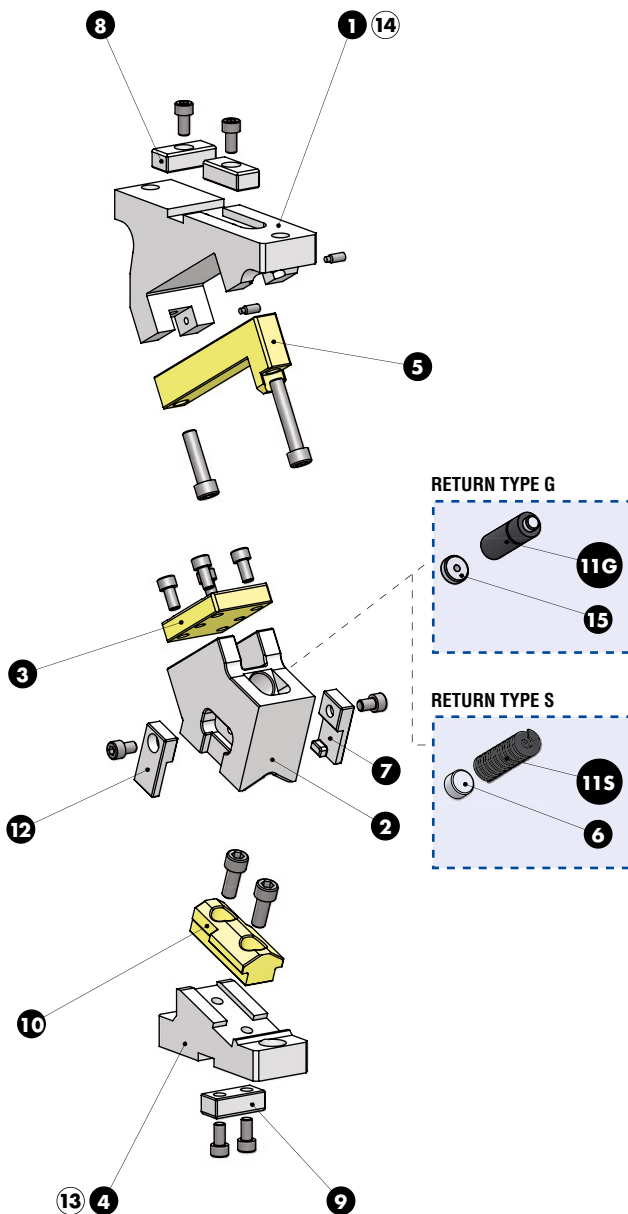


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	14,98	17,85	23,3
5°	50°	15,62	16,92	22
10°	50°	15,64	15,64	20,1
15°	50°	16,96	15,86	20
20°	50°	18,43	16,30	20
25°	50°	18,00	15,21	18
30°	50°	17,36	14,15	16
35°	50°	18,87	14,96	16
40°	50°	20,57	16,00	16
45°	50°	22,54	17,33	16
50°	50°	23,34	17,88	15
55°	50°	26,05	20,03	15
60°	50°	31,51	24,51	16
65°	50°	36,57	29,00	16





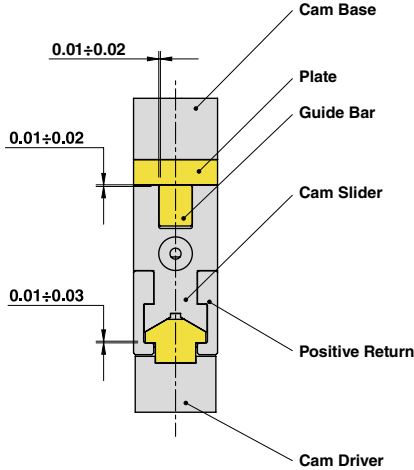
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



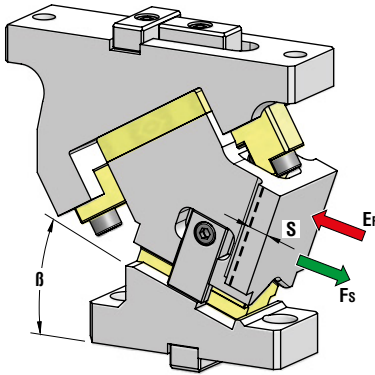
Cam Units CHD

PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Cam Slider	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	CK45	1
5	Guide Bar	CuZn25Al5 + Graphite - HB > 190	1
6	Spring Spacer	CK45	1
7	Positive Return R	42CrMo4 Nitrided	1
8	Key	CK45	2
9	Key	CK45	1
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11G	Gas Spring - Return Type G	-	1
11S	Spring - Return Type S	-	1
12	Positive Return L	42CrMo4 Nitrided	1
13	Cam Driver Fixing Screws M12x35 DIN 912	-	2
14	Cam Base Fixing Screws M12x45 DIN 912	-	2
15	Gas Spring Spacer	CK45	1



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
				Spring	Gas Spring
CHD065.00	0°	14,98	60	1,31	1,72
CHD065.05	5°	15,62	60	1,30	1,67
CHD065.10	10°	15,64	60	1,14	1,60
CHD065.15	15°	16,96	60	1,14	1,60
CHD065.20	20°	18,43	60	1,14	1,60
CHD065.25	25°	18	60	1,29	1,53
CHD065.30	30°	17,36	60	1,17	1,47
CHD065.35	35°	18,87	60	1,17	1,47
CHD065.40	40°	20,57	60	1,17	1,47
CHD065.45	45°	22,54	60	1,17	1,47
CHD065.50	50°	23,34	60	1,17	1,44
CHD065.55	55°	26,05	60	1,17	1,44
CHD065.60	60°	31,51	60	1,17	1,47
CHD065.65	65°	36,57	60	1,17	1,47

**OPTION CODE**

SL 1 ÷ 60 (1mm steps)

\*Return Type: G = Gas Spring / S = Spring



Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHD065	05	G	SL55

OMCR CODE	Work Angle	Overall Dimensions (mm)			
		β	A	B	C
CHD065.00	0°	185	67,50	80	205
CHD065.05	5°	188,04	68,29	75	200
CHD065.10	10°	185,99	69,77	65	190
CHD065.15	15°	188,77	71,95	65	190
CHD065.20	20°	186,34	74,79	55	180
CHD065.25	25°	181,62	80,28	41	166
CHD065.30	30°	180,58	85,39	40	165
CHD065.35	35°	177,15	90,10	25	150
CHD065.40	40°	173,29	95,35	22,5	147,5
CHD065.45	45°	169,94	98,13	10	135
CHD065.50	50°	164,07	99,37	5	130
CHD065.55	55°	158,64	111,04	-15	110
CHD065.60	60°	152,61	118,08	-25	100
CHD065.65	65°	145,95	125,44	-35	90

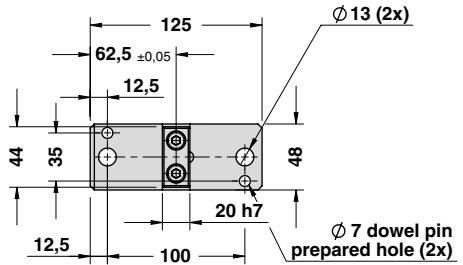
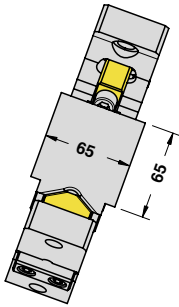




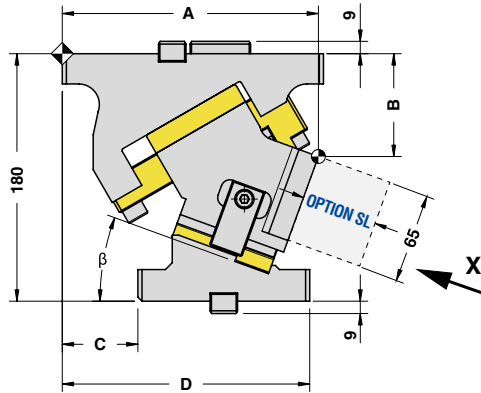
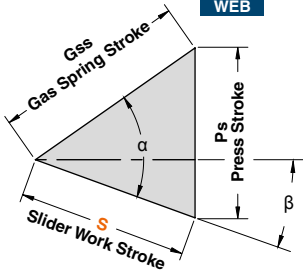


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

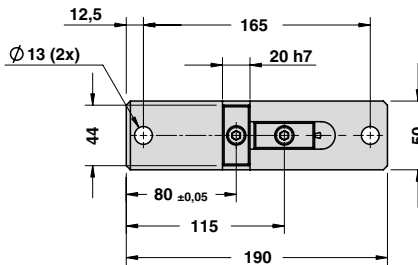
X VIEW



CAM DIAGRAM

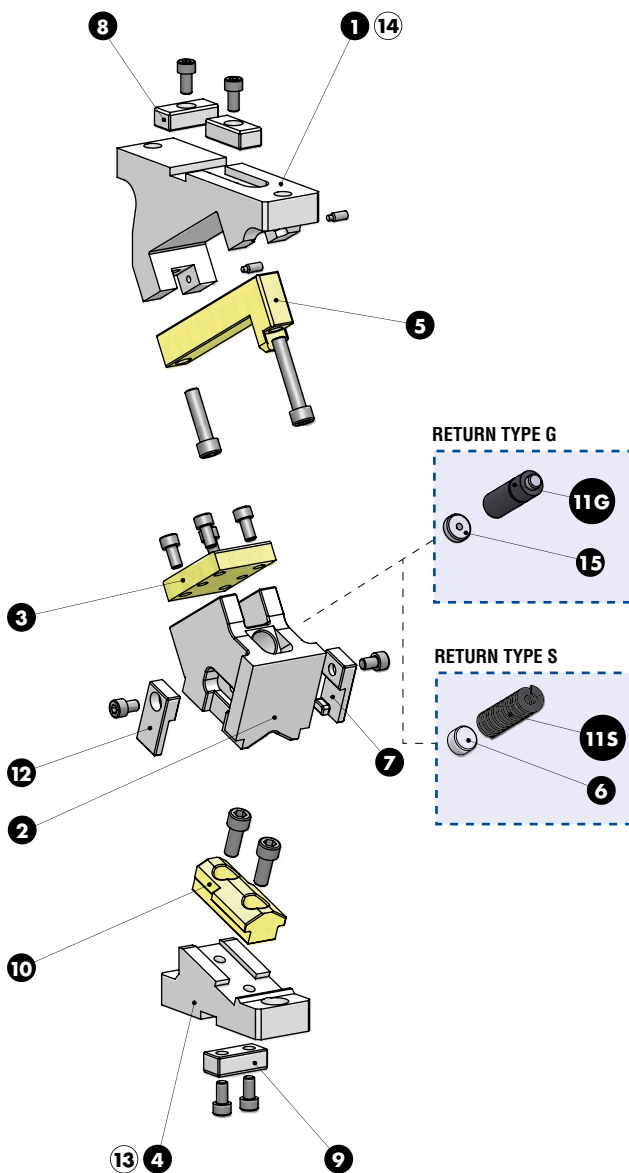


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	14,98	17,85	23,3
5°	50°	15,62	16,92	22
10°	50°	15,64	15,64	20,1
15°	50°	16,96	15,86	20
20°	50°	18,43	16,30	20
25°	50°	18,00	15,21	18
30°	50°	17,36	14,15	16
35°	50°	18,87	14,96	16
40°	50°	20,57	16,00	16
45°	50°	22,54	17,33	16
50°	50°	23,34	17,88	15
55°	50°	26,05	20,03	15
60°	50°	31,51	24,51	16
65°	50°	36,57	29,00	16





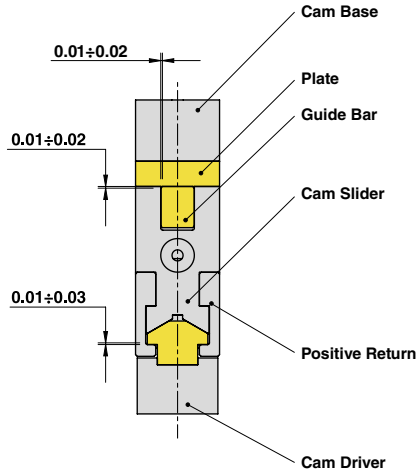
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



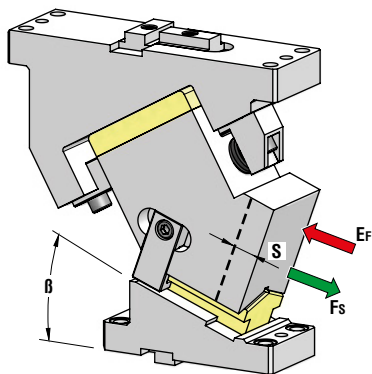
Cam Units CHD

PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Cam Slider	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	CK45	1
5	Guide Bar	CuZn25Al5 + Graphite - HB > 190	1
6	Spring Spacer	CK45	1
7	Positive Return R	42CrMo4 Nitrided	1
8	Key	CK45	2
9	Key	CK45	1
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11G	Gas Spring - Return Type G	-	1
11S	Spring - Return Type S	-	1
12	Positive Return L	42CrMo4 Nitrided	1
13	Cam Driver Fixing Screws M12x35 DIN 912	-	2
14	Cam Base Fixing Screws M12x45 DIN 912	-	2
15	Gas Spring Spacer	CK45	1



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



WEB

WEB

WEB

P.624

OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	$\beta$	S	Fs	Spring	Gas Spring
CHD080.00	0°	30,21	149	1,37	1,85
CHD080.05	5°	30,52	149	1,37	1,76
CHD080.10	10°	31,11	149	1,37	1,69
CHD080.15	15°	33,92	149	1,37	1,69
CHD080.20	20°	32,26	149	1,25	1,59
CHD080.25	25°	35	149	1,25	1,59
CHD080.30	30°	34,72	149	1,25	1,54
CHD080.35	35°	37,73	149	1,25	1,54
CHD080.40	40°	39,85	149	1,25	1,52
CHD080.45	45°	43,67	149	1,25	1,52
CHD080.50	50°	46,67	149	1,13	1,50
CHD080.55	55°	53,84	149	1,25	1,52
CHD080.60	60°	61,06	149	1,25	1,52
CHD080.65	65°	70,85	149	1,25	1,52

### OPTION CODE

SL 1 ÷ 60 (1mm steps)

\*Return Type: G = Gas Spring / S = Spring

15



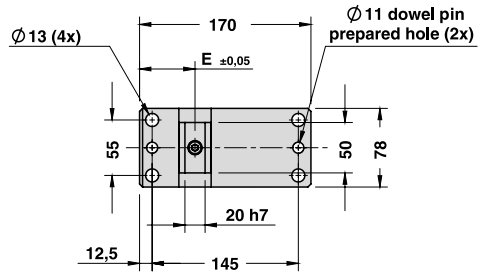
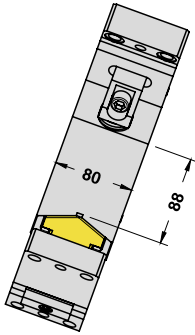
Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHD080	05	G	SL55

OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CHD080.00	0°	277	110	135	305	65
CHD080.05	5°	278,32	115,67	125	295	65
CHD080.10	10°	274,54	117,32	110	280	65
CHD080.15	15°	277,58	119,95	105	275	55
CHD080.20	20°	273,34	123,52	95	265	55
CHD080.25	25°	268,75	128,03	80	250	55
CHD080.30	30°	261,73	133,42	65	235	60
CHD080.35	35°	258,20	139,66	55	225	60
CHD080.40	40°	245,09	146,70	35	205	50
CHD080.45	45°	245,34	154,49	30	200	50
CHD080.50	50°	225,87	162,97	5	175	50
CHD080.55	55°	229,64	172,07	0	170	60
CHD080.60	60°	208,58	181,73	-20	150	50
CHD080.65	65°	203,67	191,87	-30	140	50

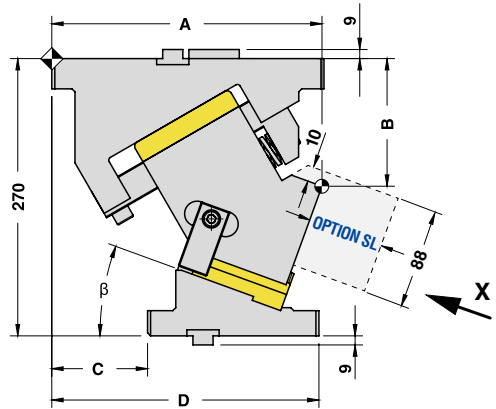
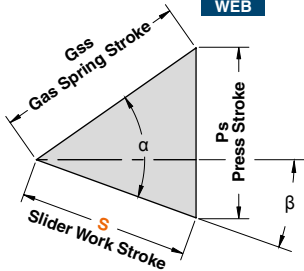


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

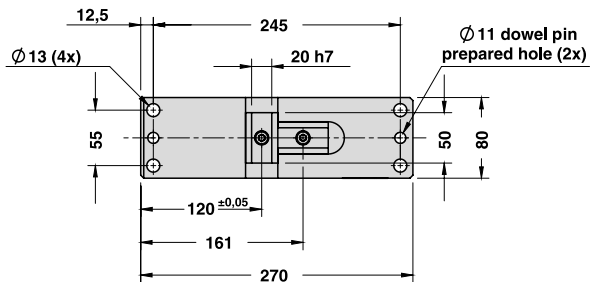
X VIEW



CAM DIAGRAM



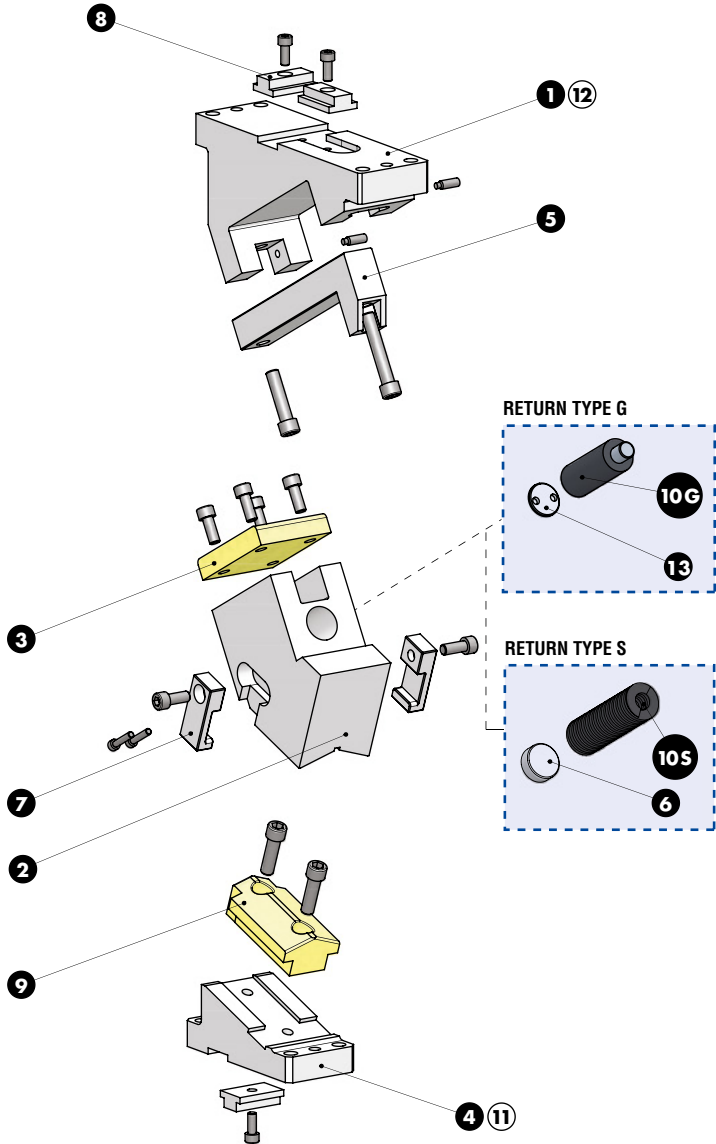
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	30,21	36,00	47
5°	50°	30,52	33,07	43
10°	50°	31,11	31,11	40
15°	50°	33,92	31,72	40
20°	50°	32,26	28,53	35
25°	50°	35,00	29,58	35
30°	50°	34,72	28,31	32
35°	50°	37,73	29,93	32
40°	50°	39,85	31,00	31
45°	50°	43,67	33,58	31
50°	50°	46,67	35,75	30
55°	50°	53,84	41,40	31
60°	50°	61,06	47,49	31
65°	50°	70,85	56,19	31



Cam Units CHD



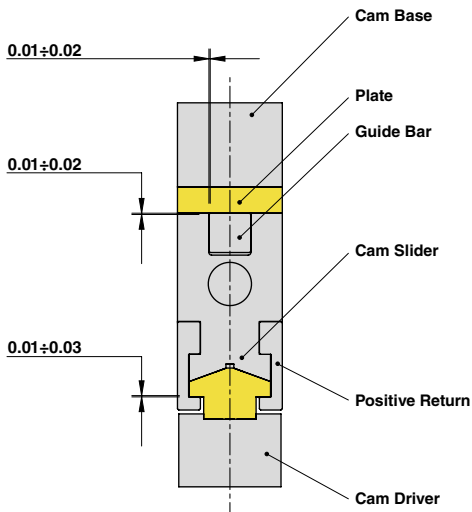
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



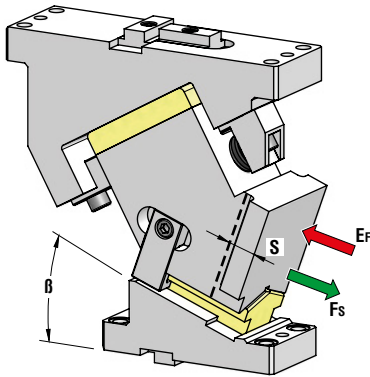
Cam Units CHD

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	GG-30	1
2	Cam Slider	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	GG-30	1
5	Guide Bar	CK45 + Graphite	1
6	Spring Spacer	CK45	1
7	Positive Return	42CrMo4 Nitrided	2
8	Key	CK45	3
9	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
10G	Gas Spring - Return Type G	-	1
10S	Spring - Return Type S	-	1
11	Cam Driver Fixing Screws M12x50 DIN 912	-	4
12	Cam Base Fixing Screws M12x55 DIN 912	-	4
13	Gas Spring Spacer	CK45	1



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	$\beta$	S	Fs	Spring	Gas Spring
CHD100.00	0°	30,21	149	1,37	1,85
CHD100.05	5°	30,52	149	1,37	1,76
CHD100.10	10°	31,11	149	1,37	1,69
CHD100.15	15°	33,92	149	1,37	1,69
CHD100.20	20°	32,26	149	1,25	1,59
CHD100.25	25°	35	149	1,25	1,59
CHD100.30	30°	34,72	149	1,25	1,54
CHD100.35	35°	37,73	149	1,25	1,54
CHD100.40	40°	39,85	149	1,25	1,52
CHD100.45	45°	43,67	149	1,25	1,52
CHD100.50	50°	46,67	149	1,13	1,50
CHD100.55	55°	53,84	149	1,25	1,52
CHD100.60	60°	61,06	149	1,25	1,52
CHD100.65	65°	70,85	149	1,25	1,52

### OPTION CODE

SL	1 ÷ 60 (1mm steps)
----	--------------------

\*Return Type: G = Gas Spring / S = Spring



Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHD100	05	G	SL55

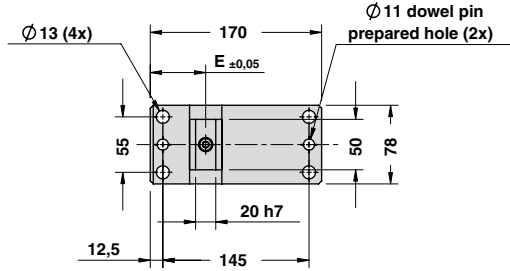
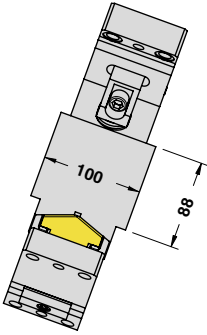
OMCR CODE	Work Angle	Overall Dimensions (mm)				
		A	B	C	D	E
CHD100.00	0°	277	110	135	305	65
CHD100.05	5°	278,32	115,67	125	295	65
CHD100.10	10°	274,54	117,32	110	280	65
CHD100.15	15°	277,58	119,95	105	275	55
CHD100.20	20°	273,34	123,52	95	265	55
CHD100.25	25°	268,75	128,03	80	250	55
CHD100.30	30°	261,73	133,42	65	235	60
CHD100.35	35°	258,20	139,66	55	225	60
CHD100.40	40°	245,09	146,70	35	205	50
CHD100.45	45°	245,34	154,49	30	200	50
CHD100.50	50°	225,87	162,97	5	175	50
CHD100.55	55°	229,64	172,07	0	170	60
CHD100.60	60°	208,58	181,73	-20	150	50
CHD100.65	65°	203,67	191,87	-30	140	50



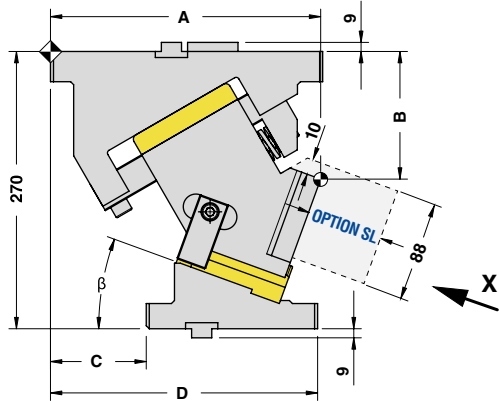
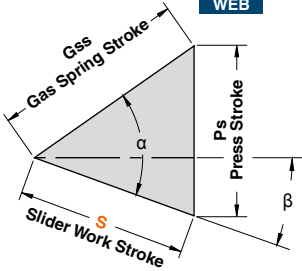


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

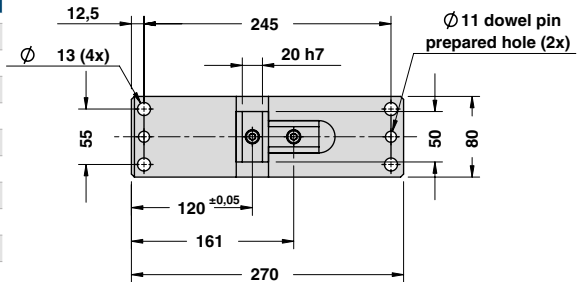
X VIEW



CAM DIAGRAM

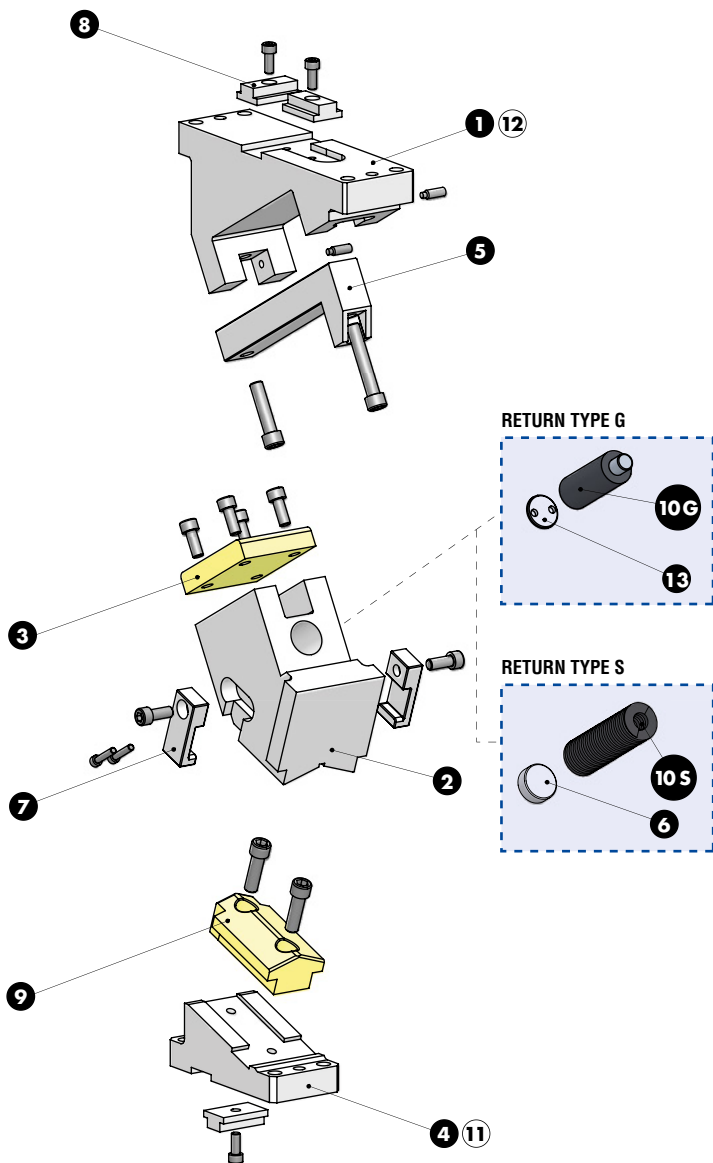


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
		S	Ps	Gss
0°	50°	30,21	36,00	47
5°	50°	30,52	33,07	43
10°	50°	31,11	31,11	40
15°	50°	33,92	31,72	40
20°	50°	32,26	28,53	35
25°	50°	35,00	29,58	35
30°	50°	34,72	28,31	32
35°	50°	37,73	29,93	32
40°	50°	39,85	31,00	31
45°	50°	43,67	33,58	31
50°	50°	46,67	35,75	30
55°	50°	53,84	41,40	31
60°	50°	61,06	47,49	31
65°	50°	70,85	56,19	31





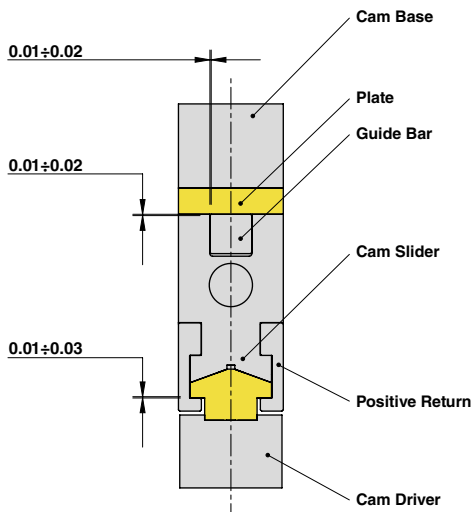
**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



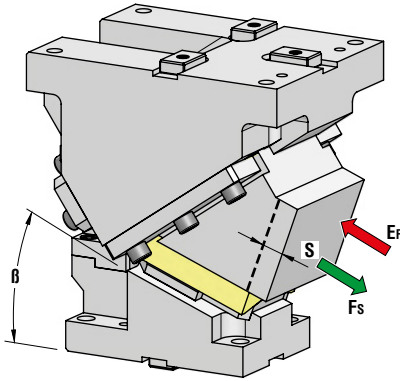
Cam Units CHD

PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	GG-30	1
2	Cam Slider	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	GG-30	1
5	Guide Bar	CK45 + Graphite	1
6	Spring Spacer	CK45	1
7	Positive Return	42CrMo4 Nitrided	2
8	Key	CK45	3
9	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
10G	Gas Spring - Return Type G	-	1
10S	Spring - Return Type S	-	1
11	Cam Driver Fixing Screws M12x50 DIN 912	-	4
12	Cam Base Fixing Screws M12x55 DIN 912	-	4
13	Gas Spring Spacer	CK45	1



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
				Spring	Gas Spring
CHD150.00	0°	28,68	391	2,29	7,15
CHD150.05	5°	32,26	391	2,29	7,15
CHD150.10	10°	35,90	391	2,29	7,15
CHD150.15	15°	39,65	391	2,29	7,15
CHD150.20	20°	43,59	391	2,29	7,15
CHD150.25	25°	47,78	391	2,29	7,15
CHD150.30	30°	52,33	391	2,29	7,15
CHD150.35	35°	57,36	391	2,29	7,15
CHD150.40	40°	63,05	391	2,29	7,15
CHD150.45	45°	69,64	391	2,29	7,15
CHD150.50	50°	77,49	391	2,29	7,15
CHD150.55	55°	87,17	391	2,29	7,15
CHD150.60	60°	99,62	391	2,29	7,15
CHD150.65	65°	116,51	391	2,29	7,15

\*Return Type: G = Gas Spring / S = Spring



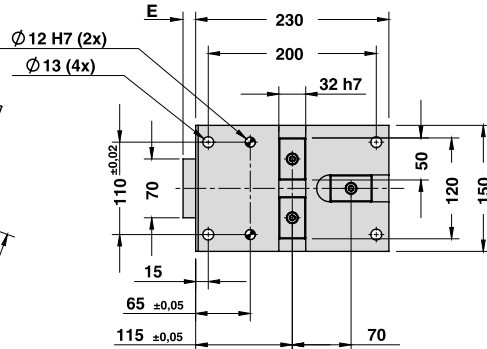
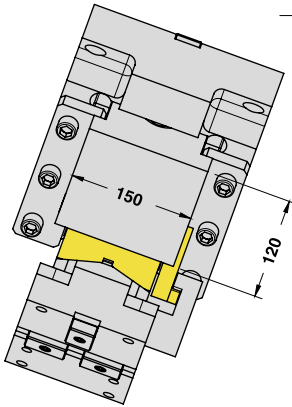
Art.	Work Angle = 5°	Return Type*
CHD150	05	G

OMCR CODE	Work Angle	Overall Dimensions (mm)				
		A	B	C	D	E
CHD150.00	0°	325	130	80	310	25
CHD150.05	5°	319,70	133,26	60	290	25
CHD150.10	10°	319,06	137,79	45	275	25
CHD150.15	15°	322,98	143,56	35	265	20
CHD150.20	20°	326,33	150,51	25	255	15
CHD150.25	25°	329,03	158,61	15	245	10
CHD150.30	30°	325,98	167,78	0	230	0
CHD150.35	35°	322,08	192,95	-15	215	0
CHD150.40	40°	312,26	204,06	-35	195	0
CHD150.45	45°	306,42	216,01	-50	180	0
CHD150.50	50°	294,51	228,71	-70	160	0
CHD150.55	55°	281,46	242,07	-90	140	0
CHD150.60	60°	272,22	255,98	-105	125	0
CHD150.65	65°	261,75	270,34	-120	110	0

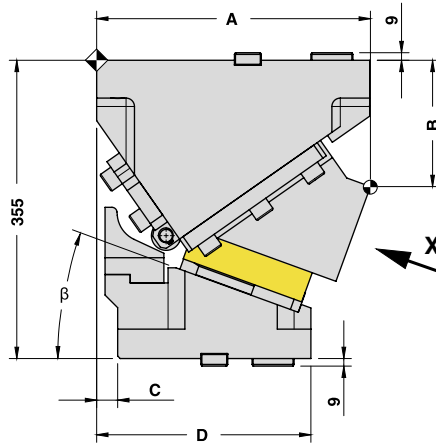
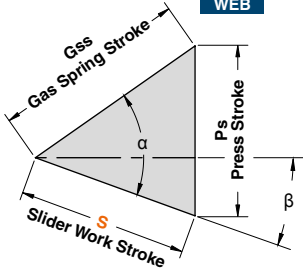


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

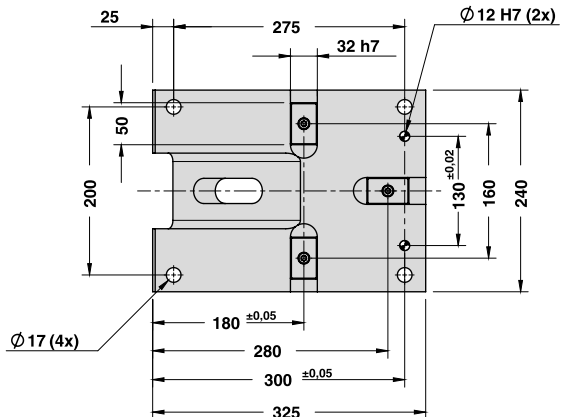
X VIEW



CAM DIAGRAM



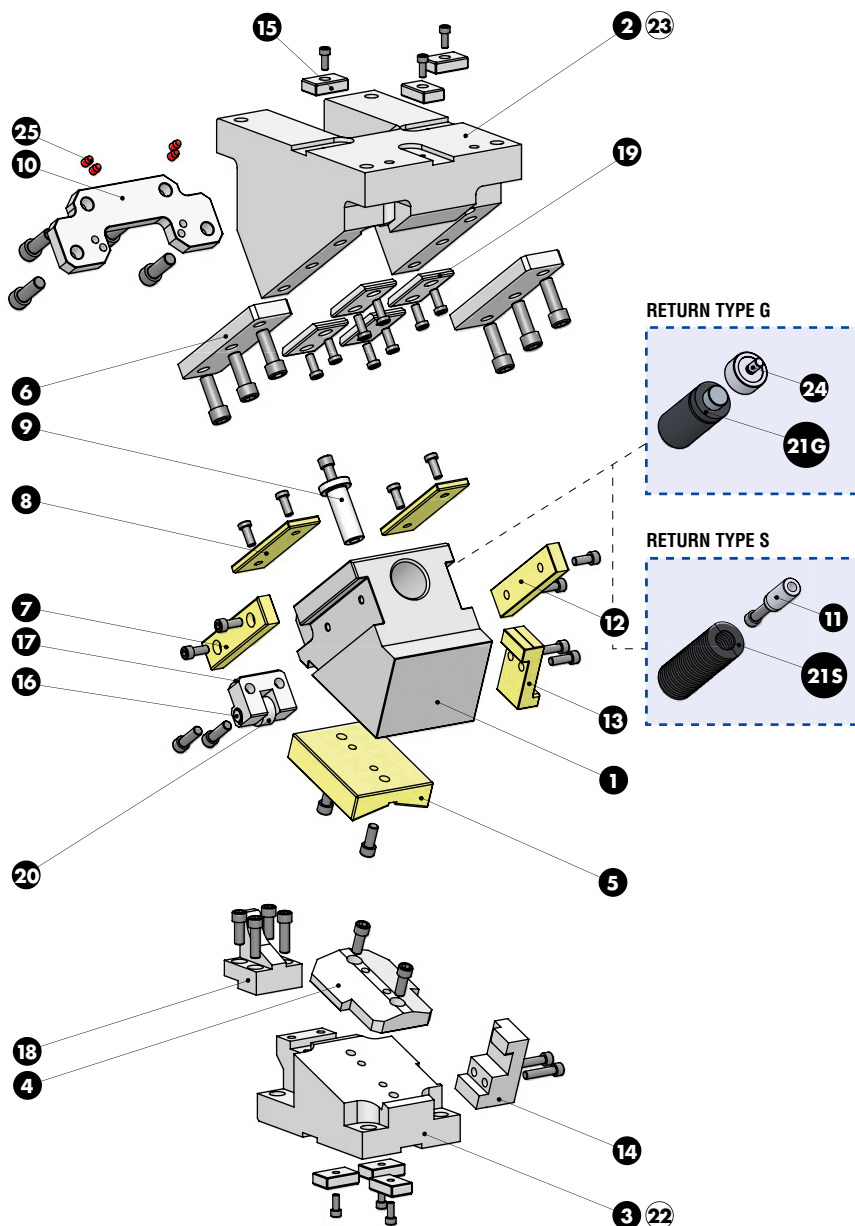
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
		S	Ps	Gss
0°	55°	28,68	40,96	50
5°	55°	32,26	41,11	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	55°	47,78	45,19	50
30°	55°	52,33	47,29	50
35°	55°	57,36	50,00	50
40°	55°	63,05	53,47	50
45°	55°	69,64	57,92	50
50°	55°	77,49	63,72	50
55°	55°	87,17	71,41	50
60°	55°	99,62	81,92	50
65°	55°	116,51	96,91	50



Cam Units CHD



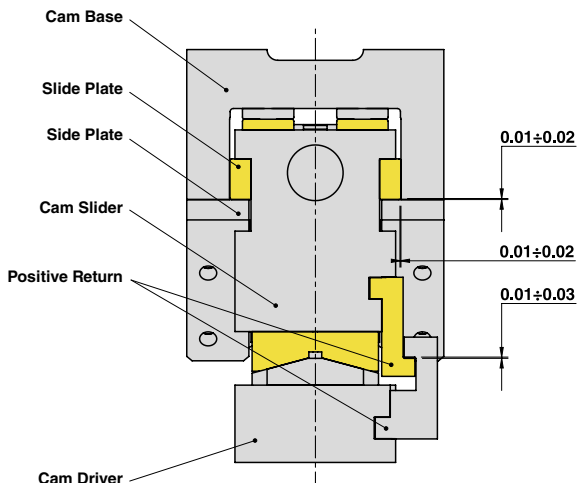
**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



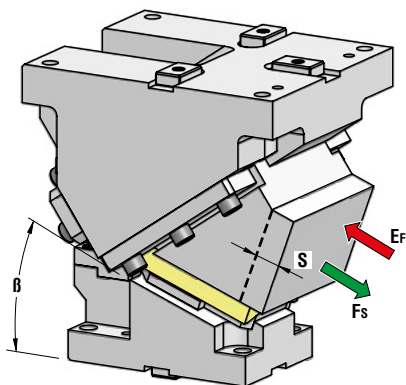
PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Base	GG-30	1
3	Cam Driver	GG-30	1
4	Male "V" Driver	CK45	1
5	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate	CK45	2
7	Slide Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Safety Pin	CK45	1
10	Stopper Plate	St 52	1
11	Spring Guide Pin	CK45	1
12	Slide Plate R	CuZn25Al5 + Graphite - HB > 190	1
13	Positive Return	CuZn25Al5 - HB > 190	1
14	Positive Return	42CrMo4 Nitrided	1
15	Key	CK45	6
16	Shaft	CK45	1
17	Roller Bracket	CK45	1
18	Accelerator	CK45	1
19	Wear Plate	CK45	4
20	Roller	NATR15PP	1
21G	Gas Spring - Return Type G	-	1
21S	Spring - Return Type S	-	1
22	Cam Driver Fixing Screws M12x50 DIN 912	-	4
23	Cam Base Fixing Screws M16x70 DIN 912	-	4
24	Gas Spring Spacer	CK45	1
25	Elastomer Cap	Elastomer 92SH	4

Cam Units CHD



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
				Spring	Gas Spring
	$\beta$	S	F <sub>s</sub>	Spring	Gas Spring
CHD180.00	0°	28,68	396	2,29	7,15
CHD180.05	5°	32,26	396	2,29	7,15
CHD180.10	10°	35,90	396	2,29	7,15
CHD180.15	15°	39,65	396	2,29	7,15
CHD180.20	20°	43,59	396	2,29	7,15
CHD180.25	25°	47,78	396	2,29	7,15
CHD180.30	30°	52,33	396	2,29	7,15
CHD180.35	35°	57,36	396	2,29	7,15
CHD180.40	40°	63,05	396	2,29	7,15
CHD180.45	45°	69,64	396	2,29	7,15
CHD180.50	50°	77,49	396	2,29	7,15
CHD180.55	55°	87,17	396	2,29	7,15
CHD180.60	60°	99,62	396	2,29	7,15
CHD180.65	65°	116,51	396	2,29	7,15

\*Return Type: G = Gas Spring / S = Spring



Art.	Work Angle = 5°	Return Type*
CHD180	05	G

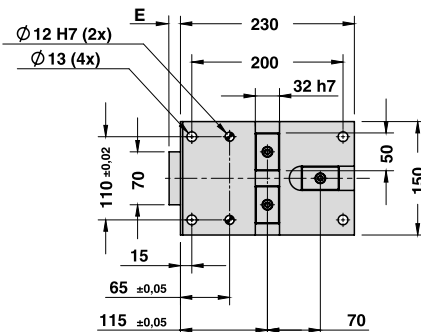
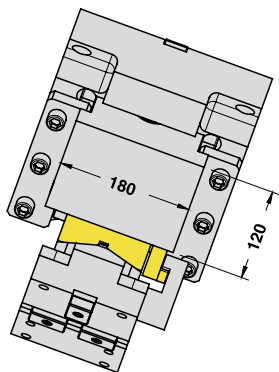
OMCR CODE	Work Angle	Overall Dimensions (mm)				
		$\beta$	A	B	C	D
CHD180.00	0°	325	130	80	310	25
CHD180.05	5°	319,70	133,26	60	290	25
CHD180.10	10°	319,06	137,79	45	275	25
CHD180.15	15°	322,98	143,56	35	265	20
CHD180.20	20°	326,33	150,51	25	255	15
CHD180.25	25°	329,03	158,61	15	245	10
CHD180.30	30°	325,98	167,78	0	230	0
CHD180.35	35°	322,08	192,95	-15	215	0
CHD180.40	40°	312,26	204,06	-35	195	0
CHD180.45	45°	306,42	216,01	-50	180	0
CHD180.50	50°	294,51	228,71	-70	160	0
CHD180.55	55°	281,46	242,07	-90	140	0
CHD180.60	60°	272,22	255,98	-105	125	0
CHD180.65	65°	261,75	270,34	-120	110	0



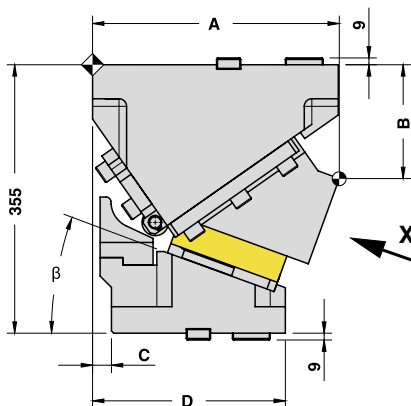
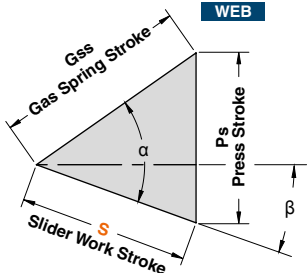


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

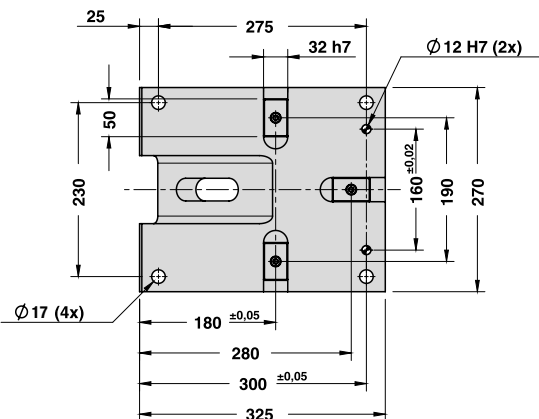
X VIEW



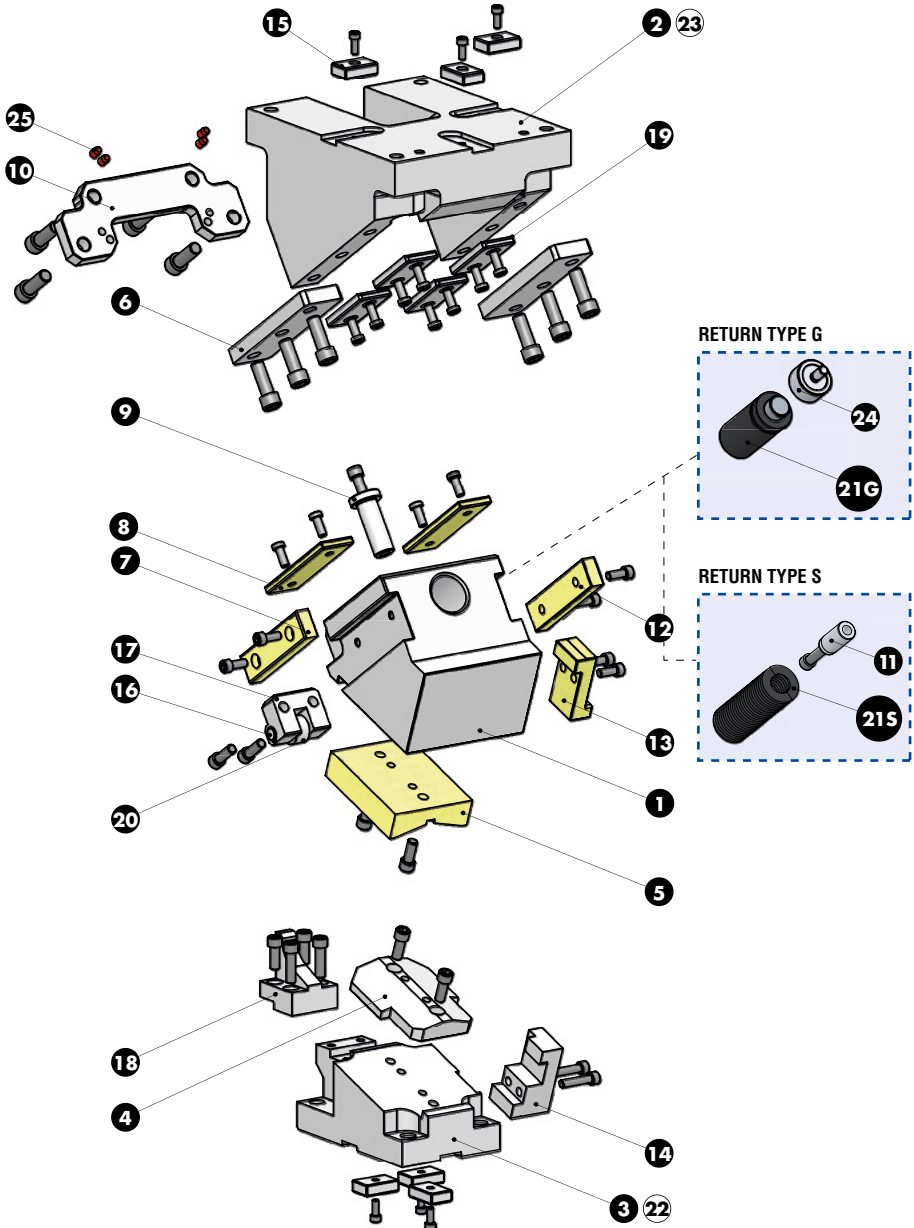
CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	55°	28,68	40,96	50
5°	55°	32,26	41,11	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	55°	47,78	45,19	50
30°	55°	52,33	47,29	50
35°	55°	57,36	50,00	50
40°	55°	63,05	53,47	50
45°	55°	69,64	57,92	50
50°	55°	77,49	63,72	50
55°	55°	87,17	71,41	50
60°	55°	99,62	81,92	50
65°	55°	116,51	96,91	50



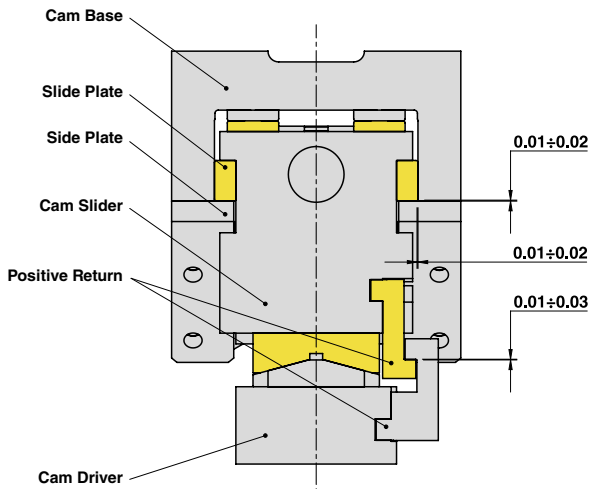
Cam Units CHD

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

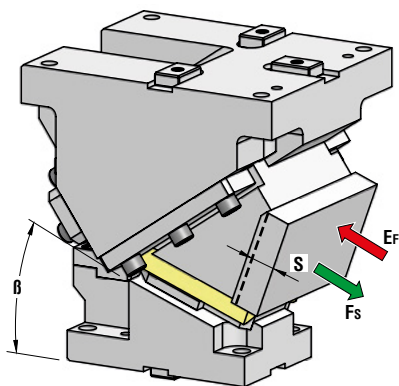


**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Base	GG-30	1
3	Cam Driver	GG-30	1
4	Male "V" Driver	CK45	1
5	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate	CK45	2
7	Slide Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Safety Pin	CK45	1
10	Stopper Plate	St 52	1
11	Spring Guide Pin	CK45	1
12	Slide Plate R	CuZn25Al5 + Graphite - HB > 190	1
13	Positive Return	CuZn25Al5 - HB > 190	1
14	Positive Return	42CrMo4 Nitrided	1
15	Key	CK45	6
16	Shaft	CK45	1
17	Roller Bracket	CK45	1
18	Accelerator	CK45	1
19	Wear Plate	CK45	4
20	Roller	NATR15PP	1
21G	Gas Spring - Return Type G	-	1
21S	Spring - Return Type S	-	1
22	Cam Driver Fixing Screws M12x50 DIN 912	-	4
23	Cam Base Fixing Screws M16x70 DIN 912	-	4
24	Gas Spring Spacer	CK45	1
25	Elastomer Cap	Elastomer 92SH	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
				Spring	Gas Spring
CHD200.00	0°	28,68	396	2,29	7,15
CHD200.05	5°	32,26	396	2,29	7,15
CHD200.10	10°	35,90	396	2,29	7,15
CHD200.15	15°	39,65	396	2,29	7,15
CHD200.20	20°	43,59	396	2,29	7,15
CHD200.25	25°	47,78	396	2,29	7,15
CHD200.30	30°	52,33	396	2,29	7,15
CHD200.35	35°	57,36	396	2,29	7,15
CHD200.40	40°	63,05	396	2,29	7,15
CHD200.45	45°	69,64	396	2,29	7,15
CHD200.50	50°	77,49	396	2,29	7,15
CHD200.55	55°	87,17	396	2,29	7,15
CHD200.60	60°	99,62	396	2,29	7,15
CHD200.65	65°	116,51	396	2,29	7,15

\*Return Type: G = Gas Spring / S = Spring



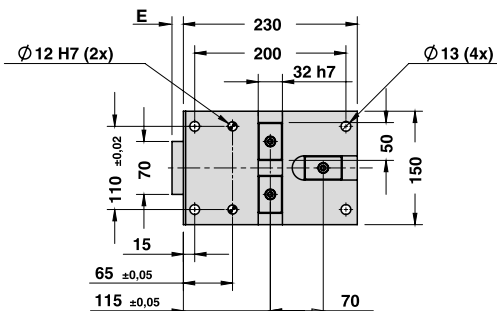
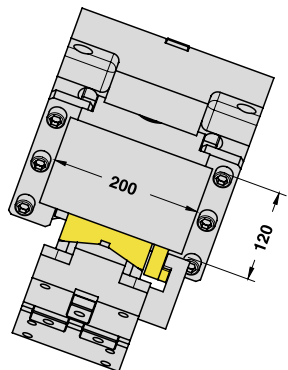
Art.	Work Angle = 5°	Return Type*
CHD200	05	G

OMCR CODE	Work Angle	Overall Dimensions (mm)				
		$\beta$	A	B	C	D
CHD200.00	0°	325	130	80	310	25
CHD200.05	5°	319,70	133,26	60	290	25
CHD200.10	10°	319,06	137,79	45	275	25
CHD200.15	15°	322,98	143,56	35	265	20
CHD200.20	20°	326,33	150,51	25	255	15
CHD200.25	25°	329,03	158,61	15	245	10
CHD200.30	30°	325,98	167,78	0	230	0
CHD200.35	35°	322,08	192,95	-15	215	0
CHD200.40	40°	312,26	204,06	-35	195	0
CHD200.45	45°	306,42	216,01	-50	180	0
CHD200.50	50°	294,51	228,71	-70	160	0
CHD200.55	55°	281,46	242,07	-90	140	0
CHD200.60	60°	272,22	255,98	-105	125	0
CHD200.65	65°	261,75	270,34	-120	110	0

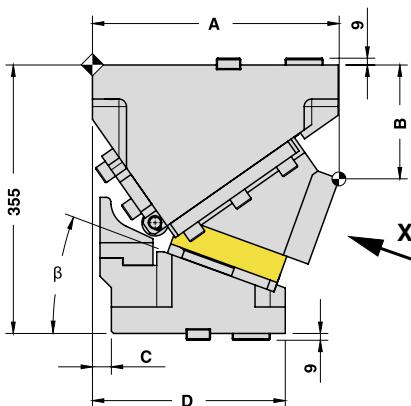
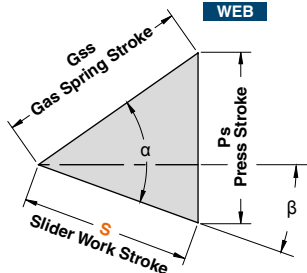


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

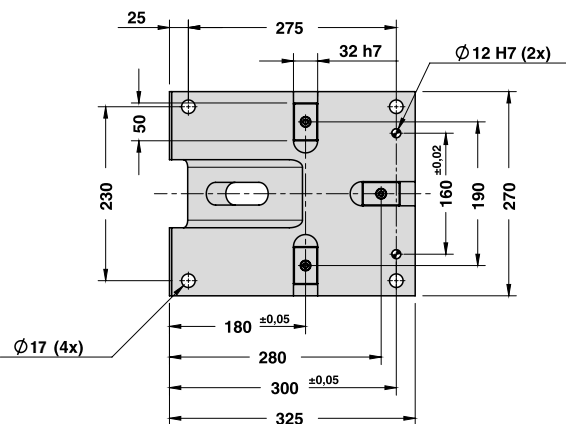
X VIEW



CAM DIAGRAM



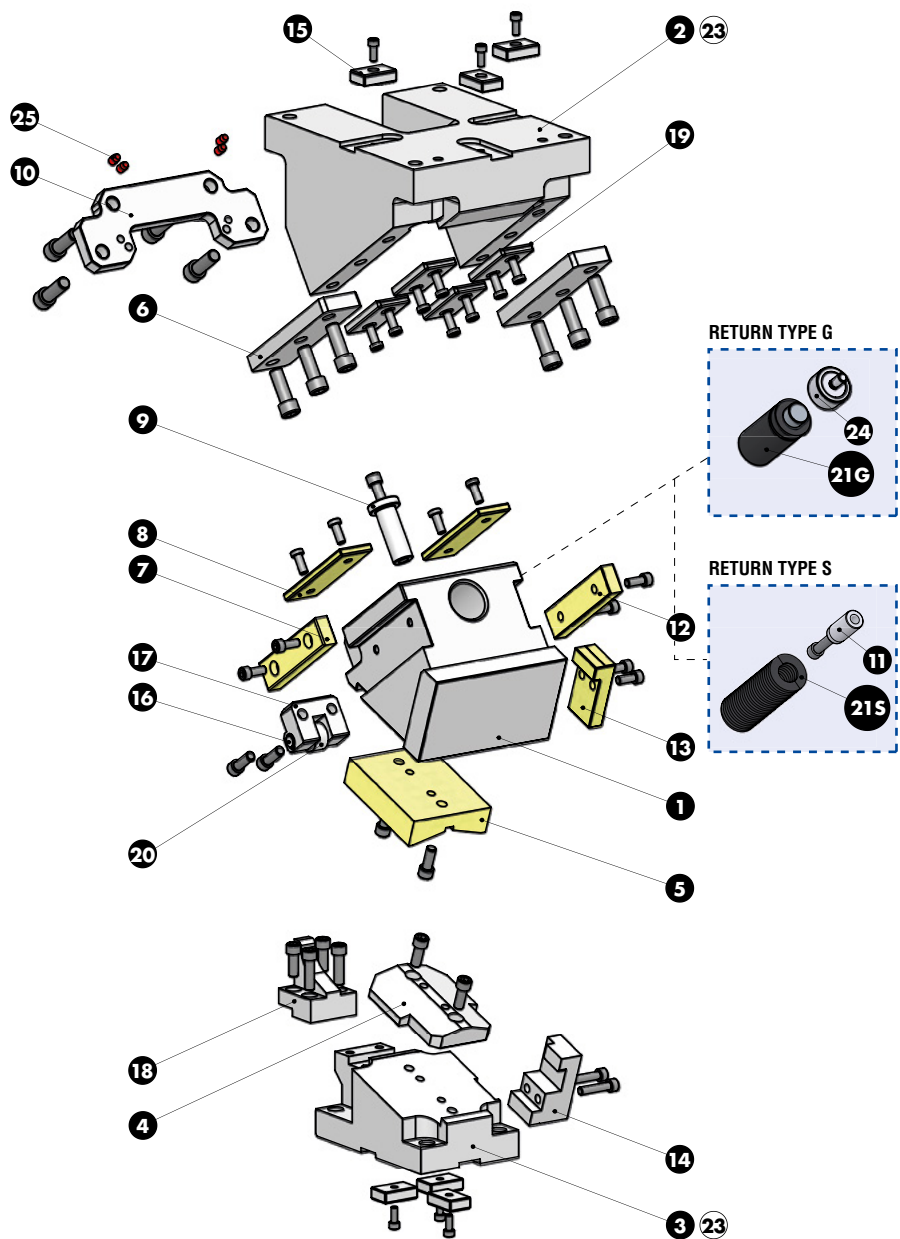
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	55°	28,68	40,96	50
5°	55°	32,26	41,11	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	55°	47,78	45,19	50
30°	55°	52,33	47,29	50
35°	55°	57,36	50,00	50
40°	55°	63,05	53,47	50
45°	55°	69,64	57,92	50
50°	55°	77,49	63,72	50
55°	55°	87,17	71,41	50
60°	55°	99,62	81,92	50
65°	55°	116,51	96,91	50



Cam Units CHD



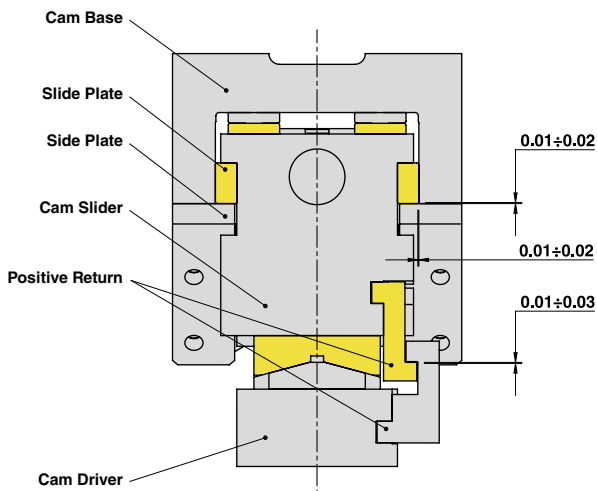
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

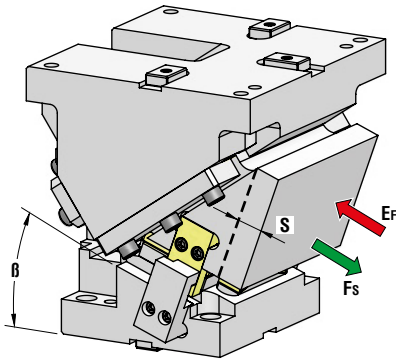


**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Base	GG-30	1
3	Cam Driver	GG-30	1
4	Male "V" Driver	CK45	1
5	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate	CK45	2
7	Slide Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Safety Pin	CK45	1
10	Stopper Plate	St 52	1
11	Spring Guide Pin	CK45	1
12	Slide Plate R	CuZn25Al5 + Graphite - HB > 190	1
13	Positive Return	CuZn25Al5 - HB > 190	1
14	Positive Return	42CrMo4 Nitrided	1
15	Key	CK45	6
16	Shaft	CK45	1
17	Roller Bracket	CK45	1
18	Accelerator	CK45	1
19	Wear Plate	CK45	4
20	Roller	NATR15PP	1
21G	Gas Spring - Return Type G	-	1
21S	Spring - Return Type S	-	1
22	Cam Driver Fixing Screws M12x50 DIN 912	-	4
23	Cam Base Fixing Screws M16x70 DIN 912	-	4
24	Gas Spring Spacer	CK45	1
25	Elastomer Cap	Elastomer 92SH	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
				Ef	
		S	Fs	Spring	Gas Spring
CHD250.00	0°	28,68	645	4,58	14,30
CHD250.05	5°	32,26	645	4,58	14,30
CHD250.10	10°	35,90	645	4,58	14,30
CHD250.15	15°	39,65	645	4,58	14,30
CHD250.20	20°	43,59	645	4,58	14,30
CHD250.25	25°	47,78	645	4,58	14,30
CHD250.30	30°	52,33	645	4,58	14,30
CHD250.35	35°	57,36	645	4,58	14,30
CHD250.40	40°	63,05	645	4,58	14,30
CHD250.45	45°	69,64	645	4,58	14,30
CHD250.50	50°	77,49	645	4,58	14,30
CHD250.55	55°	87,17	645	4,58	14,30
CHD250.60	60°	99,62	645	4,58	14,30
CHD250.65	65°	116,51	645	4,58	14,30

\*Return Type: G = Gas Spring / S = Spring



Art.	Work Angle = 5°	Return Type*
CHD250	05	G

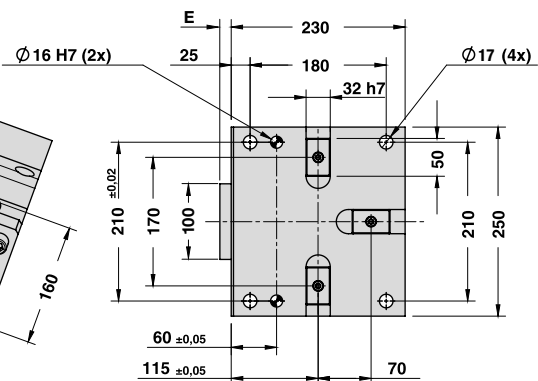
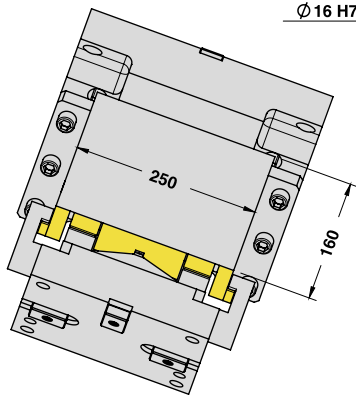
OMCR CODE	Work Angle	Overall Dimensions (mm)				
		β	A	B	C	D
CHD250.00	0°	325	90	80	310	25
CHD250.05	5°	323,19	93,41	60	290	25
CHD250.10	10°	326,01	98,40	45	275	25
CHD250.15	15°	333,33	104,92	35	265	20
CHD250.20	20°	340,02	112,93	25	255	15
CHD250.25	25°	345,94	122,35	15	245	10
CHD250.30	30°	345,98	133,14	0	230	0
CHD250.35	35°	345,03	160,19	-15	215	0
CHD250.40	40°	337,97	173,42	-35	195	0
CHD250.45	45°	334,71	187,72	-50	180	0
CHD250.50	50°	325,15	202,99	-70	160	0
CHD250.55	55°	314,23	219,12	-90	140	0
CHD250.60	60°	306,86	235,98	-105	125	0
CHD250.65	65°	298	253,44	-120	110	0



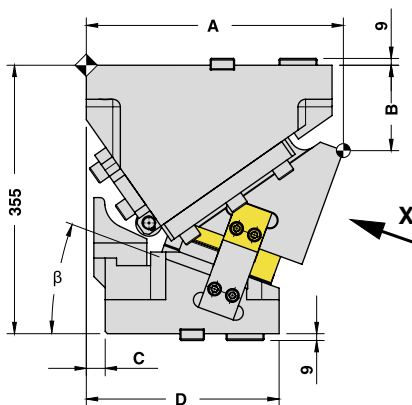
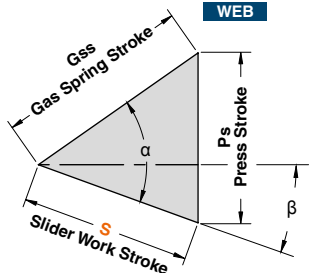


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

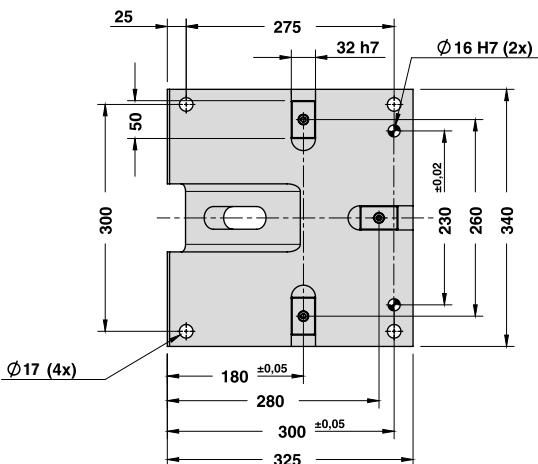
X VIEW



CAM DIAGRAM



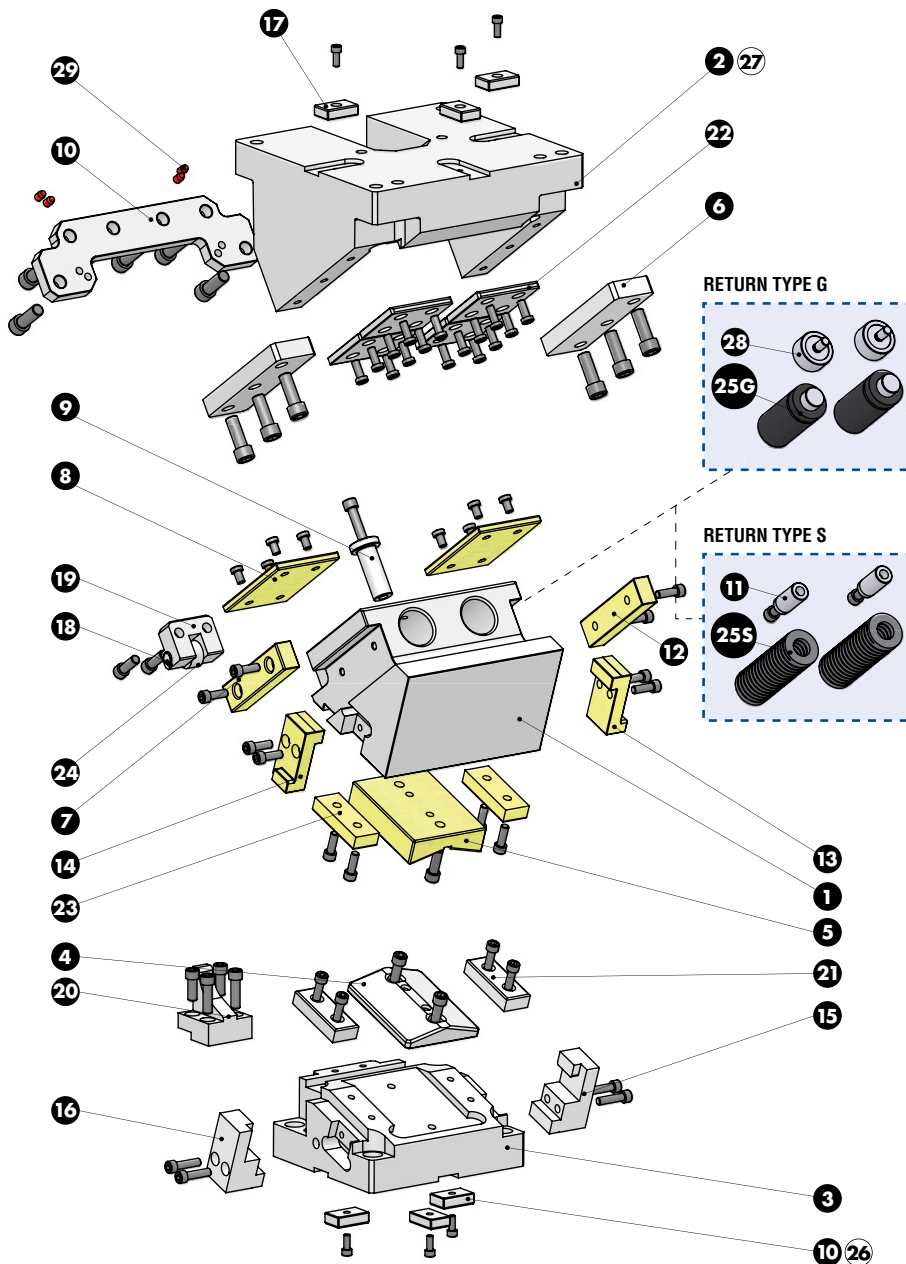
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	55°	28,68	40,96	50
5°	55°	32,26	41,11	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	55°	47,78	45,19	50
30°	55°	52,33	47,29	50
35°	55°	57,36	50,00	50
40°	55°	63,05	53,47	50
45°	55°	69,64	57,92	50
50°	55°	77,49	63,72	50
55°	55°	87,17	71,41	50
60°	55°	99,62	81,92	50
65°	55°	116,51	96,91	50



Cam Units CHD



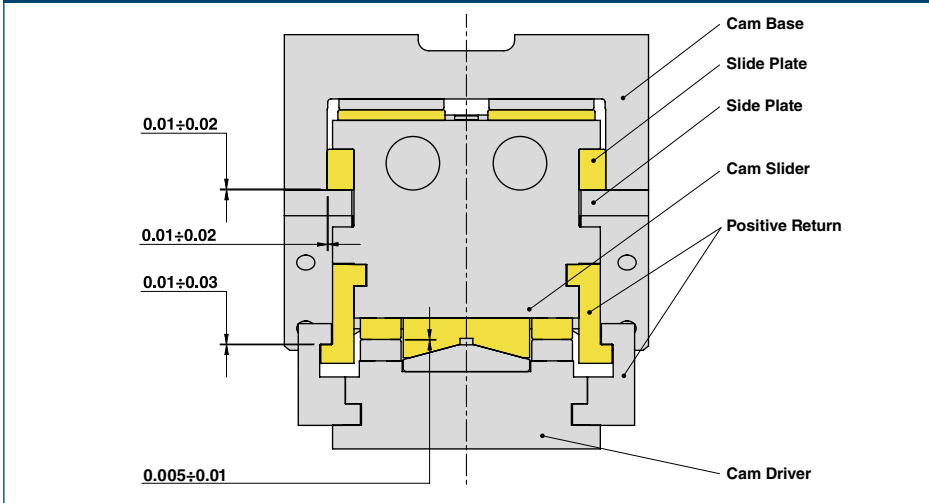
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

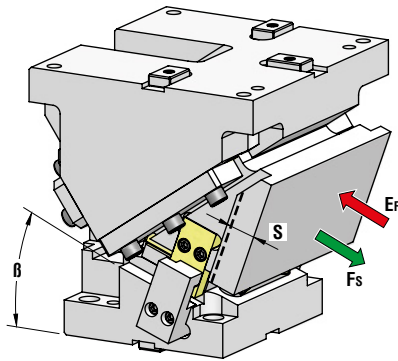


**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Base	GG-30	1
3	Cam Driver	GG-30	1
4	Male "V" Driver	CK45	1
5	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate	CK45	2
7	Slide Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Safety Pin	CK45	1
10	Stopper Plate	St 52	1
11	Spring Guide Pin	CK45	2
12	Slide Plate R	CuZn25Al5 + Graphite - HB > 190	1
13	Positive Return R	CuZn25Al5 - HB > 190	1
14	Positive Return L	CuZn25Al5 - HB > 190	1
15	Positive Return R	42CrMo4 Nitrided	1
16	Positive Return L	42CrMo4 Nitrided	1
17	Key	CK45	6
18	Shaft	CK45	1
19	Roller Bracket	CK45	1
20	Accelerator	CK45	1
21	Wear Plate	CK45	2
22	Wear Plate	CK45	4
23	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
24	Roller	NATR15PP	1
25G	Gas Spring - Return Type G	-	2
25S	Spring - Return Type S	-	2
26	Cam Driver Fixing Screws M16x70 DIN 912	-	4
27	Cam Base Fixing Screws M16x70 DIN 912	-	4
28	Gas Spring Spacer	CK45	2
29	Elastomer Cap	Elastomer 92SH	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CHD300.00	0°	28,68	645	4,58	14,30
CHD300.05	5°	32,26	645	4,58	14,30
CHD300.10	10°	35,90	645	4,58	14,30
CHD300.15	15°	39,65	645	4,58	14,30
CHD300.20	20°	43,59	645	4,58	14,30
CHD300.25	25°	47,78	645	4,58	14,30
CHD300.30	30°	52,33	645	4,58	14,30
CHD300.35	35°	57,36	645	4,58	14,30
CHD300.40	40°	63,05	645	4,58	14,30
CHD300.45	45°	69,64	645	4,58	14,30
CHD300.50	50°	77,49	645	4,58	14,30
CHD300.55	55°	87,17	645	4,58	14,30
CHD300.60	60°	99,62	645	4,58	14,30
CHD300.65	65°	116,51	645	4,58	14,30

\*Return Type: G = Gas Spring / S = Spring



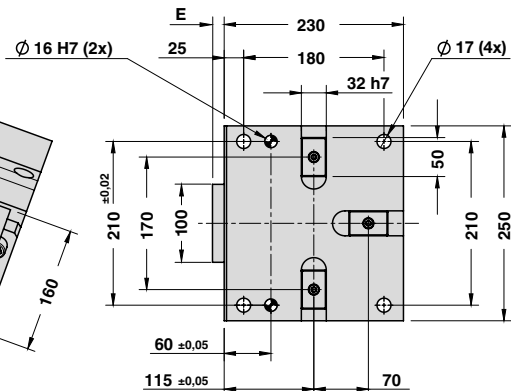
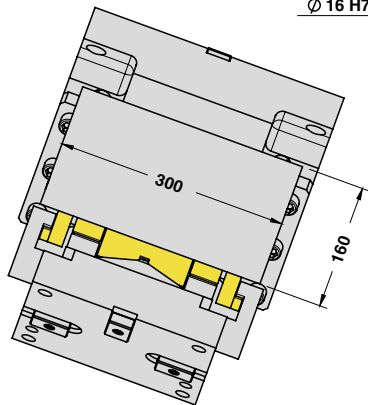
Art.	Work Angle = 5°	Return Type*
CHD300	05	G

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)				
		A	B	C	D	E
CHD300.00	0°	325	90	80	310	25
CHD300.05	5°	323,19	93,41	60	290	25
CHD300.10	10°	326,01	98,40	45	275	25
CHD300.15	15°	333,33	104,92	35	265	20
CHD300.20	20°	340,02	112,93	25	255	15
CHD300.25	25°	345,94	122,35	15	245	10
CHD300.30	30°	345,98	133,14	0	230	0
CHD300.35	35°	345,03	160,19	-15	215	0
CHD300.40	40°	337,97	173,42	-35	195	0
CHD300.45	45°	334,71	187,72	-50	180	0
CHD300.50	50°	325,15	202,99	-70	160	0
CHD300.55	55°	314,23	219,12	-90	140	0
CHD300.60	60°	306,86	235,98	-105	125	0
CHD300.65	65°	298	253,44	-120	110	0

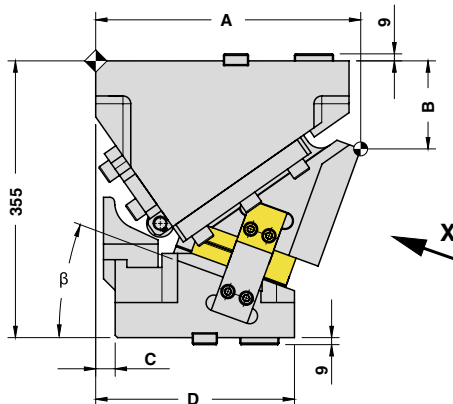
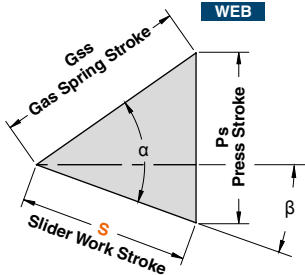


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

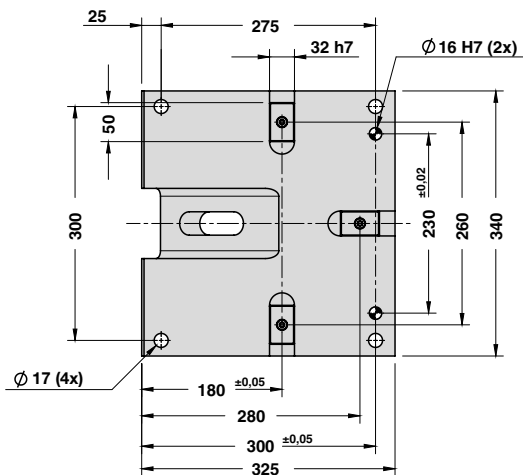
X VIEW



CAM DIAGRAM



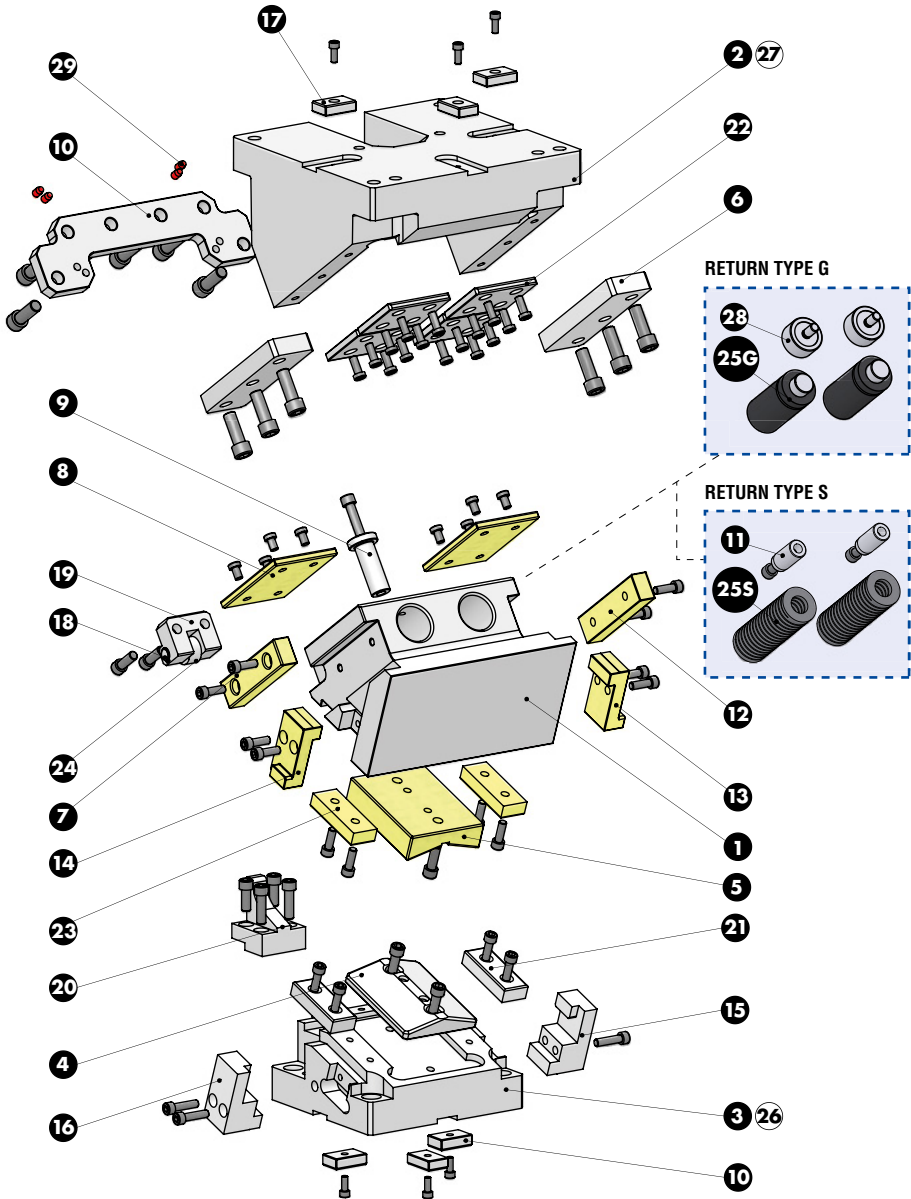
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	55°	28,68	40,96	50
5°	55°	32,26	41,11	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	55°	47,78	45,19	50
30°	55°	52,33	47,29	50
35°	55°	57,36	50,00	50
40°	55°	63,05	53,47	50
45°	55°	69,64	57,92	50
50°	55°	77,49	63,72	50
55°	55°	87,17	71,41	50
60°	55°	99,62	81,92	50
65°	55°	116,51	96,91	50



Cam Units CHD



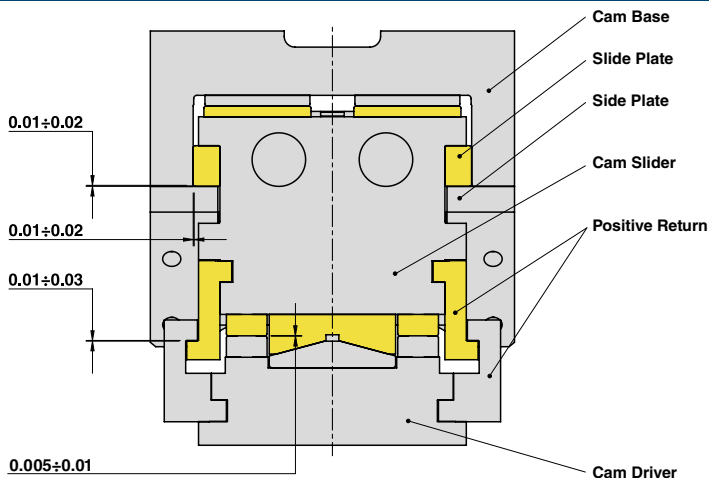
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Base	GG-30	1
3	Cam Driver	GG-30	1
4	Male "V" Driver	CK45	1
5	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
6	Slide Plate	CK45	2
7	Slide Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Safety Pin	CK45	1
10	Stopper Plate	St 52	1
11	Spring Guide Pin	CK45	2
12	Slide Plate R	CuZn25Al5 + Graphite - HB > 190	1
13	Positive Return R	CuZn25Al5 - HB > 190	1
14	Positive Return L	CuZn25Al5 - HB > 190	1
15	Positive Return R	42CrMo4 Nitrided	1
16	Positive Return L	42CrMo4 Nitrided	1
17	Key	CK45	6
18	Shaft	CK45	1
19	Roller Bracket	CK45	1
20	Accelerator	CK45	1
21	Wear Plate	CK45	2
22	Wear Plate	CK45	4
23	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
24	Roller	NATR15PP	1
25G	Gas Spring - Return Type G	-	2
25S	Spring - Return Type S	-	2
26	Cam Driver Fixing Screws M16x70 DIN 912	-	4
27	Cam Base Fixing Screws M16x70 DIN 912	-	4
28	Gas Spring Spacer	CK45	2
29	Elastomer Cap	Elastomer 92SH	4



Cam Units CHV  
Schieber CHV  
Unità a Camme CHV



**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS





EUROPEAN PATENT EP2241387

OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	F <sub>t</sub>	
CHV050	0°÷75° (5° steps)	50	175÷195	50x100	92÷110	4,5÷6,1	666
CHV060	0°÷75° (5° steps)	60	210	60x100	136÷143	5,1÷6,2	670
CHV085	0°÷75° (5° steps)	85	225	85x120	229÷293	7,10÷12	674
CHV110	0°÷75° (5° steps)	110	275	110x160	357÷407	6,2÷16,8	678
CHV150	0°÷75° (5° steps)	150	300	150x160	421÷584	17,3÷20,8	682
CHV180	0°÷75° (5° steps)	180	300	180x160	474÷598	17,1÷20,5	686
CHV220	0°÷75° (5° steps)	220	300	220x160	635÷732	16,6÷46,2	690
CHV260	0°÷75° (5° steps)	260	300	260x160	536÷767	16,6÷46,2	694
CHV330	0°÷75° (5° steps)	330	375	330x180	1005÷1020	46,5÷94,9	698
CHV400	0°÷75° (5° steps)	400	375	400x180	1052÷1055	48÷87,1	702
CHV500	0°÷75° (5° steps)	500	375	500x180	1155	64,5÷87,0	706
CHV600	0°÷75° (5° steps)	600	400	600x200	1202	84,2÷98,2	712

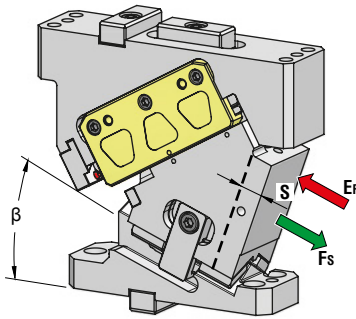
Cam Units CHV



Leading edge five axis machines



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$ Gas Spring
CHV050.00	0°	28,93	92	4,5
CHV050.05	5°	31,94	92	4,8
CHV050.10	10°	35,00	92	4,8
CHV050.15	15°	38,16	92	4,8
CHV050.20	20°	41,47	92	4,8
CHV050.25	25°	45,00	92	4,8
CHV050.30	30°	48,83	92	4,8
CHV050.35	35°	53,06	92	4,8
CHV050.40	40°	57,85	92	4,8
CHV050.45	45°	63,40	92	4,8
CHV050.50	50°	62,23	92	4,6
CHV050.55	55°	59,28	98	4,7
CHV050.60	60°	60,00	104	5,1
CHV050.65	65°	59,16	110	5,3
CHV050.70	70°	58,48	110	5,7
CHV050.75	75°	57,96	110	6,1

### OPTION CODE

SW	60 mm
----	-------

15



Art.	Work Angle = 5°	OPTION CODE
CHV050	05	SW60

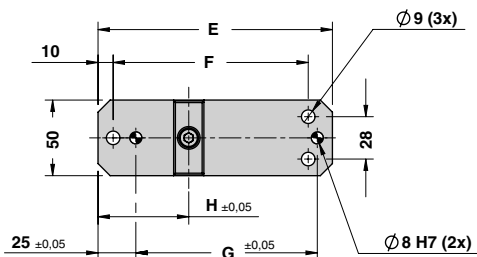
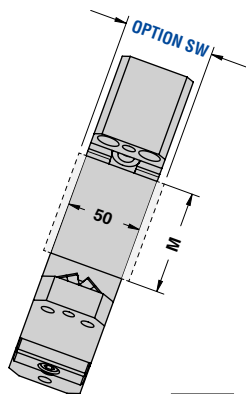
OMCR CODE	Work Angle	Overall Dimensions (mm)													
		$\beta$	A	B	C	D	E	F	G	H	I	J	K	L	M
CHV050.00	0°	170	57	38	193	155	129	120	60	162	160	180	175	68,5	20
CHV050.05	5°	173,89	60,44	35	190	155	129	120	60	167	165	185	175	68,5	20
CHV050.10	10°	177,66	64,77	32	187	155	129	120	60	172	170	190	175	68,5	20
CHV050.15	15°	180,31	67,99	28	183	155	129	120	60	177	175	195	175	68,5	20
CHV050.20	20°	180,87	71,09	22	177	155	129	120	60	177	175	195	175	68,5	20
CHV050.25	25°	180,34	74,06	16	171	155	129	120	60	177	175	195	175	68,5	20
CHV050.30	30°	180,72	76,89	10	165	155	129	120	60	179	177	197	175	68,5	20
CHV050.35	35°	179,04	79,58	3	158	155	129	120	60	179	177	197	175	68,5	20
CHV050.40	40°	176,31	83,12	-9	146	155	129	120	60	179	177	197	175	68,5	20
CHV050.45	45°	172,54	85,51	-18	137	155	129	120	60	177	175	195	175	68,5	20
CHV050.50	50°	161,73	93,74	-33	122	155	129	120	60	172	170	190	180	68,5	20
CHV050.55	55°	168,28	97,72	-39	116	155	129	120	45	172	170	190	185	75	80
CHV050.60	60°	173,67	104,06	-49	106	155	129	120	45	172	170	190	190	85	80
CHV050.65	65°	169,28	113,98	-53	92	145	119	110	45	172	170	190	195	90	80
CHV050.70	70°	166,95	124,76	-63	72	135	109	100	45	172	170	190	195	100	90
CHV050.75	75°	165,42	134,11	-68	67	135	109	100	45	172	170	190	195	100	90



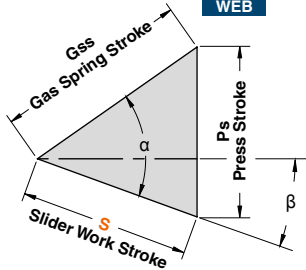


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

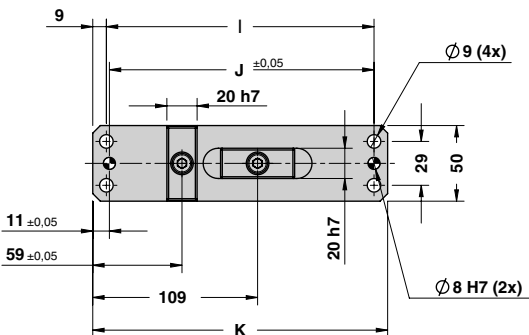
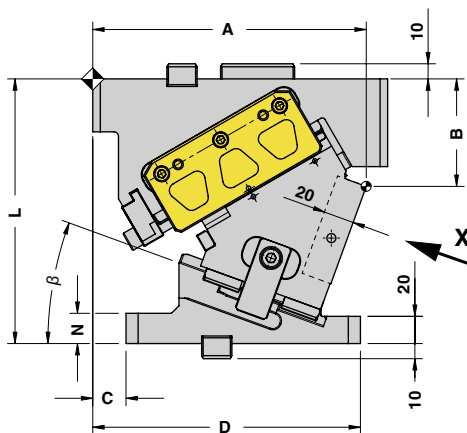


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

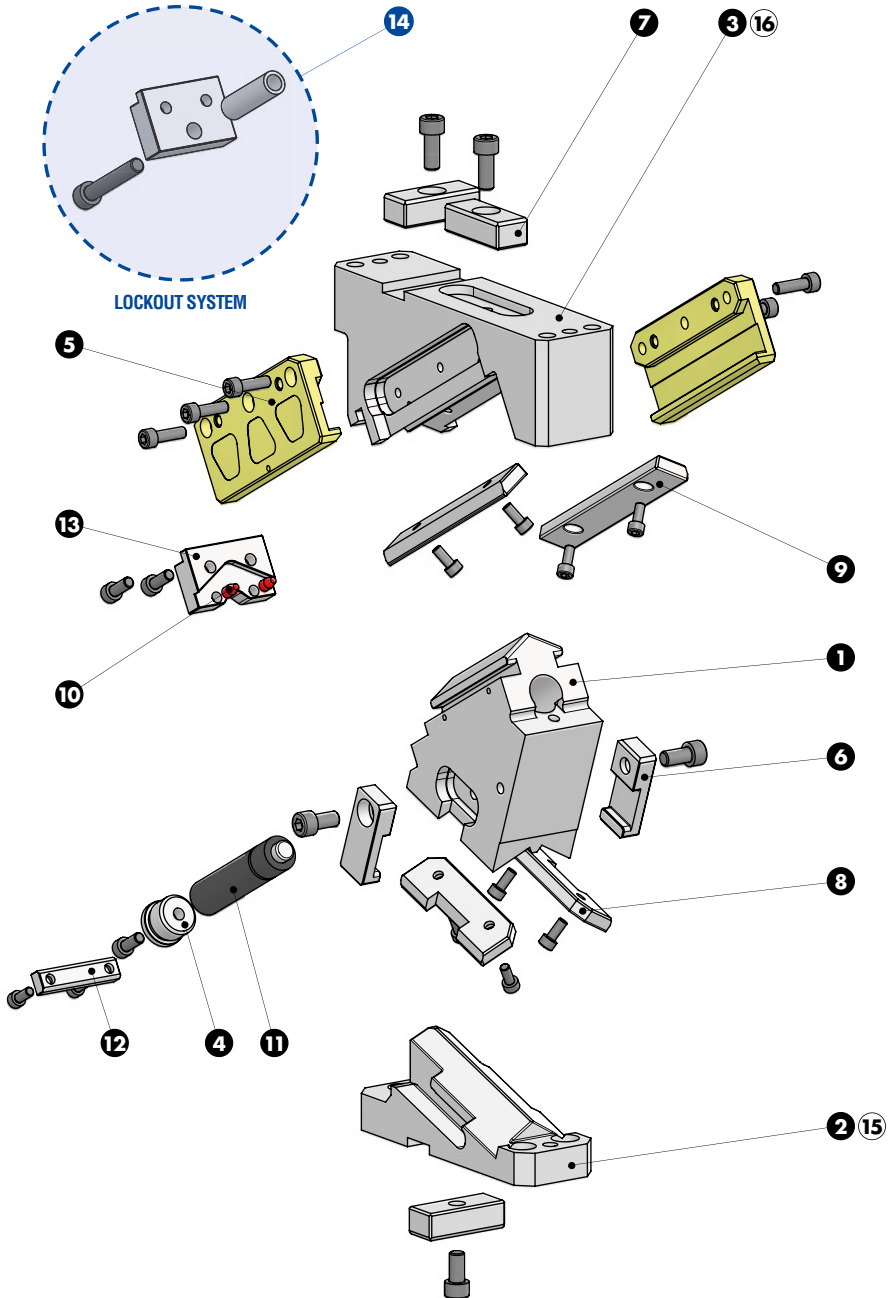
0°	50°	28,93	34,47	45
5°	50°	31,94	34,60	45
10°	50°	35,00	35,00	45
15°	50°	38,16	35,69	45
20°	50°	41,47	36,68	45
25°	50°	45,00	38,04	45
30°	50°	48,83	39,80	45
35°	50°	53,06	42,08	45
40°	50°	57,85	45,00	45
45°	50°	63,40	48,75	45
50°	50°	62,23	47,67	40
55°	55°	59,28	48,56	34
60°	60°	60,00	51,96	30
65°	65°	59,16	53,61	25
70°	70°	58,48	54,95	20
75°	75°	57,96	55,98	15



Cam Units CHV



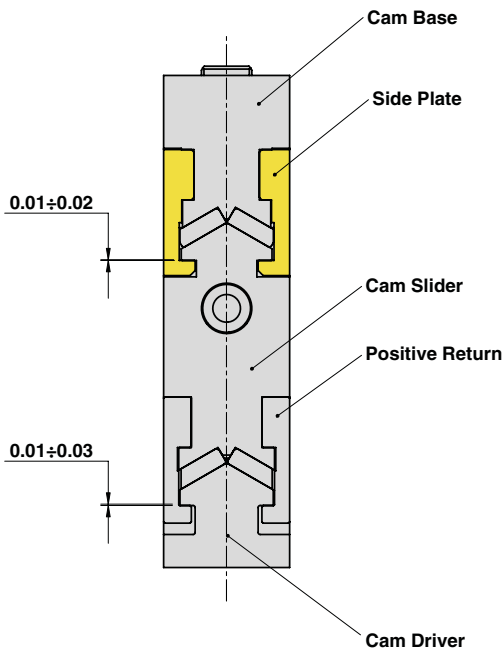
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



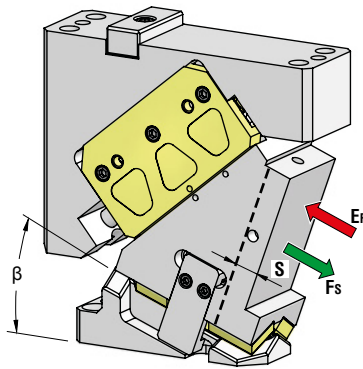
PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	3
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer Cap	Elastomer 92SH	2
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	<a href="#">LOCKOUT SYSTEM</a>	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M8x25 DIN 912 Cl. 12.9	-	3
16	Cam Base Fixing Screws M8x30 DIN 912 Cl. 12.9	-	4

Cam Units CHV



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β	S	Fs	Ef Gas Spring
CHV060.00	0°	19,28	136	5,1
CHV060.05	5°	21,29	137	5,1
CHV060.10	10°	21,54	138	5,4
CHV060.15	15°	23,79	139	5,4
CHV060.20	20°	24,46	140	5,7
CHV060.25	25°	27,12	141	5,7
CHV060.30	30°	30	142	5,7
CHV060.35	35°	31,72	143	5,9
CHV060.40	40°	35,49	143	5,9
CHV060.45	45°	38,45	143	6,0
CHV060.50	50°	43,86	142	6,0
CHV060.55	55°	49,15	142	6,1
CHV060.60	60°	57,96	142	6,1
CHV060.65	65°	68,57	142	6,2
CHV060.70	70°	70,60	141	6,2
CHV060.75	75°	76,10	141	6,2

15



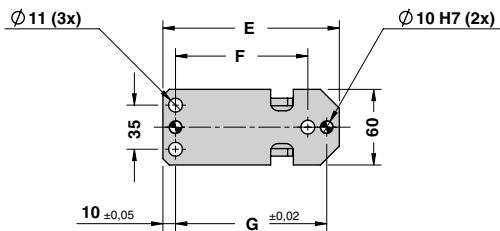
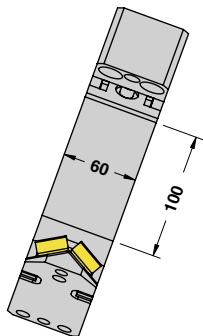
Art.	Work Angle = 5°
CHV060	05

OMCR CODE	Work Angle	Overall Dimensions (mm)										
	β	A	B	C	D	E	F	G	H	I	J	K
CHV060.00	0°	175	55	25	180	155	105	120	180	175	62,5	205
CHV060.05	5°	179,26	57,37	25	175	150	105	120	180	175	62,5	205
CHV060.10	10°	183,30	60,10	25	170	145	105	120	180	175	62,5	205
CHV060.15	15°	189,68	63,51	25	165	140	105	120	180	175	62,5	205
CHV060.20	20°	190,59	76,57	25	165	140	105	120	180	175	62,5	205
CHV060.25	25°	193,79	80,25	25	150	125	80	95	180	175	62,5	205
CHV060.30	30°	196,65	84,20	25	150	125	80	95	180	175	62,5	205
CHV060.35	35°	199,16	88,38	25	140	115	80	95	180	175	62,5	205
CHV060.40	40°	198,08	96,60	10	120	110	65	80	195	190	62,5	220
CHV060.45	45°	225,96	104,39	40	145	105	65	80	210	205	92,5	235
CHV060.50	50°	211,71	113,44	10	115	105	50	65	195	190	77,5	220
CHV060.55	55°	212,11	117,54	10	115	105	50	70	195	190	77,5	220
CHV060.60	60°	203,48	126,65	10	102	92	50	65	195	190	77,5	220
CHV060.65	65°	202,75	129,98	10	95	85	50	65	195	190	77,5	220
CHV060.70	70°	205,54	146,39	10	95	85	20	35	195	190	62,5	220
CHV060.75	75°	204,77	151,21	10	90	80	20	35	210	205	62,5	235

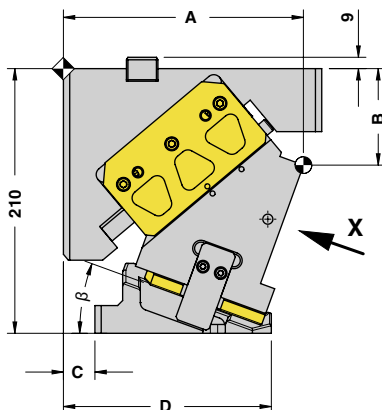
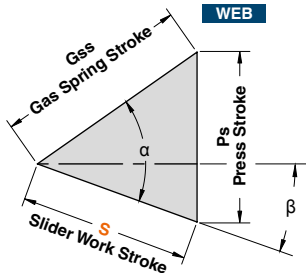


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

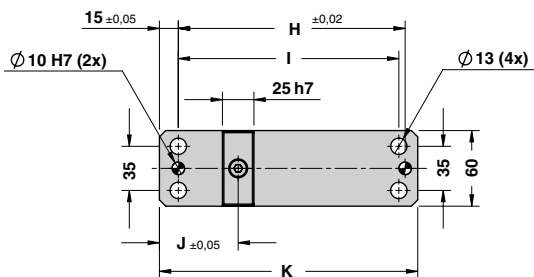


CAM DIAGRAM



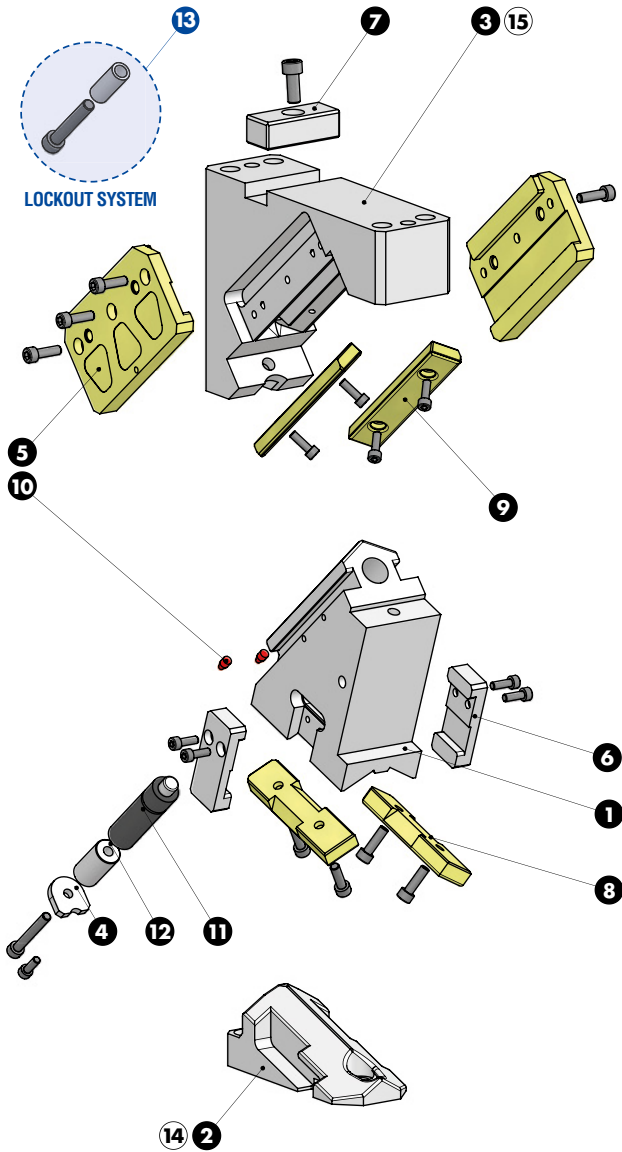
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

0°	50°	19,28	22,98	30
5°	50°	21,29	23,07	30
10°	55°	21,54	24,95	30
15°	55°	23,79	25,44	30
20°	60°	24,46	27,65	30
25°	60°	27,12	28,67	30
30°	60°	30,00	30,00	30
35°	65°	31,72	33,19	30
40°	65°	35,49	35,49	30
45°	70°	38,45	39,87	30
50°	70°	43,86	43,86	30
55°	75°	49,15	50,52	30
60°	75°	57,96	57,96	30
65°	80°	68,57	69,91	30
70°	85°	70,60	72,82	25
75°	85°	76,10	76,98	20





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

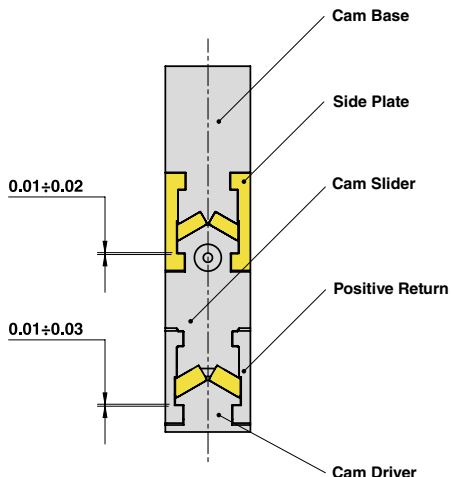






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



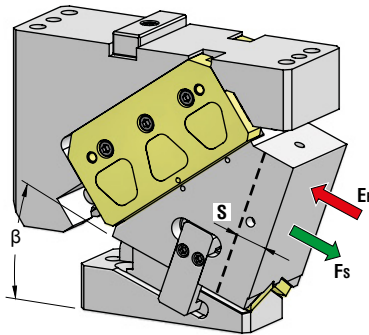
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Lock Plate	42CrMo4	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Elastomer Cap	Elastomer 92SH	2
11	Gas Spring	-	1
12	Spring Spacer	CK45	1
13	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
14	Cam Driver Fixing Screws M10x30 DIN 912	-	3
15	Cam Base Fixing Screws M12x60 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β			S
CHV085.00	0°	30,85	230	10,0
CHV085.05	5°	34,07	230	10,0
CHV085.10	10°	34,46	230	10,5
CHV085.15	15°	38,07	230	10,5
CHV085.20	20°	41,84	230	10,5
CHV085.25	25°	43,38	229	11,0
CHV085.30	30°	48	229	11,0
CHV085.35	35°	50,75	229	11,4
CHV085.40	40°	56,79	237	11,4
CHV085.45	45°	42,30	245	11,5
CHV085.50	50°	48,24	253	11,5
CHV085.55	55°	54,06	261	11,8
CHV085.60	60°	63,75	269	11,8
CHV085.65	65°	75,42	277	11,9
CHV085.70	70°	95,02	285	11,9
CHV085.75	75°	95,13	293	12,0



Art.	Work Angle = 5°
CHV085	05

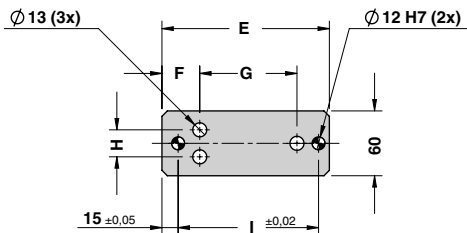
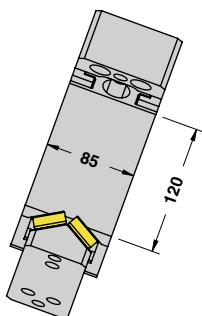
OMCR CODE	Work Angle	Overall Dimensions (mm)											
		β	A	B	C	D	E	F	G	H	I	J	K
CHV085.00	0°	238	60	55	230	175	35	90	25	130	225	82	255
CHV085.05	5°	243,28	64,18	55	225	170	35	90	25	130	225	88	255
CHV085.10	10°	247,73	73,75	55	215	160	35	90	25	130	225	88	255
CHV085.15	15°	252,64	78,77	55	210	155	35	90	25	130	225	97	255
CHV085.20	20°	259,24	79,51	55	210	155	35	90	25	130	225	103	255
CHV085.25	25°	262,37	90,08	40	195	155	35	90	25	130	255	103	285
CHV085.30	30°	272,11	87,71	40	195	155	35	90	25	130	255	112	285
CHV085.35	35°	277,45	94,87	40	195	155	35	90	25	130	255	112	285
CHV085.40	40°	282,59	102,49	40	195	155	35	90	25	130	255	122,5	285
CHV085.45	45°	245,4	117,6	0	150	150	35	70	25	110	235	92	265
CHV085.50	50°	247,12	127,38	0	135	135	35	70	25	110	235	96,5	265
CHV085.55	55°	263	126,74	0	135	135	35	70	25	110	235	96,5	265
CHV085.60	60°	267,02	136,11	0	135	135	35	70	25	110	235	104	265
CHV085.65	65°	257,06	147,15	0	126	126	35	60	25	100	235	104	265
CHV085.70	70°	248,86	160,81	5	114	109	15	40	35	60	245	82,5	275
CHV085.75	75°	251,61	181,07	5	114	109	15	40	35	60	245	82,5	275



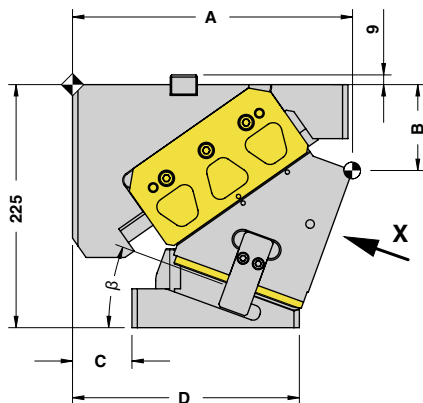
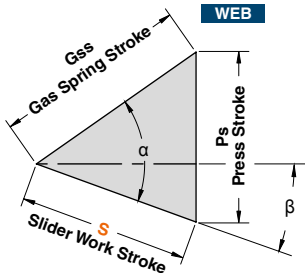


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

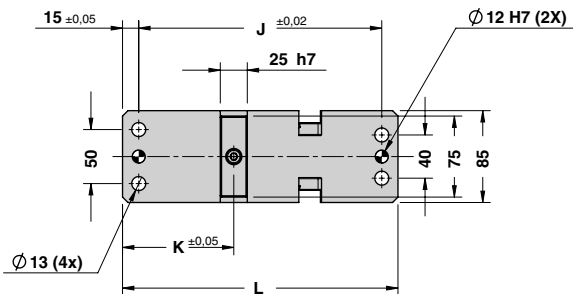


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

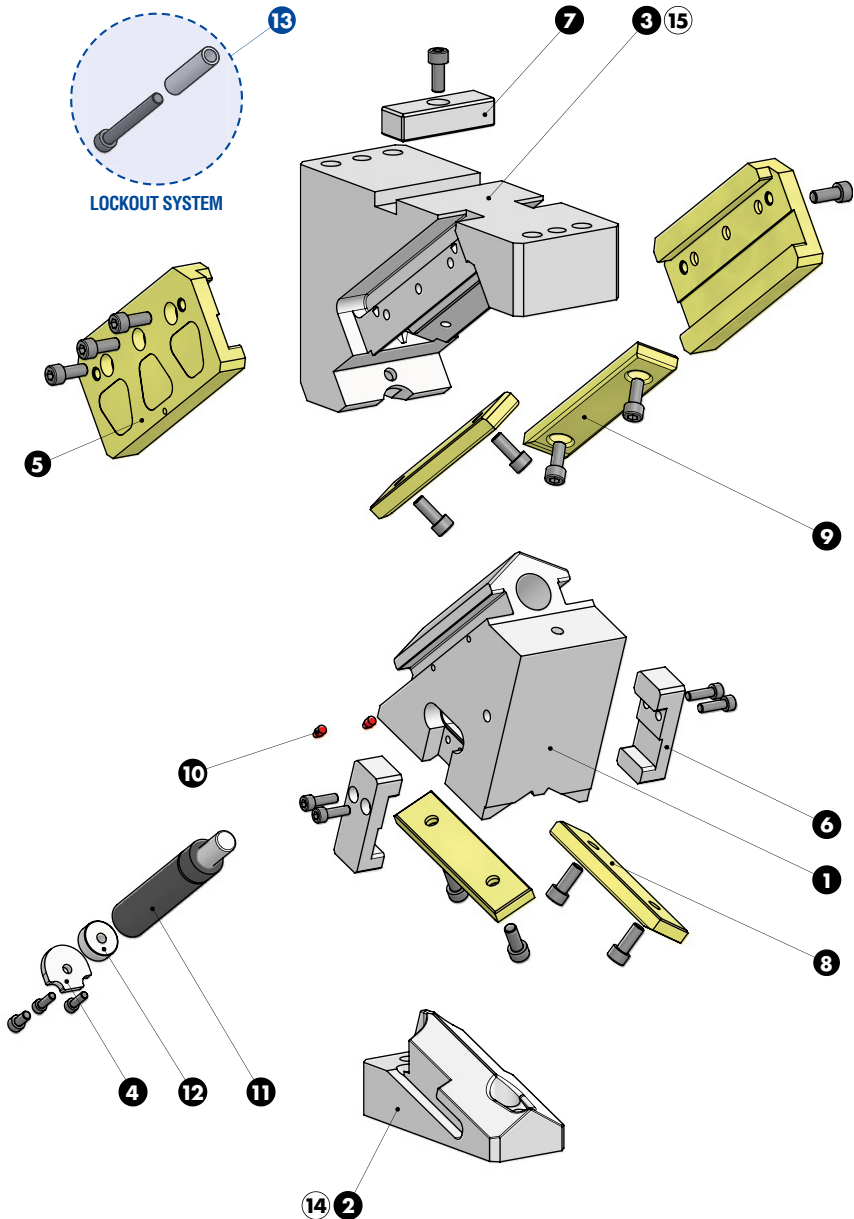
0°	50°	30,85	36,77	48
5°	50°	34,07	36,91	48
10°	55°	34,46	39,93	48
15°	55°	38,07	40,71	48
20°	55°	41,84	41,84	48
25°	60°	43,38	45,87	48
30°	60°	48,00	48,00	48
35°	65°	50,75	53,11	48
40°	65°	56,79	56,79	48
45°	70°	42,30	43,85	33
50°	70°	48,24	48,24	33
55°	75°	54,06	55,57	33
60°	75°	63,75	63,75	33
65°	80°	75,42	76,90	33
70°	80°	95,02	95,02	33
75°	85°	95,13	96,23	25



Cam Units CHV



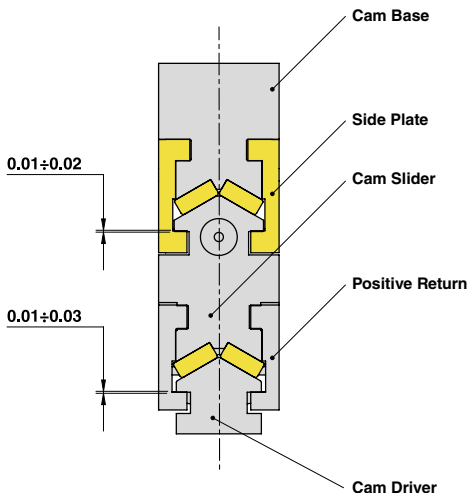
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

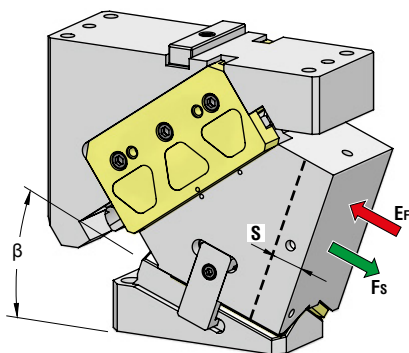


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Lock Plate	42CrMo4	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	1
8	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
9	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
10	Elastomer Cap	Elastomer 92SH	2
11	Gas Spring	-	1
12	Spring Spacer	CK45	1
13	LOCKOUT SYSTEM	(more info on OMCR website)	1
14	Cam Driver Fixing Screws M12x35 DIN 912	-	3
15	Cam Base Fixing Screws M12x65 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Gas Spring
CHV110.00	0°	30,85	357	11,4
CHV110.05	5°	34,07	366	11,4
CHV110.10	10°	34,46	369	12,2
CHV110.15	15°	38,07	372	12,2
CHV110.20	20°	41,84	375	12,2
CHV110.25	25°	43,38	378	12,8
CHV110.30	30°	48	381	12,8
CHV110.35	35°	50,75	384	13,4
CHV110.40	40°	56,79	387	13,4
CHV110.45	45°	61,52	390	13,6
CHV110.50	50°	48,24	393	13,6
CHV110.55	55°	54,06	396	13,6
CHV110.60	60°	63,75	399	14,0
CHV110.65	65°	75,42	402	14,3
CHV110.70	70°	95,02	405	14,4
CHV110.75	75°	95,13	407	14,4



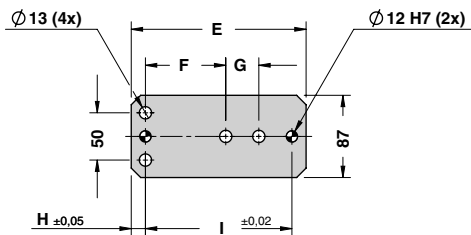
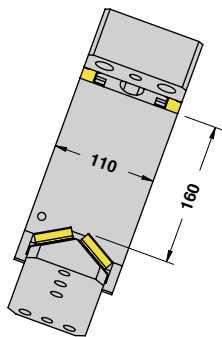
Art.	Work Angle = 5°
CHV110	05

OMCR CODE	Work Angle	Overall Dimensions (mm)												
		$\beta$	A	B	C	D	E	F	G	H	I	J	K	L
CHV110.00	0°	278	70	60	270	210	85	35	15	155	15	255	97,5	290
CHV110.05	5°	285,45	74,28	60	265	205	85	35	15	155	15	255	117	290
CHV110.10	10°	292,94	79,21	60	255	195	85	35	15	155	15	255	124,5	290
CHV110.15	15°	300,41	84,79	60	250	190	85	35	15	155	15	255	133,5	290
CHV110.20	20°	307,80	91,02	60	245	185	85	35	15	155	15	255	141	290
CHV110.25	25°	302,93	102,42	50	228	178	40	45	15	135	20	260	140	300
CHV110.30	30°	309,61	109,72	50	222	172	40	45	15	135	20	260	147,5	300
CHV110.35	35°	316,06	117,58	50	217	167	40	45	15	135	20	260	155	300
CHV110.40	40°	322,23	126	50	213	163	40	45	15	135	20	260	162,5	300
CHV110.45	45°	311,62	131,41	10	193	183	55	45	20	120	15	265	148,5	295
CHV110.50	50°	309,74	147,60	10	182	172	55	45	20	120	15	265	154,5	295
CHV110.55	55°	302,27	165,76	10	167	157	55	45	20	120	15	265	175,5	295
CHV110.60	60°	305,96	174,61	10	165	155	55	45	20	120	15	265	175,5	295
CHV110.65	65°	285,71	195,11	0	137	137	55	25	20	100	15	265	155,5	295
CHV110.70	70°	288,18	208,33	0	135	135	55	25	20	100	15	265	155,5	295
CHV110.75	75°	290,36	211,76	0	134	134	55	25	20	100	15	275	155,5	310

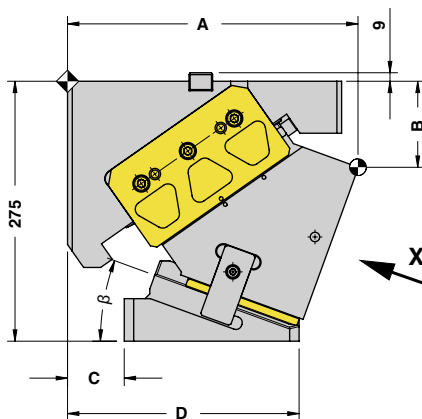
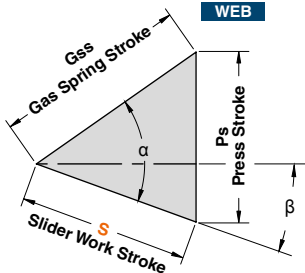


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

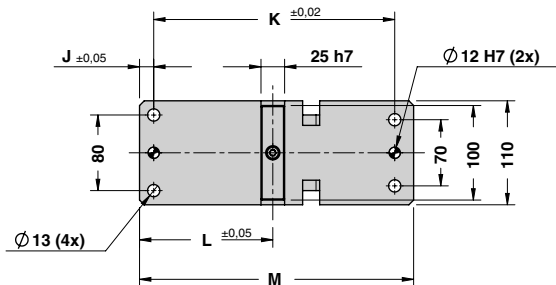


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

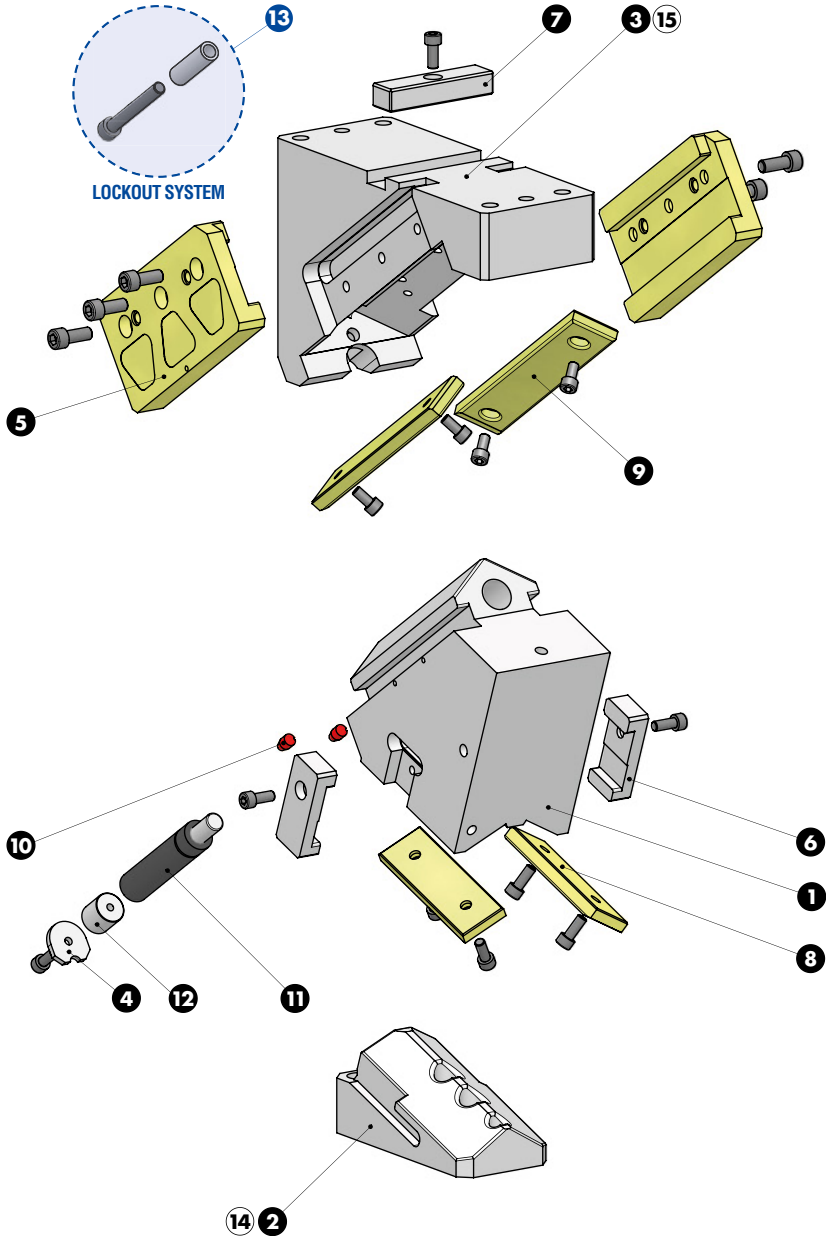
0°	50°	30,85	36,77	48
5°	50°	34,07	36,91	48
10°	55°	34,46	39,93	48
15°	55°	38,07	40,71	48
20°	55°	41,84	41,84	48
25°	60°	43,38	45,87	48
30°	60°	48,00	48,00	48
35°	65°	50,75	53,11	48
40°	65°	56,79	56,79	48
45°	70°	61,52	63,79	48
50°	70°	48,24	48,24	33
55°	75°	54,06	55,57	33
60°	75°	63,75	63,75	33
65°	80°	75,42	76,90	33
70°	80°	95,02	95,02	33
75°	85°	95,13	96,23	25



Cam Units CHV



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

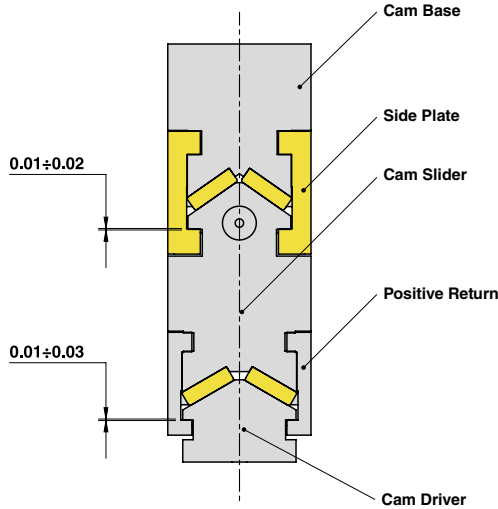






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



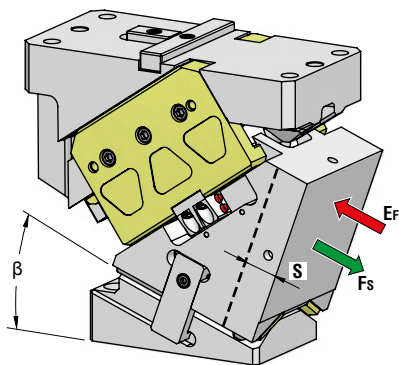
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Lock Plate	42CrMo4	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	1
8	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
9	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
10	Elastomer Cap	Elastomer 92SH	2
11	Gas Spring	-	1
12	Spring Spacer	CK45	1
13	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
14	Cam Driver Fixing Screws M12x45 DIN 912	-	4
15	Cam Base Fixing Screws M12x65 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV150.00	0°	32,14	421	16,4
CHV150.05	5°	35,49	435	16,4
CHV150.10	10°	35,90	448	17,5
CHV150.15	15°	39,65	462	17,5
CHV150.20	20°	43,59	476	17,5
CHV150.25	25°	45,19	489	18,4
CHV150.30	30°	50	503	18,4
CHV150.35	35°	52,86	517	19,2
CHV150.40	40°	59,16	528	19,2
CHV150.45	45°	64,09	540	19,8
CHV150.50	50°	73,10	551	19,8
CHV150.55	55°	81,92	558	20,3
CHV150.60	60°	96,59	565	20,3
CHV150.65	65°	91,42	571	20,5
CHV150.70	70°	84,73	578	20,7
CHV150.75	75°	76,10	584	20,6

15



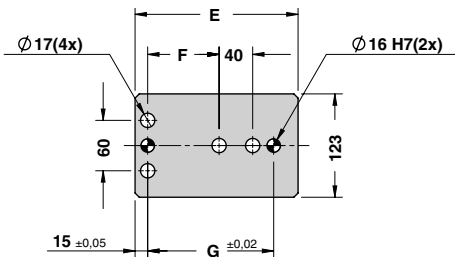
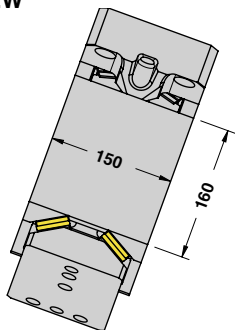
Art.	Work Angle = 5°
CHV150	05

OMCR CODE	Work Angle	Overall Dimensions (mm)											
	$\beta$	A	B	C	D	E	F	G	H	I	J	K	L
CHV150.00	0°	298	65	70	290	220	85	150	25	270	54	117	310
CHV150.05	5°	307,20	69,35	70	280	210	85	150	25	270	61,5	124,5	310
CHV150.10	10°	313,81	89,28	70	270	200	85	150	25	270	69	132	310
CHV150.15	15°	321,70	94,96	70	265	195	85	150	25	270	78	141	310
CHV150.20	20°	329,51	101,32	70	264	194	85	150	25	270	85,5	148,5	310
CHV150.25	25°	342,93	117,42	60	262	202	105	170	15	320	104,5	167,5	350
CHV150.30	30°	352,11	125,39	60	259	199	105	170	15	320	112	175	350
CHV150.35	35°	364,66	130,30	60	261	201	105	170	15	320	119,5	182,5	350
CHV150.40	40°	371,87	144,51	60	257	197	105	170	15	320	127	190	350
CHV150.45	45°	325,76	152,27	20	202	182	85	150	15	310	73	136	340
CHV150.50	50°	332,72	168,31	20	199	179	85	150	15	310	79	142	340
CHV150.55	55°	347,32	179,21	20	206	186	85	150	15	310	64,5	127,5	340
CHV150.60	60°	353,59	197,11	20	203	183	85	150	15	310	71,5	134,5	340
CHV150.65	65°	359,15	205,52	20	203	183	85	150	15	310	71,5	134,5	340
CHV150.70	70°	334,26	226,10	0	168	168	70	135	15	310	71,5	134,5	340
CHV150.75	75°	338,15	234,94	0	167	167	70	135	15	310	71,5	134,5	340

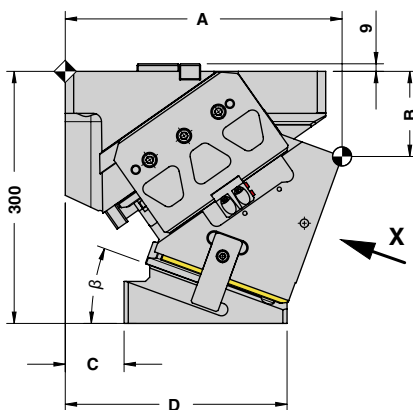
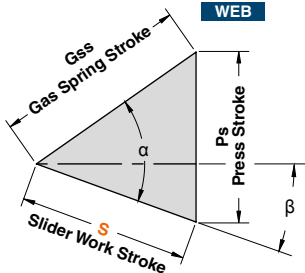


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

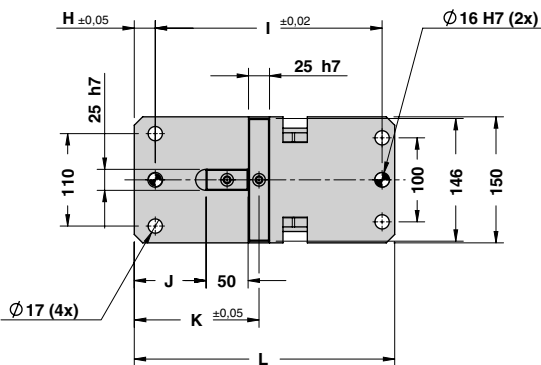


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

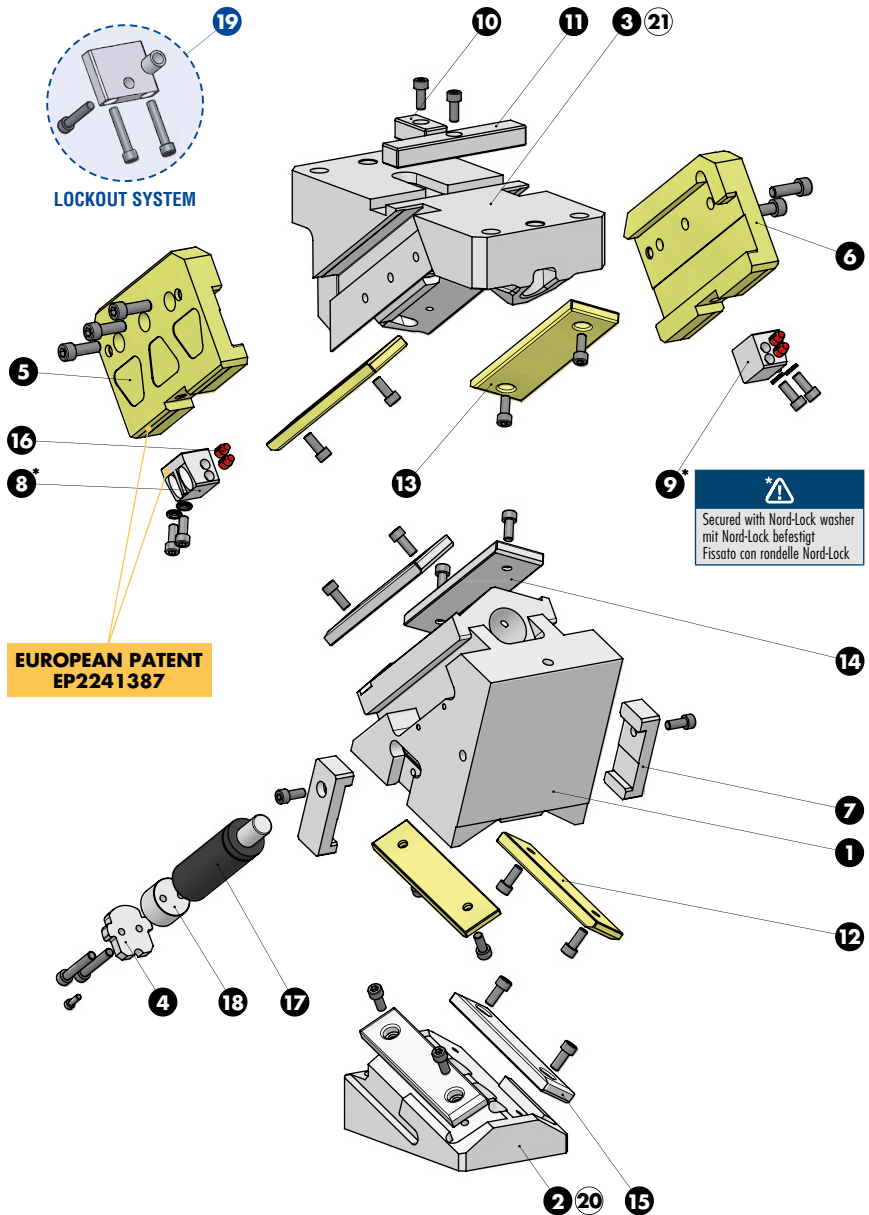
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	60°	45,19	47,78	50
30°	60°	50,00	50,00	50
35°	65°	52,86	55,32	50
40°	65°	59,16	59,16	50
45°	70°	64,09	66,45	50
50°	70°	73,10	73,10	50
55°	75°	81,92	84,20	50
60°	75°	96,59	96,59	50
65°	80°	91,42	93,21	40
70°	85°	84,73	87,38	30
75°	85°	76,10	76,98	20



Cam Units CHV



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



LOCKOUT SYSTEM

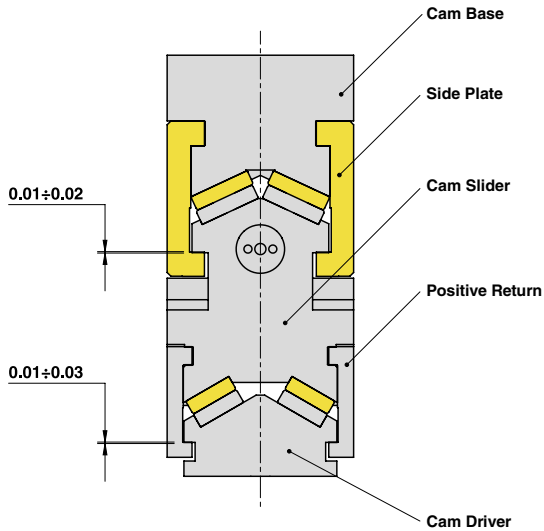
EUROPEAN PATENT  
EP2241387

Secured with Nord-Lock washer  
mit Nord-Lock befestigt  
Fissato con rondelle Nord-Lock



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



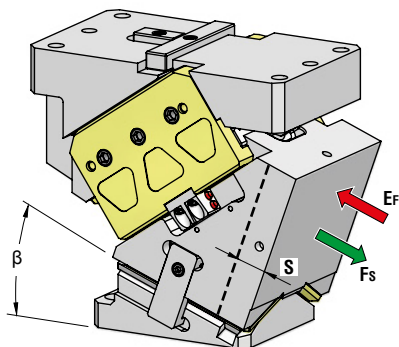
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
7	Positive Return	42CrMo4 Nitrided	2
8	Slide Reaction L	CK45	1
9	Slide Reaction R	CK45	1
10	Key	CK45	1
11	Key	CK45	1
12	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
13	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
14	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
15	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
16	Elastomer Cap	Elastomer 92SH	4
17	Gas Spring	-	1
18	Gas Spring Spacer	CK45	1
19	LOCKOUT SYSTEM	(more info on OMCR website)	1
20	Cam Driver Fixing Screws M16x55 DIN 912	-	4
21	Cam Base Fixing Screws M16x65 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV180.00	0°	32,14	474	16,2
CHV180.05	5°	35,49	488	16,2
CHV180.10	10°	35,90	503	17,3
CHV180.15	15°	39,65	518	17,3
CHV180.20	20°	43,59	533	17,3
CHV180.25	25°	45,19	542	18,2
CHV180.30	30°	50	543	18,2
CHV180.35	35°	52,86	543	18,9
CHV180.40	40°	59,16	550	18,9
CHV180.45	45°	64,09	557	19,5
CHV180.50	50°	73,10	564	19,5
CHV180.55	55°	81,92	571	20,0
CHV180.60	60°	96,59	578	20,0
CHV180.65	65°	91,42	584	20,2
CHV180.70	70°	84,73	591	20,4
CHV180.75	75°	76,10	598	20,3



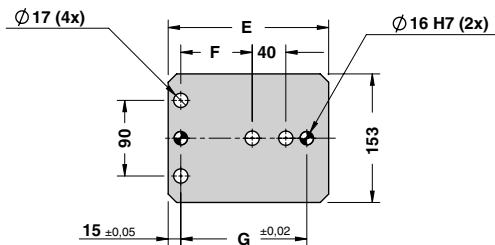
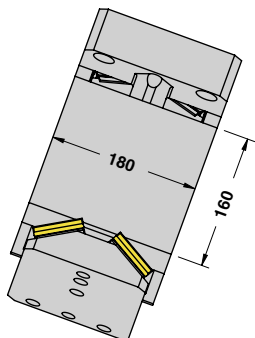
Art.	Work Angle = 5°
CHV180	05

OMCR CODE	Work Angle	Overall Dimensions (mm)											
	$\beta$	A	B	C	D	E	F	G	H	I	J	K	L
CHV180.00	0°	298	65	70	290	220	85	150	25	270	54	117	310
CHV180.05	5°	307,20	69,35	70	280	210	85	150	25	270	61,5	124,5	310
CHV180.10	10°	313,81	89,28	70	270	200	85	150	25	270	69	132	310
CHV180.15	15°	321,70	94,96	70	265	195	85	150	25	270	78	141	310
CHV180.20	20°	329,51	101,32	70	261	191	85	150	25	270	85,5	148,5	310
CHV180.25	25°	342,93	117,42	60	259	199	105	170	15	320	104,5	167,5	350
CHV180.30	30°	352,11	125,39	60	259	199	105	170	15	320	112	175	350
CHV180.35	35°	364,66	130,30	60	261	201	105	170	15	320	119,5	182,5	350
CHV180.40	40°	371,87	144,51	60	257	197	105	170	15	320	127	190	350
CHV180.45	45°	325,76	152,27	20	202	182	85	150	15	310	73	136	340
CHV180.50	50°	332,72	168,31	20	199	179	85	150	15	310	79	142	340
CHV180.55	55°	347,32	179,21	20	206	186	85	150	15	310	64,5	127,5	340
CHV180.60	60°	353,59	197,11	20	202	182	85	150	15	310	71,5	134,5	340
CHV180.65	65°	359,15	205,52	20	201	181	85	150	15	310	71,5	134,5	340
CHV180.70	70°	334,26	226,10	0	168	168	70	135	15	310	71,5	134,5	340
CHV180.75	75°	338,15	234,94	0	172	172	70	135	15	310	71,5	134,5	340

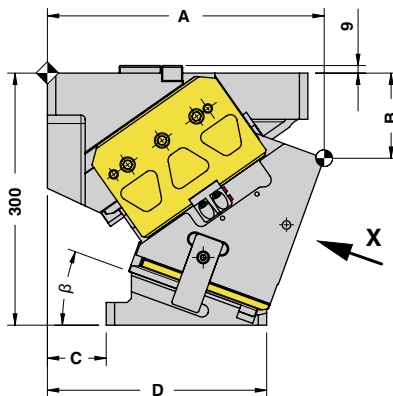
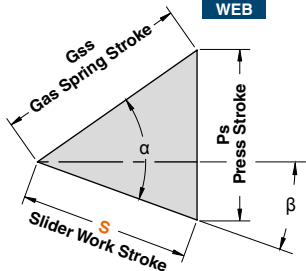


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

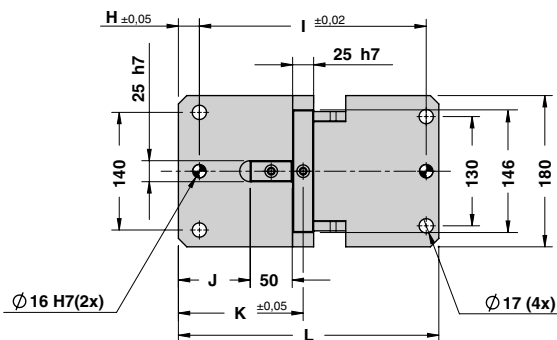


CAM DIAGRAM



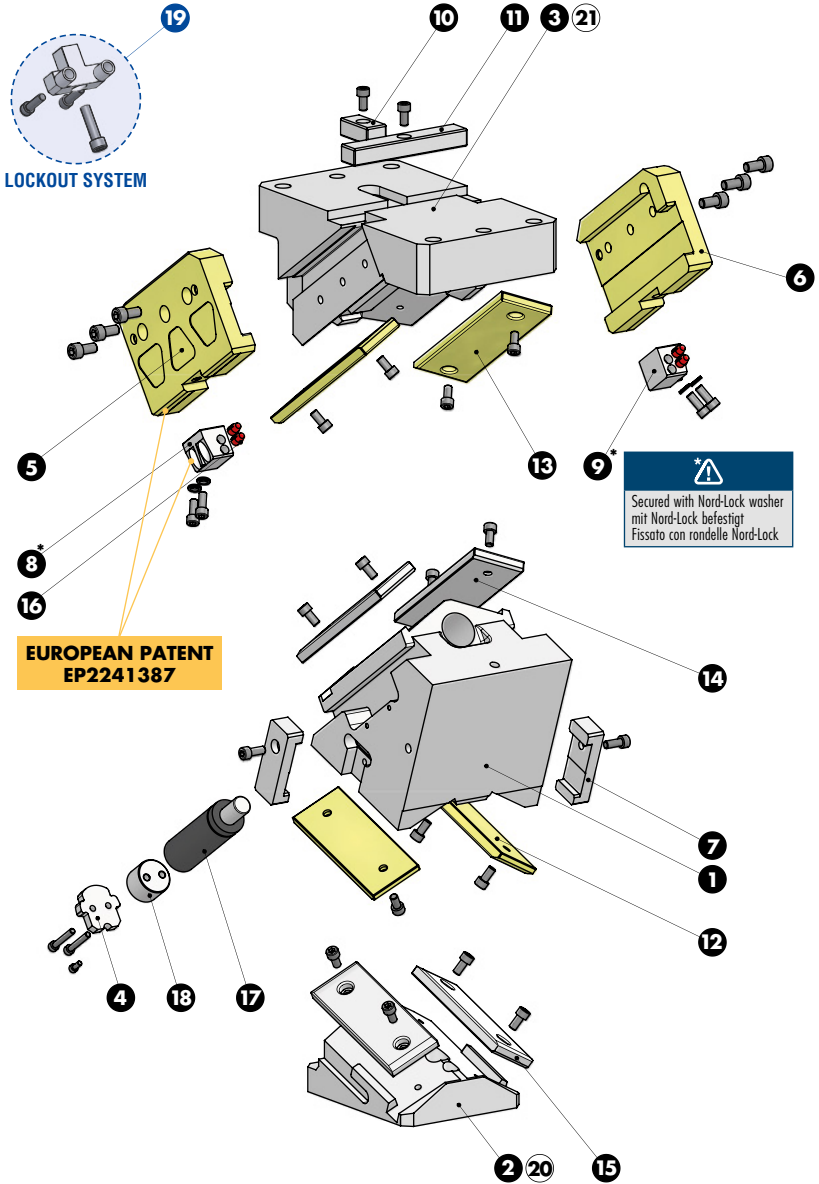
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	60°	45,19	47,78	50
30°	60°	50,00	50,00	50
35°	65°	52,86	55,32	50
40°	65°	59,16	59,16	50
45°	70°	64,09	66,45	50
50°	70°	73,10	73,10	50
55°	75°	81,92	84,20	50
60°	75°	96,59	96,59	50
65°	80°	91,42	93,21	40
70°	85°	84,73	87,38	30
75°	85°	76,10	76,98	20





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



LOCKOUT SYSTEM

5

8\*

16

**EUROPEAN PATENT  
EP2241387**

19

10

11

3

21

6

13

9\*

**⚠**  
Secured with Nord-Lock washer  
mit Nord-Lock befestigt  
Fissato con rondelle Nord-Lock

14

7

1

12

4

18

17

2

20

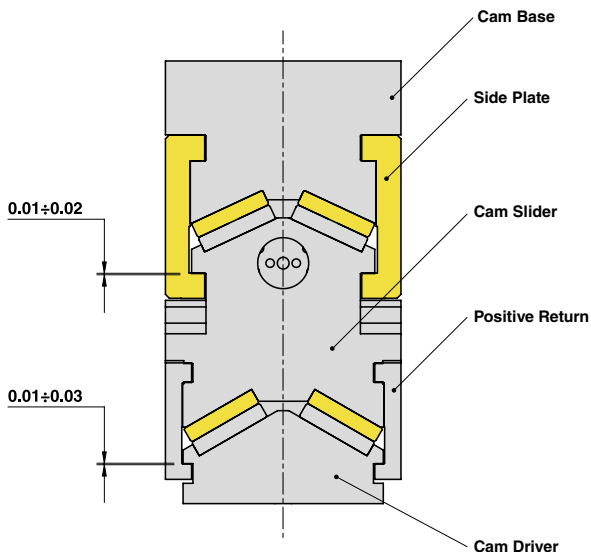
15





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



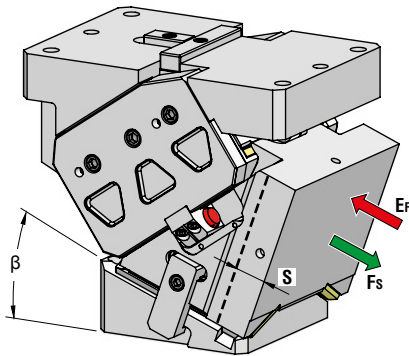
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
6	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
7	Positive Return	42CrMo4 Nitrided	2
8	Slide Reaction L	CK45	1
9	Slide Reaction R	CK45	1
10	Key	CK45	1
11	Key	CK45	1
12	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
13	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
14	Wear Plate VDI 3357	16MnCr5 - HRC 58÷60	2
15	Wear Plate VDI 3357	16MnCr5 - HRC 58÷60	2
16	Elastomer Cap	Elastomer 92SH	4
17	Gas Spring	-	1
18	Spring Spacer	CK45	1
19	LOCKOUT SYSTEM	(more info on OMCR website)	1
20	Cam Driver Fixing Screws M16x55 DIN 912	-	4
21	Cam Base Fixing Screws M16x65 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Gas Spring
CHV220.00	0°	32,14	635	18,8
CHV220.05	5°	35,49	648	19,3
CHV220.10	10°	35,90	661	20,1
CHV220.15	15°	39,65	674	20,9
CHV220.20	20°	43,59	687	21,8
CHV220.25	25°	45,19	700	22,7
CHV220.30	30°	50	714	24,1
CHV220.35	35°	52,86	727	24,8
CHV220.40	40°	59,16	727	26,8
CHV220.45	45°	64,09	728	27,5
CHV220.50	50°	73,10	729	30,4
CHV220.55	55°	81,92	729	31,1
CHV220.60	60°	96,59	730	35,3
CHV220.65	65°	91,42	730	37,1
CHV220.70	70°	100,78	731	43,9
CHV220.75	75°	95,13	732	44,5



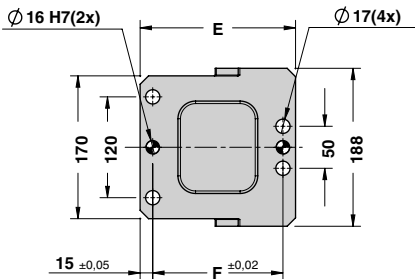
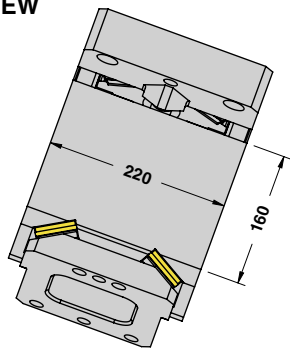
Art.	Work Angle = 5°
CHV220	05

OMCR CODE	Work Angle	Overall Dimensions (mm)										
		$\beta$	A	B	C	D	E	F	G	H	I	J
CHV220.00	0°	308	60	80	295	215	155	25	280	64	127	320
CHV220.05	5°	317,63	64,37	80	290	210	155	25	280	71,5	134,5	320
CHV220.10	10°	323,81	89,28	80	280	200	155	25	280	79	142	320
CHV220.15	15°	331,70	94,96	80	270	190	155	25	280	88	151	320
CHV220.20	20°	337,80	106,02	80	265	185	155	25	280	95,5	158,5	320
CHV220.25	25°	345,05	112,89	60	255	195	150	15	330	104,5	167,5	360
CHV220.30	30°	357,11	116,73	60	250	190	150	15	330	112	175	360
CHV220.35	35°	362,94	132,76	60	245	185	150	15	330	119,5	182,5	360
CHV220.40	40°	373,16	142,98	60	240	180	150	15	330	127	190	360
CHV220.45	45°	348,64	154,39	45	205	160	130	15	335	98	161	365
CHV220.50	50°	355,42	170,24	45	205	160	130	15	335	104	167	365
CHV220.55	55°	361,67	186,67	45	206	161	130	15	335	89,5	152,5	365
CHV220.60	60°	371,66	201,11	45	204	159	130	15	335	96,5	159,5	365
CHV220.65	65°	367,84	213,13	45	206	161	130	15	335	96,5	159,5	365
CHV220.70	70°	372,05	220,55	45	208	163	130	15	335	96,5	159,5	365
CHV220.75	75°	352,07	246,93	35	180	145	115	15	335	96,5	159,5	365

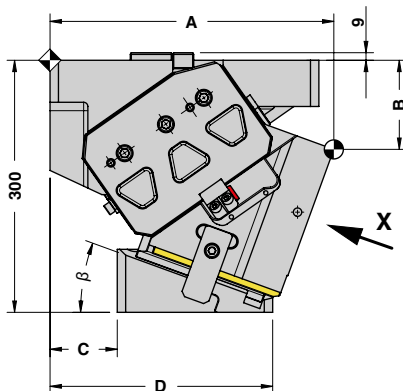
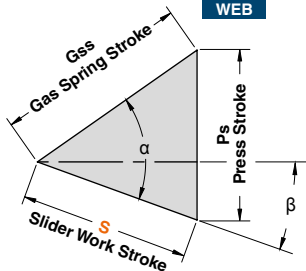


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

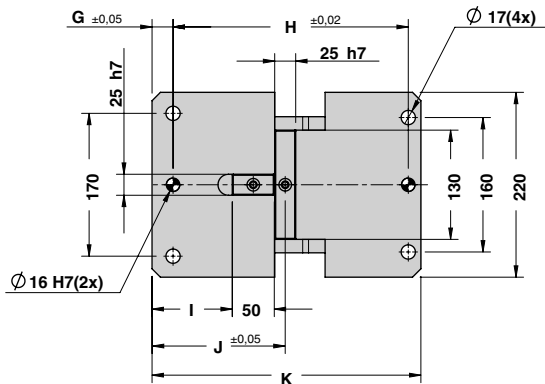


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

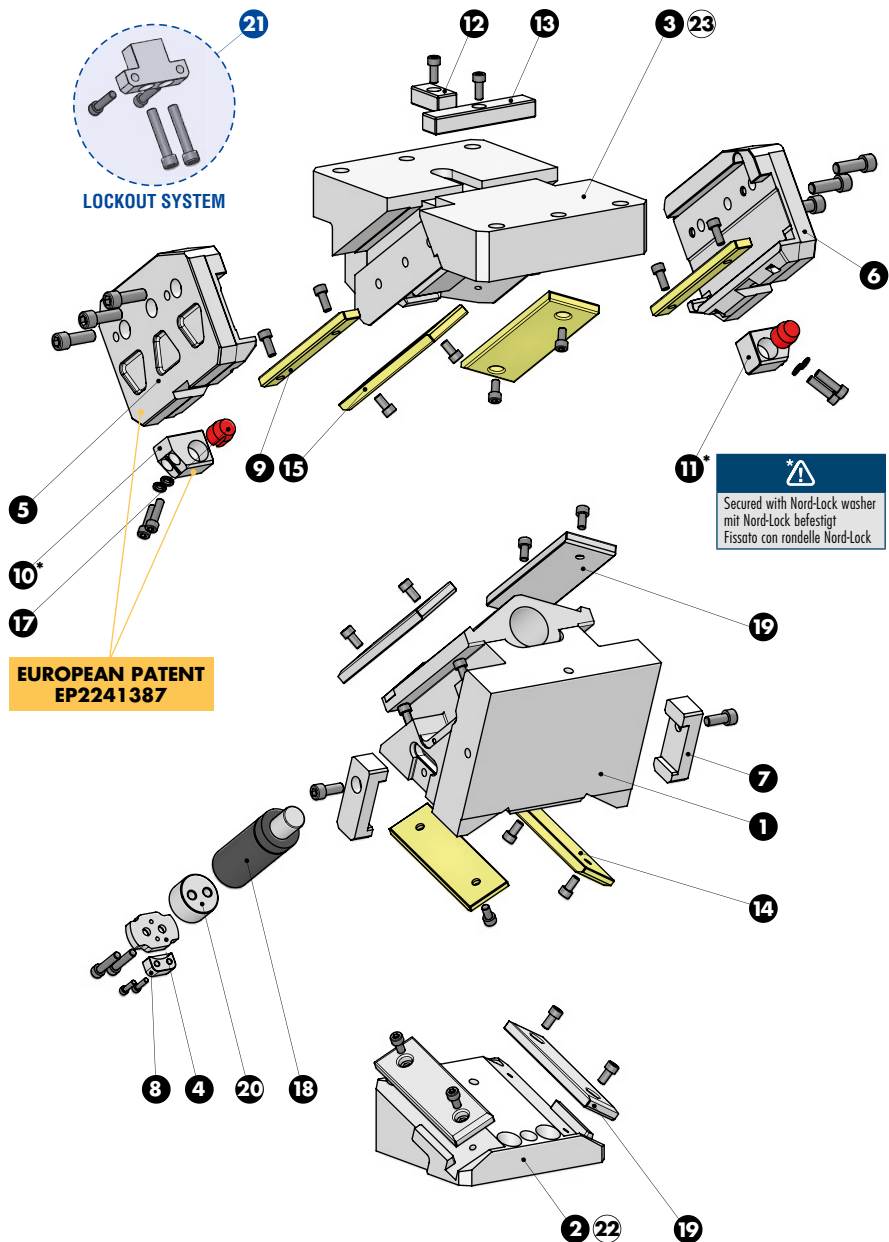
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	60°	45,19	47,78	50
30°	60°	50,00	50,00	50
35°	65°	52,86	55,32	50
40°	65°	59,16	59,16	50
45°	70°	64,09	66,45	50
50°	70°	73,10	73,10	50
55°	75°	81,92	84,20	50
60°	75°	96,59	96,59	50
65°	80°	91,42	93,21	40
70°	80°	100,78	100,78	35
75°	85°	95,13	96,23	25



Cam Units CHV



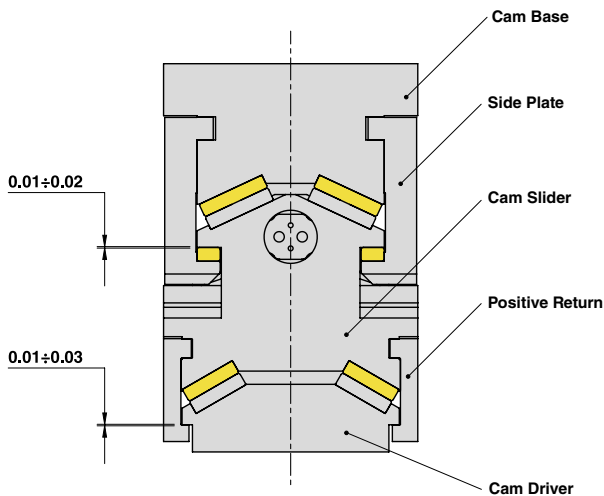
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

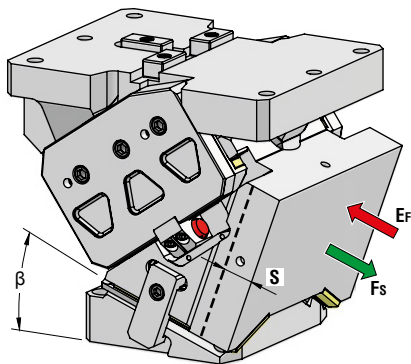


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	42CrMo4	1
6	Side Plate R	42CrMo4	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	1
13	Key	CK45	1
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
15	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58±60	2
17	Elastomer Cap	Elastomer 92SH	2
18	Gas Spring	-	1
19	Wear Plate VDI 3357	16MnCr5 - HRC 58±60	2
20	Spring Spacer	CK45	1
21	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
22	Cam Driver Fixing Screws M16x55 DIN 912	-	4
23	Cam Base Fixing Screws M16x65 DIN 912	-	4



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV260.00	0°	32,14	536	30,5
CHV260.05	5°	35,49	564	30,8
CHV260.10	10°	35,90	593	31,3
CHV260.15	15°	39,65	621	31,7
CHV260.20	20°	43,59	650	32,4
CHV260.25	25°	45,19	673	32,7
CHV260.30	30°	50	690	33,7
CHV260.35	35°	52,86	708	33,9
CHV260.40	40°	59,16	737	35,2
CHV260.45	45°	64,09	744	35,2
CHV260.50	50°	73,10	747	37,0
CHV260.55	55°	81,92	751	36,9
CHV260.60	60°	96,59	755	39,5
CHV260.65	65°	91,42	759	40,7
CHV260.70	70°	100,78	763	45,7
CHV260.75	75°	95,13	767	45,3



Art.	Work Angle = 5°
CHV260	05

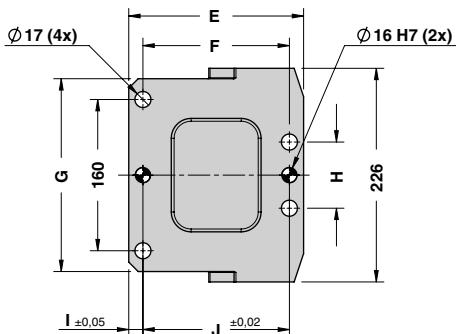
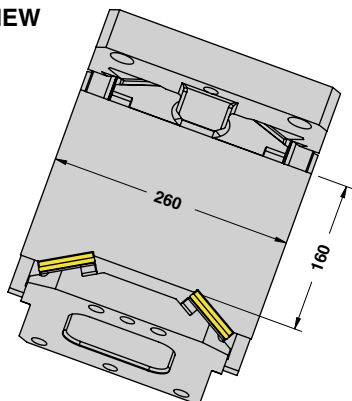
OMCR CODE	Work Angle	Overall Dimensions (mm)															
		$\beta$	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
CHV260.00	0°	308	60	80	295	215	155	204	70	15	155	25	280	63,5	50	127	320
CHV260.05	5°	317,63	64,37	80	290	210	155	204	90	15	155	25	280	70,5	50	134	320
CHV260.10	10°	323,81	89,28	80	280	200	155	204	70	15	155	25	280	78,5	50	142	320
CHV260.15	15°	331,70	94,96	80	270	190	155	204	70	15	155	25	280	76	50	151	320
CHV260.20	20°	337,80	106,02	80	265	185	155	204	70	15	155	25	280	76	50	151	320
CHV260.25	25°	345,05	112,89	60	255	195	150	204	70	15	150	15	330	100	50	167,5	360
CHV260.30	30°	357,11	116,73	60	250	190	150	204	70	15	150	15	330	105	50	175	360
CHV260.35	35°	362,94	132,76	60	245	185	150	204	70	15	150	15	330	115	50	182,5	360
CHV260.40	40°	373,16	142,98	60	240	180	150	204	70	15	150	15	330	120	50	190	360
CHV260.45	45°	348,64	154,39	45	205	160	130	204	70	15	130	15	335	90	50	161	365
CHV260.50	50°	355,42	170,24	45	205	160	130	204	70	15	130	15	335	100	50	167	365
CHV260.55	55°	361,67	186,67	45	215	170	130	204	70	15	130	15	335	85	50	152,5	365
CHV260.60	60°	371,66	201,11	45	205	160	130	204	70	15	130	15	335	90	50	159,5	365
CHV260.65	65°	367,84	213,13	45	211	166	120	204	70	20	120	15	335	90	50	159,5	365
CHV260.70	70°	372,05	220,55	45	210	165	130	226	90	15	130	15	335	90	50	159,5	365
CHV260.75	75°	352,07	246,93	35	185	150	115	226	90	15	115	15	335	90	50	159,5	365



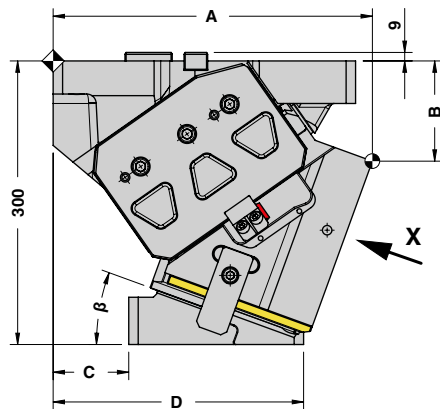
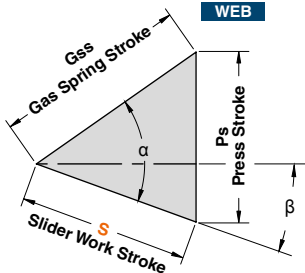


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

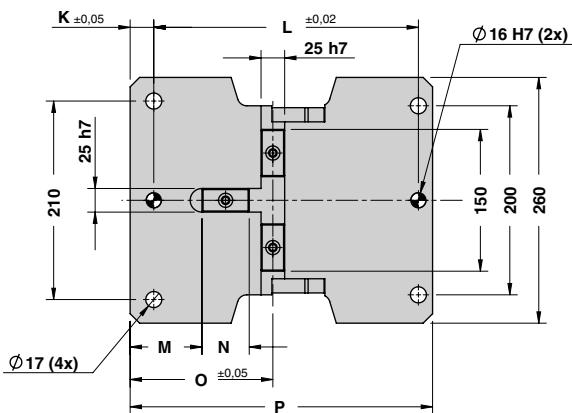
X VIEW



CAM DIAGRAM



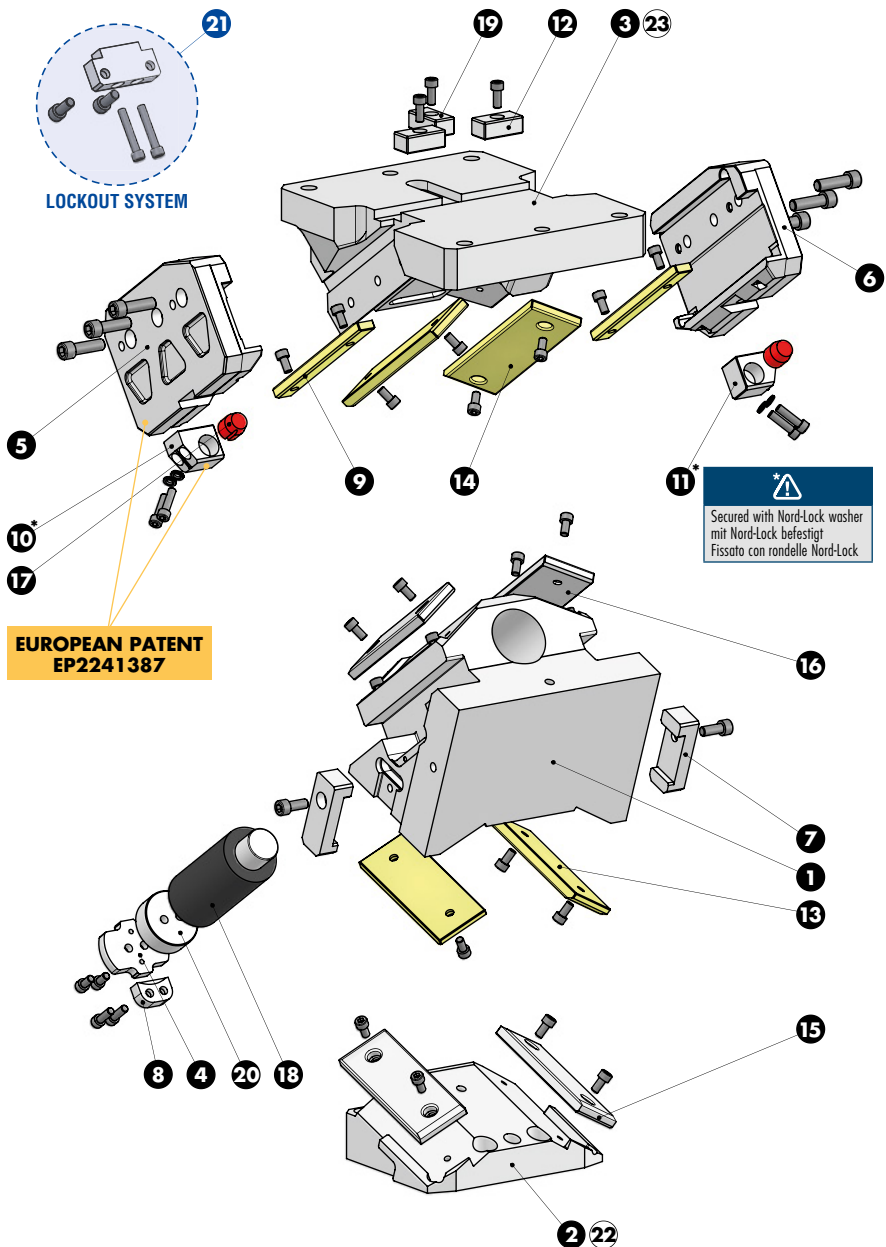
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	55°	35,90	41,59	50
15°	55°	39,65	42,40	50
20°	55°	43,59	43,59	50
25°	60°	45,19	47,78	50
30°	60°	50,00	50,00	50
35°	65°	52,86	55,32	50
40°	65°	59,16	59,16	50
45°	70°	64,09	66,45	50
50°	70°	73,10	73,10	50
55°	75°	81,92	84,20	50
60°	75°	96,59	96,59	50
65°	80°	91,42	93,21	40
70°	80°	100,78	100,78	35
75°	85°	95,13	96,23	25



Cam Units CHV



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

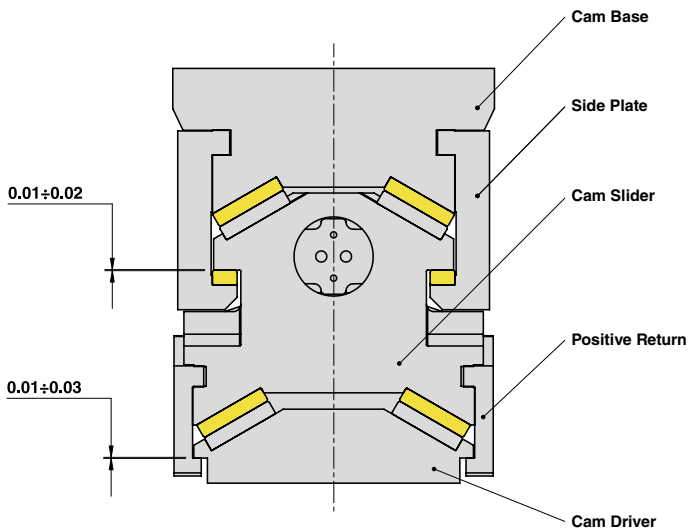






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



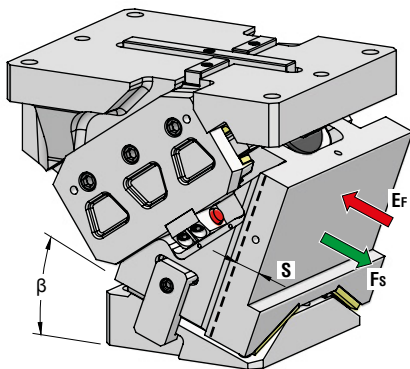
Cam Units CHV

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	42CrMo4	1
6	Side Plate R	42CrMo4	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	2
13	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
15	Wear Plate VDI 3357	16MnCr5 - HRC 58÷60	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58÷60	2
17	Elastomer Cap	Elastomer 92SH	2
18	Gas Spring	-	1
19	Key	CK45	1
20	Spring Spacer (not included for CHV260.15-20-55-65)	CK45	1
21	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
22	Cam Driver Fixing Screws M16x55 DIN 912	-	4
23	Cam Base Fixing Screws M16x65 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Gas Spring
CHV330.00	0°	37,28	1006	63,9
CHV330.05	5°	41,17	1005	64,6
CHV330.10	10°	41,64	1005	66,6
CHV330.15	15°	46	1005	67,8
CHV330.20	20°	50,56	1007	69,5
CHV330.25	25°	52,42	1009	71,2
CHV330.30	30°	58	1010	73,7
CHV330.35	35°	61,32	1012	75,1
CHV330.40	40°	68,62	1013	78,5
CHV330.45	45°	74,34	1014	79,6
CHV330.50	50°	84,79	1015	84,4
CHV330.55	55°	95,02	1016	85,1
CHV330.60	60°	112,05	1017	91,8
CHV330.65	65°	102,85	1018	94,8
CHV330.70	70°	127,09	1019	94,9
CHV330.75	75°	114,15	1020	95,9



Art.	Work Angle = 5°
CHV330	05

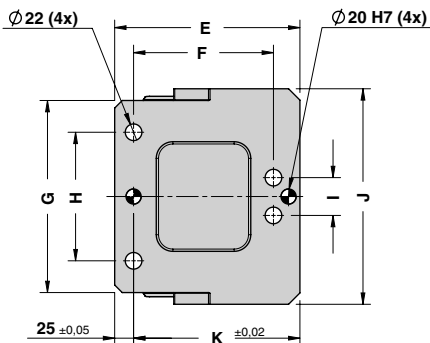
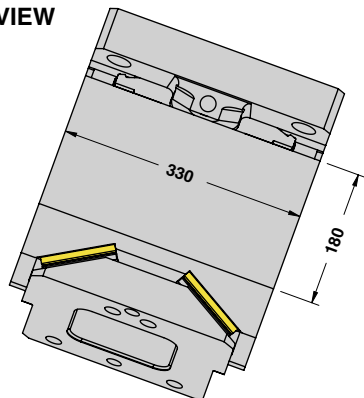
OMCR CODE	Work Angle	Overall Dimensions (mm)														
		$\beta$	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CHV330.00	0°	403	75	130	410	280	185	254	170	60	285	205	365	72	209,5	415
CHV330.05	5°	410,89	94,30	130	398	268	185	254	170	50	285	205	365	82,5	220	415
CHV330.10	10°	418,81	99,28	130	384	254	185	254	170	50	285	205	365	93	230,5	415
CHV330.15	15°	426,70	104,96	130	385	255	185	254	170	50	285	205	365	103,5	241	415
CHV330.20	20°	434,51	111,32	130	375	245	185	254	170	50	285	205	365	94	251,5	415
CHV330.25	25°	417,16	118,36	80	339	259	145	254	170	50	285	175	365	104,5	237	415
CHV330.30	30°	424,61	131,06	80	330	250	145	254	170	50	285	175	365	95	247,5	415
CHV330.35	35°	427,78	150,13	80	317	237	145	254	170	50	285	175	365	104	256,5	415
CHV330.40	40°	438,66	158,34	80	312	232	145	254	170	50	285	175	365	98	265,5	415
CHV330.45	45°	395,15	172,88	30	255	225	145	254	170	50	285	175	401	62	224,5	450
CHV330.50	50°	412,72	188,31	30	252	222	145	254	170	50	285	175	401	56	233,5	450
CHV330.55	55°	423,22	212,08	30	256	226	145	254	170	50	285	175	401	63,4	240,9	450
CHV330.60	60°	433,59	232,11	30	258	228	145	254	170	50	285	175	401	71	248,5	450
CHV330.65	65°	434,62	242,64	0	242	242	140	330	293	293	330	175	401	71	248,5	450
CHV330.70	70°	429,87	254,52	0	232	232	125	330	293	293	330	175	401	71	248,5	450
CHV330.75	75°	418,49	262,53	0	221	221	105	330	293	293	330	160	401	56	233,5	450



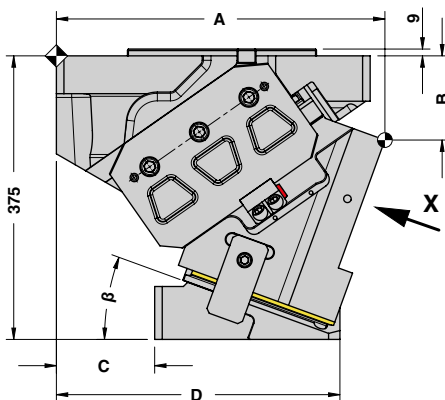
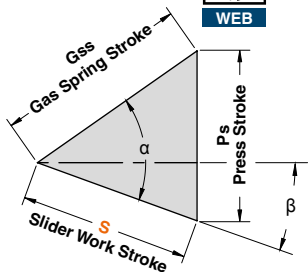


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

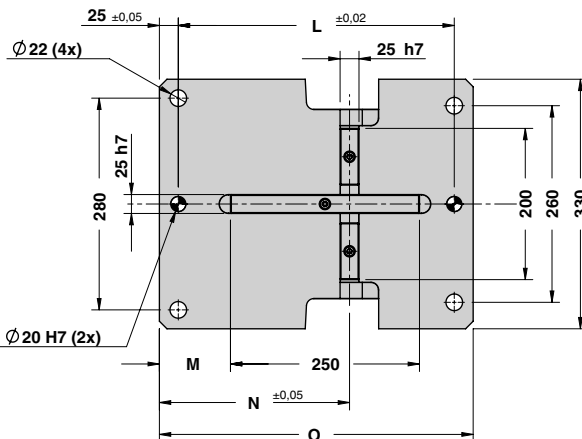
X VIEW



CAM DIAGRAM



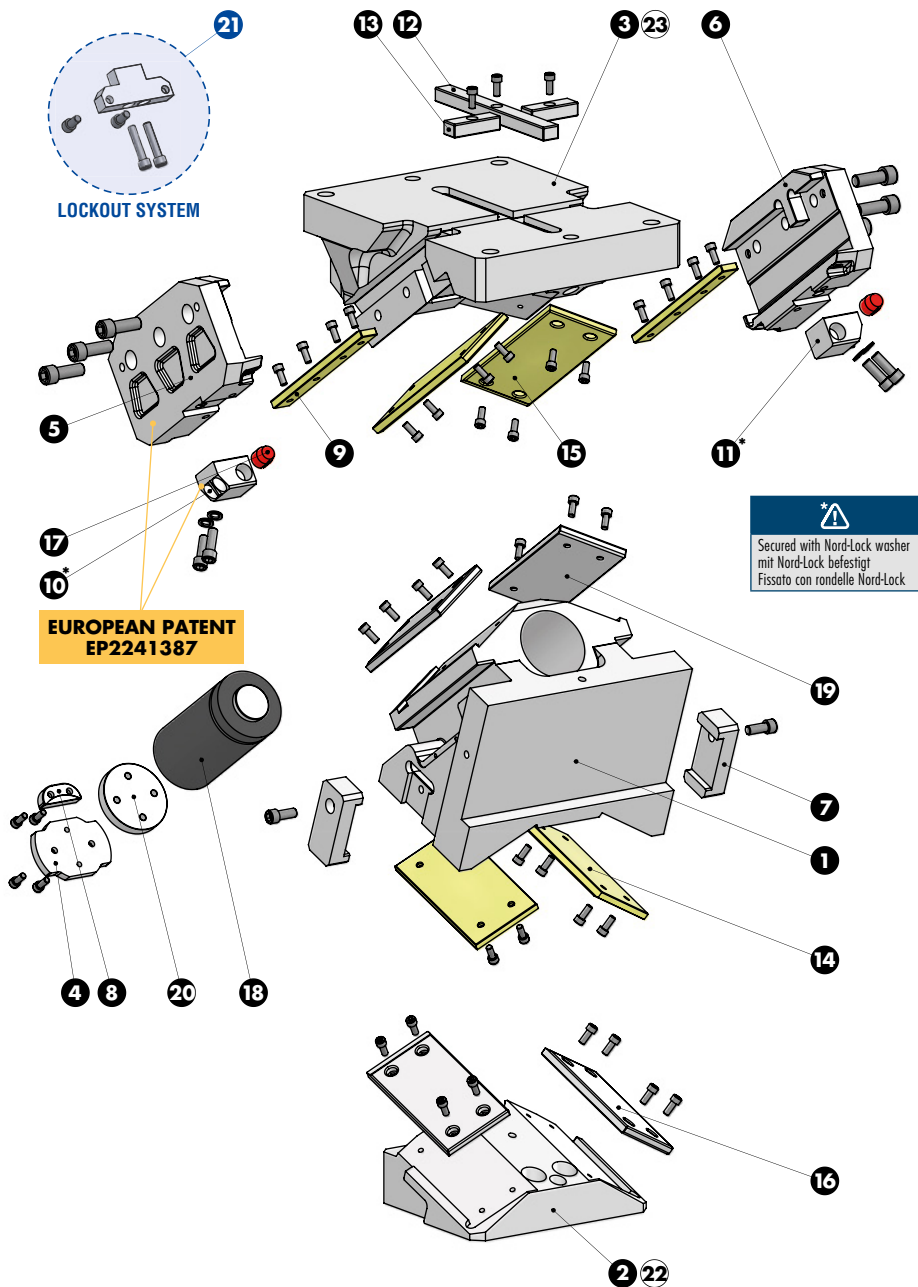
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	37,28	44,43	58
5°	50°	41,17	44,60	58
10°	55°	41,64	48,24	58
15°	55°	46,00	49,19	58
20°	55°	50,56	50,56	58
25°	60°	52,42	55,42	58
30°	60°	58,00	58,00	58
35°	65°	61,32	64,17	58
40°	65°	68,62	68,62	58
45°	70°	74,34	77,08	58
50°	70°	84,79	84,79	58
55°	75°	95,02	97,67	58
60°	75°	112,05	112,05	58
65°	80°	102,85	104,86	45
70°	85°	127,09	131,07	45
75°	85°	114,15	115,47	30



Cam Units CHV



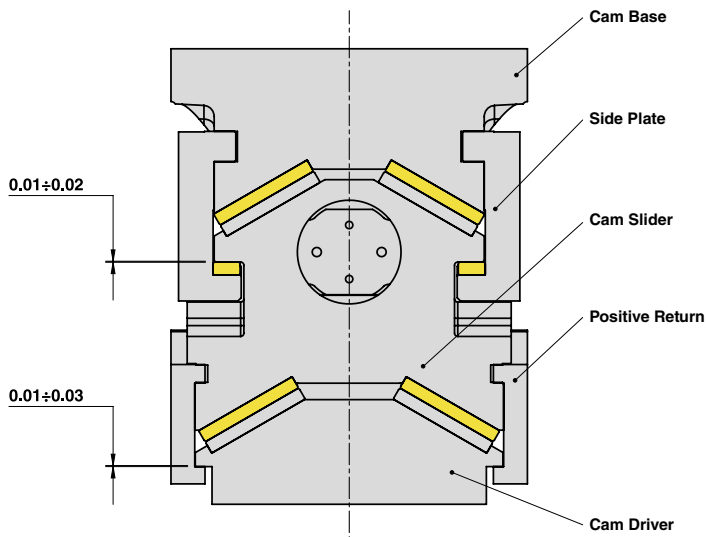
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



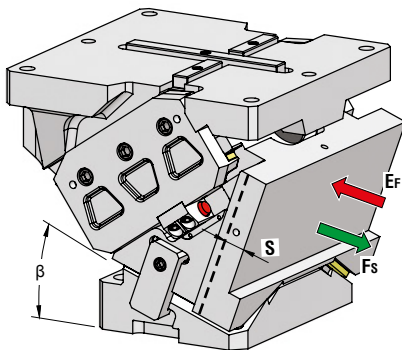
Cam Units CHV

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	42CrMo4	1
6	Side Plate R	42CrMo4	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	1
13	Key	CK45	2
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
15	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58±60	2
17	Elastomer Cap	Elastomer 92SH	2
18	Gas Spring	-	1
19	Wear Plate VDI 3357	16MnCr5 - HRC 58±60	2
20	Spring Spacer (included only for CHV330.20 and CHV330.35)	CK45	1
21	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
22	Cam Driver Fixing Screws M20x70 DIN 912	-	4
23	Cam Base Fixing Screws M20x70 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV400.00	0°	37,28	1055	63,9
CHV400.05	5°	41,17	1055	64,6
CHV400.10	10°	41,64	1054	66,6
CHV400.15	15°	46	1054	67,8
CHV400.20	20°	50,56	1054	69,5
CHV400.25	25°	52,42	1054	71,2
CHV400.30	30°	58	1054	73,7
CHV400.35	35°	61,32	1054	75,1
CHV400.40	40°	68,62	1054	78,5
CHV400.45	45°	74,34	1054	79,6
CHV400.50	50°	84,79	1053	84,4
CHV400.55	55°	95,02	1053	85,1
CHV400.60	60°	112,05	1053	91,8
CHV400.65	65°	102,85	1053	94,8
CHV400.70	70°	127,09	1053	94,9
CHV400.75	75°	114,15	1052	95,9



Art.	Work Angle = 5°
CHV400	05

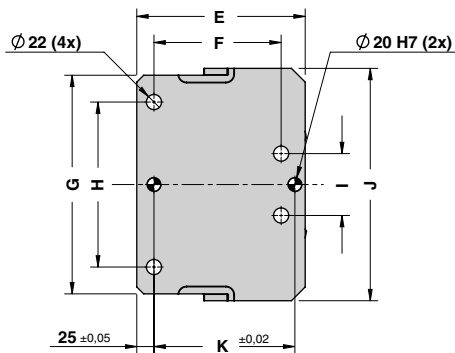
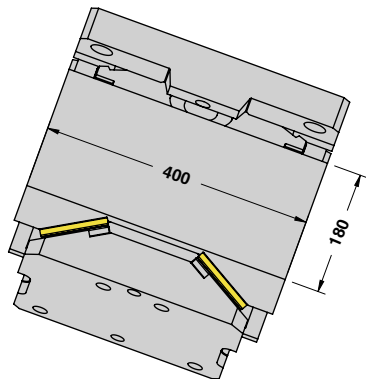
OMCR CODE	Work Angle	Overall Dimensions (mm)														
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
CHV400.00	0°	403	75	130	410	280	185	318	240	90	338	205	365	72	209,5	415
CHV400.05	5°	410,89	94,30	130	410	280	185	318	240	90	338	205	365	82,5	220	415
CHV400.10	10°	418,81	99,28	130	385	255	185	318	240	90	338	205	365	93	230,5	415
CHV400.15	15°	426,70	104,96	130	385	255	185	318	240	90	338	205	365	103,5	241	415
CHV400.20	20°	434,51	111,32	130	375	245	185	318	240	90	338	205	365	94	251,5	415
CHV400.25	25°	417,16	118,36	80	340	260	145	318	240	90	338	175	365	104,5	237	415
CHV400.30	30°	424,61	131,06	80	330	250	145	318	240	90	338	175	365	95	247,5	415
CHV400.35	35°	427,78	150,13	80	317	237	145	318	240	90	338	175	365	104	256,5	415
CHV400.40	40°	438,66	158,34	80	310	230	145	318	240	90	338	175	365	98	265,5	415
CHV400.45	45°	395,15	172,88	30	255	225	145	318	240	90	338	175	401	62	224,5	450
CHV400.50	50°	412,72	188,31	30	245	215	145	318	240	90	338	175	401	56	233,5	450
CHV400.55	55°	423,22	212,08	30	256	226	145	318	240	90	338	175	401	63,4	240,9	450
CHV400.60	60°	433,59	232,11	30	260	230	145	318	240	90	338	175	401	71	248,5	450
CHV400.65	65°	434,62	242,64	0	242	242	140	400	363	363	400	175	401	71	248,5	450
CHV400.70	70°	429,87	254,52	0	226	226	125	400	363	363	400	175	401	71	248,5	450
CHV400.75	75°	418,49	262,53	0	214	214	105	400	363	363	400	160	401	56	233,5	450



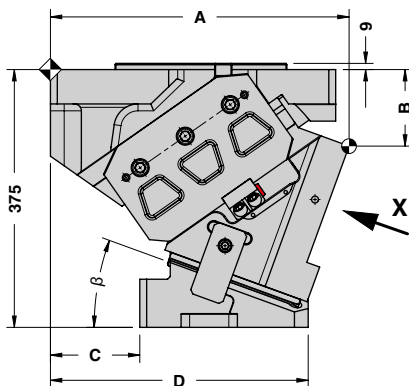
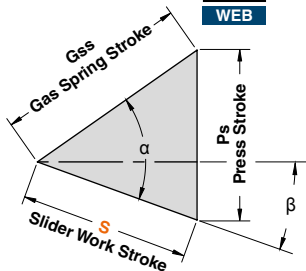


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

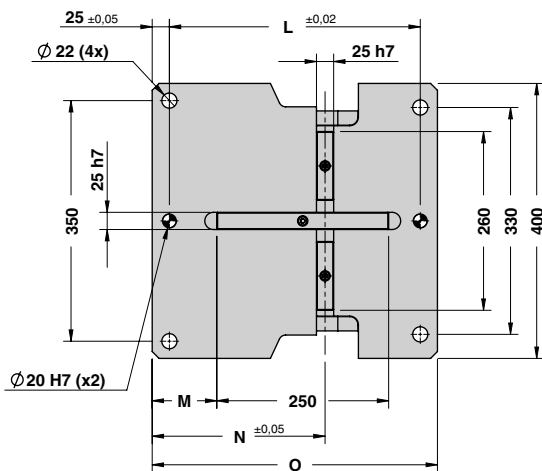


CAM DIAGRAM



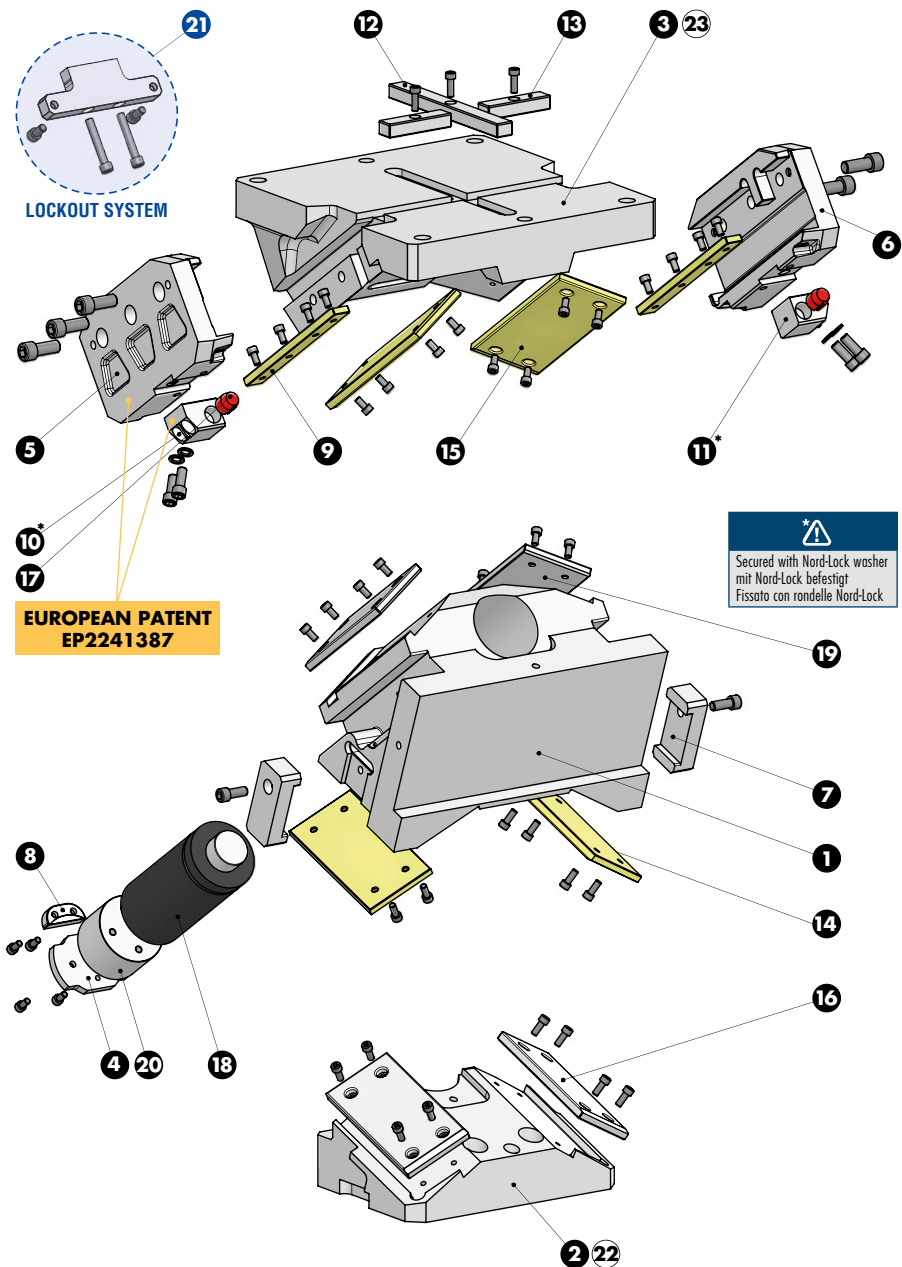
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

0°	50°	37,28	44,43	58
5°	50°	41,17	44,60	58
10°	55°	41,64	48,24	58
15°	55°	46,00	49,19	58
20°	55°	50,56	50,56	58
25°	60°	52,42	55,42	58
30°	60°	58,00	58,00	58
35°	65°	61,32	64,17	58
40°	65°	68,62	68,62	58
45°	70°	74,34	77,08	58
50°	70°	84,79	84,79	58
55°	75°	95,02	97,67	58
60°	75°	112,05	112,05	58
65°	80°	102,85	104,86	45
70°	85°	127,09	131,07	45
75°	85°	114,15	115,47	30





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

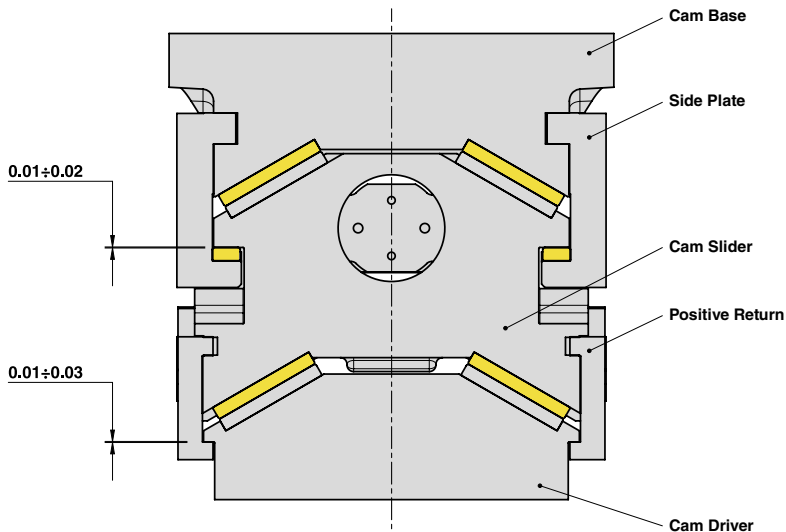






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



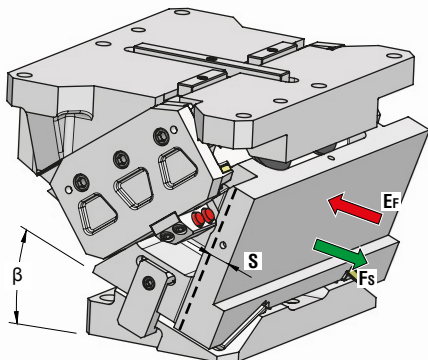
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	1
5	Side Plate L	42CrMo4	1
6	Side Plate R	42CrMo4	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	1
13	Key	CK45	2
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
15	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
17	Elastomer Cap	Elastomer 92SH	2
18	Gas Spring	-	1
19	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
20	Spring Spacer (included only for CHV400.65)	CK45	1
21	LOCKOUT SYSTEM	(more info on OMCR website)	1
22	Cam Driver Fixing Screws M20x70 DIN 912	-	4
23	Cam Base Fixing Screws M20x70 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV500.00	0°	37,28	1155	87,0
CHV500.05	5°	41,17	1155	87,0
CHV500.10	10°	41,64	1155	85,7
CHV500.15	15°	46,00	1155	85,7
CHV500.20	20°	50,56	1155	85,7
CHV500.25	25°	52,42	1155	83,8
CHV500.30	30°	58,00	1155	83,8
CHV500.35	35°	61,32	1155	81,2
CHV500.40	40°	68,62	1155	81,2
CHV500.45	45°	74,34	1155	78,0
CHV500.50	50°	84,79	1155	78,0
CHV500.55	55°	95,02	1155	74,1
CHV500.60	60°	112,05	1155	74,1
CHV500.65	65°	102,85	1155	69,3
CHV500.70	70°	127,09	1155	64,5
CHV500.75	75°	114,15	1155	66,8

30



Art.	Work Angle = 5°
CHV500	05

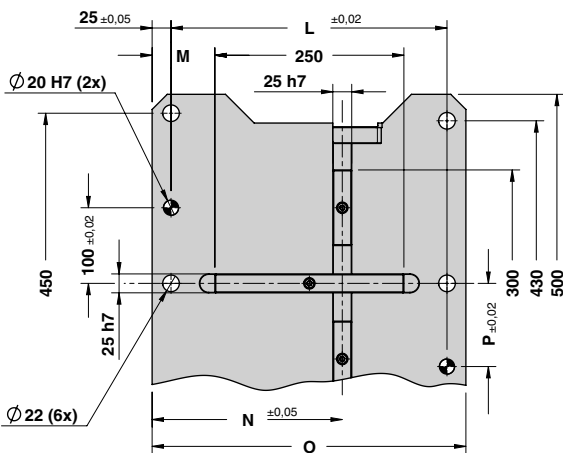
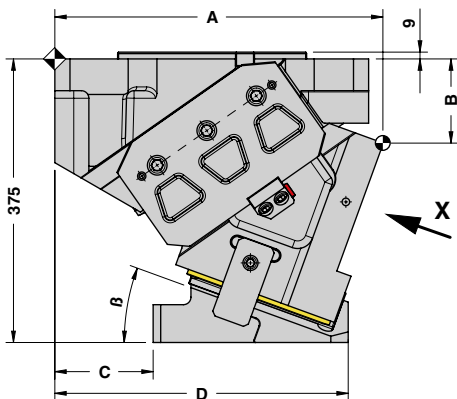
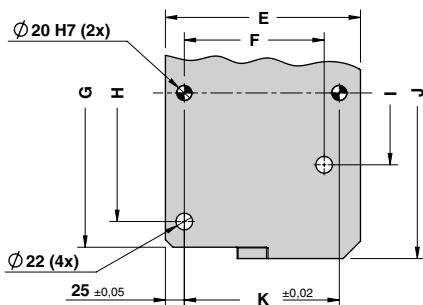
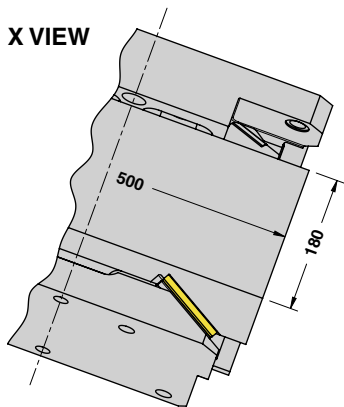
OMCR CODE	Work Angle	Overall Dimensions (mm)															
		β	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
CHV500.00	0°	403,00	75,00	130	410	280	185	408	340	190	438	205	365	83	209,5	415	110
CHV500.05	5°	410,89	94,30	130	410	280	185	408	340	190	438	205	365	83	220	415	110
CHV500.10	10°	418,81	99,28	130	397	267	185	408	340	190	438	205	365	83	230,5	415	110
CHV500.15	15°	426,70	104,96	130	397	267	185	408	340	190	438	205	365	83	241	415	110
CHV500.20	20°	434,51	111,32	130	388	258	185	408	340	190	438	205	365	83	251,5	415	110
CHV500.25	25°	417,16	118,36	80	350	270	145	408	340	190	438	175	365	83	237	415	110
CHV500.30	30°	424,61	131,06	80	340	260	145	408	340	180	438	175	365	83	247,5	415	170
CHV500.35	35°	427,78	150,13	80	327	247	145	408	340	190	438	175	365	83	256,5	415	110
CHV500.40	40°	438,66	158,34	80	320	240	145	408	340	190	438	175	365	83	265,5	415	110
CHV500.45	45°	395,15	172,88	30	255	225	145	408	340	190	438	175	401	103	224,5	455	110
CHV500.50	50°	412,72	188,31	30	253	223	145	408	340	190	438	175	401	100,5	233,5	450	110
CHV500.55	55°	423,22	212,08	30	262	232	145	408	340	190	438	175	401	100,5	241	450	110
CHV500.60	60°	433,59	232,11	30	259	229	145	408	340	190	438	175	401	100,5	248,5	450	110
CHV500.65	65°	434,62	242,64	0	250	250	140	500	463	463	500	175	401	100,5	248,5	450	110
CHV500.70	70°	429,87	254,52	0	228	228	125	500	463	463	500	175	401	100,5	248,5	450	110
CHV500.75	75°	418,49	262,53	0	213	213	105	500	463	463	500	160	401	100,5	233,5	450	110



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

Cam Units CHV

X VIEW



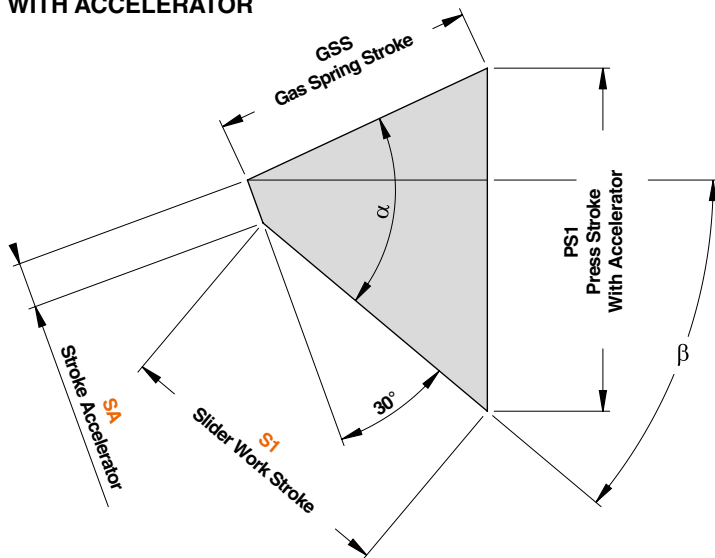


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



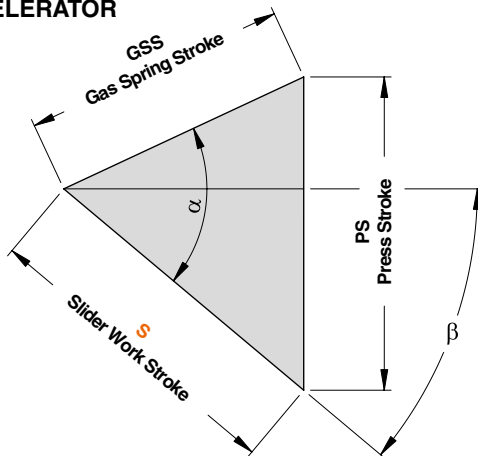
CAM DIAGRAM WITH ACCELERATOR

WEB



CAM DIAGRAM WITHOUT ACCELERATOR

WEB



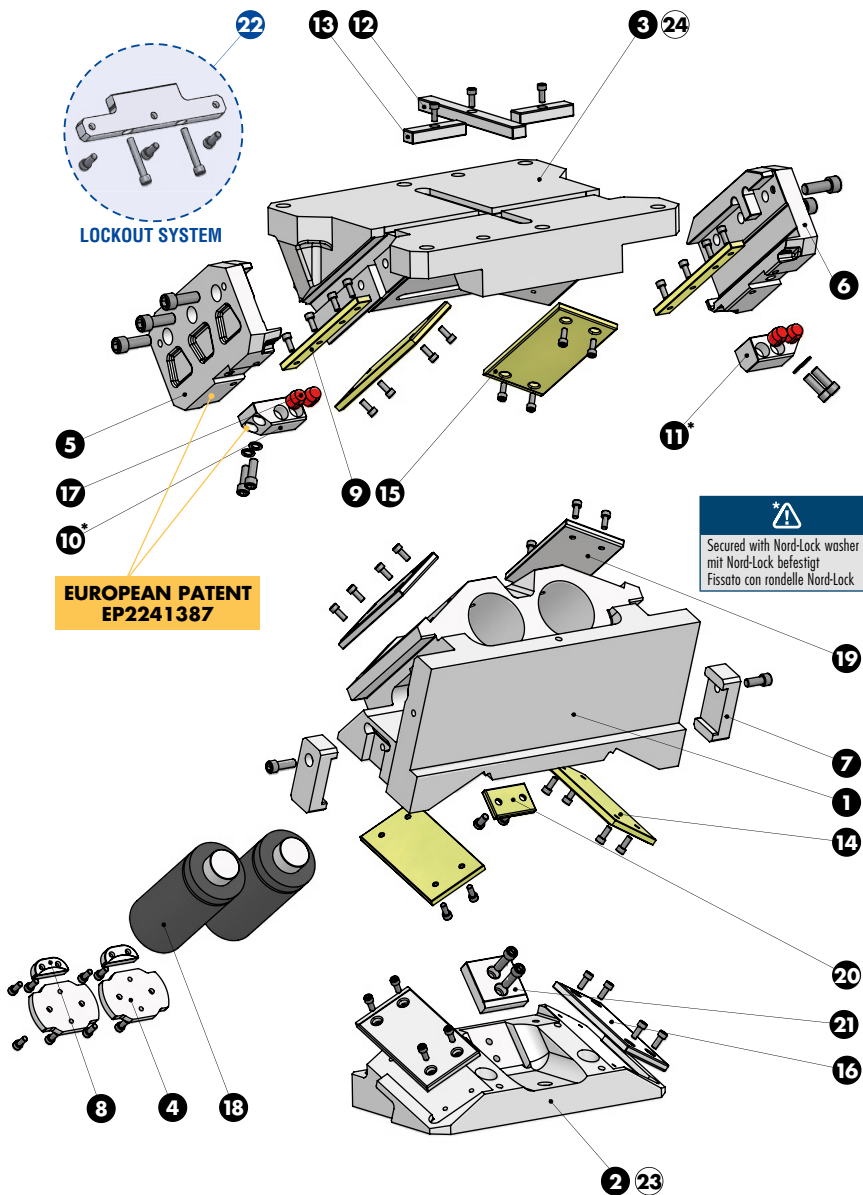


**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

OMCR CODE	Work Angle	Inner Angle	Slider Work Stroke (mm)		Press Stroke (mm)		Stroke Accelerator	Gas Spring Stroke (mm)
	$\beta$	$\alpha$	S	S1	Ps	Ps1	SA	Gss
CHV500.00	0°	50°	37,28	28,62	44,43	49,43	10	58
CHV500.05	5°	50°	41,17	32,94	44,60	49,62	10	58
CHV500.10	10°	55°	41,64	33,87	48,24	53,32	10	58
CHV500.15	15°	55°	46,00	38,68	49,19	54,36	10	58
CHV500.20	20°	55°	50,56	43,71	50,56	55,89	10	58
CHV500.25	25°	60°	52,42	46,09	55,42	60,94	10	58
CHV500.30	30°	60°	58,00	52,22	58,00	63,78	10	58
CHV500.35	35°	65°	61,32	56,16	64,17	70,27	10	58
CHV500.40	40°	65°	68,62	64,15	68,62	75,15	10	58
CHV500.45	45°	70°	74,34	70,68	77,08	84,15	10	58
CHV500.50	50°	70°	84,79	82,09	84,79	92,57	10	58
CHV500.55	55°	75°	95,02	-	97,67	-	-	58
CHV500.60	60°	75°	112,05	-	112,05	-	-	58
CHV500.65	65°	80°	102,85	-	104,86	-	-	45
CHV500.70	70°	85°	127,09	-	131,07	-	-	45
CHV500.75	75°	85°	114,15	-	115,47	-	-	30



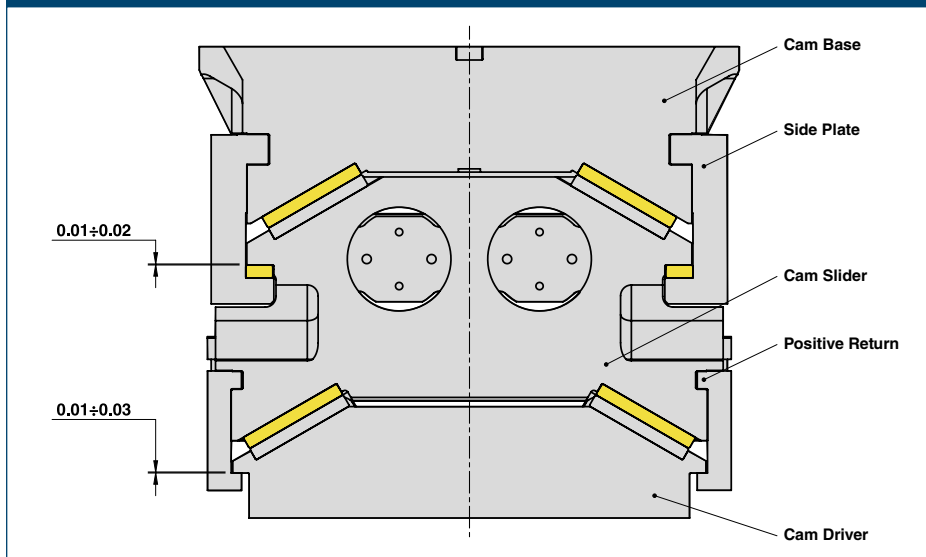
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



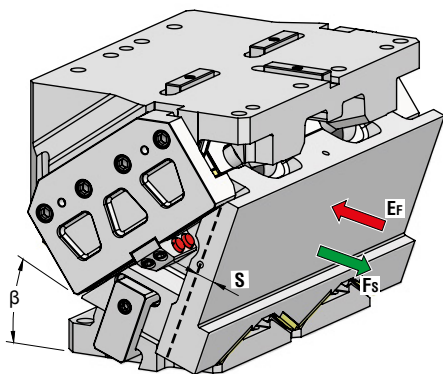
Cam Units CHV

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	2
5	Side Plate L	42CrMo4	1
6	Side Plate R	42CrMo4	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	2
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	1
13	Key	CK45	2
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
15	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
17	Elastomer Cap	Elastomer 92SH	4
18	Gas Spring	-	2
19	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
20	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
21	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	1
22	LOCKOUT SYSTEM	(more info on OMCR website)	1
23	Cam Driver Fixing Screws M20x70 DIN 912	-	4
24	Cam Base Fixing Screws M20x70 DIN 912	-	6



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHV600.00	0°	37,28	1202	98,1
CHV600.05	5°	41,17	1202	98,1
CHV600.10	10°	41,64	1202	98,5
CHV600.15	15°	46,00	1202	98,5
CHV600.20	20°	50,56	1202	98,5
CHV600.25	25°	52,42	1202	98,2
CHV600.30	30°	58,00	1202	98,2
CHV600.35	35°	61,32	1202	97,1
CHV600.40	40°	68,62	1202	97,1
CHV600.45	45°	74,34	1202	95,2
CHV600.50	50°	84,79	1202	95,2
CHV600.55	55°	95,02	1202	92,6
CHV600.60	60°	112,05	1202	92,6
CHV600.65	65°	102,85	1202	88,8
CHV600.70	70°	127,09	1202	84,9
CHV600.75	75°	114,15	1202	84,2

30



Art.	Work Angle = 5°
CHV600	05

OMCR CODE	Work Angle	Overall Dimensions (mm)																		
	$\beta$	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
CHV600.00	0°	368,00	75,00	120	375	255	205	25	180	200	30	330	360	272,5	167,5	600	560	250	330	385
CHV600.05	5°	377,63	89,37	105	363	258	210	25	180	205	30	330	360	272,5	182,5	600	560	250	330	385
CHV600.10	10°	387,28	99,59	105	350	245	205	25	180	200	30	330	360	272,5	192,5	600	560	250	330	385
CHV600.15	15°	396,88	110,64	95	340	245	195	25	180	190	30	330	360	272,5	207,5	600	560	250	330	385
CHV600.20	20°	391,35	122,53	55	315	260	210	25	180	205	30	325	355	267,5	207,5	530	280	90	325	380
CHV600.25	25°	400,61	135,23	55	305	250	200	25	180	195	30	325	355	267,5	222,5	530	280	90	325	380
CHV600.30	30°	409,61	138,74	45	295	250	200	25	180	195	30	345	375	287,5	222,5	530	280	90	345	400
CHV600.35	35°	418,26	153,01	5	285	280	230	25	180	225	30	355	385	302,5	202,5	530	280	90	355	415
CHV600.40	40°	426,51	168,02	5	280	275	225	25	180	220	30	380	410	322,5	217,5	530	280	90	380	435
CHV600.45	45°	434,30	183,73	5	270	265	215	25	180	210	30	380	410	322,5	242,5	530	280	90	380	435
CHV600.50	50°	419,53	180,82	-5	220	225	175	25	180	170	30	400	430	342,5	232,5	530	280	100	400	455
CHV600.55	55°	427,80	199,87	-5	210	215	165	25	180	160	30	400	430	342,5	247,5	530	280	100	400	455
CHV600.60	60°	425,24	224,61	-15	200	215	165	25	180	160	30	400	430	342,5	267,5	530	280	100	400	455
CHV600.65	65°	431,81	244,96	5	190	185	140	35	160	130	55	415	470	382,5	262,5	600	560	250	440	495
CHV600.70	70°	437,45	270,84	5	185	180	135	35	160	125	55	415	470	382,5	272,5	600	560	250	440	495
CHV600.75	75°	442,12	292,17	5	180	175	120	35	160	130	55	415	470	382,5	327,5	600	560	250	440	495

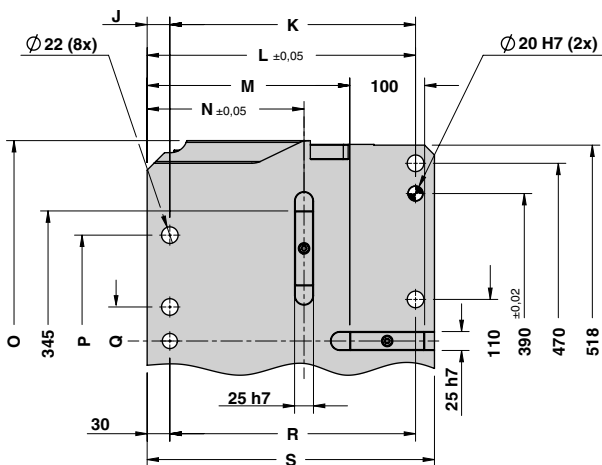
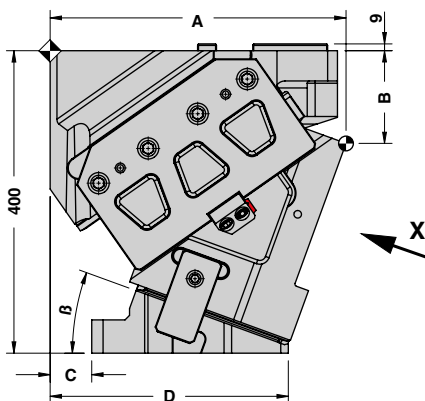
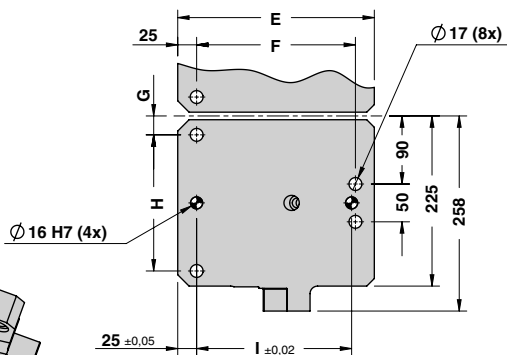
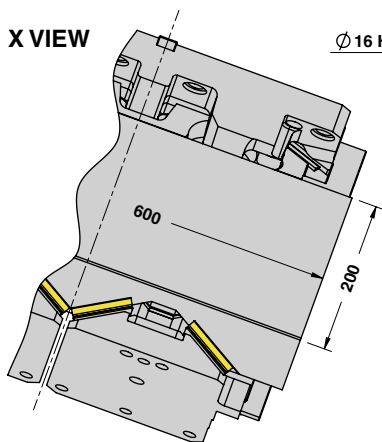






AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW



Cam Units CHV

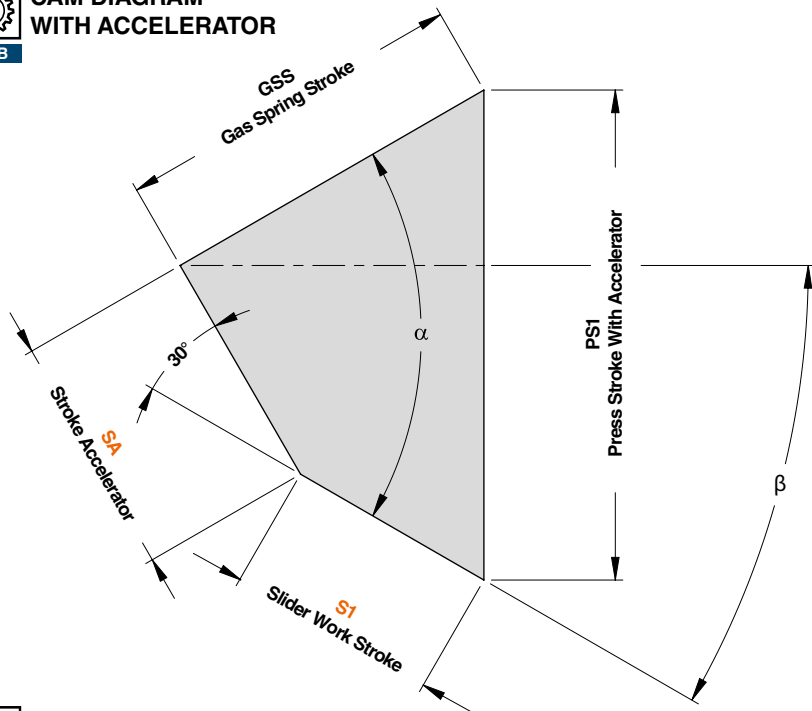


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



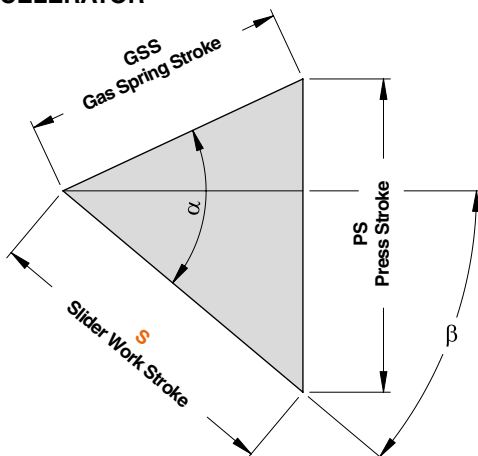
CAM DIAGRAM WITH ACCELERATOR

WEB



CAM DIAGRAM WITHOUT ACCELERATOR

WEB

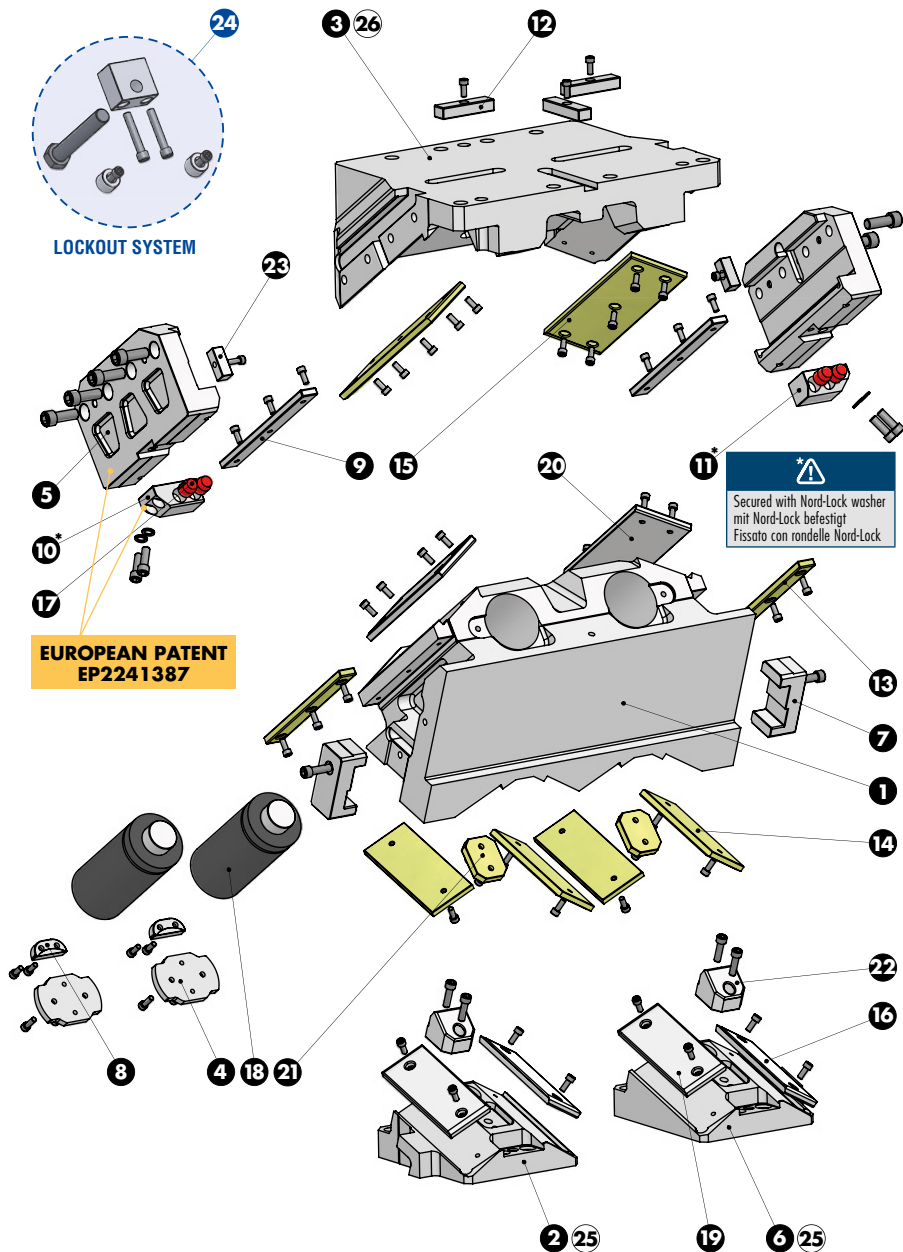



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

OMCR CODE	Work Angle	Inner Angle	Slider Work Stroke (mm)		Press Stroke (mm)		Stroke Accelerator	Gas Spring Stroke (mm)
	$\beta$	$\alpha$	S	S1	Ps	Ps1	SA	Gss
CHV600.00	0°	50°	37,28	25,00	44,43	51,52	14,18	58
CHV600.05	5°	50°	41,17	25,00	44,60	54,47	19,66	58
CHV600.10	10°	55°	41,64	25,00	48,24	59,11	21,40	58
CHV600.15	15°	55°	46,00	35,00	49,19	56,96	15,02	58
CHV600.20	20°	55°	50,56	35,00	50,56	62,66	22,75	58
CHV600.25	25°	60°	52,42	35,00	55,42	70,61	27,53	58
CHV600.30	30°	60°	58,00	35,00	58,00	81,00	39,84	58
CHV600.35	35°	65°	61,32	40,00	64,17	89,39	41,32	58
CHV600.40	40°	65°	68,62	50,00	68,62	95,84	41,70	58
CHV600.45	45°	70°	74,34	55,00	77,08	114,44	52,84	58
CHV600.50	50°	70°	84,79	77,00	84,79	107,22	28,84	58
CHV600.55	55°	75°	95,02	-	97,67	-	-	58
CHV600.60	60°	75°	112,05	-	112,05	-	-	58
CHV600.65	65°	80°	102,85	-	104,86	-	-	45
CHV600.70	70°	85°	127,09	-	131,07	-	-	45
CHV600.75	75°	85°	114,15	-	115,47	-	-	30



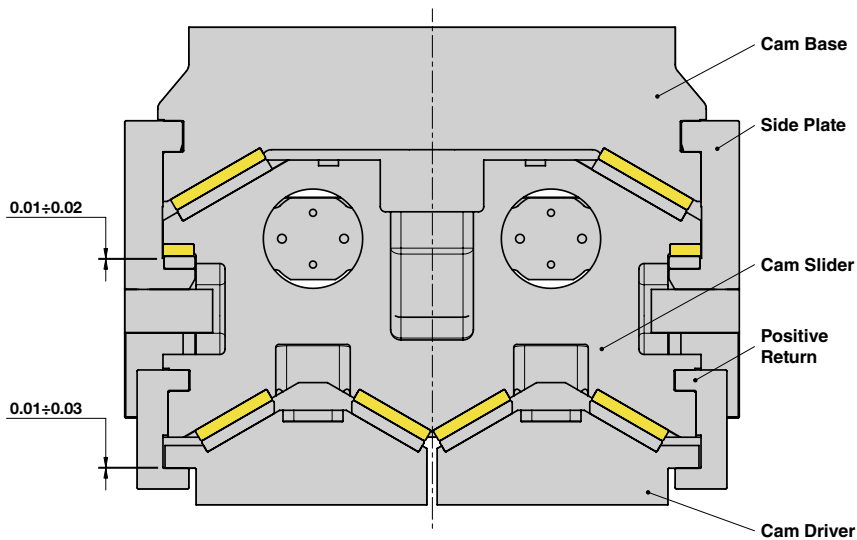
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-60	1
2	Cam Driver L	GGG-60	1
3	Cam Base	GGG-60	1
4	Lock Plate	42CrMo4	2
5	Side Plate	42CrMo4	2
6	Cam Driver R	GGG-60	1
7	Positive Return	42CrMo4 Nitrided	2
8	Safety Plate	CK45	2
9	Wear Plate	16MnCr5 - HRC 58-60	2
10	Slide Reaction L	CK45	1
11	Slide Reaction R	CK45	1
12	Key	CK45	3
13	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
14	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	4
15	Wear Plate VDI 3357	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
17	Elastomer Cap	Elastomer 92SH	4
18	Gas Spring	-	2
19	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
20	Wear Plate VDI 3357	16MnCr5 - HRC 58-60	2
21	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
22	Accelerator	CK45	2
23	Key	CK45	2
24	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
25	Cam Driver Fixing Screws M16x60 DIN 912	-	8
26	Cam Base Fixing Screws M20x70 DIN 912	-	8

Cam Units CHV



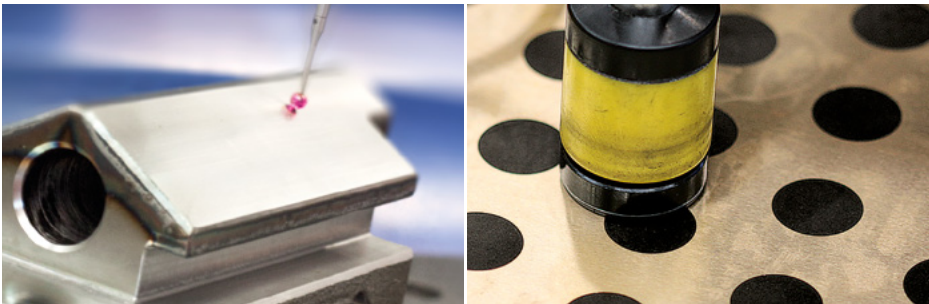
Cam Units CHW  
Schieber CHW  
Unità a Camme CHW



**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



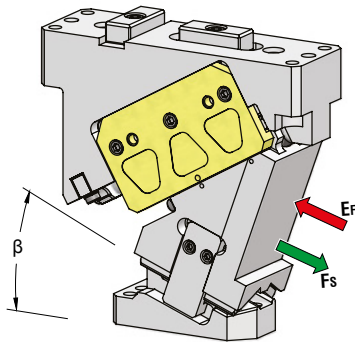
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	F <sub>f</sub>	
<b>CHW065</b>	0°÷75° (5° steps)	65	190÷205	65x95	210÷230	5,6÷6,8	720
<b>CHW085</b>	0°÷75° (5° steps)	85	190÷205	65x95	210÷230	5,6÷6,8	724
<b>CHW090</b>	0°÷75° (5° steps)	90	205÷240	90x100	250÷320	11÷13,2	728
<b>CHW110</b>	0°÷75° (5° steps)	110	205÷240	90x100	250÷320	11÷13,2	732



Precision and accurate dimensions through very strict quality guidelines



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Gas Spring
CHW065.00	0°	28,9	210	5,6
CHW065.05	5°	31,9	212	5,6
CHW065.10	10°	35	214	5,8
CHW065.15	15°	38,16	214	5,8
CHW065.20	20°	41,47	216	6,1
CHW065.25	25°	45	216	6,1
CHW065.30	30°	48,83	218	6,3
CHW065.35	35°	53,06	218	6,3
CHW065.40	40°	57,85	220	6,3
CHW065.45	45°	63,4	222	6,5
CHW065.50	50°	46,6	222	6,5
CHW065.55	55°	52,3	224	6,5
CHW065.60	60°	46	226	6,6
CHW065.65	65°	54,4	228	6,6
CHW065.70	70°	39,5	230	6,8
CHW065.75	75°	52,16	230	6,8

15



Art.	Work Angle = 5°
CHW065.	05

OMCR CODE	Work Angle	Overall Dimensions (mm)									
	$\beta$	A	B	C	D	E	F	G	H	I	J
CHW065.00	0°	170,88	65	44	180	200	136	95	115	164	183
CHW065.05	5°	179,54	57,5	55	175	200	120	80	100	173	191
CHW065.10	10°	179,7	59,37	40	175	205	135	100	115	175	195
CHW065.15	15°	186,81	59,53	40	160	200	120	85	100	183	201
CHW065.20	20°	190,11	69,84	35	164	205	129	95	110	190	208
CHW065.25	25°	194,23	68,75	30	154	195	124	80	100	195	213
CHW065.30	30°	195,12	71,6	25	154	195	129	90	105	195	213
CHW065.35	35°	195,51	75,18	10	130	190	120	80	95	200	218
CHW065.40	40°	194,77	85,49	-	120	195	120	80	95	197	215
CHW065.45	45°	193,55	86,14	-	116	195	116	85	-	197	215
CHW065.50	50°	164,18	94,49	-22	78	190	100	60	-	172	190
CHW065.55	55°	175,74	120,29	-8	82	200	90	45	-	172	190
CHW065.60	60°	176,87	121,2	-5	80	200	85	50	-	172	190
CHW065.65	65°	180,09	131,37	-5	80	195	85	40	-	172	190
CHW065.70	70°	183	142,17	-5	80	200	85	36	-	172	190
CHW065.75	75°	183,62	144,44	-10	76	190	86	45	-	172	190

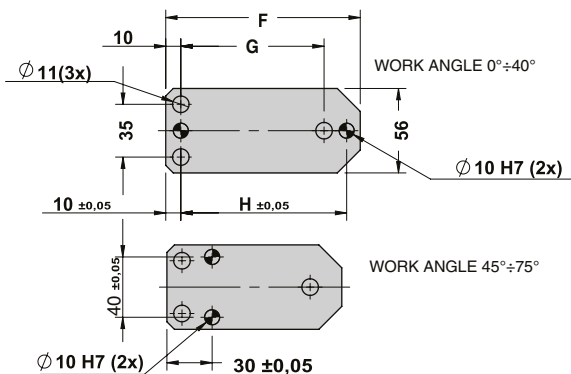
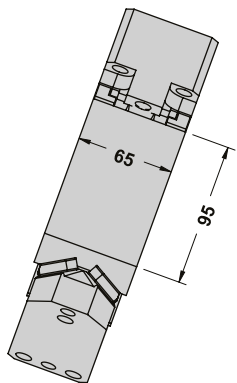




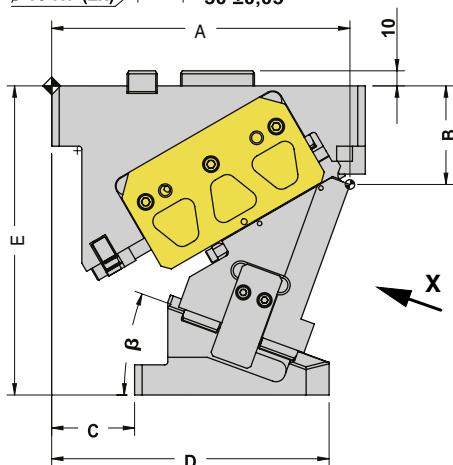
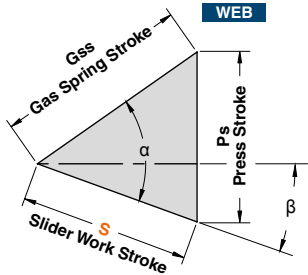


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

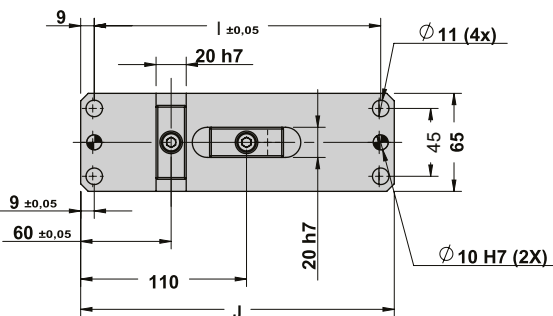


CAM DIAGRAM

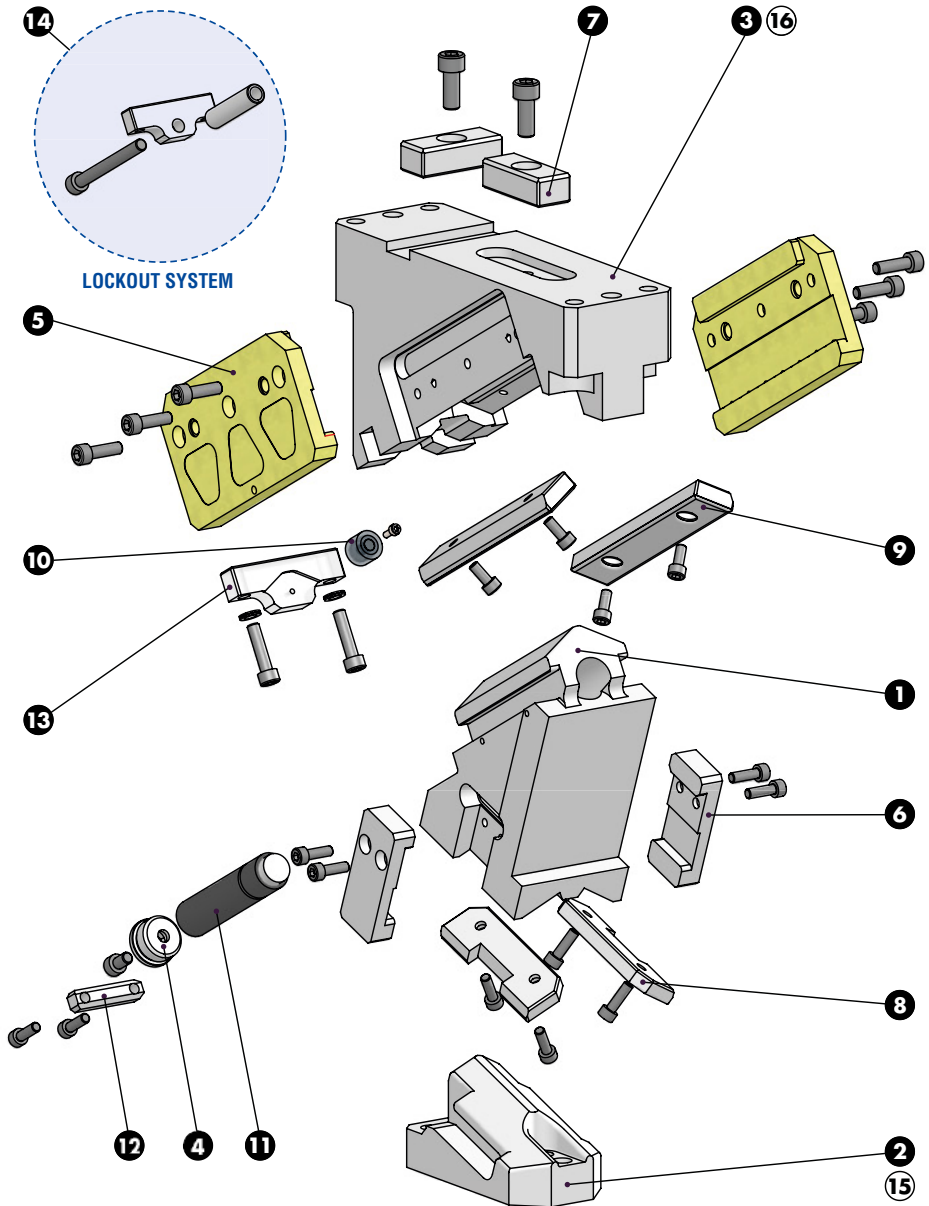


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss

0°	50°	28,9	34,5	45
5°	50°	31,9	34,5	45
10°	50°	35	35	45
15°	50°	38,16	35,69	45
20°	50°	41,47	36,68	45
25°	50°	45	38	45
30°	50°	48,83	39,8	45
35°	50°	53,06	42,08	45
40°	50°	57,85	45	45
45°	50°	63,4	48,75	45
50°	50°	46,6	35,75	30
55°	55°	52,3	42,85	30
60°	60°	46	39,8	23
65°	65°	54,4	49,3	23
70°	70°	39,5	37	13,5
75°	75°	52,16	50,4	13,5



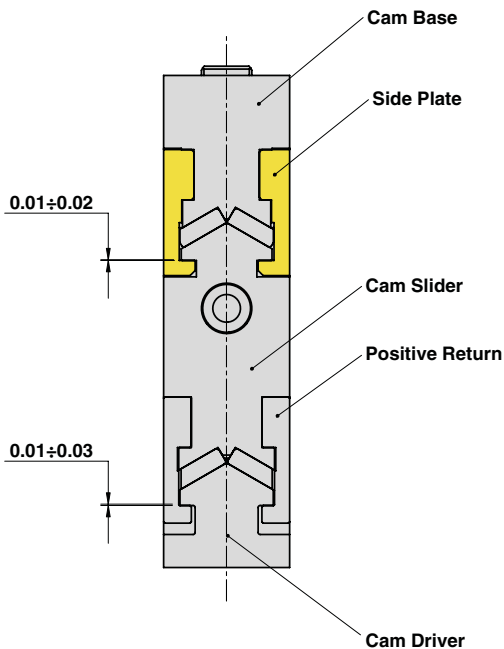
Cam Units CHW

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

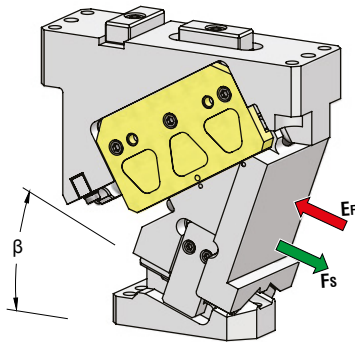


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	1
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M10 DIN 912	-	3
16	Cam Base Fixing Screws M10 DIN 912	-	4



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHW085.00	0°	28,9	210	5,6
CHW085.05	5°	31,9	212	5,6
CHW085.10	10°	35	214	5,8
CHW085.15	15°	38,16	214	5,8
CHW085.20	20°	41,47	216	6,1
CHW085.25	25°	45	216	6,1
CHW085.30	30°	48,83	218	6,3
CHW085.35	35°	53,06	218	6,3
CHW085.40	40°	57,85	220	6,3
CHW085.45	45°	63,4	222	6,5
CHW085.50	50°	46,6	222	6,5
CHW085.55	55°	52,3	224	6,5
CHW085.60	60°	46	226	6,6
CHW085.65	65°	54,4	228	6,6
CHW085.70	70°	39,5	230	6,8
CHW085.75	75°	52,16	230	6,8

15



Art.	Work Angle = 5°
CHW085.	05

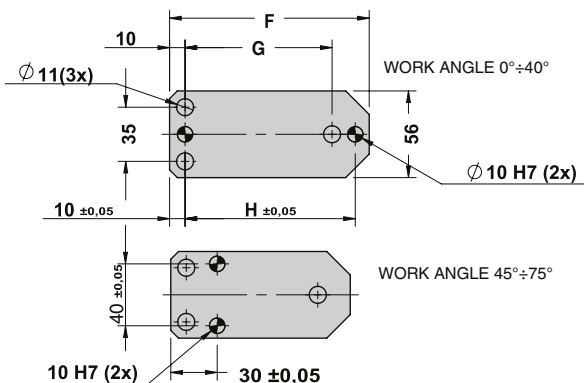
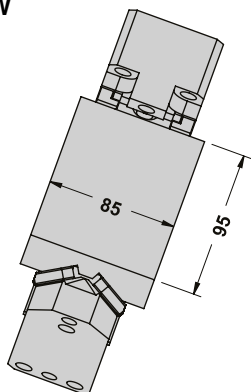
OMCR CODE	Work Angle	Overall Dimensions (mm)									
	β	A	B	C	D	E	F	G	H	I	J
CHW085.00	0°	170,88	65	44	180	200	136	95	115	164	183
CHW085.05	5°	179,54	57,5	55	175	200	120	80	100	173	191
CHW085.10	10°	179,7	59,37	40	175	205	135	100	115	175	195
CHW085.15	15°	186,81	59,53	40	160	200	120	85	100	183	201
CHW085.20	20°	190,11	69,84	35	164	205	129	95	110	190	208
CHW085.25	25°	194,23	68,75	30	154	195	124	80	100	195	213
CHW085.30	30°	195,12	71,6	25	154	195	129	90	105	195	213
CHW085.35	35°	195,51	75,18	10	130	190	120	80	95	200	218
CHW085.40	40°	194,77	85,49	-	120	195	120	80	95	197	215
CHW085.45	45°	193,55	86,14	-	116	195	116	85	-	197	215
CHW085.50	50°	164,18	94,49	-22	78	190	100	60	-	172	190
CHW085.55	55°	175,74	120,29	-8	82	200	90	45	-	172	190
CHW085.60	60°	176,87	121,2	-5	80	200	85	50	-	172	190
CHW085.65	65°	180,09	131,37	-5	80	195	85	40	-	172	190
CHW085.70	70°	183	142,17	-5	80	200	85	36	-	172	190
CHW085.75	75°	183,62	144,44	-10	76	190	86	45	-	172	190



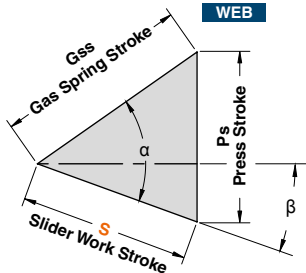


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

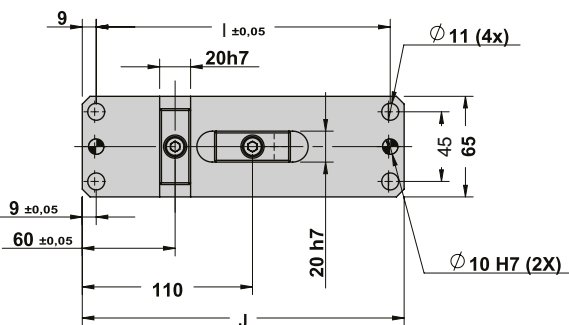
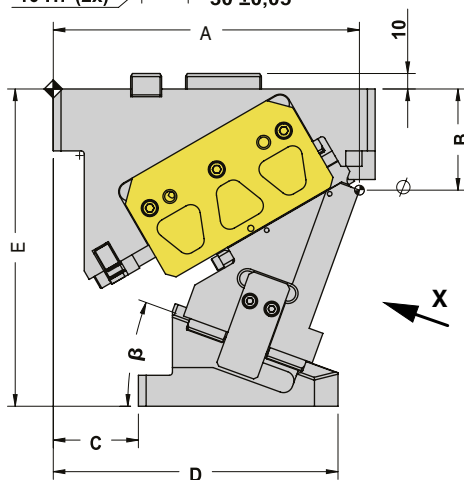


CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
β	α	S	Ps	Gss

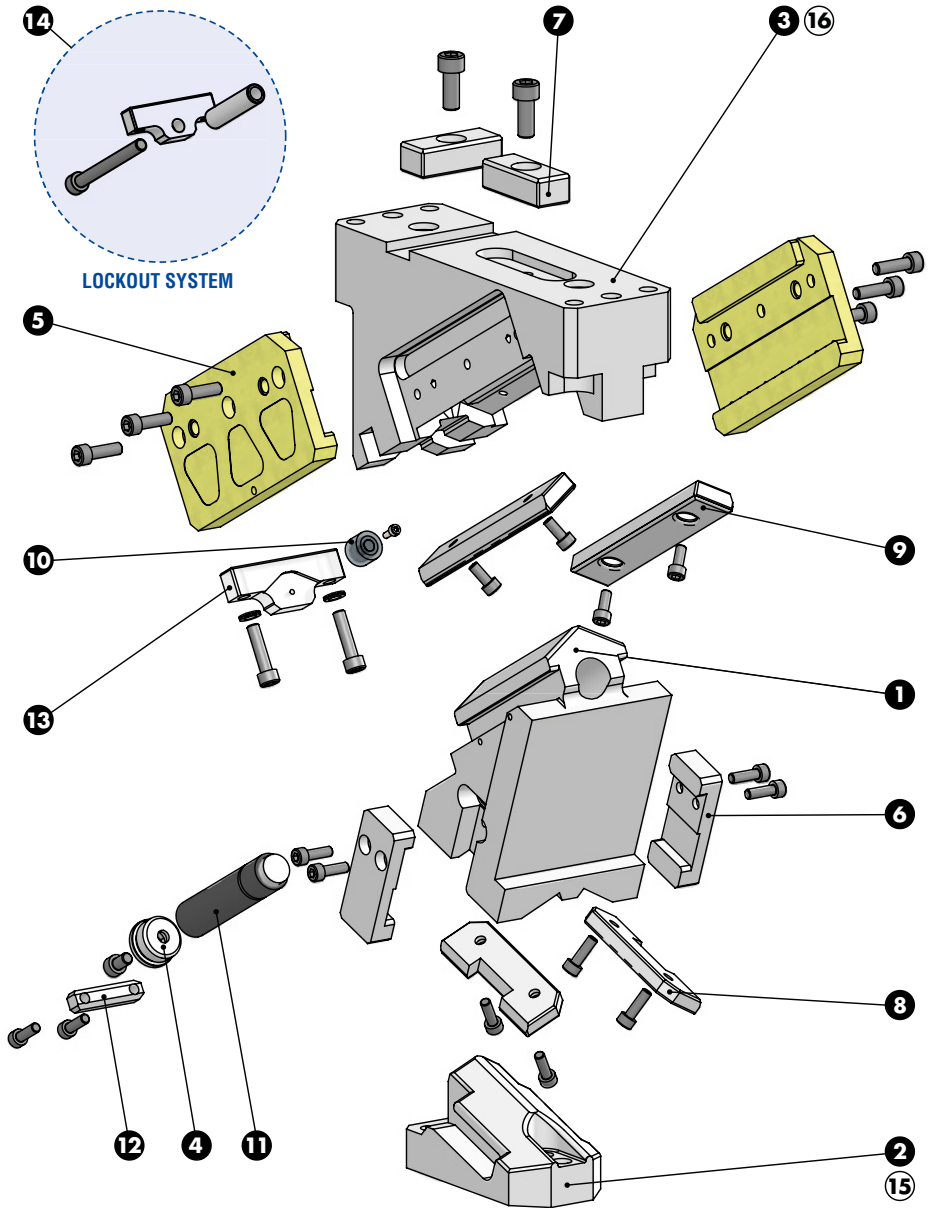
0°	50°	28,9	34,5	45
5°	50°	31,9	34,5	45
10°	50°	35	35	45
15°	50°	38,16	35,69	45
20°	50°	41,47	36,68	45
25°	50°	45	38	45
30°	50°	48,83	39,8	45
35°	50°	53,06	42,08	45
40°	50°	57,85	45	45
45°	50°	63,4	48,75	45
50°	50°	46,6	35,75	30
55°	55°	52,3	42,85	30
60°	60°	46	39,8	23
65°	65°	54,4	49,3	23
70°	70°	39,5	37	13,5
75°	75°	52,16	50,4	13,5



Cam Units CHW



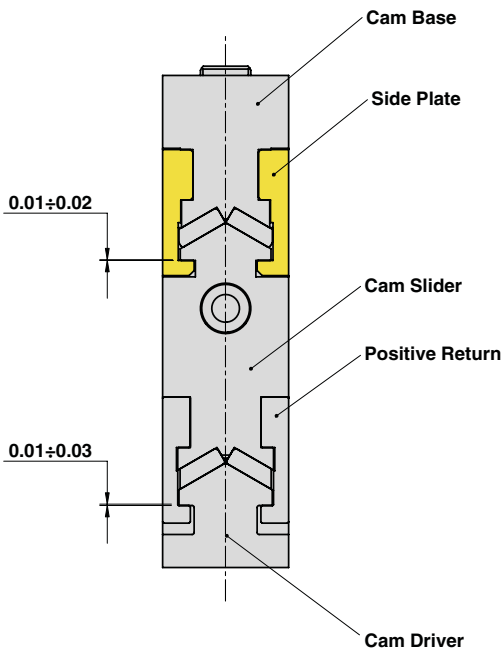
**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

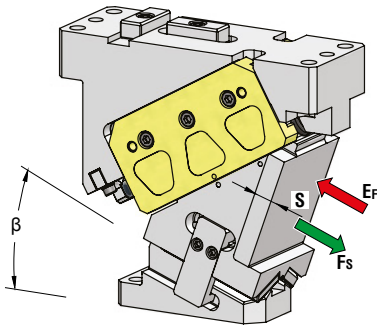


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	1
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M10 DIN 912	-	3
16	Cam Base Fixing Screws M10 DIN 912	-	4



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$ Gas Spring
CHW090.00	0°	28	250	11
CHW090.05	5°	30,8	255	11
CHW090.10	10°	33,84	260	11,5
CHW090.15	15°	36,89	260	11,5
CHW090.20	20°	40	265	11,5
CHW090.25	25°	43,5	270	12
CHW090.30	30°	47,2	275	12
CHW090.35	35°	51,29	280	12,4
CHW090.40	40°	55,92	280	12,4
CHW090.45	45°	61,28	285	12,6
CHW090.50	50°	66,9	290	12,6
CHW090.55	55°	67,53	300	12,8
CHW090.60	60°	66	305	12,8
CHW090.65	65°	78,08	310	13
CHW090.70	70°	67,25	318	13
CHW090.75	75°	61,82	320	13,2



Art.	Work Angle = 5°
CHW090.	05

OMCR CODE	Work Angle	Overall Dimensions (mm)									
	$\beta$	A	B	C	D	E	F	G	H	I	J
CHW090.00	0°	196,69	70,15	72	208	230	136	105	80	191	215
CHW090.05	5°	206,69	74,45	70	260	235	135	90	110	201	225
CHW090.10	10°	215,17	79,64	65	205	240	140	95	115	211	235
CHW090.15	15°	216,42	86,42	55	195	240	140	95	115	216	240
CHW090.20	20°	217,31	83,67	50,5	185,5	230	135	90	110	221	245
CHW090.25	25°	220,17	86,39	45	180	230	135	90	110	221	245
CHW090.30	30°	223,69	91,43	30	165	225	135	90	110	226	250
CHW090.35	35°	222,78	94,02	20	155	220	135	90	110	226	250
CHW090.40	40°	217,88	96,41	15	150	220	135	90	110	226	250
CHW090.45	45°	218,48	94,32	5	140	205	135	90	110	226	250
CHW090.50	50°	205,11	106,51	0	115	205	115	63	50	216	240
CHW090.55	55°	203,78	107,91	0	105	210	105	60	50	216	240
CHW090.60	60°	216,26	112,73	-5	100	210	105	60	50	216	240
CHW090.65	65°	217,57	136,11	-10	95	220	105	50	50	216	240
CHW090.70	70°	207,35	139,74	-20	83	215	102	40	50	216	240
CHW090.75	75°	206,25	154,43	-15	80	210	95	40	50	216	240

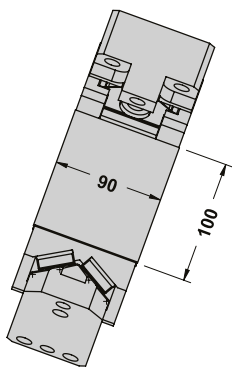




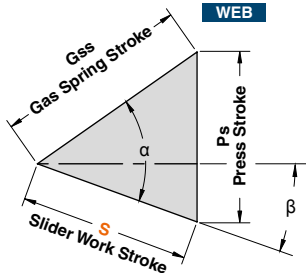


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

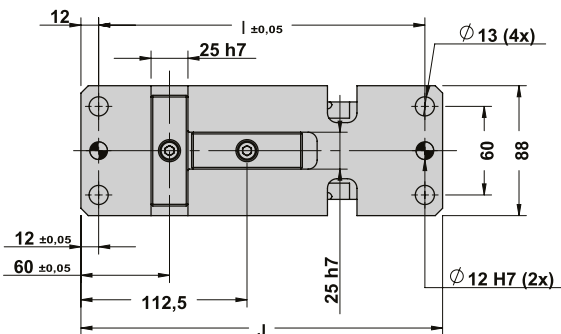
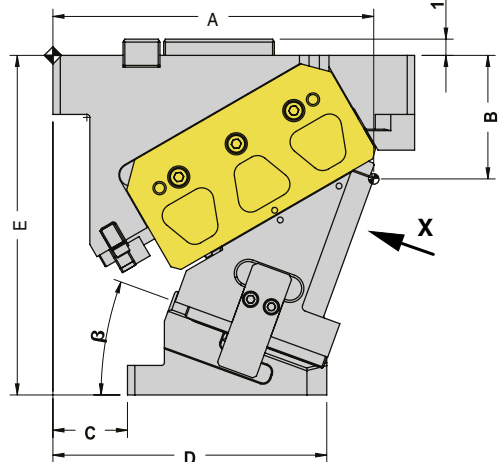
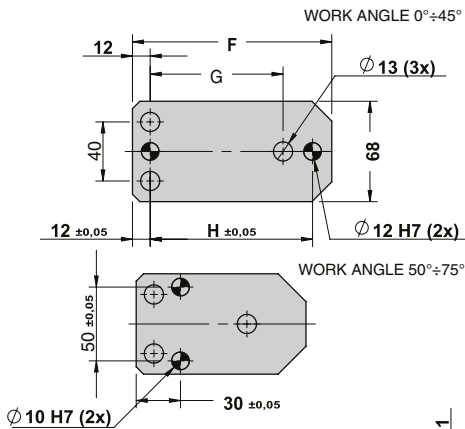
X VIEW



CAM DIAGRAM

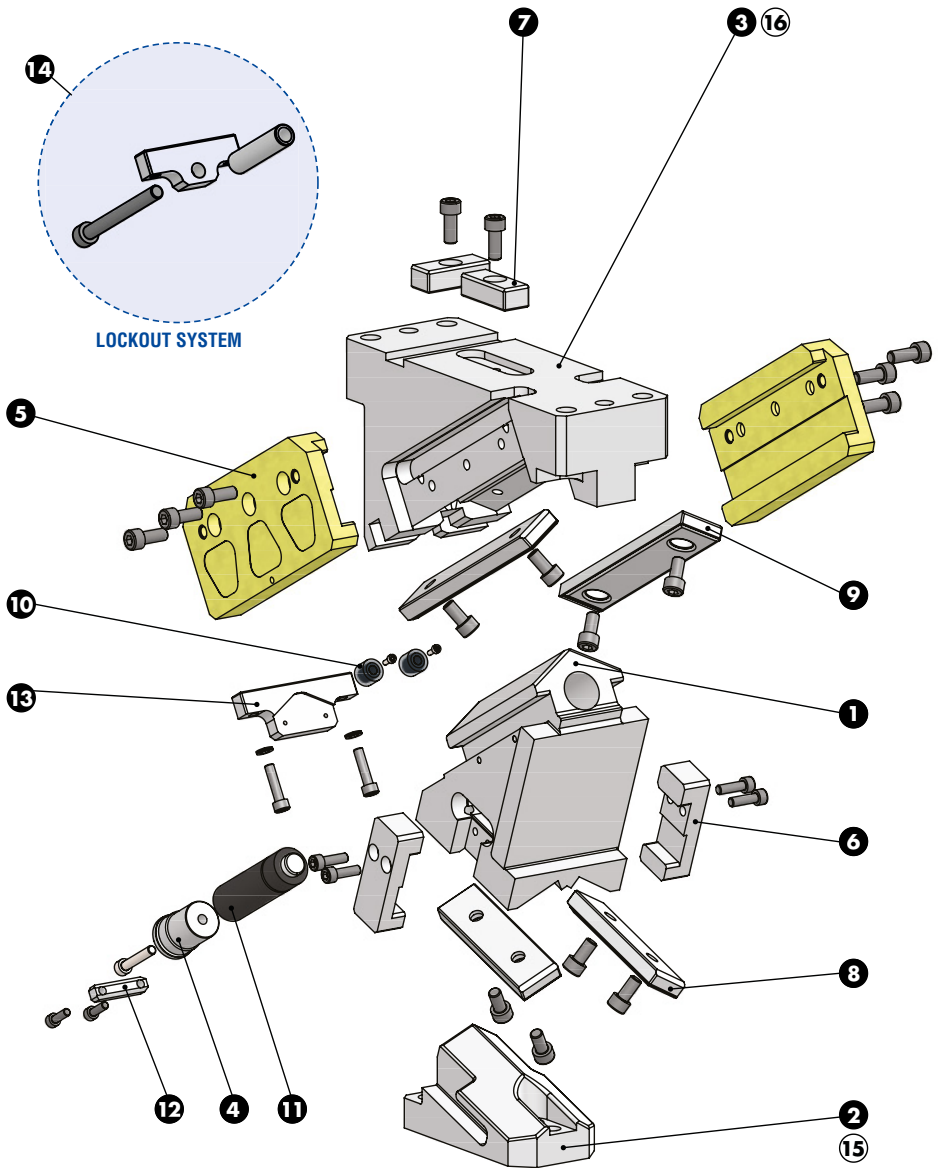


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	28	33,33	43,5
5°	50°	30,8	33,45	43,5
10°	50°	33,84	33,84	43,5
15°	50°	36,89	34,5	43,5
20°	50°	40	35,46	43,5
25°	50°	43,5	36,77	43,5
30°	50°	47,2	38,48	43,5
35°	50°	51,29	40,68	43,5
40°	50°	55,92	43,5	43,5
45°	50°	61,28	47,13	43,5
50°	50°	66,9	51,25	43
55°	55°	57,53	47,13	33
60°	60°	66	57,16	33
65°	65°	78,08	70,77	33
70°	70°	67,25	63,19	23
75°	75°	61,82	59,71	16



Cam Units CHW

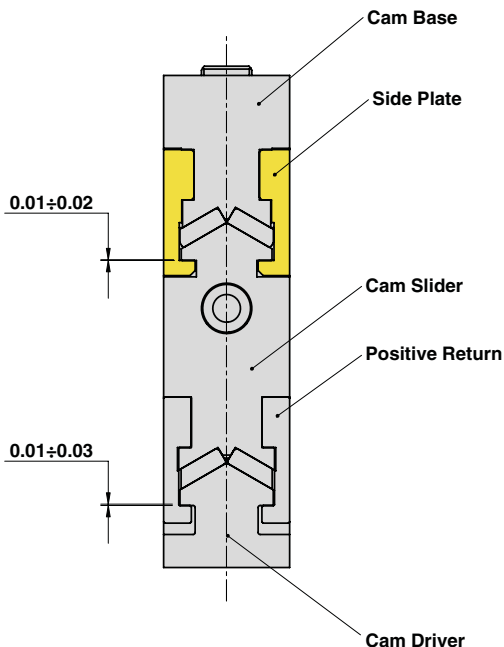


**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



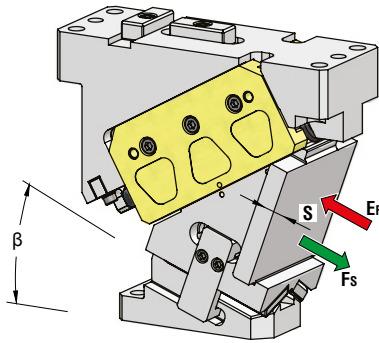
Cam Units CHW

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	2
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M12 DIN 912	-	3
16	Cam Base Fixing Screws M12 DIN 912	-	4



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Gas Spring
CHW110.00	0°	28	250	11
CHW110.05	5°	30,8	255	11
CHW110.10	10°	33,84	260	11,5
CHW110.15	15°	36,89	260	11,5
CHW110.20	20°	40	265	11,5
CHW110.25	25°	43,5	270	12
CHW110.30	30°	47,2	275	12
CHW110.35	35°	51,29	280	12,4
CHW110.40	40°	55,92	280	12,4
CHW110.45	45°	61,28	285	12,6
CHW110.50	50°	66,9	290	12,6
CHW110.55	55°	67,53	300	12,8
CHW110.60	60°	66	305	12,8
CHW110.65	65°	78,08	310	13
CHW110.70	70°	67,25	318	13
CHW110.75	75°	61,82	320	13,2



Art.	Work Angle = 5°
CHW110.	05

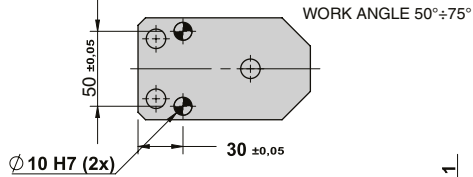
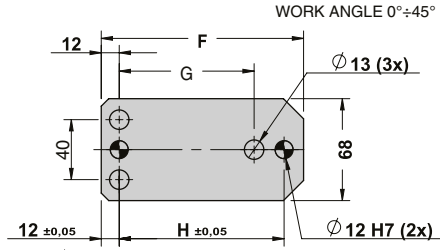
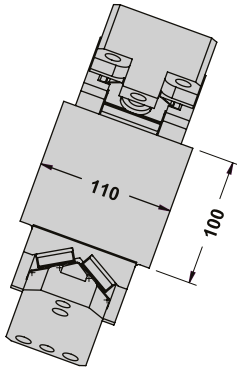
OMCR CODE	Work Angle	Overall Dimensions (mm)									
	$\beta$	A	B	C	D	E	F	G	H	I	J
CHW110.00	0°	196,69	70,15	72	208	230	136	105	80	191	215
CHW110.05	5°	206,69	74,45	70	260	235	135	90	110	201	225
CHW110.10	10°	215,17	79,64	65	205	240	140	95	115	211	235
CHW110.15	15°	216,42	86,42	55	195	240	140	95	115	216	240
CHW110.20	20°	217,31	83,67	50,5	185,5	230	135	90	110	221	245
CHW110.25	25°	220,17	86,39	45	180	230	135	90	110	221	245
CHW110.30	30°	223,69	91,43	30	165	225	135	90	110	226	250
CHW110.35	35°	222,78	94,02	20	155	220	135	90	110	226	250
CHW110.40	40°	217,88	96,41	15	150	220	135	90	110	226	250
CHW110.45	45°	218,48	94,32	5	140	205	135	90	110	226	250
CHW110.50	50°	205,11	106,51	0	115	205	115	63	50	216	240
CHW110.55	55°	203,78	107,91	0	105	210	105	60	50	216	240
CHW110.60	60°	216,26	112,73	-5	100	210	105	60	50	216	240
CHW110.65	65°	217,57	136,11	-10	95	220	105	50	50	216	240
CHW110.70	70°	207,35	139,74	-20	83	215	102	40	50	216	240
CHW110.75	75°	206,25	154,43	-15	80	210	95	40	50	216	240



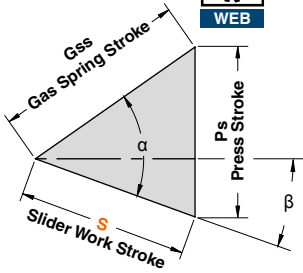


## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

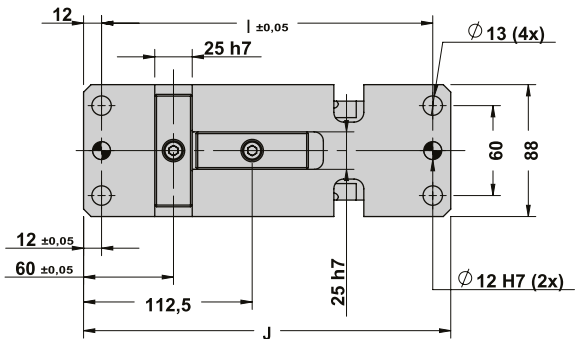
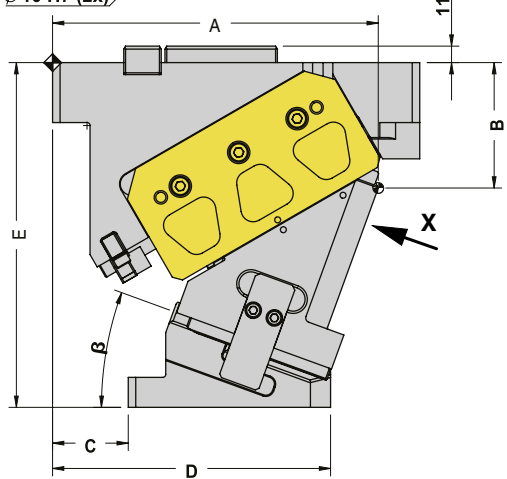
### X VIEW



### CAM DIAGRAM

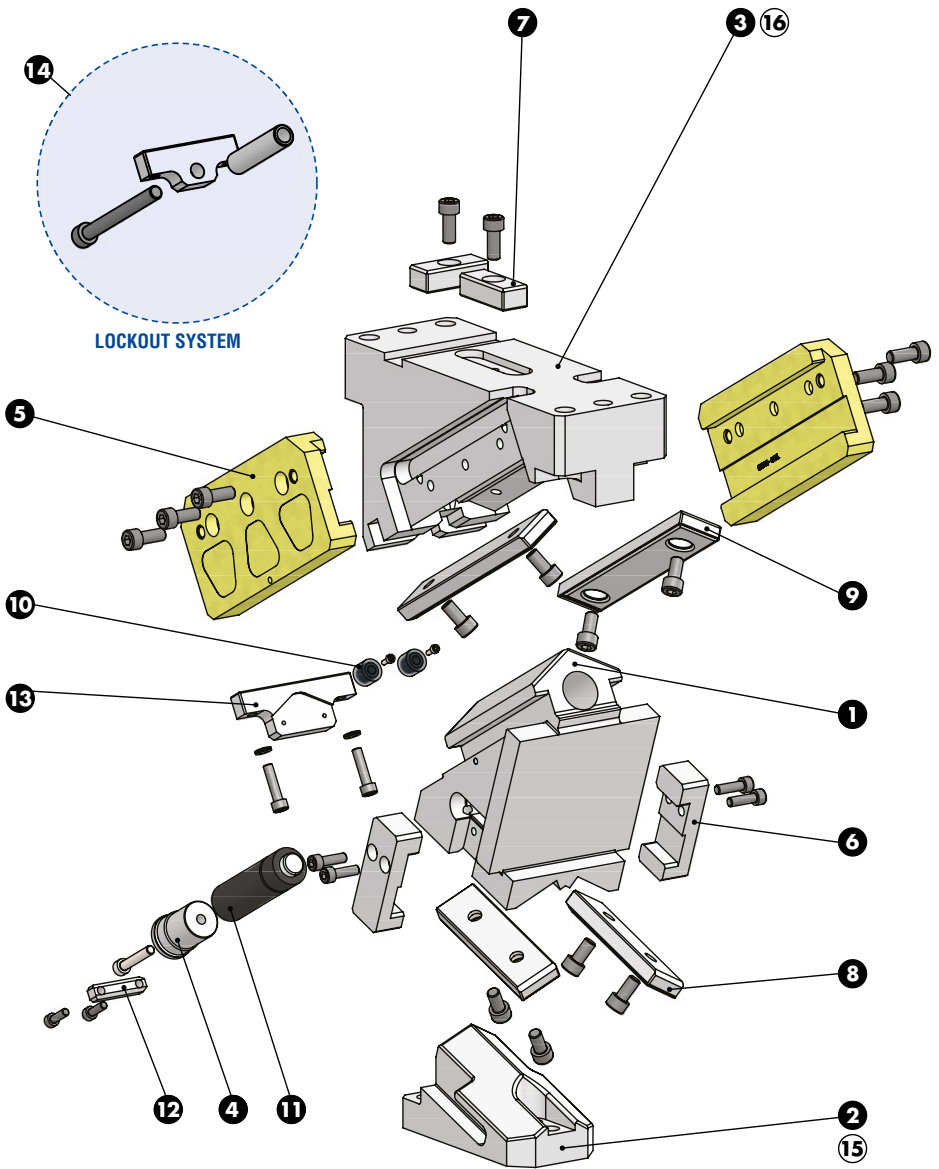


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	28	33,33	43,5
5°	50°	30,8	33,45	43,5
10°	50°	33,84	33,84	43,5
15°	50°	36,89	34,5	43,5
20°	50°	40	35,46	43,5
25°	50°	43,5	36,77	43,5
30°	50°	47,2	38,48	43,5
35°	50°	51,29	40,68	43,5
40°	50°	55,92	43,5	43,5
45°	50°	61,28	47,13	43,5
50°	50°	66,9	51,25	43
55°	55°	57,53	47,13	33
60°	60°	66	57,16	33
65°	65°	78,08	70,77	33
70°	70°	67,25	63,19	23
75°	75°	61,82	59,71	16





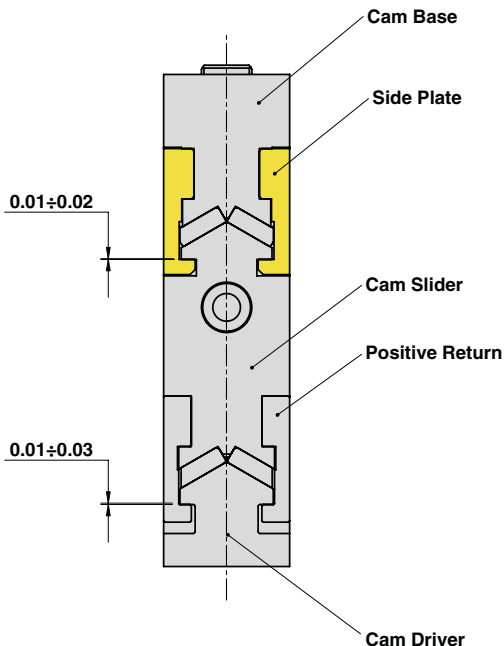
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

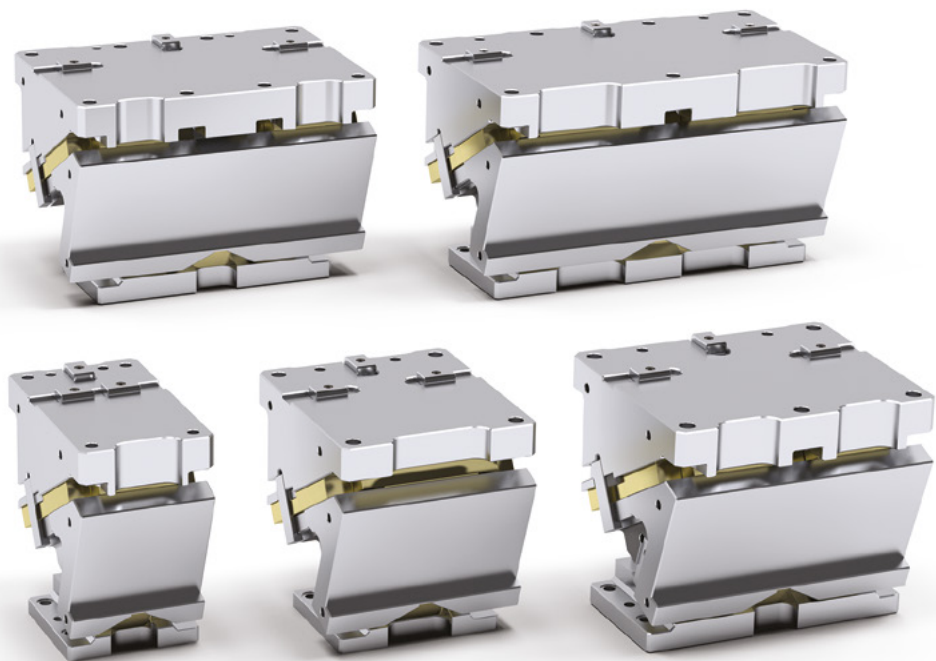
SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



Cam Units CHW

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	42CrMo4	1
2	Cam Driver	42CrMo4	1
3	Cam Base	42CrMo4	1
4	Spring spacer	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return	42CrMo4 Nitrided	2
7	Key	CK45	2
8	Wear Plate	St42 + Syntered layer	2
9	Wear Plate	St42 + Syntered layer	2
10	Elastomer	Elastomer	2
11	Gas Spring	-	1
12	Safety plate	CK45	1
13	Stopper plate	CK45	1
14	<b>LOCKOUT SYSTEM</b>	(more info on OMCR website)	1
15	Cam Driver Fixing Screws M12 DIN 912	-	3
16	Cam Base Fixing Screws M12 DIN 912	-	4



Cam Units CLB  
Schieber CLB  
Unità a Camme CLB

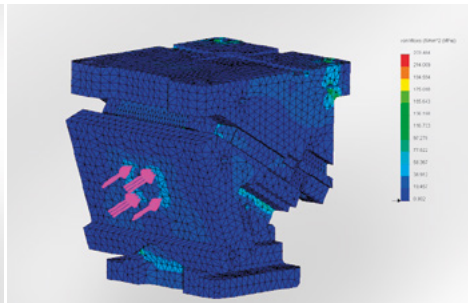
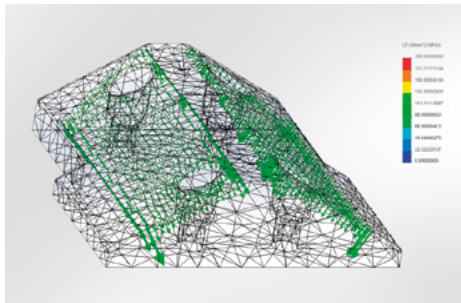


**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS





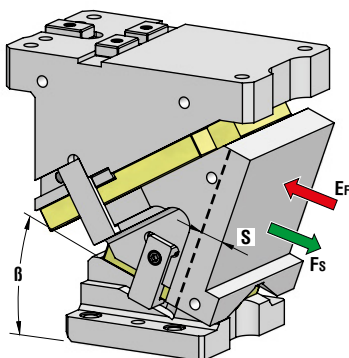
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)		Page number
	$\beta$					E <sub>F</sub>		
						F <sub>s</sub>	Spring	
<b>CLB200</b>	0°÷60° (5° steps)	200	350	200x180	302	2,12÷2,73	8,88÷11,42	738
<b>CLB300</b>	0°÷60° (5° steps)	300	350	300x180	411	4,25÷5,46	17,76÷22,83	742
<b>CLB400</b>	0°÷60° (5° steps)	400	350	400x180	526	4,25÷5,46	17,76÷22,83	746
<b>CLB500</b>	0°÷60° (5° steps)	500	350	500x180	743	6,37÷8,19	26,64÷34,25	750
<b>CLB600</b>	0°÷60° (5° steps)	600	350	600x180	865	8,50÷10,92	35,52÷45,67	754



Research and product development



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CLB200.00	0°	38,57	302	2,73	11,42
CLB200.05	5°	42,59	302	2,73	11,42
CLB200.10	10°	46,67	302	2,73	11,42
CLB200.15	15°	50,88	302	2,73	11,42
CLB200.20	20°	55,30	302	2,73	11,42
CLB200.25	25°	60	302	2,73	11,42
CLB200.30	30°	65,10	302	2,73	11,42
CLB200.35	35°	70,75	302	2,73	11,42
CLB200.40	40°	77,13	302	2,73	11,42
CLB200.45	45°	84,53	302	2,73	11,42
CLB200.50	50°	93,34	302	2,73	11,42
CLB200.55	55°	104,61	302	2,12	8,88
CLB200.60	60°	120	302	2,12	8,88

Return Type: G = Gas Spring / S = Spring



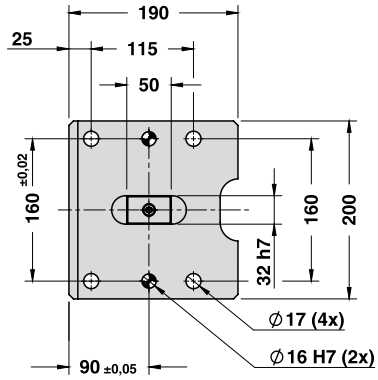
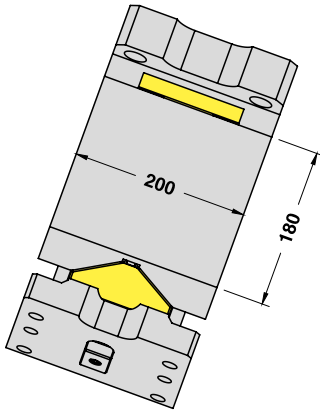
Art.	Work Angle = 5°	Return type
CLB200	05	G

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)			
		A	B	C	D
CLB200.00	0°	313	58	138	328
CLB200.05	5°	320,64	64,34	125	315
CLB200.10	10°	331,08	72,47	115	305
CLB200.15	15°	336,17	82,37	100	290
CLB200.20	20°	340,76	94	85	275
CLB200.25	25°	344,69	102,32	70	260
CLB200.30	30°	347,83	112,25	55	245
CLB200.35	35°	355,03	123,73	45	235
CLB200.40	40°	351,17	136,66	25	215
CLB200.45	45°	356,12	150,95	15	205
CLB200.50	50°	348,77	161,49	-6	184
CLB200.55	55°	352,01	178,16	-15	175
CLB200.60	60°	332,75	195,83	-45	145

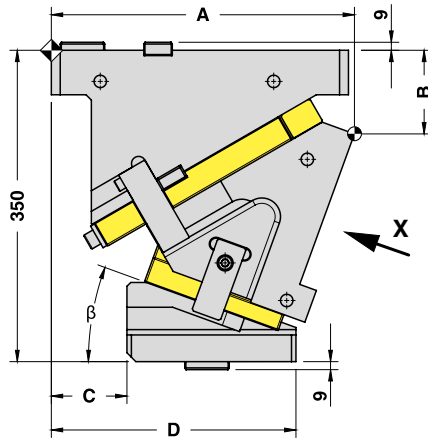
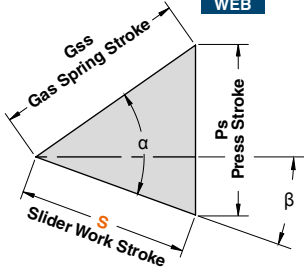


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

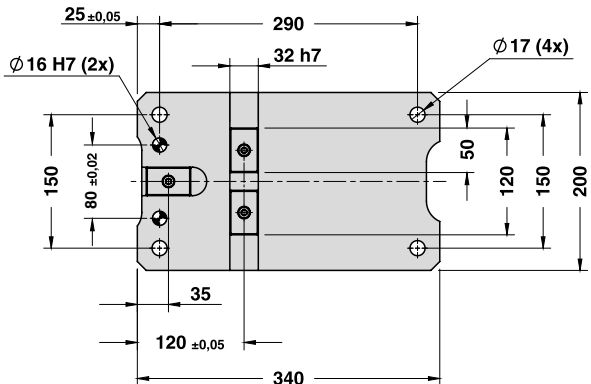
X VIEW



CAM DIAGRAM

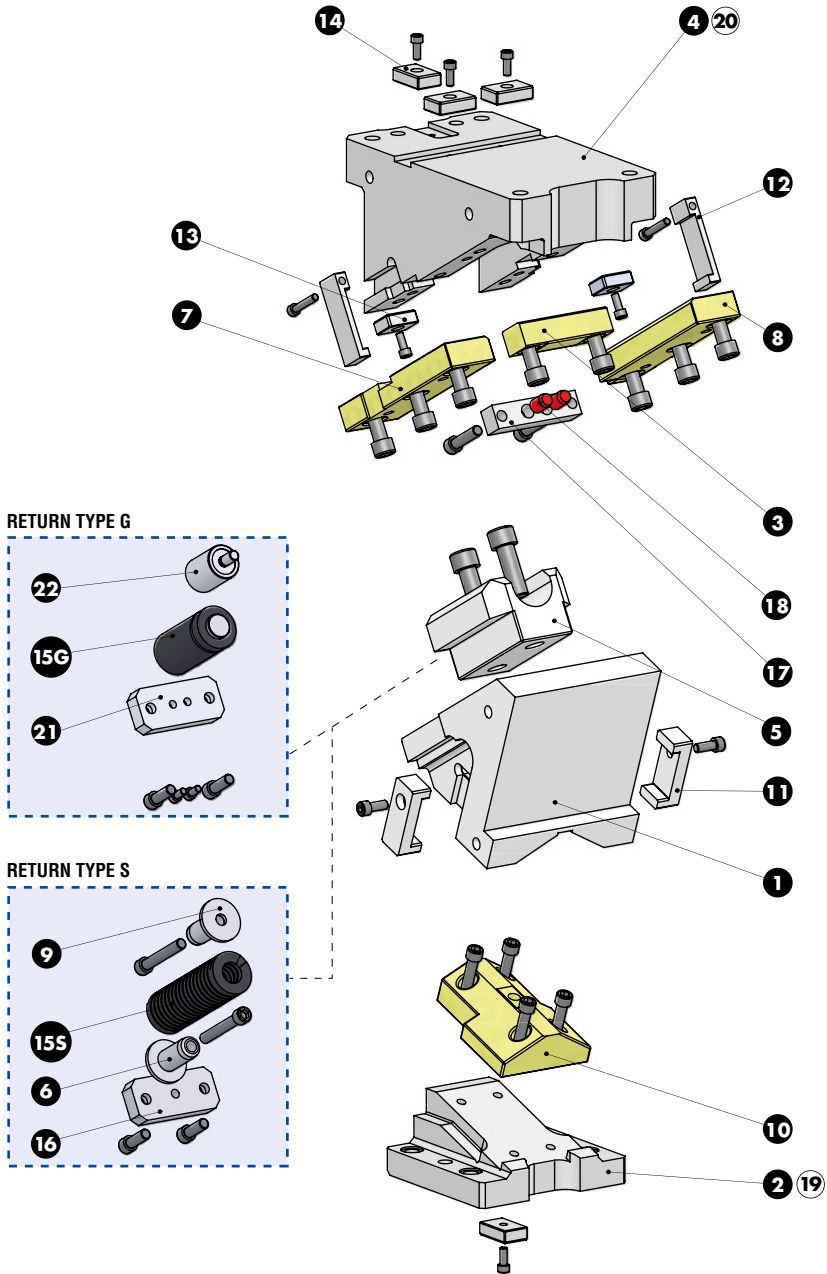


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	93,34	71,51	60
55°	55°	104,61	85,69	60
60°	60°	120,00	103,92	60





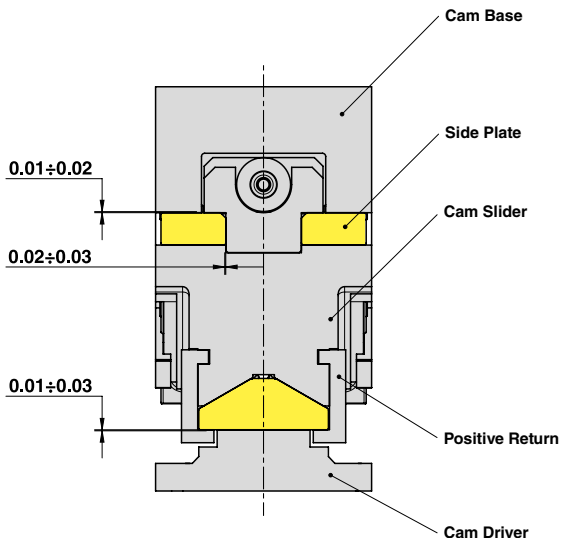
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



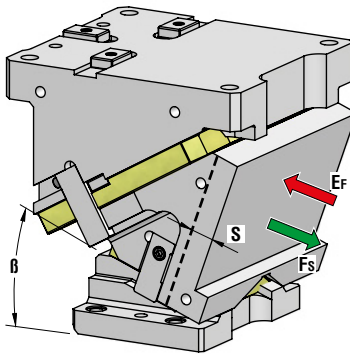
Cam Units CLB

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Driver	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Base	GG-30	1
5	Spring Guide Block	CK45 + Graphite	1
6	Spring Guide Pin	CK45	2
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
9	Washer	CK45	2
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Positive Return	42CrMo4 Nitrided	2
12	Positive Return	CK45	2
13	Key	CK45	2
14	Key	CK45	4
15G	Gas Spring - Return Type G	-	1
15S	Spring - Return Type S	-	1
19	Cam Driver Fixing Screws M16x60 DIN 912	-	4
20	Cam Base Fixing Screws M16x65 DIN 912	-	4
21	Gas Spring Stopper Plate	CK45	1
22	<b>Gas Spring Reaction</b>	<b>CK45</b>	<b>1</b>



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CLB300.00	0°	38,57	411	5,46	22,83
CLB300.05	5°	42,59	411	5,46	22,83
CLB300.10	10°	46,67	411	5,46	22,83
CLB300.15	15°	50,88	411	5,46	22,83
CLB300.20	20°	55,30	411	5,46	22,83
CLB300.25	25°	60	411	5,46	22,83
CLB300.30	30°	65,10	411	5,46	22,83
CLB300.35	35°	70,75	411	5,46	22,83
CLB300.40	40°	77,13	411	5,46	22,83
CLB300.45	45°	84,53	411	5,46	22,83
CLB300.50	50°	93,34	411	5,46	22,83
CLB300.55	55°	104,61	411	4,25	17,76
CLB300.60	60°	120	411	4,25	17,76

Return Type: G = Gas Spring / S = Spring



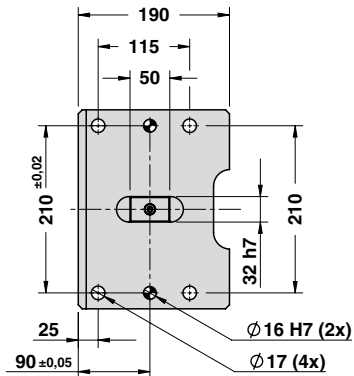
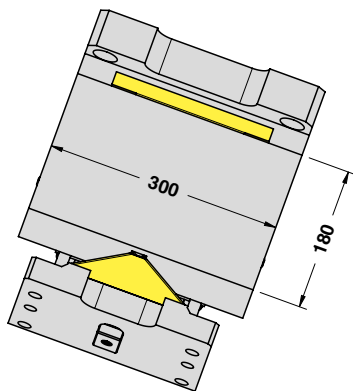
Art.	Work Angle = 5°	Return type
CLB300	05	G

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)			
		A	B	C	D
CLB300.00	0°	313	58	138	328
CLB300.05	5°	320,64	64,34	125	315
CLB300.10	10°	331,08	72,47	115	305
CLB300.15	15°	336,17	82,37	100	290
CLB300.20	20°	340,76	94	85	275
CLB300.25	25°	344,69	102,32	70	260
CLB300.30	30°	347,83	112,25	55	245
CLB300.35	35°	355,03	123,73	45	235
CLB300.40	40°	351,17	136,66	25	215
CLB300.45	45°	356,12	150,95	15	205
CLB300.50	50°	348,77	161,49	-6	184
CLB300.55	55°	352,01	178,16	-15	175
CLB300.60	60°	332,75	195,83	-45	145

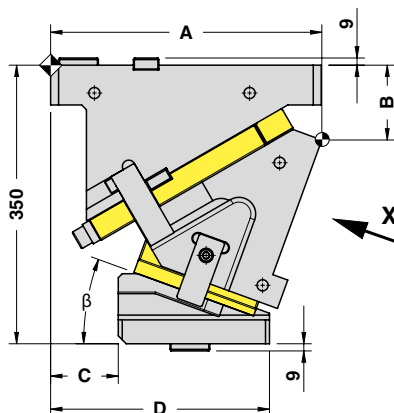
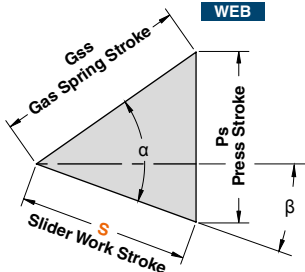


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

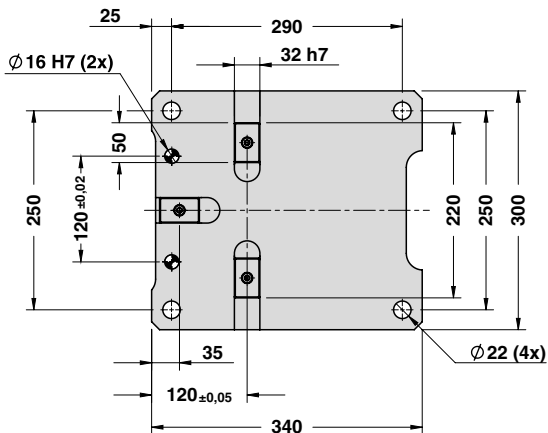
X VIEW



CAM DIAGRAM



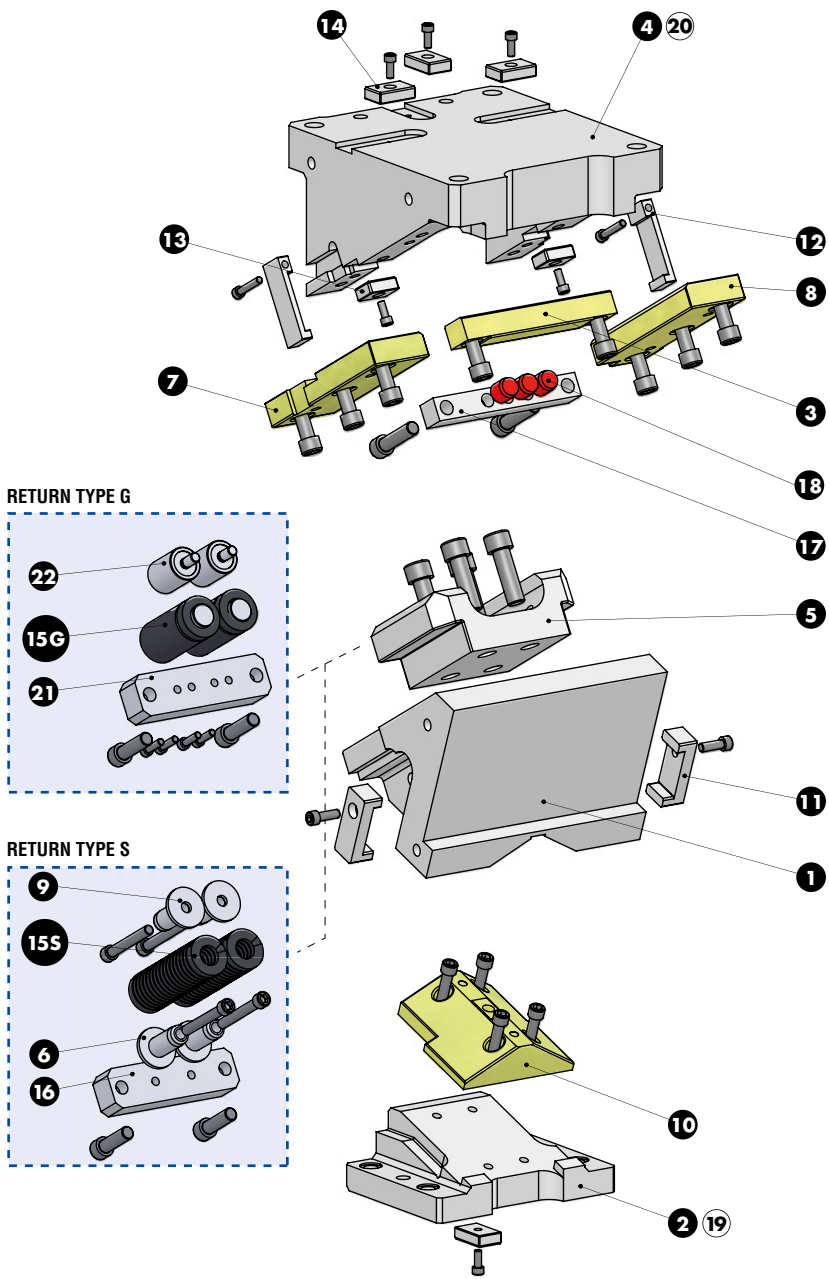
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	93,34	71,51	60
55°	55°	104,61	85,69	60
60°	60°	120,00	103,92	60



Cam Units CLB



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

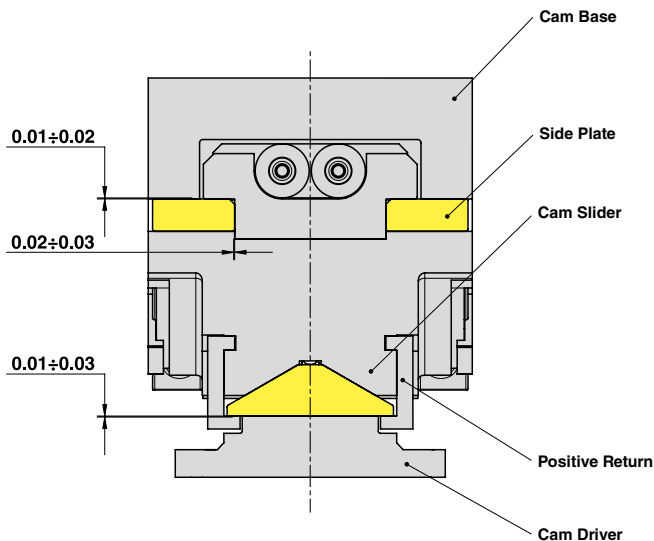






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



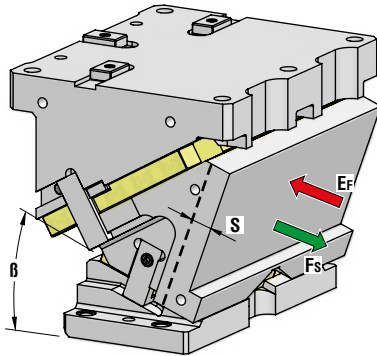
Cam Units CLB

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Driver	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Base	GG-30	1
5	Spring Guide Block	CK45 + Graphite	1
6	Spring Guide Pin	CK45	4
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
9	Washer	CK45	4
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Positive Return	42CrMo4 Nitrided	2
12	Positive Return	CK45	2
13	Key	CK45	2
14	Key	CK45	4
15G	Gas Spring - Return Type G	-	1
15S	Spring - Return Type S	-	1
16	Spring Stopper Plate	CK45	1
17	Stopper Plate	CK45	1
18	Elastomer Cap	Elastomer 92SH	3
19	Cam Driver Fixing Screws M16x60 DIN 912	-	4
20	Cam Base Fixing Screws M20x75 DIN 912	-	4
21	Gas Spring Stopper Plate	CK45	2
22	<b>Gas Spring Reaction</b>	<b>CK45</b>	<b>2</b>



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) F <sub>s</sub>	Extraction Force (kN) E <sub>F</sub>	
				Spring	Gas Spring
CLB400.00	0°	38,57	526	5,46	22,83
CLB400.05	5°	42,59	526	5,46	22,83
CLB400.10	10°	46,67	526	5,46	22,83
CLB400.15	15°	50,88	526	5,46	22,83
CLB400.20	20°	55,30	526	5,46	22,83
CLB400.25	25°	60	526	5,46	22,83
CLB400.30	30°	65,10	526	5,46	22,83
CLB400.35	35°	70,75	526	5,46	22,83
CLB400.40	40°	77,13	526	5,46	22,83
CLB400.45	45°	84,53	526	5,46	22,83
CLB400.50	50°	93,34	526	5,46	22,83
CLB400.55	55°	104,61	526	4,25	17,76
CLB400.60	60°	120	526	4,25	17,76

Return Type: G = Gas Spring / S = Spring

20



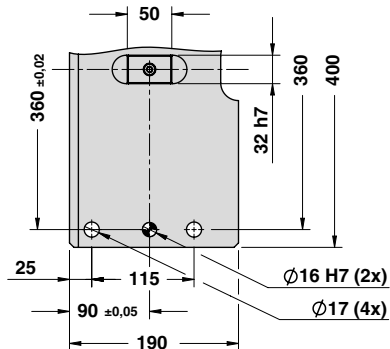
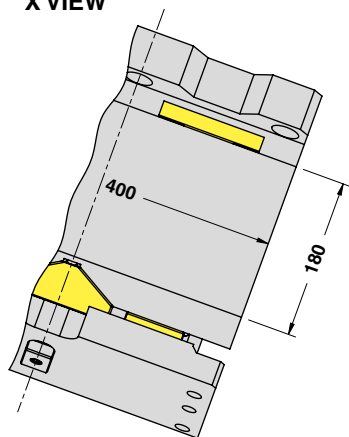
Art.	Work Angle = 5°	Return type
CLB400	05	S

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)			
		A	B	C	D
CLB400.00	0°	313	58	138	328
CLB400.05	5°	320,64	64,34	125	315
CLB400.10	10°	331,08	72,47	115	305
CLB400.15	15°	336,17	82,37	100	290
CLB400.20	20°	340,76	94	85	275
CLB400.25	25°	344,69	102,32	70	260
CLB400.30	30°	347,83	112,25	55	245
CLB400.35	35°	355,03	123,73	45	235
CLB400.40	40°	351,17	136,66	25	215
CLB400.45	45°	356,12	150,95	15	205
CLB400.50	50°	348,77	161,49	-6	184
CLB400.55	55°	352,01	178,16	-15	175
CLB400.60	60°	332,75	195,83	-45	145

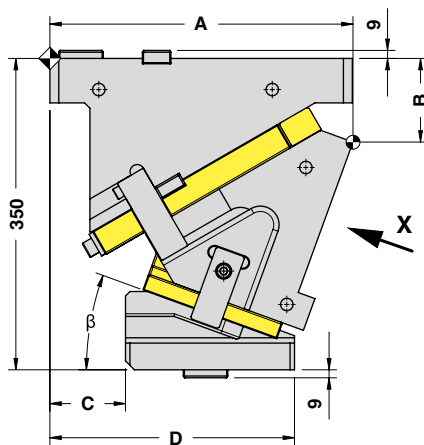
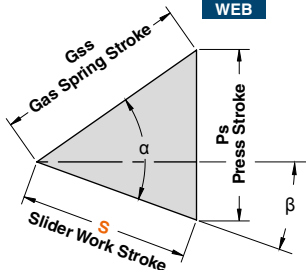


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

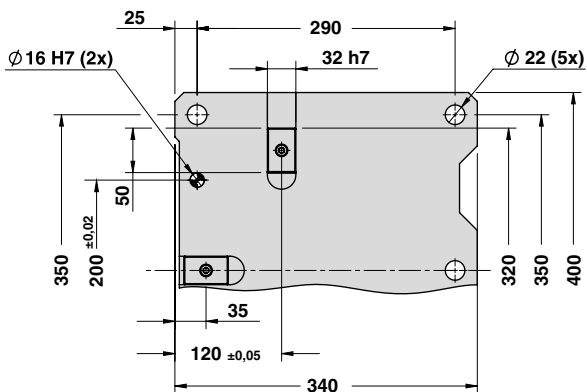
X VIEW



CAM DIAGRAM



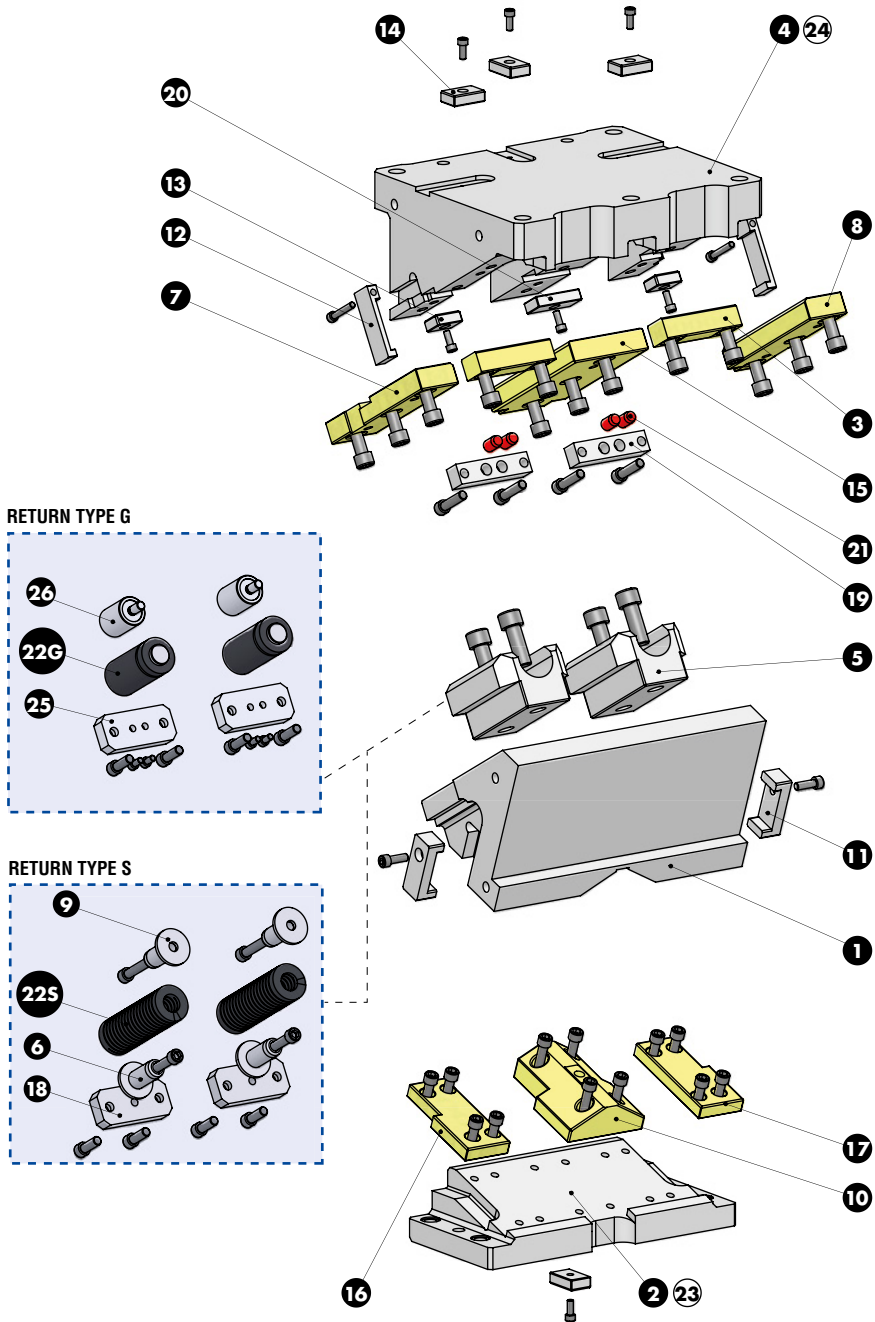
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60	60
45°	50°	84,53	65	60
50°	50°	93,34	71,51	60
55°	55°	104,61	85,69	60
60°	60°	120,00	103,92	60



Cam Units CLB



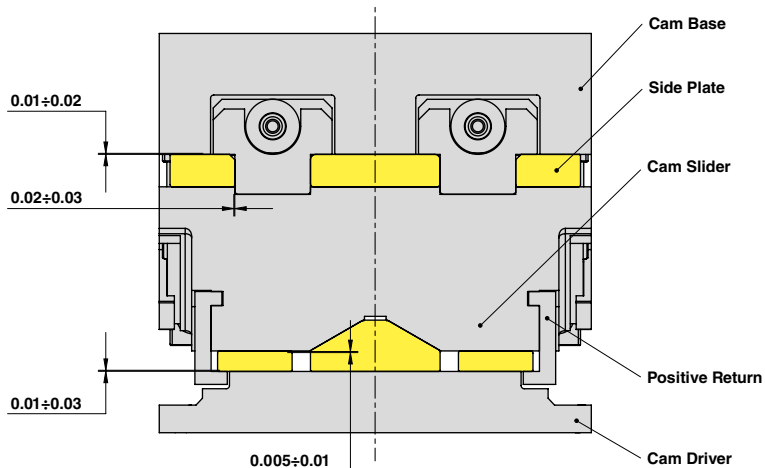
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

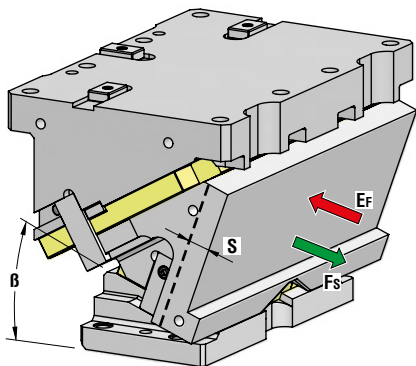


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Driver	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	2
4	Cam Base	GG-30	1
5	Spring Guide Block	CK45 + Graphite	2
6	Spring Guide Pin	CK45	4
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
9	Washer	CK45	4
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Positive Return	42CrMo4 Nitrided	2
12	Positive Return	CK45	2
13	Key	CK45	2
14	Key	CK45	4
15	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
16	Wear Plate L	CuZn25Al5 + Graphite - HB > 190	1
17	Wear Plate R	CuZn25Al5 + Graphite - HB > 190	1
18	Spring Stopper Plate	CK45	2
19	Stopper Plate	CK45	2
20	Key	CK45	1
21	Elastomer Cap	Elastomer 92SH	4
22G	Gas Spring - Return Type G	-	2
22S	Spring - Return Type S	-	2
23	Cam Driver Fixing Screws M16x60 DIN 912	-	4
24	Cam Base Fixing Screws M20x75 DIN 912	-	5
25	Gas Spring Stopper Plate	CK45	2
26	<b>Gas Spring Reaction</b>	<b>CK45</b>	<b>2</b>



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) $F_s$	Extraction Force (kN) $E_f$	
				Spring	Gas Spring
CLB500.00	0°	38,57	743	8,19	34,25
CLB500.05	5°	42,59	743	8,19	34,25
CLB500.10	10°	46,67	743	8,19	34,25
CLB500.15	15°	50,88	743	8,19	34,25
CLB500.20	20°	55,30	743	8,19	34,25
CLB500.25	25°	60	743	8,19	34,25
CLB500.30	30°	65,10	743	8,19	34,25
CLB500.35	35°	70,75	743	8,19	34,25
CLB500.40	40°	77,13	743	8,19	34,25
CLB500.45	45°	84,53	743	8,19	34,25
CLB500.50	50°	93,34	743	8,19	34,25
CLB500.55	55°	104,61	743	6,37	26,64
CLB500.60	60°	120	743	6,37	26,64

Return Type: G = Gas Spring / S = Spring

30



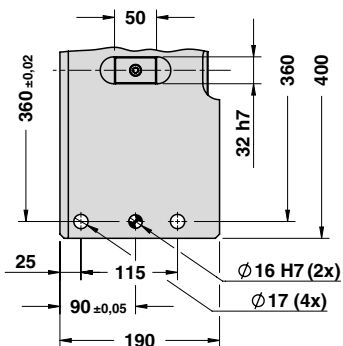
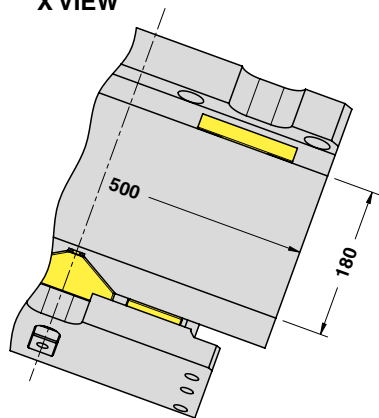
Art.	Work Angle = 5°	Return type
CLB500	05	G

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)			
		A	B	C	D
CLB500.00	0°	313	58	138	328
CLB500.05	5°	320,64	64,34	125	315
CLB500.10	10°	331,08	72,47	115	305
CLB500.15	15°	336,17	82,37	100	290
CLB500.20	20°	340,76	94	85	275
CLB500.25	25°	344,69	102,32	70	260
CLB500.30	30°	347,83	112,25	55	245
CLB500.35	35°	355,03	123,73	45	235
CLB500.40	40°	351,17	136,66	25	215
CLB500.45	45°	356,12	150,95	15	205
CLB500.50	50°	348,77	161,49	-6	184
CLB500.55	55°	352,01	178,16	-15	175
CLB500.60	60°	332,75	195,83	-45	145

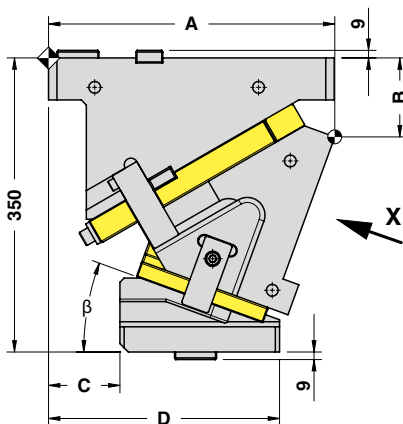
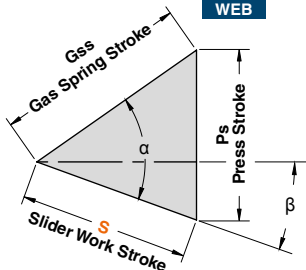


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

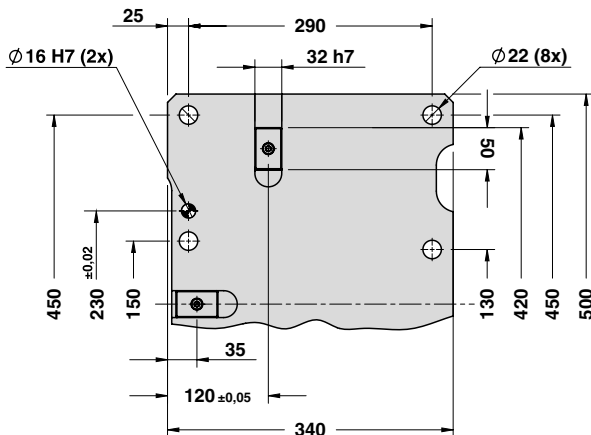
X VIEW



CAM DIAGRAM



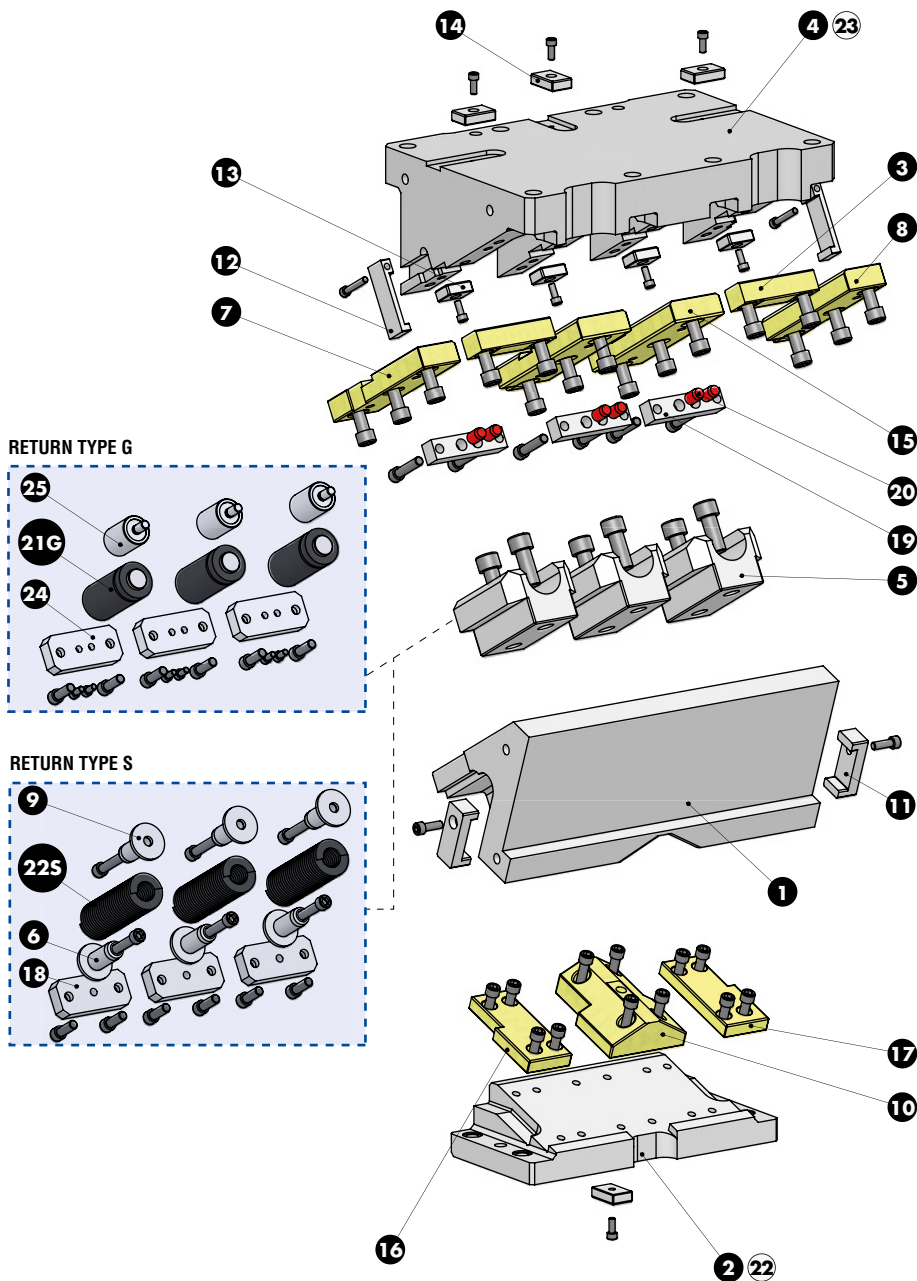
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	93,34	71,51	60
55°	55°	104,61	85,69	60
60°	60°	120,00	103,92	60



Cam Units CLB



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

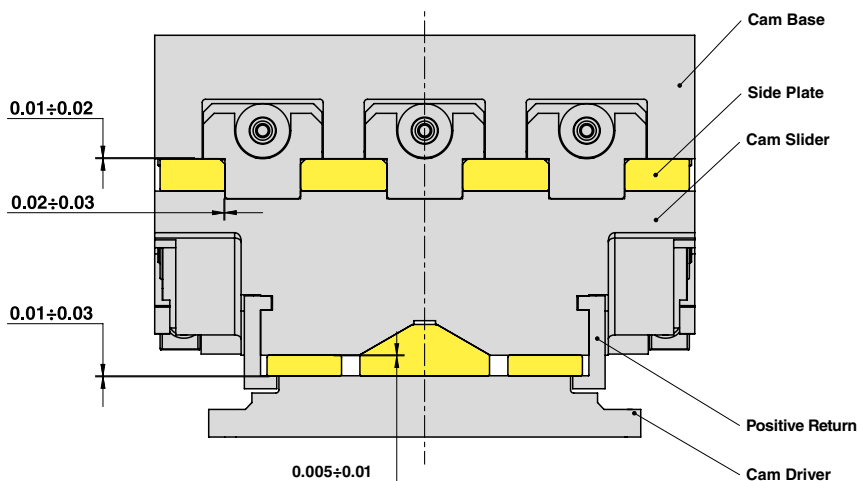






**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

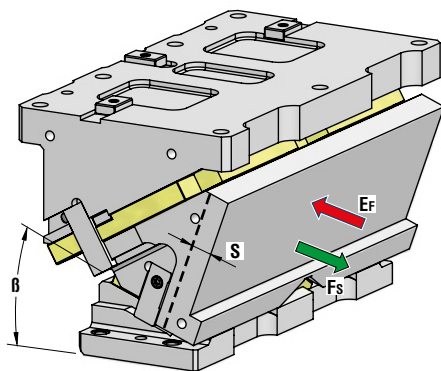


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Driver	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	2
4	Cam Base	GG-30	1
5	Spring Guide Block	CK45 + Graphite	3
6	Spring Guide Pin	CK45	6
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
9	Washer	CK45	6
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Positive Return	42CrMo4 Nitrided	2
12	Positive Return	CK45	2
13	Key	CK45	4
14	Key	CK45	4
15	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
16	Wear Plate L	CuZn25Al5 + Graphite - HB > 190	1
17	Wear Plate R	CuZn25Al5 + Graphite - HB > 190	1
18	Spring Stopper Plate	CK45	3
19	Stopper Plate	CK45	3
20	Elastomer Cap	Elastomer 92SH	6
21G	Gas Spring - Return Type G	-	3
21S	Spring - Return Type S	-	3
22	Cam Driver Fixing Screws M16x60 DIN 912	-	4
23	Cam Base Fixing Screws M20x75 DIN 912	-	8
24	Gas Spring Stopper Plate	CK45	3
25	<b>Gas Spring Reaction</b>	<b>CK45</b>	<b>3</b>



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CLB600.00	0°	38,57	865	10,92	45,67
CLB600.05	5°	42,59	865	10,92	45,67
CLB600.10	10°	46,67	865	10,92	45,67
CLB600.15	15°	50,88	865	10,92	45,67
CLB600.20	20°	55,30	865	10,92	45,67
CLB600.25	25°	60	865	10,92	45,67
CLB600.30	30°	65,10	865	10,92	45,67
CLB600.35	35°	70,75	865	10,92	45,67
CLB600.40	40°	77,13	865	10,92	45,67
CLB600.45	45°	84,53	865	10,92	45,67
CLB600.50	50°	93,34	865	10,92	45,67
CLB600.55	55°	104,61	865	8,50	35,52
CLB600.60	60°	120	865	8,50	35,52

Return Type: G = Gas Spring / S = Spring

30



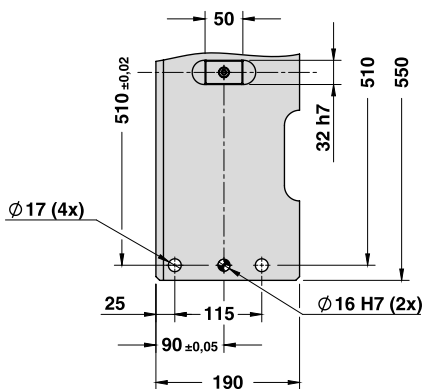
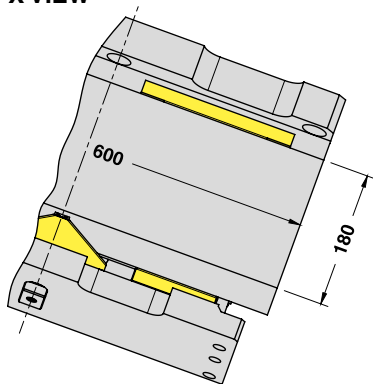
Art.	Work Angle = 5°	Return type
CLB600	05	G

OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)			
		A	B	C	D
CLB600.00	0°	313	58	138	328
CLB600.05	5°	320,64	64,34	125	315
CLB600.10	10°	331,08	72,47	115	305
CLB600.15	15°	336,17	82,37	100	290
CLB600.20	20°	340,76	94	85	275
CLB600.25	25°	344,69	102,32	70	260
CLB600.30	30°	347,83	112,25	55	245
CLB600.35	35°	355,03	123,73	45	235
CLB600.40	40°	351,17	136,66	25	215
CLB600.45	45°	356,12	150,95	15	205
CLB600.50	50°	348,77	161,49	-6	184
CLB600.55	55°	352,01	178,16	-15	175
CLB600.60	60°	332,75	195,83	-45	145

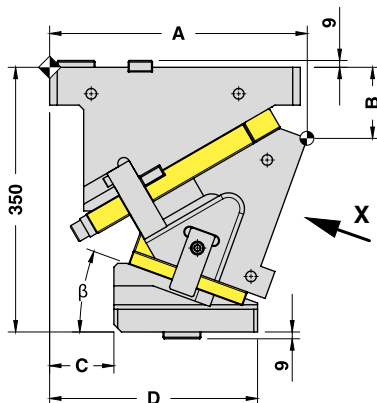
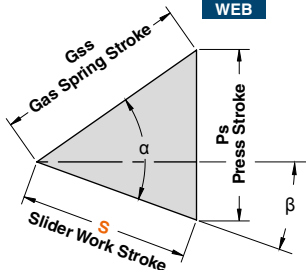


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

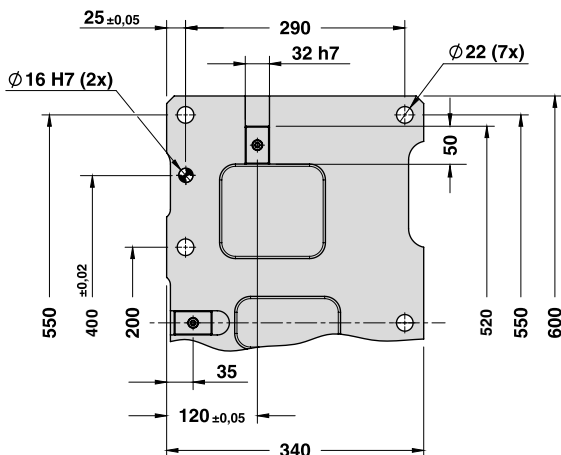
X VIEW



CAM DIAGRAM

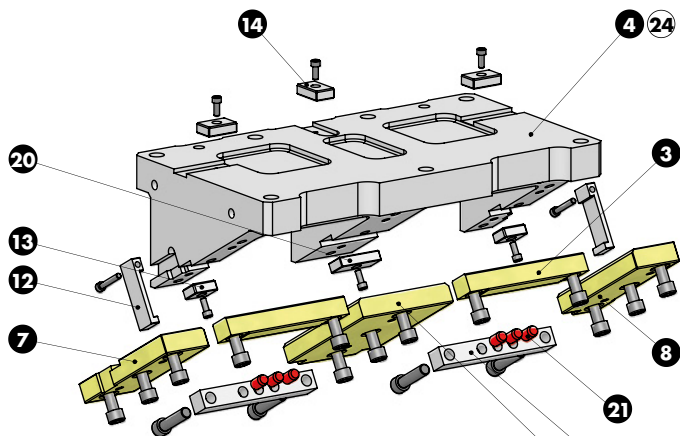


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	93,34	71,51	60
55°	55°	104,61	85,69	60
60°	60°	120,00	103,92	60

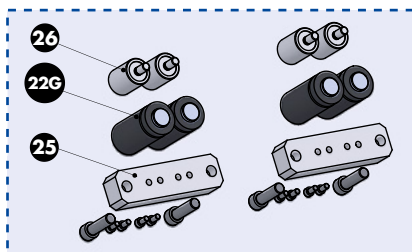




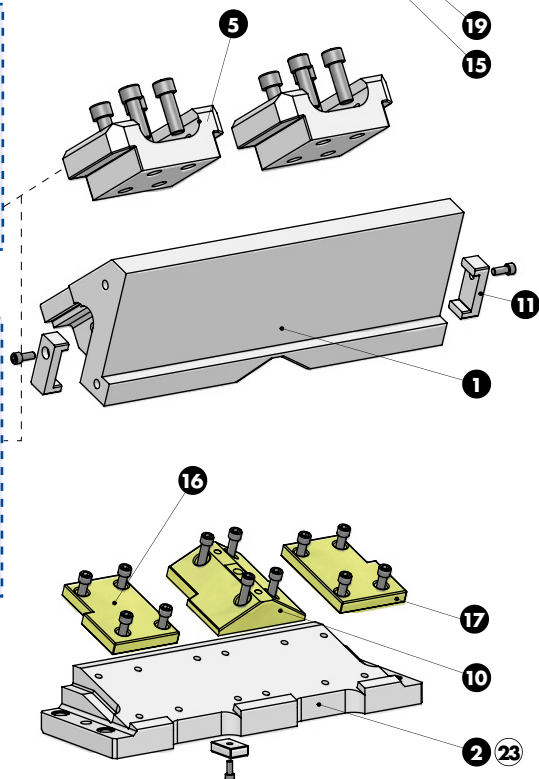
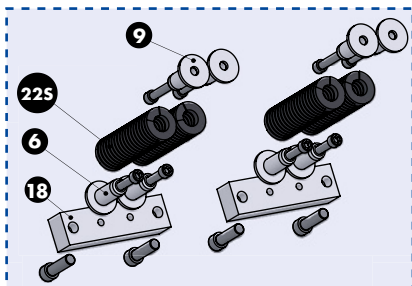
AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



RETURN TYPE G



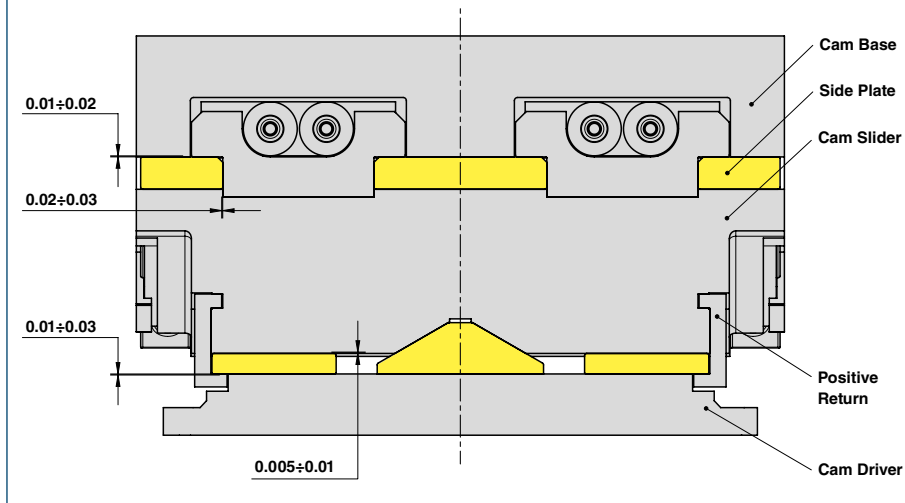
RETURN TYPE S





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



PART LIST

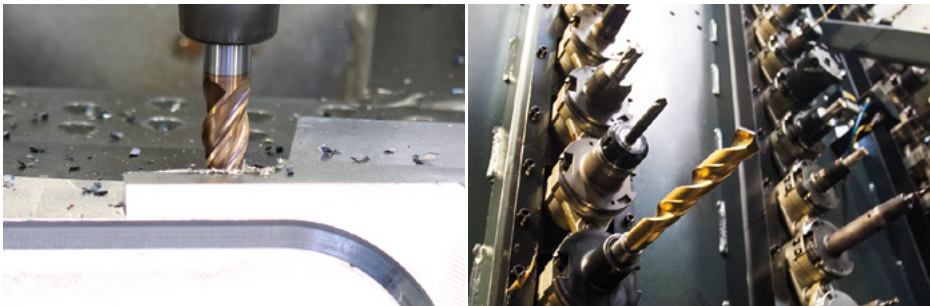
Particular number	Description	Material	Quantity
1	Cam Slider	GG-30	1
2	Cam Driver	GG-30	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	2
4	Cam Base	GG-30	1
5	Spring Guide Block	CK45 + Graphite	2
6	Spring Guide Pin	CK45	8
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
9	Washer	CK45	8
10	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
11	Positive Return	42CrMo4 Nitrided	2
12	Positive Return	CK45	2
13	Key	CK45	2
14	Key	CK45	4
15	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
16	Wear Plate L	CuZn25Al5 + Graphite - HB > 190	1
17	Wear Plate R	CuZn25Al5 + Graphite - HB > 190	1
18	Spring Stopper Plate	CK45	2
19	Stopper Plate	CK45	2
20	Key	CK45	1
21	Elastomer Cap	Elastomer 92SH	6
22G	Gas Spring - Return Type G	-	4
22S	Spring - Return Type S	-	4
23	Cam Driver Fixing Screws M16x60 DIN 912	-	4
24	Cam Base Fixing Screws M20x75 DIN 912	-	7
25	Gas Spring Stopper Plate	CK45	2
26	Gas Spring Reaction	CK45	4



Cam Units CHK  
Schieber CHK  
Unità a Camme CHK

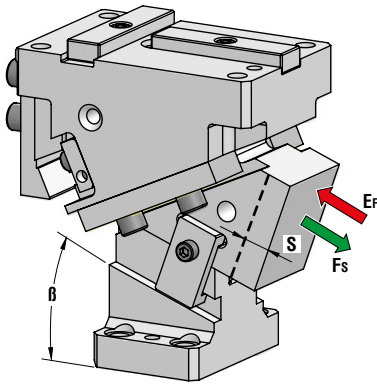
**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	E <sub>f</sub>	
<b>CHK065</b>	0°±70° (5° steps)	65	210	65 x "F"	58	0,32÷0,85	760
<b>CHK100</b>	0°±70° (10° steps)	100	280	100 x "F"	96	0,99÷2,10	764
<b>CHK200</b>	0°±70° (10° steps)	200	280	200 x "F"	231	1,98÷4,21	768



Advanced production tools

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
CHK065.00	0°	26,87	58	0,79
CHK065.05	5°	26,97	58	0,77
CHK065.10	10°	31,61	58	0,85
CHK065.15	15°	32,23	58	0,77
CHK065.20	20°	33,76	58	0,85
CHK065.25	25°	35	58	0,77
CHK065.30	30°	33,46	58	0,85
CHK065.35	35°	35,38	58	0,77
CHK065.40	40°	42,91	58	0,85
CHK065.45	45°	46,49	58	0,77
CHK065.50	50°	54,45	58	0,77
CHK065.55	55°	43,59	58	0,62
CHK065.60	60°	50	58	0,54
CHK065.65	65°	47,32	58	0,39
CHK065.70	70°	58,48	58	0,32



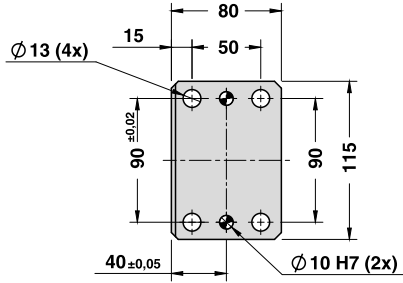
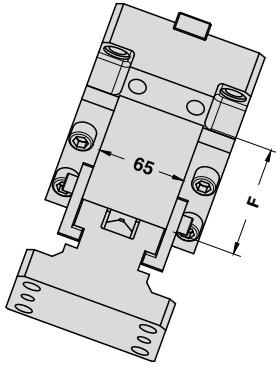
Art.	Work Angle = 5°
CHK065	05

OMCR CODE	Work Angle	Overall Dimensions (mm)					
	$\beta$	A	B	C	D	E	F
CHK065.00	0°	185,94	56,57	75	155	55	80
CHK065.05	5°	193,01	56,57	70	150	55	90
CHK065.10	10°	196,80	67,58	70	150	40	80
CHK065.15	15°	203,77	68,81	67	147	40	90
CHK065.20	20°	198,10	74,31	60	140	10	80
CHK065.25	25°	204,75	76,73	55	135	10	90
CHK065.30	30°	193,63	89,52	50	130	10	80
CHK065.35	35°	199,76	93,06	45	125	10	90
CHK065.40	40°	188,72	99,62	40	120	15	80
CHK065.45	45°	194,13	104,16	34	114	15	90
CHK065.50	50°	190	110	30	110	10	90
CHK065.55	55°	190	115	20	100	10	100
CHK065.60	60°	190	115	20	100	10	100
CHK065.65	65°	190	130	0	80	10	110
CHK065.70	70°	190	130	0	80	10	110

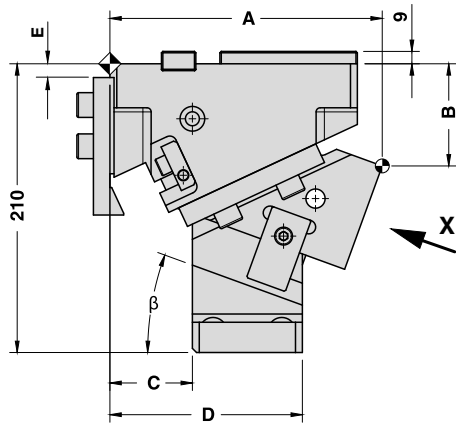
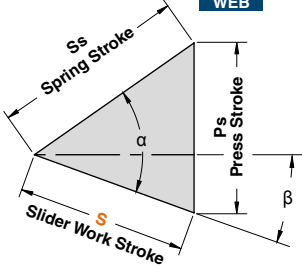


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

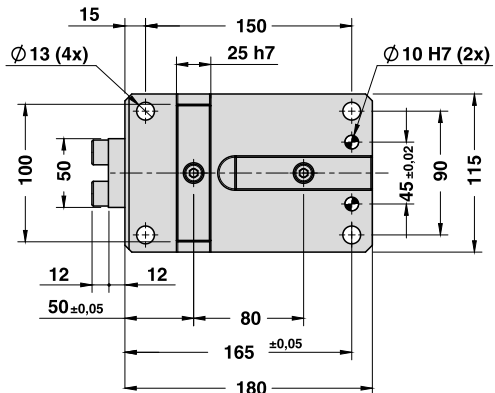
X VIEW



CAM DIAGRAM

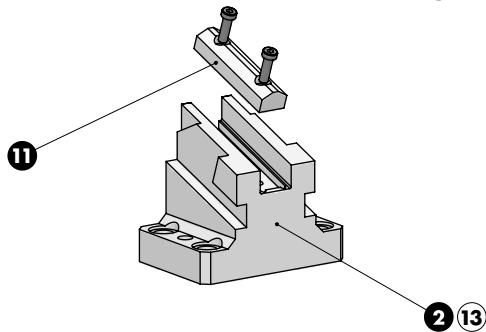
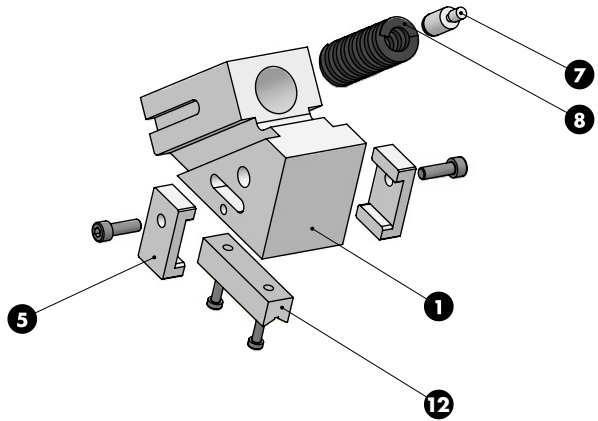
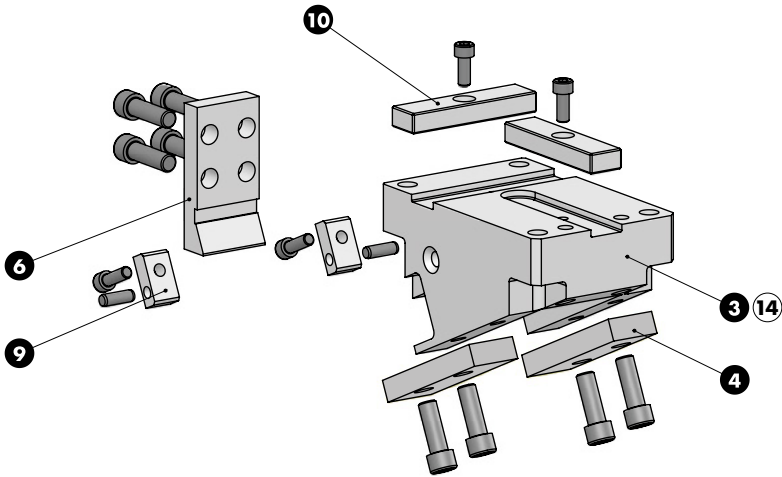


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	26,87	26,87	38
5°	50°	26,97	29,22	38
10°	45°	31,61	27,28	38
15°	50°	32,23	30,14	38
20°	45°	33,76	26,34	35
25°	50°	35,00	29,58	35
30°	45°	33,46	24,49	30
35°	50°	35,38	28,06	30
40°	45°	42,91	30,46	33
45°	50°	46,49	35,75	33
50°	50°	54,45	41,71	35
55°	55°	43,59	35,70	25
60°	60°	50,00	43,30	25
65°	65°	47,32	42,89	20
70°	70°	58,48	54,95	20



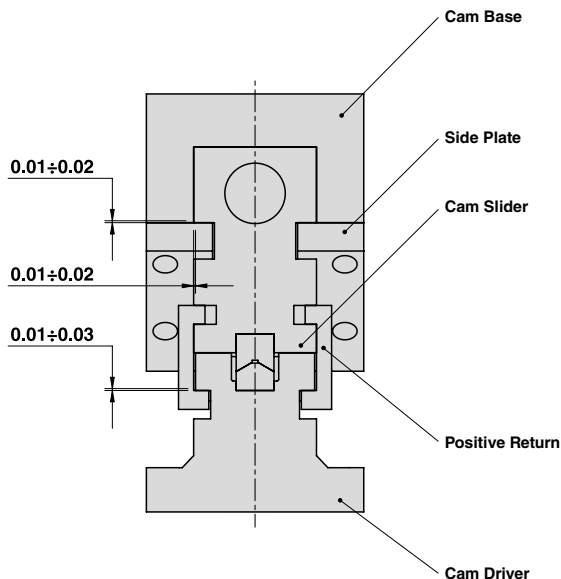
Cam Units CHK

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

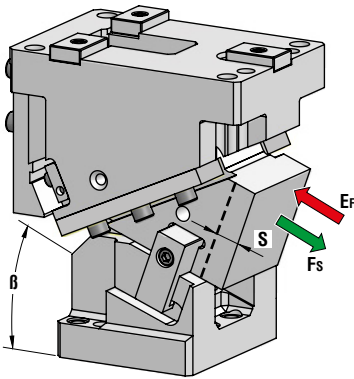


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25 + Graphite	1
2	Cam Driver	GG-25 + Graphite	1
3	Cam Base	GG-25	1
4	Side Plate	CK45 + Graphite	2
5	Positive Return	CK45	2
6	Stopper Plate	St44	1
7	Spring Guide Pin	34CrMo4	1
8	Spring	-	1
9	Plate	CK45	2
10	Key	CK45	2
11	Male "V" Driver	CK45	1
12	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
13	Cam Driver Fixing Screws M12x45 DIN 912	-	4
14	Cam Base Fixing Screws M12x55 DIN 912	-	4

Cam Units CHK

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
CHK100.00	0°	28,28	96	2,10
CHK100.10	10°	33,27	96	2,10
CHK100.20	20°	30,86	96	1,86
CHK100.30	30°	33,46	96	2,10
CHK100.40	40°	39,01	96	2,10
CHK100.50	50°	46,67	96	1,91
CHK100.60	60°	60	96	1,48
CHK100.70	70°	58,48	96	0,99

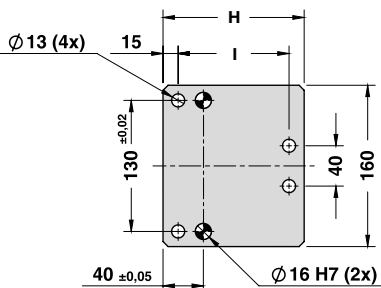
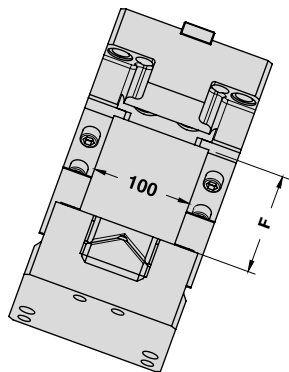


Art.	Work Angle = 10°
CHK100	10

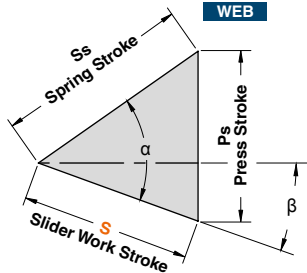
OMCR CODE	Work Angle	Overall Dimensions (mm)								
		$\beta$	A	B	C	D	E	F	G	H
CHK100.00	0°	240	85	80	220	55	100	17	140	110
CHK100.10	10°	240	90	60	200	35	100	17	140	110
CHK100.20	20°	240	110	50	190	15	100	18	140	110
CHK100.30	30°	240	110	30	160	10	120	17	130	100
CHK100.40	40°	240	115	30	150	10	120	17	120	90
CHK100.50	50°	240	120	10	130	0	140	16	120	90
CHK100.60	60°	240	145	0	110	0	140	16	110	80
CHK100.70	70°	240	145	0	110	0	140	16	110	80

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

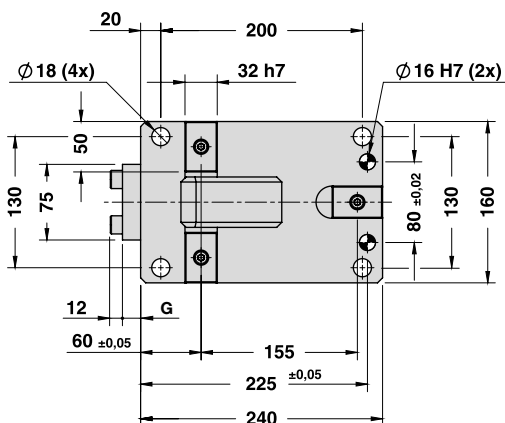
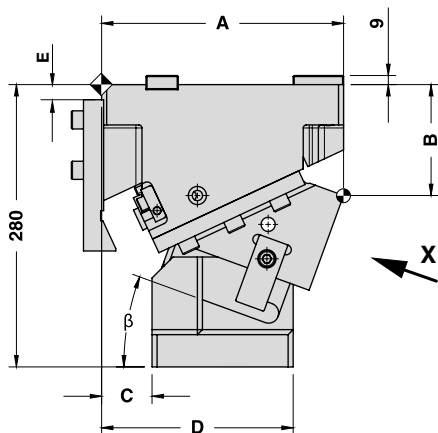
### X VIEW



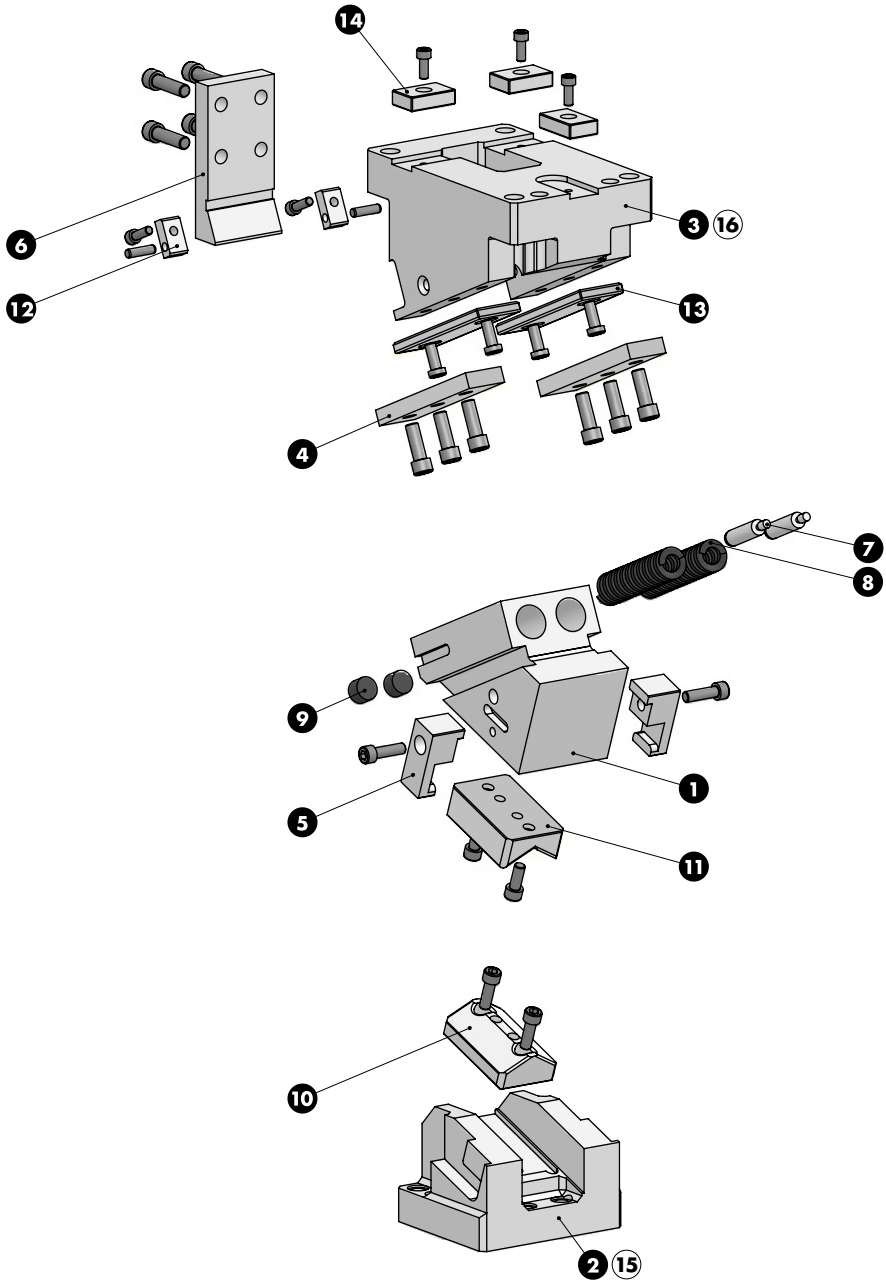
### CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	28,28	28,28	40
10°	45°	33,27	28,72	40
20°	45°	30,86	24,08	32
30°	45°	33,46	24,49	30
40°	45°	39,01	27,69	30
50°	50°	46,67	35,75	30
60°	60°	60,00	51,96	30
70°	70°	58,48	54,95	20

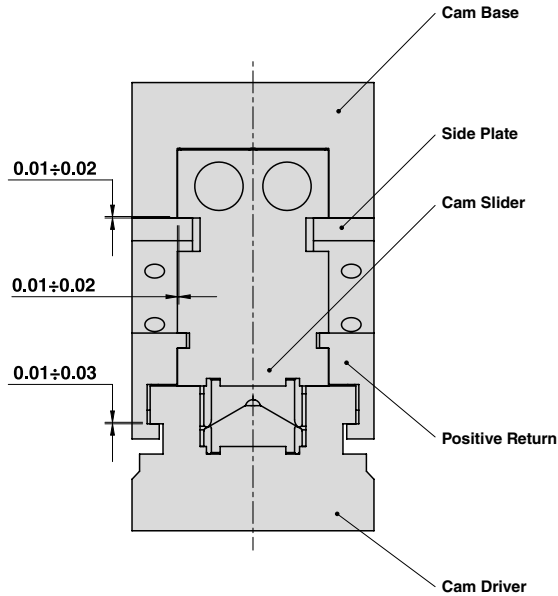


## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

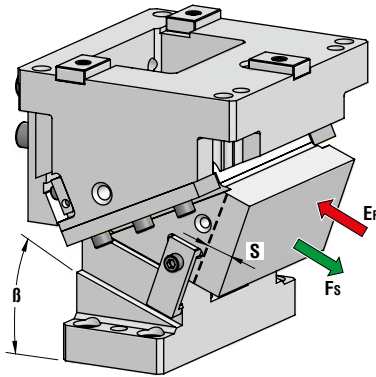
### SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



### PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-25 + Graphite	1
2	Cam Driver	GGG-25 + Graphite	1
3	Cam Base	GGG-25	1
4	Side Plate	CK45 + Graphite	2
5	Positive Return	CK45	2
6	Stopper Plate	St44	1
7	Spring Guide Pin	34CrMo4	2
8	Spring	-	2
9	Elastomer Cap	Elastomer 92SH	2
10	Male "V" Driver	CK45	1
11	Female "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
12	Plate	CK45	2
13	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
14	Key	CK45	3
15	Cam Driver Fixing Screws M12x55 DIN 912	-	4
16	Cam Base Fixing Screws M16x70 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	$\beta$			S	Fs
CHK200.00	0°	28,28	231	4,21	
CHK200.10	10°	33,27	231	4,21	
CHK200.20	20°	30,86	231	3,71	
CHK200.30	30°	33,46	231	4,20	
CHK200.40	40°	39,01	231	4,20	
CHK200.50	50°	46,67	231	3,81	
CHK200.60	60°	60	231	2,97	
CHK200.70	70°	58,48	231	1,98	



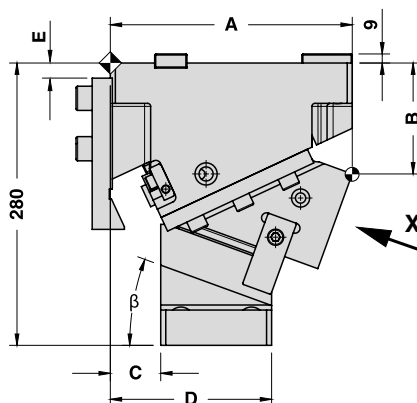
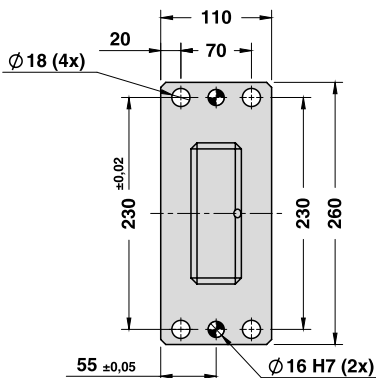
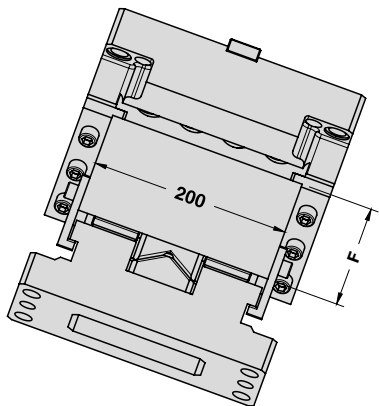
Art.	Work Angle = 10°
CHK200	10

OMCR CODE	Work Angle	Overall Dimensions (mm)							
		$\beta$	A	B	C	D	E	F	G
CHK200.00	0°	240	85	80	190	55	100	17	190
CHK200.10	10°	240	90	60	170	35	100	17	150
CHK200.20	20°	240	110	50	160	15	100	18	150
CHK200.30	30°	240	110	30	140	10	120	17	150
CHK200.40	40°	240	115	30	140	10	120	17	150
CHK200.50	50°	240	120	10	120	0	140	16	150
CHK200.60	60°	240	145	0	110	0	140	16	150
CHK200.70	70°	240	145	0	110	0	140	16	150

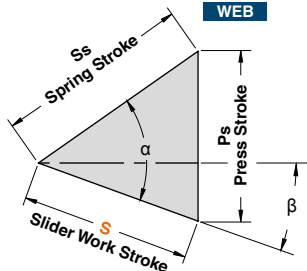


## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

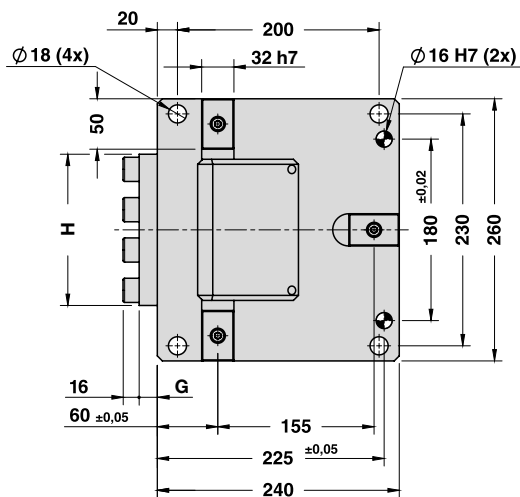
### X VIEW



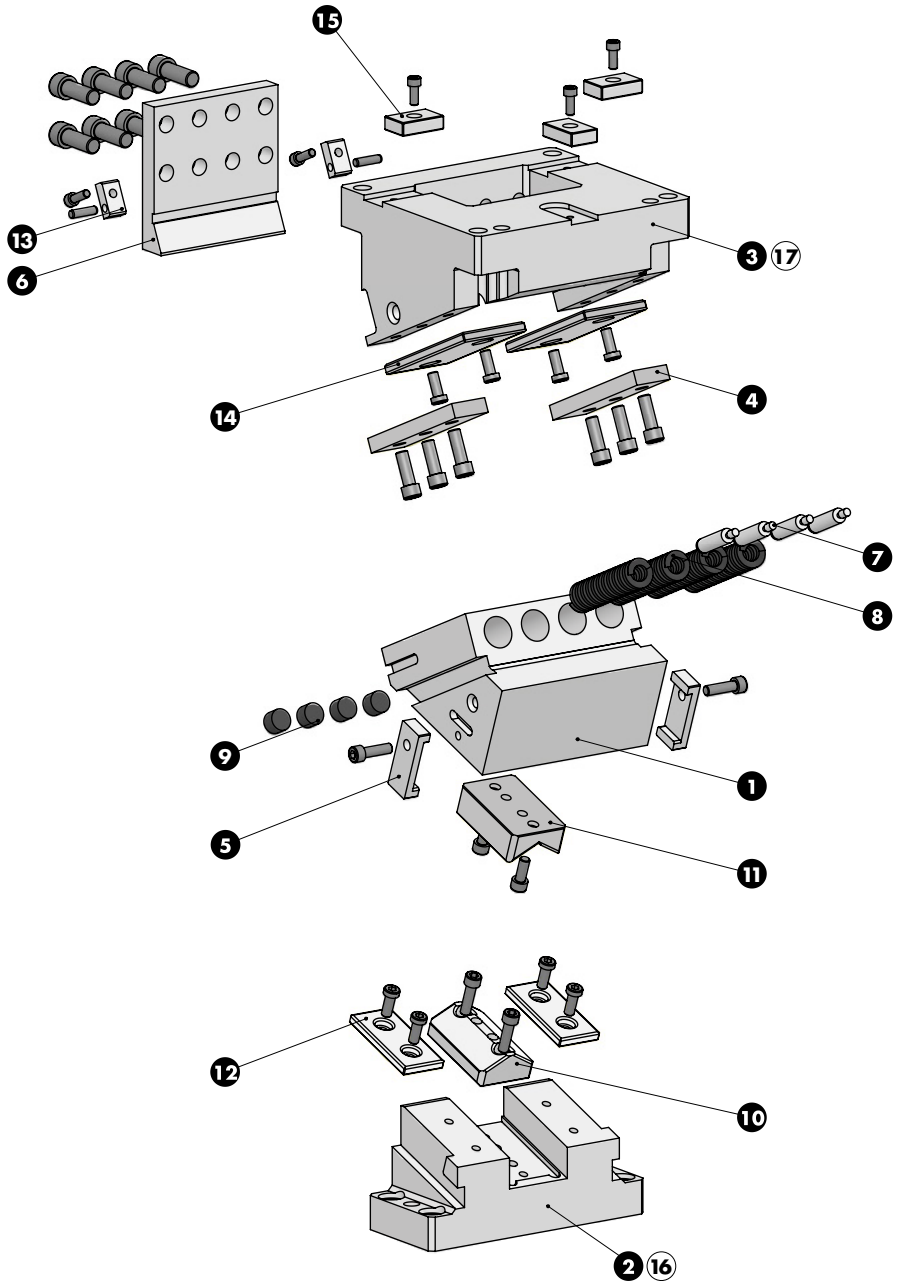
### CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	28,28	28,28	40
10°	45°	33,27	28,72	40
20°	45°	30,86	24,08	32
30°	45°	33,46	24,49	30
40°	45°	39,01	27,69	30
50°	50°	46,67	35,75	30
60°	60°	60,00	51,96	30
70°	70°	58,48	54,95	20

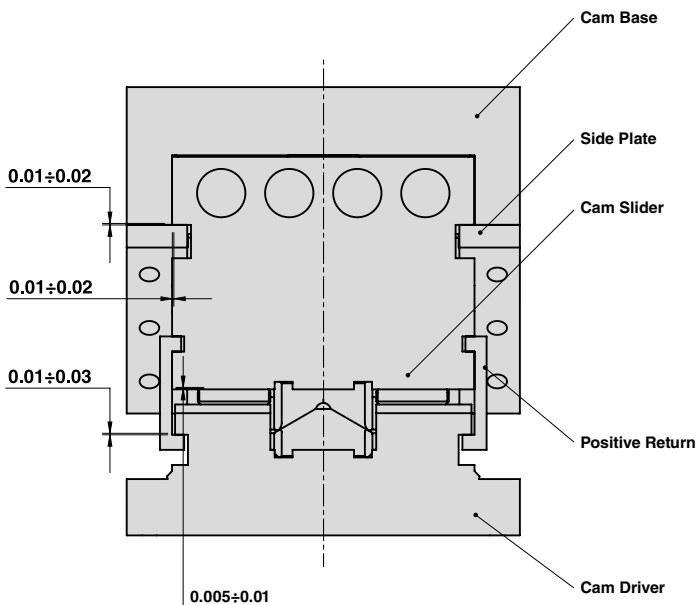


## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

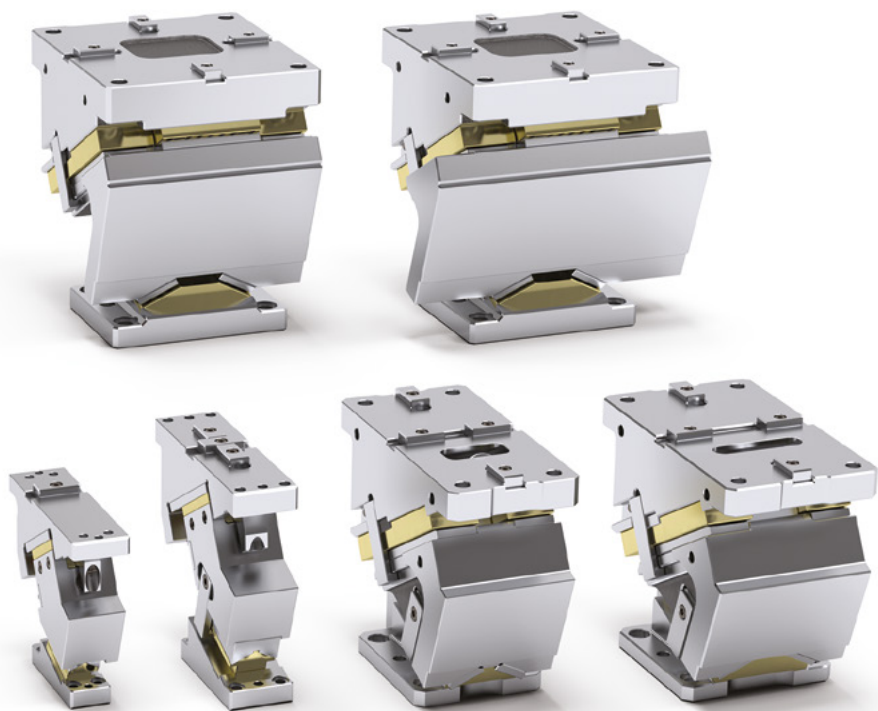
SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



Cam Units CHK

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25 + Graphite	1
2	Cam Driver	GG-25 + Graphite	1
3	Cam Base	GG-25	1
4	Side Plate	CK45 + Graphite	2
5	Positive Return	CK45	2
6	Stopper Plate	St44	1
7	Spring Guide Pin	34CrMo4	4
8	Spring	-	4
9	Elastomer Cap	Elastomer 92SH	4
10	Male "V" Driver	CK45	1
11	Female "V" Driver	CuZn25Al5+ Graphite - HB > 190	1
12	Wear Plate	CuZn25Al5+ Graphite - HB > 190	2
13	Plate	CK45	2
14	Wear Plate	CuZn25Al5 - HB > 190	2
15	Key	CK45	3
16	Cam Driver Fixing Screws M16x60 DIN 912	-	4
17	Cam Base Fixing Screws M16x70 DIN 912	-	4

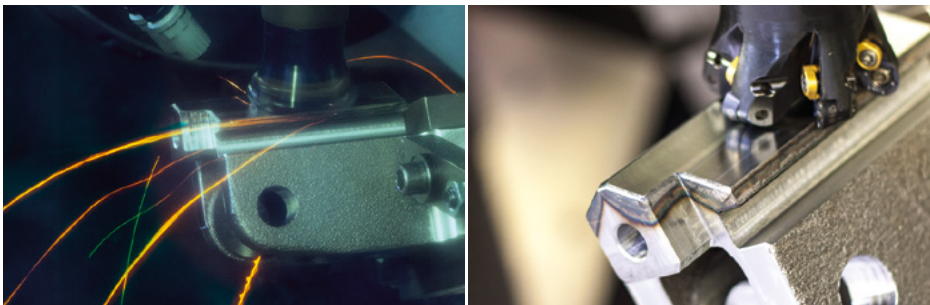


Cam Units CHR  
Schieber CHR  
Unità a Camme CHR

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

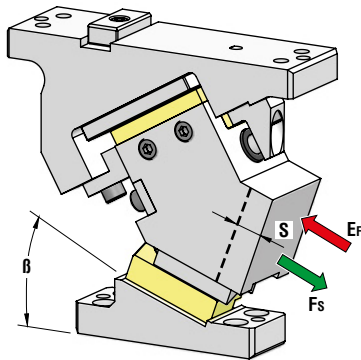
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10° cycles (kN)	Extraction Force (kN)			Page number
	$\beta$					E <sub>F</sub>			
						F <sub>s</sub>	Spring	Gas Spring	
<b>CHR070</b>	0°÷60° (5° steps)	70	225	70x75	90	0,25÷0,38	1,30÷1,74	774	
<b>CHR080</b>	0°÷60° (5° steps)	80	275	80x75	153	0,56÷0,87	1,48÷2,08	778	
<b>CHR165</b>	0°÷60° (5° steps)	165	300	165x120	340	1,16÷1,49	1,91÷2,46	782	
<b>CHR200</b>	0°÷60° (5° steps)	200	300	200x120	408	1,82÷2,35	3,75÷4,82	786	
<b>CHR300</b>	0°÷60° (5° steps)	300	375	300x160	521	3,89÷5,09	6,85÷9,40	790	
<b>CHR400</b>	0°÷60° (5° steps)	400	375	400x160	521	3,89÷5,09	6,85÷9,40	794	

Cam Units CHR



Advanced machines and production systems

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CHR070.00	0°	19,28	90	0,38	1,74
CHR070.05	5°	21,29	90	0,38	1,74
CHR070.10	10°	23,34	90	0,38	1,74
CHR070.15	15°	25,44	90	0,38	1,74
CHR070.20	20°	27,65	90	0,38	1,74
CHR070.25	25°	30	90	0,38	1,74
CHR070.30	30°	32,55	90	0,38	1,74
CHR070.35	35°	35,38	90	0,38	1,74
CHR070.40	40°	38,57	90	0,38	1,74
CHR070.45	45°	42,26	90	0,38	1,74
CHR070.50	50°	46,67	90	0,38	1,74
CHR070.55	55°	43,59	90	0,28	1,49
CHR070.60	60°	50	90	0,25	1,30

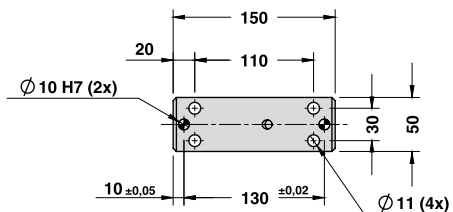
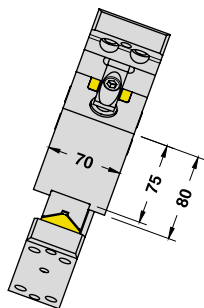
\*Return Type: G = Gas Spring / S = Spring

		Art.	Work Angle = 5°	Return Type*
		CHR070	05	G

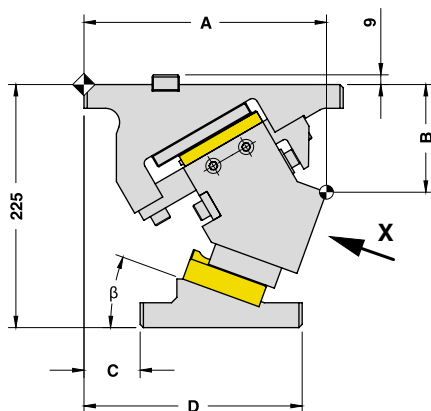
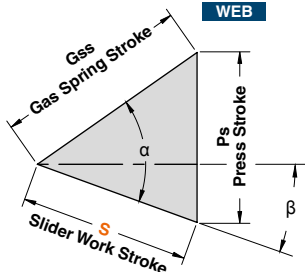
OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)				
		A	B	C	D	E
CHR070.00	0°	237,37	85	102	252	81,37
CHR070.05	5°	234,87	86,28	92	242	81,53
CHR070.10	10°	232,82	88,76	81	231	80,24
CHR070.15	15°	217,54	96,59	57	207	66,67
CHR070.20	20°	224,52	99,67	52	202	75,62
CHR070.25	25°	223,46	105,45	42	192	75,76
CHR070.30	30°	211,54	112,99	30	180	66,03
CHR070.35	35°	210,68	117,20	17	167	66,86
CHR070.40	40°	204,84	125,07	4	154	63,69
CHR070.45	45°	198,15	131,28	-2	148	58,40
CHR070.50	50°	190,95	135,15	-21	129	49,59
CHR070.55	55°	190,51	146	-23	127	56,02
CHR070.60	60°	185,81	155,86	-35	115	56,99

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

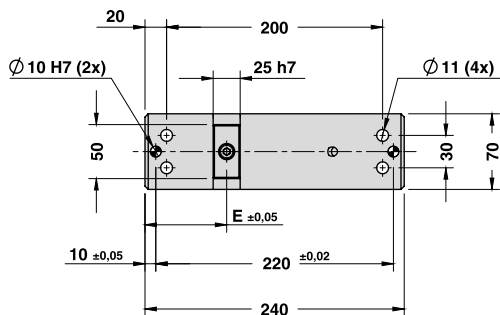
### X VIEW



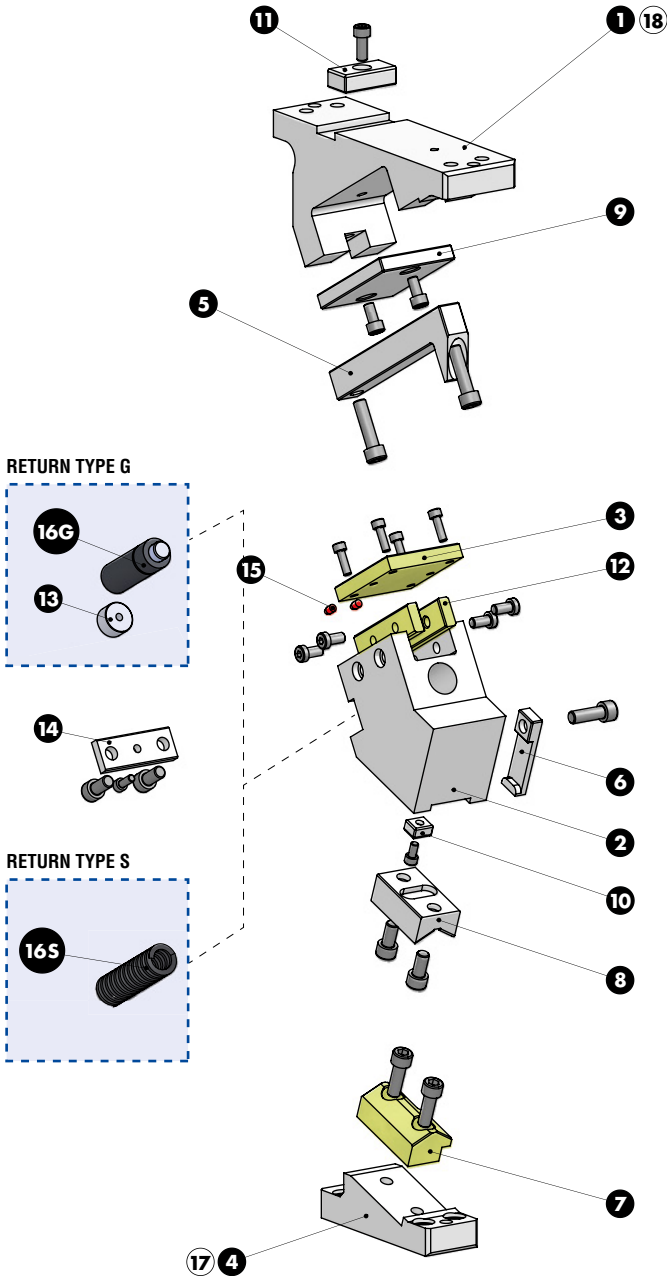
### CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	19,28	22,98	30
5°	50°	21,29	23,07	30
10°	50°	23,34	23,34	30
15°	50°	25,44	23,79	30
20°	50°	27,65	24,46	30
25°	50°	30,00	25,36	30
30°	50°	32,55	26,54	30
35°	50°	35,38	28,06	30
40°	50°	38,57	30,00	30
45°	50°	42,26	32,50	30
50°	50°	46,67	35,75	30
55°	55°	43,59	35,70	25
60°	60°	50,00	43,30	25



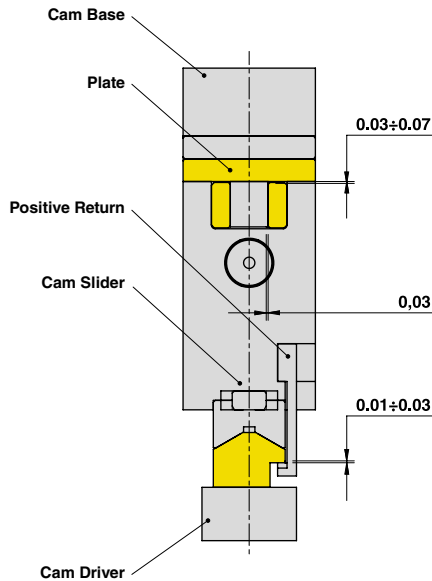
**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**





AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

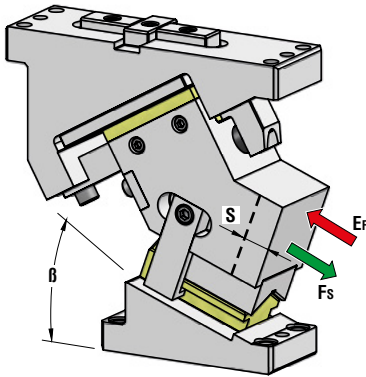
SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	GGG-50	1
2	Cam Slider	GGG-50	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	GG-25	1
5	Guide Bar	CK45	1
6	Positive Return	CK45	1
7	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
8	Female "V" Driver	CK45	1
9	Wear Plate	CK45	1
10	Key	CK45	1
11	Key	CK45	1
12	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
13	Spring Spacer	CK45	1
14	Spring Stopper Plate	CK45	1
15	Elastomer Cap	Elastomer 92SH	2
16G	Gas Spring - Return Type G	-	1
16S	Spring - Return Type S	-	1
17	Cam Driver Fixing Screws M12x50 DIN 912	-	4
18	Cam Base Fixing Screws M12x50 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CHR080.00	0°	32,14	153	0,87	2,08
CHR080.05	5°	35,49	153	0,87	2,08
CHR080.10	10°	38,89	153	0,87	2,08
CHR080.15	15°	42,40	153	0,87	2,08
CHR080.20	20°	46,08	153	0,87	2,08
CHR080.25	25°	50	153	0,87	2,08
CHR080.30	30°	54,25	153	0,87	2,08
CHR080.35	35°	58,96	153	0,87	2,08
CHR080.40	40°	64,28	153	0,87	2,08
CHR080.45	45°	70,44	153	0,87	2,08
CHR080.50	50°	77,79	153	0,87	2,08
CHR080.55	55°	78,46	153	0,71	1,77
CHR080.60	60°	80	153	0,56	1,48

\*Return Type: G = Gas Spring / S = Spring

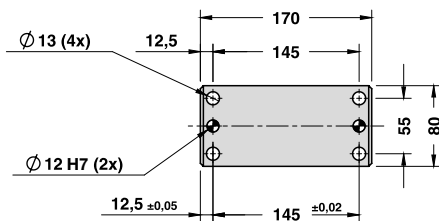
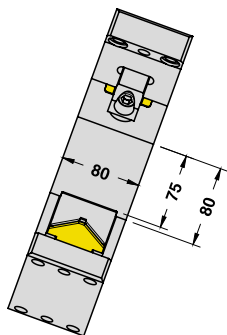


Art.	Work Angle = 5°	Return Type*
CHR080	05	G

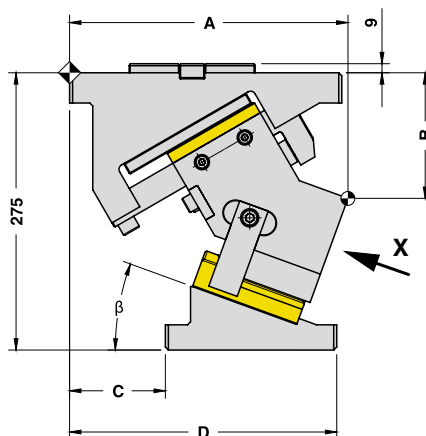
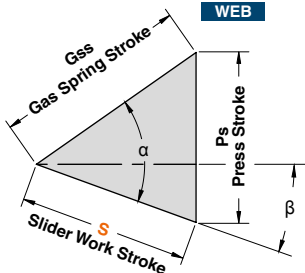
OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)				
		A	B	C	D	E
CHR080.00	0°	280	110	135	305	99,50
CHR080.05	5°	281,31	115,93	125	295	116,50
CHR080.10	10°	277,50	117,84	110	280	115,87
CHR080.15	15°	280,48	120,72	105	275	123,20
CHR080.20	20°	276,16	124,55	95	265	121,57
CHR080.25	25°	271,47	129,29	80	250	121,07
CHR080.30	30°	264,33	134,92	65	235	116,77
CHR080.35	35°	260,66	141,38	55	225	116,26
CHR080.40	40°	252,32	147,76	35	205	110,84
CHR080.45	45°	247,46	156,61	30	200	109,54
CHR080.50	50°	237,80	165,27	15	185	103,62
CHR080.55	55°	231,36	174,53	0	170	117,12
CHR080.60	60°	233,95	185,89	0	170	116,03

AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

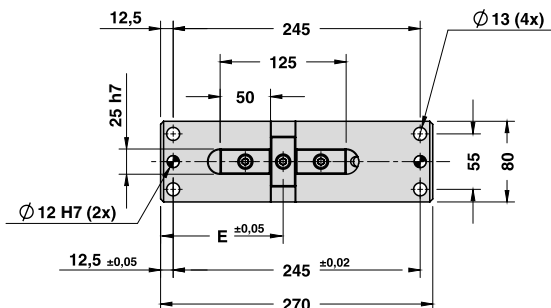
X VIEW



CAM DIAGRAM

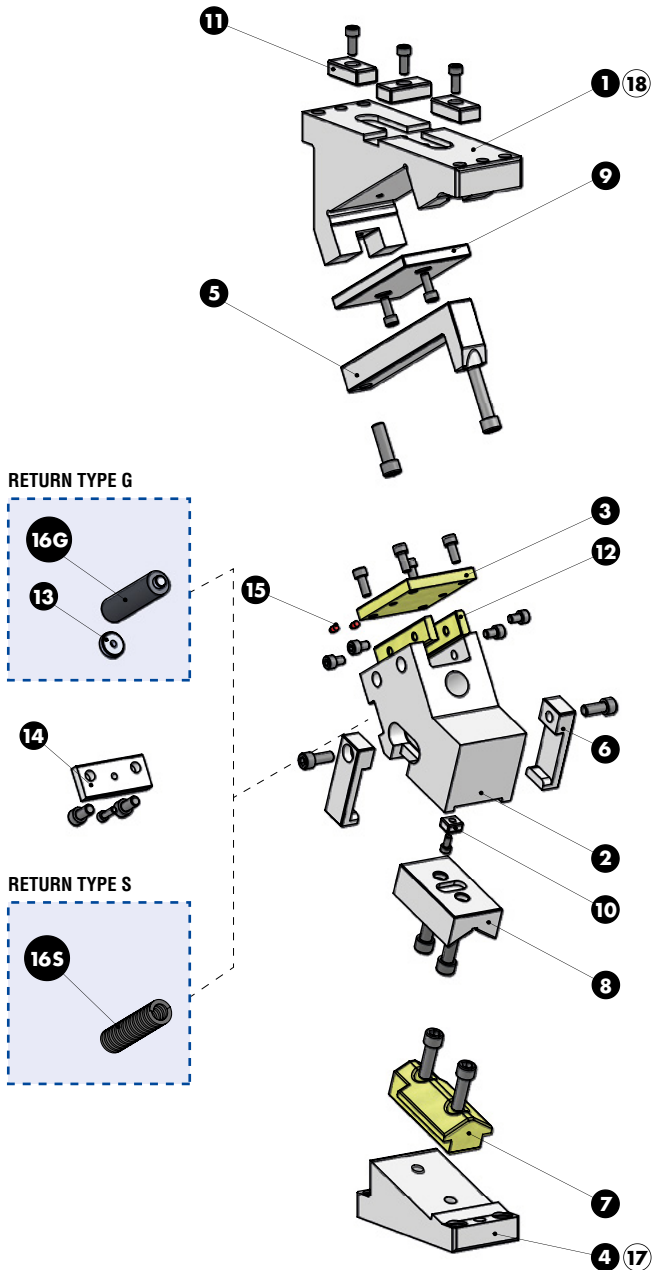


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	50°	38,89	38,89	50
15°	50°	42,40	39,65	50
20°	50°	46,08	40,76	50
25°	50°	50,00	42,26	50
30°	50°	54,25	44,23	50
35°	50°	58,96	46,76	50
40°	50°	64,28	50,00	50
45°	50°	70,44	54,17	50
50°	50°	77,79	59,59	50
55°	55°	78,46	64,27	45
60°	60°	80,00	69,28	40



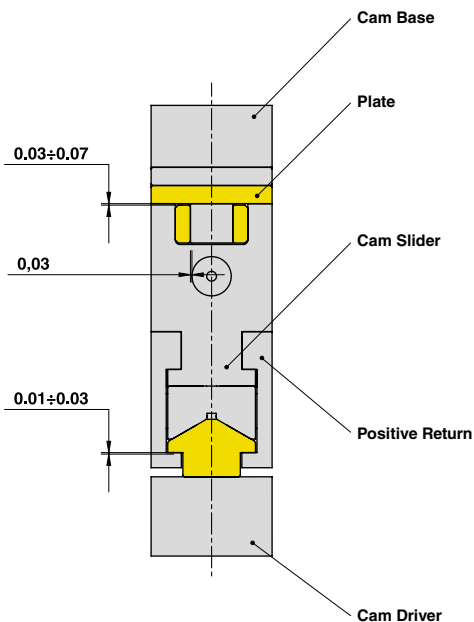
Cam Units CHR

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

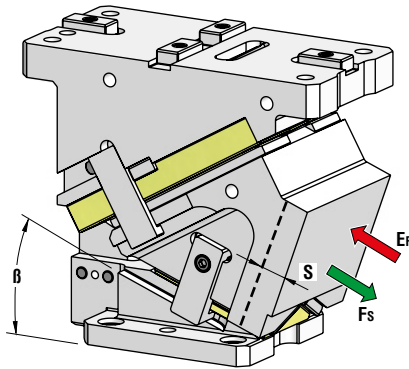


Cam Units CHR

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	GGG-40	1
2	Cam Slider	GG-25	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	GG-25	1
5	Guide Bar	CK45	1
6	Positive Return	CK45	2
7	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
8	Female "V" Driver	CK45	1
9	Wear Plate	CK45	1
10	Key	CK45	1
11	Key	CK45	3
12	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
13	Spring Spacer	CK45	1
14	Spring Stopper Plate	CK45	1
15	Elastomer Cap	Elastomer 92SH	2
16G	Gas Spring - Return Type G	-	1
16S	Spring - Return Type S	-	1
17	Cam Driver Fixing Screws M12x50 DIN 912	-	4
18	Cam Base Fixing Screws M12x50 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) EF	
				Spring	Gas Spring
CHR165.00	0°	32,14	340	1,49	2,46
CHR165.05	5°	35,49	340	1,49	2,46
CHR165.10	10°	38,89	340	1,49	2,46
CHR165.15	15°	42,40	340	1,49	2,46
CHR165.20	20°	46,08	340	1,49	2,46
CHR165.25	25°	50	340	1,49	2,46
CHR165.30	30°	54,25	340	1,49	2,46
CHR165.35	35°	58,96	340	1,49	2,46
CHR165.40	40°	64,28	340	1,49	2,46
CHR165.45	45°	70,44	340	1,49	2,46
CHR165.50	50°	77,79	340	1,49	2,46
CHR165.55	55°	87,17	340	1,33	2,20
CHR165.60	60°	100	340	1,16	1,91

### OPTION CODE

N

Dowel pin hole Ø16 H7 drilled on Cam Base

\*Return Type: G = Gas Spring / S = Spring

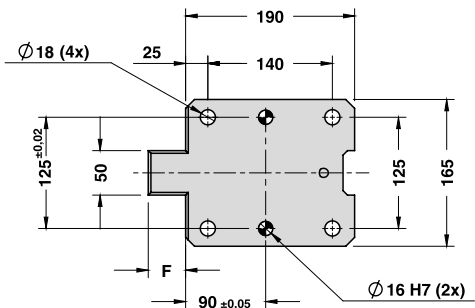
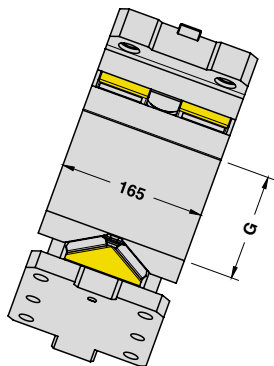


Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHR165	05	G	N N16

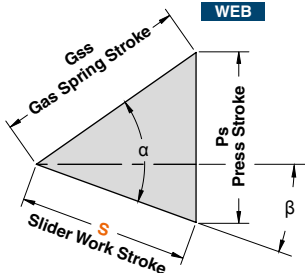
OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)						
		A	B	C	D	E	F	G
CHR165.00	0°	335,84	96,98	128	318	154,84	55	120
CHR165.05	5°	335,25	100,91	113	303	155,32	55	120
CHR165.10	10°	337,27	111,09	101	291	159,30	50	120
CHR165.15	15°	329,78	122,46	80	270	156,45	45	120
CHR165.20	20°	332,68	129,99	70	260	162,11	42	120
CHR165.25	25°	332,88	138,62	58	248	167,33	37	120
CHR165.30	30°	334,28	148,28	48	238	170,39	30	120
CHR165.35	35°	329,80	158,89	33	223	167,66	25	120
CHR165.40	40°	321,35	170,38	15	205	161,18	25	120
CHR165.45	45°	314,86	182,66	0	190	155,49	25	120
CHR165.50	50°	307,27	195,63	-15	175	149,10	0	120
CHR165.55	55°	296,59	210,30	-32	158	121,17	0	125
CHR165.60	60°	288,56	222,26	-45	145	113,04	0	125

AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

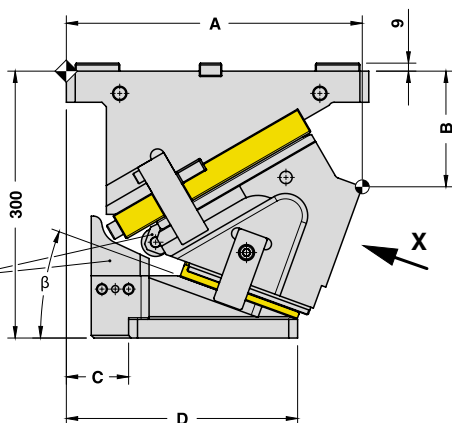
X VIEW



CAM DIAGRAM

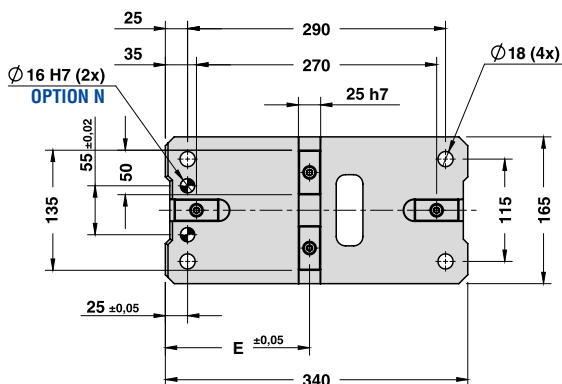


Accelerator available for work angles from 0° to 25°

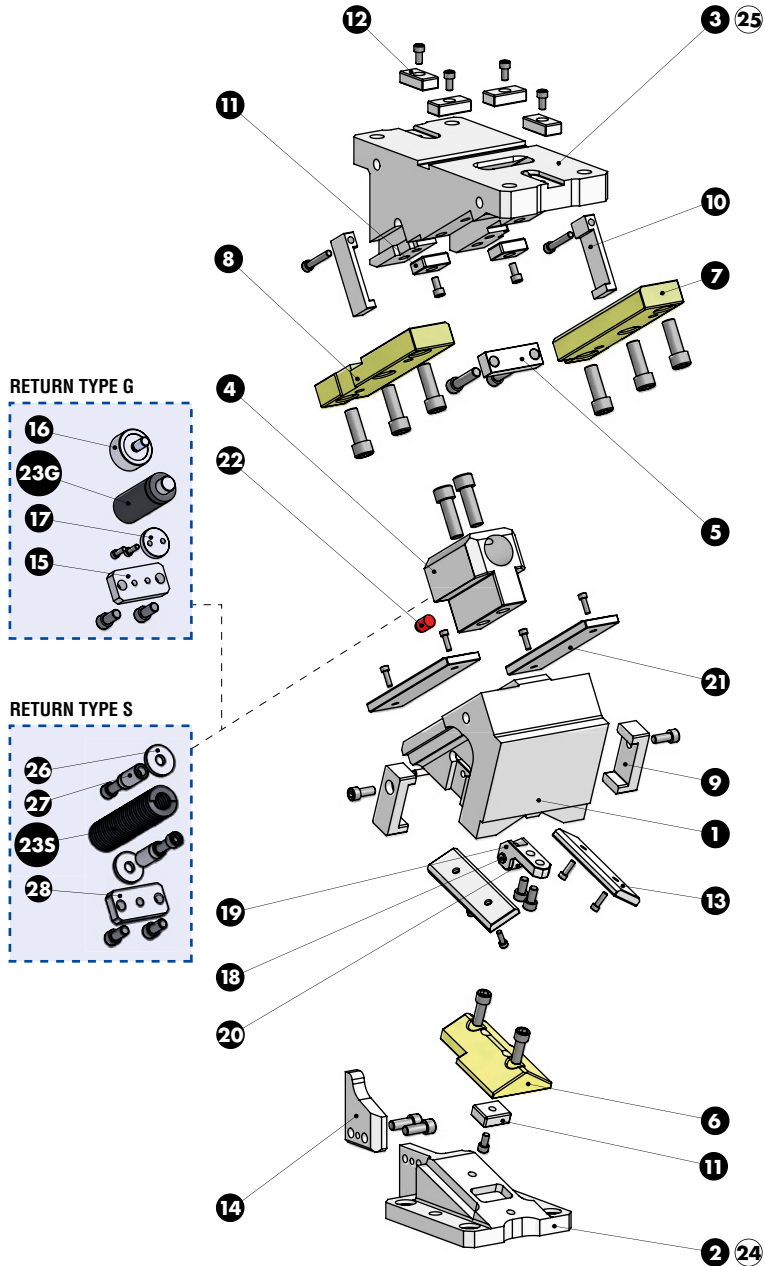


Cam Units CHR

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	50°	38,89	38,89	50
15°	50°	42,40	39,65	50
20°	50°	46,08	40,76	50
25°	50°	50,00	42,26	50
30°	50°	54,25	44,23	50
35°	50°	58,96	46,76	50
40°	50°	64,28	50,00	50
45°	50°	70,44	54,17	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	60°	100,00	86,60	50



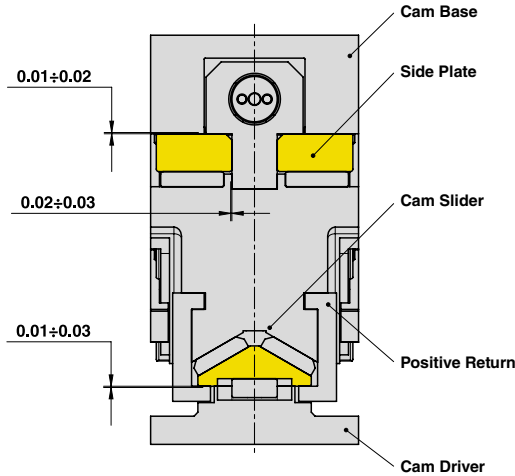
**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

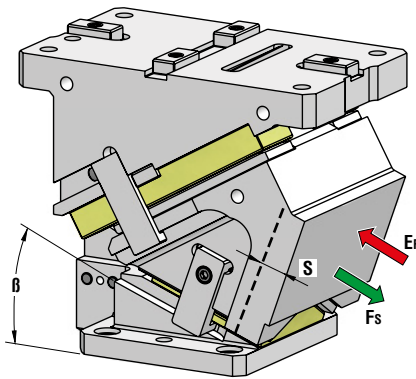
**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Spring Guide Block	CK45 + Graphite	1
5	Stopper Plate	CK45	1
6	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
7	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
9	Positive Return	42CrMo4 Nitrided	2
10	Positive Return	CK45	2
11	Key	CK45	3
12	Key	CK45	4
13	Wear Plate	CK45	2
14	Accelerator	CK45	1
15	Spring Stopper Plate	CK45	1
16	Spring Guide Pin	CK45	1
17	Spring Spacer	CK45	1
18	Shaft	CK45	1
19	Roller Bracket	CK45	1
20	Roller	NATR15PP	1
21	Wear Plate VDI 3357	CK45	2
22	Elastomer Cap	Elastomer 92SH	1
23G	Gas Spring - Return Type G	-	1
23S	Spring - Return Type S	-	1
24	Cam Driver Fixing Screws M16x50 DIN 912	-	4
25	Cam Base Fixing Screws M16x60 DIN 912	-	4
26	Washer	CK45	1
27	Spring Guide Pin	CK45	1
28	Spring Stopper Plate	CK45	1

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN) Ef	
				Spring	Gas Spring
CHR200.00	0°	32,14	408	2,35	4,82
CHR200.05	5°	35,49	408	2,35	4,82
CHR200.10	10°	38,89	408	2,35	4,82
CHR200.15	15°	42,40	408	2,35	4,82
CHR200.20	20°	46,08	408	2,35	4,82
CHR200.25	25°	50	408	2,35	4,82
CHR200.30	30°	54,25	408	2,35	4,82
CHR200.35	35°	58,96	408	2,35	4,82
CHR200.40	40°	64,28	408	2,35	4,82
CHR200.45	45°	70,44	408	2,35	4,82
CHR200.50	50°	77,79	408	2,35	4,82
CHR200.55	55°	87,17	408	2,09	4,30
CHR200.60	60°	100	408	1,82	3,75

### OPTION CODE

N

Dowel pin hole  $\varnothing 16$  H7 drilled on Cam Base

\*Return Type: G = Gas Spring / S = Spring

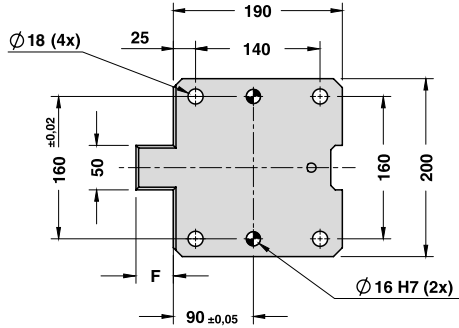
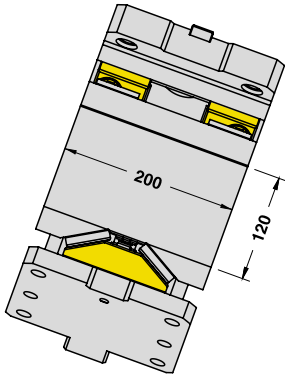


Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHR200	05	G	N N16

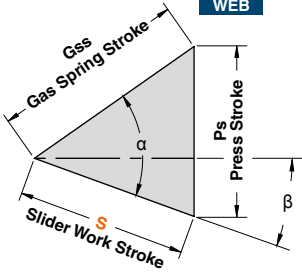
OMCR CODE	Work Angle $\beta$	Overall Dimensions (mm)					
		A	B	C	D	E	F
CHR200.00	0°	335,84	96,98	128	318	154,84	55
CHR200.05	5°	335,25	100,91	113	303	155,32	55
CHR200.10	10°	337,27	111,09	101	291	159,30	50
CHR200.15	15°	329,78	122,46	80	270	156,45	45
CHR200.20	20°	332,68	129,99	70	260	162,11	42
CHR200.25	25°	332,88	138,62	58	248	167,33	37
CHR200.30	30°	334,28	148,28	48	238	170,39	30
CHR200.35	35°	329,80	158,89	33	223	167,66	25
CHR200.40	40°	321,35	170,38	15	205	161,18	25
CHR200.45	45°	314,86	182,66	0	190	155,49	25
CHR200.50	50°	307,27	195,63	-15	175	149,10	0
CHR200.55	55°	296,59	210,30	-32	158	121,17	0
CHR200.60	60°	288,56	222,26	-45	145	113,04	0

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

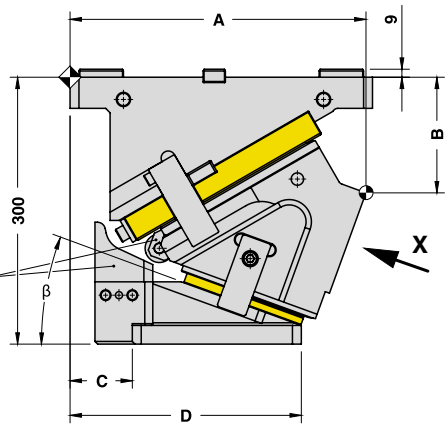
**X VIEW**



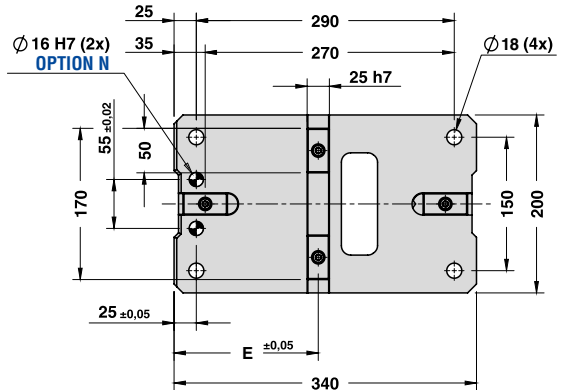
**CAM DIAGRAM**



Accelerator available for work angles from 0° to 25°



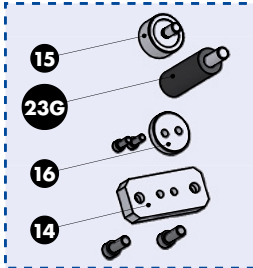
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	32,14	38,30	50
5°	50°	35,49	38,45	50
10°	50°	38,89	38,89	50
15°	50°	42,40	39,65	50
20°	50°	46,08	40,76	50
25°	50°	50,00	42,26	50
30°	50°	54,25	44,23	50
35°	50°	58,96	46,76	50
40°	50°	64,28	50,00	50
45°	50°	70,44	54,17	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	60°	100,00	86,60	50



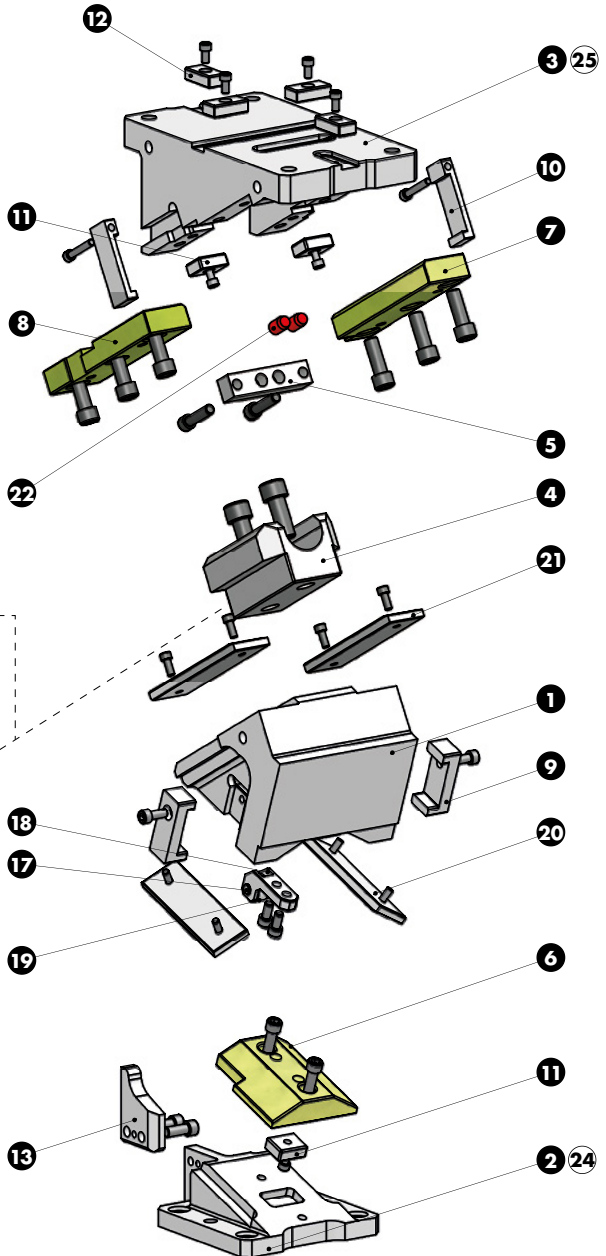
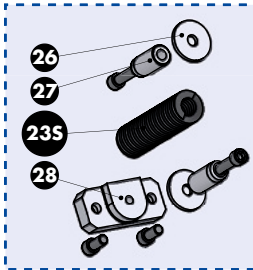
Cam Units CHR

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**RETURN TYPE G**

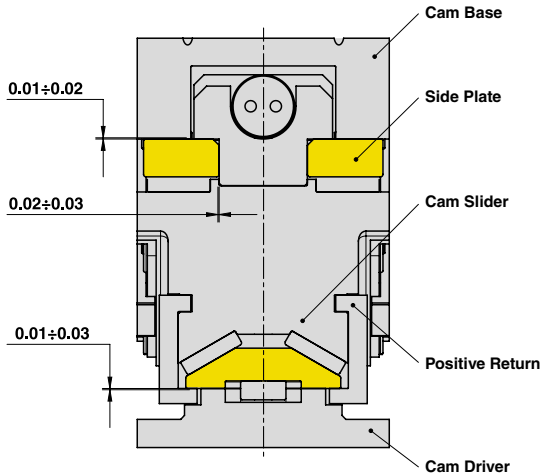


**RETURN TYPE S**



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

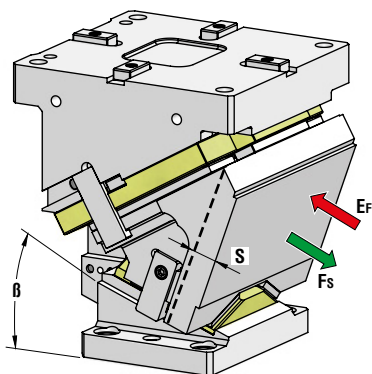
SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Spring Guide Block	CK45 + Graphite	1
5	Stopper Plate	CK45	1
6	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
7	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
8	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
9	Positive Return	42CrMo4 Nitrided	2
10	Positive Return	CK45	2
11	Key	CK45	3
12	Key	CK45	4
13	Accelerator	CK45	1
14	Spring Stopper Plate	CK45	1
15	Spring Guide Pin	CK45	1
16	Gas Spring Spacer	CK45	1
17	Shaft	CK45	1
18	Roller Bracket	CK45	1
19	Roller	NATR15PP	1
20	Wear Plate VDI 3357	CK45	2
21	Wear Plate VDI 3357	CK45	2
22	Elastomer Cap	Elastomer 92SH	2
23G	Gas Spring - Return Type G	-	1
23S	Spring - Return Type S	-	1
24	Cam Driver Fixing Screws M16x50 DIN 912	-	4
25	Cam Base Fixing Screws M16x60 DIN 912	-	4
26	Washer	CK45	1
27	Spring Guide Pin	CK45	1
28	Spring Stopper Plate	CK45	1

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	β	S	F <sub>s</sub>	Spring	Gas Spring
CHR300.00	0°	38,57	521	5,09	9,40
CHR300.05	5°	42,59	521	5,09	9,40
CHR300.10	10°	46,67	521	5,09	9,40
CHR300.15	15°	50,88	521	5,09	9,40
CHR300.20	20°	55,30	521	5,09	9,40
CHR300.25	25°	60	521	5,09	9,40
CHR300.30	30°	65,10	521	5,09	9,40
CHR300.35	35°	70,75	521	5,09	9,40
CHR300.40	40°	77,13	521	5,09	9,40
CHR300.45	45°	84,53	521	5,09	9,40
CHR300.50	50°	79,34	521	4,36	8,80
CHR300.55	55°	88,92	521	3,89	7,85
CHR300.60	60°	102	521	3,39	6,85

### OPTION CODE

N

Dowel pin hole Ø16 H7 drilled on Cam Base

\*Return Type: G = Gas Spring / S = Spring

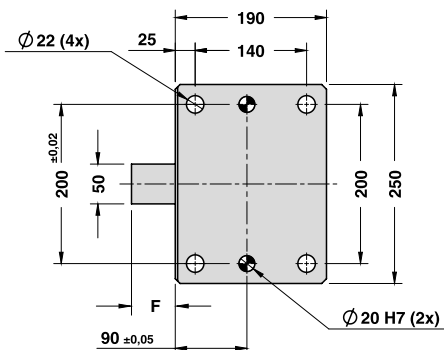
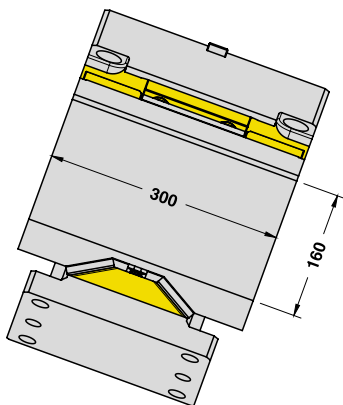


				OPTION CODE
Art.	Work Angle = 5°	Return Type*		N
CHR300	05	G		N16

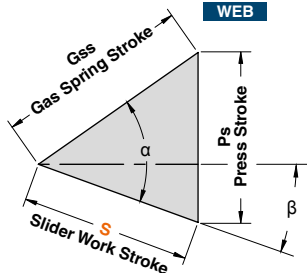
OMCR CODE	Work Angle	Overall Dimensions (mm)					
	β	A	B	C	D	E	F
CHR300.00	0°	313	98	138	328	119,50	55
CHR300.05	5°	317,15	104,18	125	315	127,13	55
CHR300.10	10°	324,13	111,86	115	305	138,04	55
CHR300.15	15°	325,82	121,01	100	290	144,41	55
CHR300.20	20°	327,08	131,59	85	275	151,45	55
CHR300.25	25°	334,71	138,65	75	265	164,01	50
CHR300.30	30°	327,83	146,89	55	245	159,87	45
CHR300.35	35°	334,51	159,17	45	235	169,57	35
CHR300.40	40°	325,46	167,30	25	215	159,82	30
CHR300.45	45°	324,84	179,23	7	197	160,54	30
CHR300.50	50°	306,63	196,84	-35	155	137,58	0
CHR300.55	55°	277,93	229,29	-85	105	120,29	0
CHR300.60	60°	286,45	245,64	-85	105	124,79	0

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

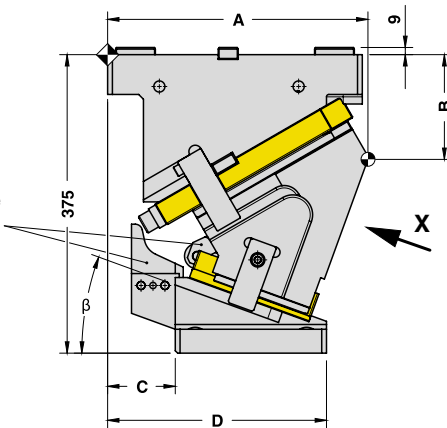
### X VIEW



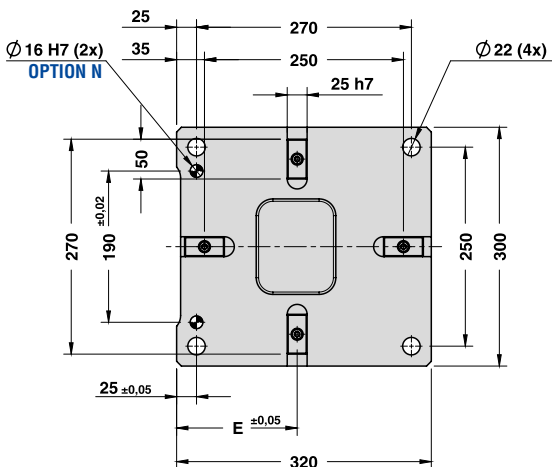
### CAM DIAGRAM



Accelerator available for work angles from 0° to 25°



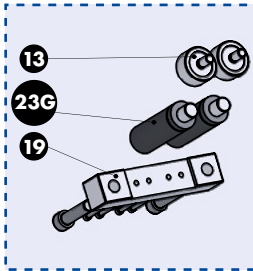
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	79,34	60,78	51
55°	55°	88,92	72,84	51
60°	60°	102,00	88,33	51



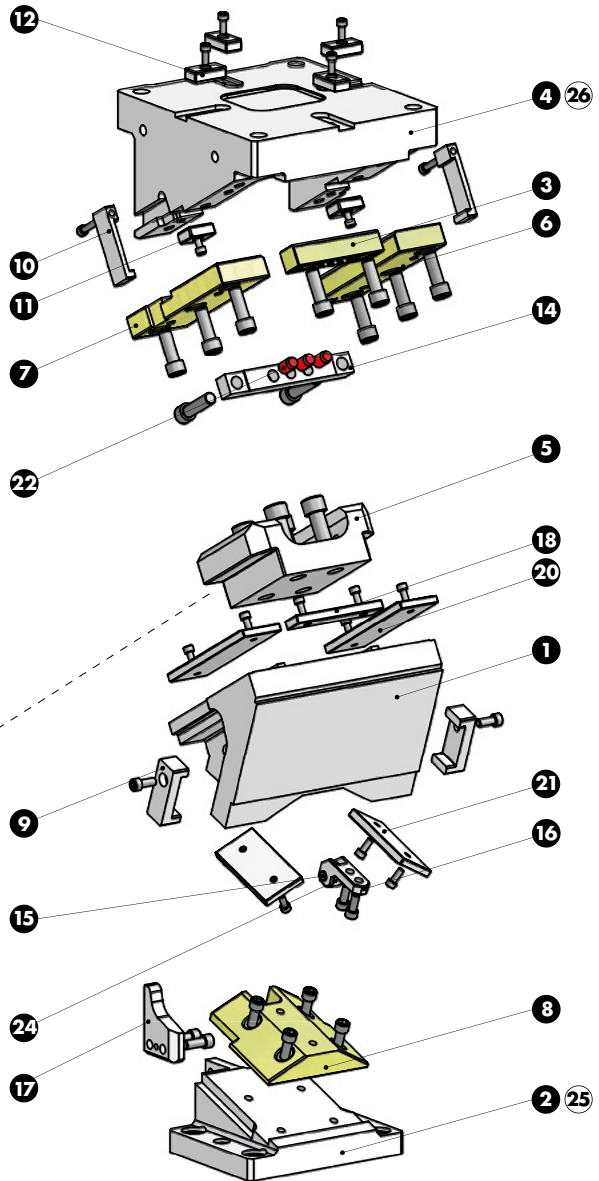
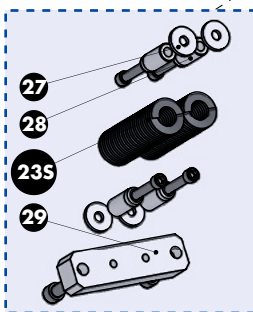
Cam Units CHR

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**RETURN TYPE G**



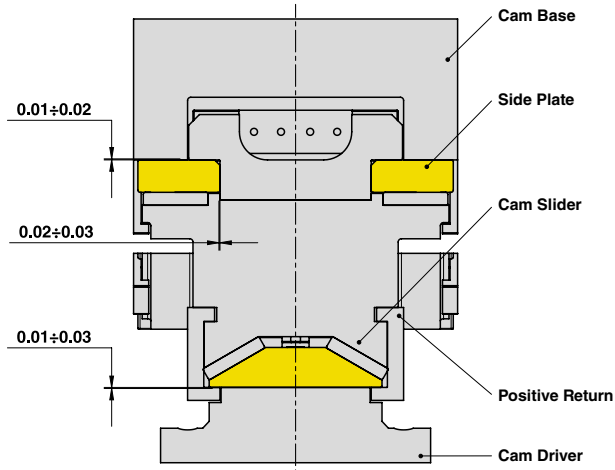
**RETURN TYPE S**





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

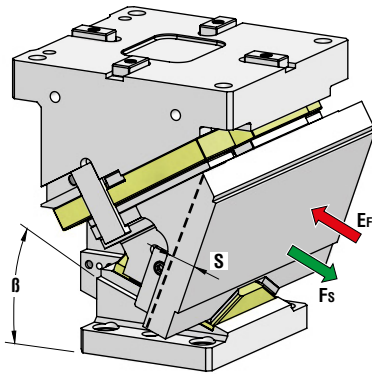


**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Driver	GG-25	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Base	GG-25	1
5	Spring Guide Block	CK45 + Graphite	1
6	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
9	Positive Return	42CrMo4 Nitrided	2
10	Positive Return	CK45	2
11	Key	CK45	2
12	Key	CK45	4
13	Spring Guide Pin	CK45	2
14	Stopper Plate	CK45	1
15	Shaft	CK45	1
16	Roller Bracket	CK45	1
17	Accelerator	CK45	1
18	Plate	CK45	1
19	Spring Stopper Plate	CK45	1
20	Wear Plate VDI 3357	CK45	2
21	Wear Plate VDI 3357	CK45	2
22	Elastomer Cap	Elastomer 92SH	3
23G	Gas Spring - Return Type G	-	2
23S	Spring - Return Type S	-	2
24	Roller	NATR15PP	1
25	Cam Driver Fixing Screws M20x65 DIN 912	-	4
26	Cam Base Fixing Screws M20x75 DIN 912	-	4
27	Washer	CK45	2
28	Spring Guide Pin	CK45	2
29	Spring Stopper Plate	CK45	1

Cam Units CHR

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)	
	$\beta$	S	F <sub>s</sub>	Spring	Gas Spring
CHR400.00	0°	38,57	521	5,09	9,40
CHR400.05	5°	42,59	521	5,09	9,40
CHR400.10	10°	46,67	521	5,09	9,40
CHR400.15	15°	50,88	521	5,09	9,40
CHR400.20	20°	55,30	521	5,09	9,40
CHR400.25	25°	60	521	5,09	9,40
CHR400.30	30°	65,10	521	5,09	9,40
CHR400.35	35°	70,75	521	5,09	9,40
CHR400.40	40°	77,13	521	5,09	9,40
CHR400.45	45°	84,53	521	5,09	9,40
CHR400.50	50°	79,34	521	4,36	8,80
CHR400.55	55°	88,92	521	3,89	7,85
CHR400.60	60°	102	521	3,39	6,85

### OPTION CODE

**N**

Dowel pin hole Ø16 H7 drilled on Cam Base

\*Return Type: G = Gas Spring / S = Spring

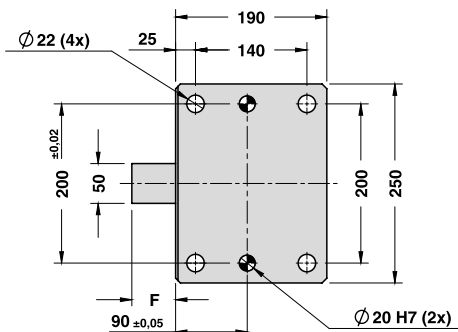
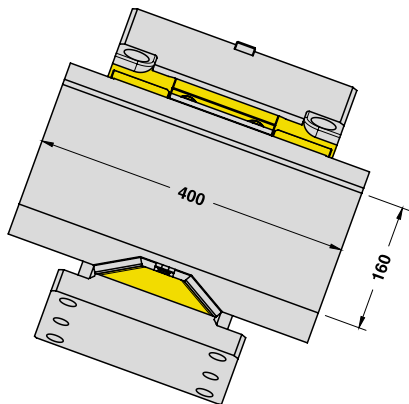


Art.	Work Angle = 5°	Return Type*	OPTION CODE
CHR400	05	G	N N16

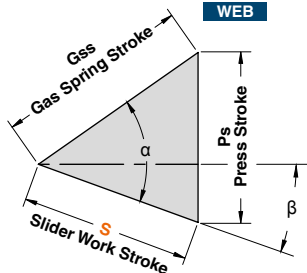
OMCR CODE	Work Angle	Overall Dimensions (mm)					
	$\beta$	A	B	C	D	E	F
CHR400.00	0°	313	98	138	328	119,50	55
CHR400.05	5°	317,15	104,18	125	315	127,13	55
CHR400.10	10°	324,13	111,86	115	305	138,04	55
CHR400.15	15°	325,82	121,01	100	290	144,41	55
CHR400.20	20°	327,08	131,59	85	275	151,45	55
CHR400.25	25°	334,71	138,65	75	265	164,01	50
CHR400.30	30°	327,83	146,89	55	245	159,87	45
CHR400.35	35°	334,51	159,17	45	235	169,57	35
CHR400.40	40°	325,46	167,30	25	215	159,82	30
CHR400.45	45°	324,84	179,23	7	197	160,54	30
CHR400.50	50°	306,63	196,84	-35	155	137,58	0
CHR400.55	55°	277,93	229,29	-85	105	120,29	0
CHR400.60	60°	286,45	245,64	-85	105	124,79	0

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

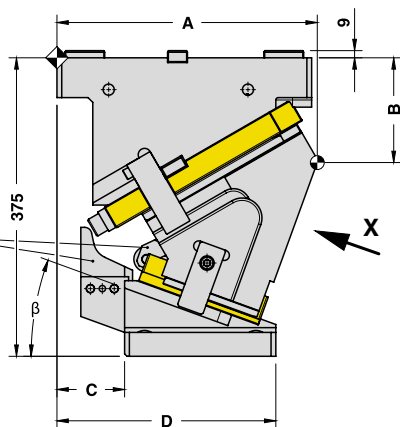
### X VIEW



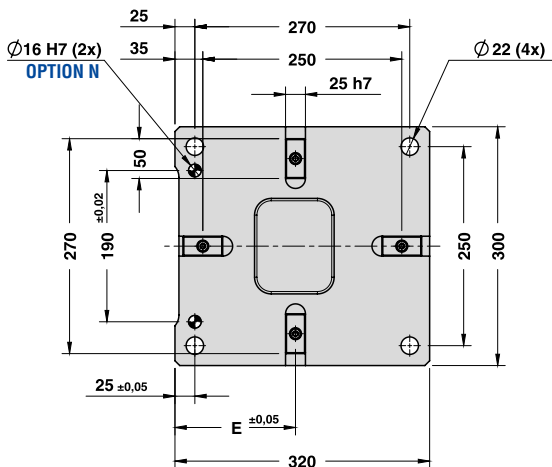
### CAM DIAGRAM

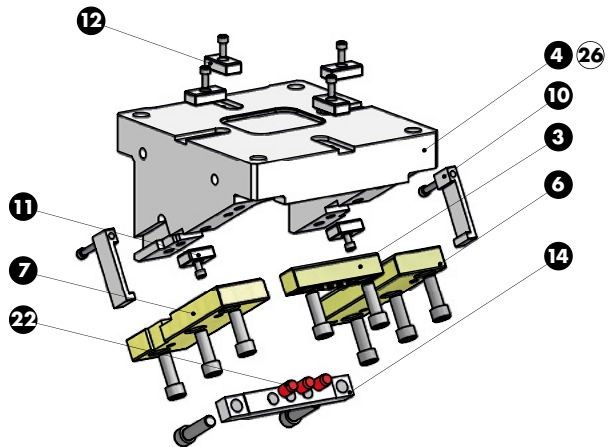


Accelerator available for work angles from 0° to 25°

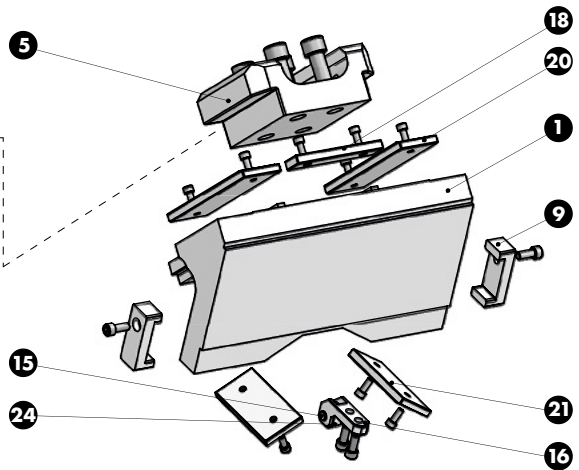
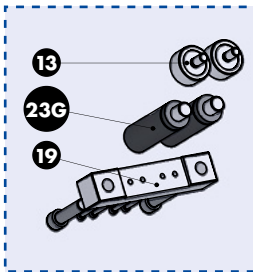


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	50°	38,57	45,96	60
5°	50°	42,59	46,14	60
10°	50°	46,67	46,67	60
15°	50°	50,88	47,58	60
20°	50°	55,30	48,91	60
25°	50°	60,00	50,71	60
30°	50°	65,10	53,07	60
35°	50°	70,75	56,11	60
40°	50°	77,13	60,00	60
45°	50°	84,53	65,00	60
50°	50°	79,34	60,78	51
55°	55°	88,92	72,84	51
60°	60°	102,00	88,33	51

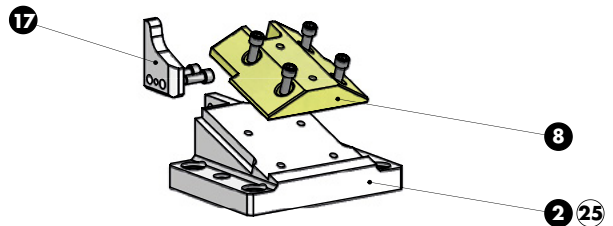
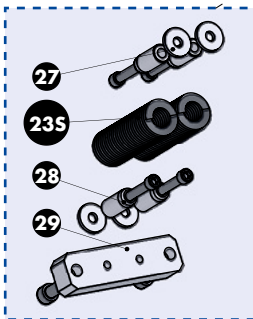




### RETURN TYPE G

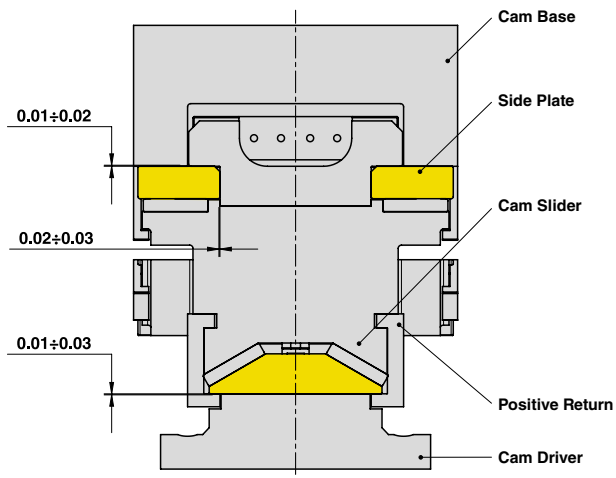


### RETURN TYPE S



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Driver	GG-25	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Base	GG-25	1
5	Spring Guide Block	CK45 + Graphite	1
6	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
7	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
8	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
9	Positive Return	42CrMo4 Nitrided	2
10	Positive Return	CK45	2
11	Key	CK45	2
12	Key	CK45	4
13	Spring Guide Pin	CK45	2
14	Stopper Plate	CK45	1
15	Shaft	CK45	1
16	Roller Bracket	CK45	1
17	Accelerator	CK45	1
18	Plate	CK45	1
19	Spring Stopper Plate	CK45	1
20	Wear Plate VDI 3357	CK45	2
21	Wear Plate VDI 3357	CK45	2
22	Elastomer Cap	Elastomer 92SH	3
23G	Gas Spring - Return Type G	-	2
23S	Spring - Return Type S	-	2
24	Roller	NATR15PP	1
25	Cam Driver Fixing Screws M20x65 DIN 912	-	4
26	Cam Base Fixing Screws M20x75 DIN 912	-	4
27	Washer	CK45	2
28	Spring Guide Pin	CK45	2
29	<b>Spring Stopper Plate</b>	<b>CK45</b>	<b>1</b>

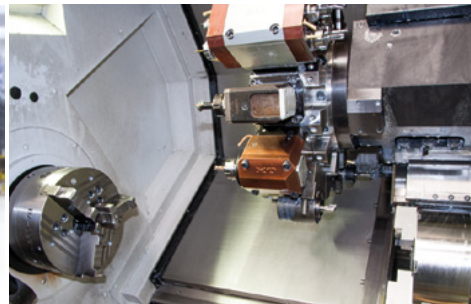
Cam Units CHR



Cam Units CLC  
Schieber CLC  
Unità a Camme CLC

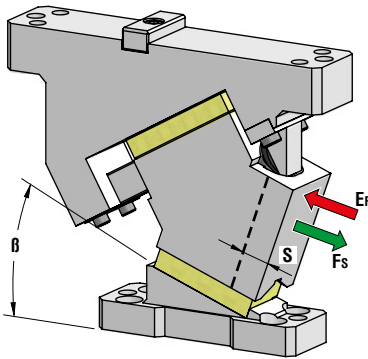
**MCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	F <sub>t</sub>	
CLC050	0÷70°	50	200	50x75	41	0,35÷0,71	800
CLC065	0÷70°	65	180 (0÷45°) 190 (50÷55°) 210 (60÷70°)	65x65	42	0,44÷0,94	804
CLC080	0÷70°	80	270	80x86	83	0,58÷1,20	808
CLC150	0÷70°	150	270	150x85	140	1,66÷4,18	812



Highly skilled workers

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$ Spring
CLC050.00	0°	30,21	41	0,66
CLC050.05	5°	30,52	41	0,61
CLC050.10	10°	30,34	41	0,56
CLC050.15	15°	30,53	41	0,71
CLC050.20	20°	30,41	41	0,66
CLC050.25	25°	30	41	0,66
CLC050.30	30°	32,55	41	0,66
CLC050.35	35°	35,38	41	0,66
CLC050.40	40°	38,57	41	0,66
CLC050.45	45°	42,26	41	0,66
CLC050.50	50°	46,67	41	0,66
CLC050.55	55°	52,10	41	0,59
CLC050.60	60°	59,09	41	0,52
CLC050.65	65°	58,26	41	0,38
CLC050.70	70°	57,59	41	0,35

### OPTION CODE

SL	1 ÷ 60 (1mm steps)
SW	65 mm
N	Ø 12H7

### OPTION CODE

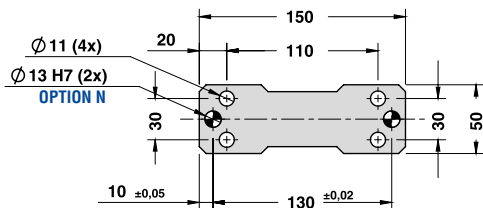
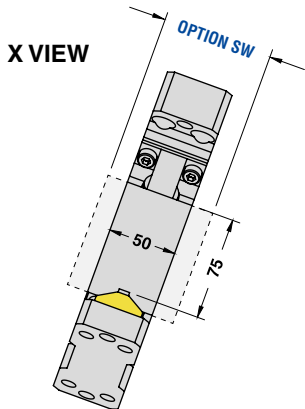


Art.	Work Angle = 5°	SL	SW	N
CLC050	05	SL55	SW65	N12

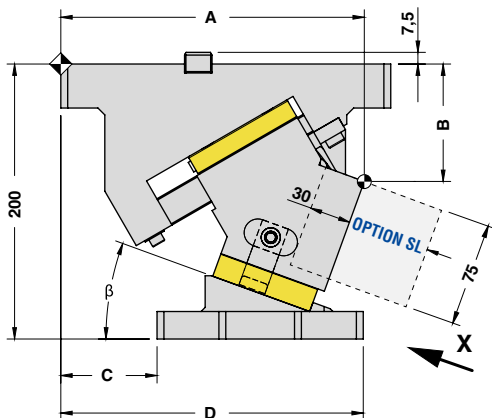
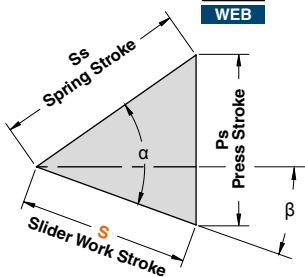
OMCR CODE	Work Angle	Overall Dimensions (mm)			
	$\beta$	A	B	C	D
CLC050.00	0°	225	77,50	107	257
CLC050.05	5°	226,91	78,33	100	250
CLC050.10	10°	223,72	79,93	90	240
CLC050.15	15°	224,36	82,29	85	235
CLC050.20	20°	220,76	85,39	70	220
CLC050.25	25°	215,85	89,22	58	208
CLC050.30	30°	213,58	94,73	55	205
CLC050.35	35°	204,89	96,90	35	185
CLC050.40	40°	206,72	102,69	30	180
CLC050.45	45°	202,01	103,06	20	170
CLC050.50	50°	195,73	105,94	10	160
CLC050.55	55°	189,83	116,30	0	150
CLC050.60	60°	179,27	125,08	-15	135
CLC050.65	65°	176,60	126,87	-32	118
CLC050.70	70°	177	135,83	-38	112



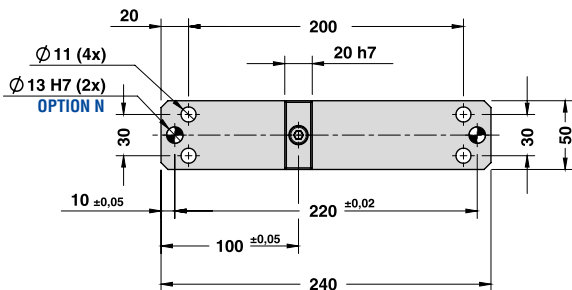
## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



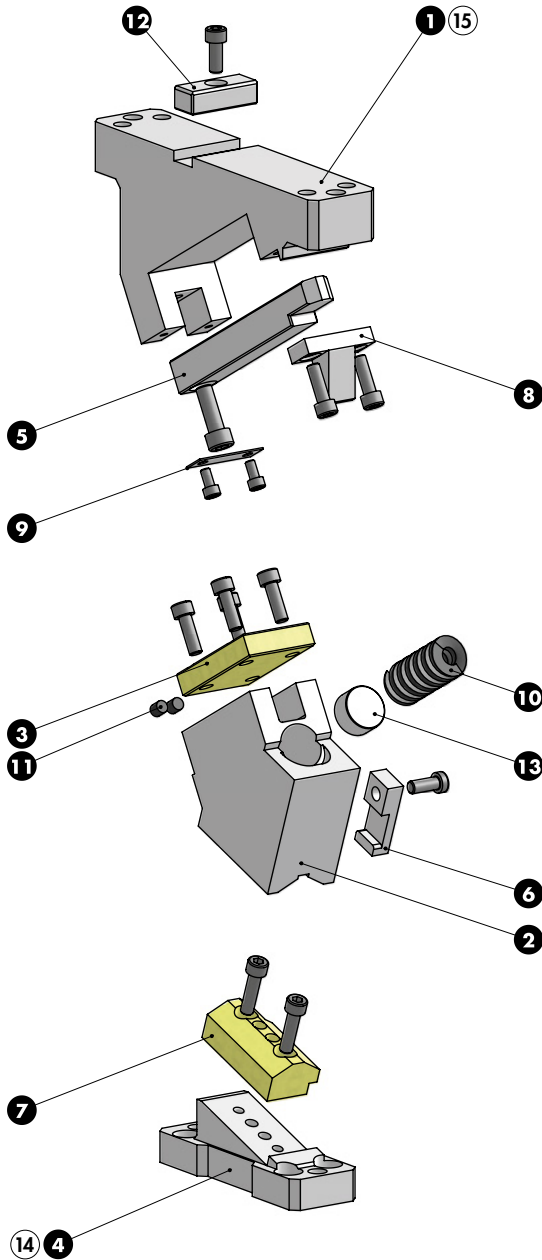
**CAM DIAGRAM**



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	30,21	36,00	47
5°	50°	30,52	33,07	43
10°	50°	30,34	30,34	39
15°	50°	30,53	28,55	36
20°	50°	30,41	26,90	33
25°	50°	30,00	25,36	30
30°	50°	32,55	26,54	30
35°	50°	35,38	28,06	30
40°	50°	38,57	30,00	30
45°	50°	42,26	32,50	30
50°	50°	46,67	35,75	30
55°	50°	52,10	40,07	30
60°	50°	59,09	45,96	30
65°	55°	58,26	48,46	25
70°	60°	57,59	50,64	20

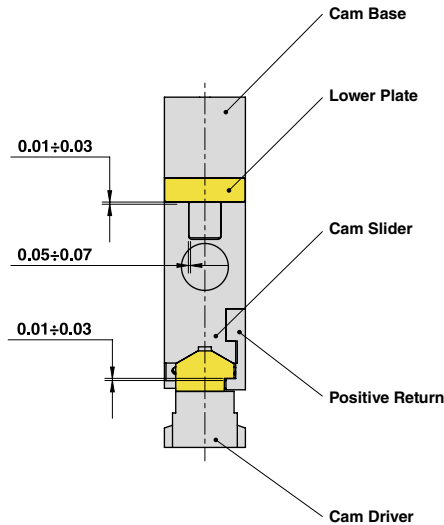


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

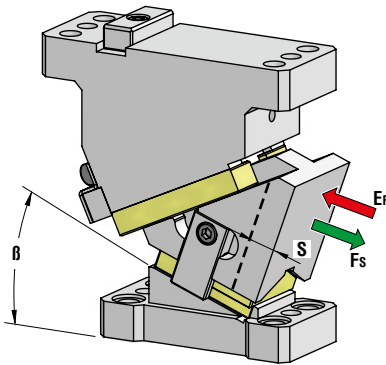


Cam Units CLC

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	GGG-50	1
2	Cam Slider	GGG-50	1
3	Plate	CuZn25Al5 + Graphite - HB > 190	1
4	Cam Driver	GG-25	1
5	Guide Bar	42CrMo4 + Graphite	1
6	Positive Return	CK45	1
7	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
8	Spring Block	St44	1
9	Safety Plate	St44	1
10	Spring	-	1
11	Elastomer Cap	Elastomer 92SH	2
12	Key	CK45	1
13	Spring Spacer	CK45	1
14	Cam Driver Fixing Screws M10x35 DIN 912	-	4
15	Cam Base Fixing Screws M10x40 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$
CLC065.00	0°	14,99	42	0,94
CLC065.05	5°	15,07	42	0,89
CLC065.10	10°	15,22	42	0,91
CLC065.15	15°	15,51	42	0,87
CLC065.20	20°	16,49	42	0,87
CLC065.25	25°	17,10	42	0,79
CLC065.30	30°	18,51	42	0,85
CLC065.35	35°	19,57	42	0,77
CLC065.40	40°	21,46	42	0,85
CLC065.45	45°	23,25	42	0,77
CLC065.50	50°	26,50	42	0,79
CLC065.55	55°	29,70	42	0,70
CLC065.60	60°	34,97	42	0,64
CLC065.65	65°	41,37	42	0,54
CLC065.70	70°	51,12	42	0,44

### OPTION CODE

SL	1 ÷ 60 (1mm steps)
----	--------------------

### OPTION CODE

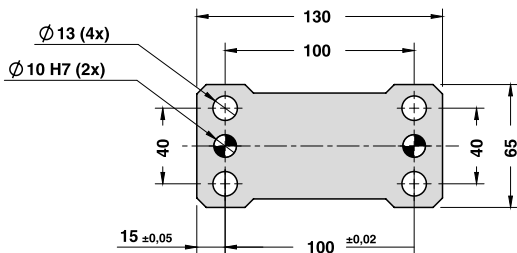
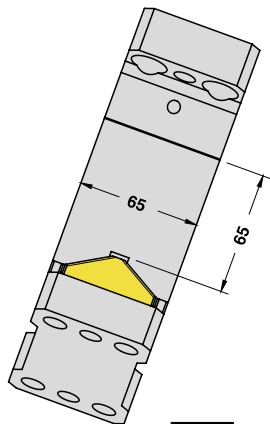


Art.	Work Angle = 5°	SL
CLC065	05	SL55

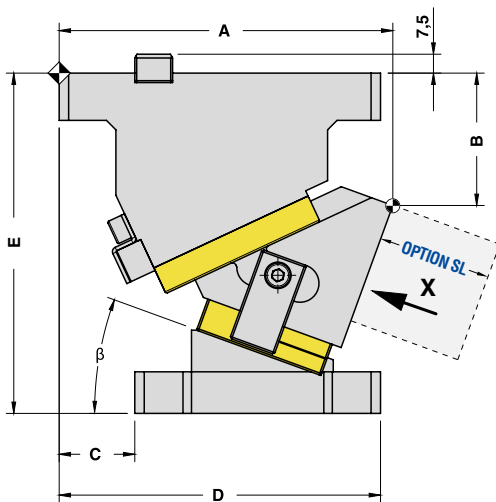
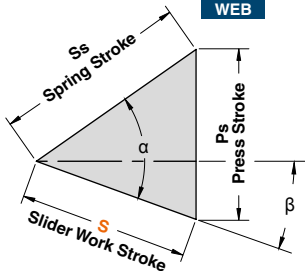
OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CLC065.00	0°	170	53	60	190	180
CLC065.05	5°	171,41	60,27	55	185	180
CLC065.10	10°	177,16	63,06	55	185	180
CLC065.15	15°	177,20	66,33	50	180	180
CLC065.20	20°	176,51	70,01	40	170	180
CLC065.25	25°	172,94	75,64	35	165	180
CLC065.30	30°	177,78	78,32	30	160	180
CLC065.35	35°	173,29	83,25	20	150	180
CLC065.40	40°	170,78	82,44	10	140	180
CLC065.45	45°	165,50	86,51	2,5	132,5	180
CLC065.50	50°	165,41	96,79	-5	125	190
CLC065.55	55°	159,51	99,89	-10	120	190
CLC065.60	60°	156,68	120,78	-20	110	210
CLC065.65	65°	150,33	122,80	-25	105	210
CLC065.70	70°	146,45	131,68	-32	98	210

AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

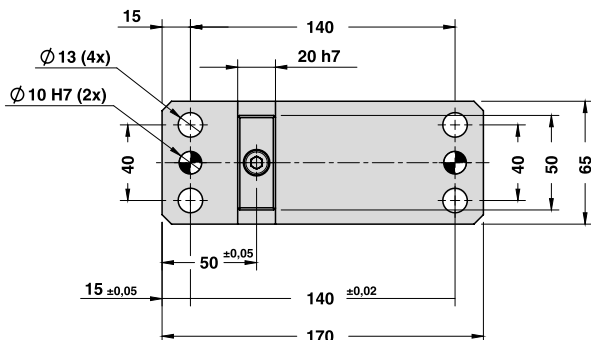
X VIEW



CAM DIAGRAM

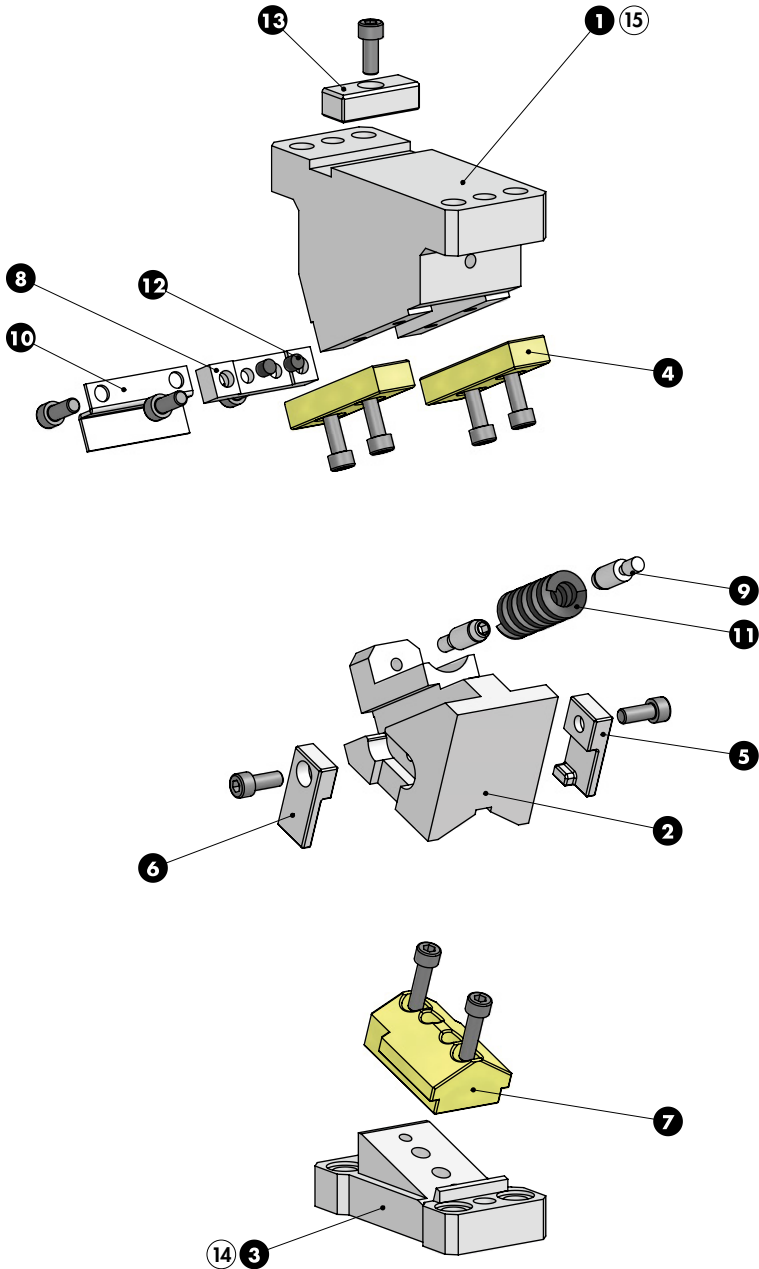


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	14,99	14,99	21,2
5°	45°	15,07	13,91	19,6
10°	45°	15,22	13,14	18,3
15°	45°	15,51	12,66	17,3
20°	45°	16,49	12,87	17,1
25°	50°	17,10	14,45	17,1
30°	45°	18,51	13,55	16,6
35°	50°	19,57	15,52	16,6
40°	45°	21,46	15,23	16,5
45°	50°	23,25	17,88	16,5
50°	45°	26,50	18,81	17,1
55°	50°	29,70	22,84	17,1
60°	45°	34,97	25,60	18,1
65°	50°	41,37	32,81	18,1
70°	55°	51,12	43,35	18,1



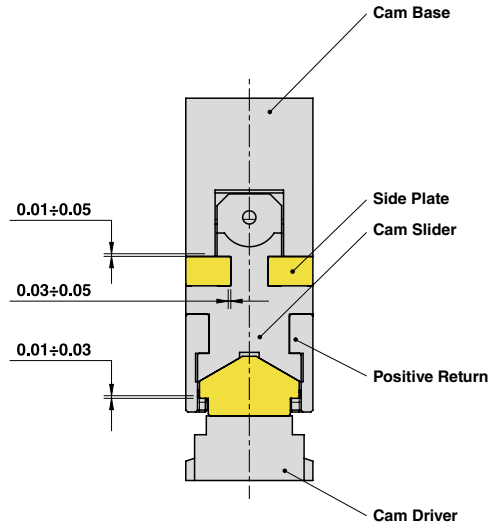
Cam Units CLC

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

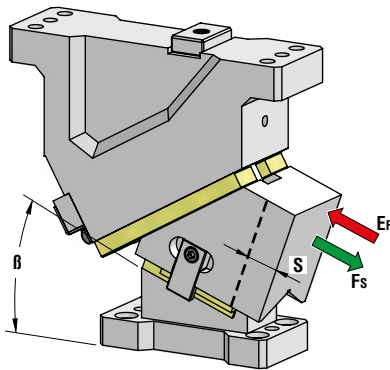
## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



## PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	GGG-45	1
2	Cam Slider	GG-25	1
3	Cam Driver	GG-25	1
4	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
5	Positive Return R	CK45	1
6	Positive Return L	CK45	1
7	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
8	Stopper Plate	St44	1
9	Spring Guide Pin	34CrMo4	2
10	Safety Plate	St44	1
11	Spring	-	1
12	Elastomer Cap	Elastomer 92SH	2
13	Key	CK45	1
14	Cam Driver Fixing Screws M12x35 DIN 912	-	4
15	Cam Base Fixing Screws M12x35 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Max Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Spring
CLC080.00	0°	32,14	83	1,09
CLC080.05	5°	38,45	83	1,20
CLC080.10	10°	38,89	83	1,09
CLC080.15	15°	39,65	83	0,97
CLC080.20	20°	46,08	83	1,09
CLC080.25	25°	47,78	83	0,97
CLC080.30	30°	54,25	83	1,09
CLC080.35	35°	57,36	83	0,97
CLC080.40	40°	64,28	83	1,09
CLC080.45	45°	69,64	83	0,97
CLC080.50	50°	77,79	83	1,09
CLC080.55	55°	87,17	83	0,97
CLC080.60	60°	98,48	83	0,85
CLC080.65	65°	81,56	83	0,65
CLC080.70	70°	86,38	83	0,58

### OPTION CODE

SL	1 ÷ 60 (1mm steps)
SW	100 or 120 mm
N	Ø 16 H7

### OPTION CODE

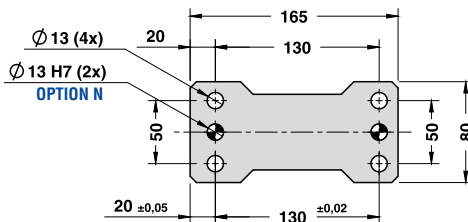
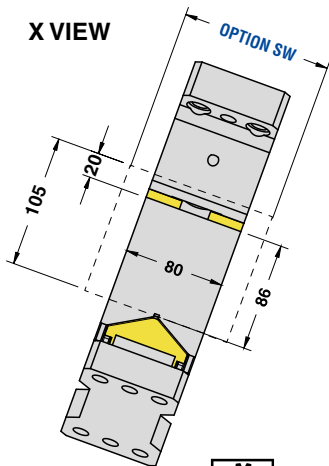


Art.	Work Angle = 5°	SL	SW	N
CLC080	05	SL55	SW120	N16

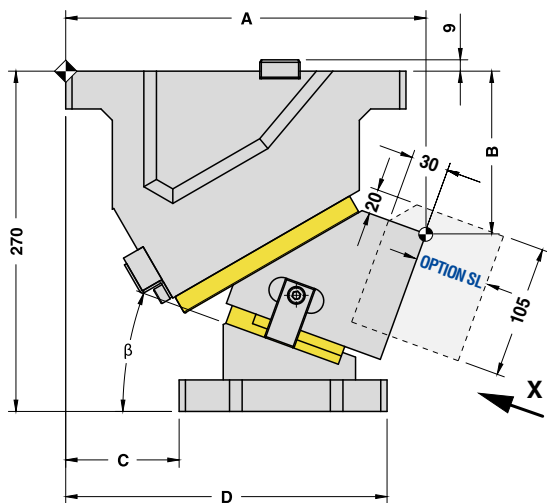
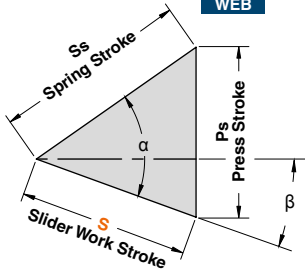
OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CLC080.00	0°	260	99	100	265	130
CLC080.05	5°	272,93	109,39	100	265	150
CLC080.10	10°	279,92	120,43	100	265	150
CLC080.15	15°	285,93	132,04	100	265	150
CLC080.20	20°	285,90	129,12	90	255	170
CLC080.25	25°	289,80	141,60	90	255	170
CLC080.30	30°	282,59	134,36	75	240	170
CLC080.35	35°	284,27	147,32	75	240	170
CLC080.40	40°	274,80	140,38	60	225	170
CLC080.45	45°	274,20	153,44	60	225	170
CLC080.50	50°	262,46	151,39	35	200	170
CLC080.55	55°	259,60	164,14	35	200	170
CLC080.60	60°	240,64	176,59	0	165	170
CLC080.65	65°	235,61	188,65	-5	160	170
CLC080.70	70°	227,83	195,53	-10	155	170



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

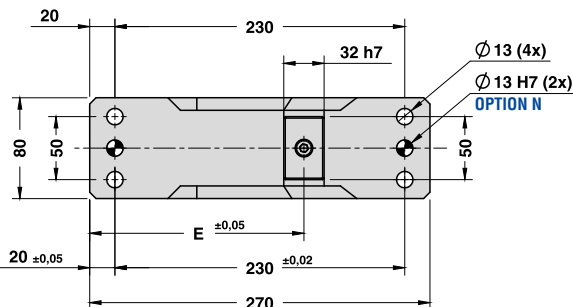


CAM DIAGRAM

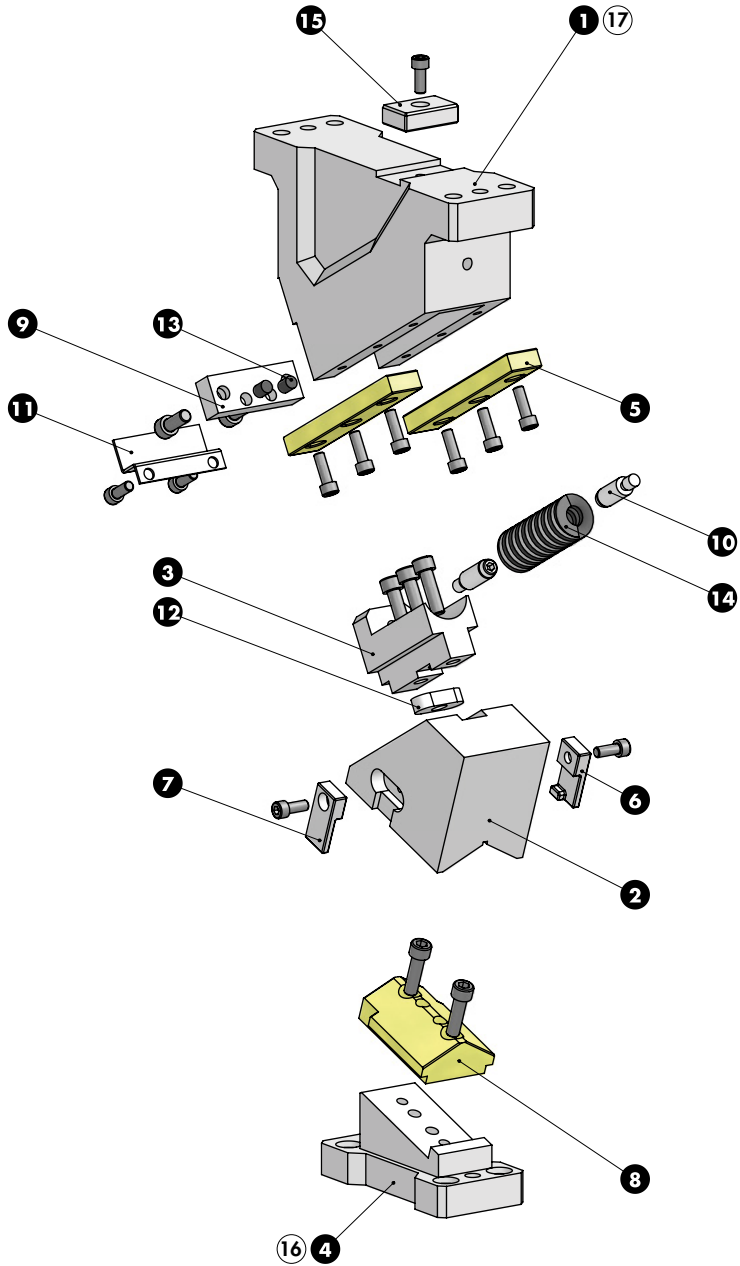


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss

0°	50°	32,14	38,30	50
5°	45°	38,45	35,49	50
10°	50°	38,89	38,89	50
15°	55°	39,65	42,40	50
20°	50°	46,08	40,76	50
25°	55°	47,78	45,19	50
30°	50°	54,25	44,23	50
35°	55°	57,36	50,00	50
40°	50°	64,28	50,00	50
45°	55°	69,64	57,92	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	50°	98,48	76,60	50
65°	55°	81,56	67,84	35
70°	60°	86,38	75,96	30

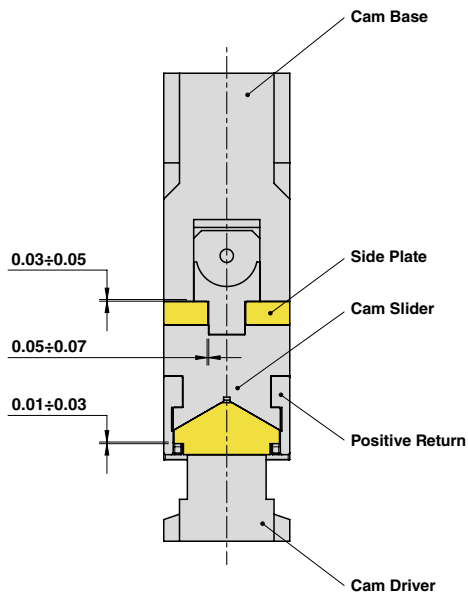


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

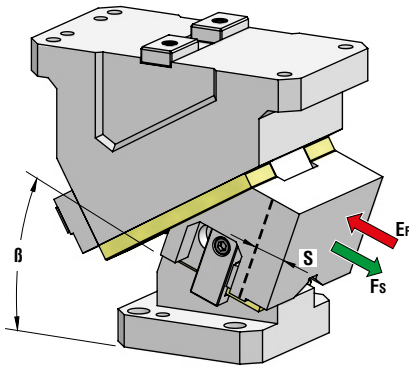
## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



## PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	GGG-45	1
2	Cam Slider	GG-25	1
3	Spring Guide Block	GGG-45 + Graphite	1
4	Cam Driver	GG-25	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return R	CK45	1
7	Positive Return L	CK45	1
8	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
9	Stopper Plate	St44	1
10	Spring Guide Pin	34CrMo4	2
11	Safety Plate	St44	1
12	Key	CK45	1
13	Elastomer Cap	Elastomer 92SH	2
14	Spring	-	1
15	Key	CK45	1
16	Cam Driver Fixing Screws M12x40 DIN 912	-	4
17	Cam Base Fixing Screws M12x45 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Max Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Spring
CLC150.00	0°	32,14	140	4,18
CLC150.05	5°	32,26	140	3,73
CLC150.10	10°	38,89	140	4,18
CLC150.15	15°	39,65	140	3,73
CLC150.20	20°	46,08	140	4,18
CLC150.25	25°	47,78	140	3,73
CLC150.30	30°	54,25	140	4,18
CLC150.35	35°	57,36	140	3,73
CLC150.40	40°	64,28	140	4,18
CLC150.45	45°	69,64	140	3,73
CLC150.50	50°	77,79	140	4,18
CLC150.55	55°	87,17	140	3,73
CLC150.60	60°	98,48	140	3,25
CLC150.65	65°	93,21	140	2,40
CLC150.70	70°	86,38	140	1,66

### OPTION CODE

N	Ø16 H7
---	--------

### OPTION CODE

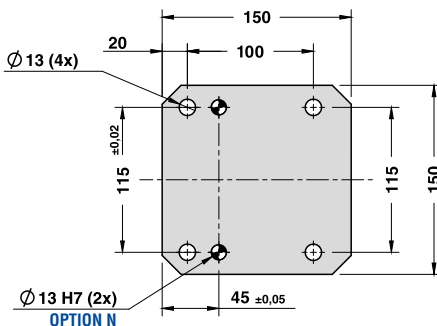
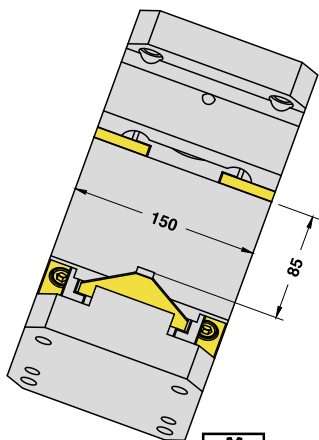


Art.	Work Angle = 5°	N
CLC150	05	N16

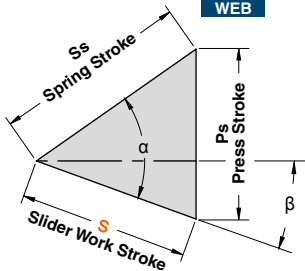
OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CLC150.00	0°	280	85	120	270	100
CLC150.05	5°	288,26	95,84	115	265	100
CLC150.10	10°	285,54	102,36	105	255	100
CLC150.15	15°	291,79	114,47	105	255	100
CLC150.20	20°	286,97	122,07	90	240	135
CLC150.25	25°	291,02	135,08	90	240	135
CLC150.30	30°	283,92	138,40	70	220	135
CLC150.35	35°	285,66	151,91	70	220	135
CLC150.40	40°	276,20	155,53	45	195	170
CLC150.45	45°	275,56	169,14	45	195	170
CLC150.50	50°	263,74	167,65	25	175	170
CLC150.55	55°	260,74	180,94	25	175	170
CLC150.60	60°	246,60	193,92	0	150	170
CLC150.65	65°	241,35	206,49	0	150	170
CLC150.70	70°	240,01	218,56	-5	145	170

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

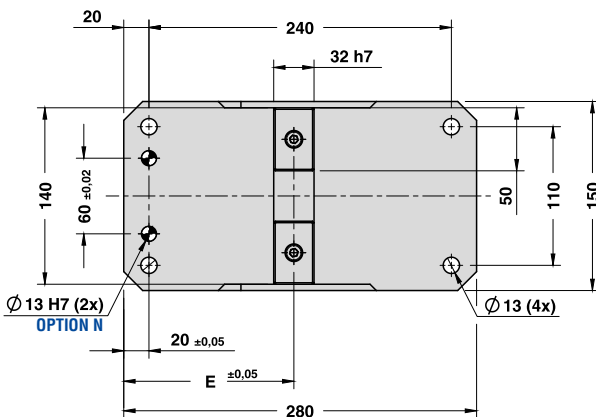
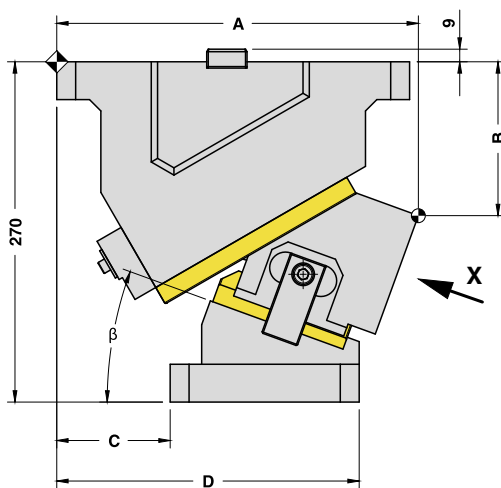
### X VIEW



### CAM DIAGRAM

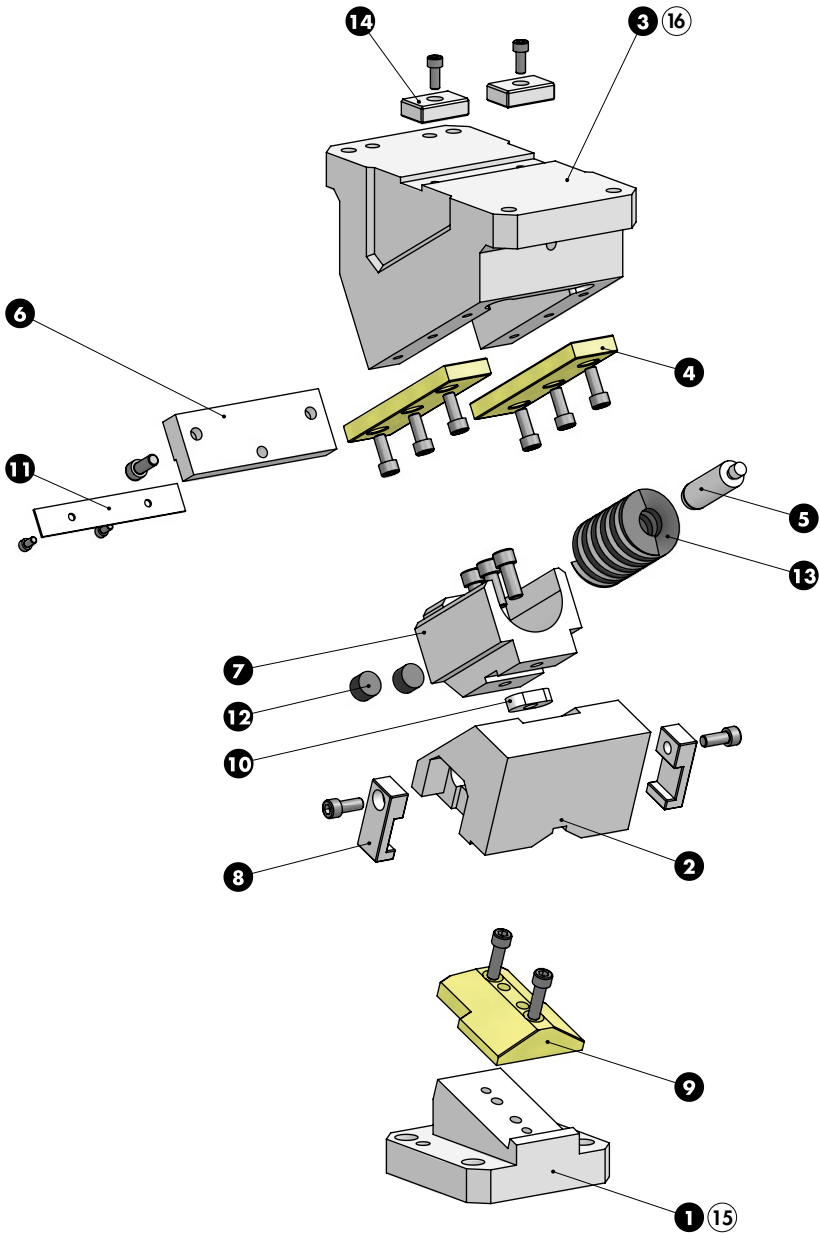


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	32,14	38,30	50
5°	55°	32,26	41,11	50
10°	50°	38,89	38,89	50
15°	55°	39,65	42,40	50
20°	50°	46,08	40,76	50
25°	55°	47,78	45,19	50
30°	50°	54,25	44,23	50
35°	55°	57,36	50,00	50
40°	50°	64,28	50,00	50
45°	55°	69,64	57,92	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	50°	98,48	76,60	50
65°	55°	93,21	77,53	40
70°	60°	86,38	75,96	30



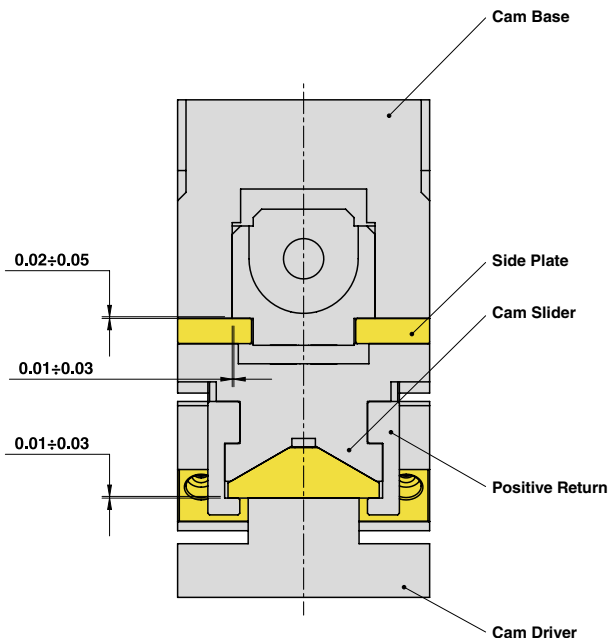
Cam Units CLC

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



PART LIST

Particular number	Description	Material	Quantity
1	Cam Driver	GG-25	1
2	Cam Slider	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
5	Spring Guide Pin	34CrMo4	1
6	Stopper Plate	St44	1
7	Spring Guide Block	GGG-45 + Graphite	1
8	Positive Return	CK45	2
9	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
10	Key	CK45	1
11	Safety Plate	St44	1
12	Elastomer Cap	Elastomer 92SH	2
13	Spring	-	1
14	Key	CK45	2
15	Cam Driver Fixing Screws M12x45 DIN 912	-	4
16	Cam Base Fixing Screws M12x45 DIN 912	-	4



Cam Units CLD  
Schieber CLD  
Unità a Camme CLD

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



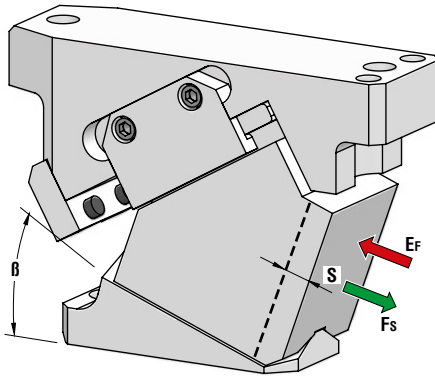
OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	E <sub>f</sub>	
CLD052	0÷80°	52	125 (0°÷70°) 150 (75°÷80°)	52 x 11	31	0,18÷0,66	818

Cam Units CLD



Employees competence

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub>
CLD052.00	0°	19,28	31	0,66
CLD052.05	5°	21,29	31	0,66
CLD052.10	10°	23,34	31	0,66
CLD052.15	15°	25,44	31	0,66
CLD052.20	20°	27,65	31	0,66
CLD052.25	25°	30	31	0,66
CLD052.30	30°	32,55	31	0,66
CLD052.35	35°	35,38	31	0,66
CLD052.40	40°	38,57	31	0,66
CLD052.45	45°	42,26	31	0,66
CLD052.50	50°	46,67	31	0,66
CLD052.55	55°	52,30	31	0,59
CLD052.60	60°	60	31	0,52
CLD052.65	65°	47,32	31	0,43
CLD052.70	70°	58,48	31	0,35
CLD052.75	75°	46,36	31	0,27
CLD052.80	80°	57,59	31	0,18

### OPTION CODE

SL 1 ÷ 60 (1mm steps)

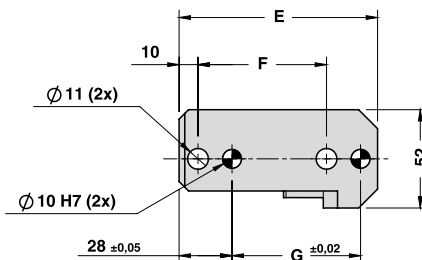
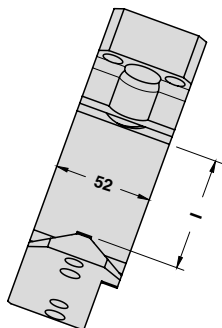


			OPTION CODE
Art.	Work Angle = 5°		SL
CLD052	05		SL55

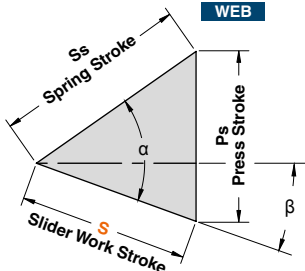
OMCR CODE	Work Angle	Overall Dimensions (mm)								
	$\beta$	A	B	C	D	E	F	G	H	I
CLD052.00	0°	150	43	45	150	105	68	68	125	60
CLD052.05	5°	153,10	45,21	42	147	105	68	68	125	60
CLD052.10	10°	153,55	47,83	37	142	105	68	68	125	60
CLD052.15	15°	153,32	50,82	32	137	105	68	68	125	60
CLD052.20	20°	153,38	55,10	27	132	105	68	68	125	60
CLD052.25	25°	154,71	58,62	20	125	105	68	68	125	60
CLD052.30	30°	153,28	63,31	17	122	105	68	68	125	60
CLD052.35	35°	152,09	67,10	10	115	105	68	68	125	60
CLD052.40	40°	149,14	71,93	4	109	105	68	68	125	60
CLD052.45	45°	145,41	75,73	-4	101	105	68	68	125	60
CLD052.50	50°	143,92	79,43	-9	96	105	68	68	125	60
CLD052.55	55°	144,67	82,97	-10	95	105	68	68	125	60
CLD052.60	60°	150,69	90,28	-9	96	105	68	68	125	60
CLD052.65	65°	130,16	99,54	-45	60	105	68	68	125	60
CLD052.70	70°	133,62	106,97	-40	65	105	68	68	125	60
CLD052.75	75°	148,74	124,59	-30	81	111	55	55	150	70
CLD052.80	80°	148,74	124,59	-30	80	110	55	55	150	70

AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

X VIEW

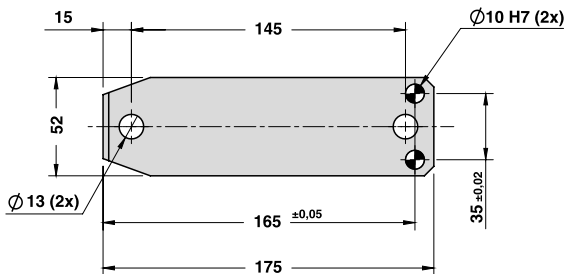
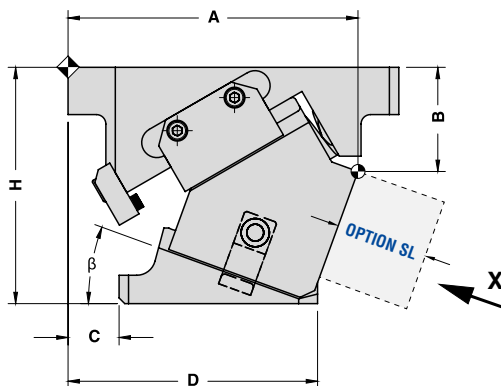


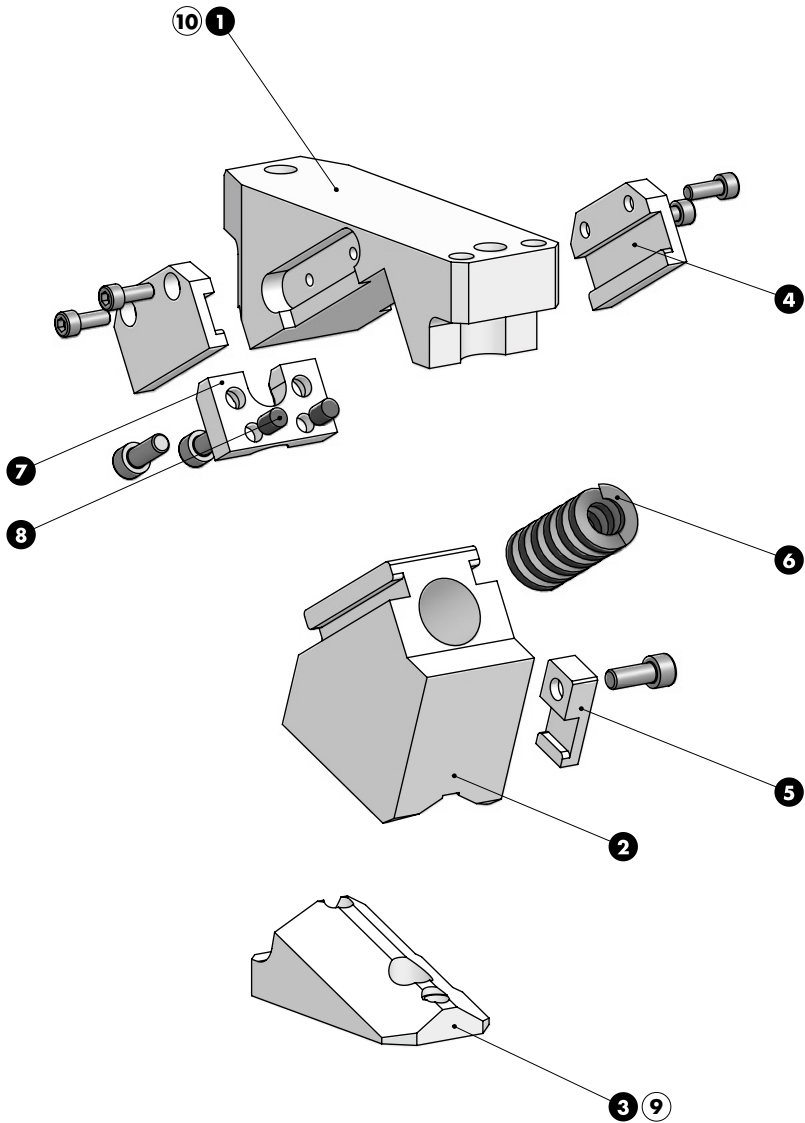
CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss

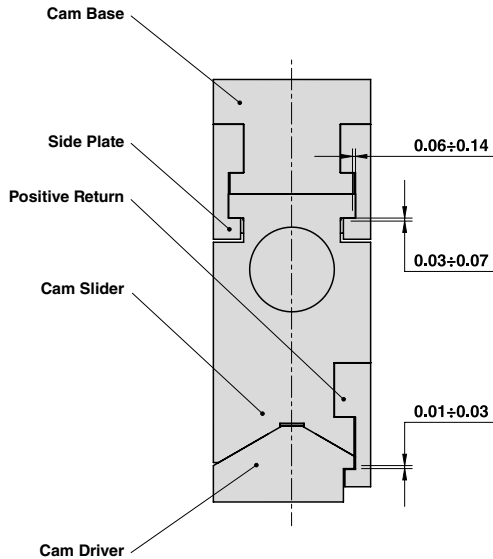
0°	50°	19,28	22,98	30
5°	50°	21,29	23,07	30
10°	50°	23,34	23,34	30
15°	50°	25,44	23,79	30
20°	50°	27,65	24,46	30
25°	50°	30,00	25,36	30
30°	50°	32,55	26,54	30
35°	50°	35,38	28,06	30
40°	50°	38,57	30,00	30
45°	50°	42,26	32,50	30
50°	50°	46,67	35,75	30
55°	55°	52,30	42,84	30
60°	60°	60,00	51,96	30
65°	65°	47,32	42,89	20
70°	70°	58,48	54,95	20
75°	75°	46,36	44,78	12
80°	80°	57,59	56,71	10





**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**

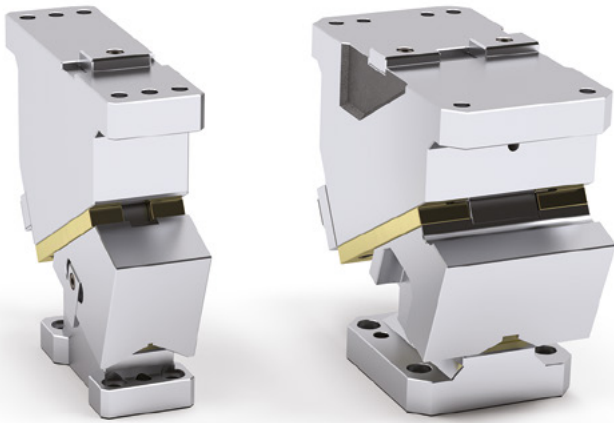
**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



Cam Units CLD

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	GG-25	1
2	Cam Slider	GG-25 + Graphite	1
3	Cam Driver	GG-25	1
4	Side Plate	CK45 + Graphite	2
5	Positive Return	CK45	1
6	Spring	-	1
7	Stopper Plate	St44	1
8	Elastomer Cap	Elastomer 92SH	2
9	Cam Driver Fixing Screws M10x30 DIN 912	-	2
10	Cam Base Fixing Screws M12x40 DIN 912	-	2

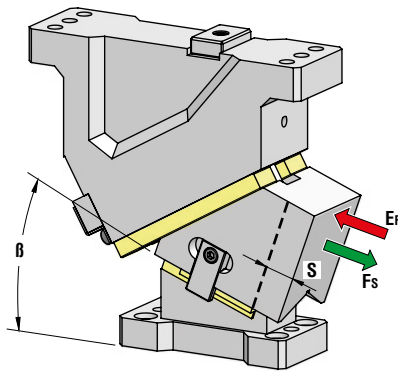


Cam Units CLF  
Schieber CLF  
Unità a Camme CLF

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	F <sub>f</sub>	
<b>CLF080</b>	0÷70°	80	270	80x86	116	1,26÷2,72	824
<b>CLF150</b>	0÷70°	150	270	150x85	192	3,66÷7,25	828

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$ Spring
CLF080.00	0°	32,14	116	2,47
CLF080.05	5°	38,45	116	2,72
CLF080.10	10°	38,89	116	2,47
CLF080.15	15°	39,65	116	2,21
CLF080.20	20°	46,08	116	2,47
CLF080.25	25°	47,78	116	2,21
CLF080.30	30°	54,25	116	2,47
CLF080.35	35°	57,36	116	2,21
CLF080.40	40°	64,28	116	2,47
CLF080.45	45°	69,64	116	2,21
CLF080.50	50°	77,79	116	2,47
CLF080.55	55°	87,17	116	2,21
CLF080.60	60°	98,48	116	1,92
CLF080.65	65°	81,56	116	1,59
CLF080.70	70°	86,38	116	1,26

### OPTION CODE

SL	1 ÷ 60 (1mm steps)
SW	100 or 120 mm
N	Ø 16 H7

### OPTION CODE

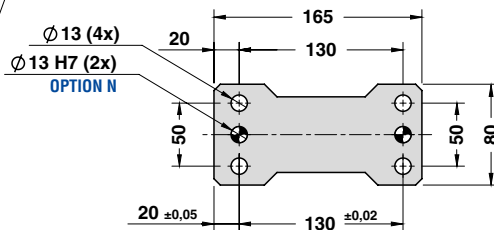
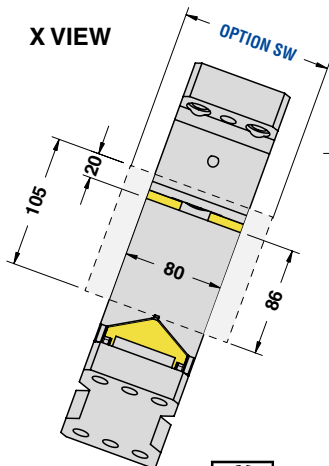
Art.	Work Angle = 5°	OPTION CODE		
		SL	SW	N
CLF080	05	SL55	SW120	N16

OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CLF080.00	0°	260	99	100	265	130
CLF080.05	5°	272,93	109,39	100	265	150
CLF080.10	10°	279,92	120,43	100	265	150
CLF080.15	15°	285,93	132,04	100	265	150
CLF080.20	20°	285,90	129,12	90	255	170
CLF080.25	25°	289,80	141,60	90	255	170
CLF080.30	30°	282,59	134,36	75	240	170
CLF080.35	35°	284,27	147,32	75	240	170
CLF080.40	40°	274,80	140,38	60	225	170
CLF080.45	45°	274,20	153,44	60	225	170
CLF080.50	50°	262,46	151,39	35	200	170
CLF080.55	55°	259,60	164,14	35	200	170
CLF080.60	60°	240,64	176,59	0	165	170
CLF080.65	65°	235,61	188,65	-5	160	170
CLF080.70	70°	227,83	195,53	-10	155	170

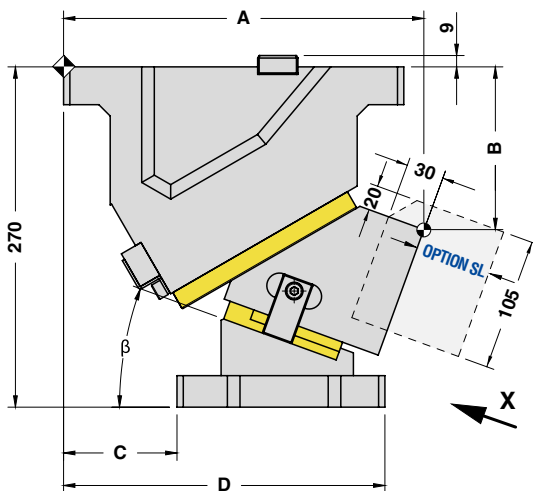
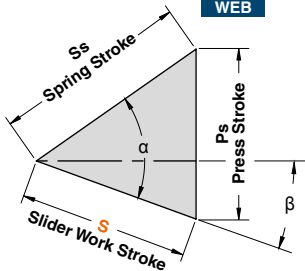


AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

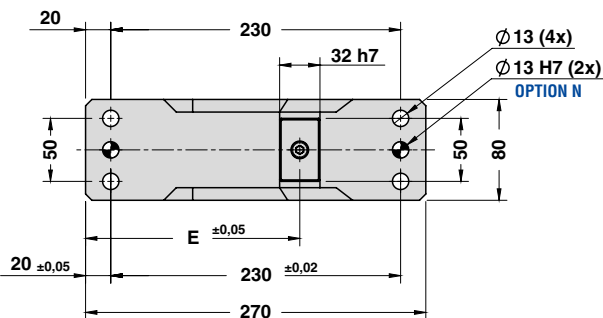
X VIEW



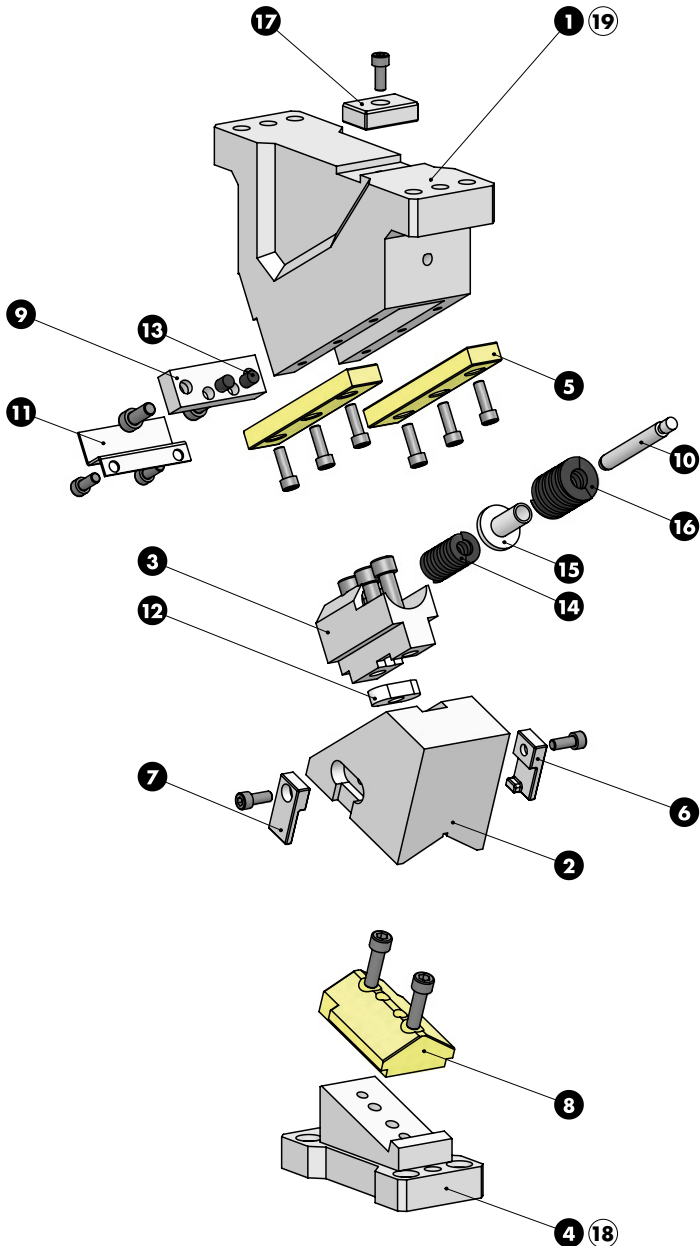
CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	32,14	38,30	50
5°	45°	38,45	35,49	50
10°	50°	38,89	38,89	50
15°	55°	39,65	42,40	50
20°	50°	46,08	40,76	50
25°	55°	47,78	45,19	50
30°	50°	54,25	44,23	50
35°	55°	57,36	50,00	50
40°	50°	64,28	50,00	50
45°	55°	69,64	57,92	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	50°	98,48	76,60	50
65°	55°	81,56	67,84	35
70°	60°	86,38	75,96	30

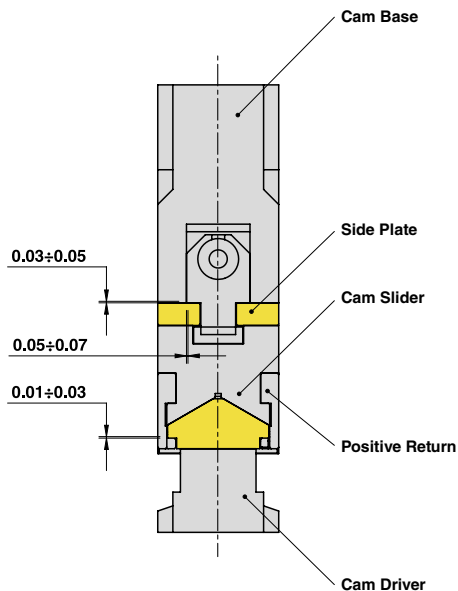


## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

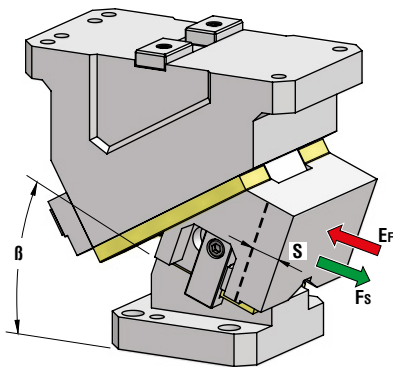
## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



## PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	GGG-45	1
2	Cam Slider	GG-25	1
3	Spring Guide Block	GGG-45 + Graphite	1
4	Cam Driver	GG-25	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Positive Return R	CK45	1
7	Positive Return L	CK45	1
8	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
9	Stopper Plate	St44	1
10	Spring Guide Pin	34CrMo4	1
11	Safety Plate	St44	1
12	Key	CK45	1
13	Elastomer Cap	Elastomer 92SH	2
14	Spring	-	1
15	Spring Spacer	CK45	1
16	Spring	-	1
17	Key	CK45	1
18	Cam Driver Fixing Screws M12x40 DIN 912	-	4
19	Cam Base Fixing Screws M12x45 DIN 912	-	4

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	$F_s$	$E_f$
CLF150.00	0°	32,14	192	7,25
CLF150.05	5°	32,26	192	6,47
CLF150.10	10°	38,89	192	7,25
CLF150.15	15°	39,65	192	6,47
CLF150.20	20°	46,08	192	7,25
CLF150.25	25°	47,78	192	6,47
CLF150.30	30°	54,25	192	7,25
CLF150.35	35°	57,36	192	6,47
CLF150.40	40°	64,28	192	7,25
CLF150.45	45°	69,64	192	6,47
CLF150.50	50°	77,79	192	7,25
CLF150.55	55°	87,17	192	6,47
CLF150.60	60°	98,48	192	5,64
CLF150.65	65°	93,21	192	4,64
CLF150.70	70°	86,38	192	3,66

### OPTION CODE

N	Ø 16 H7
---	---------

### OPTION CODE

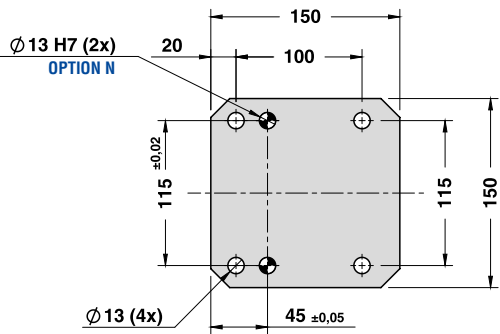
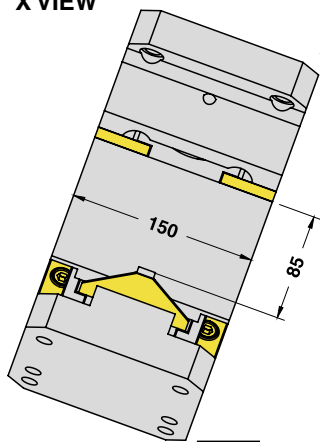


Art.	Work Angle = 5°	N
CLF150	05	N16

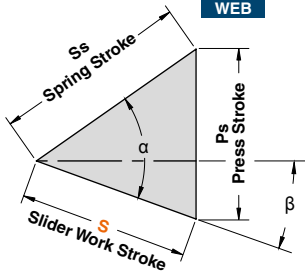
OMCR CODE	Work Angle	Overall Dimensions (mm)				
	$\beta$	A	B	C	D	E
CLF150.00	0°	280	85	120	270	100
CLF150.05	5°	288,26	95,84	115	265	100
CLF150.10	10°	285,54	102,36	105	255	100
CLF150.15	15°	291,79	114,47	105	255	100
CLF150.20	20°	286,97	122,07	90	240	135
CLF150.25	25°	291,02	135,08	90	240	135
CLF150.30	30°	283,92	138,40	70	220	135
CLF150.35	35°	285,66	151,91	70	220	135
CLF150.40	40°	276,20	155,53	45	195	170
CLF150.45	45°	275,56	169,14	45	195	170
CLF150.50	50°	263,74	167,65	25	175	170
CLF150.55	55°	260,74	180,94	25	175	170
CLF150.60	60°	246,60	193,92	0	150	170
CLF150.65	65°	241,35	206,49	0	150	170
CLF150.70	70°	240,01	218,56	-5	145	170

## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

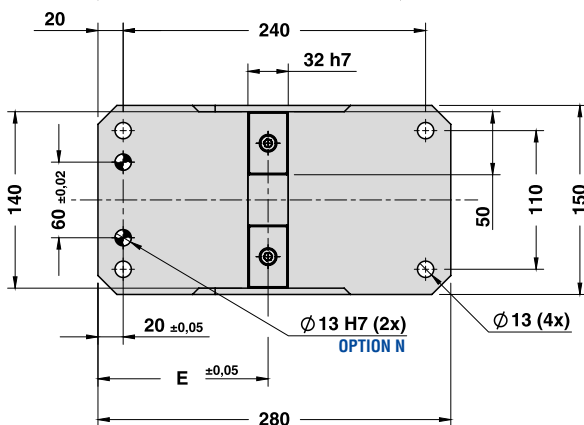
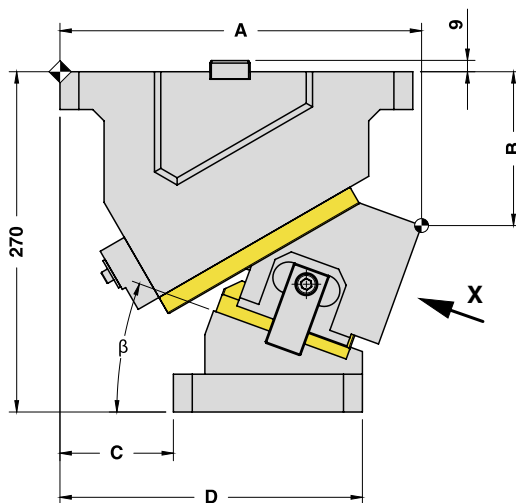
### X VIEW



### CAM DIAGRAM

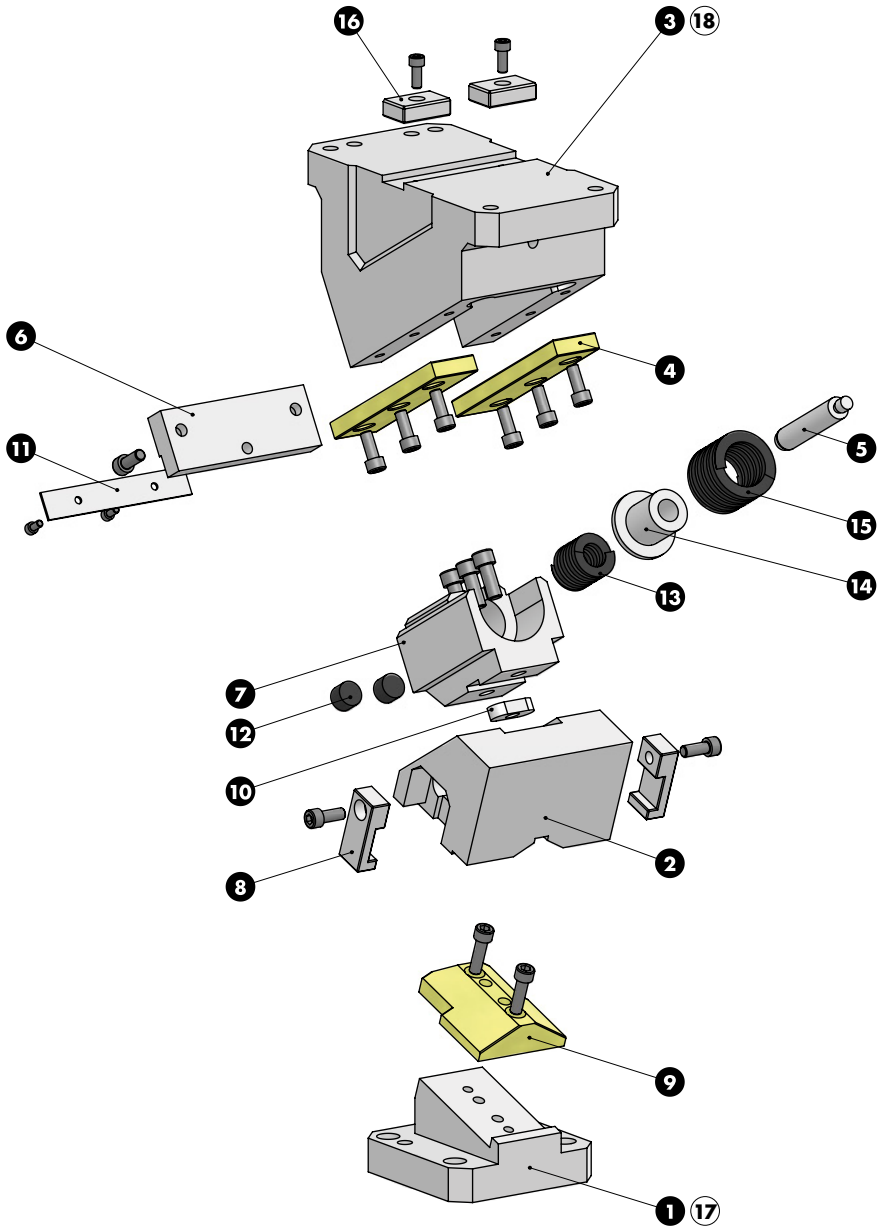


Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	32,14	38,30	50
5°	45°	32,26	41,11	50
10°	50°	38,89	38,89	50
15°	55°	39,65	42,40	50
20°	50°	46,08	40,76	50
25°	55°	47,78	45,19	50
30°	50°	54,25	44,23	50
35°	55°	57,36	50,00	50
40°	50°	64,28	50,00	50
45°	55°	69,64	57,92	50
50°	50°	77,79	59,59	50
55°	55°	87,17	71,41	50
60°	50°	98,48	76,60	50
65°	55°	93,21	77,53	40
70°	60°	86,38	75,96	30



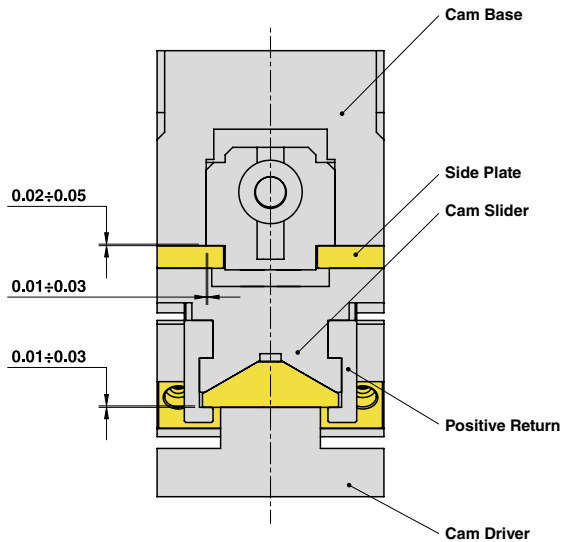
Cam Units CLF

**AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA**



## AERIAL CAM UNIT - OBEN HÄNGENDER SCHIEBER - UNITÀ A CAMME SOSPESA

## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



## PART LIST

Particular number	Description	Material	Quantity
1	Cam Driver	GG-25	1
2	Cam Slider	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
5	Spring Guide Pin	34CrMo4	1
6	Stopper Plate	St44	1
7	Spring Guide Block	GGG-45 + Graphite	1
8	Positive Return	CK45	2
9	Male "V" Driver	CuZn25Al5 + Graphite - HB > 190	1
10	Key	CK45	1
11	Safety Plate	St44	1
12	Elastomer Cap	Elastomer 92SH	2
13	Spring	-	1
14	Spring Spacer	CK45	1
15	Spring	-	1
16	Key	CK45	2
17	Cam Driver Fixing Screws M12x45 DIN 912	-	4
18	Cam Base Fixing Screws M12x45 DIN 912	-	4



Cam Units CRX  
Schieber CRX  
Unità a Camme CRX



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS





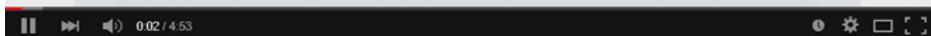
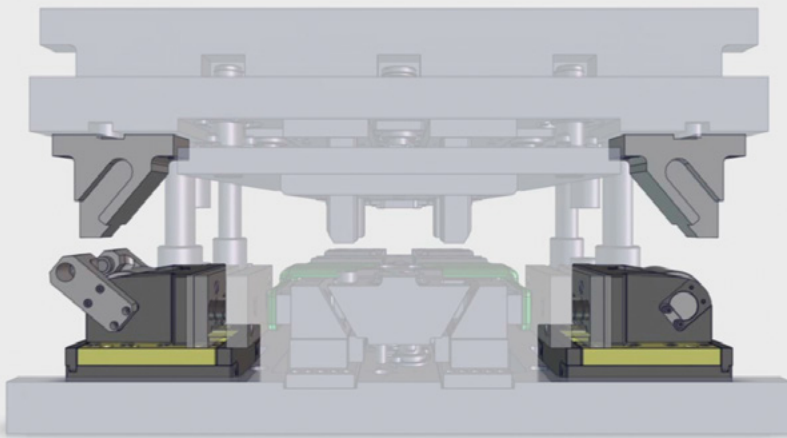
UTILITY MODEL 20 2014 90 2313403

OMCR CODE	Work Angle	Slider Width (mm)	Work Area W x H (mm)	Max Work Force 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$			Fs	Ef	
CRX01	-15°÷50°	78	78x63	45	2,5÷3,4	834
CRX03	-15°÷50°	98	98x63	76	3,4÷3,6	840
CRX05	-15°÷50°	118	118x74	142	6,36÷6,46	846
CRX15	-15°÷50°	170	170x94	166	6,45÷6,61	852
CRX20	-15°÷50°	240	240x110	258	9,29÷9,38	858

ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO

OMCR CODE	Roller Cam Model	Work Angle $\beta$	Page number
DCRX0100	CRX01	-15°÷50° (5° steps)	864
DCRX0305	CRX03 - CRX05	-15°÷50° (5° steps)	866
DCRX1520	CRX15 - CRX20	-15°÷50° (5° steps)	868

100% SAFETY WITH POSITIVE RETURN - 100 % SICHERHEIT MIT DER ZWANGSRÜCKHOLUNG  
100% SICURA CON IL GANCIO DI RITORNO



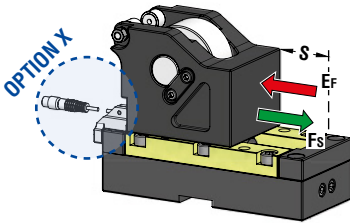
CRX: how does it work?  
CRX: wie funktioniert es?  
CRX: come funziona?



Cam Units CRX



**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**



OMCR CODE	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)
			Ef
	S	Fs	Gas Spring
CRX01.030	30	45	2,5
CRX01.050	48	45	3,4

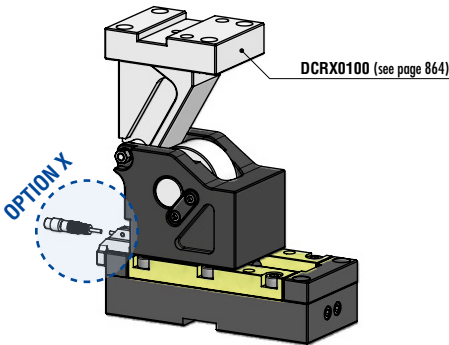


WEB

WEB

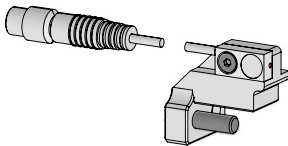
P.624

**With Driver - OPTION DRIVER**



OPTION DRIVER	Work angle ( $\beta$ )
H15	-15°
H10	-10°
H05	-5°
000	0
L05	5°
L10	10°
L15	15°
L20	20°
L25	25°
L30	30°
L35	35°
L40	40°
L45	45°
L50	50°

**Back Position Check - OPTION X**



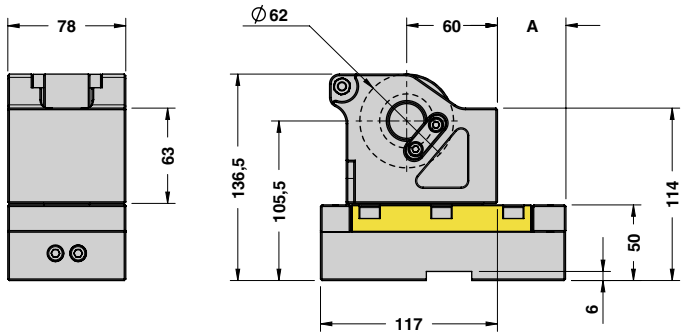
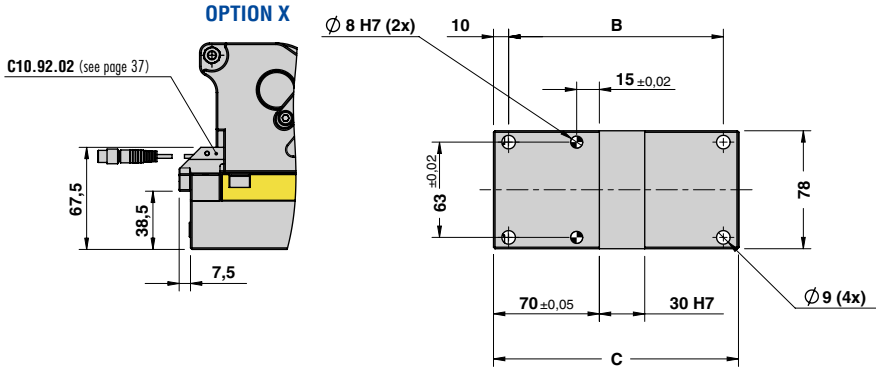
Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

STOCK	ORDER EXAMPLE	Art.	OPTION DRIVER	OPTION X
		CRX01.050	000	X

OMCR CODE	Stroke (mm)	Overall Dimensions (mm)		
	S	A	B	C
CRX01.030	30	45	142	162
CRX01.050	48	65	162	182



ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

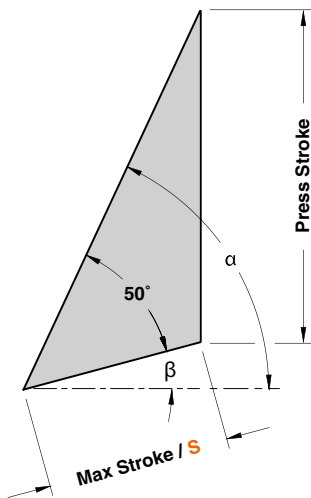
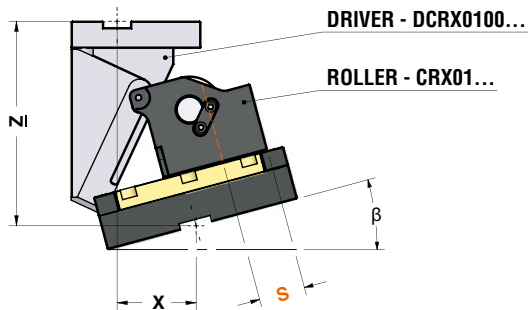


Cam Units CRX

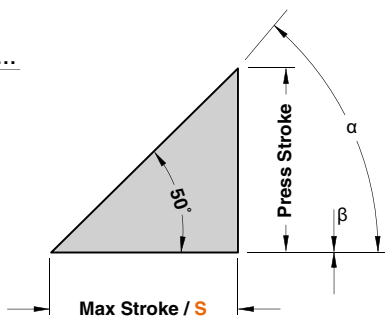
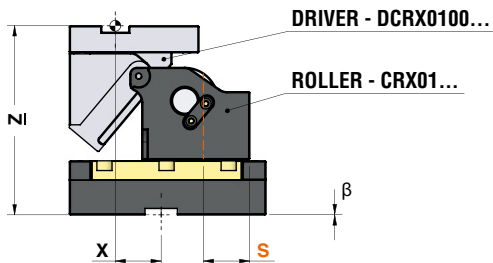


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

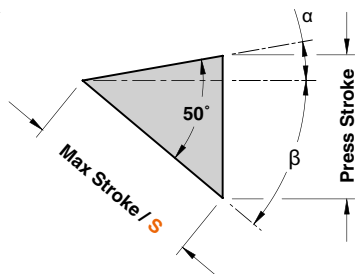
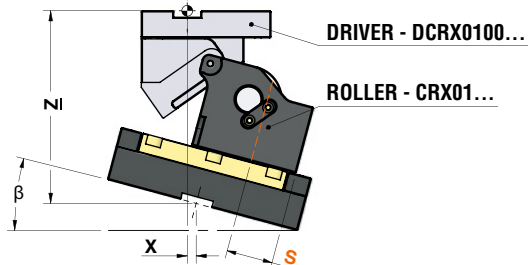
WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



WORK ANGLE ( $\beta$ )= $0^\circ$



WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$





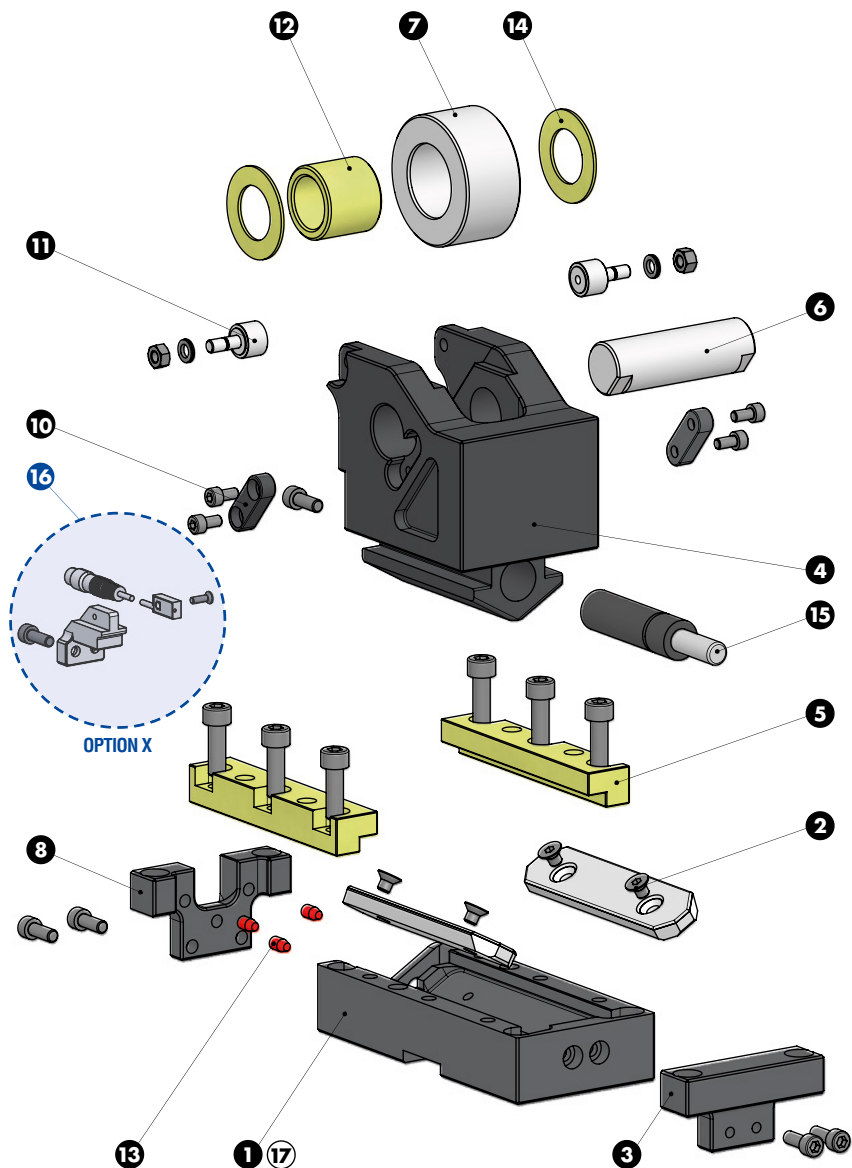
## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

\*For more info see page 834 / Weitere Informationen finden Sie auf der Seite 834 / Per maggiori informazioni consultare la pagina 834

ROLLER CAM CODE	Work Angle $\beta$	$\alpha$	Max Stroke S (mm)	Press Stroke (mm)	*CAM DRIVER CODE	X (mm)	Z (mm)
CRX01.030	-15°	65°	30	54,4	DCRX0100.30.H15	73,20	175,60
	-10°	60°	30	46,0	DCRX0100.30.H10	63,49	174,00
	-5°	55°	30	40,1	DCRX0100.30.H05	53,23	169,90
	0°	50°	30	35,8	DCRX0100.30.000	42,50	175,00
	5°	45°	30	32,5	DCRX0100.30.L05	31,37	172,50
	10°	40°	30	30,0	DCRX0100.30.L10	19,93	175,00
	15°	35°	30	28,1	DCRX0100.30.L15	8,27	176,94
	20°	30°	30	26,5	DCRX0100.30.L20	-3,52	178,46
	25°	25°	30	25,4	DCRX0100.30.L25	-15,36	174,64
	30°	20°	30	24,5	DCRX0100.30.L30	-27,15	173,54
	35°	15°	30	23,8	DCRX0100.30.L35	-38,80	171,21
	40°	10°	30	23,3	DCRX0100.30.L40	-50,23	166,66
	45°	5°	30	23,1	DCRX0100.30.L45	-61,35	161,93
50°	0°	30	23,0	DCRX0100.30.L50	-72,07	157,02	
CRX01.050	-15°	65°	50	87,01	DCRX0100.50.H15	73,20	192,99
	-10°	60°	50	73,54	DCRX0100.50.H10	63,49	186,46
	-5°	55°	50	64,11	DCRX0100.50.H05	53,23	190,09
	0°	50°	50	57,2	DCRX0100.50.000	42,50	177,38
	5°	45°	50	52	DCRX0100.50.L05	31,37	182,00
	10°	40°	50	48	DCRX0100.50.L10	19,93	177,00
	15°	35°	50	44,89	DCRX0100.50.L15	8,27	179,81
	20°	30°	50	42,46	DCRX0100.50.L20	-3,52	177,54
	25°	25°	50	40,57	DCRX0100.50.L25	-15,36	174,43
	30°	20°	50	39,13	DCRX0100.50.L30	-27,15	170,87
	35°	15°	50	38,07	DCRX0100.50.L35	-38,80	171,93
	40°	10°	50	37,34	DCRX0100.50.L40	-50,23	162,66
	45°	5°	50	36,91	DCRX0100.50.L45	-61,35	158,09
50°	0°	50	36,77	DCRX0100.50.L50	-72,07	153,23	



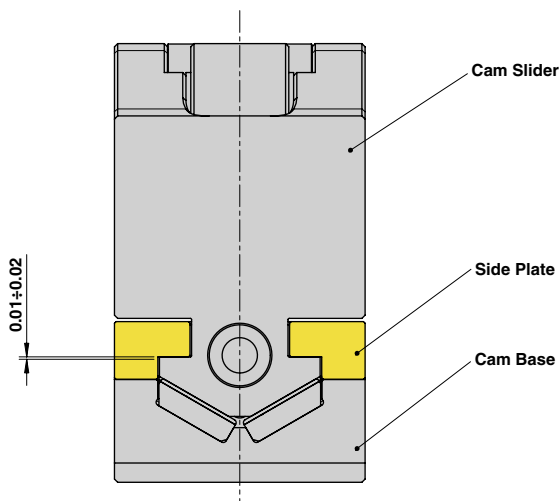
ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO





## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

### SLIDER STRUCTURE AND CLEARANCES



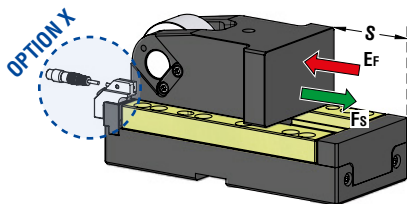
### PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Wear Plate	Si42 + Syntered layer	2
3	Spring Stopper Plate	CK45	1
4	Cam Slider	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Pin	16NiCrMo4	1
7	Roller	100Cr6	1
8	Stopper Plate	CK45	1
10	Key	CK45	2
11	Roller KRV16PPA	CK45	2
12	Self-Lubricating Bush	CuZn25Al5 + Graphite - HB > 190	1
13	Elastomer Cap	Elastomer 92SH	3
14	Washer PCMW 264401.5M	-	2
15	Gas Spring	-	1
16	Back Position Check - <a href="#">OPTION X</a>	-	1
17	Cam Base Fixing Screws M8x30 DIN 912	-	4



ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

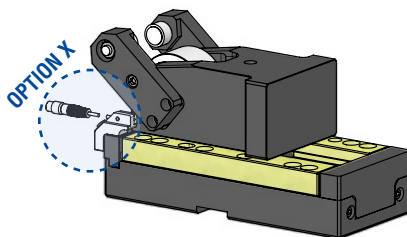
Without Positive Return - **OPTION K**



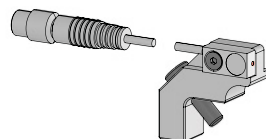
OMCR CODE	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)	
			Ef	
			S	Gas Spring
CRX03.050	48	76	3,4	
CRX03.080	78	76	3,4	
CRX03.100	98	76	3,6	



With Positive Return - **OPTION P**

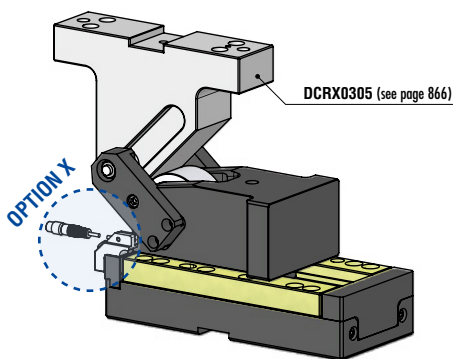


Back Position Check - **OPTION X**



Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

With Driver - **OPTION DRIVER**



OPTION DRIVER	Work angle (β)
H15	-15°
H10	-10°
H05	-5°
000	0
L05	5°
L10	10°
L15	15°
L20	20°
L25	25°
L30	30°
L35	35°
L40	40°
L45	45°
L50	50°

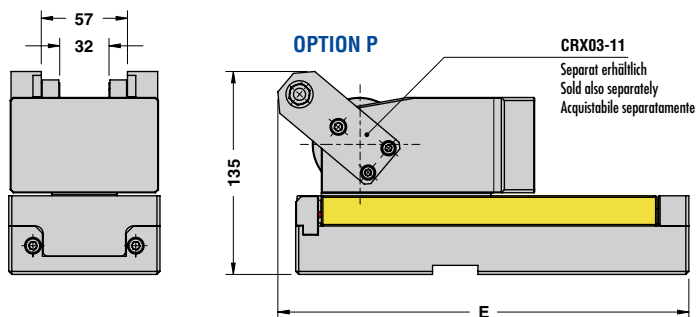
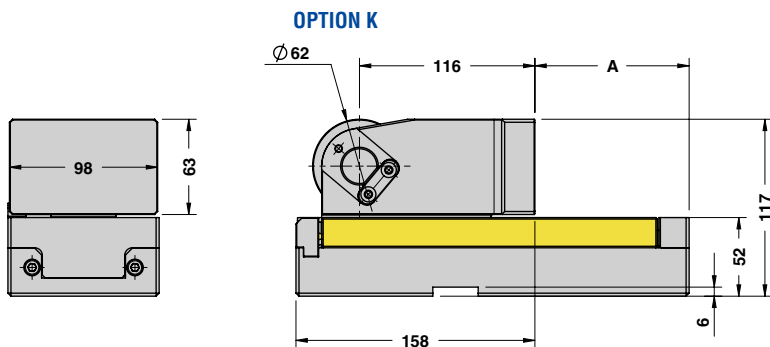
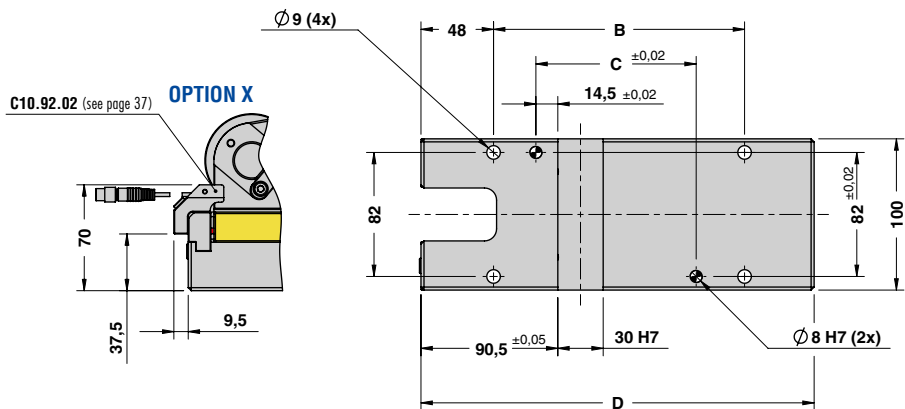
STOCK	ORDER EXAMPLE	Art.	OPTION K-P	OPTION DRIVER	OPTION X
		CRX03.080	P	000	X

OMCR CODE	Stroke (mm)	Overall Dimensions (mm)				
		S	A	B	C	D
CRX03.050	48	42	116	56	200	212
CRX03.080	78	72	146	86	230	242
CRX03.100	98	102	166	106	260	272





ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

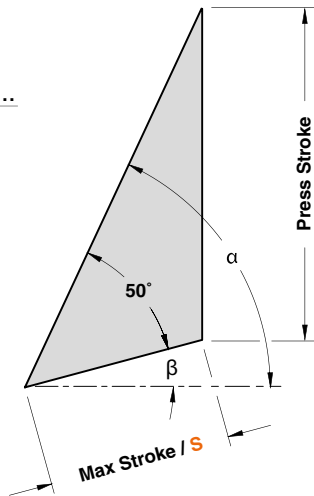
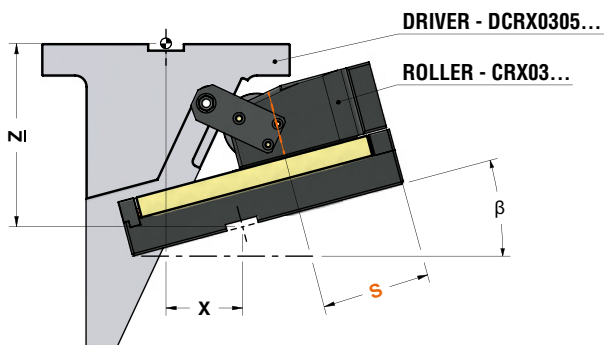


Cam Units CRX

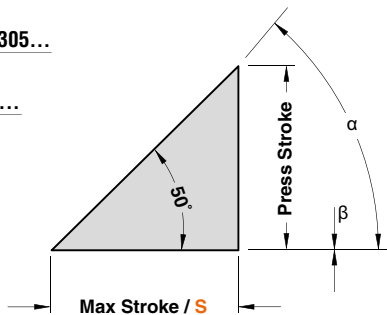
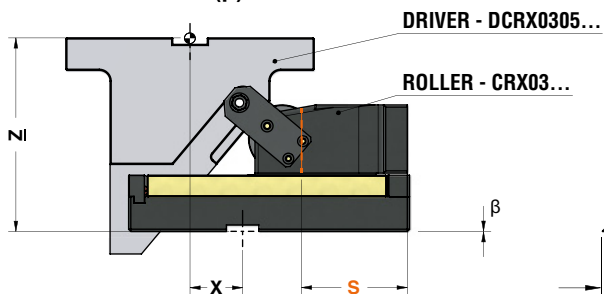


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

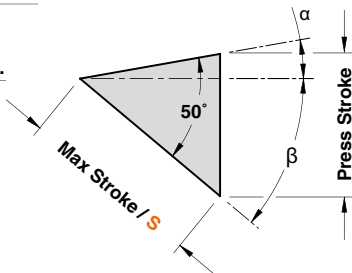
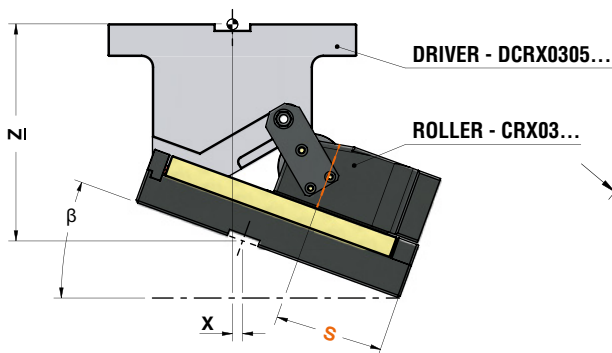
WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



WORK ANGLE ( $\beta$ ) =  $0^\circ$



WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$





## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

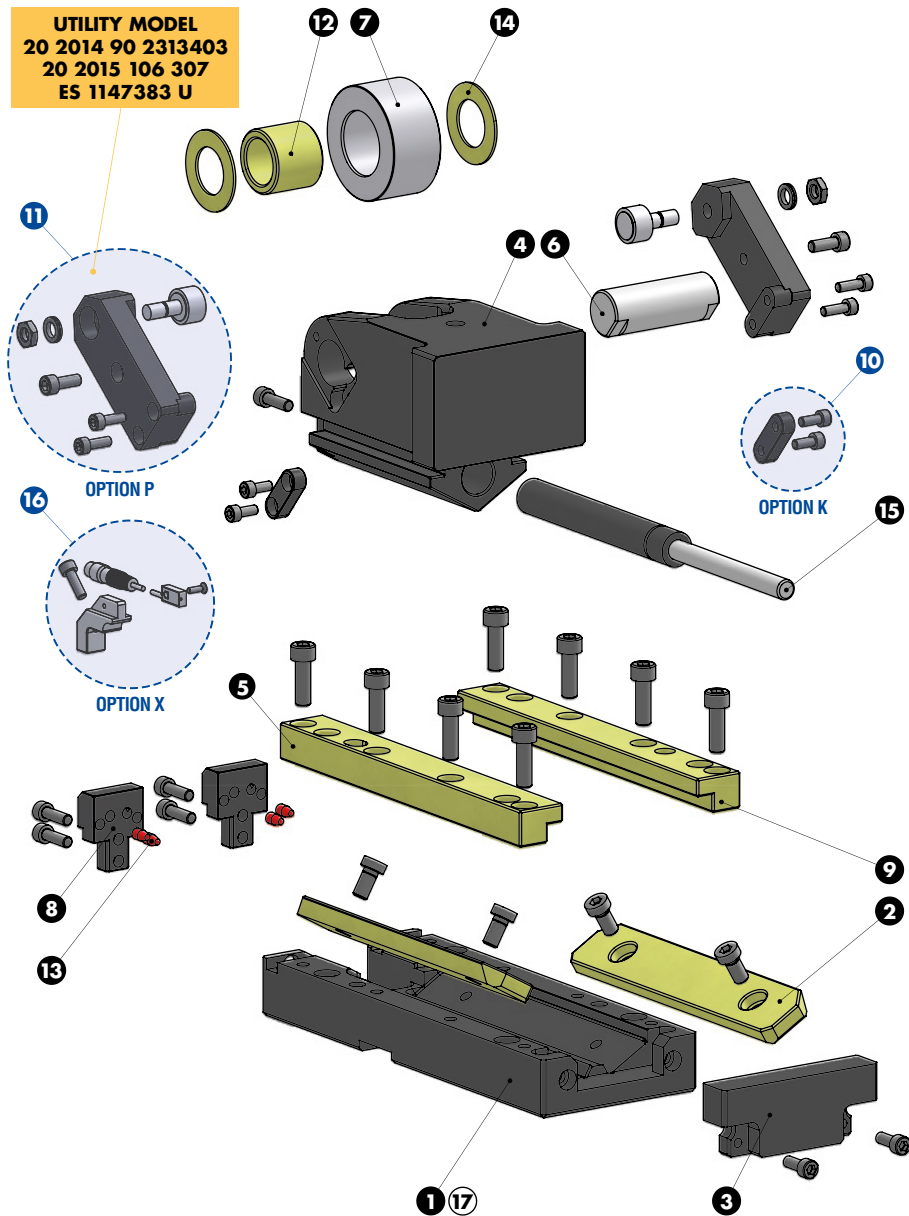
\*For more info see page 866 / Weitere Informationen finden Sie auf der Seite 866 / Per maggiori informazioni consultare la pagina 866

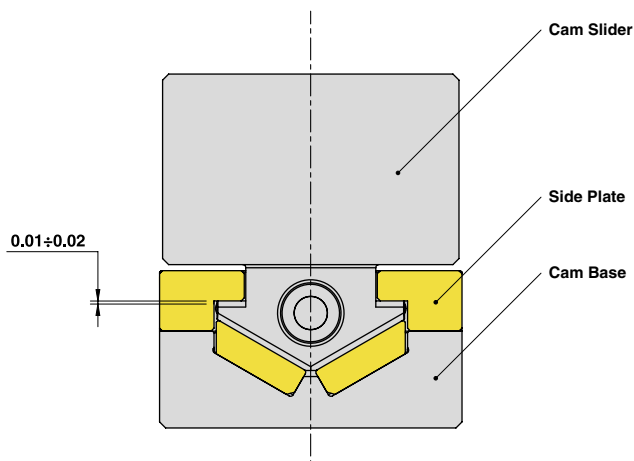
ROLLER CAM CODE	Work Angle $\beta$	$\alpha$	Max Stroke S (mm)	Press Stroke (mm)	*CAM DRIVER CODE	X (mm)	Z (mm)
CRX03.050	-15°	65°	50	87,01	DCRX0305.50.H15	95,92	168,66
	-10°	60°	50	73,54	DCRX0305.50.H10	89,32	171,96
	-5°	55°	50	64,11	DCRX0305.50.H05	81,88	180,63
	0°	50°	50	57,2	DCRX0305.50.000	73,68	186,06
	5°	45°	50	52	DCRX0305.50.L05	64,75	189,06
	10°	40°	50	48	DCRX0305.50.L10	55,19	195,04
	15°	35°	50	44,89	DCRX0305.50.L15	45,05	199,27
	20°	30°	50	42,46	DCRX0305.50.L20	34,42	201,92
	25°	25°	50	40,57	DCRX0305.50.L25	23,37	198,08
	30°	20°	50	39,13	DCRX0305.50.L30	11,99	192,81
	35°	15°	50	38,07	DCRX0305.50.L35	0,37	191,16
	40°	10°	50	37,34	DCRX0305.50.L40	-11,40	188,15
	45°	5°	50	36,91	DCRX0305.50.L45	-23,25	183,81
50°	0°	50	36,77	DCRX0305.50.L50	-35,06	178,15	
CRX03.080	-15°	65°	80	141,38	DCRX0305.80.H15	70,92	209,28
	-10°	60°	80	119,5	DCRX0305.80.H10	64,32	211,00
	-5°	55°	80	104,17	DCRX0305.80.H05	56,88	205,56
	0°	50°	80	92,96	DCRX0305.80.000	48,68	205,30
	5°	45°	80	84,5	DCRX0305.80.L05	39,75	201,56
	10°	40°	80	78	DCRX0305.80.L10	30,19	210,04
	15°	35°	80	72,94	DCRX0305.80.L15	20,05	216,22
	20°	30°	80	69	DCRX0305.80.L20	9,42	220,38
	25°	25°	80	65,93	DCRX0305.80.L25	-1,63	217,72
	30°	20°	80	63,59	DCRX0305.80.L30	-13,01	213,35
	35°	15°	80	61,86	DCRX0305.80.L35	-24,63	202,37
	40°	10°	80	60,67	DCRX0305.80.L40	-36,40	189,82
	45°	5°	80	59,98	DCRX0305.80.L45	-48,25	180,74
50°	0°	80	59,75	DCRX0305.80.L50	-60,06	170,17	
CRX03.100	-15°	65°	100	177,64	DCRX0305.80.H15	70,92	173,03
	-10°	60°	100	150,14	DCRX0305.80.H10	64,32	180,35
	-5°	55°	100	130,88	DCRX0305.80.H05	56,88	178,85
	0°	50°	100	116,79	DCRX0305.80.000	48,68	181,47
	5°	45°	100	106,17	DCRX0305.80.L05	39,75	179,89
	10°	40°	100	98	DCRX0305.80.L10	30,19	191,02
	15°	35°	100	91,65	DCRX0305.80.L15	20,05	197,52
	20°	30°	100	86,69	DCRX0305.80.L20	9,42	202,69
	25°	25°	100	82,83	DCRX0305.80.L25	-1,63	200,81
	30°	20°	100	79,89	DCRX0305.80.L30	-13,01	197,05
	35°	15°	100	77,72	DCRX0305.80.L35	-24,63	186,50
	40°	10°	100	76,23	DCRX0305.80.L40	-36,40	174,26
	45°	5°	100	75,36	DCRX0305.80.L45	-48,25	165,36
50°	0°	100	75,07	DCRX0305.80.L50	-60,06	154,85	



**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**

**UTILITY MODEL**  
 20 2014 90 2313403  
 20 2015 106 307  
 ES 1147383 U



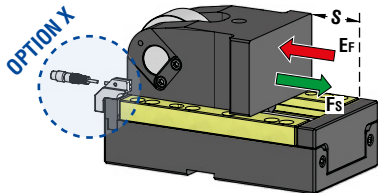

**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**
**SLIDER STRUCTURE AND CLEARANCES**

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
3	Spring Stopper Plate	CK45	1
4	Cam Slider	CK45	1
5	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
6	Pin	16NiCrMo4	1
7	Roller	100Cr6	1
8	Stopper Plate	CK45	2
9	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
10	Key - <b>OPTION K</b>	CK45	2
11	Positive Return + Roller KRV19PPA - <b>OPTION P</b>	CK45	2
12	Self-Lubricating Bush	CuZn25Al5 + Graphite - HB > 190	1
13	Elastomer Cap	Elastomer 92SH	4
14	Washer PCMW 264401.5M	-	2
15	Gas Spring	-	1
16	Back Position Check - <b>OPTION X</b>	-	1
17	Cam Base Fixing Screws M8x30 DIN 912	-	4



**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**

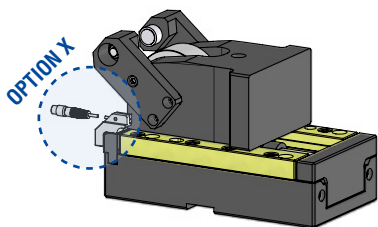
**Without Positive Return - OPTION K**



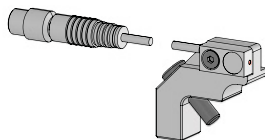
OMCR CODE	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)	
			Ef	Gas Spring
CRX05.050	48	142	6,36	
CRX05.080	78	142	6,43	
CRX05.100	98	142	6,46	



**With Positive Return - OPTION P**

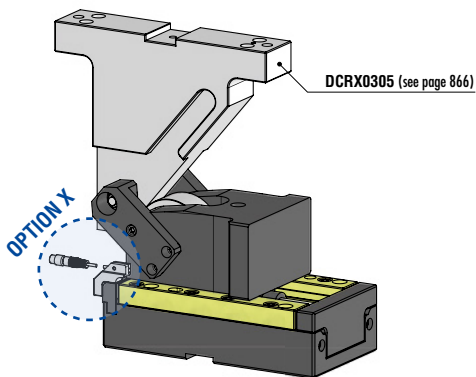


**Back Position Check - OPTION X**



Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

**With Driver - OPTION DRIVER**



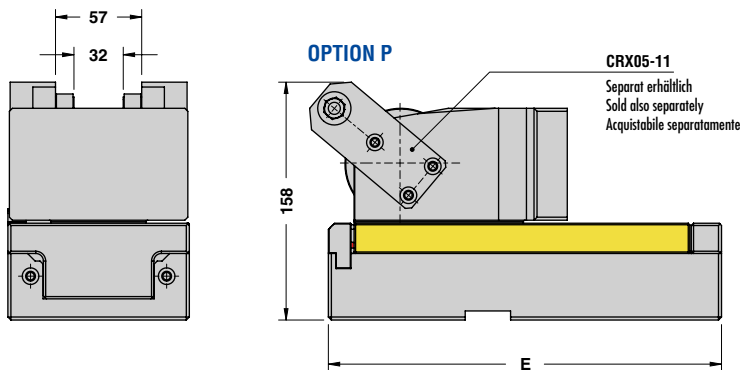
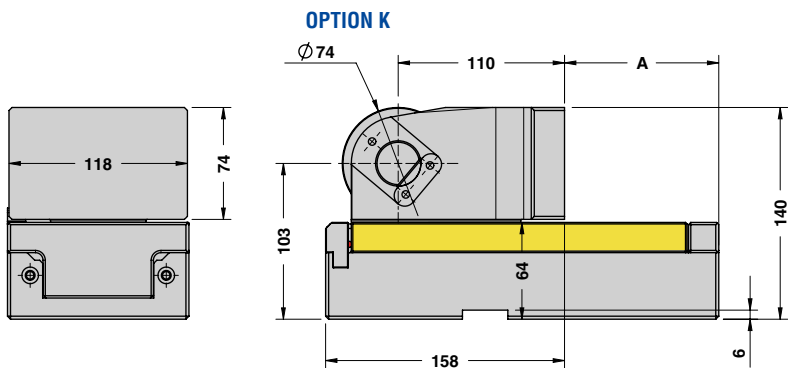
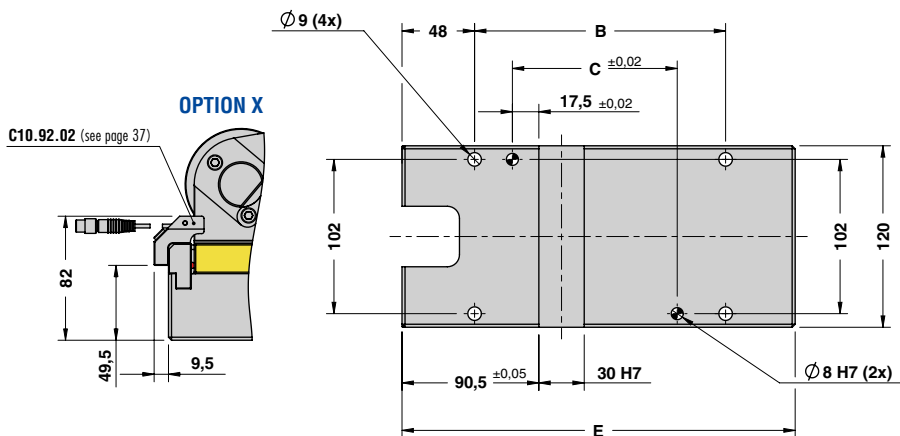
OPTION DRIVER	Work angle (β)
H15	-15°
H10	-10°
H05	-5°
000	0
L05	5°
L10	10°
L15	15°
L20	20°
L25	25°
L30	30°
L35	35°
L40	40°
L45	45°
L50	50°

STOCK	ORDER EXAMPLE	Art.	OPTION K-P	OPTION DRIVER	OPTION X
		CRX05.080	P	000	X

OMCR CODE	Stroke (mm)	Overall Dimensions (mm)				
		S	A	B	C	D
CRX05.050	48	42	116	59	200	213
CRX05.080	78	72	146	89	230	243
CRX05.100	98	102	166	109	260	273



ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

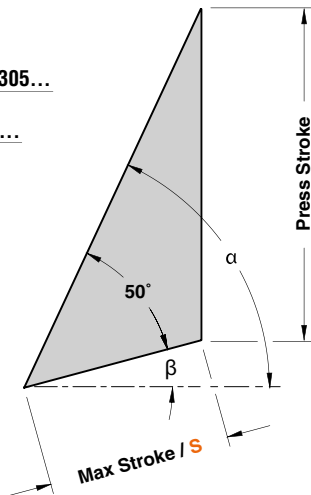
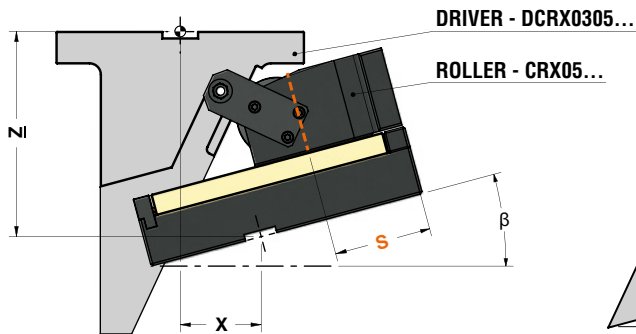


Cam Units CRX

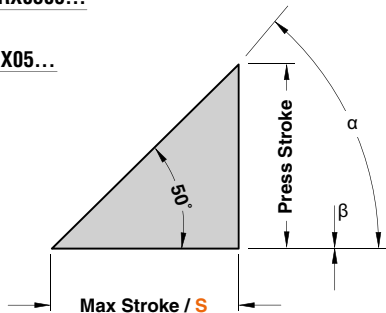
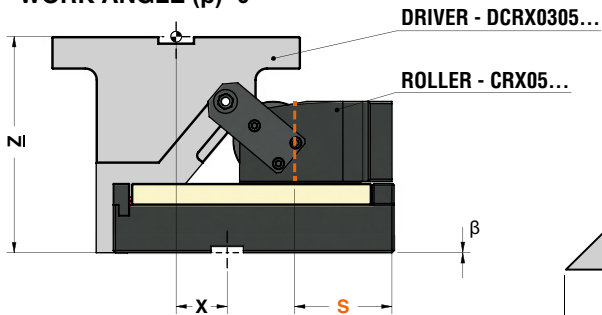


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

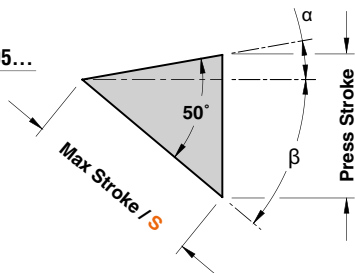
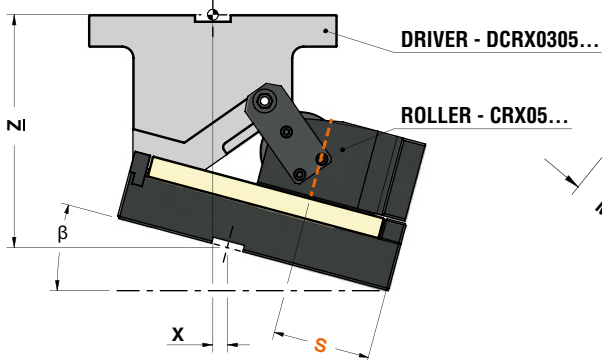
WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



WORK ANGLE ( $\beta$ )= $0^\circ$



WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$







## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

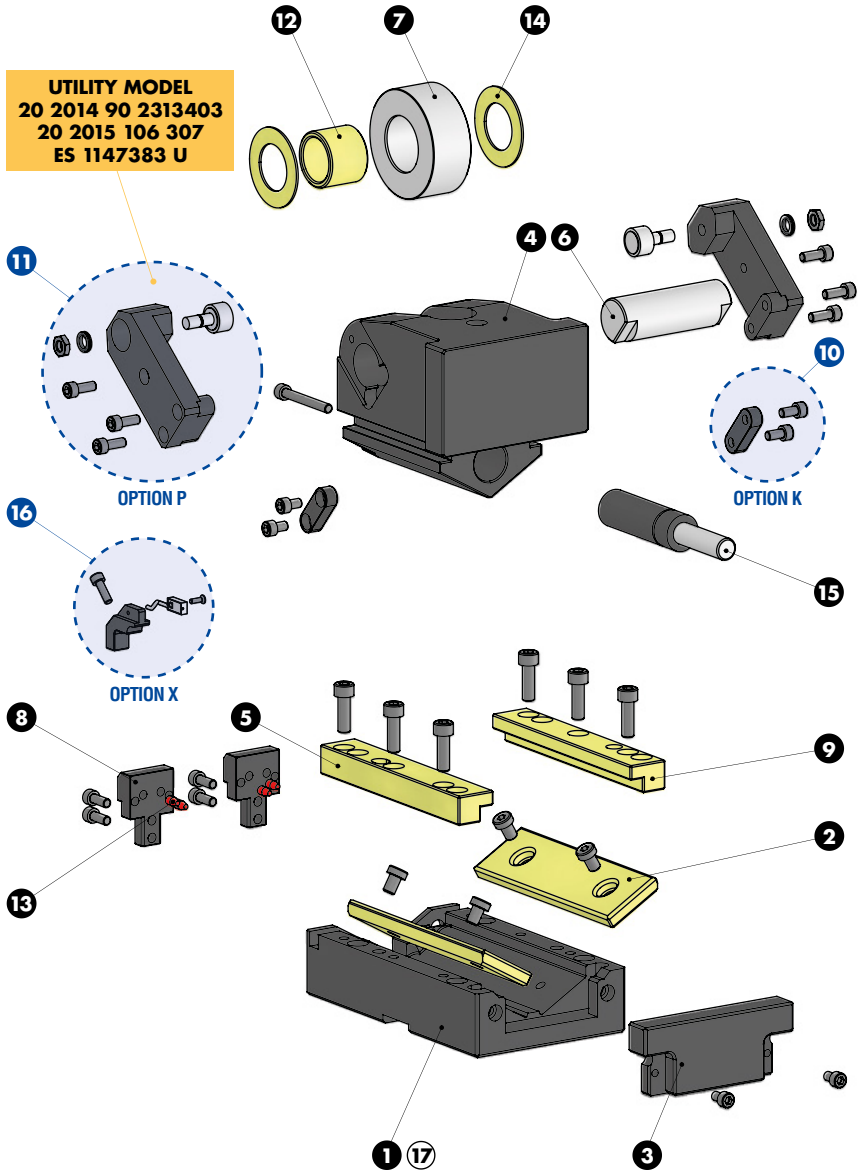
\*For more info see page 846 / Weitere Informationen finden Sie auf der Seite 846 / Per maggiori informazioni consultare la pagina 846

ROLLER CAM CODE	Work Angle $\beta$	$\alpha$	Max Stroke S (mm)	Press Stroke (mm)	*CAM DRIVER CODE	X (mm)	Z (mm)
CRX05.050	-15°	65°	50	87,01	DCRX0305.50.H15	99,96	189,49
	-10°	60°	50	73,54	DCRX0305.50.H10	91,56	192,74
	-5°	55°	50	64,11	DCRX0305.50.H05	82,30	201,52
	0°	50°	50	57,2	DCRX0305.50.000	72,27	206,92
	5°	45°	50	52	DCRX0305.50.L05	61,54	209,71
	10°	40°	50	48	DCRX0305.50.L10	50,18	215,34
	15°	35°	50	44,89	DCRX0305.50.L15	38,30	219,05
	20°	30°	50	42,46	DCRX0305.50.L20	25,96	221,04
	25°	25°	50	40,57	DCRX0305.50.L25	13,28	216,39
	30°	20°	50	39,13	DCRX0305.50.L30	0,35	210,42
	35°	15°	50	38,07	DCRX0305.50.L35	-12,74	207,44
	40°	10°	50	37,34	DCRX0305.50.L40	-25,89	203,23
	45°	5°	50	36,91	DCRX0305.50.L45	-38,99	197,57
50°	0°	50	36,77	DCRX0305.50.L50	-51,94	190,48	
CRX05.080	-15°	65°	80	141,38	DCRX0305.80.H15	74,96	229,80
	-10°	60°	80	119,5	DCRX0305.80.H10	66,56	231,78
	-5°	55°	80	104,17	DCRX0305.80.H05	57,30	226,46
	0°	50°	80	92,96	DCRX0305.80.000	47,27	226,17
	5°	45°	80	84,5	DCRX0305.80.L05	36,54	222,21
	10°	40°	80	78	DCRX0305.80.L10	25,18	230,34
	15°	35°	80	72,94	DCRX0305.80.L15	13,30	236,00
	20°	30°	80	69	DCRX0305.80.L20	0,96	239,50
	25°	25°	80	65,93	DCRX0305.80.L25	-11,72	236,03
	30°	20°	80	63,59	DCRX0305.80.L30	-24,65	230,71
	35°	15°	80	61,86	DCRX0305.80.L35	-37,74	218,64
	40°	10°	80	60,67	DCRX0305.80.L40	-50,89	204,89
	45°	5°	80	59,98	DCRX0305.80.L45	-63,99	194,50
50°	0°	80	59,75	DCRX0305.80.L50	-76,94	182,50	
CRX05.100	-15°	65°	100	177,64	DCRX0305.80.H15	74,96	193,54
	-10°	60°	100	150,14	DCRX0305.80.H10	66,56	201,14
	-5°	55°	100	130,88	DCRX0305.80.H05	57,30	199,75
	0°	50°	100	116,79	DCRX0305.80.000	47,27	202,33
	5°	45°	100	106,17	DCRX0305.80.L05	36,54	200,54
	10°	40°	100	98	DCRX0305.80.L10	25,18	210,34
	15°	35°	100	91,65	DCRX0305.80.L15	13,30	217,30
	20°	30°	100	86,69	DCRX0305.80.L20	0,96	221,81
	25°	25°	100	82,83	DCRX0305.80.L25	-11,72	219,13
	30°	20°	100	79,89	DCRX0305.80.L30	-24,65	214,41
	35°	15°	100	77,72	DCRX0305.80.L35	-37,74	202,78
	40°	10°	100	76,23	DCRX0305.80.L40	-50,89	189,33
	45°	5°	100	75,36	DCRX0305.80.L45	-63,99	179,12
50°	0°	100	75,07	DCRX0305.80.L50	-76,94	167,18	



**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**

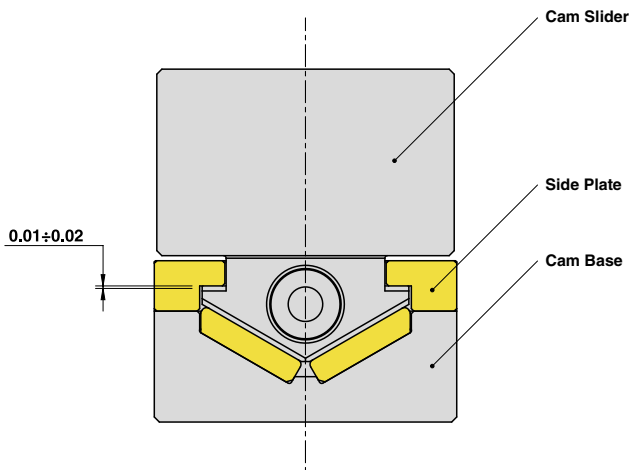
**UTILITY MODEL**  
 20 2014 90 2313403  
 20 2015 106 307  
 ES 1147383 U





ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

SLIDER STRUCTURE AND CLEARANCES



Cam Units CRX

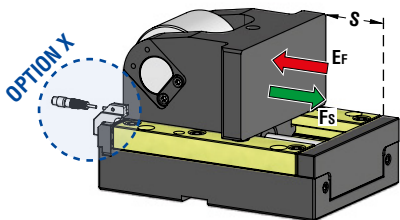
PART LIST

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
3	Spring Stopper Plate	CK45	1
4	Cam Slider	CK45	1
5	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
6	Pin	16NiCrMo4	1
7	Roller	100Cr6	1
8	Stopper Plate	CK45	2
9	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
10	Key - <b>OPTION K</b>	CK45	2
11	Positive Return + Roller KRV19PPA - <b>OPTION P</b>	CK45	2
12	Self-Lubricating Bush	CuZn25Al5 + Graphite - HB > 190	1
13	Elastomer Cap	Elastomer 92SH	4
14	Washer PCMW 325401.5M	-	2
15	Gas Spring	-	1
16	Back Position Check - <b>OPTION X</b>	-	1
17	Cam Base Fixing Screws M8x30 DIN 912	-	4

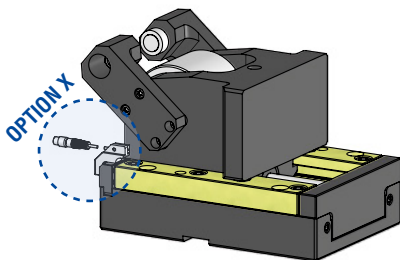


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

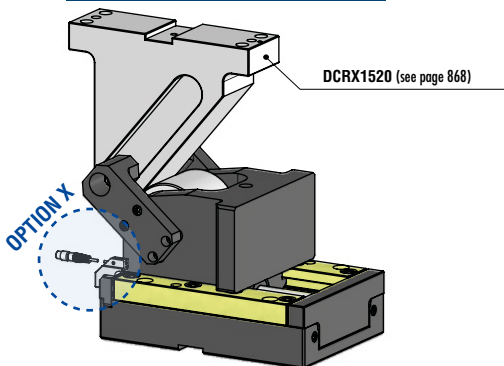
Without Positive Return - OPTION K



With Positive Return - OPTION P



With Driver - OPTION DRIVER



OMCR CODE	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)	
			Ef	Gas Spring
	S	Fs		
CRX15.050	48	166	6,45	
CRX15.080	78	166	6,57	
CRX15.100	98	166	6,61	

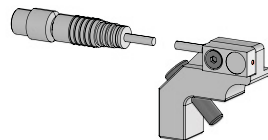


WEB

WEB

P.624

Back Position Check - OPTION X



Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

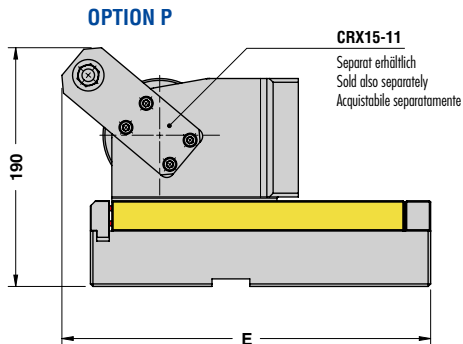
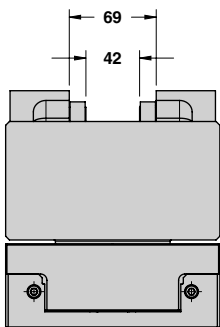
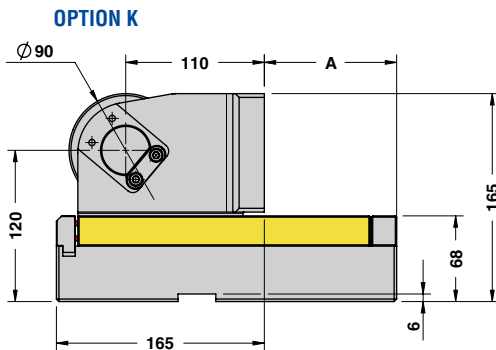
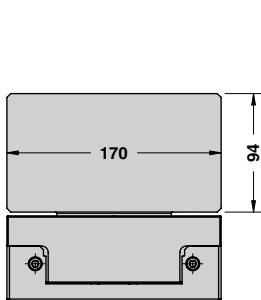
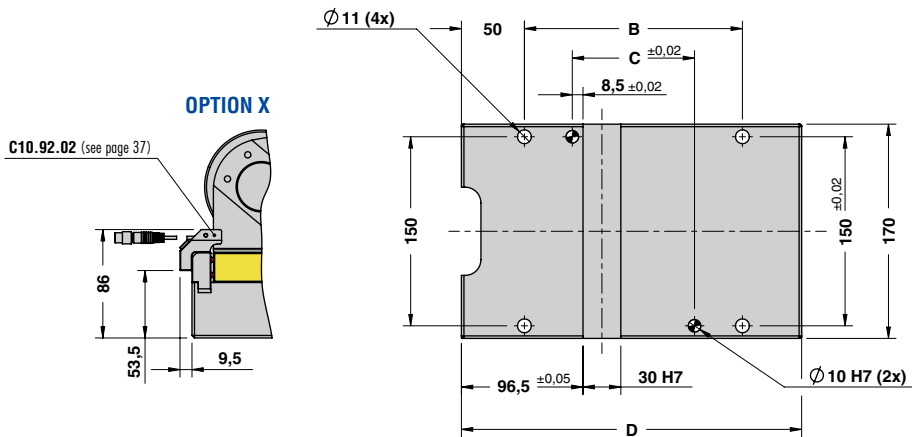
OPTION DRIVER	Work angle (β)
H15	-15°
H10	-10°
H05	-5°
000	0
L05	5°
L10	10°
L15	15°
L20	20°
L25	25°
L30	30°
L35	35°
L40	40°
L45	45°
L50	50°

STOCK	ORDER EXAMPLE	Art.	Stroke = 80	OPTION K-P	OPTION DRIVER	OPTION X
		CRX15	080	P	000	X

OMCR CODE	Stroke (mm)	Overall Dimensions (mm)				
		S	A	B	C	D
CRX15.050	48	55	123	47	220	243
CRX15.080	78	85	153	77	250	273
CRX15.100	98	105	173	97	270	293



ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO



Cam Units CRX

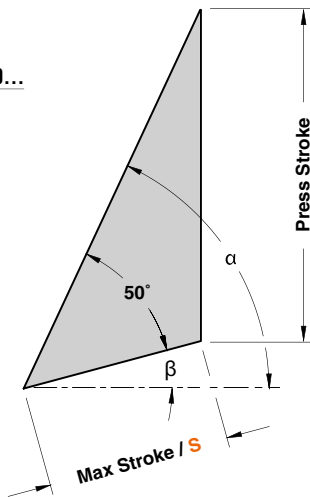
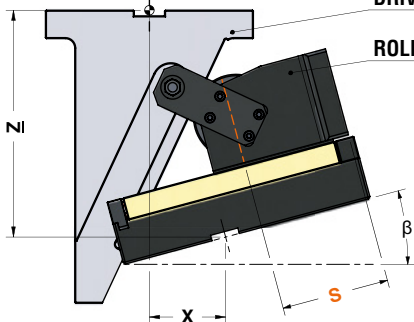


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$

DRIVER - DCRX1520...

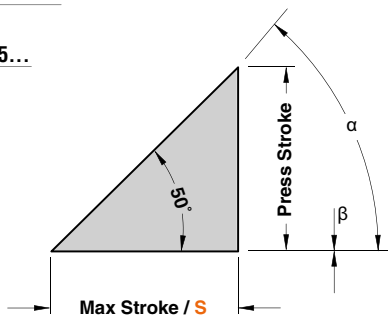
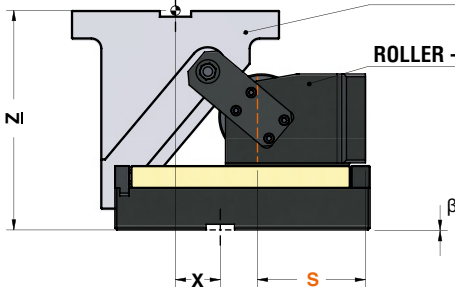
ROLLER - CRX15...



WORK ANGLE ( $\beta$ )=0°

DRIVER - DCRX1520...

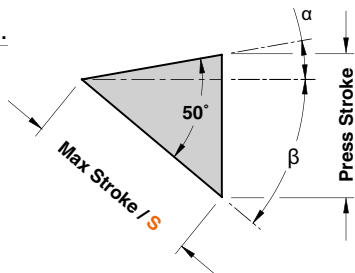
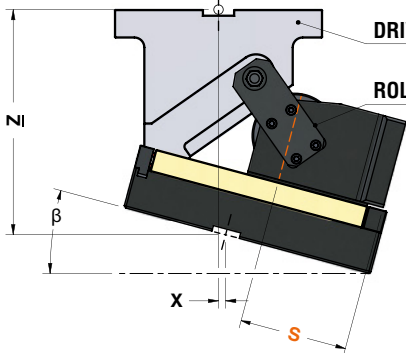
ROLLER - CRX15...



WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$

DRIVER - DCRX1520...

ROLLER - CRX15...





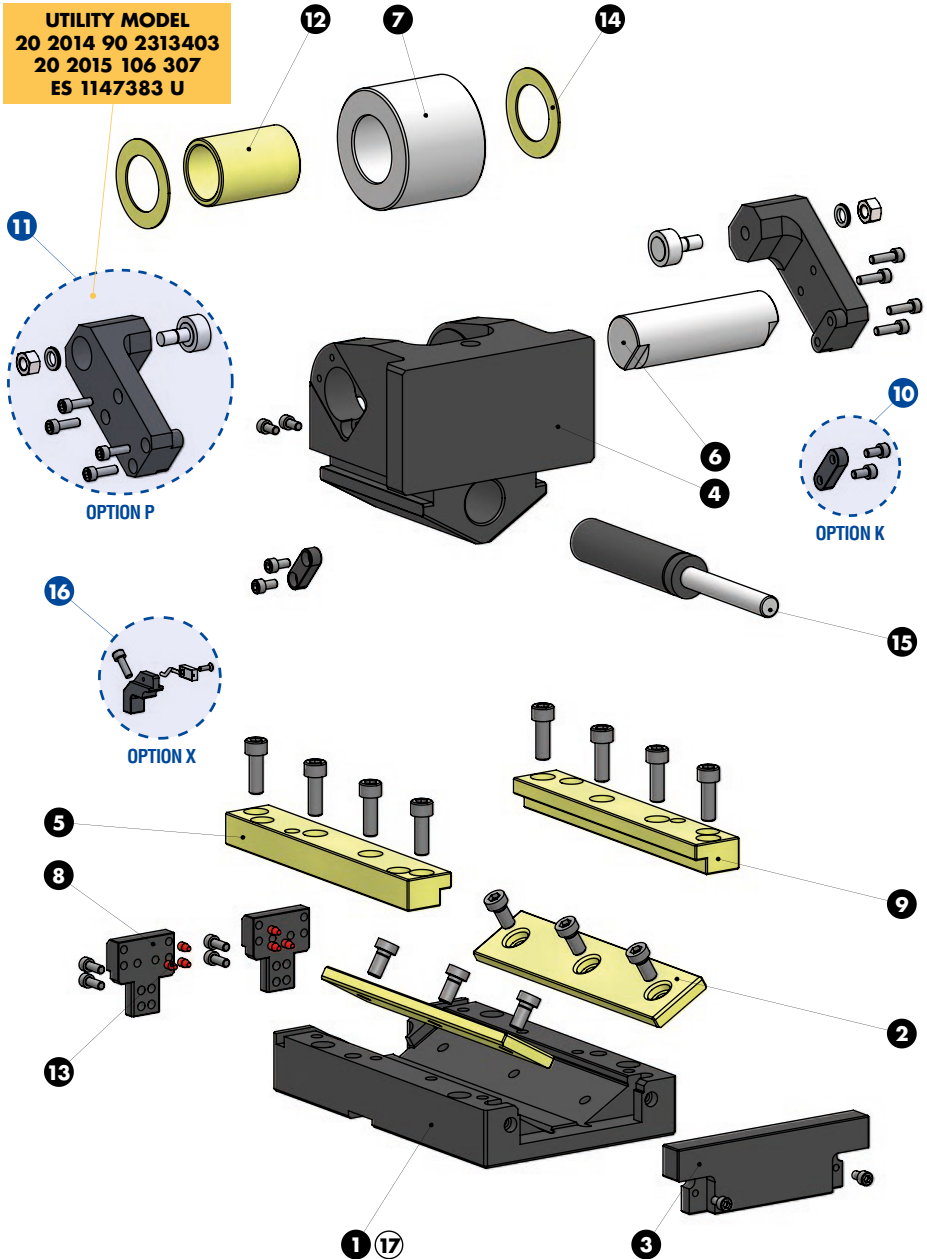
## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

\*For more info see page 868 / Weitere Informationen finden Sie auf der Seite 868 / Per maggiori informazioni consultare la pagina 868

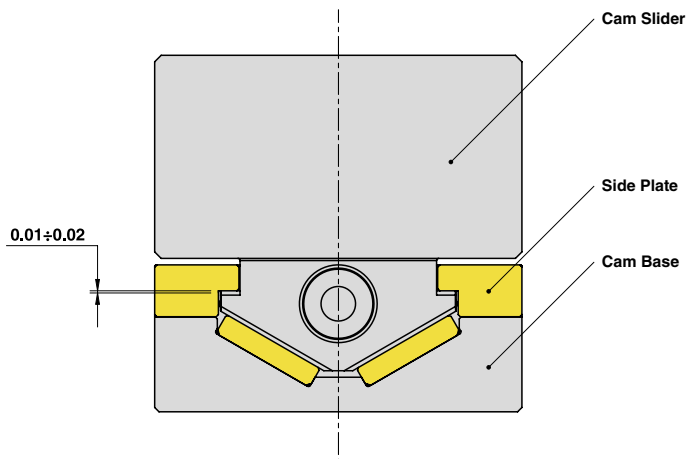
ROLLER CAM CODE	Work Angle $\beta$	$\alpha$	Max Stroke S (mm)	Press Stroke (mm)	*CAM DRIVER CODE	X (mm)	Z (mm)
CRX15.050	-15°	65°	50	87,01	DCRX1520.50.H15	105,64	224,24
	-10°	60°	50	73,54	DCRX1520.50.H10	95,45	223,67
	-5°	55°	50	64,11	DCRX1520.50.H05	84,34	223,13
	0°	50°	50	57,2	DCRX1520.50.000	72,39	229,07
	5°	45°	50	52	DCRX1520.50.L05	59,71	232,76
	10°	40°	50	48	DCRX1520.50.L10	46,38	238,04
	15°	35°	50	44,89	DCRX1520.50.L15	32,51	241,78
	20°	30°	50	42,46	DCRX1520.50.L20	18,21	243,60
	25°	25°	50	40,57	DCRX1520.50.L25	3,57	238,62
	30°	20°	50	39,13	DCRX1520.50.L30	-11,28	231,91
	35°	15°	50	38,07	DCRX1520.50.L35	-26,24	228,52
	40°	10°	50	37,34	DCRX1520.50.L40	-41,19	223,49
	45°	5°	50	36,91	DCRX1520.50.L45	-56,01	216,85
50°	0°	50	36,77	DCRX1520.50.L50	-95,60	208,65	
CRX15.080	-15°	65°	80	141,38	DCRX1520.80.H15	80,64	279,87
	-10°	60°	80	119,5	DCRX1520.80.H10	70,45	262,70
	-5°	55°	80	104,17	DCRX1520.80.H05	59,34	258,07
	0°	50°	80	92,96	DCRX1520.80.000	47,39	258,32
	5°	45°	80	84,5	DCRX1520.80.L05	34,71	249,72
	10°	40°	80	78	DCRX1520.80.L10	21,38	258,04
	15°	35°	80	72,94	DCRX1520.80.L15	7,51	258,72
	20°	30°	80	69	DCRX1520.80.L20	-6,78	262,06
	25°	25°	80	65,93	DCRX1520.80.L25	-21,42	253,26
	30°	20°	80	63,59	DCRX1520.80.L30	-36,28	252,45
	35°	15°	80	61,86	DCRX1520.80.L35	-51,24	234,72
	40°	10°	80	60,67	DCRX1520.80.L40	-66,19	225,15
	45°	5°	80	59,98	DCRX1520.80.L45	-81,01	213,78
50°	0°	80	59,75	DCRX1520.80.L50	-95,60	200,66	
CRX15.100	-15°	65°	100	177,64	DCRX1520.80.H15	80,64	243,61
	-10°	60°	100	150,14	DCRX1520.80.H10	70,45	232,06
	-5°	55°	100	130,88	DCRX1520.80.H05	59,34	231,36
	0°	50°	100	116,79	DCRX1520.80.000	47,39	234,48
	5°	45°	100	106,17	DCRX1520.80.L05	34,71	228,06
	10°	40°	100	98	DCRX1520.80.L10	21,38	238,04
	15°	35°	100	91,65	DCRX1520.80.L15	7,51	240,02
	20°	30°	100	86,69	DCRX1520.80.L20	-6,78	244,37
	25°	25°	100	82,83	DCRX1520.80.L25	-21,42	236,36
	30°	20°	100	79,89	DCRX1520.80.L30	-36,28	236,15
	35°	15°	100	77,72	DCRX1520.50.L35	-51,24	218,86
	40°	10°	100	76,23	DCRX1520.80.L40	-66,19	209,59
	45°	5°	100	75,36	DCRX1520.80.L45	-81,01	198,40
50°	0°	100	75,07	DCRX1520.80.L50	-95,60	185,34	

**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**

**UTILITY MODEL**  
20 2014 90 2313403  
20 2015 106 307  
ES 1147383 U





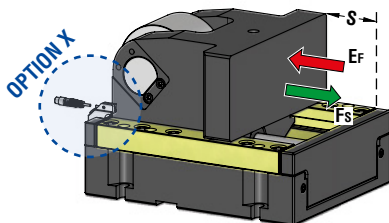

**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**
**SLIDER STRUCTURE AND CLEARANCES**

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
3	Gas Spring Stopper Plate	CK45	1
4	Cam Slider	CK45	1
5	Side Plate L	CuZn25Al5 + Graphite - HB > 190	1
6	Pin	16NiCrMo4	1
7	Roller	100Cr6	1
8	Stopper Plate	CK45	2
9	Side Plate R	CuZn25Al5 + Graphite - HB > 190	1
10	Key - <b>OPTION K</b>	CK45	2
11	Positive Return + Roller KRV26PPA - <b>OPTION P</b>	CK45	2
12	Self-Lubricating Bush	CuZn25Al5 + Graphite - HB > 190	1
13	Elastomer Cap	Elastomer 92SH	6
14	Washer PCMW 426601.5M	-	2
15	Gas Spring	-	1
16	Back Position Check - <b>OPTION X</b>	-	1
17	Cam Base Fixing Screws M10x35 DIN 912	-	4

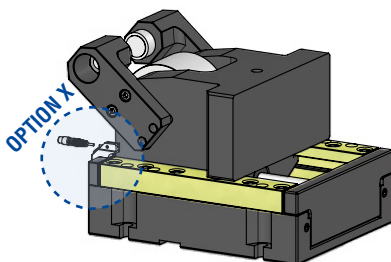


ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

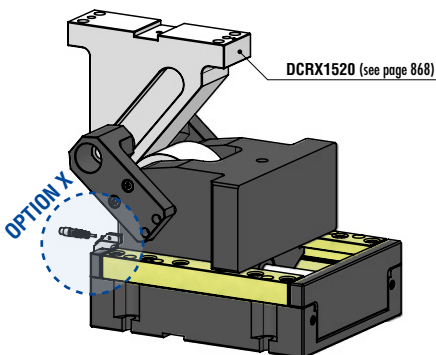
Without Positive Return - OPTION K



With Positive Return - OPTION P



With Driver - OPTION DRIVER



OMCR CODE	Stroke (mm)	Max Work Force (kN)	Extraction Force (kN)	
			Ef	Gas Spring
	S	Fs		
CRX20.050	48	258	9,29	
CRX20.080	78	258	9,36	
CRX20.100	98	258	9,38	

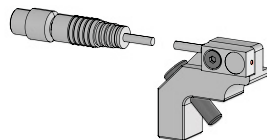


WEB

WEB

P.624

Back Position Check - OPTION X



Montable on right or left side  
auf rechte bzw. linke Seite montierbar  
Montabile sul lato destro e sinistro

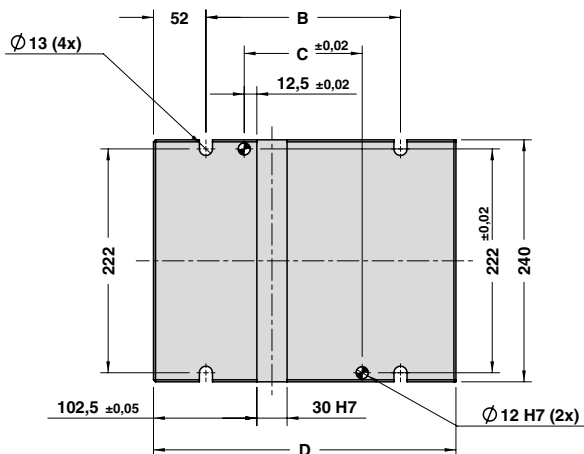
OPTION DRIVER	Work angle ( $\beta$ )
H15	-15°
H10	-10°
H05	-5°
000	0
L05	5°
L10	10°
L15	15°
L20	20°
L25	25°
L30	30°
L35	35°
L40	40°
L45	45°
L50	50°

STOCK	ORDER EXAMPLE	Art.	Stroke = 80	OPTION K-P	OPTION DRIVER	OPTION X
		CRX20	080	P	000	X

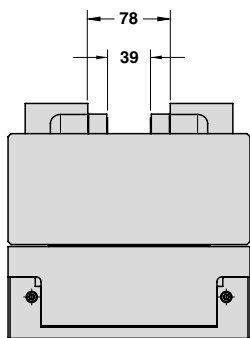
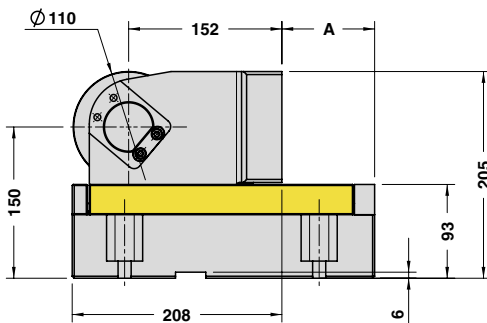
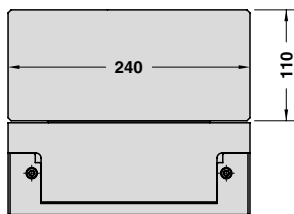
OMCR CODE	Stroke (mm)	Overall Dimensions (mm)				
		S	A	B	C	D
CRX20.050	48	42	143	67	250	290
CRX20.080	78	72	173	97	280	320
CRX20.100	98	92	193	117	300	340



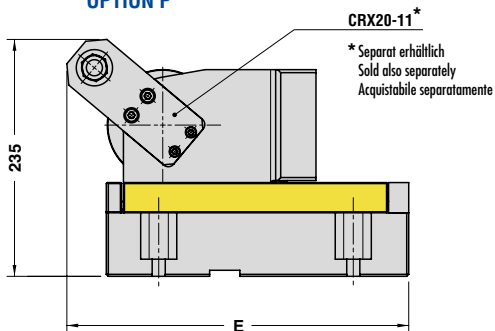
ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO



OPTION K

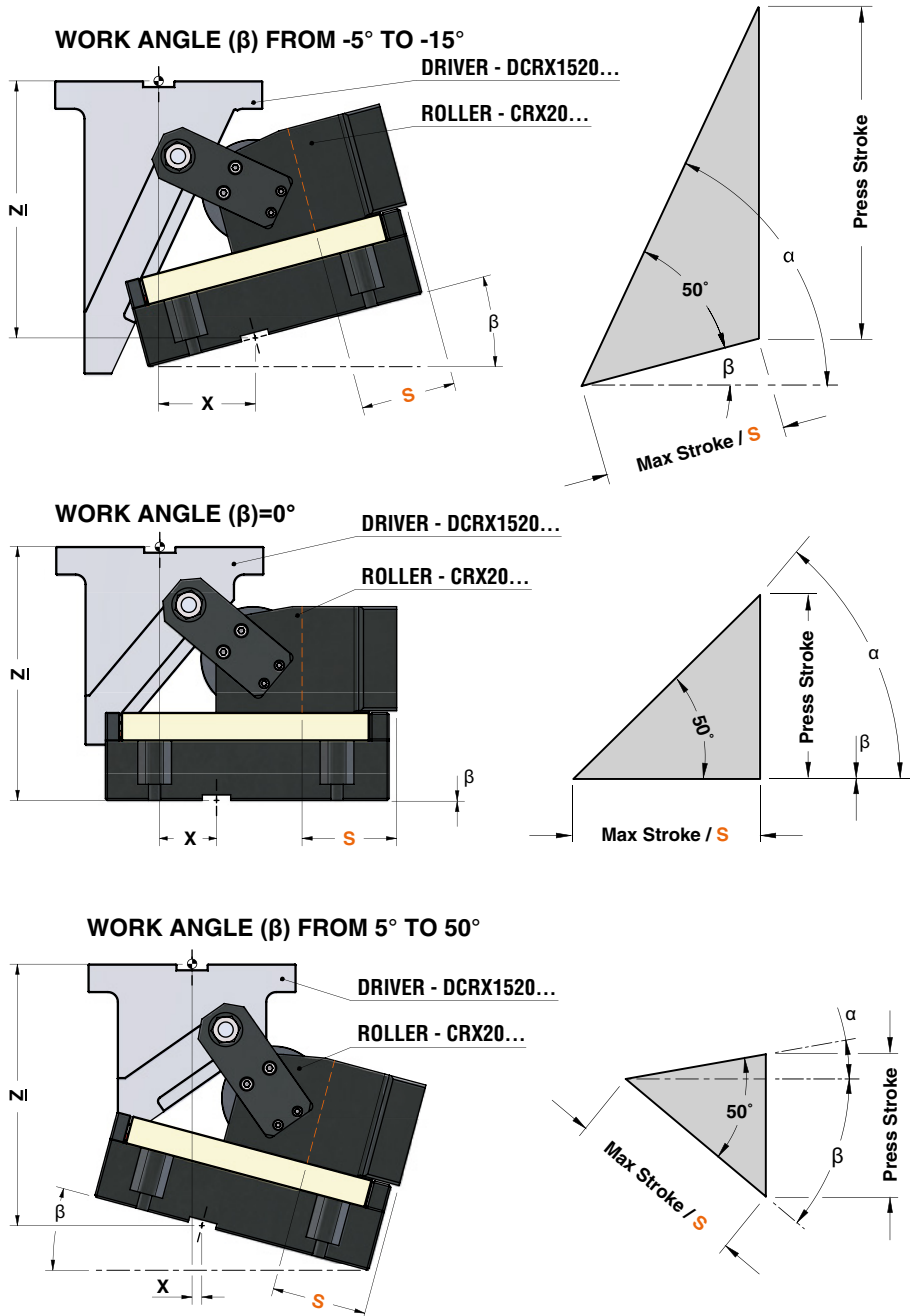


OPTION P





ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO




**ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO**

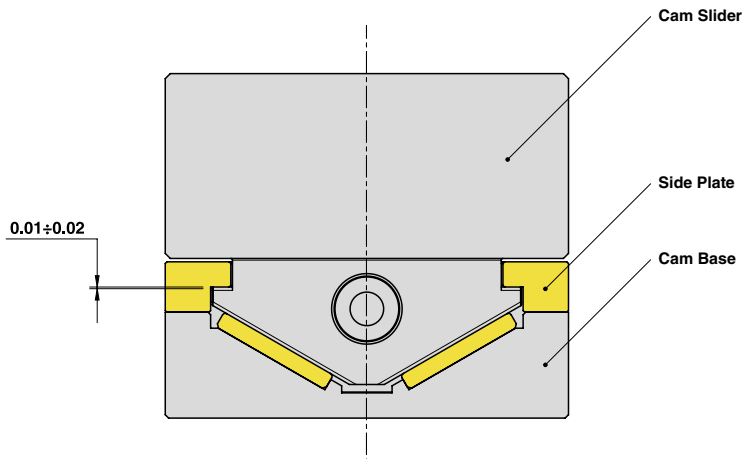
ROLLER CAM CODE	Work Angle $\beta$	$\alpha$	Max Stroke S (mm)	Press Stroke (mm)	*CAM DRIVER CODE	X (mm)	Z (mm)
CRX20.050	-15°	65°	50	87,01	DCRX1520.50.H15	127,30	256,15
	-10°	60°	50	73,54	DCRX1520.50.H10	114,24	257,35
	-5°	55°	50	64,11	DCRX1520.50.H05	100,12	258,33
	0°	50°	50	57,2	DCRX1520.50.000	85,06	265,49
	5°	45°	50	52	DCRX1520.50.L05	69,15	269,61
	10°	40°	50	48	DCRX1520.50.L10	52,53	276,11
	15°	35°	50	44,89	DCRX1520.50.L15	35,31	280,24
	20°	30°	50	42,46	DCRX1520.50.L20	17,64	282,17
	25°	25°	50	40,57	DCRX1520.50.L25	-0,34	276,67
	30°	20°	50	39,13	DCRX1520.50.L30	-18,53	269,79
	35°	15°	50	38,07	DCRX1520.50.L35	-36,76	265,62
	40°	10°	50	37,34	DCRX1520.50.L40	-54,90	259,53
45°	5°	50	36,91	DCRX1520.50.L45	-72,82	251,56	
50°	0°	50	36,77	DCRX1520.50.L50	-90,37	241,76	
CRX20.080	-15°	65°	80	141,38	DCRX1520.80.H15	102,30	311,77
	-10°	60°	80	119,5	DCRX1520.80.H10	89,24	296,39
	-5°	55°	80	104,17	DCRX1520.80.H05	75,13	293,25
	0°	50°	80	92,96	DCRX1520.80.000	60,06	294,74
	5°	45°	80	84,5	DCRX1520.80.L05	44,15	287,11
	10°	40°	80	78	DCRX1520.80.L10	27,53	296,11
	15°	35°	80	72,94	DCRX1520.80.L15	10,32	297,18
	20°	30°	80	69	DCRX1520.80.L20	-7,35	300,62
	25°	25°	80	65,93	DCRX1520.80.L25	-25,35	291,63
	30°	20°	80	63,59	DCRX1520.80.L30	-43,53	290,33
	35°	15°	80	61,86	DCRX1520.80.L35	-61,76	271,83
	40°	10°	80	60,67	DCRX1520.80.L40	-79,91	261,19
45°	5°	80	59,98	DCRX1520.80.L45	-97,82	248,49	
50°	0°	80	59,75	DCRX1520.80.L50	-115,38	233,78	
CRX20.100	-15°	65°	100	177,64	DCRX1520.80.H15	102,30	275,52
	-10°	60°	100	150,14	DCRX1520.80.H10	89,24	265,74
	-5°	55°	100	130,88	DCRX1520.80.H05	75,12	266,55
	0°	50°	100	116,79	DCRX1520.80.000	60,06	270,90
	5°	45°	100	106,17	DCRX1520.80.L05	44,15	265,45
	10°	40°	100	98	DCRX1520.80.L10	27,53	276,11
	15°	35°	100	91,65	DCRX1520.80.L15	10,31	278,48
	20°	30°	100	86,69	DCRX1520.80.L20	-7,35	282,93
	25°	25°	100	82,83	DCRX1520.80.L25	-25,34	274,72
	30°	20°	100	79,89	DCRX1520.80.L30	-43,53	273,84
	35°	15°	100	77,72	DCRX1520.80.L35	-61,76	255,96
	40°	10°	100	76,23	DCRX1520.80.L40	-79,90	245,69
45°	5°	100	75,36	DCRX1520.80.L45	-97,82	233,11	
50°	0°	100	75,07	DCRX1520.80.L50	-115,37	218,46	





## ROLLER CAM UNIT - ROLLENSCHIEBER - CAMMA A RULLO

### SLIDER STRUCTURE AND CLEARANCES

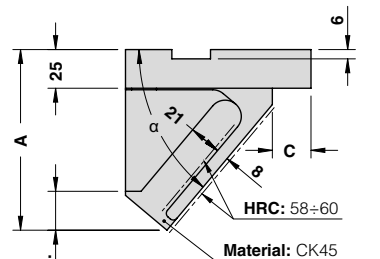
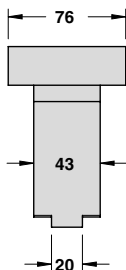
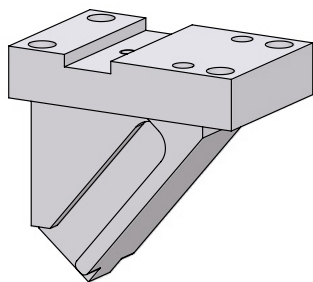


### PART LIST

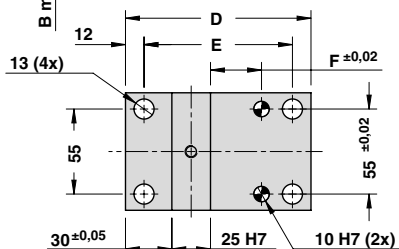
Particular number	Description	Material	Quantity
1	Cam Base	CK45	1
2	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
3	Gas Spring Stopper Plate	CK45	1
4	Cam Slider	CK45	1
5	Side Plate	CuZn25Al5 + Graphite - HB > 190	2
6	Pin	16NiCrMo4	1
7	Roller	100Cr6	1
8	Stopper Plate	CK45	1
10	Key - <b>OPTION K</b>	CK45	2
11	Positive Return + Roller KRV35PPA - <b>OPTION P</b>	CK45	2
12	Self-Lubricating Bush	CuZn25Al5 + Graphite - HB > 190	1
13	Elastomer Cap	Elastomer 92SH	6
14	Washer PCMW 52780.2M	-	2
15	Gas Spring	-	1
16	Back Position Check - <b>OPTION X</b>	-	1
17	Cam Base Fixing Screws M12x35 DIN 912	-	4



## ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO



For driver positioning see pages 836-837  
 Positionierung des Treibers siehe Seiten 836-837  
 Per posizionamento cuneo vedi pagine 836-837



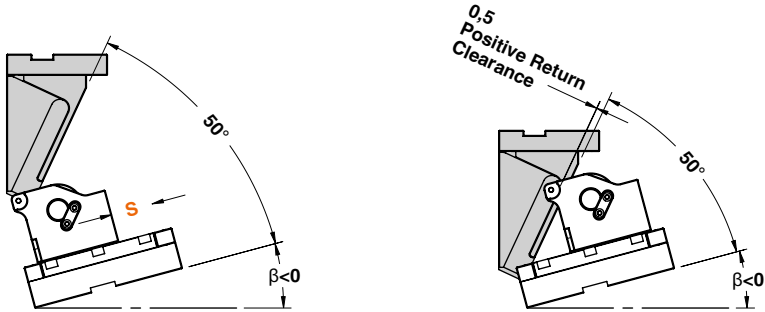
STOCK		Art.	Work angle = 0°
		DCRX0100.30	000

OMCR CODE	ROLLER CAM MODEL	Stroke (mm)	Work Angle	Overall Dimensions (mm)						
		S	$\beta$	$\alpha$	A	B min.	C	D	E	F
DCRX0100.30.H15	CRX01.030	30	-15°	65°	131	18	30	100	76	13
DCRX0100.30.H10		30	-10°	60°	113,5	20,5	30	100	76	13
DCRX0100.30.H05		30	-5°	55°	97	22,5	30	100	76	13
DCRX0100.30.000		30	0°	50°	92,5	24,5	30	100	76	13
DCRX0100.30.L05		30	5°	45°	82	26,5	30	100	76	13
DCRX0100.30.L10		30	10°	40°	78,5	28	30	100	76	13
DCRX0100.30.L15		30	15°	35°	75,5	29,5	30	100	76	13
DCRX0100.30.L20		30	20°	30°	74	31	30	100	76	13
DCRX0100.30.L25		30	25°	25°	70,5	34,5	30	100	76	13
DCRX0100.30.L30		30	30°	20°	70	33	30	100	76	13
DCRX0100.30.L35		30	35°	15°	69	32	30	100	76	13
DCRX0100.30.L40		30	40°	10°	65	32	30	100	76	13
DCRX0100.30.L45		30	45°	5°	62	30,5	30	100	76	13
DCRX0100.30.L50		30	50°	0°	59,5	29	30	100	76	13
DCRX0100.50.H15		CRX01.050	48	-15°	65°	179	16	25	120	96
DCRX0100.50.H10	48		-10°	60°	153,5	20,5	25	120	96	33
DCRX0100.50.H05	48		-5°	55°	142	22,5	25	120	96	33
DCRX0100.50.000	48		0°	50°	116	24,5	25	120	96	33
DCRX0100.50.L05	48		5°	45°	111	26,5	25	120	96	33
DCRX0100.50.L10	48		10°	40°	101,5	31	25	120	96	33
DCRX0100.50.L15	48		15°	35°	99	33	25	120	96	33
DCRX0100.50.L20	48		20°	30°	93	33	25	120	96	33
DCRX0100.50.L25	48		25°	25°	87,5	30,5	25	120	96	33
DCRX0100.50.L30	48		30°	20°	83	29,5	25	120	96	33
DCRX0100.50.L35	48		35°	15°	84	30,5	25	120	96	33
DCRX0100.50.L40	48		40°	10°	75	31	25	120	96	33
DCRX0100.50.L45	48		45°	5°	72	31,5	25	120	96	33
DCRX0100.50.L50	48		50°	0°	69,5	29	25	120	96	33

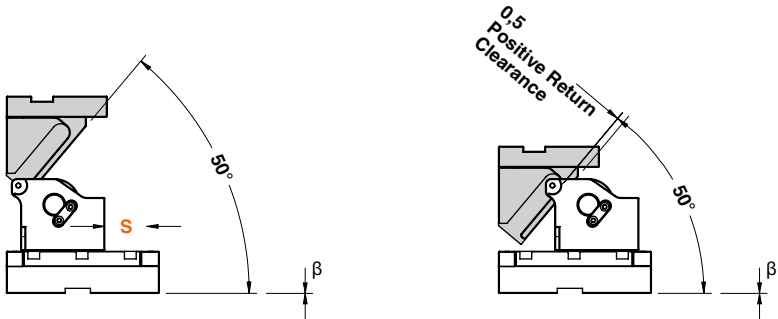




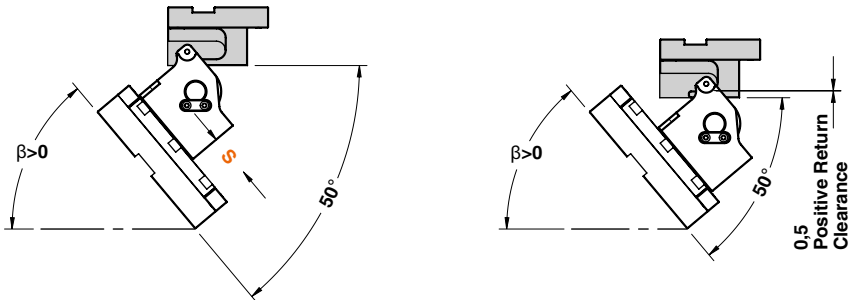
FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ )=0°



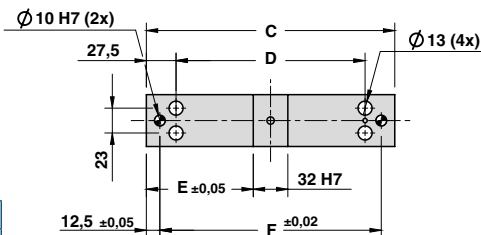
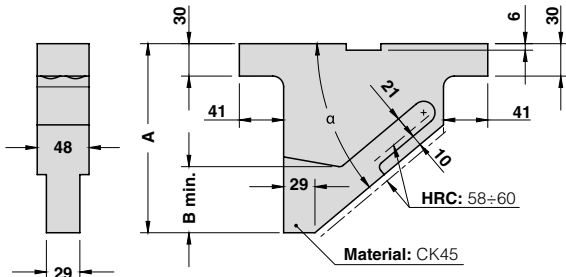
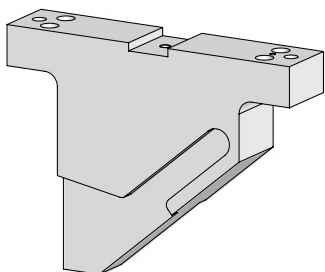
FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$



Cam Units CRX



ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO



For driver positioning see pages 842-843 and 848-849  
 Positionierung des Treibers siehe Seiten 842-843 und 848-849  
 Per posizionamento cuneo vedi pagine 842-843 e 848-849

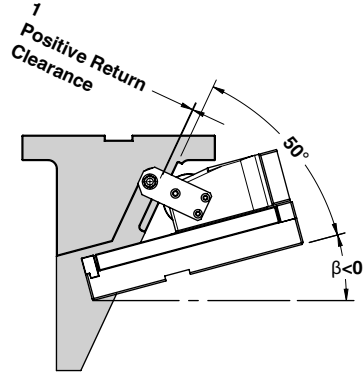
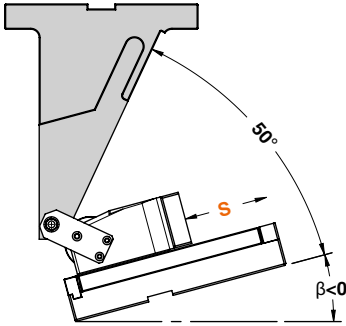
STOCK	ORDER EXAMPLE	Art.	Work angle = 0°
		DCRX0305.50	000

OMCR CODE	ROLLER CAM MODEL	Stroke (mm)	Work Angle	Overall Dimensions (mm)						
		S	β	α	A	B min.	C	D	E	F
DCRX0305.50.H15	CRX03.050 CRX05.050	48	-15°	65°	185	70	180	125	74	155
DCRX0305.50.H10		48	-10°	60°	165	70	180	125	74	155
DCRX0305.50.H05		48	-5°	55°	155	60	180	125	74	155
DCRX0305.50.000		48	0°	50°	145	50	180	125	74	155
DCRX0305.50.L05		48	5°	45°	135	40	180	125	74	155
DCRX0305.50.L10		48	10°	40°	130	35	180	125	74	155
DCRX0305.50.L15		48	15°	35°	125	30	180	125	74	155
DCRX0305.50.L20		48	20°	30°	120	25	180	125	74	155
DCRX0305.50.L25		48	25°	25°	110	40	180	125	74	155
DCRX0305.50.L30		48	30°	20°	100	30	180	125	74	155
DCRX0305.50.L35		48	35°	15°	95	25	180	125	74	155
DCRX0305.50.L40		48	40°	10°	90	20	180	125	74	155
DCRX0305.50.L45		48	45°	5°	85	25	180	125	74	155
DCRX0305.50.L50		48	50°	0°	80	30	180	125	74	155
DCRX0305.80.H15		CRX03.080 CRX03.100 CRX05.080 CRX05.100	78-98	-15°	65°	280	160	230	175	99
DCRX0305.80.H10	78-98		-10°	60°	250	130	230	175	99	205
DCRX0305.80.H05	78-98		-5°	55°	220	100	230	175	99	205
DCRX0305.80.000	78-98		0°	50°	200	80	230	175	99	205
DCRX0305.80.L05	78-98		5°	45°	180	60	230	175	99	205
DCRX0305.80.L10	78-98		10°	40°	175	55	230	175	99	205
DCRX0305.80.L15	78-98		15°	35°	170	50	230	175	99	205
DCRX0305.80.L20	78-98		20°	30°	165	45	230	175	99	205
DCRX0305.80.L25	78-98		25°	25°	155	65	230	175	99	205
DCRX0305.80.L30	78-98		30°	20°	145	55	230	175	99	205
DCRX0305.80.L35	78-98		35°	15°	130	50	230	175	99	205
DCRX0305.80.L40	78-98		40°	10°	115	55	230	175	99	205
DCRX0305.80.L45	78-98		45°	5°	105	45	230	175	99	205
DCRX0305.80.L50	78-98		50°	0°	95	55	230	175	99	205

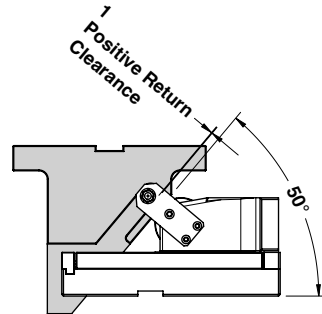
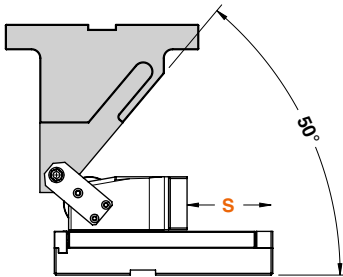


ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO

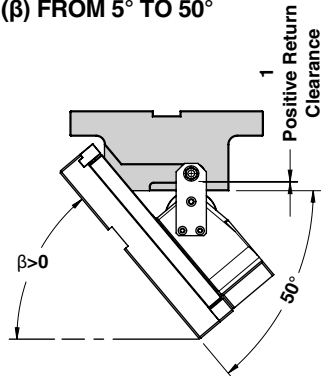
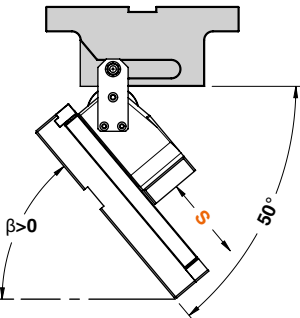
FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ )=0°

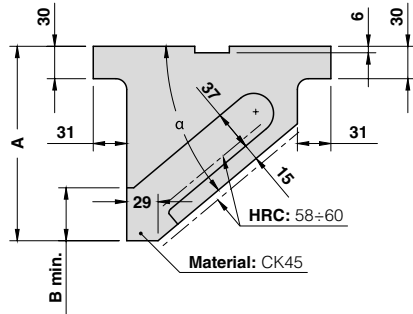
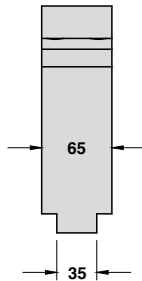
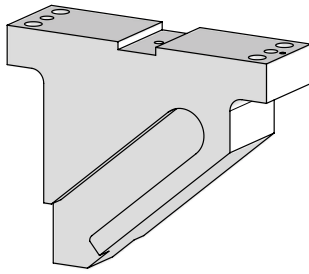


FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$



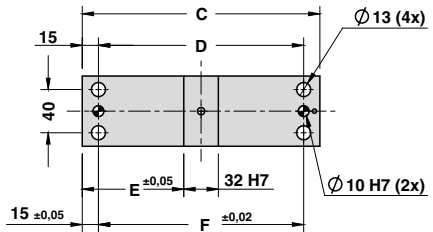


## ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO



For driver positioning see pages 854-855 and 860-861  
 Positionierung des Treibers siehe Seiten 854-855 und 860-861  
 Per posizionamento cuneo vedi pagine 854-855 e 860-861

STOCK		Art.	Work angle = 0°
		DCRX1520.50	000

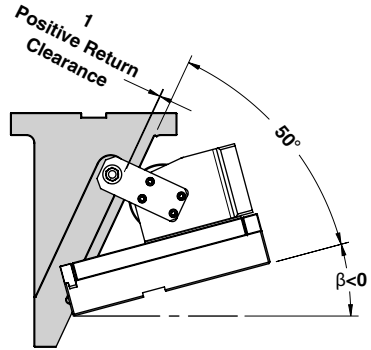
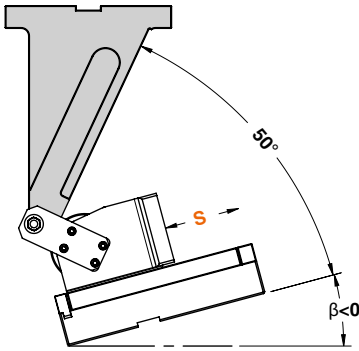


OMCR CODE	ROLLER CAM MODEL	Stroke (mm)	Work Angle	Overall Dimensions (mm)						
		S	β	α	A	B min.	C	D	E	F
DCRX1520.50.H15	CRX15.050 CRX20.050	48	-15°	65°	200	66	170	140	69	140
DCRX1520.50.H10		48	-10°	60°	175	59	170	140	69	140
DCRX1520.50.H05		48	-5°	55°	155	55	170	140	69	140
DCRX1520.50.000		48	0°	50°	145	52	170	140	69	140
DCRX1520.50.L05		48	5°	45°	135	50	170	140	69	140
DCRX1520.50.L10		48	10°	40°	130	49	170	140	69	140
DCRX1520.50.L15		48	15°	35°	125	49	170	140	69	140
DCRX1520.50.L20		48	20°	30°	120	49	170	140	69	140
DCRX1520.50.L25		48	25°	25°	110	49	170	140	69	140
DCRX1520.50.L30		48	30°	20°	100	50	170	140	69	140
DCRX1520.50.L35		48	35°	15°	95	52	170	140	69	140
DCRX1520.50.L40		48	40°	10°	90	53	170	140	69	140
DCRX1520.50.L45		48	45°	5°	85	50	170	140	69	140
DCRX1520.50.L50		48	50°	0°	80	0	170	140	69	140
DCRX1520.80.H15		CRX15.080 CRX15.100 CRX20.080 CRX20.100	78-98	-15°	65°	310	66	220	190	94
DCRX1520.80.H10	78-98		-10°	60°	260	59	220	190	94	190
DCRX1520.80.H05	78-98		-5°	55°	230	55	220	190	94	190
DCRX1520.80.000	78-98		0°	50°	210	52	220	190	94	190
DCRX1520.80.L05	78-98		5°	45°	185	50	220	190	94	190
DCRX1520.80.L10	78-98		10°	40°	180	49	220	190	94	190
DCRX1520.80.L15	78-98		15°	35°	170	49	220	190	94	190
DCRX1520.80.L20	78-98		20°	30°	165	49	220	190	94	190
DCRX1520.80.L25	78-98		25°	25°	150	49	220	190	94	190
DCRX1520.80.L30	78-98		30°	20°	145	50	220	190	94	190
DCRX1520.80.L35	78-98		35°	15°	125	52	220	190	94	190
DCRX1520.80.L40	78-98		40°	10°	115	53	220	190	94	190
DCRX1520.80.L45	78-98		45°	5°	105	50	220	190	94	190
DCRX1520.80.L50	78-98		50°	0°	95	52	220	190	94	190

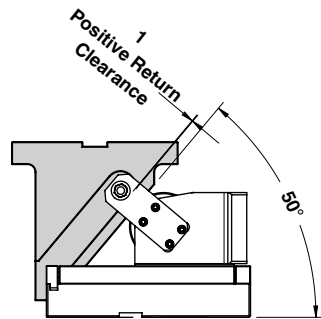
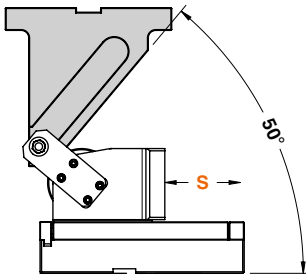


ROLLER CAM DRIVER - TREIBER FÜR ROLLENSCHIEBER - CUNEO PER CAMME A RULLO

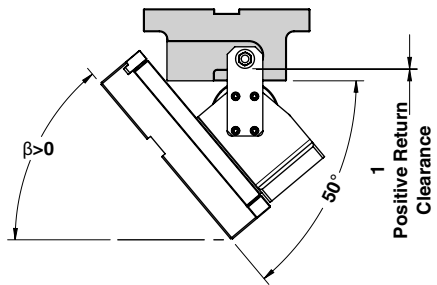
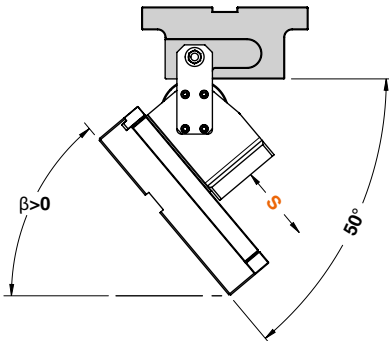
FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $-5^\circ$  TO  $-15^\circ$



FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ )= $0^\circ$



FUNCTIONING EXAMPLE FOR WORK ANGLE ( $\beta$ ) FROM  $5^\circ$  TO  $50^\circ$





Cam Units DHC  
Schieber DHC  
Unità a Camme DHC



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS



OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)		Page number
	$\beta$					E <sub>F</sub>		
					F <sub>s</sub>	Spring	Gas Spring	
DHC052	0°	52	140	52x65	38	0,62÷0,65	-	872
DHC065	0÷20°	65	160 (00.40÷05.45 / 10.45) 170 (05.70 / 10.70÷20.70)	65x70	44÷48	0,78÷1,02	-	876
DHC100	0÷20°	100	200	100x100	75÷82	-	4,6÷6,1	880
DHC150	0÷20°	150	220 (00.40÷15.45 / 20.45) 230 (15.70 / 20.70)	150x100	120÷127	-	4,6÷6,6	884
DHC200	0°	200	240	200x110	176	-	8,6÷10,1	888
DHC250	0°	250	270	250x130	232	-	8,6÷9,4	892
DHC300	0°	300	270	300x130	272	-	8,6÷9,4	896
DHC400	0°	400	250	400x150	480	-	25,2	900

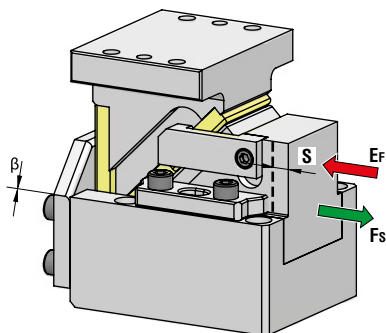
Cam Units DHC



Optimized logistics for top service



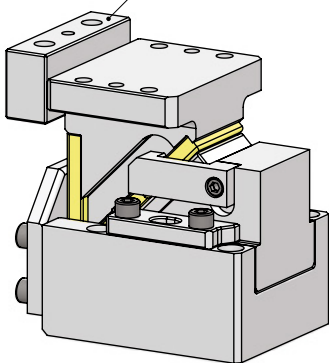
## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Max Work Force with shoulder (kN) Fs	Extraction Force (kN)	
				Ef	Spring
DHC052.00.25	0°	25	38	0,62	
DHC052.00.40	0°	40	38	0,63	
DHC052.00.60	0°	60	38	0,65	



C14.25.2538090  
Seite 88, page 88, pagina 88



With Key - OPTION K

STOCK		Art.	Work Angle = 0°	Stroke = 40	OPTION K
		DHC052	00	40	K

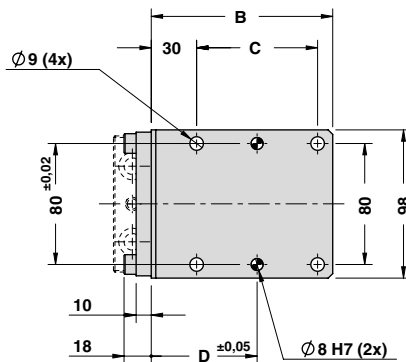
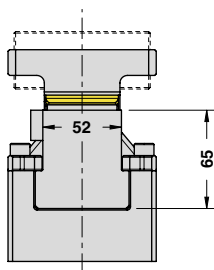
OMCR CODE	Work Angle $\beta$	Stroke (mm) S	Overall Dimensions (mm)						
			A	B	C	D	E	F	G
DHC052.00.25	0°	25	120	120	80	70	40	40	80
DHC052.00.40	0°	40	135	135	95	80	50	45	90
DHC052.00.60	0°	60	180	180	140	55	70	55	110



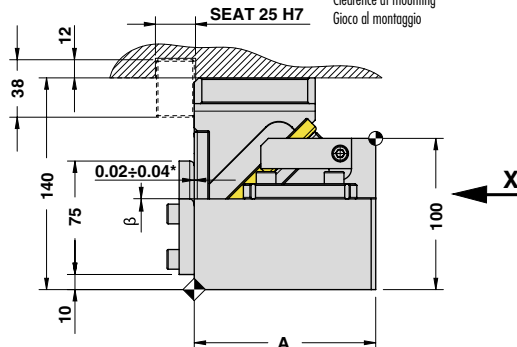


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

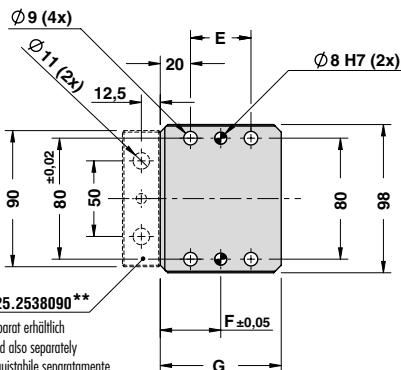
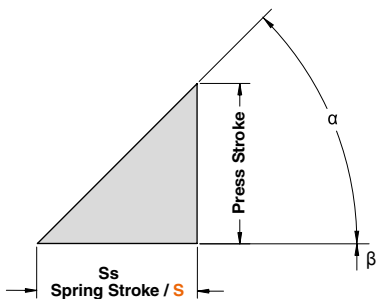
X VIEW



\* Spiel bei der Montage  
Clearance at mounting  
Gioco di montaggio



CAM DIAGRAM



C14.25.2538090\*\*

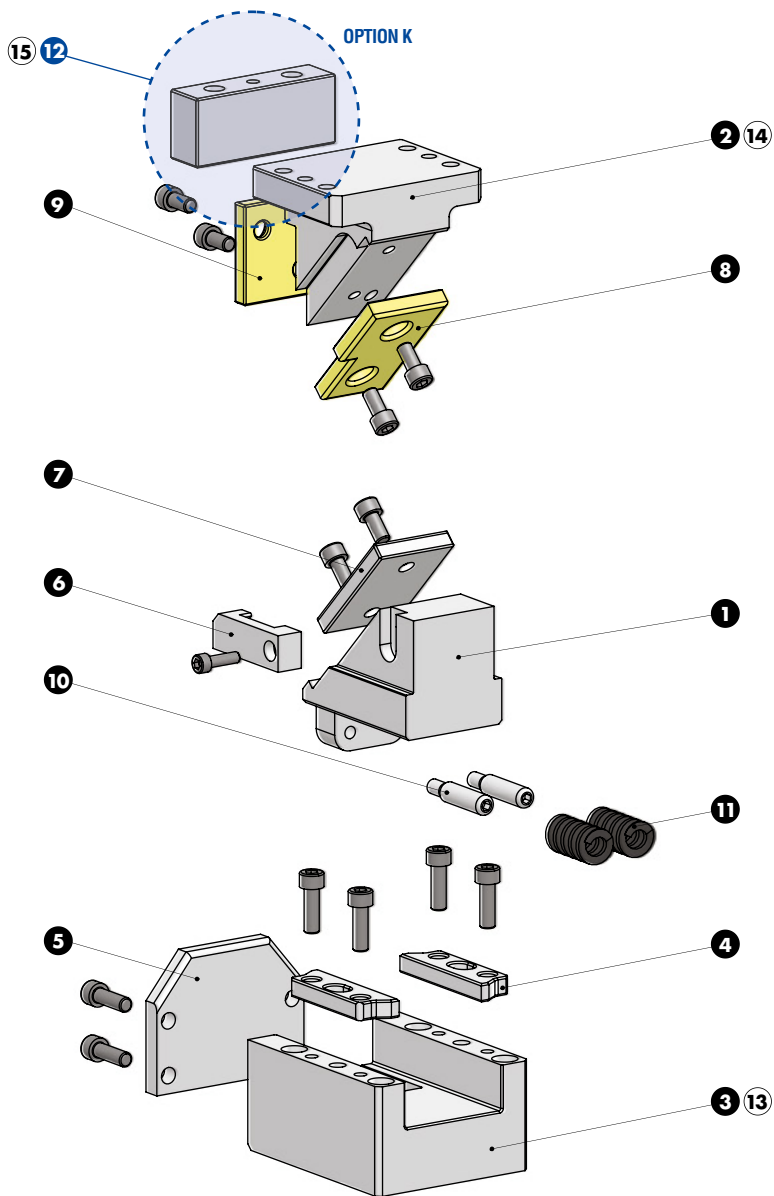
\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	25	25	25
0°	45°	40	40	40
0°	45°	60	60	60

Cam Units DHC



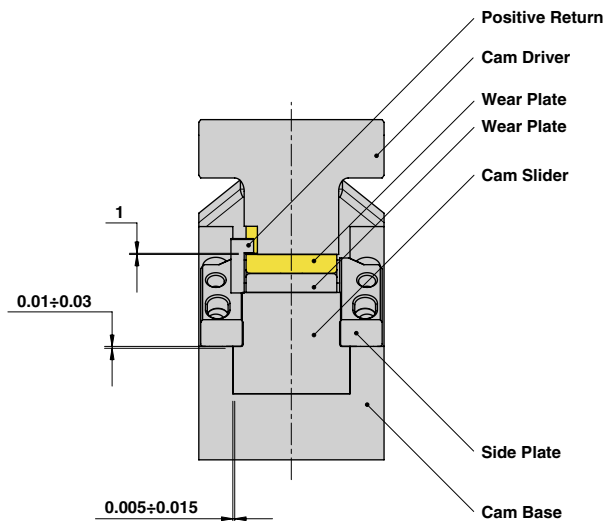
DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO





## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

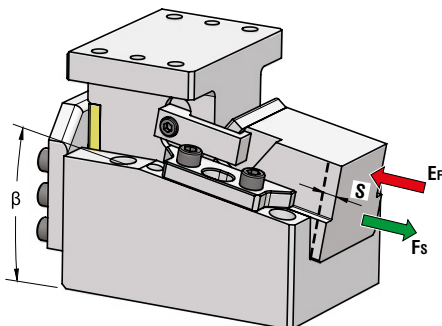


## PART LIST

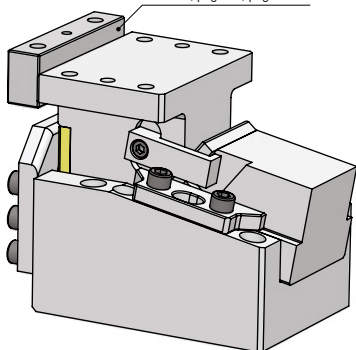
Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	1
7	Wear Plate	CK45	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Spring Guide Pin	CK45	2
11	Spring	-	2
12	Key (C14.25.2538090) - <b>OPTION K</b>	CK45	1
13	Cam Base Fixing Screws M8x50 DIN 912	-	4
14	Cam Driver Fixing Screws M8x30 DIN 912	-	4
15	Key Fixing Screws M10x40 DIN 912	-	2



**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**



C14.25.2538120  
Seite 88, page 88, pagina 88



With Key - OPTION K

OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
DHC065.00.40	0°	40	44	0,79
DHC065.00.60	0°	60	44	0,80
DHC065.05.45	5°	45	48	0,78
DHC065.05.70	5°	70	48	1,02
DHC065.10.45	10°	45	48	0,78
DHC065.10.70	10°	70	48	1,02
DHC065.15.45	15°	45	48	0,78
DHC065.15.70	15°	70	48	1,02
DHC065.20.45	20°	45	48	0,78
DHC065.20.70	20°	70	48	1,02



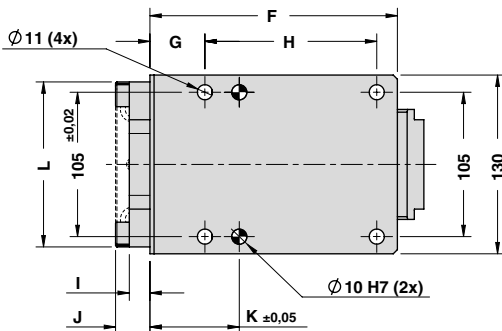
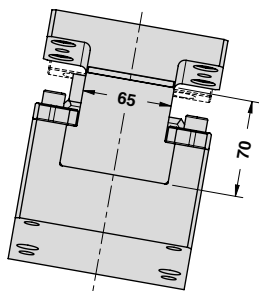
STOCK		Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC065	00	60	K

OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)															
	$\beta$	S	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
DHC065.00.40	0°	40	140	115	25	80	160	145	30	100	12	27	80	130	60	50	100	
DHC065.00.60	0°	60	190	115	25	80	160	180	40	125	12	22	105	130	70	55	110	
DHC065.05.45	5°	45	150,55	112,10	12,5	100	160	145	30	100	15	25	80	120	60	50	100	
DHC065.05.70	5°	70	195,38	123,17	25	100	170	180	40	125	15	25	65	120	60	50	100	
DHC065.10.45	10°	45	154,95	108,76	20	100	160	145	30	100	15	25	79	120	60	50	100	
DHC065.10.70	10°	70	199,27	110,94	25	100	170	180	40	125	15	25	65	120	60	50	100	
DHC065.15.45	15°	45	158,18	105,09	25	100	170	145	30	100	15	25	80	120	60	50	100	
DHC065.15.70	15°	70	201,64	103,44	40	100	170	180	40	125	15	25	65	120	70	55	110	
DHC065.20.45	20°	45	160,20	101,19	30	100	170	145	30	100	15	25	80	120	60	50	100	
DHC065.20.70	20°	70	202,48	95,79	40	100	170	180	40	125	15	25	65	120	70	55	110	

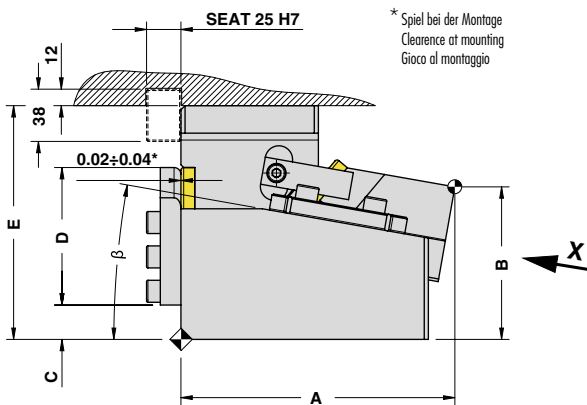
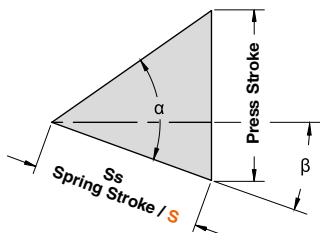


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW

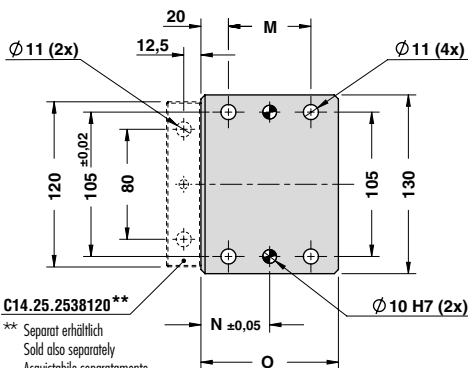


CAM DIAGRAM



\* Spiel bei der Montage  
Clearance at mounting  
Gioco al montaggio

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	45°	40	40	40
0°	45°	60	60	60
5°	60°	45	67,94	45
5°	60°	70	105,69	70
10°	60°	45	60,63	45
10°	60°	70	94,31	70
15°	60°	45	55,11	45
15°	60°	70	85,73	70
20°	60°	45	50,87	45
20°	60°	70	79,14	70

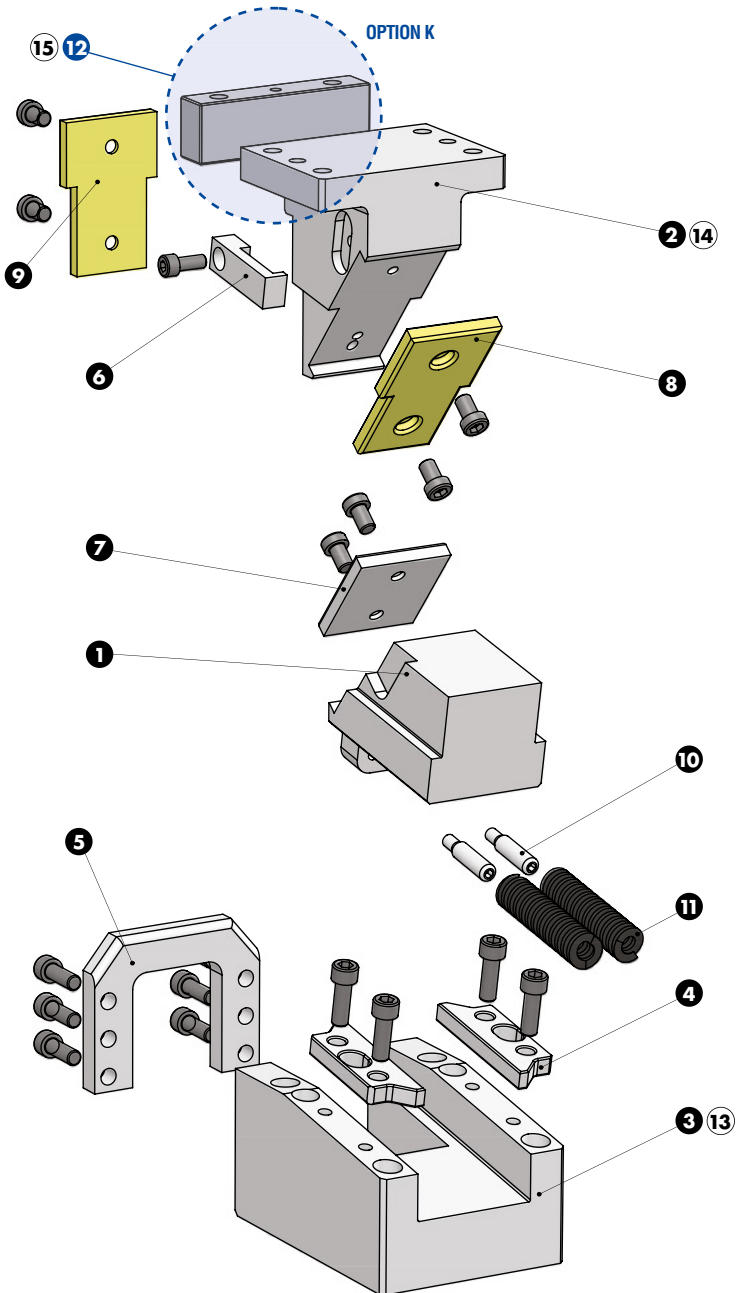


C14.25.2538120\*\*

\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente



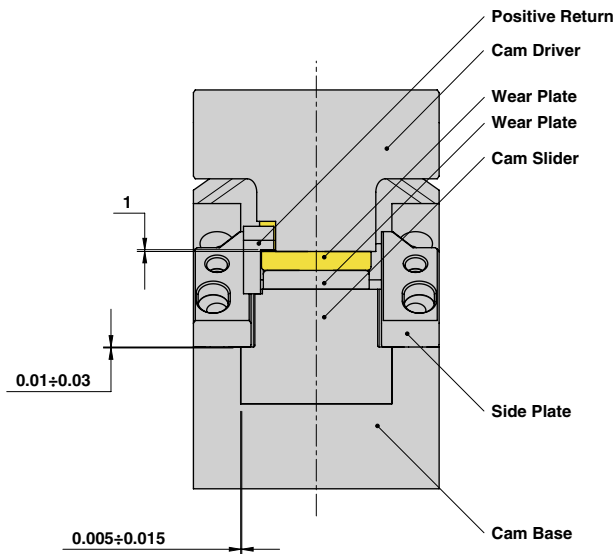
DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO





## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

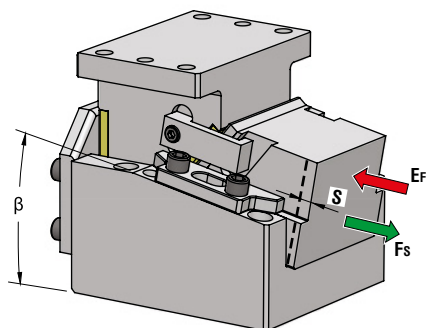


## PART LIST

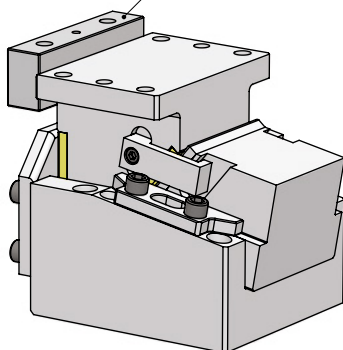
Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	1
7	Wear Plate	CK45	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Spring Guide Pin	CK45	2
11	Spring	-	2
12	Key (C14.25.2538120) - <b>OPTION K</b>	CK45	1
13	Cam Base Fixing Screws M10x50 DIN 912	-	4
14	Cam Driver Fixing Screws M10x40 DIN 912	-	4
15	Key Fixing Screws M10x40 DIN 912	-	2



## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



C14.25.3248150  
Seite 88, page 88, pagina 88



With Key - OPTION K

OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
DHC100.00.40	0°	40	75	4,6
DHC100.00.60	0°	60	75	5,9
DHC100.00.80	0°	80	75	6,8
DHC100.05.45	5°	45	82	4,6
DHC100.05.70	5°	70	82	6,1
DHC100.10.45	10°	45	82	4,6
DHC100.10.70	10°	70	82	6,1
DHC100.15.45	15°	45	82	4,6
DHC100.15.70	15°	70	82	6,1
DHC100.20.45	20°	45	82	4,6
DHC100.20.70	20°	70	82	6,1



STOCK	ORDER EXAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC100	00	60	K

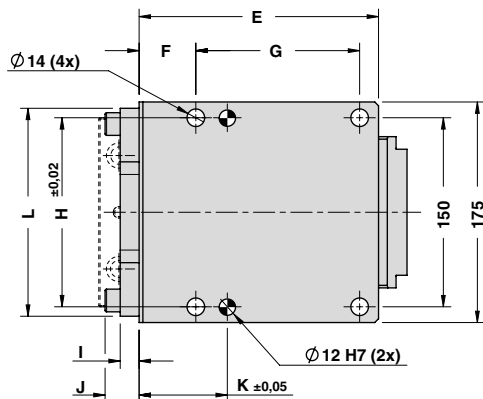
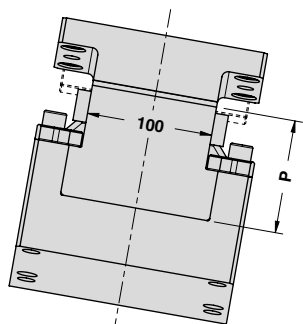
OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)															
	$\beta$		S	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
DHC100.00.40	0°	40	190	150	30	90	190	45	130	140	16	28	105	170	80	60	120	100
DHC100.00.60	0°	60	210	150	30	90	190	45	130	140	16	28	105	170	100	70	140	100
DHC100.00.80	0°	80	250	150	10	115	220	45	160	140	15	27	135	165	110	75	150	100
DHC100.05.45	5°	45	172,22	145,28	27,5	115	160	40	105	140	15	27	90	165	60	50	100	90
DHC100.05.70	5°	70	207,08	147,23	30	115	190	45	130	150	15	27	70	165	80	60	120	90
DHC100.10.45	10°	45	178,12	134,98	30	115	160	40	105	140	15	27	90	165	60	50	100	90
DHC100.10.70	10°	70	212,59	133,90	30	115	190	45	130	150	15	27	70	165	80	60	120	90
DHC100.15.45	15°	45	182,67	129,23	32,5	115	160	40	105	140	15	27	90	165	70	55	110	90
DHC100.15.70	15°	70	216,48	130,17	35	115	190	45	130	150	15	27	70	165	90	65	130	90
DHC100.20.45	20°	45	185,83	118,14	35	115	160	40	105	140	15	27	90	165	70	55	110	90
DHC100.20.70	20°	70	218,72	121,17	45	115	190	45	130	150	15	27	70	165	90	65	130	90



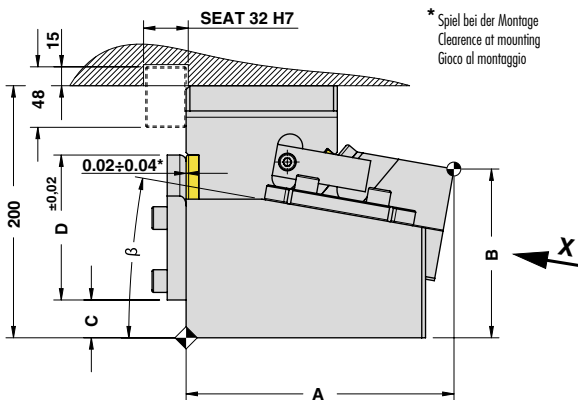
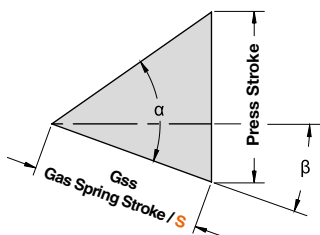


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW

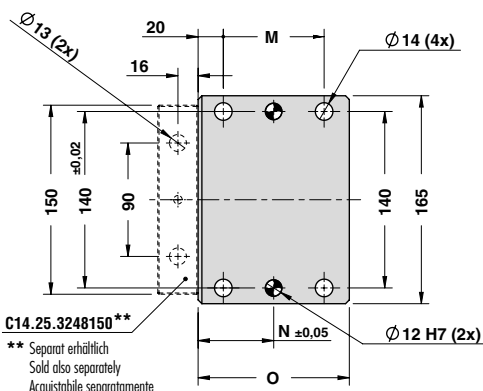


CAM DIAGRAM

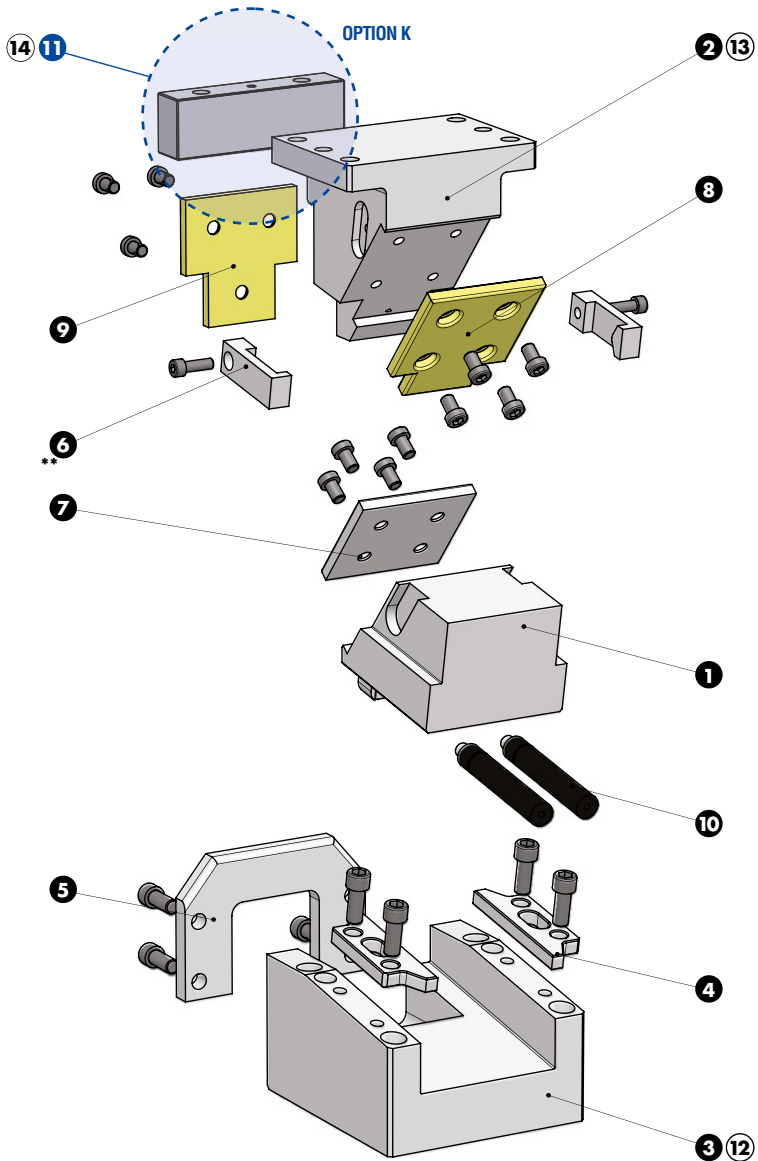


\* Spiel bei der Montage  
Clearance at mounting  
Gioco al montaggio

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	40	40	40
0°	45°	60	60	60
0°	45°	80	80	80
5°	60°	45	67,94	45
5°	60°	70	105,69	70
10°	60°	45	60,63	45
10°	60°	70	94,31	70
15°	60°	45	55,11	45
15°	60°	70	85,73	70
20°	60°	45	50,87	45
20°	60°	70	79,14	70



C14.25.3248150\*\*  
\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente

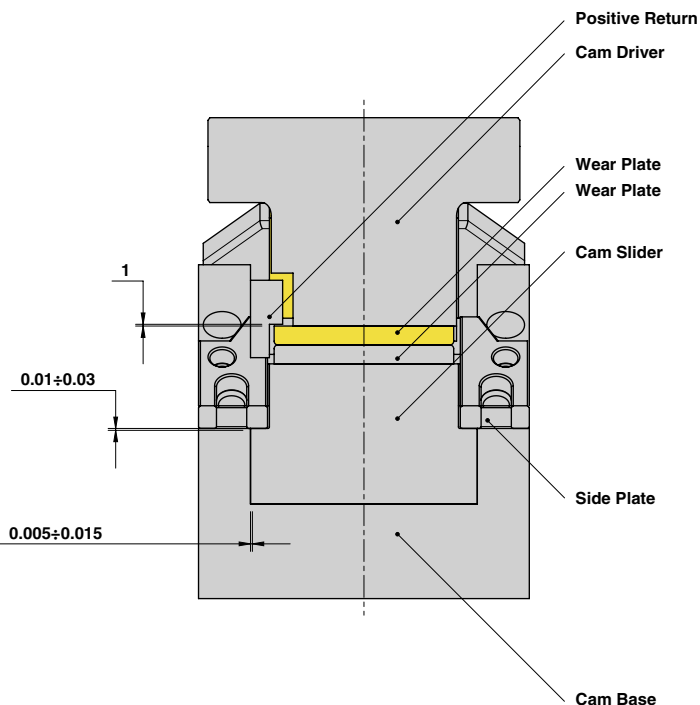


\*\* Only nr.1 positive re  
 DHC100.00 mit nur einer Zwangsrückholung.  
 Solo un gancio di sicurezza per le DHC100.00.



DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

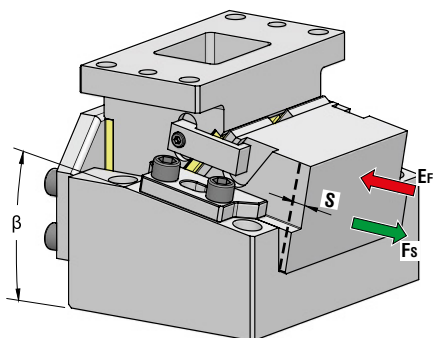


PART LIST

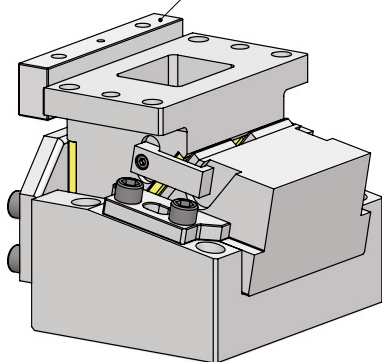
Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	1
7	Wear Plate	CK45	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Gas Spring	-	2
11	Key (C14.25.3248150) - <b>OPTION K</b>	CK45	1
12	Cam Base Fixing Screws M12x60 DIN 912	-	4
13	Cam Driver Fixing Screws M12x45 DIN 912	-	4
14	Key Fixing Screws M12x40 DIN 912	-	2



## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



C14.25.3248210  
Seite 88, page 88, pagina 88



With Key - OPTION K

OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
DHC150.00.40	0°	40	120	5,7
DHC150.00.60	0°	60	127	5,9
DHC150.05.45	5°	45	127	4,6
DHC150.05.70	5°	70	127	6,6
DHC150.10.45	10°	45	127	4,6
DHC150.10.70	10°	70	127	6,6
DHC150.15.45	15°	45	127	4,6
DHC150.15.70	15°	70	127	6,6
DHC150.20.45	20°	45	127	4,6
DHC150.20.70	20°	70	127	6,6



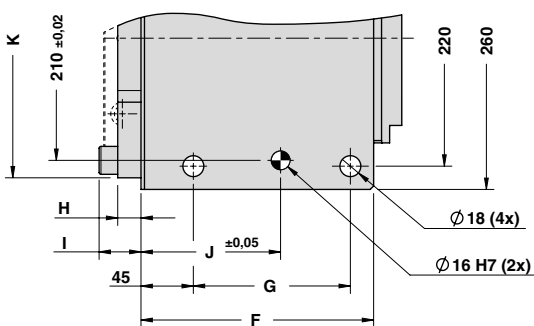
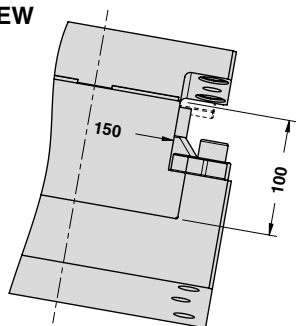
STOCK	ORDER EXAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC150	00	60	K

OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)													
	$\beta$		S	A	B	C	D	E	F	G	H	I	J	K	L	M
DHC150.00.40	0°	40	190	170	45	100	220	190	125	19	35	105	250	80	60	120
DHC150.00.60	0°	60	210	170	45	100	220	200	135	19	35	110	250	100	70	140
DHC150.05.45	5°	45	193,01	158,50	30	125	220	190	125	20	36	105	240	70	55	110
DHC150.05.70	5°	70	217,92	166,32	40	125	220	200	135	20	36	120	240	90	65	130
DHC150.10.45	10°	45	199,55	151,36	40	125	220	190	125	20	36	105	240	70	55	110
DHC150.10.70	10°	70	224,17	152,02	40	125	220	200	135	20	36	120	240	90	65	130
DHC150.15.45	15°	45	204,58	143,71	40	125	220	190	125	20	36	105	240	80	60	120
DHC150.15.70	15°	70	228,73	152,24	55	125	230	200	135	20	36	120	240	100	70	140
DHC150.20.45	20°	45	208,05	135,70	40	125	220	190	125	20	36	105	240	80	60	120
DHC150.20.70	20°	70	231,54	137,15	55	125	230	200	135	20	36	120	240	100	70	140

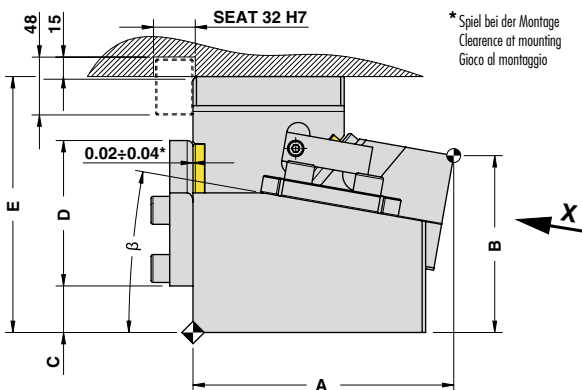
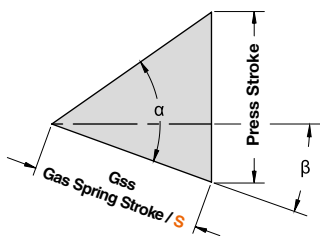


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW

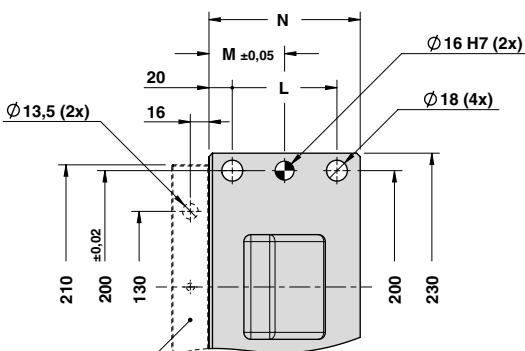


CAM DIAGRAM



\* Spiel bei der Montage  
Clearance at mounting  
Gioco al montaggio

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	40	40	40
0°	45°	60	60	60
5°	60°	45	67,94	45
5°	60°	70	105,69	70
10°	60°	45	60,63	45
10°	60°	70	94,31	70
15°	60°	45	55,11	45
15°	60°	70	85,73	70
20°	60°	45	50,87	45
20°	60°	70	79,14	70



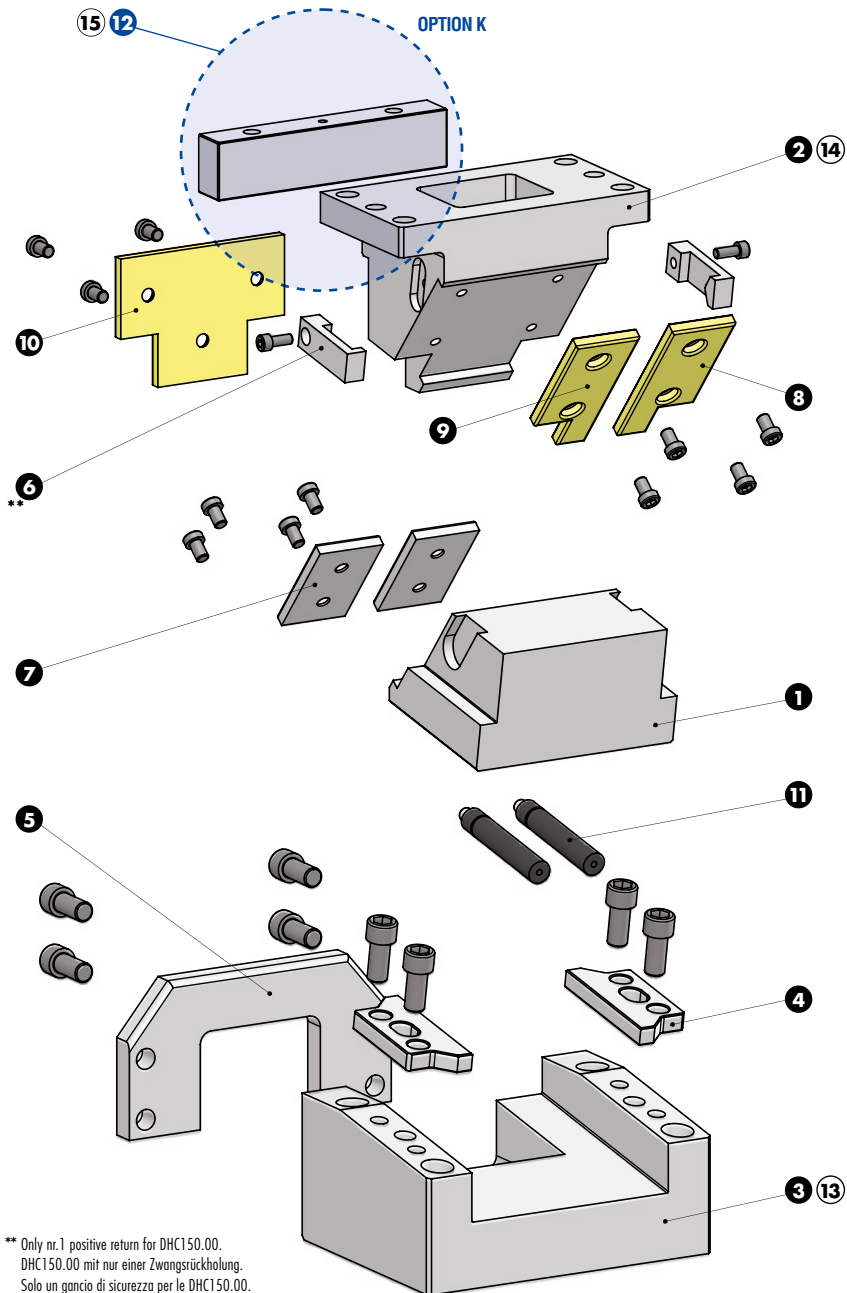
C14.25.3248210\*\*

\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente

Cam Units DHC



DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

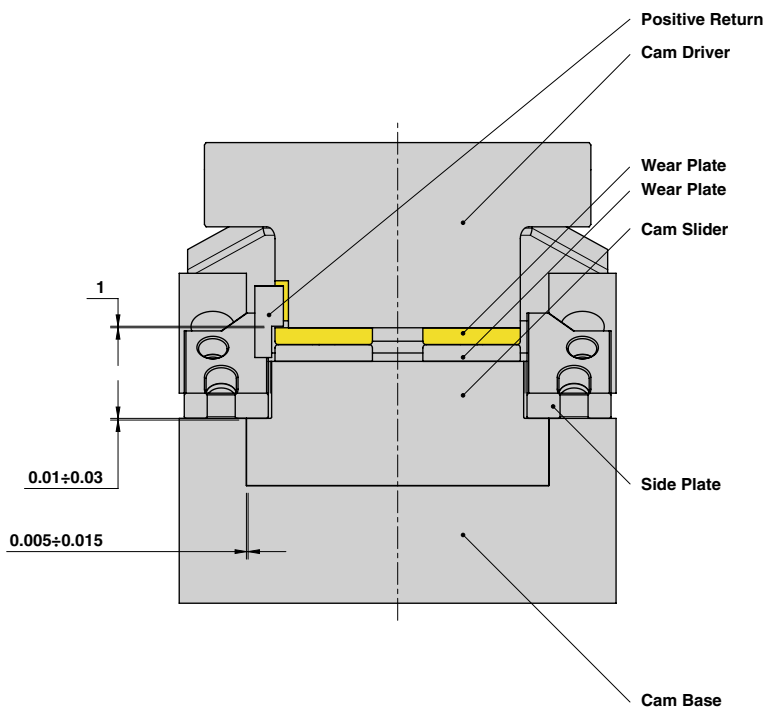


\*\* Only nr.1 positive return for DHC150.00.  
 DHC150.00 mit nur einer Zwangsrückholung.  
 Solo un gancio di sicurezza per le DHC150.00.



DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

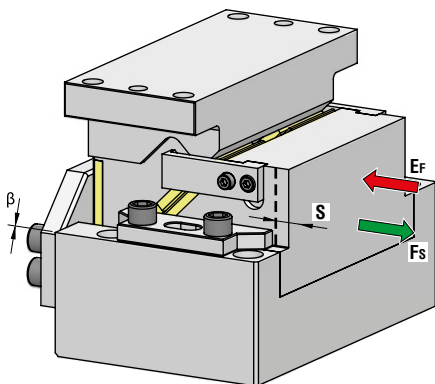


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	2
7	Wear Plate	CK45	1
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
11	Gas Spring	-	2
12	Key (C14.25.3248210) - <b>OPTION K</b>	CK45	1
13	Cam Base Fixing Screws M16x80 DIN 912	-	4
14	Cam Driver Fixing Screws M16x55 DIN 912	-	4
15	Key Fixing Screws M12x40 DIN 912	-	2



## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β			S
DHC200.00.40	0°	40	176	8,6
DHC200.00.60	0°	60	176	10,1



WEB



WEB

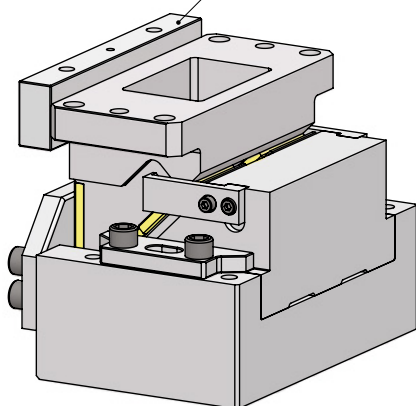


WEB



P.624

C14.25.3258260  
Seite 88, page 88, pagina 88



With Key - OPTION K

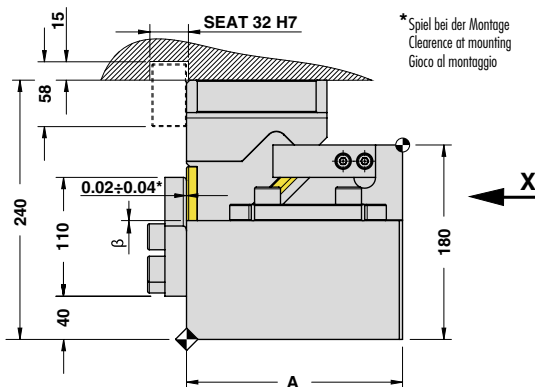
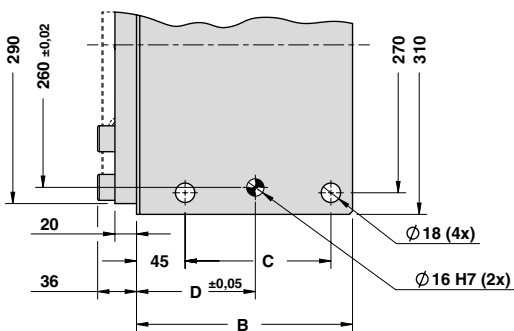
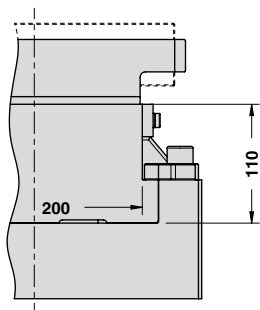
STOCK	ORDER EXAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC200	00	60	K

OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)						
	β		S	A	B	C	D	E	F
DHC200.00.40	0°	40	200	200	135	110	90	65	130
DHC200.00.60	0°	60	220	210	145	120	110	75	150



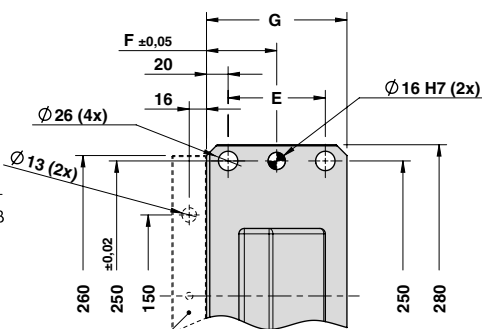
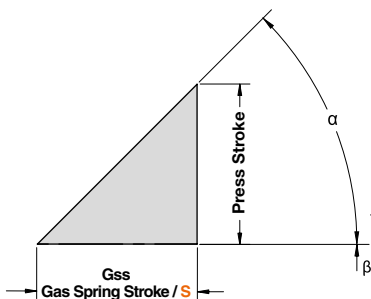


X VIEW



\* Spiel bei der Montage  
Clearance at mounting  
Gioco al montaggio

CAM DIAGRAM



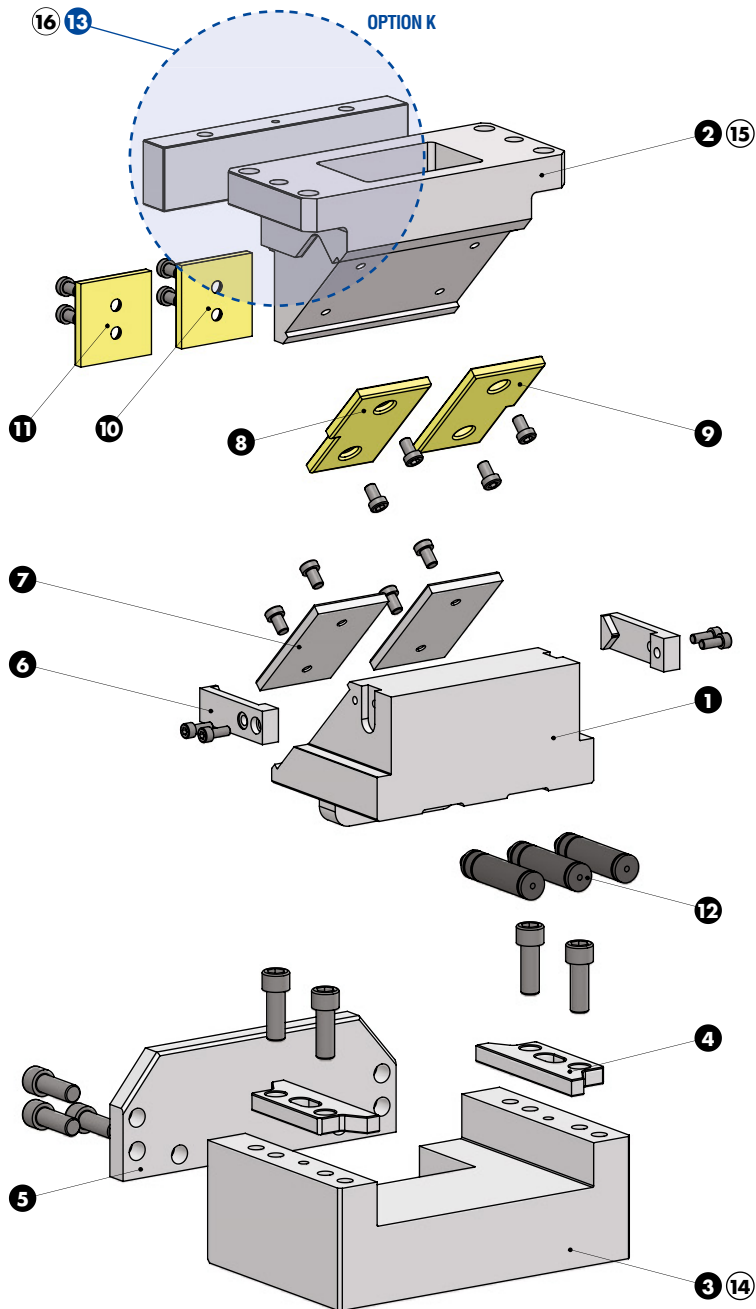
C14.25.3258260\*\*

\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	40	25	25
0°	45°	60	40	40



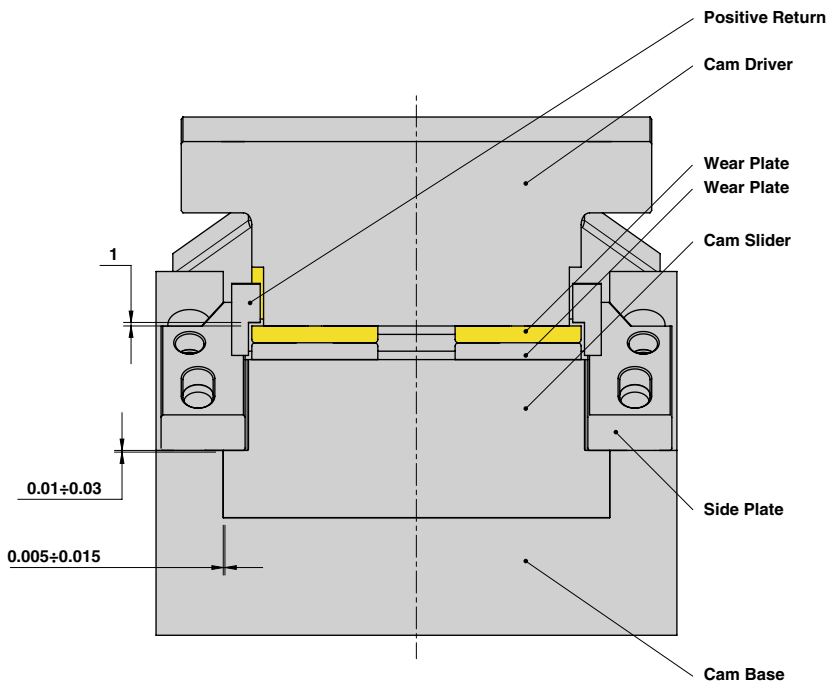
DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO





DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

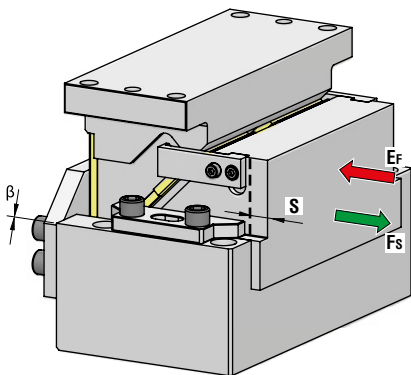


PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	2
7	Wear Plate	CK45	2
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
11	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
12	Gas Spring	-	3
13	Key (C14.25.3258260) - <b>OPTION K</b>	CK45	1
14	Cam Base Fixing Screws M16x80 DIN 912	-	4
15	Cam Driver Fixing Screws M16x60 DIN 912	-	4
16	Key Fixing Screws M12x40 DIN 912	-	2



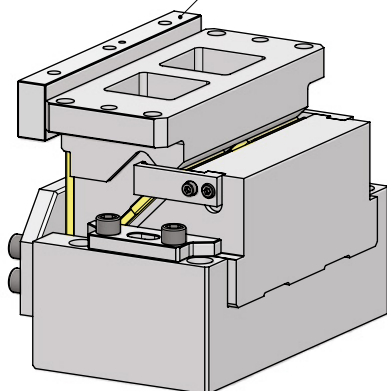
## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	β			S
DHC250.00.40	0°	40	232	8,6
DHC250.00.60	0°	60	232	9,4



**C14.25.3258310**  
Seite 88, page 88, pagina 88



With Key - **OPTION K**

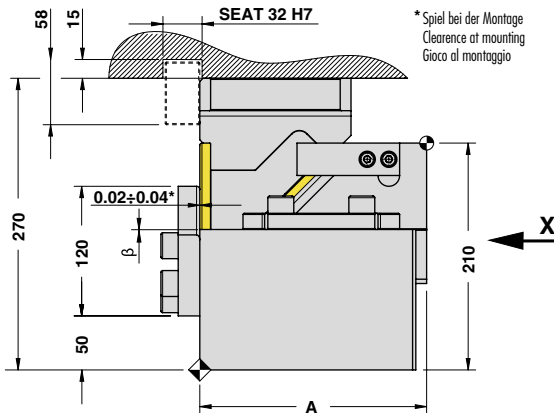
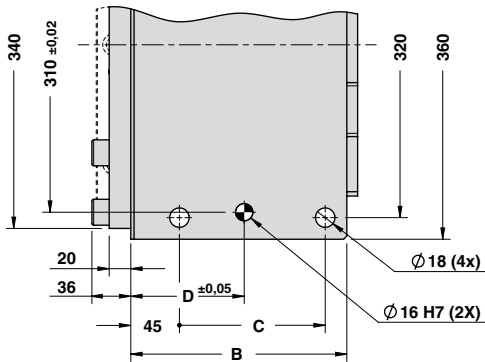
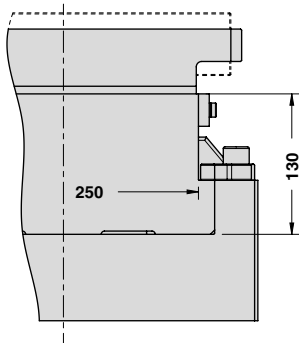
STOCK	ORDER SAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC250	00	60	K

OMCR CODE	Work Angle	Stroke	Overall Dimensions (mm)						
	β		S	A	B	C	D	E	F
DHC250.00.40	0°	40	210	200	135	105	100	70	140
DHC250.00.60	0°	60	230	220	155	125	120	80	160

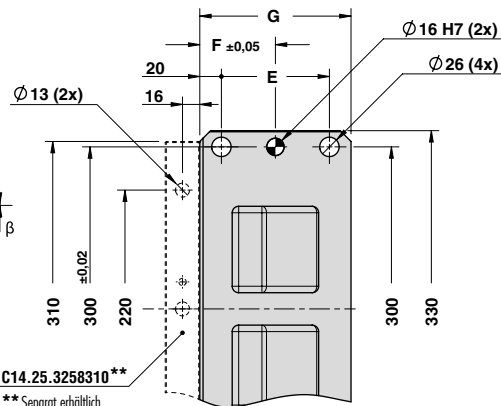
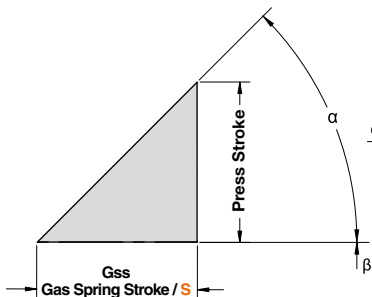


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW



CAM DIAGRAM



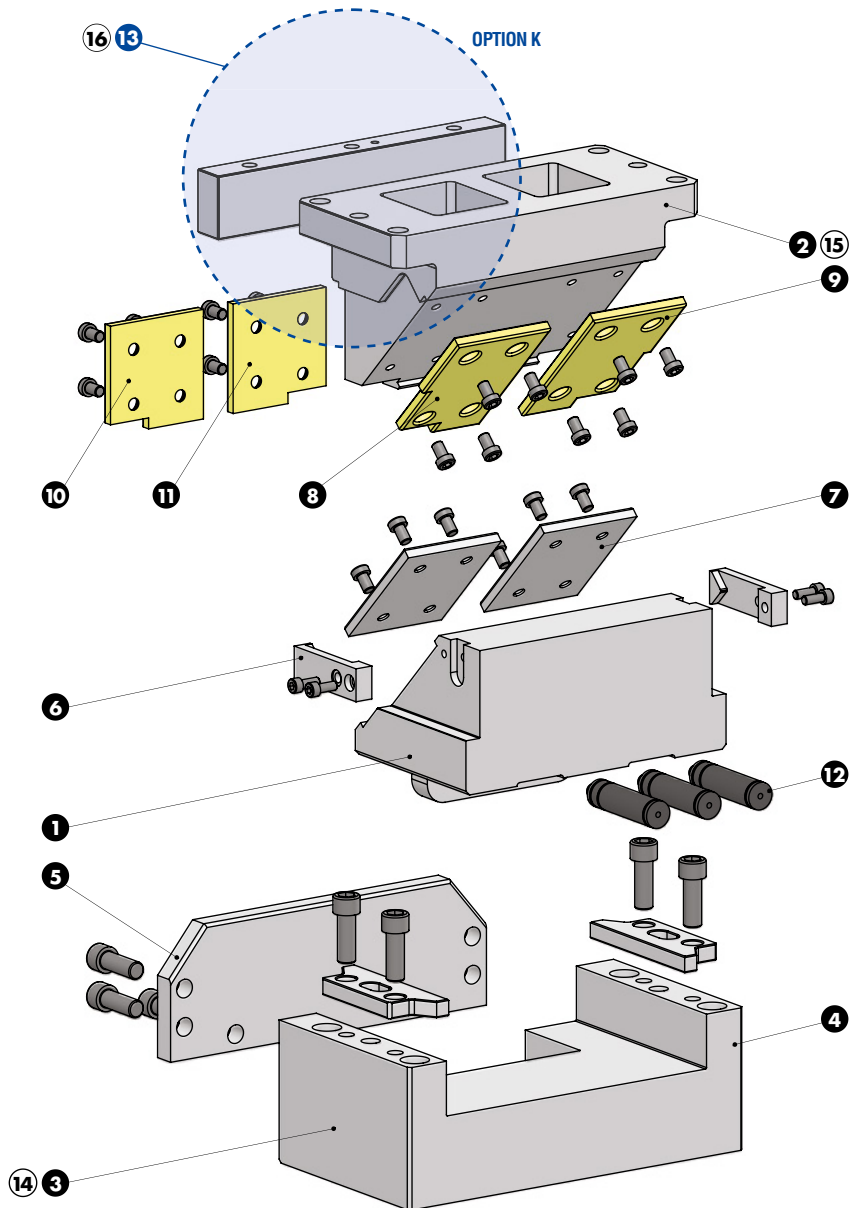
**C14.25.3258310\*\***  
 \*\* Separat erhältlich  
 Sold also separately  
 Acquistabile separatamente

Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	40	40	40
0°	45°	60	60	60

Cam Units DHC



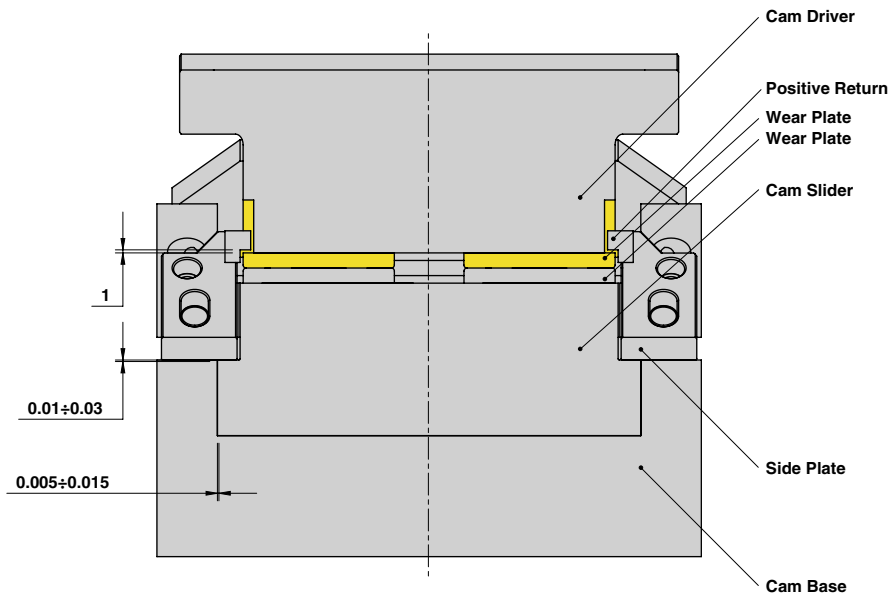
DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO





## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

## SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES

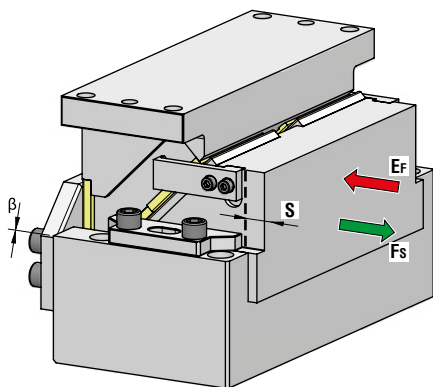


## PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	2
7	Wear Plate	CK45	2
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
11	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
12	Gas Spring	-	3
13	Key (C14.25.3258310) - <b>OPTION K</b>	CK45	1
14	Cam Base Fixing Screws M16x90 DIN 912	-	4
15	Cam Driver Fixing Screws M16x60 DIN 912	-	4
16	Key Fixing Screws M12x50 DIN 912	-	3



## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$			S
DHC300.00.40	0°	40	272	8,6
DHC300.00.60	0°	60	272	9,4



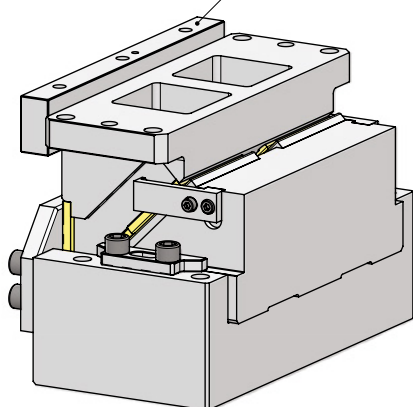
WEB

WEB

WEB

P.624

C14.25.3258350  
Seite 88, page 88, pagina 88



With Key - OPTION K

STOCK	ORDER EXAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC300	00	60	K

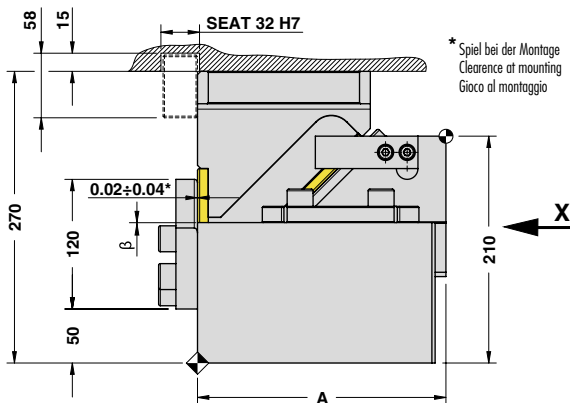
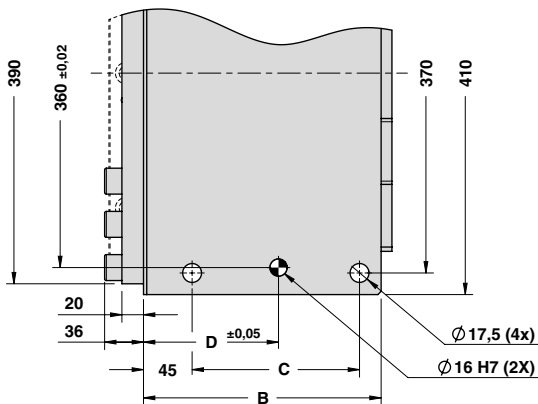
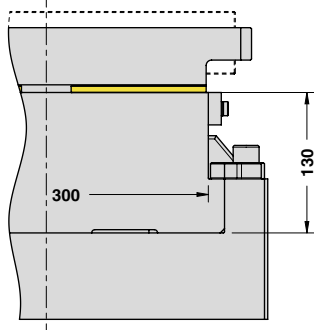
OMCR CODE	Work Angle	Stroke	Overall Dimensions (mm)						
	$\beta$		S	A	B	C	D	E	F
DHC300.00.40	0°	40	210	200	135	105	100	70	140
DHC300.00.60	0°	60	230	220	155	125	120	80	160



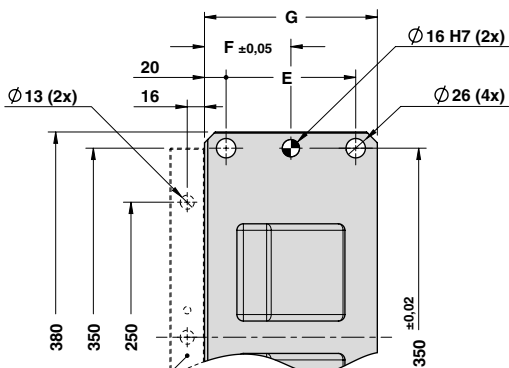
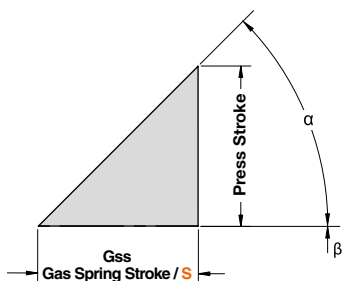


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW



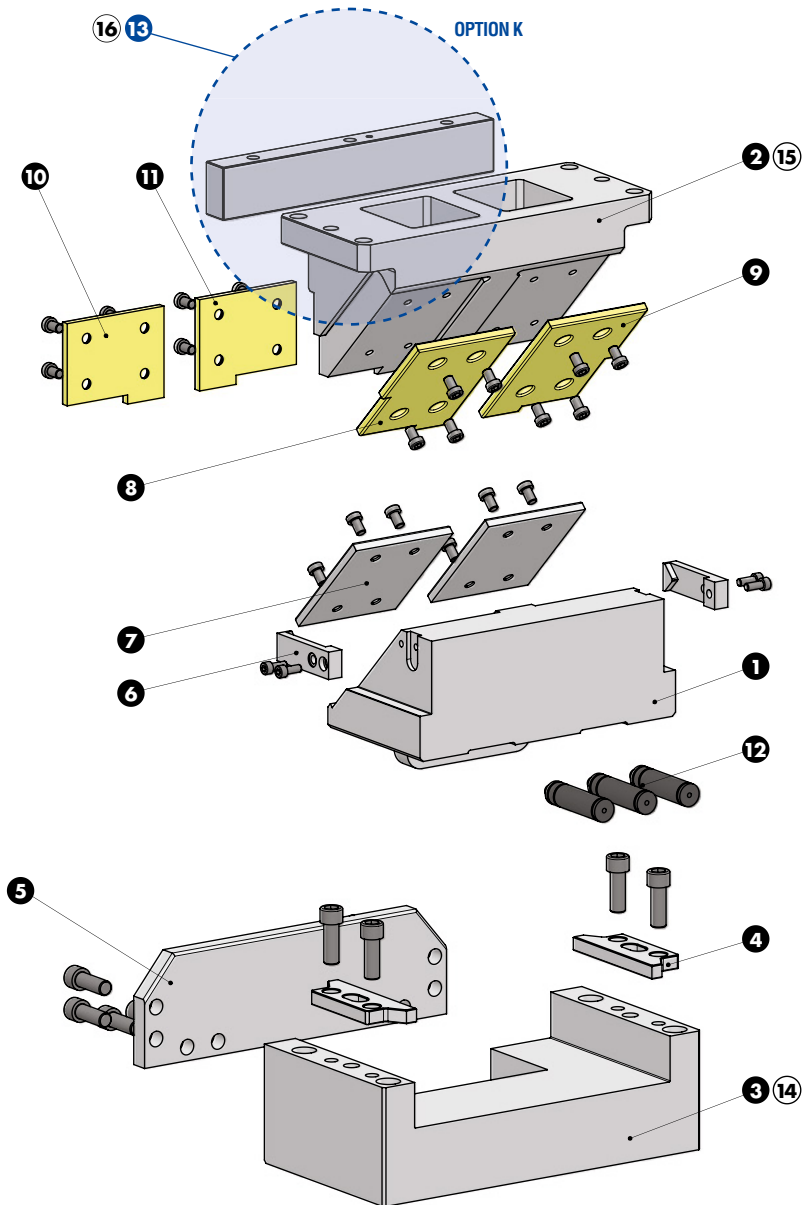
CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	40	40	40
0°	45°	60	60	60

\*\* Separat erhältlich  
Sold also separately  
Acquistabile separatamente

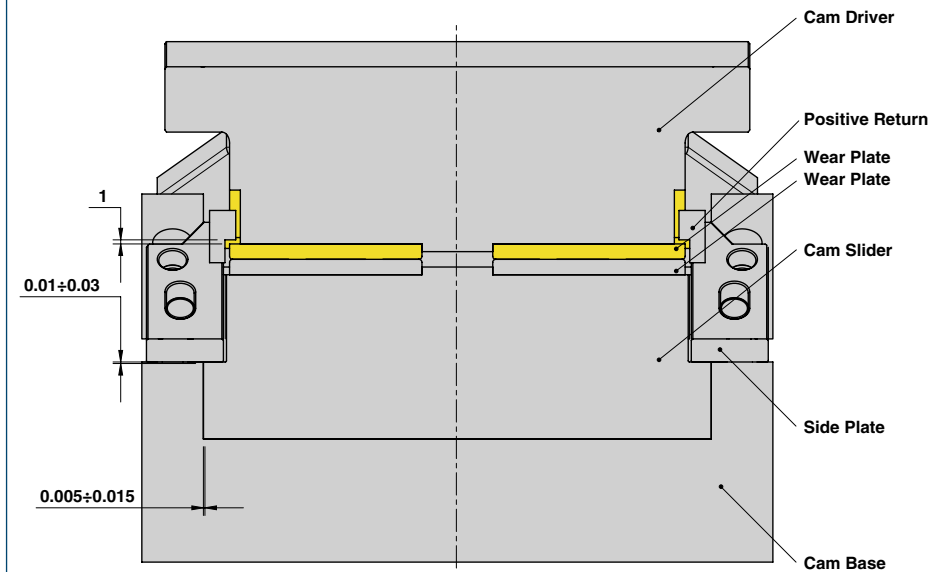
Cam Units DHC





DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



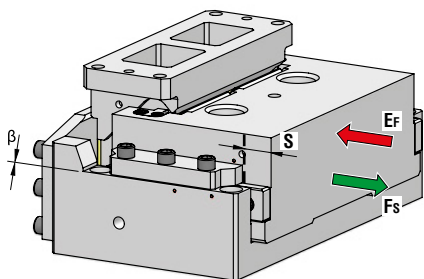
Cam Units DHC

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	CK45	2
5	Stopper Plate	CK45	1
6	Positive Return	CK45	2
7	Wear Plate	CK45	2
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
11	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
12	Gas Spring	-	3
13	Key (C14.25.3258350) - <b>OPTION K</b>	CK45	1
14	Cam Base Fixing Screws M16x90 DIN 912	-	4
15	Cam Driver Fixing Screws M16x60 DIN 912	-	4
16	Key Fixing Screws M12x50 DIN 912	-	3



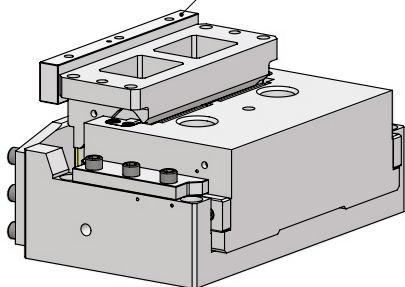
## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	Fs	Ef Gas Spring
DHC400.00.60	0°	60	480	25,2



**C14.25.3258350**  
Seite 88, page 88, pagina 88



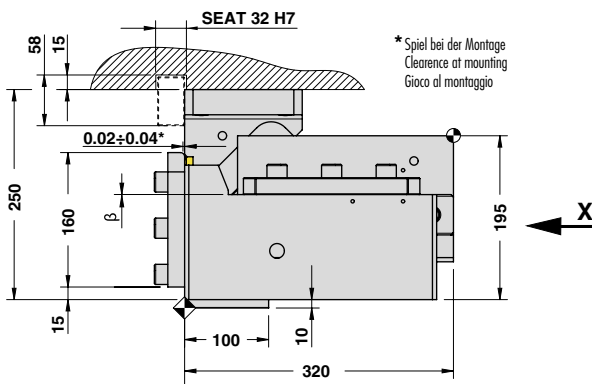
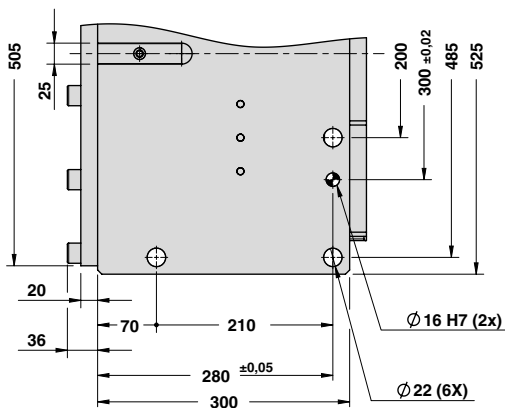
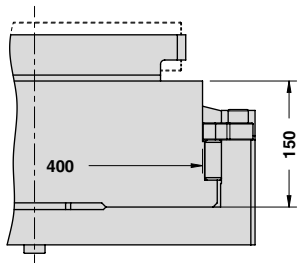
With Key - **OPTION K**

STOCK	ORDER EXAMPLE	Art.	Work Angle = 0°	Stroke = 60	OPTION K
		DHC400	00	60	K

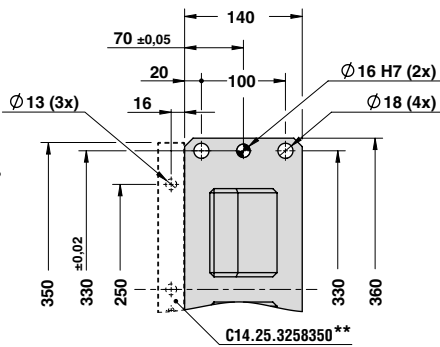
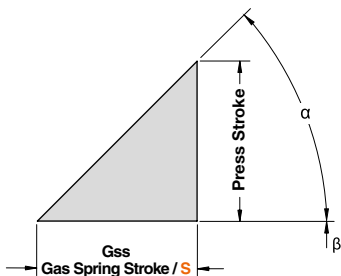


DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

X VIEW



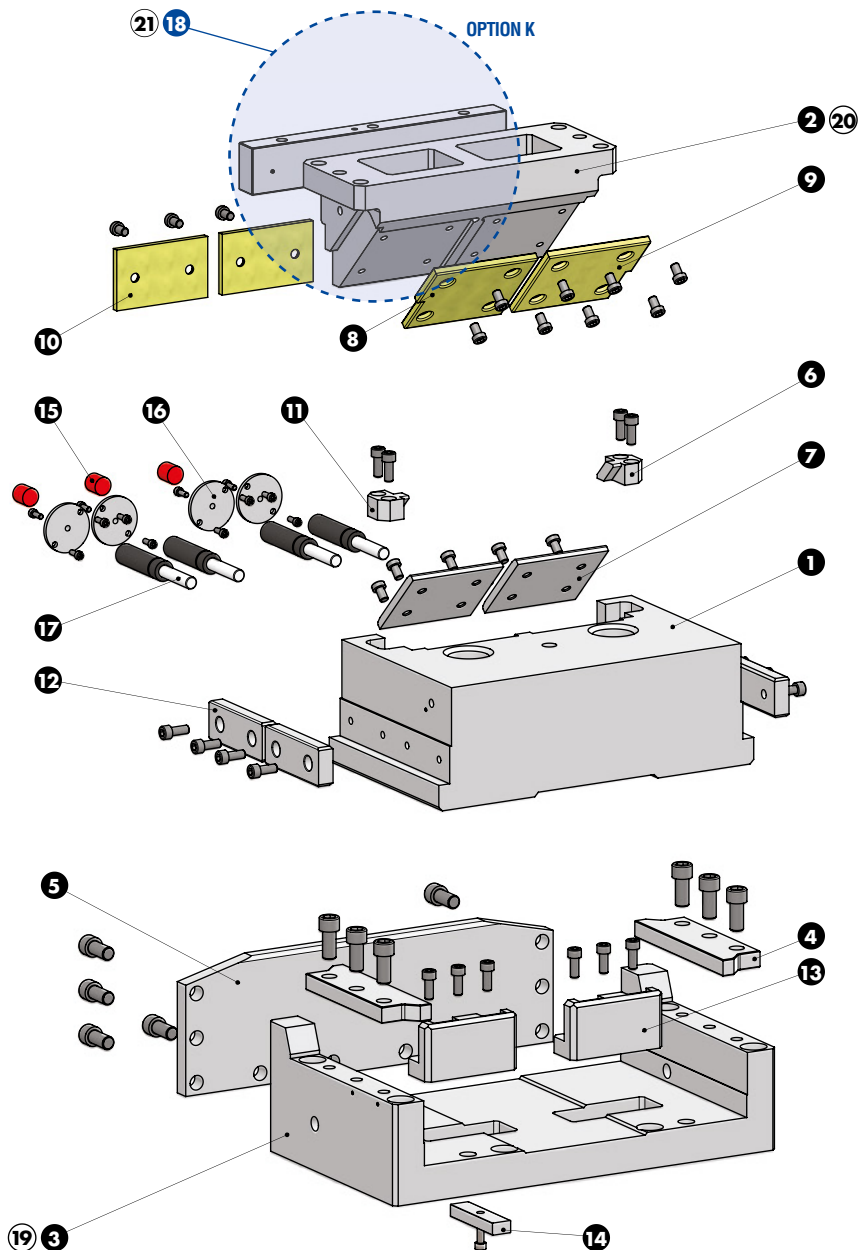
CAM DIAGRAM



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Gas Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Gss
0°	45°	60	60	60

\*\* Separat erhältlich / Sold also separately / Acquistabile separatamente

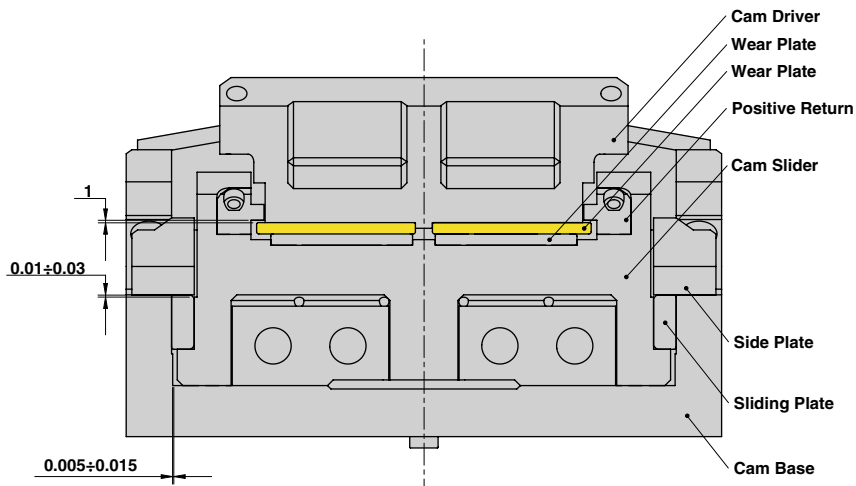
Cam Units DHC





DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO

SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES



Cam Units DHC

PART LIST

Particular number	Description	Material	Quantity
1	Cam Slider	GGG-45 + Graphite	1
2	Cam Driver	GG-25	1
3	Cam Base	GG-25	1
4	Side Plate	GG-25 + Graphite	2
5	Stopper Plate	CK45	1
6	Positive Return R	CK45	1
7	Wear Plate	CK45	2
8	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
9	Wear Plate	CuZn25Al5 + Graphite - HB > 190	1
10	Wear Plate	CuZn25Al5 + Graphite - HB > 190	2
11	Positive Return L	CK45	1
12	Slide Plate	GG-25 + Graphite	4
13	Spring Stopper	CK45	2
14	Key	CK45	1
15	Elastomer Cap	Elastomer 92SH	3
16	Gas Spring Stopper Plate	CK45	4
17	Gas Spring	-	4
18	Key (C14.25.3258350) - OPTION K	CK45	1
19	Cam Base Fixing Screws M20x90 DIN 912	-	4
20	Cam Driver Fixing Screws M16x55 DIN 912	-	4
21	Key Fixing Screws M12x50 DIN 912	-	3

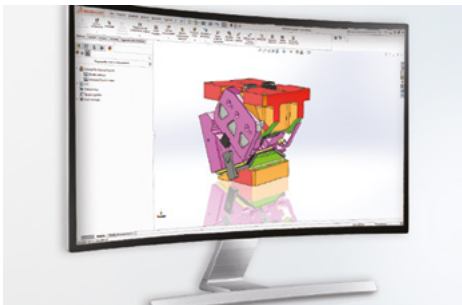


Cam Units DLD  
Schieber DLD  
Unità a Camme DLD

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

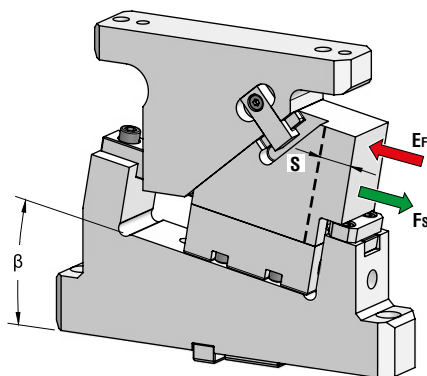


OMCR CODE	Work Angle	Slider Width (mm)	Closed Cam Height (mm)	Work Area W x H (mm)	Max Work Force with shoulder 10 <sup>6</sup> cycles (kN)	Extraction Force (kN)	Page number
	$\beta$				F <sub>s</sub>	F <sub>t</sub>	
<b>DLD052</b>	0÷20° (5° steps)	52	215÷255	52x75	40	0,53	906
<b>DLD090</b>	0÷15° (5° steps)	90	220÷225	90x82	79	1,05	910



Dynamic technical staff and advanced design methods

## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Spring
DLD052.00.55	0°	55	40	0,53
DLD052.05.55	5°	55	40	0,53
DLD052.10.55	10°	55	40	0,53
DLD052.15.55	15°	55	40	0,53
DLD052.20.55	20°	55	40	0,53

### OPTION CODE

SL	5 ÷ 65 (5mm steps)
SW	100 mm

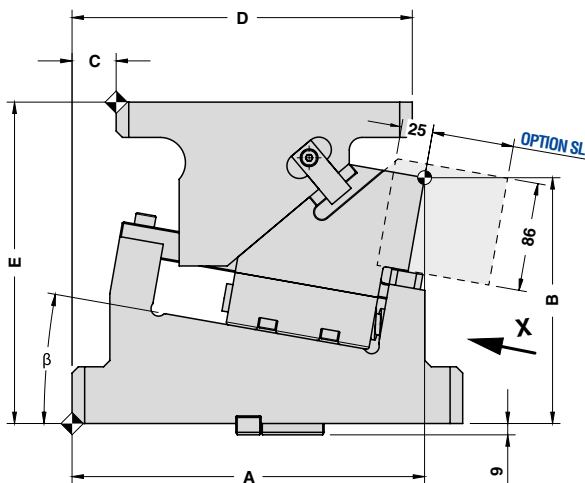
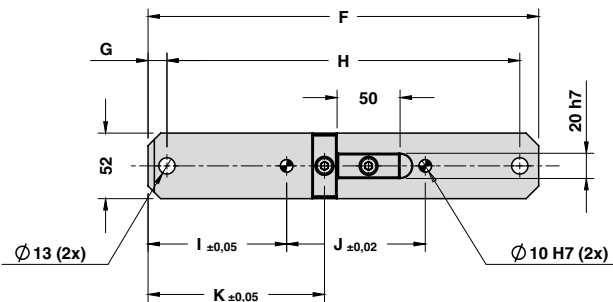
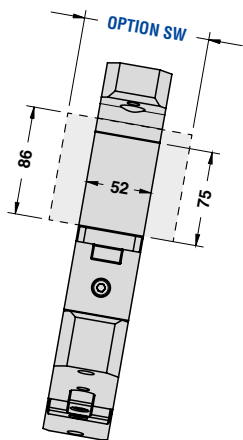


Art.	Work Angle = 5°	Stroke = 55	OPTION CODE	
			SL	SW
DLD052	05	55	SL55	SW100

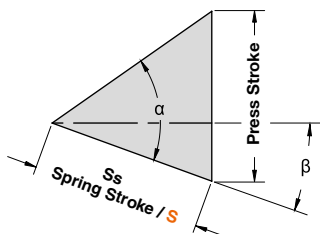
OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)													
	$\beta$	S	A	B	C	D	E	F	G	H	I	J	K	L	M	N
DLD052.00.55	0°	55	220	170	0	210	215	235	45	145	65	105	90	160	160	210
DLD052.05.55	5°	55	269,87	195,66	35	260	255	310	15	280	110	110	140	175	175	225
DLD052.10.55	10°	55	279,75	195,02	35	270	255	310	15	280	110	110	140	185	185	235
DLD052.15.55	15°	55	289,51	193,09	40	280	255	310	15	280	110	110	140	190	190	240
DLD052.20.55	20°	55	304,05	174,88	55	295	255	310	15	280	110	110	140	190	190	240

**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**

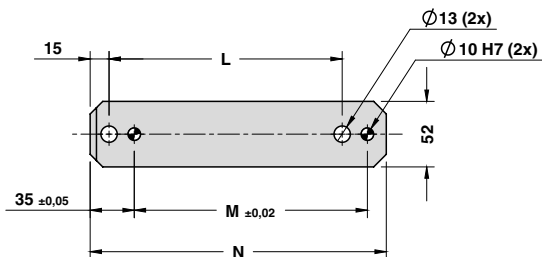
**X VIEW**

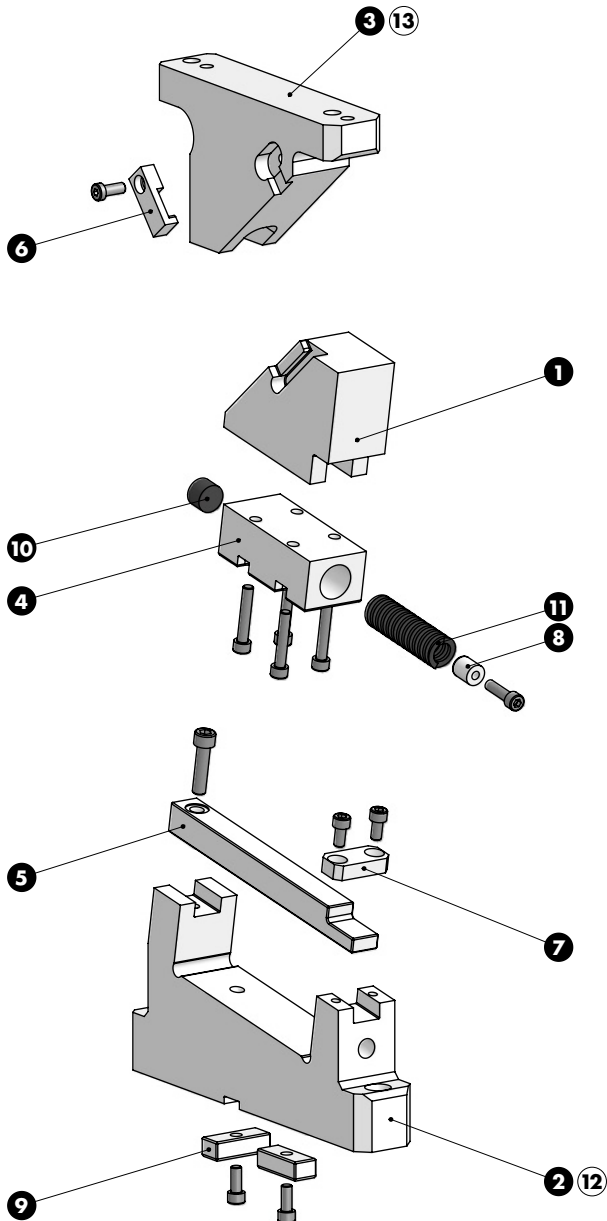


**CAM DIAGRAM**



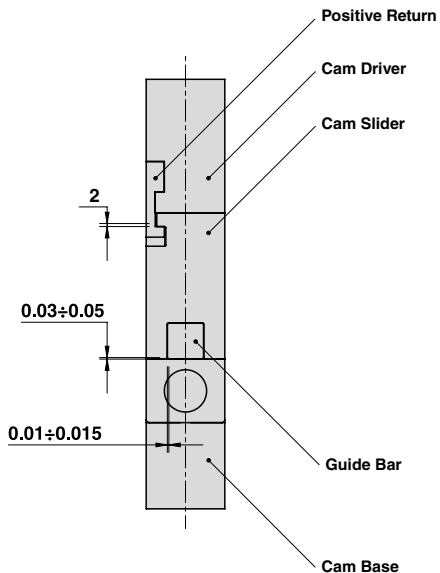
Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	55	65,55	55
5°	50°	55	59,58	55
10°	50°	55	55,00	55
15°	50°	55	51,43	55
20°	50°	55	48,65	55



**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**

**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**

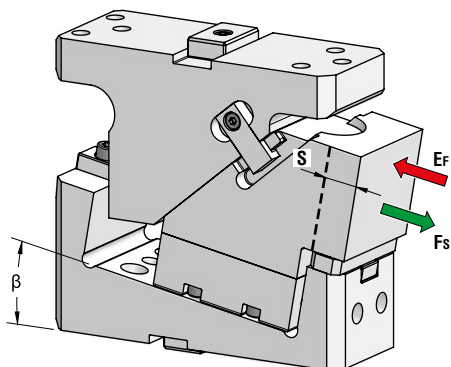


**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Base	GG-25	1
3	Cam Driver	GG-25 + Graphite	1
4	Spring Guide Block	GG-25 + Graphite	1
5	Guide Bar	42CrMo4 + Graphite	2
6	Positive Return	CK45	1
7	Guide Bar Stopper Plate	CK45	1
8	Spring Guide Pin	CK45	1
9	Key	CK45	2
10	Elastomer Cap	Elastomer 92SH	1
11	Spring	-	1
12	Cam Base Fixing Screws M12x45 DIN 912	-	2
13	Cam Driver Fixing Screws M12x45 DIN 912	-	2

Cam Units DLD

## DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO



OMCR CODE	Work Angle	Stroke (mm)	Max Work Force with shoulder (kN)	Extraction Force (kN)
	$\beta$	S	F <sub>s</sub>	E <sub>f</sub> Spring
DLD090.00.55	0°	55	79	1,05
DLD090.05.55	5°	55	79	1,05
DLD090.10.55	10°	55	79	1,05
DLD090.15.55	15°	55	79	1,05

OPTION CODE	
SW	120 or 150 mm
N	Ø 12H7

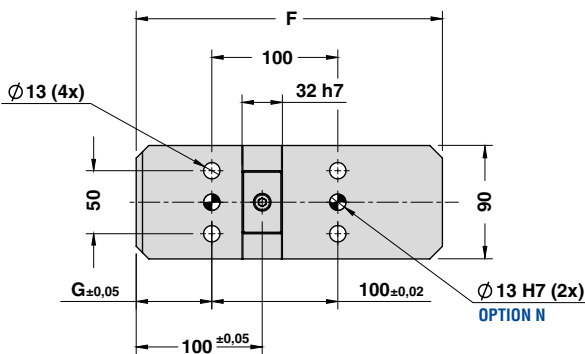
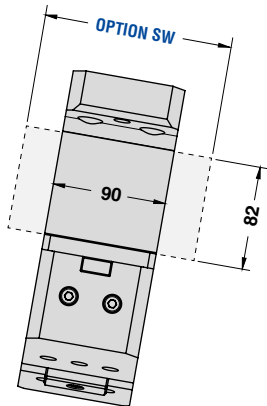


Art.	Work Angle = 5°	Stroke = 55	OPTION CODE	
			SW	N
DLD090	05	55	SW120	N12

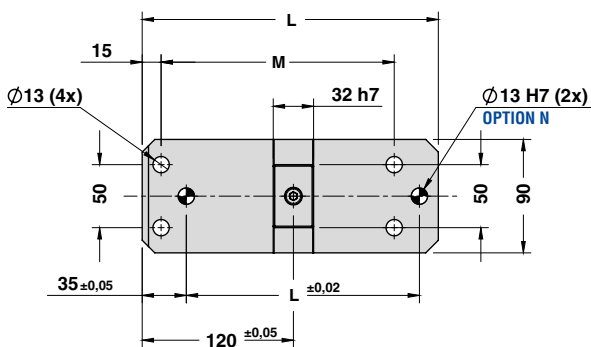
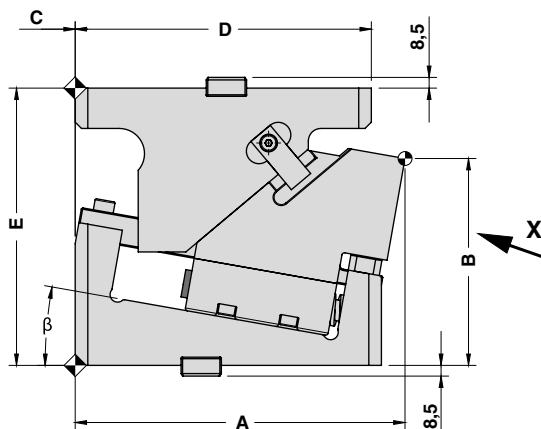
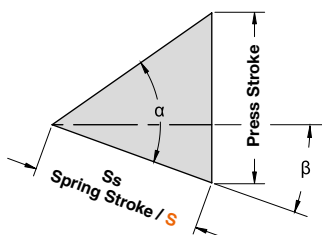
OMCR CODE	Work Angle	Stroke (mm)	Overall Dimensions (mm)								
	$\beta$	S	A	B	C	D	E	F	G	L	M
DLD090.00.55	0°	55	236	182	0	210	220	233	60	210	160
DLD090.05.55	5°	55	251,42	166,24	0	225	220	240	60	225	175
DLD090.10.55	10°	55	261,72	164,14	0	235	220	243	60	235	185
DLD090.15.55	15°	55	275,82	160,97	15	250	225	248	65	235	185

**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**

**X VIEW**



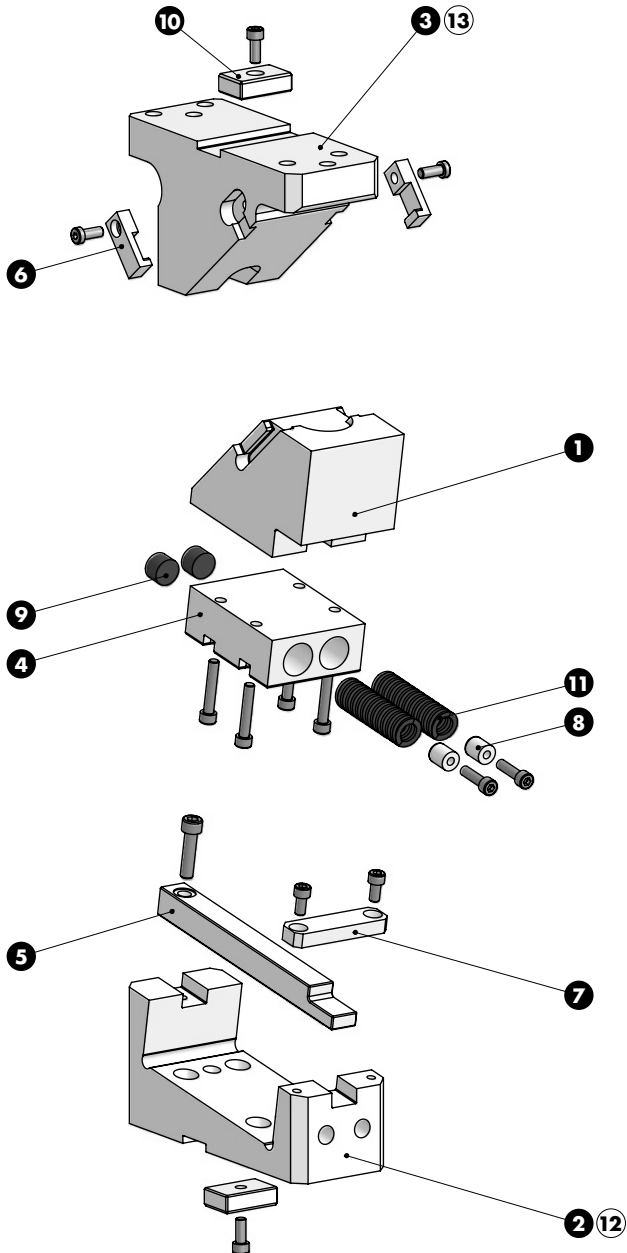
**CAM DIAGRAM**



Work Angle	Inner Angle	Slider Work Stroke (mm)	Press Stroke (mm)	Spring Stroke (mm)
$\beta$	$\alpha$	S	Ps	Ss
0°	50°	55,00	65,55	55
5°	50°	55,00	59,58	55
10°	50°	55,00	55,00	55
15°	50°	55,00	51,43	55

Cam Units DLD

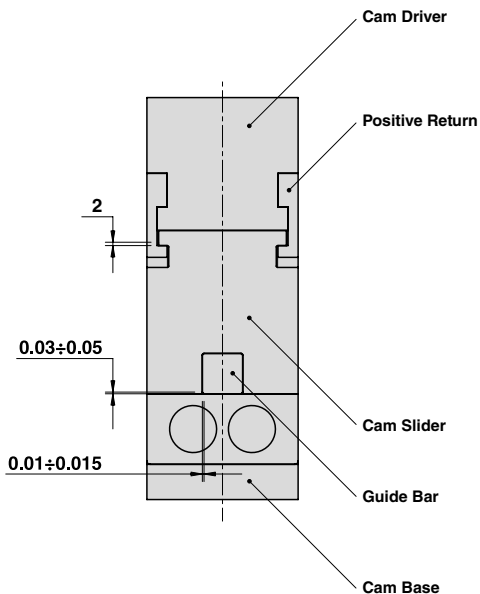
**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**





**DIE MOUNTED CAM UNIT - HORIZONTALSCHIEBER - UNITÀ A CAMME A BASE STAMPO**

**SLIDER STRUCTURE, POSITIVE RETURN STRUCTURE AND CLEARANCES**



Cam Units DLD

**PART LIST**

Particular number	Description	Material	Quantity
1	Cam Slider	GG-25	1
2	Cam Base	GG-25	1
3	Cam Driver	GG-25 + Graphite	1
4	Spring Guide Block	GG-25 + Graphite	1
5	Guide Bar	42CrMo4 + Graphite	1
6	Positive Return	CK45	2
7	Guide Bar Stopper Plate	CK45	1
8	Spring Guide Pin	CK45	2
9	Key	CK45	2
10	Elastomer Cap	Elastomer 92SH	2
11	Spring	-	2
12	Cam Base Fixing Screws M12x45 DIN 912	-	4
13	Cam Driver Fixing Screws M12x45 DIN 912	-	4





Lifting Elements  
Tragelemente  
Elementi di sollevamento



**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

# Lifting Elements Tragelemente Elementi di Sollevamento

Ⓢ Safety is the password of **Lifting Elements**: all components of this series are designed and manufactured within **OMCR**, rigorously respecting an established procedure in order to guarantee the conformity of the item. The range offered is capable of satisfying every need in moving dies of every dimension and weight, in total safety. The **EC mark**, required by the **Directive Machine 2006/42/EC** for all producers of “lifting accessories” foresees many documents including Use and Maintenance manual and Conformity Certification. Customers can find these on our website: [www.omcr.it](http://www.omcr.it).

Ⓢ Sicherheit lautet das Schlagwort der Linie **Tragelemente**: Alle Teile aus dieser Serie werden komplett bei **OMCR** nach den strengen Verfahren zur Gewährleistung der Konformität des Produkts hergestellt. Die Produktpalette erfüllt alle Anforderungen zum Transport von Werkzeugen in allen Größen und Gewichten in absoluter Sicherheit. Die **CE-Markierung**, die mit der **Maschinenrichtlinie 2006/42/CE** von allen Herstellern von Lastaufnahmemitteln verlangt wird, sieht eine Reihe von Unterlagen vor, darunter die Betriebs- und Instandhaltungsanleitung und die CE-Konformitätserklärung, die die Kunden von unserer Website [www.omcr.it](http://www.omcr.it) herunterladen können.

Ⓢ Sicurezza è la parola d'ordine della **Linea Elementi di Sollevamento**: tutti i particolari di questa serie sono realizzati all'interno di **OMCR** rispettando rigorosamente le procedure stabilite per garantire la conformità del prodotto. La gamma proposta è in grado di soddisfare tutte le esigenze di movimentazione stampi di ogni dimensione e peso, nella più totale sicurezza. La marcatura **CE**, richiesta dalla **Direttiva Macchine 2006/42/CE** a tutti i costruttori di “accessori di sollevamento” prevede una serie di documenti, fra cui il libretto di uso e manutenzione e il certificato di conformità, a disposizione dei clienti sul nostro sito: [www.omcr.it](http://www.omcr.it).







**OMCR**  
OMCR S.p.A. - Via Garibaldi, 6 - 10077 Saurisio C.so - (Torino) Italy

**EC CONFORMITY DECLARATION**

OMCR S.r.l. seated in Via Garibaldi, 6 - 10077 Saurisio C.so - (Torino) Italy through its legal representative manager, declares that:

**LIFTING PIN**

OMCR articles: **B02.10 - B02.11 - B02.12 - B02.14 - B02.16 - B02.20 - B02.21 - B02.22 - B02.23 - B02.25 - B02.26 - B02.30 - B02.35 - B02.40 - B02.42 - B02.44**

have a work under number (indicated on every model). It is possible to find out the documents filed in the Technical Office, to identify each manufacturing and inspection feature of the product. All the quality and safety procedures are arranged by M. Bernocchi, responsible of the technical file sitting in OMCR Via Garibaldi, 6, 10077 Saurisio C.so. These procedures have been exactly issued to allow OMCR mark with EC symbol to ensure that these products:

- are in compliance with the established conditions from Directive 2006/42/EC of 6.2006
- are tested and certified as far as possible also with the harmonized and relevant CEN Norms, the European Directives and the Italian safety legislations in use.

Before using lifting pins and lifting breakers, please read carefully the "Use and maintenance manual".

An importer or approved user in reference to the prescriptions treated in this manual, declares this EC conformity declaration and releases OMCR from any responsibility.

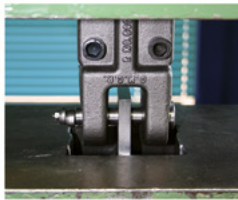
Responsible of the legal file and Technical Office  
and certified, authorized  
to use the CE or harmonization  
in the relevant directives

**OMCR S.r.l.**  
 if legal representative  
 Dimensione Azienda

71 - Via Garibaldi, 6 - 10077 Saurisio C.so - 10077 Saurisio C.so - (Torino) Italy - Tel. 011 43800000 - Fax 011 43800001

# Lifting Elements

# CE conformity

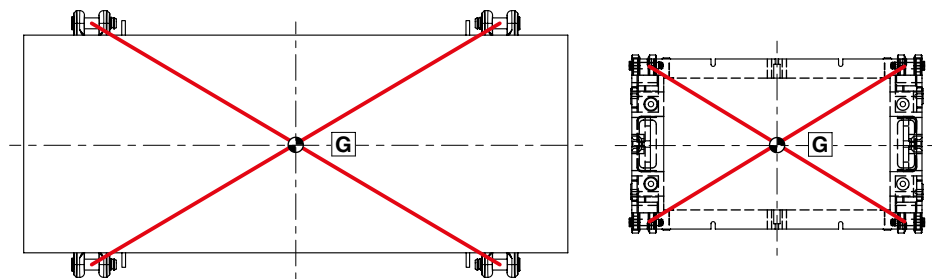


## WARNING - ANMERKUNG - AVVERTENZA

- Ⓒ For safety reasons a die should be lifted with only two lifting elements.
- Ⓓ Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragwagen das gesamte Werkzeuggewicht tragen müssen.
- Ⓘ Per ragioni di sicurezza considerare sempre che il peso dello stampo deve essere sopportato da due soli elementi di sollevamento.

## WARNING - ANMERKUNG - AVVERTENZA

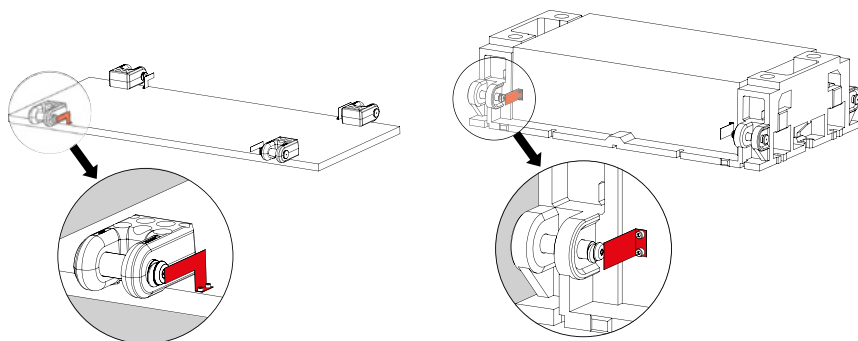
- Ⓒ Make sure the die load centre is as symmetrical to the lifting fixtures as possible.
- Ⓓ Bei der Konstruktion sicherstellen, dass der Schwerpunkt des Werkzeugs so symmetrisch wie möglich zu den Tragelementen ist.
- Ⓘ In fase di progetto verificare che il baricentro dello stampo sia il più possibile simmetrico rispetto agli elementi di sollevamento.



Pic.01

## WARNING - ANMERKUNG - AVVERTENZA

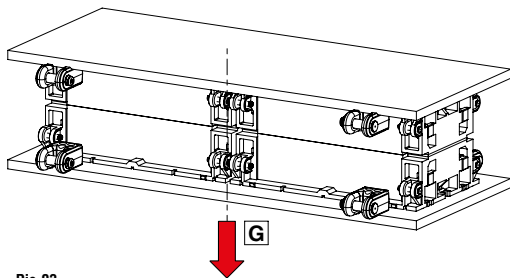
- Ⓒ It is recommended to install a stop to prohibit an incorrect installation of pins.
- Ⓓ Wird die Verwendung von Sperren empfohlen, um eine nicht korrekte Einbringung der Tragbolzen zu verhindern.
- Ⓘ Si consiglia l'uso di barriere per impedire l'inserimento scorretto dei perni.



Pic.02



## DIMENSIONING EXAMPLE - DIMENSIONIERUNGSBEISPIEL - ESEMPIO DI DIMENSIONAMENTO

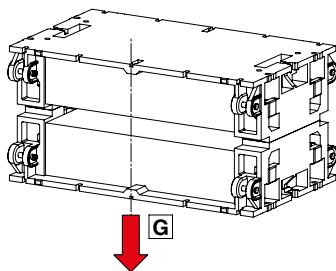


Pic.03

Die weight "G" = 36.000 kg  
 $36.000/2 = 18.000$  kg  
**Use lifting bracket B01.20.18000**

Gewicht Werkzeug "G" = 36.000 kg  
 $36.000/2 = 18.000$  kg  
**Verwendung tragwange B01.20.18000**

Peso stampo "G" = 36.000 kg  
 $36.000/2 = 18.000$  kg  
**Utilizzare staffa B01.20.18000**

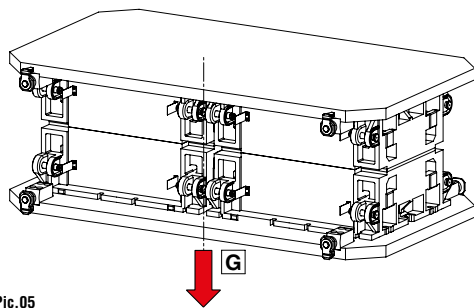


Pic.04

Die weight "G" = 25.000 kg  
 $25.000/2 = 12.500$  kg  
**Use pin B02.10.063**

Gewicht Werkzeug "G" = 25.000 kg  
 $25.000/2 = 12.500$  kg  
**Tragbolzen B02.10.063**

Peso stampo "G" = 25.000 kg  
 $25.000/2 = 12.500$  kg  
**Utilizzare perno B02.10.063**

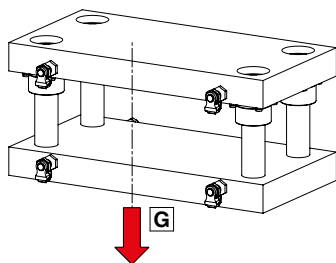


Pic.05

Die weight "G" = 16.000 kg  
 $16.000/2 = 8.000$  kg  
**Use lifting bracket B01.11.063**

Gewicht Werkzeug "G" = 16.000 kg  
 $16.000/2 = 8.000$  kg  
**Verwendung tragwange B01.11.063**

Peso stampo "G" = 16.000 kg  
 $16.000/2 = 8.000$  kg  
**Utilizzare staffa B01.11.063**



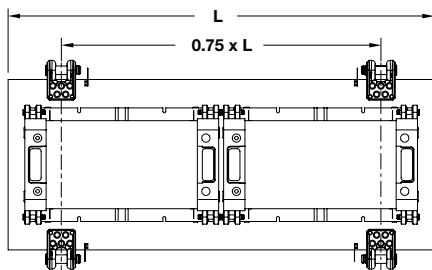
Pic.06

Die weight "G" = 3.000 kg  
 $3.000/2 = 1.500$  kg  
**Use lifting pin B02.06.032**

Gewicht Werkzeug "G" = 3.000 kg  
 $3.000/2 = 1.500$  kg  
**Verwendung Tragschraube B02.06.032**

Peso stampo "G" = 3.000 kg  
 $3.000/2 = 1.500$  kg  
**Utilizzare perno B02.06.032**

## APPLICATIONS - ANWENDUNGEN - APPLICAZIONI

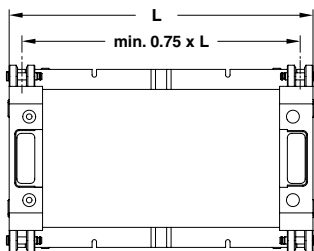


Pic.07

Ⓒ The **lifting brackets** should be positioned as shown in **Pic. 07**.

Ⓓ Die **Tragwangen** müssen gemäß der Darstellung auf **Pic. 07** positioniert werden.

Ⓘ Le **staffe** devono essere posizionate secondo lo schema rappresentato in **Pic. 07**.

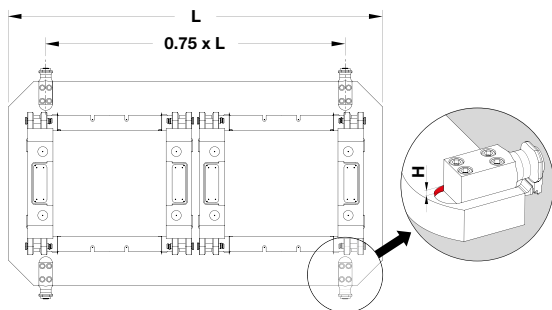


Pic.08

Ⓒ The **lifting pin** should be positioned as shown in **Pic. 08**.

Ⓓ Die **Tragbolzen** müssen gemäß der Darstellung auf **Pic. 08** positioniert werden.

Ⓘ I **perni** devono essere posizionati secondo lo schema rappresentato in **Pic. 08**.

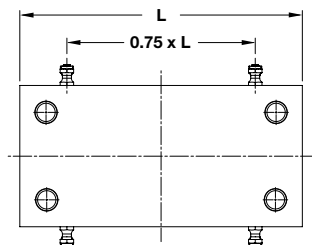


Pic.09

Ⓒ The **lifting brackets** should be positioned as shown in **Pic. 09** into the specific fixing-seats.

Ⓓ Die **Tragzapfen** müssen gemäß der Darstellung auf **Pic. 09** positioniert werden.

Ⓘ Le **staffe** devono essere posizionate secondo lo schema rappresentato in **Pic. 09** all'interno delle sedi d'incastro dedicate.



Pic.10

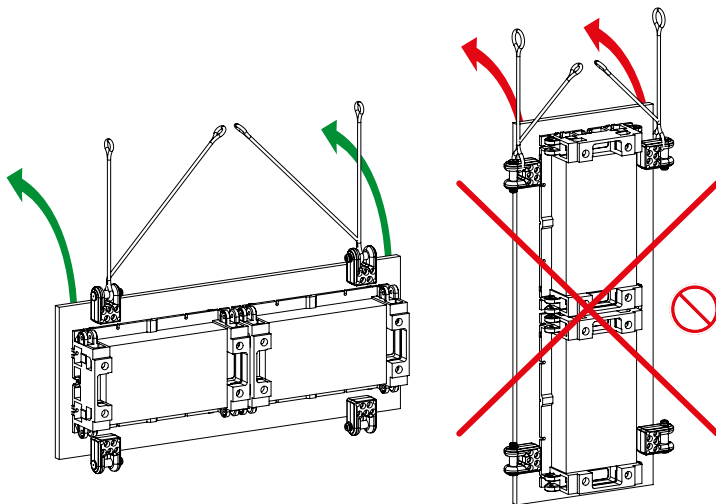
Ⓒ The **lifting pins** should be positioned as shown in **Pic. 10**.

Ⓓ Die **Tragschrauben** müssen gemäß der Darstellung auf **Pic. 10** positioniert werden.

Ⓘ I **perni** devono essere posizionati secondo lo schema rappresentato in **Pic. 10**.

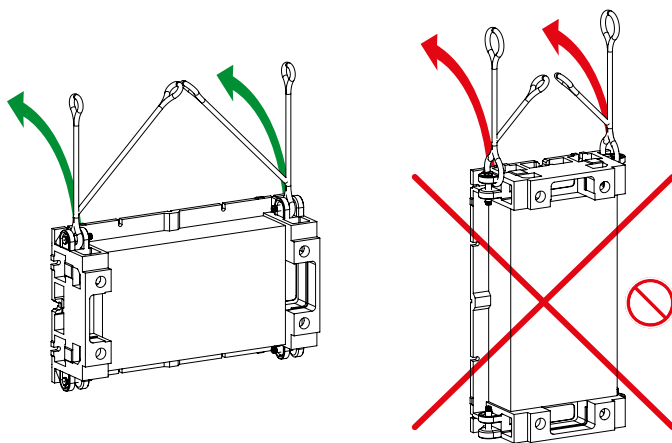
## TURNOVER - WENDEN - RIBALTAMENTO

- Ⓒ The die turnover is allowed only parallel with lifting pin axis.
- Ⓓ Das Wenden des Werkzeugs kann nur parallel zu den Achsen des Tragbolzen erfolgen.
- Ⓘ Il ribaltamento dello stampo può essere eseguito solo parallelamente all'asse del perno di sollevamento.



Pic.11

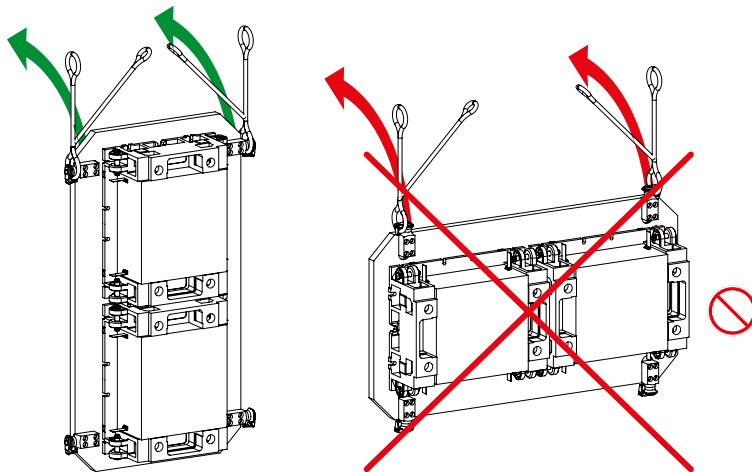
- Ⓒ The die turnover is allowed only parallel with lifting pin axis.
- Ⓓ Das Wenden des Werkzeugs kann nur parallel zu den Achsen des Tragbolzen erfolgen.
- Ⓘ Il ribaltamento dello stampo può essere eseguito solo parallelamente all'asse del perno di sollevamento.



Pic.12

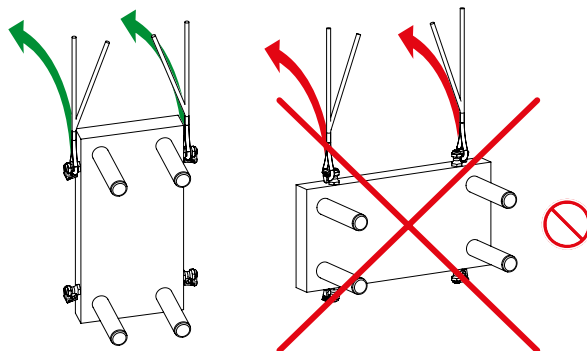
## TURNOVER - WENDEN - RIBALTAMENTO

- Ⓒ The die turnover is allowed only parallel with lifting bracket axis.
- Ⓓ Das Wenden des Werkzeugs kann nur parallel zu den Achsen des Tragzapfen erfolgen.
- Ⓙ Il ribaltamento dello stampo può essere eseguito solo parallelamente all'asse della staffa di sollevamento.



Pic.13

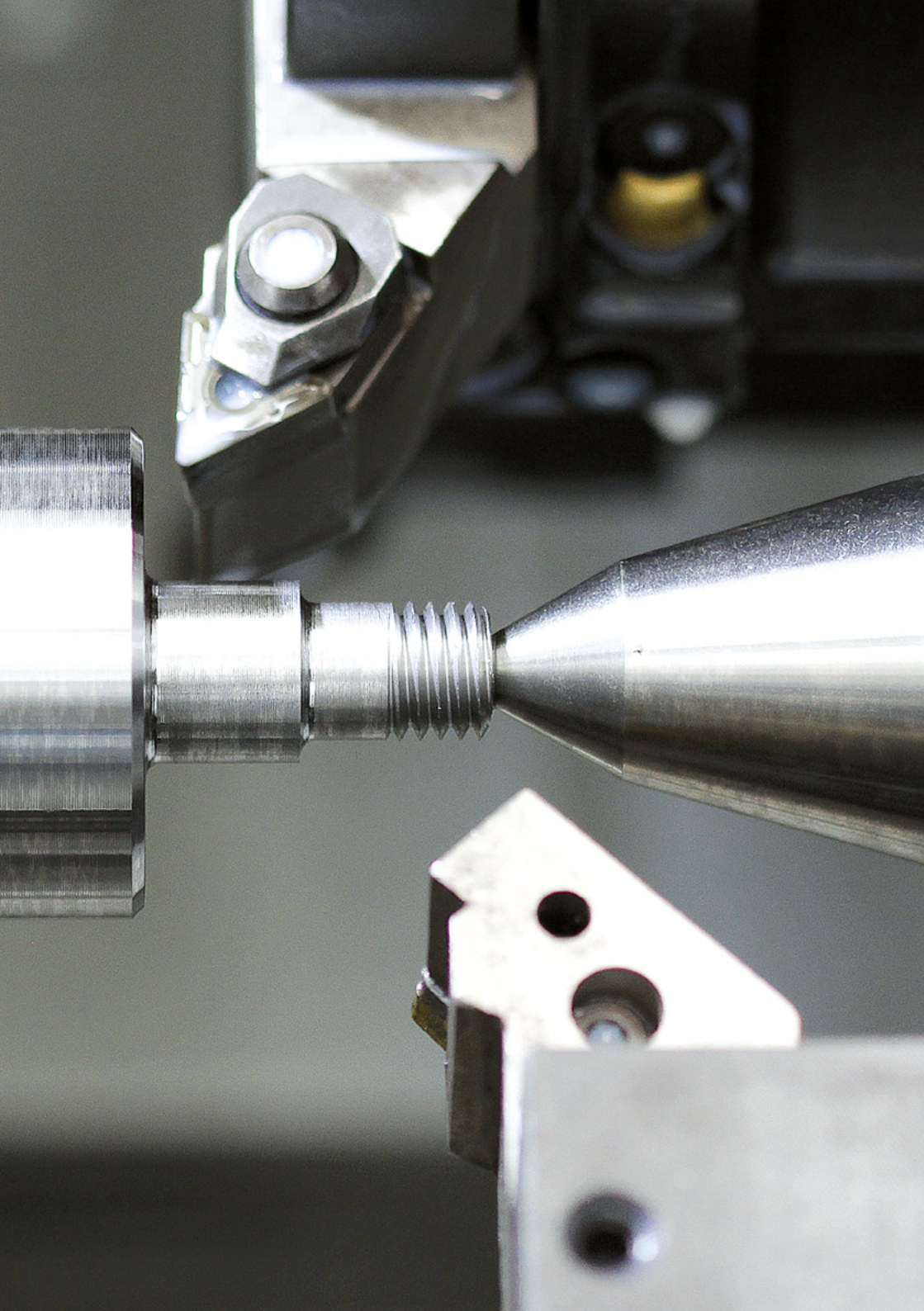
- Ⓒ The die turnover is allowed only parallel with lifting pin axis.
- Ⓓ Das Wenden des Werkzeugs kann nur parallel zu den Achsen des Tragschraube erfolgen.
- Ⓙ Il ribaltamento dello stampo può essere eseguito solo parallelamente all'asse del perno di sollevamento.













Pic.14

## INFORMATION - INFORMATIONEN - INFORMAZIONI

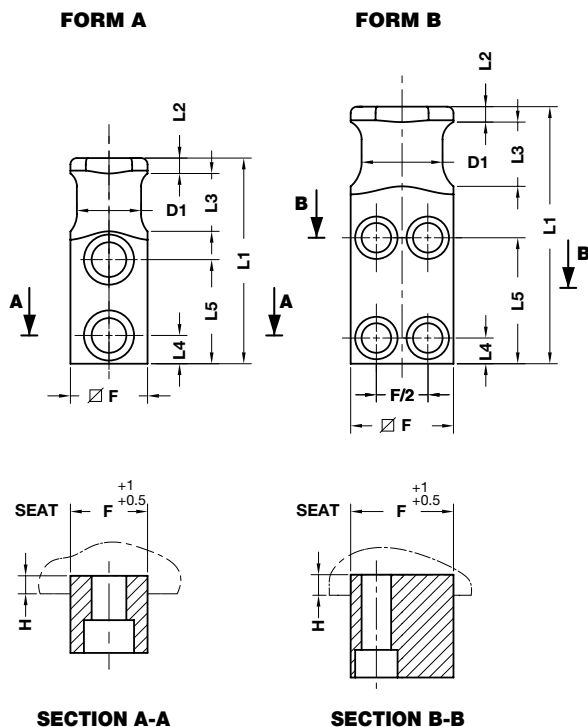
- Ⓒ For more informations see the use and maintenance manuals available on: [www.omcr.it](http://www.omcr.it).
- Ⓓ Weitere Informationen finden Sie in den Gebrauchs- und Instandhaltungsanleitungen auf unserer Internetseite [www.omcr.it](http://www.omcr.it).
- Ⓙ Per maggiori informazioni consultare i manuali di uso e manutenzione disponibili sul nostro sito: [www.omcr.it](http://www.omcr.it).



				
VDI 3366		BMW	FCA	RENAULT
Lifting bracket Tragzapfen Staffa di sollevamento	Lifting bracket with rope safety stop Tragzapfen mit Seilsicherung Staffa di sollevamento con sicurezza fermafune	Lifting bracket with rope safety stop Tragzapfen mit Seilsicherung Staffa di sollevamento con sicurezza fermafune	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno
928	929	930	931	932
				
RENAULT	BMW	BMW	VW/AUDI	FOR REPLACEMENT ONLY VDI 3366 AT P/N 24-935 FOR NEW DIES
Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno	Lifting bracket with pin Tragwange mit Tragbolzen Staffa di sollevamento completa di perno
933	934	935	936	937
				
VDI 3366		VDI 3366	VW	MERCEDES-BENZ
Lifting pin Tragschraube Perno di sollevamento	Lifting pin with rope safety stop Tragschraube mit Seilsicherung Perno di sollevamento con sicurezza fermafune	Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento
938	939	940	941	942
				
FCA	FCA	FORD	NISSAN	OPEL - GM
Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento	Lifting pin Tragbolzen Perno di sollevamento
943	944	945	946	947

<p><b>B02.30</b></p> 	<p><b>B02.35</b></p> 	<p><b>B02.40</b></p> 	<p><b>B02.42</b></p> 	<p><b>B02.44</b></p> 
<p>PSA - RENAULT</p>	<p>VOLVO</p>	<p>BMW</p>	<p>FCA</p>	<p>VW/AUDI</p>
<p>Lifting pin Tragbolzen Perno di sollevamento</p>	<p>Lifting pin Tragbolzen Perno di sollevamento</p>	<p>Lifting pin Tragbolzen Perno di sollevamento</p>	<p>Lifting pin Tragbolzen Perno di sollevamento</p>	<p>Lifting pin Tragbolzen Perno di sollevamento</p>
<p>948</p>	<p>949</p>	<p>950</p>	<p>951</p>	<p>952</p>
<p><b>B03.10</b></p> 	<p><b>B03.15</b></p> 	<p><b>B03.20</b></p> 	<p><b>B08.11</b></p> 	<p><b>B08.20</b></p> 
			<p>VDI - BAK</p>	<p>FCA - FORD</p>
<p>Rotating eyebolt H.T. Ringschraube H.T. Golfare girevole H.T</p>	<p>Rotating eyebolt with clamp Lastbock Golfare girevole con staffa</p>	<p>Rotating eyebolt with ring Wirbelbock Golfare girevole con anello</p>	<p>Bush for lifting pin Buchse für Tragbolzen Boccola per perno di sollevamento</p>	<p>Threaded Steel Insert Gewindeeinsatz für Guss Inserto filettato per fusione</p>
<p>954</p>	<p>956</p>	<p>958</p>	<p>960</p>	<p>961</p>
<p><b>B09.10</b></p> 				
<p>Rope stop safety opening key Schlüssel für Seilsicherung Chiave per apertura sicurezza fermafune</p>				
<p>962</p>				

## LIFTING BRACKET VDI 3366 TRAGZAPFEN VDI 3366 STAFFA DI SOLLEVAMENTO VDI 3366



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere supportato da 2 sole staffe.

### Notes

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>  
Screws not included

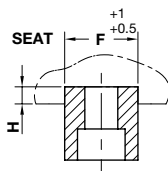
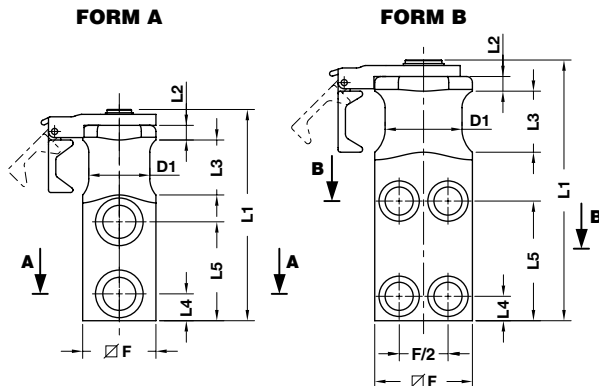
ORDER EXAMPLE	Art.	D1=100
	B01.10.	100

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	L1	L2	L3	L4	L5	F	H	FORM	Screws DIN 912 - 8.8
B01.10.016	320	640	16	80	6	20	10	44	20	6	A	M8x25
B01.10.020	630	1260	20	90	8	25	10	47	25	8	A	M10x30
B01.10.025	1250	2500	25	100	8	30	12	50	35	10	A	M12x40
B01.10.032	2000	4000	32	120	10	32	16	62	40	10	A	M16x45
B01.10.040	3200	6400	40	140	10	40	18	72	50	12	A	M20x60
B01.10.050	5000	10000	50	160	12	45	22	81	60	14	A	M24x70
B01.10.063	8000	16000	63	200	12	50	20	98	80	16	B	M20x90
B01.10.080	12500	25000	80	250	15	65	25	125	100	18	B	M24x110
B01.10.100	20000	40000	100	300	15	80	30	155	120	20	B	M30x130

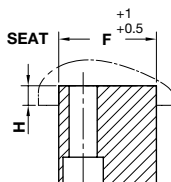


## LIFTING BRACKET WITH ROPE SAFETY STOP TRAGZAPFEN MIT SEILSICHERUNG STAFFA DI SOLLEVAMENTO CON SICUREZZA FERMAFUNDE

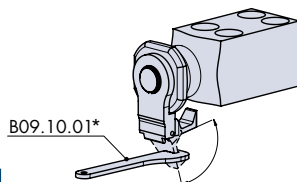
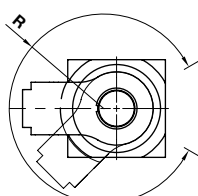
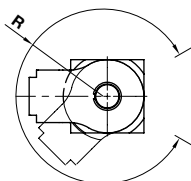
Patent-Nr.: TO2003A000468



SECTION A-A



SECTION B-B



\*To open rope stop safety use key B09.10.01

ORDER EXAMPLE	Art.	D1=50
	B01.11.	50



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

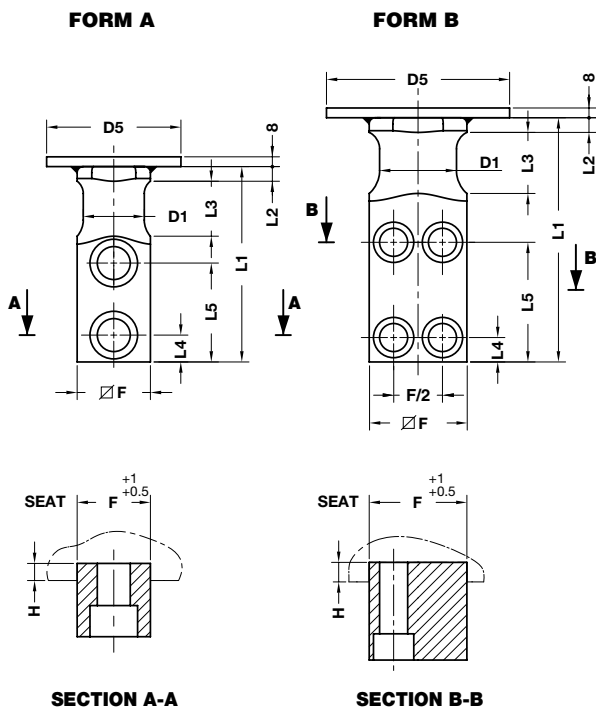
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

### Notes

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>  
Screws not included

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	L1	L2	L3	L4	L5	F	H	R	FORM	Screws DIN 912 - 8.8
B01.11.20	630	1260	20	99	8	25	10	47	25	8	38	A	M10x30
B01.11.25	1250	2500	25	112,5	8	30	12	50	35	10	42	A	M12x40
B01.11.32	2000	4000	32	132,5	10	32	16	62	40	10	52	A	M16x45
B01.11.40	3200	6400	40	152,5	10	40	18	72	50	12	60	A	M20x60
B01.11.50	5000	10000	50	173	12	45	22	81	60	14	66	A	M24x70
B01.11.63	8000	16000	63	213,5	12	50	20	98	80	16	80	B	M20x90

## LIFTING BRACKET WITH ROPE SAFETY STOP TRAGZAPFEN MIT SEILSICHERUNG STAFFA DI SOLLEVAMENTO CON SICUREZZA FERMAFUNE



**⚠**

Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.  
Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.  
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere supportato da 2 sole staffe.

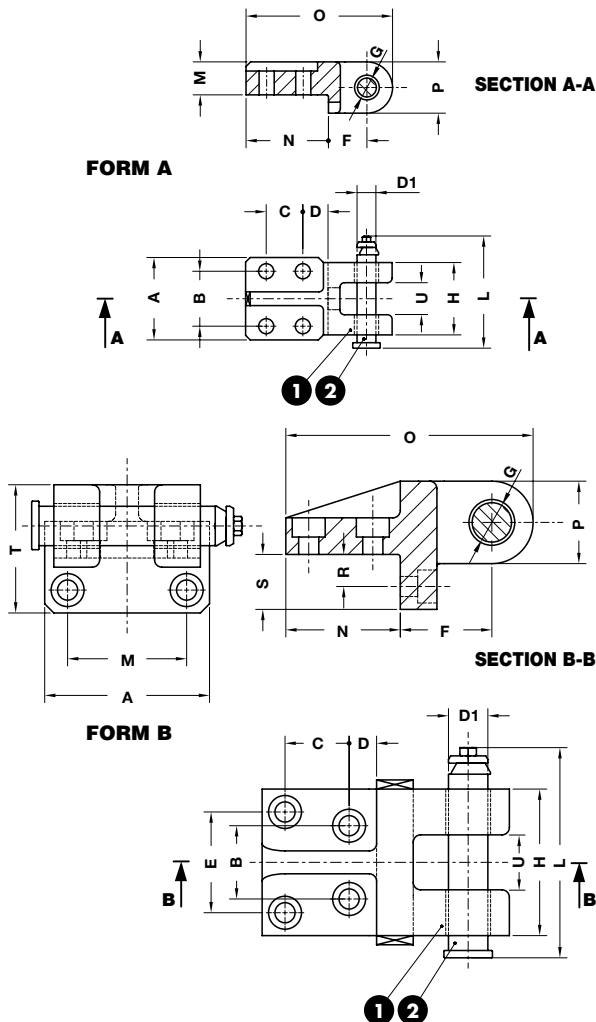
**Notes**

**Material:** CK45 - 700÷800 N/mm<sup>2</sup>  
Screws not included

ORDER EXAMPLE	Art.	D1=80
	B01.12.	080

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D5	L1	L2	L3	L4	L5	F	H	FORM	Screws DIN 912 - 8.8
B01.12.016	320	640	16	60	80	6	20	10	44	20	6	A	M8x25
B01.12.020	630	1260	20	70	90	8	25	10	47	25	8	A	M10x30
B01.12.025	1250	2500	25	70	100	8	30	12	50	35	10	A	M12x40
B01.12.032	2000	4000	32	110	120	10	32	16	62	40	10	A	M16x45
B01.12.040	3200	6400	40	110	140	10	40	18	72	50	12	A	M20x60
B01.12.050	5000	10000	50	150	160	12	45	22	81	60	14	A	M24x70
B01.12.063	8000	16000	63	150	200	12	50	20	98	80	16	B	M20x90
B01.12.080	12500	25000	80	150	250	15	65	25	125	100	18	B	M24x110
B01.12.100	20000	40000	100	150	300	15	80	30	155	120	20	B	M30x130

## FCA LIFTING BRACKET WITH PIN TRAGWANGE MIT TRAGBOLZEN NACH FCA NORM STAFFA DI SOLLEVAMENTO TIPO FCA COMPLETA DI PERNO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

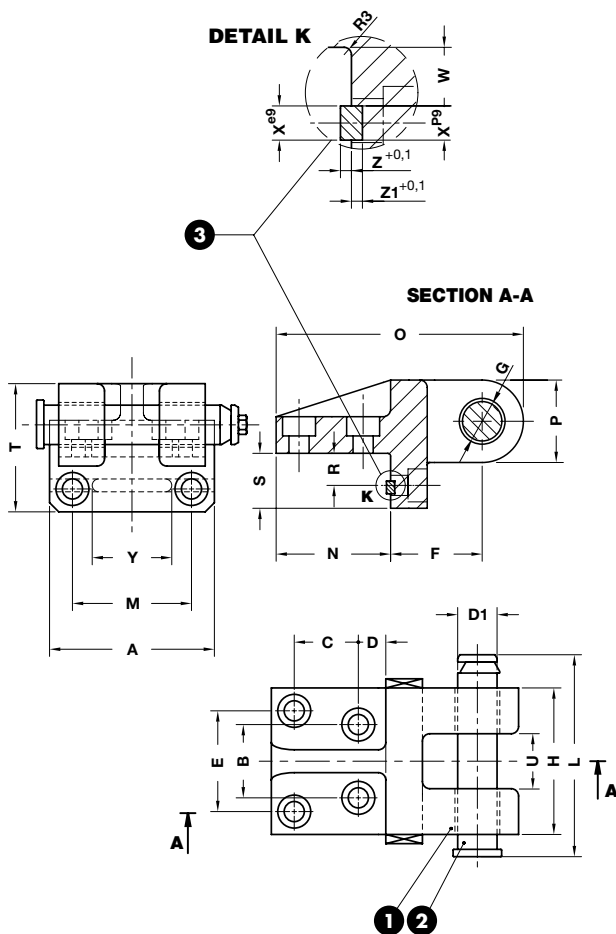
### Notes

- 1 **Material:** CK45  
800 ÷ 1000 N/mm<sup>2</sup>
  - 2 B02.42.
- Screws not included

ORDER EXAMPLE	Art.	Max load
	B01.15.	7000

OMCR CODE	Max load (kg)	Max die weight (kg)	A	B	C	D	D1	E	F	G	H	L	M	N	O	P	R	S	T	U	FORM	Screws DIN 912 - 8.8
B01.15.0600	600	1200	80	50	40	22,5	15,6	-	39	16	70	102,5	32	80	145	52	-	-	-	30	A	M12x45
B01.15.1000	1000	2000	90	60	40	27,5	20,6	-	42	21	79	113,5	36	90	160	56	-	-	-	35	A	M16x55
B01.15.2000	2000	4000	100	65	65	32,5	25,6	-	60	26	90	128,5	50	120	215	70	-	-	-	40	A	M20x80
B01.15.4000	4000	8000	135	56	60	20	33	84	85	34	125	166,5	96	100	221	72	30	50	111	55	B	M16x45
B01.15.7000	7000	14000	180	80	70	30	43	110	100	44	160	210,5	130	125	270	90	35	60	140	60	B	M20x60

## RENAULT LIFTING BRACKET WITH PIN TRAGWANGE MIT TRAGBOLZEN NACH RENAULT NORM STAFFA DI SOLLEVAMENTO TIPO RENAULT COMPLETA DI PERNO



**Respect the max load**  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.  
Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.  
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere supportato da 2 sole staffe.

**Notes**

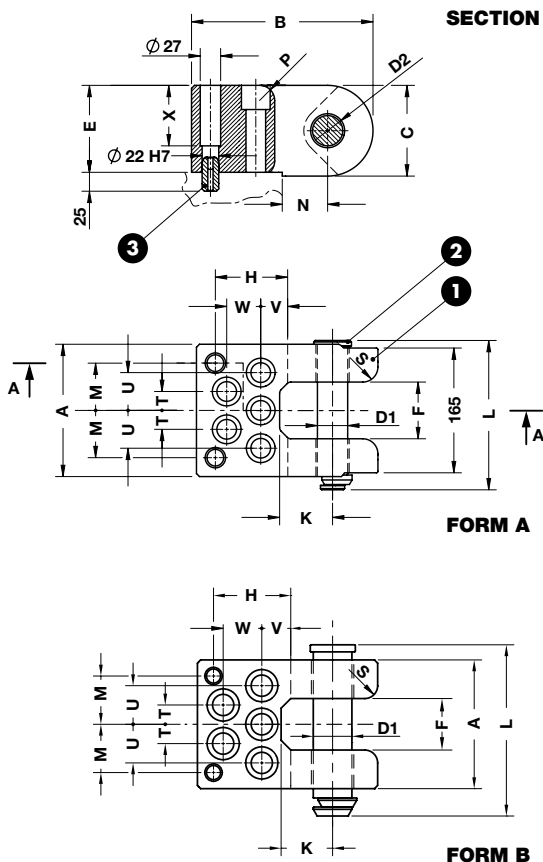
- 1 **Material:** CK45  
800 ÷ 1000 N/mm<sup>2</sup>
- 2 B02.30.
- 3 KEY DIN 6885

Screws not included

	Art.	Max load
	B01.16.	6300

OMCR CODE	Max load (kg)	Max die weight (kg)	A	B	C	D	D1	E	F	G	H	L	M	N	O	P	R	S	T	U	W	X	Y	Z	Z1	Screws DIN 912 - 8.8
B01.16.4000	4000	8000	135	56	60	20	32	84	85	33	125	154	96	100	221	72	30	50	111	55	24	14	63	4.5	4.5	M16x45
B01.16.6300	6300	12600	180	80	70	30	40	110	100	41	160	197,5	130	125	270	90	35	60	140	60	27	16	100	5	5	M20x60

## RENAULT LIFTING BRACKET WITH PIN AND LOCATING PINS TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN NACH RENAULT NORM STAFFA DI SOLLEVAMENTO TIPO RENAULT COMPLETA DI PERNO E CENTRAGGI



**⚠**

Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

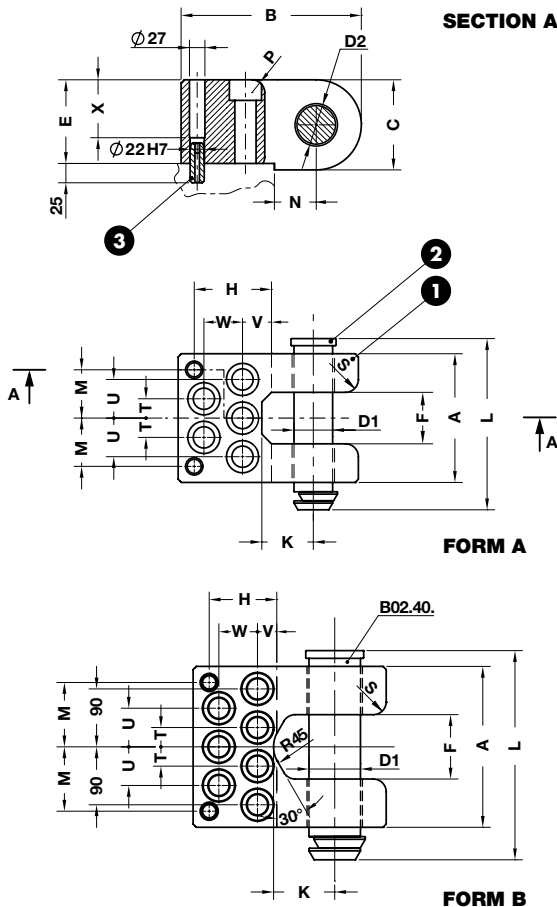
**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.  
Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.  
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

- Notes**
- 1** Material: St52
  - 2** B02.30.
  - 3** C11.20.2245 (2x)  
Screws not included

ORDER SAMPLE	Art.	Max load
	B01.18.	12500

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	B	C	E	F	H	K	L	M	N	P	S	T	U	V	W	X	FORM	Screws DIN 912 - 8.8
B01.18.08000	8000	16000	40	42	175	240	120	115	75	95	70	197,5	62,5	60	20	24	25	50	35	45	80	A	M24x120
B01.18.12500	12500	25000	50	52	200	300	140	130	80	145	80	247,5	77,5	65	20	30	35	65	60	65	95	B	M36x160

**BMW LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN NACH BMW NORM**  
**STAFFA DI SOLLEVAMENTO TIPO BMW COMPLETA DI PERNO E CENTRAGGI**



**⚠**

Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

Screw the brackets on steel  
 (minimum quality Fe510 - S355)  
 Die Tragwangen auf Stahl  
 (mit Mindestqualität Fe510 - S355 verschrauben)  
 Avvitare le staffe su acciaio  
 (qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere supportato da 2 sole staffe.

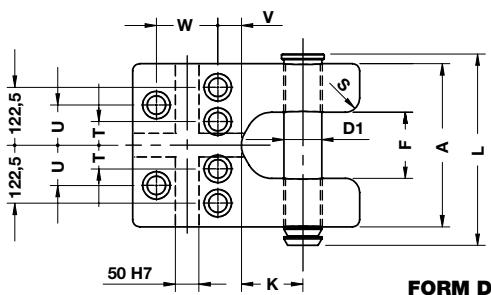
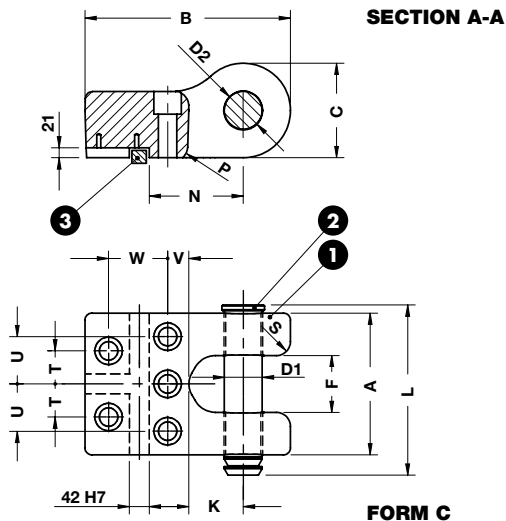
**Notes**

**1** Material: St52  
**2** B02.40.  
**3** C11.20.2245 (2x)  
 Screws not included

ORDER EXAMPLE	Art.	Max load
	B01.20.	18000

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	B	C	E	F	H	K	L	M	N	P	S	T	U	V	W	X	FORM	Screws DIN 912 - 8.8
B01.20.03200	3200	6400	30	32	126	185	80	75	50	85	50	158	45	40	12	16	20	40	30	35	40	A	M16x80
B01.20.05000	5000	10000	40	42	150	210	100	95	60	87	55	187	52	50	12	20	22,5	45	25	40	60	A	M20x100
B01.20.08000	8000	16000	50	52	175	240	120	115	75	95	70	220	62,5	60	16	24	25	50	35	45	80	A	M24x120
B01.20.12500A	12500	25000	60	62	200	300	140	130	80	145	80	246	77,5	65	20	30	35	65	60	65	95	A	M36x160
B01.20.18000	18000	36000	80	82	250	300	160	150	100	105	95	305	100	90	20	30	30	60	30	60	115	B	M30x160

## BMW LIFTING BRACKET WITH PIN AND KEYS TRAGWANGE MIT TRAGBOLZEN UND PASSFEDER NACH BMW NORM STAFFA DI SOLLEVAMENTO TIPO BMW COMPLETA DI PERNO E CHIAVETTE



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

Screw the brackets on steel  
(minimum quality Fe510 - S355)  
Die Tragwangen auf Stahl  
(mit Mindestqualität Fe510 - S355 verschrauben)  
Avvitare le staffe su acciaio  
(qualità minima Fe510 - S355)

### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

### Notes

- 1 **Material:** St52
- 2 B02.40.
- 3 B01.20.25000: C14.20.42125 (3x)  
B01.20.31500: C14.20.50135 (2x)  
C14.20.50220 (1x)

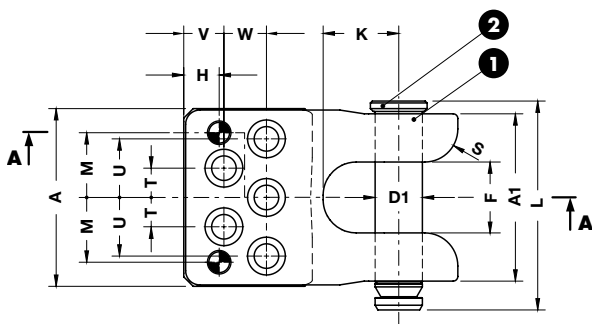
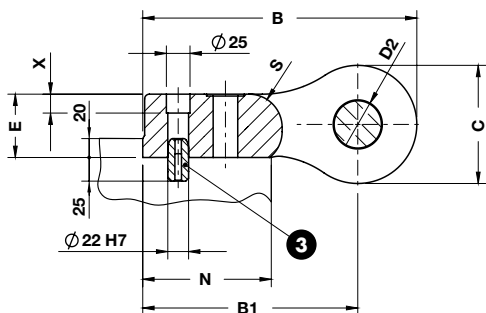
Screws not included

ORDER SAMPLE	Art.	Max load
	B01.20.	31500

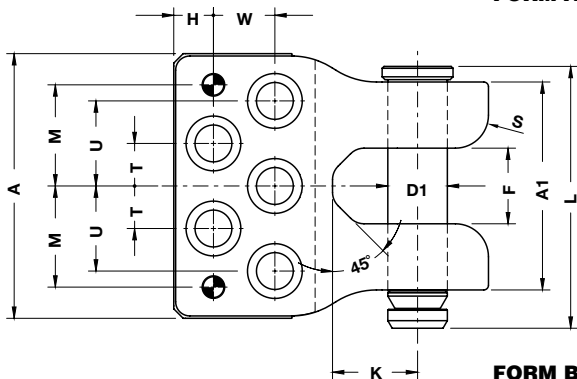
OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	B	C	E	F	K	L	N	P	S	T	U	V	W	FORM	Screws DIN 912-8.8
B01.20.25000	25000	50000	80	82	300	435	200	140	120	115	360	199	30	30	70	100	45	125	C	M36x160 (5x)
B01.20.31500	31500	63000	80	82	345	480	240	170	135	130	405	220	30	30	50	85	50	130	D	M36x200 (6x)

**VW/AUDI LIFTING BRACKET WITH PIN AND LOCATING PINS**  
**TRAGWANGE MIT TRAGBOLZEN UND ZENTRIERBOLZEN NACH VW/AUDI NORM**  
**STAFFA DI SOLLEVAMENTO TIPO VW/AUDI COMPLETA DI PERNO E CENTRAGGI**

**SECTION A-A**



**FORM A**



**FORM B**

**⚠**  
 Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

Screw the brackets on steel  
 (minimum quality Fe510 - S355)  
 Die Tragwangen auf Stahl  
 (mit Mindestqualität Fe510 - S355 verschrauben)  
 Avvitare le staffe su acciaio  
 (qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.  
 Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.  
 Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

- 1** Material: St52
- 2** B02.44.
- 3** C11.20.2245

Screws not included

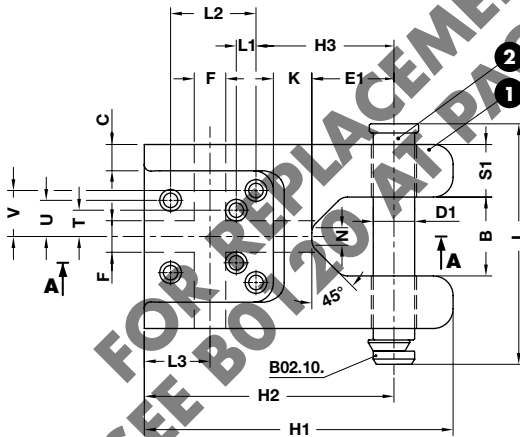
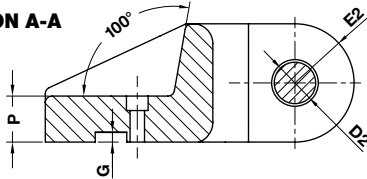
<b>ORDER SAMPLES</b>	Art.	Max load
	<b>B01.24.</b>	<b>12500</b>

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	A1	B	B1	C	E	F	H	K	L	M	N	S	T	U	V	W	X	FORM	Screws DIN 912-8.8
<b>B01.24.08000</b>	8000	16000	50	52	188	177	290	227,5	125	67	75	37,5	80	221	68,5	135	35	31	62	42,5	45	20	A	M24x100
<b>B01.24.12500</b>	12500	25000	63	65	280	220	333	258	150	91	80	42	90	277	107	150	35	45	90	-	65	46	B	M36x120



**VDI 3366 LIFTING BRACKET WITH PIN**  
**TRAGWANGE MIT TRAGBOLZEN NACH VDI 3366 NORM**  
**STAFFA DI SOLLEVAMENTO TIPO VDI 3366 COMPLETA DI PERNO**

**SECTION A-A**



Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

Screw the brackets on steel  
 (minimum quality Fe510 - S355)  
 Die Tragwangen auf Stahl  
 (mit Mindestqualität Fe510 - S355 verschrauben)  
 Avvitare le staffe su acciaio  
 (qualità minima Fe510 - S355)

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting brackets.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragzapfens das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 sole staffe.

**Notes**

- 1** Material: St52
- 2** B02.10.

Screws not included

	Art.	Max load
	B01.25.	31500

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	B	C	E1	E2	F	G	H1	H2	H3	K	L	L1	L2	L3	P	S1	T	U	V	Screws DIN 912 - 8.8	
B01.25.03200	3200	6400	32	34	60	20	63	40	25	7	260	220	125	28	37	175	30	85	45	40	40	25	30	30	M12x40
B01.25.05000	5000	10000	40	42	80	30	80	60	48	15	360	300	140	28	40	225	35	130	80	60	50	38	40	43	M16x75
B01.25.08000	8000	16000	50	52	100	30	100	60	48	15	380	320	160	28	40	273	35	130	85	70	60	40	55	55	M16x85
B01.25.12500	12500	25000	63	65	120	40	125	90	48	15	470	380	210	28	60	347	30	130	100	70	80	40	55	70	M20x90
B01.25.18000	18000	36000	76	78	140	40	160	90	64	20	510	420	250	45	60	422	20	135	100	90	100	50	75	100	M24x115
B01.25.25000	25000	50000	76	78	140	40	160	120	64	25	590	470	270	45	80	422	35	160	110	110	100	55	75	100	M30x140
B01.25.31500	31500	63000	76	78	140	40	160	130	64	25	600	470	270	45	80	422	35	160	110	120	100	55	75	100	M30x150

## LIFTING PIN VDI 3366 TRAGSCHRAUBE VDI 3366 PERNO DI SOLLEVAMENTO VDI 3366



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

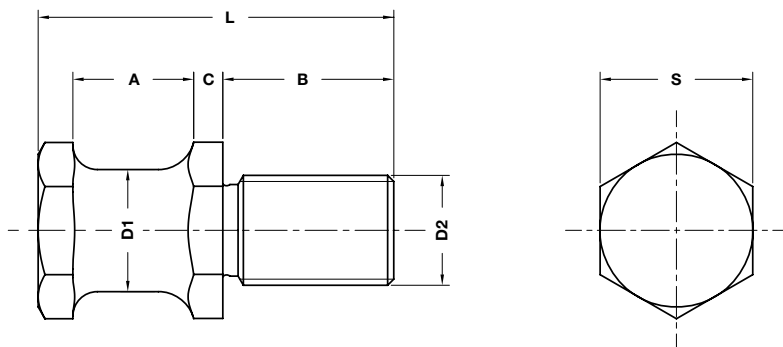
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragschrauben das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

### Notes

**Material:** CK45  
700÷800 N/mm<sup>2</sup>



	Art.	D1-32
	B02.05.	32

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	B	C	L	S
B02.05.16	320	640	16	M16	20	28	5,5	58	24
B02.05.20	500	1000	20	M20	22	34	6,5	68	30
B02.05.25	1000	2000	25	M24	25	38	8	78	36
B02.05.32	1500	3000	32	M30	32	45	10	95	41
B02.05.40	2500	5000	40	M36	40	56	12	118	50

## LIFTING PIN WITH ROPE SAFETY STOP TRAGSCHRAUBE MIT SEILSICHERUNG PERNO DI SOLLEVAMENTO CON SICUREZZA FERMAFUNE

Patent-Nr.: TO2003A000468



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**

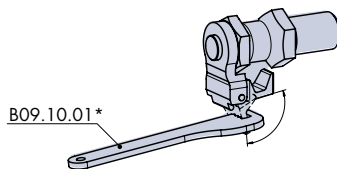
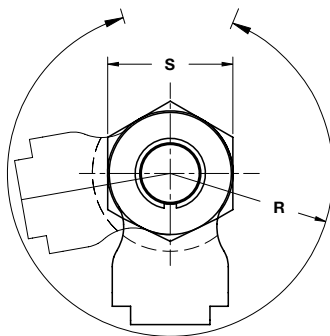
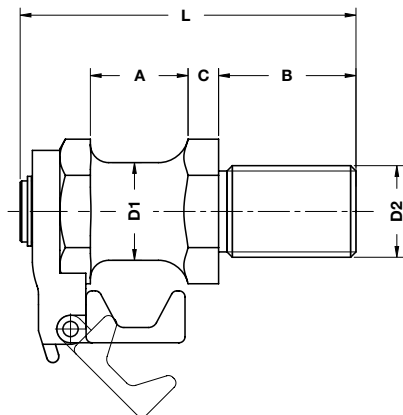
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragschrauben das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

**Notes**

**Material:** CK45  
700÷800 N/mm<sup>2</sup>



\*To open rope stop safety use key B09.10.01

ORDER EXAMPLE	Art.	D1=32
	B02.06.	32

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	A	B	C	L	S	R
B02.06.20	500	1000	20	M20	22	34	6,5	80	30	38
B02.06.25	1000	2000	25	M24	25	38	8	93	36	42
B02.06.32	1500	3000	32	M30	32	45	10	110	41	50
B02.06.40	2500	5000	40	M36	40	56	12	132	50	57

Lifting Elements

## LIFTING PIN VDI 3366 TRAGBOLZEN MIT FALLRINGSICHERUNG VDI 3366 PERNO DI SOLLEVAMENTO VDI 3366



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

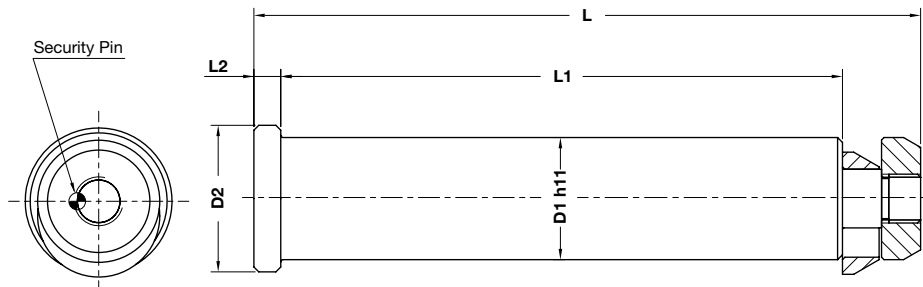
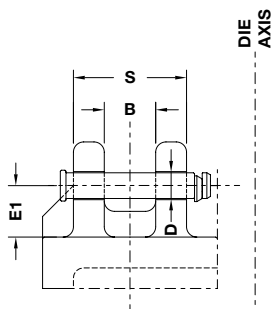
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
VDI3366 ed. 03/1997



ORDER EXAMPLE	Art.	D1=76
	B02.10.	76

OMCR CODE	Max load (kg)	Max die weight (kg)	B	D	D1	D2	E1	L	L1	L2	S	Material
B02.10.32	3200	6400	60	34	32	40	63	175	145	10	140	CK45
B02.10.40	5000	10000	80	42	40	50	80	225	188	10	180	CK45
B02.10.50	8000	16000	100	52	50	60	100	273	230	11	220	CK45
B02.10.63	12500	25000	120	65	63	75	125	347	295	14	280	CK45
B02.10.76	31500	63000	140	78	76	95	160	422	360	15	340	42CrMo4 + QT

## LIFTING PIN VW/AUDI TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH VW/AUDI-NORM PERNO DI SOLLEVAMENTO VW/AUDI



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

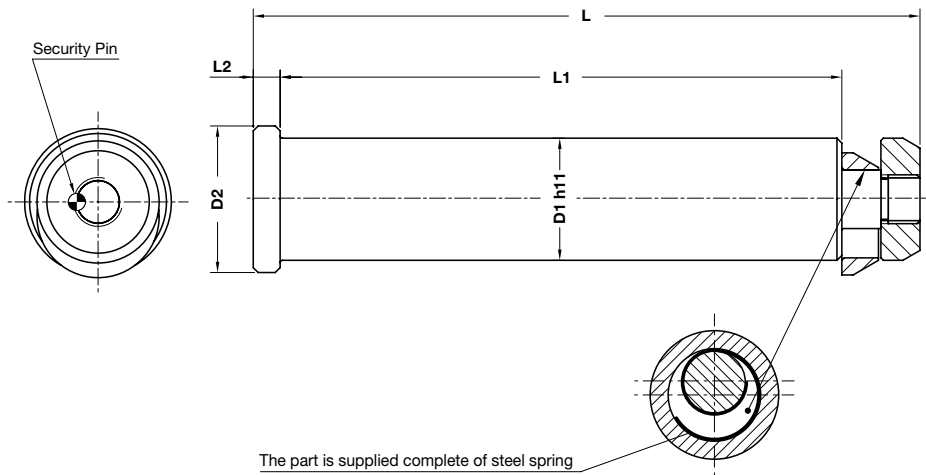
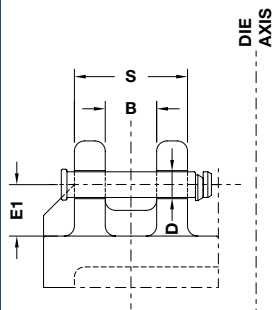
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
39D866 VW ed. 09/2011



Lifting Elements

ORDER EXAMPLE	Art.	D1=76
	B02.11.	76

OMCR CODE	Max load (kg)	Max die weight (kg)	B	D	D1	D2	E1	L	L1	L2	S	Material
B02.11.32	3200	6400	60	34	32	40	63	175	145	10	140	CK45
B02.11.40	5000	10000	80	42	40	50	80	225	188	10	180	CK45
B02.11.50	8000	16000	100	52	50	60	100	273	230	11	220	CK45
B02.11.63	12500	25000	120	65	63	75	125	347	295	14	280	CK45
B02.11.76	31500	63000	140	78	76	95	160	422	360	15	340	42CrMo4 + QT

## LIFTING PIN MERCEDES-BENZ TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH MERCEDES-BENZ NORM PERNO DI SOLLEVAMENTO MERCEDES-BENZ



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

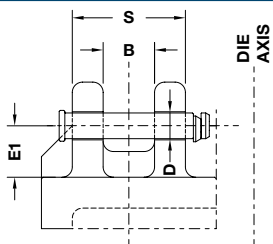
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
VDI3366



### Notes

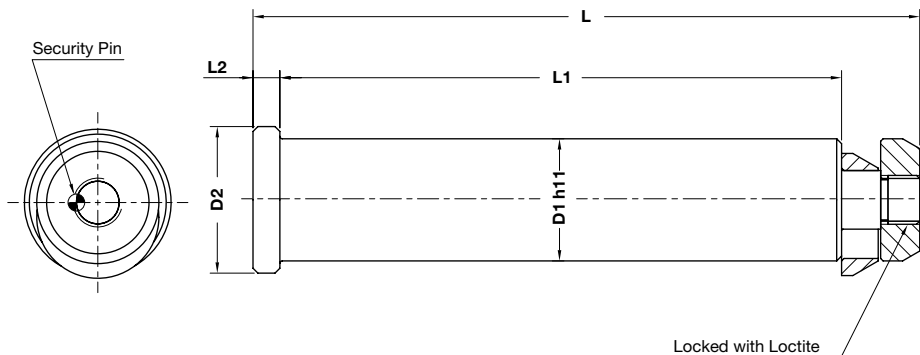
Material: 42CrMo4 + QT

STOCK



WEB

WEB



ORDER EXAMPLE	Art.	D1=76
	B02.12.	76

OMCR CODE	Max load (kg)	Max die weight (kg)	B	D	D1	D2	E1	L	L1	L2	S
B02.12.32	3200	6400	60	34	32	40	63	175	145	10	140
B02.12.40	5000	10000	80	42	40	50	80	225	188	10	180
B02.12.50	8000	16000	100	52	50	60	100	273	230	11	220
B02.12.63	12500	25000	120	65	63	75	125	347	295	14	280
B02.12.76	31500	63000	140	78	76	95	160	422	360	15	340

## LIFTING PIN FCA TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH FCA NORM PERNO DI SOLLEVAMENTO FCA



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

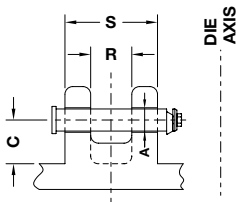
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
095.25.

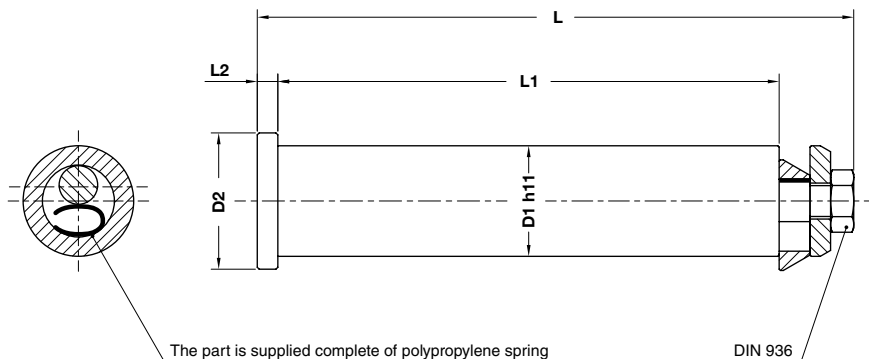


### Notes

Material: CK45



Only for replacement  
Nur für Reparatur  
Solo per riparazione



The part is supplied complete of polypropylene spring

DIN 936



Art.	D1=53	Type
B02.15.	53	C

OMCR CODE	Max load (kg)	Max die weight (kg)	Type	A	C	D1	D2	L	L1	L2	R	S
B02.15.43	5000	10000	-	45	85	43	53	233	195	8	80	180
B02.15.53	8000	16000	-	55	105	53	65	282	235	10	100	220
B02.15.53C	8000	16000	C	55	75	53	65	227	180	10	65	165
B02.15.63	12000	24000	-	65	130	63	78	352,5	295	12	120	280
B02.15.63C	13000	26000	C	65	100	63	78	272,5	215	12	80	200
B02.15.78	30000	60000	-	81	150	78	95	421,5	355	14	140	340

## LIFTING PIN FCA TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH FCA NORM PERNO DI SOLLEVAMENTO FCA



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

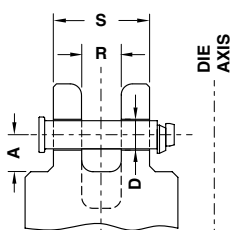
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
095.25.

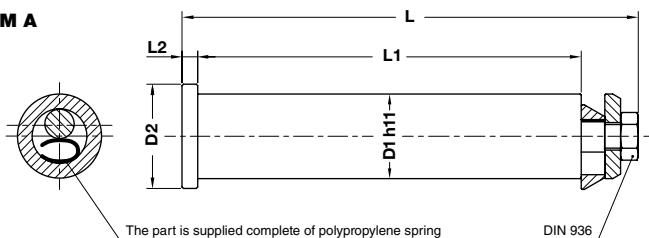


### Notes

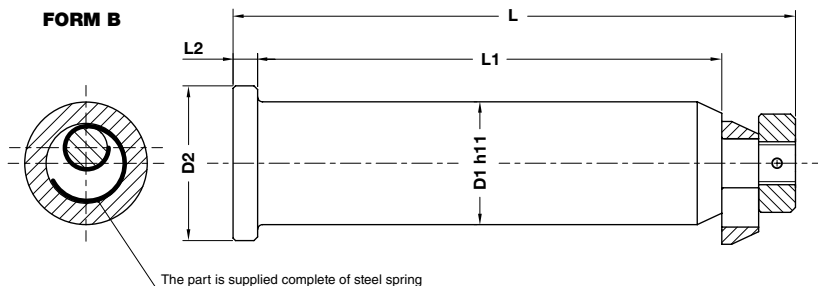
**Material:** 42CrMo4 + QT



### FORM A



### FORM B



ORDER EXAMPLE	Art.	D1=50
	B02.16.	50

OMCR CODE	Max load (kg)	Max die weight (kg)	A	D	D1	D2	L	L1	L2	R	S	FORM
B02.16.29	4000	8000	60	30	29	38	178.5	150	6	60	140	A
B02.16.33	7000	14000	65	35	33	43	200.5	170	6	60	160	A
B02.16.50	10000	20000	70	52	50	63	230	190	10	85	185	B
B02.16.63	20000	40000	100	65	63	76	320	280	10	110	270	B
B02.16.80	40000	80000	105	82	80	89	370	320	15	110	310	B



**LIFTING PIN FORD**  
**TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH FORD NORM**  
**PERNO DI SOLLEVAMENTO FORD**



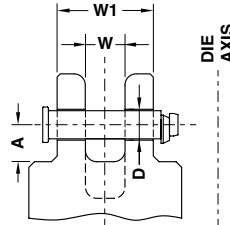
Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
 W-DX 12-04



**Notes**

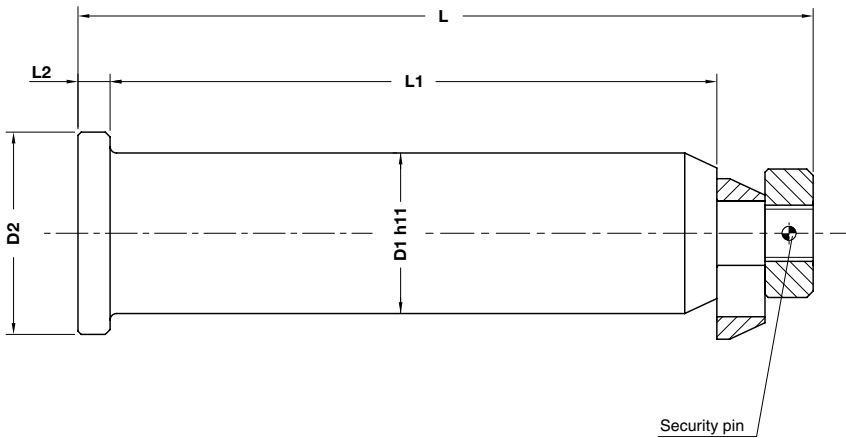
**Material:** 42CrMo4 + QT

STOCK



WEB

WEB



Lifting Elements

ORDER EXAMPLE	Art.	D1=50
	B02.22.	50

OMCR CODE	Max load (kg)	Max die weight (kg)	A	D	D1	D2	L	L1	L2	W	W1
B02.22.35	1500	3000	60	37	35	45	165	125	10	50	110
B02.22.50	5500	10050	130	52	50	63	230	190	10	70	170
B02.22.63	23000	45500	145	65	63	76	320	280	10	100	260
B02.22.80	30000	60000	145	82	80	89	370	320	15	100	300

**LIFTING PIN NISSAN**  
**TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH NISSAN NORM**  
**PERNO DI SOLLEVAMENTO NISSAN**



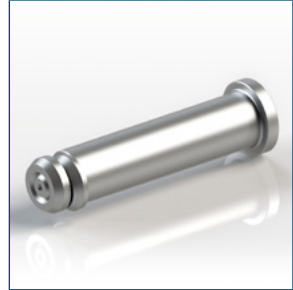
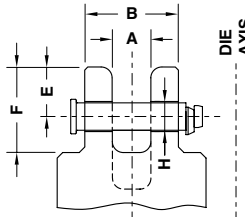
Respect the max load  
 Maximale Nutzlast beachten  
 Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
 For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

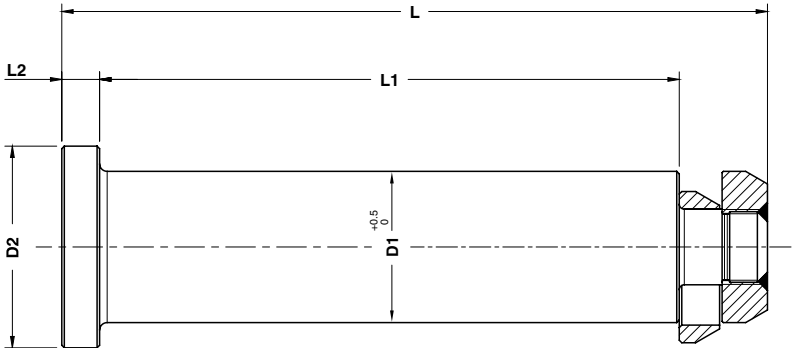
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
 K1 140-40+80



**Notes**

**Material:** 42CrMo4 + QT



ORDER EXAMPLE	Art.	D1=50
	B02.23.	50

OMCR CODE	Max load (kg)	Max die weight (kg)	A	B	H	D1	D2	E	F	L	L1	L2
B02.23.40	2000	4000	50	150	41,5	40	60	50	110	210	160	15
B02.23.50	3000	6000	70	210	51,5	50	70	75	150	270	220	15
B02.23.60	5000	10000	80	220	61,5	60	80	100	195	280	230	15
B02.23.70	7500	15000	80	240	71,5	70	90	110	210	300	250	15
B02.23.80	17500	35000	90	290	82	80	100	120	230	350	300	15

## LIFTING PIN OPEL-GM TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH OPEL-GM NORM PERNO DI SOLLEVAMENTO OPEL-GM



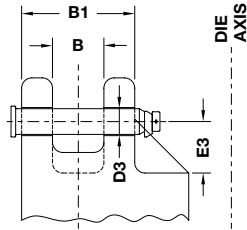
Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

**WARNING - ACHTUNG - ATTENZIONE:**  
For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
15.30.00 ed. 05/2007



### Notes

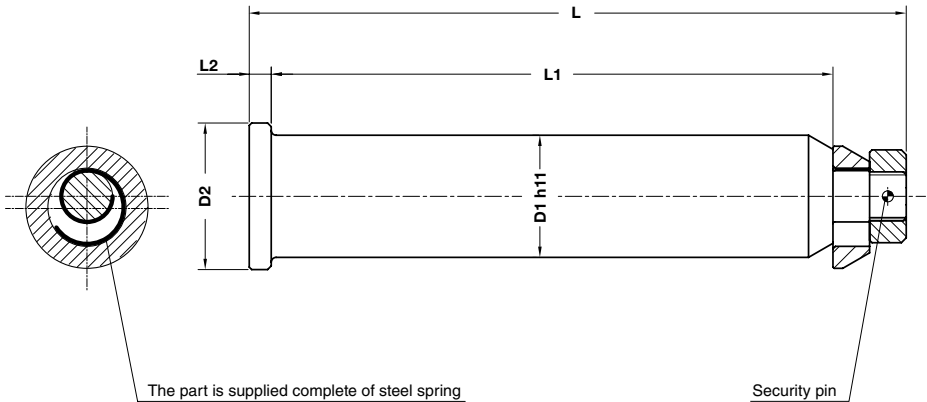
**Material:** 42CrMo4 + QT

STOCK



WEB

WEB



Lifting Elements

ORDER EXAMPLE	Art.	D1=80
	B02.26.	80

OMCR CODE	Max load (kg)	Max die weight (kg)	B	B1	D1	D2	D3	E3	L	L1	L2
B02.26.32	3400	6800	70	150	32	40	34	65	177	155	5
B02.26.40	5650	11300	80	180	40	50	42	85	220	188	7
B02.26.50	8950	17900	100	220	50	60	52	100	270	230	9
B02.26.63	14350	28700	120	280	63	75	65	125	342	295	16
B02.26.80	26700	53400	120	320	80	89	82	160	387	335	16

## LIFTING PIN PSA-RENAULT TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH PSA-RENAULT NORM PERNO DI SOLLEVAMENTO PSA-RENAULT



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

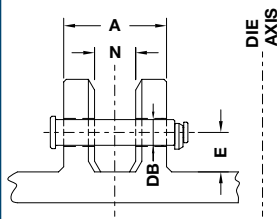
**WARNING - ACHTUNG - ATTENZIONE:**

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

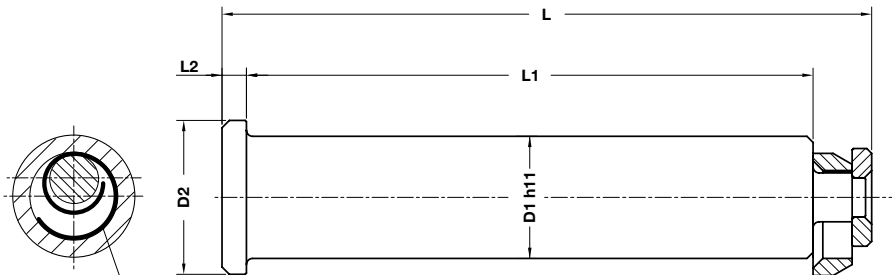
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
EM24.50.400 ed. 07/2006  
EM24.59.950 ed. 07/2006



**Notes**

**Material:** St52



The part is supplied complete of steel spring

ORDER EXAMPLE	Art.	D1=50
	B02.30.	50

OMCR CODE	Max load (kg)	Max die weight (kg)	A	E	DB	D1	D2	L	L1	L2	N
B02.30.32	6000	12000	125	55	34	32	40	154	132	6	50
B02.30.40	9000	18000	160	70	42	40	50	197,5	170	8	65
B02.30.50	14000	28000	200	90	52	50	63	247,5	212	10	80
B02.30.63	22500	45000	250	100	65	63	80	309	265	12	100

## LIFTING PIN VOLVO TRAGBOLZEN MIT FALLRINGSICHERUNG UND FEDER NACH VOLVO NORM PERNO DI SOLLEVAMENTO VOLVO



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

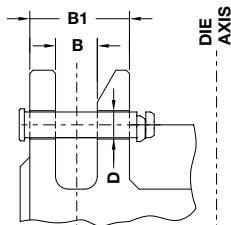
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

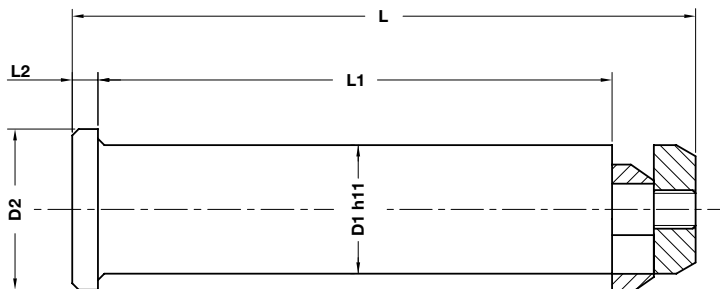
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
BCD8271,81 01/2015



### Notes

**Material:** St52



ORDER EXAMPLE	Art.	D1=63	Type
	B02.35.	63	C

OMCR CODE	Max load (kg)	Max die weight (kg)	Type	A	B	B1	C	D	D1	D2	E	L	L1	L2
B02.35.40	2500	5000	-	40	65	155	50	42	40	50	100	195	160	8
B02.35.63C	8000	16000	C	60	100	220	60	65	63	75	125	285	230	14
B02.35.63	12000	24000	-	80	100	260	80	65	63	75	125	327	275	14
B02.35.80	20000	40000	-	100	120	320	100	82	80	95	180	402	340	15

## REPLACEMENT LIFTING PIN FOR LIFTING BRACKET BMW ERSATZTRAGBOLZEN FÜR TRAGWANGE BMW PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO BMW



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

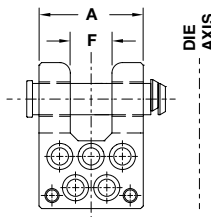
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

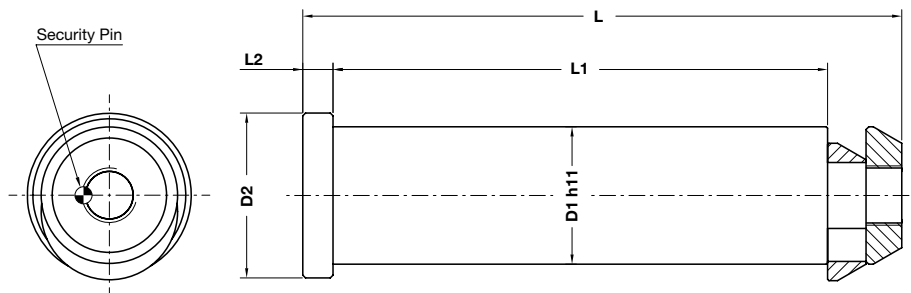
According - Nach - Secondo:  
B01.20



### Notes

#### Material:

See table - siehe Tabelle - vedi tabella



Art.	D1=80	Type
B02.40.	80	A

OMCR CODE	Max load (kg)	Max die weight (kg)	Type	A	F	D1	D2	L	L1	L2	Material
B02.40.30	3200	6400	-	126	50	30	40	158	129	10	CK45
B02.40.40	5000	10000	-	150	60	40	50	187	155	10	CK45
B02.40.50	8000	16000	-	175	75	50	60	220	180	11	CK45
B02.40.60	12500	25000	-	200	80	60	70	246	205	11	CK45
B02.40.80	18000	36000	-	250	100	80	90	305	255	12	CK45
B02.40.80A	25000	50000	A	300	120	80	90	360	310	12	42CrMo4 + QT
B02.40.80B	31500	63000	B	345	135	80	90	405	355	22	42CrMo4 + QT

## REPLACEMENT LIFTING PIN FOR LIFTING BRACKET FCA ERSATZTRAGBOLZEN FÜR TRAGWANGE FCA PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO FCA



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

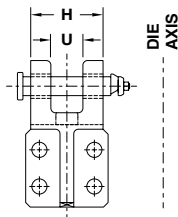
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

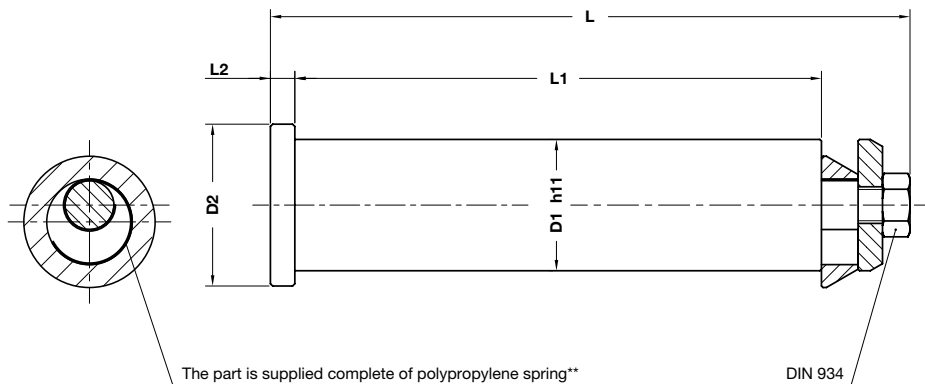
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
B01.15



### Notes

Material: CK45



Lifting Elements

ORDER EXAMPLE	Art.	D1=60
	B02.42.	60

OMCR CODE	Max load (kg)	Max die weight (kg)	D1	D2	H	L	L1	L2	U
B02.42.15	600	1200	15,6	25	70	102,5	77	6	30
B02.42.20	1000	2000	20,6	30	79	113,5	86	6	35
B02.42.25	2000	4000	25,6	35	90	128,5	100	6	40
B02.42.33	4000	8000	33	43	125	166,5	135	6	55
B02.42.43	7000	14000	43	53	160	210,5	175	8	60

## REPLACEMENT LIFTING PIN FOR LIFTING BRACKET VW/AUDI ERSATZTRAGBOLZEN FÜR TRAGWANGE VW/AUDI PERNO DI RICAMBIO PER STAFFA DI SOLLEVAMENTO VW/AUDI



Respect the max load  
Maximale Nutzlast beachten  
Rispettare il carico Max

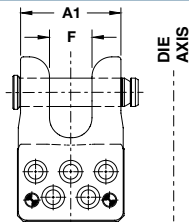
### WARNING - ACHTUNG - ATTENZIONE:

For safety reason, please consider always that the weight of the die has to be supported by just 2 lifting pins.

Aus Sicherheitsgründen stets berücksichtigen, dass zwei Tragbolzen das gesamte Werkzeuggewicht tragen müssen.

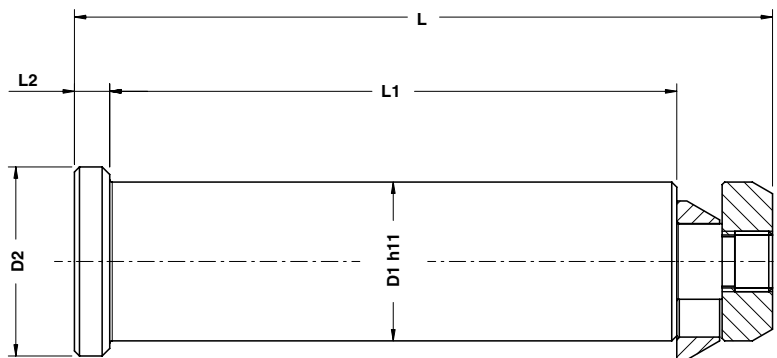
Per ragioni di sicurezza, considerare sempre che il peso dello stampo deve essere sopportato da 2 soli perni.

According - Nach - Secondo:  
B01.24



### Notes

**Material:** CK45



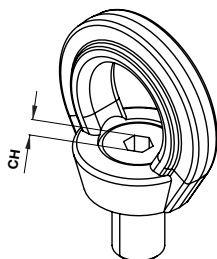
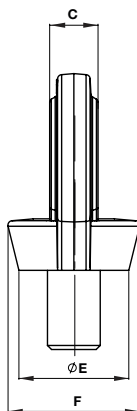
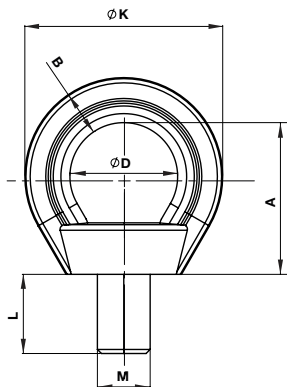
ORDER EXAMPLE	Art.	D1
	B02.44.	63

OMCR CODE	Max load (kg)	Max die weight (kg)	A1	D1	D2	F	L	L1	L2
B02.44.50	8000	16000	177	50	60	75	221	182	11
B02.44.63	12500	25000	220	63	75	80	277	225	14





**ROTATING EYEBOLT H.T. - RINGSCHRAUBE H.T. - GOLFARE GIREVOLE H.T.**



**FORESEEN USE**

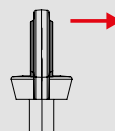
**Turning eyebolt needed to lift loads to assemble to the load itself with specific threaded hole generally used to turn or tilt heavy loads.**

- Safety coefficient 4 in all loading directions
- Designed, tested and certified in compliance with the technical directives GS-OA 15-04 EN 1677
- Suitable for safe lifting in compliance with the machinery directive 2006/42/EC
- Can be oriented at 360°
- Tested at 100 % magnaflux
- Tested at 20.000 stress cycles
- Ideal for fastening at 90°
- Captive screws
- On the axial pull there can be variation of +/-5° with a 10% decrease in capacity

Accordingly with the requirements of "DGVV – German institution for security" please use the devise with the screw supplied, if replaced OMCR Srl disclaims any and all responsibility or liability.

**Not suitable for continuous rotation during loading**

**CONFIGURATION NOT RECOMMENDED**



	Art.	Screw Dim.	OPTION KEY
	B03.10.	010	W

OMCR CODE	Size (mm)	W.L.L. (t)	A (mm)	B (mm)	C (mm)	D (Ømm)	E (Ømm)	F (mm)	K (mm)	L (mm)	CH (mm)	Weight (Kg)
B03.10.006	M06	0,1	27	9,5	7	20	23	27,7	37	9	6	0,08
B03.10.008	M08	0,3	33,7	10	9,8	25	25,5	30	46	12	6	0,120
B03.10.010	M10	0,4	33,7	10	9,8	25	25,5	30	46	15	6	0,120
B03.10.012	M12	0,75	41,5	12,5	11,5	30	30,6	36,5	55,5	18	8	0,200
B03.10.016	M16	1,5	49,5	14,5	15,7	35	36,5	42	64,5	24	10	0,350
B03.10.020	M20	2,3	58	16	18	40	42	52,5	74,5	30	12	0,600
B03.10.024	M24	3,2	69	20,5	22	49	50	61	90	36	12	1,000
B03.10.030	M30	4,5	86	25,5	28	60	66	75	111	45	17	2,000
B03.10.036	M36	7	105	32	30	74	77	96,5	135	55	22	3,400
B03.10.042	M42	9	118	38	37	82	87	110	158	65	24	5,700
B03.10.048	M48	12	137	43	38	95	102	124,5	180	72	27	8,500

### WORKING LOAD LIMIT W.L.L. (t)

OMCR CODE	Size (mm)												Max tightening couple (Nm)
		0°	0°	90°	90°	0-45°	45°-60°	Asymm	0°-45°	45°-60°	Asymm		
		Single leg	2 legs	Single leg	2 legs	2 legs		3/4 legs					
B03.10.006	M06	0,5	1	0,1	0,2	0,14	0,1	0,1	0,21	0,15	0,1	6	
B03.10.008	M08	1	2	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	8	
B03.10.010	M10	1	2	0,4	0,8	0,56	0,4	0,4	0,84	0,6	0,4	16	
B03.10.012	M12	2	4	0,75	1,5	1	0,75	0,75	1,6	1,12	0,75	25	
B03.10.016	M16	4	8	1,5	3	2	1,5	1,5	3,15	2,25	1,5	60	
B03.10.020	M20	6	12	2,3	4,6	3,22	2,3	2,3	4,83	3,45	2,3	110	
B03.10.024	M24	8	16	3,2	6,4	4,48	3,2	3,2	6,7	4,8	3,2	195	
B03.10.030	M30	12	24	4,5	9	6,3	4,5	4,5	9,4	6,7	4,5	320	
B03.10.036	M36	16	32	7	14	9,8	7	7	14,7	10,5	7	585	
B03.10.042	M42	24	45	9	18	12,6	9	9	18,9	13,5	9	920	
B03.10.048	M48	32	64	12	24	16,8	12	12	25,2	18	12	1590	

Lifting Elements

# B03.10

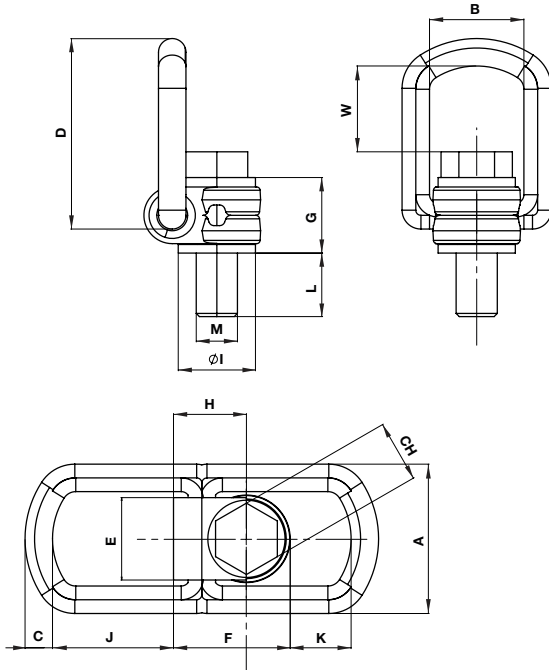
## KEY - SCHLÜSSEL - CHIAVE

	Art.	Thread=M10
	B03.10.	C10

OMCR CODE	Size (mm)	OMCR CODE	Size (mm)
B03.10.C06	M06	B03.10.024	M24
B03.10.C08	M08	B03.10.030	M30
B03.10.C10	M10	B03.10.036	M36
B03.10.C12	M12	B03.10.042	M42
B03.10.C16	M16	B03.10.048	M48
B03.10.C20	M20		



**ROTATING EYEBOLT WITH CLAMP - LASTBOCK - GOLFARE GIREVOLE CON STAFFA**



**Notes**

**PULL AT 90°** with minimum overall dimensions.

Available on demand **-40°C**.

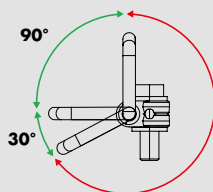


**FORESEEN USE**  
**Anchorage point for load lifting.**

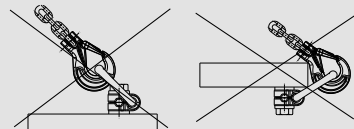
- Safety coefficient 4 in all loading directions
- Designed, tested and certified in compliance with the technical directives GS-OA 15-04 – EN 1677
- Suitable for safe lifting in compliance with the machinery directive 2006/42/EC
- Can be oriented at 360°
- Tested at 100 % magnaflux
- Tested at 20.000 stress cycles
- The screw is protected with the GEOMET system which guarantees lasting protection in time
- Ideal for fastening at 90°
- Captive screws.

Accordingly with the requirements of “DGUV – German institution for security” please use the devise with the screw supplied, if replaced OMCR Srl disclaims any and all responsibility or liability.

**Not suitable for continuous rotation during loading**



**NOT ALLOWED**





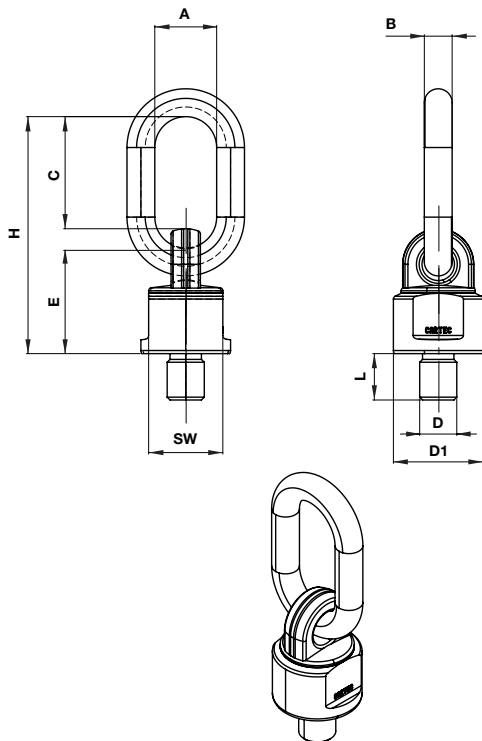
Art.	Screw Dim.
B03.15.	010

OMCR CODE	Size (mm)	W.L.L. (t)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	L (mm)	W (mm)	J (mm)	K (mm)	Ch (mm)	Weight (Kg)
B03.15.008	M8	0,3	57	34	10	78	24	41	30	26,5	25	15	43	51	35	13	0,275
B03.15.010	M10	0,63	57	34	10	78	24	41	30	26,5	25	15	42	51	35	17	0,290
B03.15.012	M12	1	66	38	13,5	85	30	50	36	33	32	23	40	52	28	19	0,500
B03.15.016	M16	1,5	66	38	13,5	85	30	50	36	33	32	24	38	52	28	24	0,510
B03.15.020	M20	2,5	87	55	16	111	48	68	44	42,5	45	31	54	71	36	30	1,250
B03.15.024	M24	4	87	55	16	111	48	68	44	42,5	45	37	51	71	36	36	1,300
B03.15.030	M30	5	109	66	22,5	145	54	91	65	58,5	60	45	62	86	47	46	3,250
B03.15.036	M36	8	136	78	28	190	62	108	81	72,5	70	59	88	115	74	55	5,900
B03.15.042	M42	10	136	78	28	190	62	108	75	72,5	70	75	86	115	70	65	6,500
B03.15.142	M42	15	169	97	36	242	68	131	89	87,5	85	63	121	151	97	65	11,200
B03.15.048	M48	20	169	97	36	242	68	131	89	87,5	95	71	117	151	93	75	11,600

**WORKING LOAD LIMIT W.L.L. (t)**


OMCR CODE	Size (mm)	0°	0°	90°	90°	0-45°	45°- 60°	Asymm	0°- 45°	45°- 60°	Asymm	Max tightening couple (Nm)
		Single leg	2 legs	Single leg	2 legs	2 legs		3/4 legs				
B03.15.008	M8	0,3	0,6	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	30
B03.15.010	M10	0,63	1,26	0,63	1,26	0,88	0,63	0,63	1,32	0,95	0,63	60
B03.15.012	M12	1	2	1	2	1,4	1	1	2,1	1,5	1	100
B03.15.016	M16	1,5	3	1,5	3	2,1	1,5	1,5	3,15	2,25	1,5	150
B03.15.020	M20	2,5	5	2,5	5	3,5	2,5	2,5	5,25	3,75	2,5	250
B03.15.024	M24	4	8	4	8	5,6	4	4	8,4	6	4	400
B03.15.030	M30	5	10	5	10	7	5	5	10,5	7,5	5	500
B03.15.036	M36	8	16	8	16	11,2	8	8	16,8	12	8	800
B03.15.042	M42	10	20	10	20	14	10	10	21	15	10	925
B03.15.142	M42	15	30	15	30	21	15	15	31,5	22,5	15	1500
B03.15.048	M48	20	40	20	40	28	20	20	42	30	20	2000

## ROTATING EYEBOLT H.T. - RINGSCHRAUBE H.T. - GOLFARE GIREVOLE H.T.



## Notes

Can be oriented at **360°**.

Available on demand **-40°C**.

**CAN BE ORIENTED DURING  
LOADING**



## FORESEEN USE

Turning eyebolt needed to lift loads to assemble to the load itself with specific threaded hole generally used to turn or tilt heavy loads.

- Safety coefficient 4 in all loading directions
- Designed, tested and certified in compliance with the technical directives GS-OA 15-04 – EN 1677
- Suitable for safe lifting in compliance with the machinery directive 2006/42/EC
- Tested at 100 % magnaflux
- Tested at 20.000 stress cycles
- Can be oriented at 360° with self aligning tilting ring at 180°
- Assembled with spheres to make load orientation easier
- On the axial pull there can be variation of +/-5° with a 10% decrease in capacity

Accordingly with the requirements of "DGUV – German institution for security" please use the devise with the screw supplied, if replaced OMCR Srl disclaims any and all responsibility or liability.

**Movement suitable for  
continuous rotation during loading**



Art.	Screw Dim.
B03.20.	010

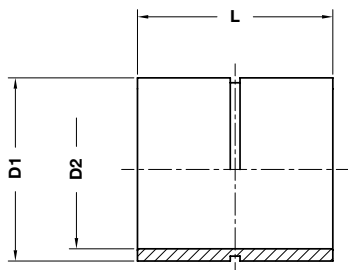
OMCR CODE	Size (mm)	W.L.L. (t)	A (mm)	B (mm)	C (mm)	E (mm)	H (mm)	SW (mm)	D1 (mm)	Weight (Kg)
B03.20.008	M8x16	0,3	30	13	46	50	105	30	38	0,48
B03.20.010	M10x18	0,5	30	13	46	50	105	30	38	0,48
B03.20.012	M12x18	0,7	30	13	46	50	105	30	38	0,5
B03.20.016	M16x20	1,4	30	13	46	50	105	30	38	0,53
B03.20.020	M20x30	2,5	34	16	57	61	131	40	50	1,05
B03.20.024	M24x30	4	40	18	70	68	153	48	58	1,63
B03.20.030	M30x35	6,7	45	22	65	71	156	70	80	2,85
B03.20.036	M36x54	10	50	23	91	86	200	80	90	4,62
B03.20.042	M42x63	12,5	50	23	91	86	200	80	90	5,2
B03.20.045	M45x60	12,5	50	23	91	86	200	80	90	5,2
B03.20.048	M48x60	17	70	32	120	112	262	100	120	10,9
B03.20.056	M56x78	18	70	32	120	112	262	100	120	10,9
B03.20.064	M64x96	20 (25)	70	32	120	112	262	100	120	10,9
B03.20.090	M90x135	40	90	45	124	165	333	140	170	29

**WORKING LOAD LIMIT W.L.L. (t)**

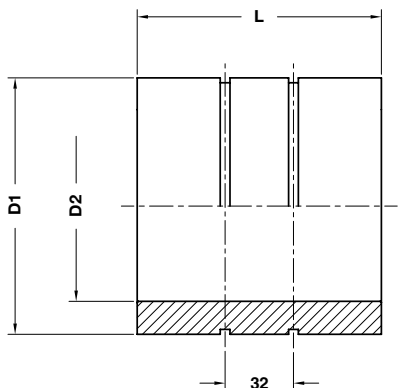

OMCR CODE	Size (mm)	0°		90°		0-45°			45-60°			Max tightening couple (Nm)
		Single leg	2 legs	Single leg	2 legs	2 legs			3/4 legs			
B03.20.008	0,3 t-M8x16	0,6	1,2	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	16
B03.20.010	0,5 t-M10x18	1	2	0,5	1	0,75	0,5	0,5	1	0,75	0,5	16
B03.20.012	0,7 t-M12x18	1,4	2,4	0,7	1,4	1	0,7	0,7	1,4	1	0,7	28
B03.20.016	1,4 t-M16x20	2,8	5,6	1,4	2,8	2	1,4	1,4	3	2,1	1,4	70
B03.20.020	2,5 t-M20x30	5	10	2,5	5	3,5	2,5	2,5	5,3	3,7	2,5	135
B03.20.024	4 t-M24x30	8	16	4	8	5,6	4	4	8,4	6	4	230
B03.20.030	6,7 t-M30x35	12	24	6,7	13,4	9,4	6,7	6,7	14	10	6,7	465
B03.20.036	10 t-M36x54	15	30	10	20	14	10	10	21,2	15	10	814
B03.20.042	12,5 t-M42x63	15	30	12,5	25	17,5	12,5	12,5	26,2	18,7	12,5	1304
B03.20.045	16 t-M45x60	25	50	17	34	23,5	17	17	31,5	22,4	15	1670
B03.20.048	17 t-M48x60	25	50	18	36	25,2	18	18	35,7	25,5	17	1981
B03.20.056	18 t-M56x78	25	50	18	36	25,2	18	18	37	27	18	3000
B03.20.064	20 t-M64x96	25	50	20	40	28	20	20	42,5	30	20	4738
B03.20.090	40 t-M90x135	50	100	40	80	56	40	40	85	60	40	14000

**Lifting Elements**

**BUSH FOR LIFTING PIN VDI-BAK**  
**BUCHSE FÜR TRAGBOLZEN VDI-BAK**  
**BOCCOLA PER PERNO DI SOLLEVAMENTO VDI-BAK**



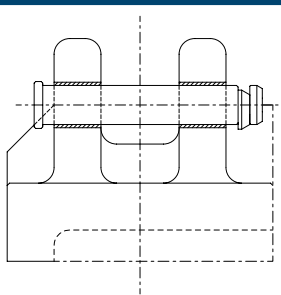
**FORM A**



**FORM B**



### Application Example



### Notes

**Material:** Si35

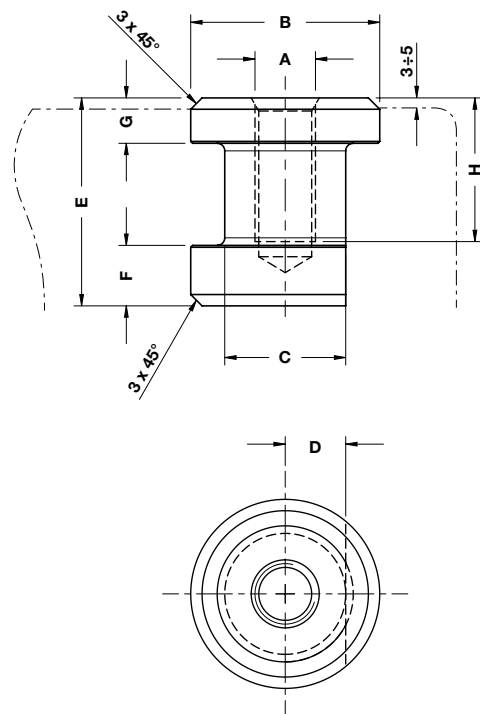


Art.	D1	D2	L
B08.11.	044	34	040

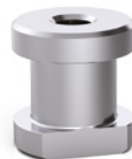
OMCR CODE	D1	D2	L	FORM
B08.11.04434040	44	34	40	A
B08.11.05242050	52	42	50	A
B08.11.06252060	62	52	60	A
B08.11.07565080	75	65	80	A
B08.11.10078100	100	78	100	B
B08.11.10578100	105	78	100	B



## THREADED STEEL INSERT GEWINDEINSATZ AUS STAHL INSERTO FILETTATO IN ACCIAIO



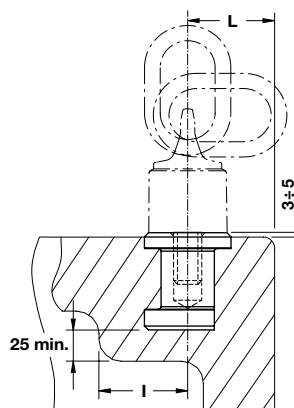
Inserts are to be used in cast iron die only (do not use in cast steel).



STOCK



### Application Example



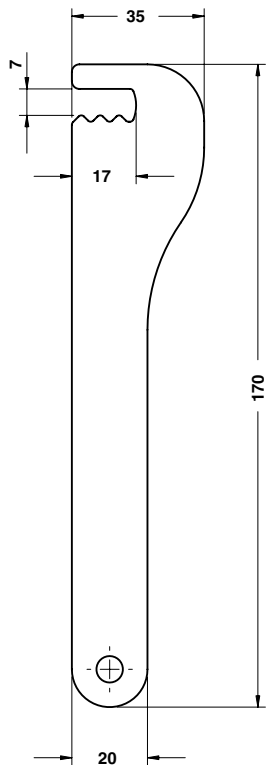
### Notes

**Material:** 42CrMo4 + QT

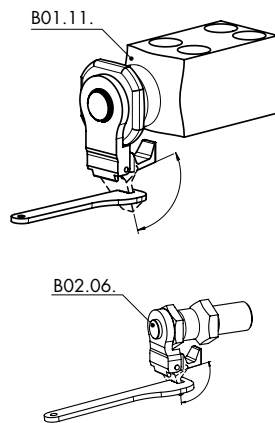
ORDER EXAMPLE	Art.	A
	B08.20.	M20

OMCR CODE	Max load 1 point (kg)	Max load 2÷4 point (kg)	A	B	C	D	E	F	G	H	I	L
B08.20.M16	1000	2000	M16	50	32	16	55	16	12	42	60	60
B08.20.M20	2100	4200	M20	65	36	18	65	16	12	47	70	70
B08.20.M24	3000	6000	M24	65	40	20	75	16	12	57	80	80
B08.20.M30	5000	10000	M30	85	60	30	90	20	20	67	100	100
B08.20.M36	6500	13000	M36	107	80	40	100	22	22	77	110	110
B08.20.M42	7200	14400	M42	107	80	40	130	25	25	95	120	120
B08.20.M48	8000	16000	M48	107	80	40	150	30	30	110	130	130

**ROPE SAFETY STOP OPENING KEY**  
**SCHLÜSSEL FÜR SEILSICHERUNG**  
**CHIAVE PER APERTURA SICUREZZA FERMAFUNNE**



### Application Example



### Notes

**Material:** CK45  
 To use for B01.11. - B02.06.

	Art.
	<b>B09.10.01</b>

### OMCR CODE

**B09.10.01**







Sliding Elements  
Führungselemente  
Sistemi di guida

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

# Sliding Elements Führungselemente Sistemi di Guida

Ⓞ The **Sliding Elements** line offers an extraordinary variety of items in order to satisfy all requirements of design and construction of sheet metal working dies. Bushes, guide posts, plates, drivers, etc. are produced according to **AFNOR, DIN, NAAMS, VDI**, norms, with high-quality materials and strict quality control, to ensure the reliability which distinguishes our products.

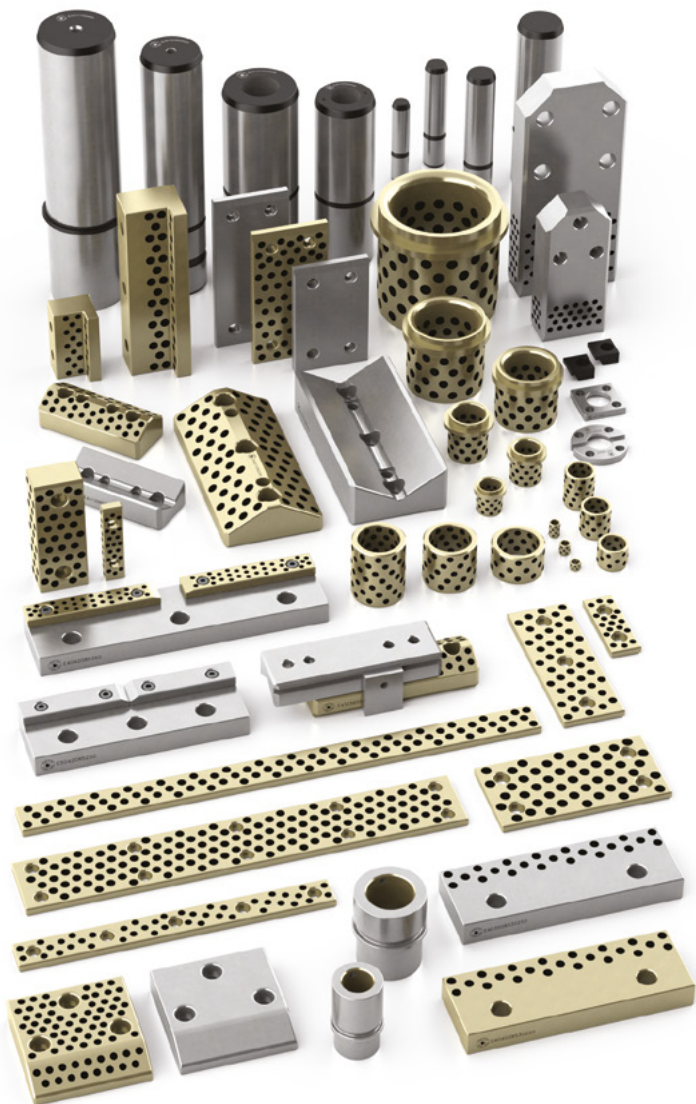
Ⓞ Die Linie der **Führungselemente** bietet eine einzigartige Artikelvielfalt, die alle Anforderungen an die Konstruktion und Herstellung von Stanzwerkzeugen abdeckt. Unsere Führungsbuchsen, Führungssäulen, Gleitplatten, Prismenführungen usw. werden alle gemäß den **AFNOR, DIN, NAAMS, VDI, Normen** aus qualitativ hochwertigen Materialien hergestellt und unterliegen strengen Kontrollen zur Gewährleistung der Qualität, die unsere Produkte auszeichnet.

Ⓞ La gamma **Sistemi di Guida** offre un'ampia varietà di articoli in grado di rispondere a tutte le esigenze della progettazione e costruzione di stampi per lavorazione lamiera. Boccole, colonne, piastre, guide, ecc., sono tutte realizzate nel rispetto delle **norme AFNOR, DIN, NAAMS, VDI**, con materiali di qualità e severi collaudi per garantire quella affidabilità che contraddistingue i nostri prodotti.



# OMCR®

STANDARD DIE COMPONENTS



**GB GENERALITY.**

The planning of **OMCR** self-lubricating products offers the technical help to solve slide problems related to mechanical devices, dies and tools with a solution which is normalized, simple, functional and reliable.

**RELIABILITY:** **OMCR** self-lubricating products support high loads, are long-lasting, require little maintenance, remove assembly problems.

**COSTS REDUCTION:** With **OMCR** self-lubricating products, expensive, centralized lubricating systems are not longer required, maintenance time is low as well as purchase costs. Operating costs and lubricating disposal are reduced.

**USE:** **OMCR** self-lubricating products offer the best performance with hardened steel (**Hardness > 55 HRC**). The matched surfaces should have good surface finishes (**Ra0.8/ Rz 6.3**) and there should not be any sharp edges present which could eventually cause notching. **Units initially lubricated with a lithium base grease and then every ~100000 cycles** or after cleaning or after a long standstill, guarantee a long life of the slides.

**PRINCIPLE.**

Self-lubricating products **OMCR** consist of a metal base in which the lubricant is inserted. During the working phase, the lubricant is exuded between the sliding surfaces, whereby a film is formed preventing direct contact of the working surfaces, like a conventional lubricant.

**BRONZE-GRAPHITE PRODUCTS (Pic.01):** consist of a bronze-aluminum base in which is inserted the solid lubricant in the form of oil-impregnated sintered graphite cylinders. They offer high wear resistance; the disposition of graphite makes it possible to slide in one or two directions.

**SINT300® PRODUCTS (Pic.02):** they consist of a steel metal base on which a 2 mm layer of sintered material is applied which contains solid lubricants (graphite and MoS2) and liquid lubricant (oil) dispersed in homogeneous mode at microscopic level. Thus surface contact is more extensive thanks to the lack of the graphite cylinders and the self-lubricating effect is greatly improved.

**Self-lubricating SINT300® products** offer higher performance than traditional bronze-graphite products (higher speed - higher specific pressure - increased P\*V - greater working temperature range ) and allow movement in all directions with the same effectiveness. The higher performance of the self-lubricating sintered **OMCR** products allow more compact movement than traditional self-lubricating bronze-graphite products.

**NOTE: If thickness adjustment is necessary, the steel backing must be machined – Not the sintered section.**

**Technical property - Technische Eigenschaften - Caratteristiche tecniche**

TECHNICAL PROPERTY	MATERIAL	
	SINT300®	Bronze / Graphite
<b>Max. specific pressure P (N/mm<sup>2</sup>)</b>	<b>300</b>	<b>100</b>
<b>Max. sliding speed V (m/min)</b>	<b>40</b>	<b>15</b>
<b>Max. output PV (N/mm<sup>2</sup> * m/min)</b>	<b>300</b>	<b>200</b>
<b>Working temperature range T (°C)</b>	<b>-40÷250</b>	<b>-40÷150</b>
<b>Coefficient of friction Vs Steel μ</b>	<b>0.05÷0.15</b>	<b>0.05÷0.15</b>



Ⓢ ALLGEMEINES.

Unsere selbstschmierenden **OMCR** Produkte sollen dem Konstrukteur helfen, das Problem des Gleitens in Maschinen, Stanzwerkzeugen und Vorrichtungen mit einer genormten, einfachen, funktionalen und zuverlässigen Lösung zu lösen.

**ZUVERLÄSSIGKEIT:** Die selbstschmierenden **OMCR** Produkte nehmen hohe Lasten auf, haben eine lange Lebensdauer, erfordern wenig Instandhaltung und lassen sich einfach montieren.

**KOSTENREDUZIERUNG:** Die selbstschmierenden Produkte von **OMCR** benötigen keine teuren Zentralschmieranlagen, die Instandhaltungsstunden und die Kosten für Einkauf, Steuerung und Entsorgung von Schmierstoffen entfallen.

**VERWENDUNG:** Die selbstschmierenden Produkte von OMCR bieten beste Leistung in Kombination mit gehärtetem Stahl (**Härte >55 HRC**). Die Gleitflächen sollten eine niedrige Oberflächenrauigkeit (**Ra 0.8/ Rz 6.3**) haben und keine scharfen Kanten aufweisen, die Kerbwirkung erzielen können. Eine Anfangsschmierung mit **Lithiumfett** und eine Schmierung alle **~100.000 Zyklen** oder nach langen Standzeiten bzw. Reinigung gewährleisten eine höhere Lebensdauer der Gleitelemente

**PRINZIP.**

Die selbstschmierenden Produkte von **OMCR** bestehen aus einem Träger aus Metall, auf den ein Schmierstoff aufgebracht wird. Beim Gleiten wird der Schmierstoff freigesetzt, verteilt sich zwischen den Gleitflächen und bildet einen Film, der dadurch dass er deren direkten Kontakt unterbindet die Abnutzung auf das Niveau einer herkömmlichen Schmierung reduziert.

**PRODUKTE AUS BRONZE/FESTSCHMIERSTOFF**

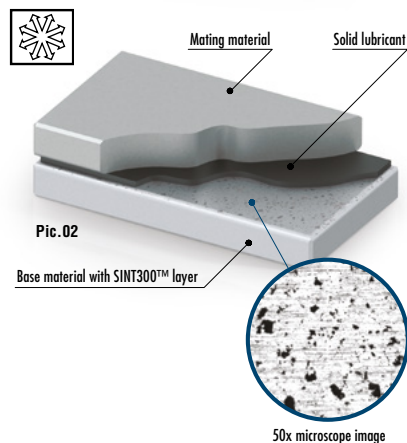
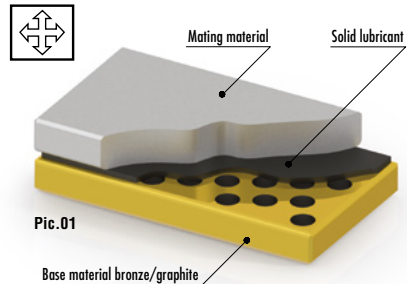
**(Pic.01):** Sie bestehen aus einem Träger aus Bronze-Aluminium, in den fester Schmierstoff in Form von gesinterten und mit Öl imprägnierten Graphitzylindern eingesetzt wird. Sie bieten hohe Abriebfestigkeit. Die Anordnung der Graphiteinlagen ermöglicht das Gleiten in eine oder zwei Richtungen.

**SINT300® PRODUKTE (Pic.02):** Sie bestehen aus einem Träger aus Stahl, auf den eine ca. 2 mm dicke Schicht aus Sintermaterial mit poröser Struktur aufgebracht wird, die festen Schmierstoff (Graphit und MoS2) und flüssigen Schmierstoff

(Öl) enthält, welche homogen mikroskopisch verteilt sind. Die Kontaktfläche aus Metall wird durch das Fehlen der Graphiteinsätze größer und die selbstschmierende Wirkung erheblich verbessert. Die **selbstschmierenden SINT300® produkte** von **OMCR** bieten bessere Leistungen als die herkömmlichen Produkte aus Bronze/Festschmierstoff (höhere Geschwindigkeit, größerer spezifischer Druck, größer PV-Wert, breiterer Betriebstemperatur-Einsatzbereich) und ermöglichen ein Gleiten in alle Richtungen mit derselben Wirkung.

Die besseren Leistungen der **selbstschmierenden Sinterprodukte** von **OMCR** gestatten die Gestaltung von kompakteren Gleitelementen gegenüber den herkömmlichen selbstschmierenden Produkten aus Bronze mit Festschmierstoff.

**Anmerkung: Eventuell erforderliche Anpassungsarbeiten sind auf der Stahlseite und nicht auf der Sinterbronzeschicht auszuführen!**



Sliding Elements

## ① GENERALITÀ.

Il programma di prodotti autolubrificanti **OMCR** si propone di aiutare i progettisti nel risolvere il problema degli scorrimenti nelle apparecchiature meccaniche, stampi e attrezzature, con una soluzione normalizzata, semplice, funzionale e affidabile.

**AFFIDABILITÀ:** I prodotti autolubrificanti **OMCR** sopportano alti carichi, hanno una lunga durata, richiedono poca manutenzione ed eliminano gli inconvenienti al montaggio.

**RIDUZIONE DEI COSTI:** Con gli autolubrificanti **OMCR** non sono necessari i costosi impianti di lubrificazione centralizzata, si riducono le ore di manutenzione e i costi per l'acquisto, la gestione e lo smaltimento dei lubrificanti.

**USO:** I prodotti autolubrificanti **OMCR** offrono le migliori prestazioni in accoppiamento con acciaio temprato (**Durezza >55 HRC**).

È opportuno che le superfici in accoppiamento abbiano una buona finitura superficiale (**Ra 0.8/ Rz 6.3**) e che non siano presenti spigoli vivi tali da generare effetti di intaglio. Una lubrificazione iniziale, con **grasso saponificato al litio**, e lubrificazioni a intervalli di **~100000 cicli** o in caso di lavaggi o soste prolungate garantiscono la durata degli elementi di scorrimento.

## PRINCIPIO.

I prodotti autolubrificanti **OMCR** sono costituiti da una base in metallo nella quale viene inserito il lubrificante. Durante la fase di lavoro, il lubrificante viene rilasciato e si dispone tra le superfici in scorrimento, formando così un film

che, impedendo il contatto diretto, riduce l'usura al pari di una lubrificazione tradizionale.

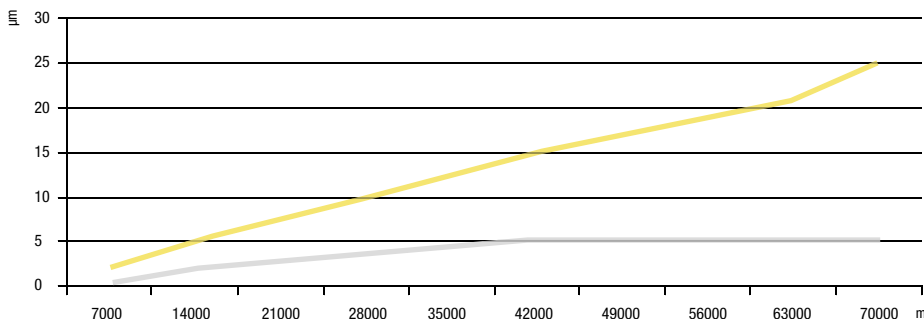
**PRODOTTI IN BRONZO-GRAFITE (Pic.01):** sono costituiti da una base in bronzo-alluminio nella quale viene inserito il lubrificante solido sotto forma di cilindri di grafite sinterizzata e impregnata di olio. Offrono elevata resistenza all'usura; la disposizione degli inserti in grafite rende possibile lo scorrimento in una o due direzioni.

**PRODOTTI IN SINT300® (Pic.02):** sono costituiti da una base in acciaio sulla quale è applicato uno strato di 2 mm in materiale sinterizzato con struttura porosa che ingloba del lubrificante solido (grafite e MoS<sub>2</sub>) e del lubrificante liquido (olio) dispersi in modo omogeneo a livello microscopico, la superficie di contatto risulta quindi più ampia per la mancanza degli inserti in grafite e l'effetto autolubrificante è notevolmente migliorato.

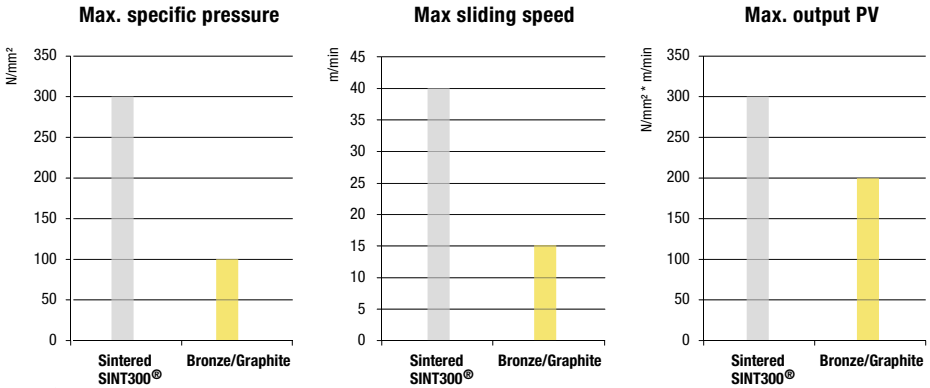
I **prodotti autolubrificanti in SINT300®** offrono maggiori prestazioni rispetto ai tradizionali prodotti in bronzo/grafite Pic.03 e Pic.04 (maggiore velocità, maggiore pressione specifica, maggiore P\*V, maggiore gamma di temperature di esercizio) e permettono lo scorrimento in tutte le direzioni con la stessa efficacia. Le maggiori performance dei prodotti autolubrificanti in sinterizzato **OMCR** permettono di realizzare scorrimenti più compatti rispetto ai tradizionali prodotti autolubrificanti in bronzo-grafite.

**NOTA: gli eventuali adattamenti sono da effettuare sulla base in acciaio e non sul riporto sinterizzato.**

**Wear amount in opposition to Steel HRC 58±60 P\*V=200**



Pic.03



Pic.04

LINEAR TRIBOMETER - LINEARES TRIBOMETER - TRIBOMETRO LINEARE











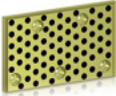
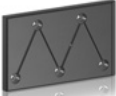
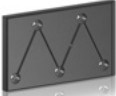









OMCR has designed and built, for its research centre, a **LINEAR TRIBOMETER** (Patent Pending) to determine the specific pressure and speed limits of the different materials in different combinations and in different conditions of lubrication. This tool allows us to foresee the wear phenomena and the efficiency of the self-lubricating products by simulating actual operating conditions and constantly monitoring the flow speed, the specific pressures, the friction coefficient and the operating temperature.

OMCR hat für ihr hauseigenes Entwicklungszentrum ein **LINEARES TRIBOMETER** (Patent Pending) entwickelt, um die Grenzen des spezifischen Drucks und der Geschwindigkeit der diversen Materialien in verschiedenen Kombinationen und unter unterschiedlichen Bedingungen der Schmierung bestimmen zu können. Mit diesem Messinstrument kann die Abnutzung und die Wirksamkeit von selbstschmierenden Produkten durch Simulation der effektiven Arbeitsbedingungen, und konstante Überwachung der Gleitgeschwindigkeit, der Flächenpressung, des Reibungskoeffizienten und der Betriebstemperatur bestimmt werden.



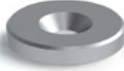
La OMCR ha progettato e costruito per il proprio centro ricerche un **TRIBOMETRO LINEARE** (Patent Pending) per determinare i limiti di pressione specifica e velocità dei diversi materiali in differenti combinazioni e in diverse condizioni di lubrificazione. Questo strumento consente di prevedere i fenomeni di usura e l'efficacia dei prodotti autolubrificanti simulando le effettive condizioni di lavoro e monitorando costantemente la velocità di scorrimento, le pressioni specifiche, il coefficiente di attrito e la temperatura di esercizio.

Sliding Elements




<p><b>E40.02</b></p> 	<p><b>E40.04</b></p> 	<p><b>E40.05</b></p> 	<p><b>E40.06</b></p> 	<p><b>E40.07</b></p> 
<p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>976</p>	<p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>978</p>	<p>Wear plate self-lubricating Flachleiste Piastra guida autolubrificante</p> <p>980</p>	<p>VDI 3357</p> <p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>982</p>	<p>VDI 3357</p> <p>Wear plate steel Gleitplatte Stahl Piastra guida in acciaio</p> <p>984</p>
<p><b>E40.08</b></p> 	<p><b>E40.10</b></p> 	<p><b>E40.11</b></p> 	<p><b>E40.12</b></p> 	<p><b>E40.13</b></p> 
<p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>986</p>	<p>FCA</p> <p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>988</p>	<p>FCA</p> <p>Wear plate steel Gleitplatte Stahl Piastra guida in acciaio</p> <p>989</p>	<p>VDI 3357</p> <p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>990</p>	<p>VDI 3357</p> <p>Wear plate steel Gleitplatte Stahl Piastra guida in acciaio</p> <p>992</p>
<p><b>E40.14</b></p> 	<p><b>E40.15</b></p> 	<p><b>E40.16</b></p> 	<p><b>E40.18</b></p> 	<p><b>E40.20</b></p> 
<p>AFNOR</p> <p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>994</p>	<p>AFNOR</p> <p>Wear plate steel Gleitplatte Stahl Piastra guida in acciaio</p> <p>996</p>	<p>AFNOR</p> <p>Wear plate steel Gleitplatte Stahl Piastra guida in acciaio</p> <p>998</p>	<p>VDI 3357</p> <p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>1000</p>	<p>FCA</p> <p>Distance plate for wear plate Höhenausgleich für Gleitplatte Distanziale per piastra</p> <p>1002</p>
<p><b>E40.21</b></p> 	<p><b>E40.22</b></p> 	<p><b>E40.30</b></p> 	<p><b>E40.35</b></p> 	<p><b>E40.40</b></p> 
<p>VDI 3357</p> <p>Distance plate for wear plate Höhenausgleich für Gleitplatte Distanziale per piastra</p> <p>1004</p>	<p>Distance plate for "V" driver Höhenausgleich für Prismenführung Distanziale per guida a "V"</p> <p>1006</p>	<p>Wear plate steel Deckleiste Stahl Piastra guida in acciaio</p> <p>1008</p>	<p>Wear plate self-lubricating Gleitplatte Stahl mit Festschmierstoff Piastra guida autolubrificante</p> <p>1010</p>	<p>Wear plate self-lubricating Gleitplatte Bronze mit Festschmierstoff Piastra guida autolubrificante</p> <p>1012</p>

<p><b>E40.42</b></p> 	<p><b>E41.10</b></p> 	<p><b>E41.11</b></p> 	<p><b>E42.10</b></p> 	<p><b>E42.11</b></p> 
<p>VW-AUDI</p>	<p>FCA</p>	<p>VDI 3357</p>	<p>FCA</p>	<p>FCA</p>
<p>Wear plate Deckleiste Schieberführung Piastra guida</p>	<p>Angular guide self-lubricating Winkelleiste Bronze mit Festschmierstoff Piastra angolare autolubrificante</p>	<p>Angular guide self-lubricating Winkelleiste Bronze mit Festschmierstoff Piastra angolare autolubrificante</p>	<p>Guide bar self-lubricating Führungsleiste Bronze mit Festschmierstoff Lardone autolubrificante</p>	<p>Guide bar steel Führungsleiste Stahl Lardone in acciaio</p>
<p>1014</p>	<p>1016</p>	<p>1018</p>	<p>1020</p>	<p>1021</p>
<p><b>E42.12</b></p> 	<p><b>E42.13</b></p> 	<p><b>E42.15</b></p> 	<p><b>E43.12</b></p> 	<p><b>E43.13</b></p> 
<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>
<p>Guide bar self-lubricating Führungsleiste Bronze mit Festschmierstoff Lardone autolubrificante</p>	<p>Guide bar self-lubricating Führungslaste Stahl mit Festschmierstoff Lardone in acciaio autolubrificante</p>	<p>Guide bar self-lubricating Führungsleiste Bronze mit Festschmierstoff Lardone autolubrificante</p>	<p>"V" driver steel Prismenführung Guida a "V" in acciaio</p>	<p>"V" driver self-lubricating Prismenführung Bronze mit Festschmierstoff Guida a "V" autolubrificante</p>
<p>1022</p>	<p>1024</p>	<p>1026</p>	<p>1027</p>	<p>1028</p>
<p><b>E43.20</b></p> 	<p><b>E43.21</b></p> 	<p><b>E43.25</b></p> 	<p><b>E43.26</b></p> 	<p><b>E43.27</b></p> 
<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>	<p>VDI 3357</p>
<p>"V" driver steel Prismenführung Guida a "V" in acciaio</p>	<p>"V" driver self-lubricating Prismenführung Bronze mit Festschmierstoff Guida a "V" autolubrificante</p>	<p>"V" driver set Prismenführungsgruppe Set di guide a "V"</p>	<p>"V" driver set Prismenführungsgruppe Set di guide a "V"</p>	<p>Positive return Zwangersrückholer Gancio</p>
<p>1029</p>	<p>1030</p>	<p>1031</p>	<p>1032</p>	<p>1033</p>
<p><b>E43.30</b></p> 	<p><b>E43.31</b></p> 	<p><b>E44.10</b></p> 	<p><b>E44.11</b></p> 	<p><b>E44.12</b></p> 
<p>VDI 3357</p>	<p>VDI 3357</p>	<p>GM</p>	<p>GM</p>	<p>VDI 3357</p>
<p>"V" driver self-lubricating Prismenführung Bronze mit Festschmierstoff Guida a "V" autolubrificante</p>	<p>"V" driver steel Prismenführung Guida a "V" in acciaio</p>	<p>Cam dwell wear plate self-lubricating Überlaufkeile Bronze mit Festschmierstoff Cuneo autolubrificante</p>	<p>Cam dwell wear plate steel Überlaufkeile Stahl Cuneo in acciaio</p>	<p>Cam dwell wear plate self-lubricating Überlaufkeile Bronze mit Festschmierstoff Cuneo autolubrificante</p>
<p>1034</p>	<p>1035</p>	<p>1036</p>	<p>1038</p>	<p>1040</p>

<p><b>E44.13</b></p> 	<p><b>E45.10</b></p> 	<p><b>E45.10W</b></p> 	<p><b>E45.11</b></p> 	<p><b>E45.12</b></p> 
<p>VDI 3357</p>	<p>DIN 9833</p>	<p>DIN 9833</p>	<p>NAAMS</p>	<p>AFNOR</p>
<p>Cam dwell wear plate steel Überlaufkeile Stahl Cuneo in acciaio</p>	<p>Guide post Führungssäule Colonna</p>	<p>Guide post Führungssäule Colonna</p>	<p>Guide post Führungssäule Colonna</p>	<p>Guide post Führungssäule Colonna</p>
<p>1042</p>	<p>1044</p>	<p>1046</p>	<p>1048</p>	<p>1050</p>
<p><b>E45.30</b></p> 	<p><b>E45.31</b></p> 	<p><b>E46.10</b></p> 	<p><b>E46.11</b></p> 	<p><b>E46.12</b></p> 
<p>Guide post endwise bolt type Führungssäule zum Anschrauben Colonna da avvitare</p>	<p>Guide post with collar Führungssäule mit Bund Colonna con collare</p>	<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>	<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>	<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>
<p>1052</p>	<p>1054</p>	<p>1056</p>	<p>1058</p>	<p>1060</p>
<p><b>E46.20</b></p>  <p>RANGE EXTENSION</p>	<p><b>E46.21</b></p>  <p>NEW</p>	<p><b>E46.22</b></p> 	<p><b>E46.30</b></p> 	<p><b>E46.31</b></p> 
<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>	<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>	<p>Bush self-lubricating Führungsbuchse Boccola autolubrificante</p>	<p>Bush bronzeplated Führungsbuchse mit Bund bronzeplattiert Boccola con riporto in bronzo</p>	<p>Bush bronzeplated Führungsbuchse mit Bund bronzeplattiert Boccola con riporto in bronzo</p>
<p>1062</p>	<p>1062</p>	<p>1066</p>	<p>1068</p>	<p>1070</p>
<p><b>E46.32</b></p> 	<p><b>E47.10</b></p> 	<p><b>E47.11</b></p> 	<p><b>E47.12</b></p> 	<p><b>E47.13</b></p> 
<p>Bush bronzeplated Führungsbuchse mit Bund bronzeplattiert Boccola con riporto in bronzo</p>	<p>Toe clamp for bush self- lubricating Haltestück für Buchse Ritegno per boccola autolubrificante</p>	<p>Toe clamp for bush self- lubricating Haltestück für Buchse Ritegno per boccola autolubrificante</p>	<p>Toe clamp for bush self- lubricating Haltestück für Buchse Ritegno per boccola autolubrificante</p>	<p>Guide post retainer Haltestück für Führungssäule Ritegno per colonna guida</p>
<p>1072</p>	<p>1074</p>	<p>1075</p>	<p>1076</p>	<p>1077</p>

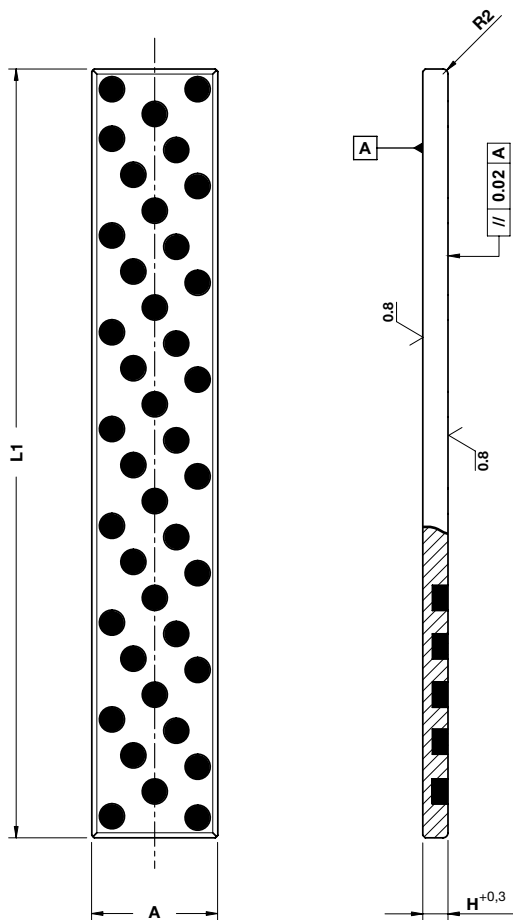
E47.14	E47.30	E47.31
		
AFNOR		
Guide post retainer ring Haltering für Führungssäule Anello di tenuta per colonna guida	Toe Clamp Haltestück Ritegno	Retaining disc Haltescheibe Disco di fissaggio
1078	1079	1080

<p><b>E50 SINT300® PRODUCTS</b></p>	E50.06	E50.12	E50.42	E50.50
				
VDI 3357	VDI 3357			
Sintered steel wear plate Gleitplatte Stahl mit Sintergleitfläche Piastra guida in acciaio sinterizzato	Sintered steel wear plate Gleitplatte Stahl mit Sintergleitfläche Piastra guida in acciaio sinterizzato	Sintered steel wear plate Gleitplatte Stahl mit Sintergleitfläche Piastra guida in acciaio sinterizzato	Sintered steel wear plate Gleitplatte Stahl mit Sintergleitfläche Piastra guida in acciaio sinterizzato	
1082	1084	1086	1088	

E50.55	E53.13	E53.21
		
Sintered steel wear plate Gleitplatte Stahl mit Sintergleitfläche Piastra guida in acciaio sinterizzato	Sintered "V" driver Prismenführung Stahl mit Sintergleitfläche Guida a "V" in acciaio sinterizzato	Sintered "V" driver Prismenführung Stahl mit Sintergleitfläche Guida a "V" in acciaio sinterizzato
1089	1090	1092

**Sliding Elements**

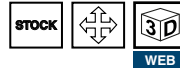
**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**





Notes

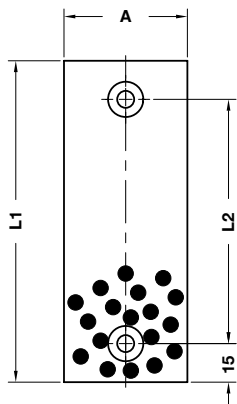
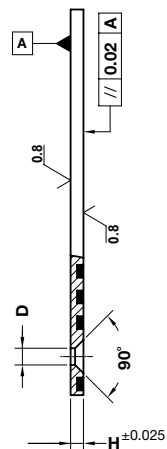
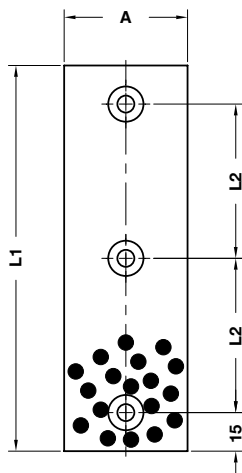
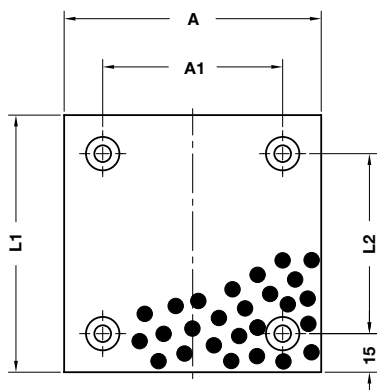
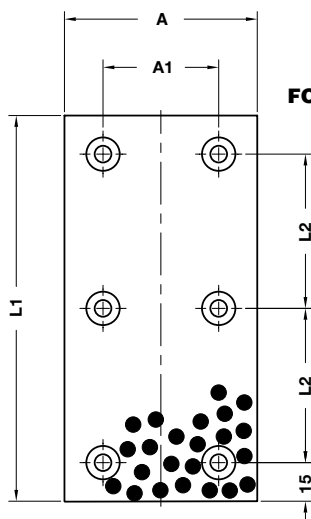
**Material:** Bronze + Graphite  
**HB > 190**



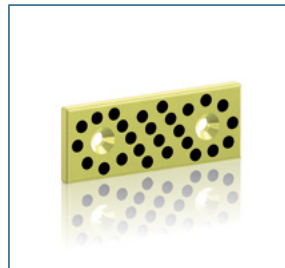
ORDER EXAMPLE	Art.	A=30	H= 4	L1=305
	E40.02.	030	04	0305

OMCR CODE	A	H	L1		
			305	605	1005
E40.02.02004	20	4	•		
E40.02.02505	25	5	•		
E40.02.03004	30	4	•		
E40.02.03006	30	6	•	•	
E40.02.03008	30	8	•	•	
E40.02.03010	30	10	•	•	•
E40.02.03012	30	12	•	•	•
E40.02.03510	35	10	•	•	•
E40.02.04005	40	5	•	•	
E40.02.04006	40	6	•	•	
E40.02.04008	40	8	•	•	•
E40.02.04010	40	10	•	•	•
E40.02.04012	40	12		•	•
E40.02.04016	40	16		•	•
E40.02.05010	50	10	•	•	•
E40.02.05012	50	12		•	•
E40.02.05020	50	20		•	•
E40.02.06012	60	12		•	•
E40.02.06016	60	16		•	•
E40.02.08010	80	10	•	•	•
E40.02.08012	80	12		•	•
E40.02.08016	80	16		•	•
E40.02.08020	80	20		•	•
E40.02.08025	80	25		•	•
E40.02.10016	100	16		•	•
E40.02.10020	100	20		•	•
E40.02.10025	100	25		•	•
E40.02.12520	125	20		•	•
E40.02.12525	125	25		•	•
E40.02.16025	160	25		•	•

**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**

**FORM A****FORM B****FORM C****FORM D**

## Notes

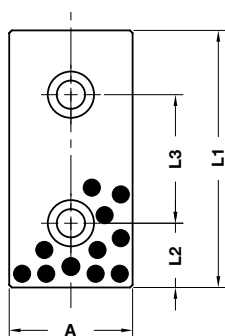
**Material:** Bronze + Graphite**HB** > 190

WEB

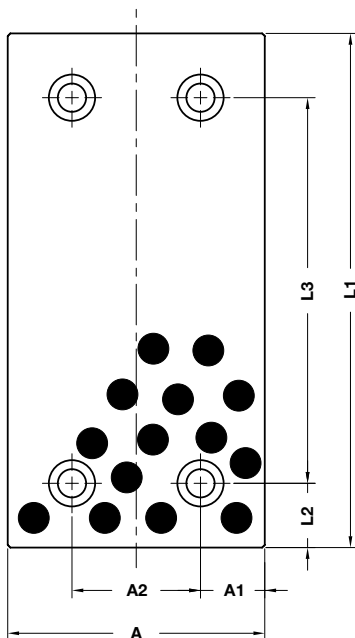
ORDER EXAMPLE	Art.	A=48	H=5	L1=75
	E40.04.	048	05	075

OMCR CODE	A	H	A1	L1	L2	D	Form
E40.04.01805050	18	5	-	50	20	6,5	A
E40.04.01805075	18	5	-	75	45	6,5	A
E40.04.01805100	18	5	-	100	70	6,5	A
E40.04.01805150	18	5	-	150	60	6,5	B
E40.04.02805050	28	5	-	50	20	9	A
E40.04.02805075	28	5	-	75	45	9	A
E40.04.02805100	28	5	-	100	70	9	A
E40.04.02805150	28	5	-	150	60	9	B
E40.04.02805180	28	5	-	180	75	9	B
E40.04.03805050	38	5	-	50	20	9	A
E40.04.03805075	38	5	-	75	45	9	A
E40.04.03805100	38	5	-	100	70	9	A
E40.04.03805150	38	5	-	150	60	9	B
E40.04.04805075	48	5	-	75	45	9	A
E40.04.04805100	48	5	-	100	70	9	A
E40.04.04805125	48	5	-	125	95	9	A
E40.04.04805150	48	5	-	150	60	9	B
E40.04.07505075	75	5	45	75	45	9	C
E40.04.07505100	75	5	45	100	70	9	C
E40.04.07505125	75	5	45	125	95	9	C
E40.04.07505150	75	5	45	150	60	9	D
E40.04.10005100	100	5	70	100	70	9	C
E40.04.10005125	100	5	70	125	95	9	C
E40.04.10005150	100	5	70	150	60	9	D

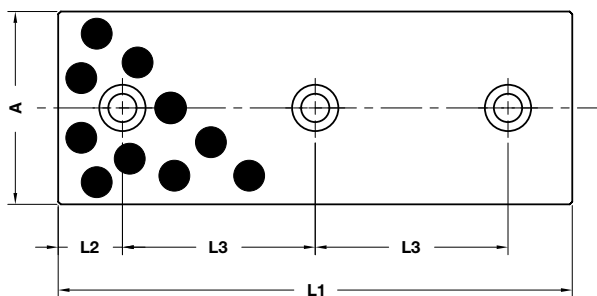
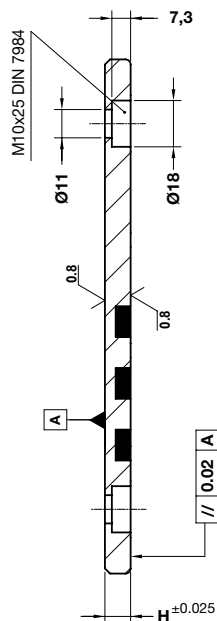
**WEAR PLATE SELF-LUBRICATING  
FLACHLEISTE BRONZE MIT FESTSCHMIERSTOFF  
PIASTRA GUIDA AUTOLUBRIFICANTE**



**FORM A**



**FORM B**



**FORM C**

Notes

**Material:** Bronze + Graphite  
**HB** > 190



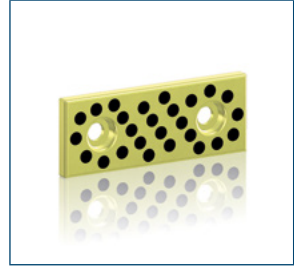
For A=28 and 38



From A=48 to A=150



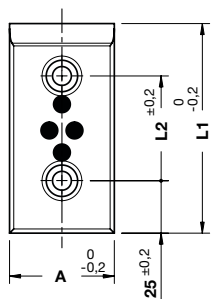
WEB



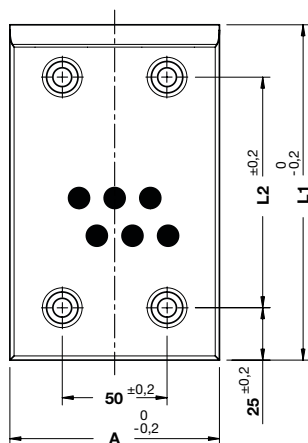
	Art.	A=48	H=10	L1=100
	E40.05.	048	10	100

OMCR CODE	A	A1	A2	L1	L2	L3	H	Form
E40.05.02810075	28	-	-	75	15	45	10	A
E40.05.02810100	28	-	-	100	25	50	10	A
E40.05.02810125	28	-	-	125	25	75	10	A
E40.05.02810150	28	-	-	150	25	100	10	A
E40.05.03810075	38	-	-	75	15	45	10	A
E40.05.03810100	38	-	-	100	25	50	10	A
E40.05.03810125	38	-	-	125	25	75	10	A
E40.05.03810150	38	-	-	150	25	100	10	A
E40.05.04810075	48	-	-	75	15	45	10	A
E40.05.04810100	48	-	-	100	25	50	10	A
E40.05.04810125	48	-	-	125	25	75	10	A
E40.05.04810150	48	-	-	150	25	100	10	A
E40.05.04810200	48	-	-	200	50	100	10	A
E40.05.05810075	58	-	-	75	15	45	10	A
E40.05.05810100	58	-	-	100	25	50	10	A
E40.05.05810125	58	-	-	125	25	75	10	A
E40.05.05810150	58	-	-	150	25	100	10	A
E40.05.05810200	58	-	-	200	50	100	10	A
E40.05.07510075	75	-	-	75	15	45	10	A
E40.05.07510100	75	-	-	100	25	50	10	A
E40.05.07510125	75	-	-	125	25	75	10	A
E40.05.07510150	75	-	-	150	25	100	10	A
E40.05.07510200	75	-	-	200	25	75	10	C
E40.05.10010100	100	25	50	100	25	50	10	B
E40.05.10010125	100	25	50	125	25	75	10	B
E40.05.10010150	100	25	50	150	25	100	10	B
E40.05.10010200	100	25	50	200	25	150	10	B
E40.05.10010250	100	25	50	250	25	200	10	B
E40.05.12510150	125	37,5	50	150	25	100	10	B
E40.05.12510200	125	37,5	50	200	25	150	10	B
E40.05.12510250	125	37,5	50	250	25	200	10	B
E40.05.15010150	150	25	100	150	25	100	10	B
E40.05.15010200	150	25	100	200	25	150	10	B

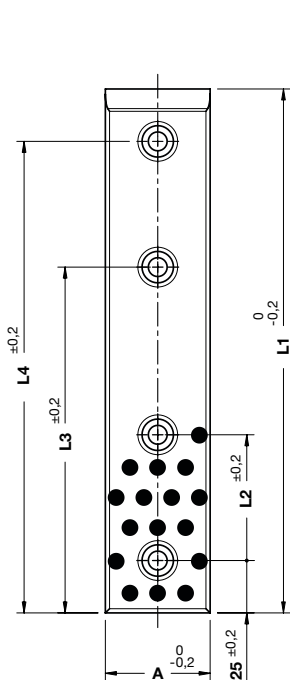
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



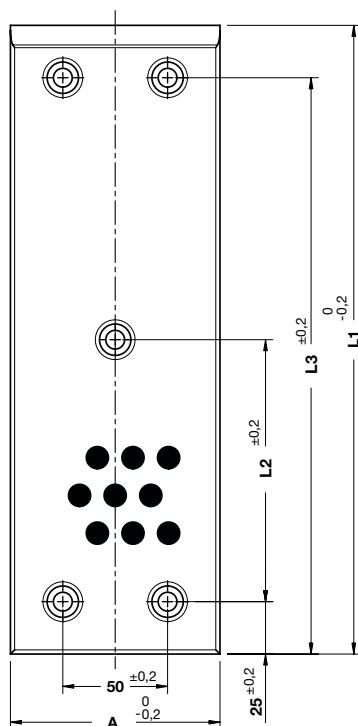
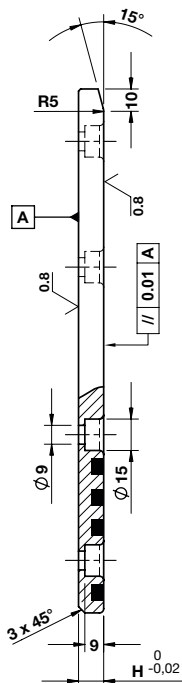
**FORM A**



**FORM B**



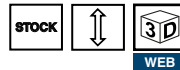
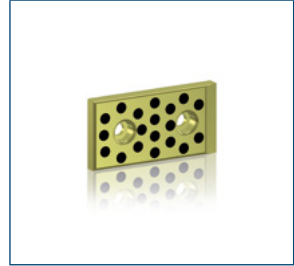
**FORM C**



**FORM D**

Notes

**Material:** Bronze + Graphite  
**HB > 190**

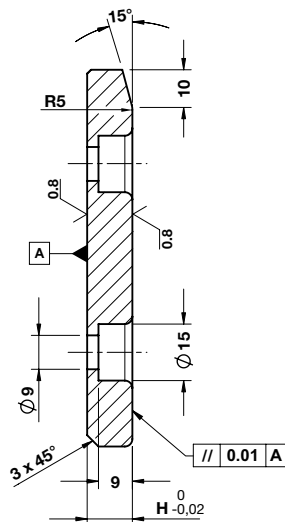
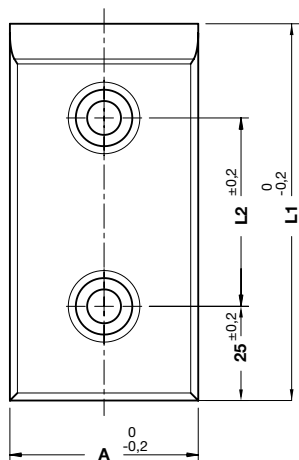


	Art.	A=50	H=12	L1=80
	E40.06.	050	12	080

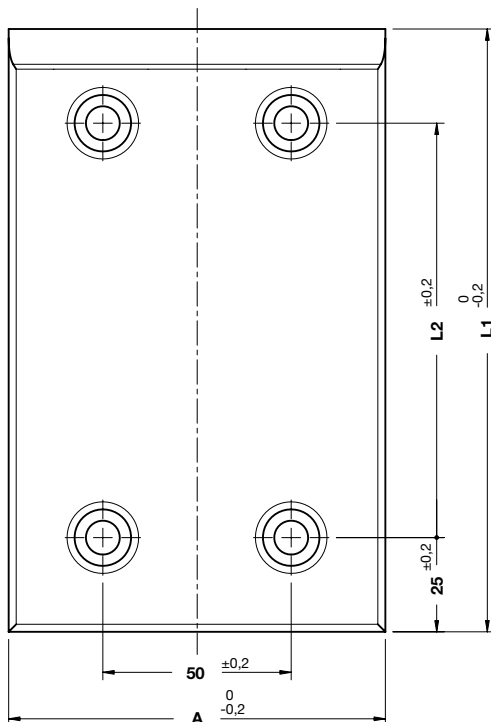
OMCR CODE	A	H	L1	L2	L3	L4	FORM
E40.06.03012080	30	12	80	30	-	-	A
E40.06.03012100	30	12	100	50	-	-	A
E40.06.03012125	30	12	125	75	-	-	A
E40.06.03012160	30	12	160	110	-	-	A
E40.06.03012200	30	12	200	150	-	-	A
E40.06.04012080	40	12	80	30	-	-	A
E40.06.04012100	40	12	100	50	-	-	A
E40.06.04012125	40	12	125	75	-	-	A
E40.06.04012160	40	12	160	110	-	-	A
E40.06.04012200	40	12	200	150	-	-	A
E40.06.05012080	50	12	80	30	-	-	A
E40.06.05012100	50	12	100	50	-	-	A
E40.06.05012125	50	12	125	75	-	-	A
E40.06.05012160	50	12	160	110	-	-	A
E40.06.05012200	50	12	200	150	-	-	A
E40.06.05012250	50	12	250	60	165	225	C
E40.06.05012300	50	12	300	80	195	275	C
E40.06.05012350	50	12	350	100	225	325	C
E40.06.05012400	50	12	400	120	255	375	C
E40.06.06012080	60	12	80	30	-	-	A
E40.06.06012100	60	12	100	50	-	-	A
E40.06.06012125	60	12	125	75	-	-	A
E40.06.06012160	60	12	160	110	-	-	A
E40.06.06012200	60	12	200	150	-	-	A
E40.06.08012080	80	12	80	30	-	-	A
E40.06.08012100	80	12	100	50	-	-	A
E40.06.08012125	80	12	125	75	-	-	A
E40.06.08012160	80	12	160	110	-	-	A
E40.06.08012200	80	12	200	150	-	-	A
E40.06.10012125	100	12	125	75	-	-	B
E40.06.10012160	100	12	160	110	-	-	B
E40.06.10012200	100	12	200	150	-	-	B
E40.06.10012250	100	12	250	200	-	-	B
E40.06.10012300	100	12	300	125	275	-	D

**WEAR PLATE STEEL VDI 3357**  
**GLEITPLATTE STAHL VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO VDI 3357**

**FORM A**

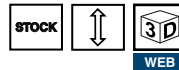


**FORM B**





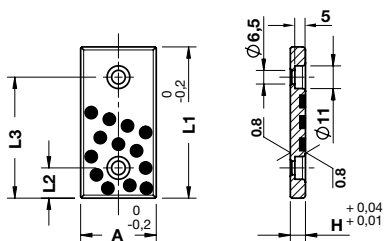
## Notes

**Material:** 16MnCr5**HRC:** 58÷60

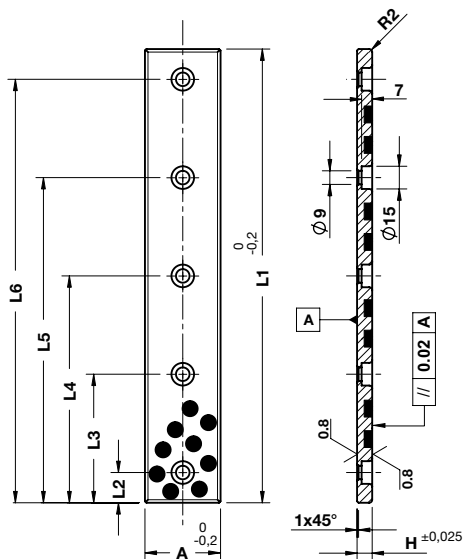
ORDER EXAMPLE	Art.	A=50	H=12	L1=100
	E40.07.	050	12	100

OMCR CODE	A	H	L1	L2	FORM
E40.07.03012080	30	12	80	30	A
E40.07.03012100	30	12	100	50	A
E40.07.03012125	30	12	125	75	A
E40.07.03012160	30	12	160	110	A
E40.07.03012200	30	12	200	150	A
E40.07.04012080	40	12	80	30	A
E40.07.04012100	40	12	100	50	A
E40.07.04012125	40	12	125	75	A
E40.07.04012160	40	12	160	110	A
E40.07.04012200	40	12	200	150	A
E40.07.05012080	50	12	80	30	A
E40.07.05012100	50	12	100	50	A
E40.07.05012125	50	12	125	75	A
E40.07.05012160	50	12	160	110	A
E40.07.05012180	50	12	180	130	A
E40.07.05012200	50	12	200	150	A
E40.07.06012080	60	12	80	30	A
E40.07.06012100	60	12	100	50	A
E40.07.06012125	60	12	125	75	A
E40.07.06012160	60	12	160	110	A
E40.07.06012180	60	12	180	130	A
E40.07.06012200	60	12	200	150	A
E40.07.08012080	80	12	80	30	A
E40.07.08012100	80	12	100	50	A
E40.07.08012125	80	12	125	75	A
E40.07.08012160	80	12	160	110	A
E40.07.08012200	80	12	200	150	A
E40.07.10012125	100	12	125	75	B
E40.07.10012160	100	12	160	110	B
E40.07.10012200	100	12	200	150	B
E40.07.10012225	100	12	225	175	B
E40.07.10012250	100	12	250	200	B

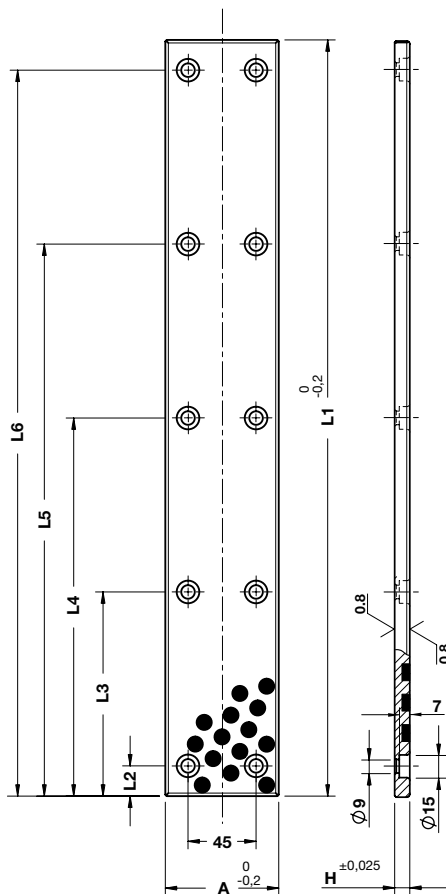
**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**



**FORM A**



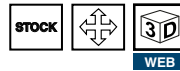
**FORM B**



**FORM C**

Notes

**Material:** Bronze + Graphite  
**HB > 190**



	Art.	A=18	H=10	L1=100
	E40.08.	018	10	100

OMCR CODE	A	H	L1	L2	L3	L4	L5	L6	FORM
E40.08.01810075	18	10	75	15	60	-	-	-	A
E40.08.01810100	18	10	100	25	75	-	-	-	A
E40.08.01810125	18	10	125	25	100	-	-	-	A
E40.08.01810150	18	10	150	25	125	-	-	-	A
E40.08.02810075	28	10	75	15	60	-	-	-	A
E40.08.02810100	28	10	100	25	75	-	-	-	A
E40.08.02810125	28	10	125	25	100	-	-	-	A
E40.08.02810150	28	10	150	25	125	-	-	-	A
E40.08.03510100	35	10	100	20	80	-	-	-	A
E40.08.03510150	35	10	150	20	75	130	-	-	B
E40.08.03510200	35	10	200	20	75	125	180	-	B
E40.08.03510250	35	10	250	20	90	160	230	-	B
E40.08.03510300	35	10	300	20	85	150	215	280	B
E40.08.03510350	35	10	350	20	100	175	250	330	B
E40.08.03810075	38	10	75	15	60	-	-	-	A
E40.08.03810100	38	10	100	25	75	-	-	-	A
E40.08.03810125	38	10	125	25	100	-	-	-	A
E40.08.03810150	38	10	150	25	125	-	-	-	A
E40.08.04810075	48	10	75	15	60	-	-	-	A
E40.08.04810100	48	10	100	25	75	-	-	-	A
E40.08.04810125	48	10	125	25	100	-	-	-	A
E40.08.04810150	48	10	150	25	125	-	-	-	A
E40.08.05010100	50	10	100	20	80	-	-	-	B
E40.08.05010150	50	10	150	20	75	130	-	-	B
E40.08.05010200	50	10	200	20	75	125	180	-	B
E40.08.05010250	50	10	250	20	90	160	230	-	B
E40.08.05010300	50	10	300	20	85	150	215	280	B
E40.08.05010350	50	10	350	20	100	175	250	330	B
E40.08.05010400	50	10	400	20	110	200	290	380	B
E40.08.07510150	75	10	150	20	130	-	-	-	C
E40.08.07510200	75	10	200	20	100	180	-	-	C
E40.08.07510250	75	10	250	20	125	230	-	-	C
E40.08.07510300	75	10	300	20	105	195	280	-	C
E40.08.07510400	75	10	400	20	140	260	380	-	C
E40.08.07510500	75	10	500	20	135	250	365	480	C

## WEAR PLATE SELF-LUBRICATING GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF PIASTRA GUIDA AUTOLUBRIFICANTE

### Notes

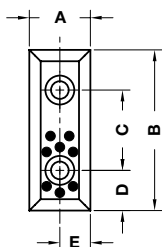
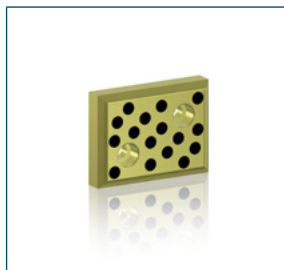
**Material:** Bronze + Graphite  
**HB > 190**



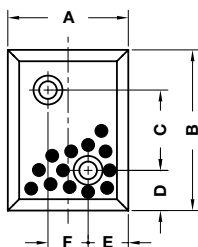
Only for 'FORM A'



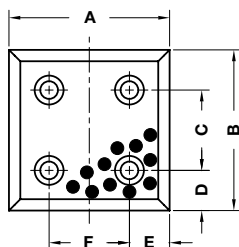
WEB



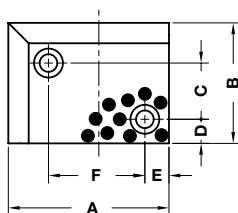
**FORM A**



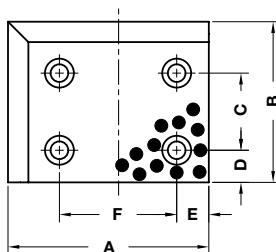
**FORM B**



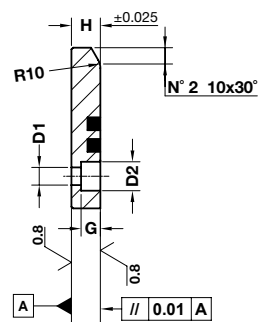
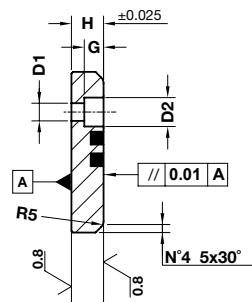
**FORM C**



**FORM D**



**FORM E**



Art.	A=75	H=20	B=100
E40.10.	075	20	100

OMCR CODE	A	B	C	D	D1	D2	E	F	G	H	Form
E40.10.03820100	38	100	50	25	11	18	19	-	12	20	A
E40.10.03820150	38	150	100	25	11	18	19	-	12	20	A
E40.10.07520100	75	100	50	25	11	18	25	25	12	20	B
E40.10.07520150	75	150	100	25	11	18	37,5	-	12	20	A
E40.10.10020100	100	100	50	25	11	18	25	50	12	20	C
E40.10.10020150	100	150	100	25	11	18	25	50	12	20	C
E40.10.10018075	100	75	35	15	11	18	15	60	12	18	D
E40.10.12525100	125	100	48	20	13	20	20	73	14	25	E
E40.10.15025125	150	125	68	25	13	20	25	93	14	25	E

## WEAR PLATE STEEL GLEITPLATTE STAHL PIASTRA GUIDA IN ACCIAIO

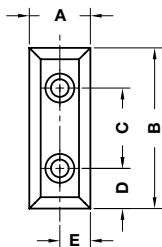
### Notes

**Material:** 16MnCr5  
**HRC:** 58÷60

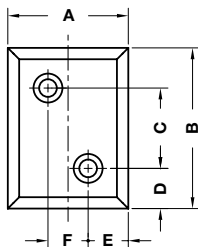
STOCK



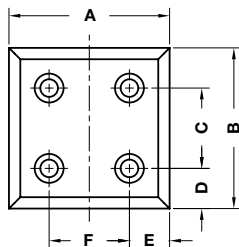
WEB



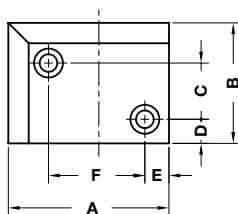
**FORM A**



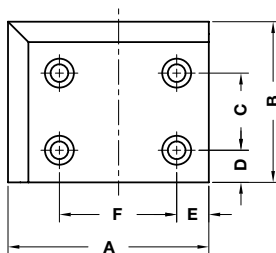
**FORM B**



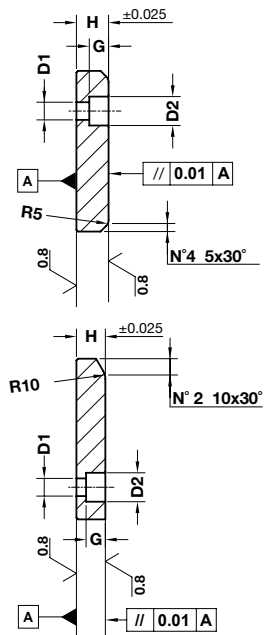
**FORM C**



**FORM D**



**FORM E**



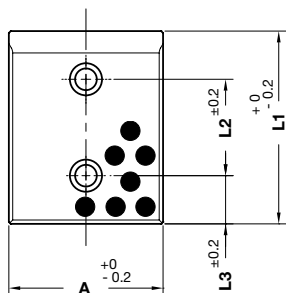
ORDER  
EXAMPLE

Art.	A=75	H=20	B=100
E40.11.	075	20	100

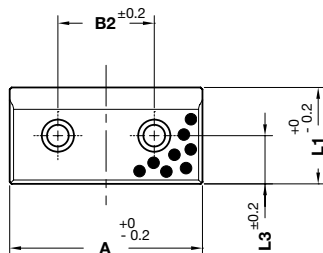
OMCR CODE	A	B	C	D	D1	D2	E	F	G	H	Form
E40.11.03820100	38	100	50	25	11	18	19	-	12	20	A
E40.11.03820150	38	150	100	25	11	18	19	-	12	20	A
E40.11.07520100	75	100	50	25	11	18	25	25	12	20	B
E40.11.07520150	75	150	100	25	11	18	37,5	-	12	20	A
E40.11.10020100	100	100	50	25	11	18	25	50	12	20	C
E40.11.10020150	100	150	100	25	11	18	25	50	12	20	C
E40.11.10018075	100	75	35	15	11	18	15	60	12	18	D
E40.11.12525100	125	100	48	20	13	20	20	73	14	25	E
E40.11.15025125	150	125	68	25	13	20	25	93	14	25	E

Sliding Elements

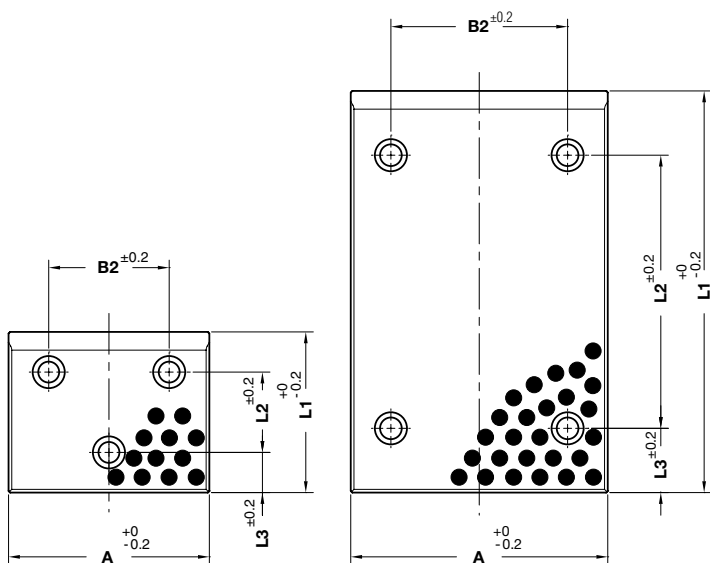
**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



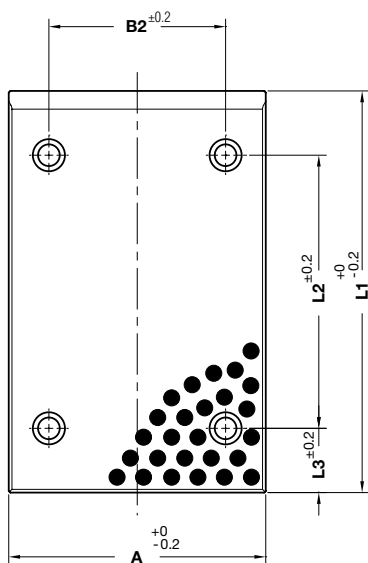
**FORM A**



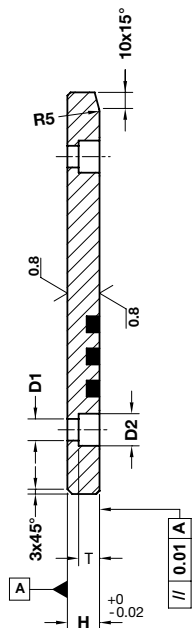
**FORM B**



**FORM C**

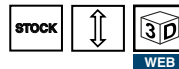
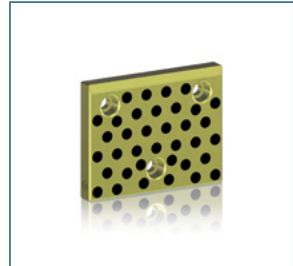


**FORM D**



## Notes

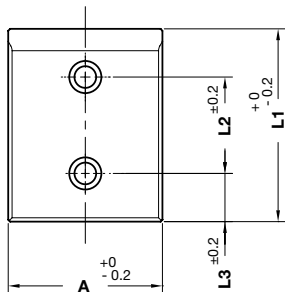
**Material:** Bronze + Graphite  
**HB > 190**



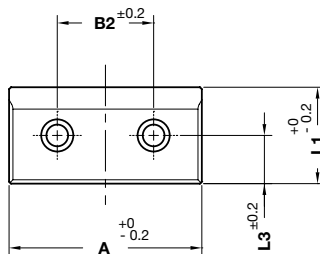
ORDER EXAMPLE	Art.	A=125	H=20	L1=50
	E40.12.	125	20	050

OMCR CODE	A	H	L1	B2	L2	L3	D1	D2	T	Form
E40.12.05020080	50	20	80	-	30	25	9	15	9	A
E40.12.05020100	50	20	100	-	50	25	13,5	20	13	A
E40.12.05020125	50	20	125	-	75	25	13,5	20	13	A
E40.12.05020160	50	20	160	-	110	25	13,5	20	13	A
E40.12.05020200	50	20	200	-	150	25	13,5	20	13	A
E40.12.08020050	80	20	50	30	-	25	9	15	9	B
E40.12.08020080	80	20	80	-	30	25	13,5	20	13	A
E40.12.08020100	80	20	100	-	50	25	13,5	20	13	A
E40.12.08020125	80	20	125	-	75	25	13,5	20	13	A
E40.12.08020160	80	20	160	-	110	25	13,5	20	13	A
E40.12.08020200	80	20	200	-	150	25	13,5	20	13	A
E40.12.08020250	80	20	250	-	170	40	13,5	20	13	A
E40.12.10020050	100	20	50	50	-	25	13,5	20	13	B
E40.12.10020080	100	20	80	50	-	40	13,5	20	13	B
E40.12.10020100	100	20	100	-	50	25	13,5	20	13	A
E40.12.10020125	100	20	125	-	75	25	13,5	20	13	A
E40.12.10020160	100	20	160	-	110	25	13,5	20	13	A
E40.12.10020200	100	20	200	-	150	25	13,5	20	13	A
E40.12.10020250	100	20	250	-	170	40	13,5	20	13	A
E40.12.10020315	100	20	315	-	235	40	13,5	20	13	A
E40.12.12520050	125	20	50	75	-	25	13,5	20	13	B
E40.12.12520080	125	20	80	75	-	40	13,5	20	13	B
E40.12.12520100	125	20	100	75	50	25	13,5	20	13	C
E40.12.12520125	125	20	125	75	75	25	13,5	20	13	C
E40.12.12520160	125	20	160	75	110	25	13,5	20	13	C
E40.12.12520200	125	20	200	75	150	25	13,5	20	13	C
E40.12.12520250	125	20	250	75	170	40	13,5	20	13	C
E40.12.12520315	125	20	315	75	235	40	13,5	20	13	C
E40.12.16020050	160	20	50	110	-	25	13,5	20	13	B
E40.12.16020080	160	20	80	110	-	40	13,5	20	13	B
E40.12.16020100	160	20	100	110	50	25	13,5	20	13	C
E40.12.16020125	160	20	125	110	75	25	13,5	20	13	C
E40.12.16020160	160	20	160	110	110	25	13,5	20	13	C
E40.12.16020200	160	20	200	110	150	25	13,5	20	13	C
E40.12.16020250	160	20	250	110	170	40	13,5	20	13	D
E40.12.16020315	160	20	315	110	235	40	13,5	20	13	D

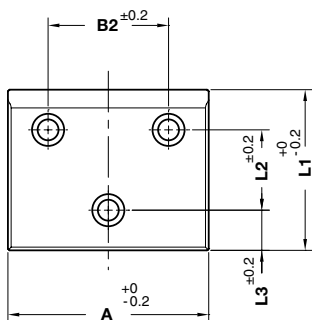
**WEAR PLATE STEEL VDI 3357  
GLEITPLATTE STAHL VDI 3357  
PIASTRA GUIDA IN ACCIAIO VDI 3357**



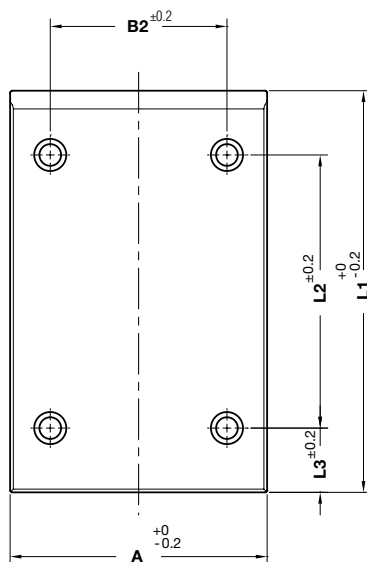
**FORM A**



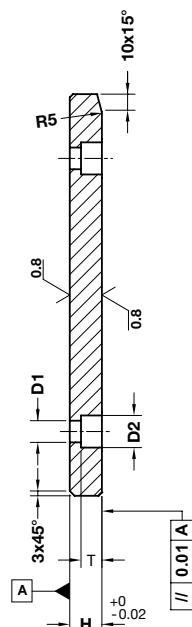
**FORM B**



**FORM C**



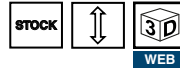
**FORM D**





## Notes

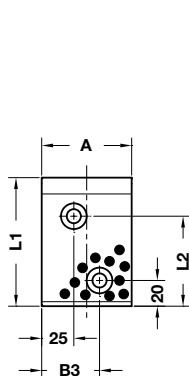
**Material:** 16MnCr5  
**HRC:** 58÷60



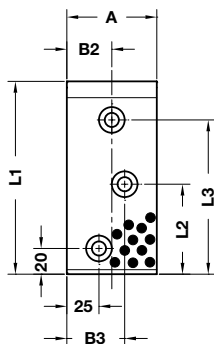
	Art.	A=125	H=20	L1=50
	E40.13.	125	20	050

OMCR CODE	A	H	L1	B2	L2	L3	D1	D2	T	Form
E40.13.05020080	50	20	80	-	30	25	9	15	9	A
E40.13.05020100	50	20	100	-	50	25	13,5	20	13	A
E40.13.05020125	50	20	125	-	75	25	13,5	20	13	A
E40.13.05020160	50	20	160	-	110	25	13,5	20	13	A
E40.13.05020200	50	20	200	-	150	25	13,5	20	13	A
E40.13.08020050	80	20	50	30	-	25	9	15	9	B
E40.13.08020080	80	20	80	-	30	25	13,5	20	13	A
E40.13.08020100	80	20	100	-	50	25	13,5	20	13	A
E40.13.08020125	80	20	125	-	75	25	13,5	20	13	A
E40.13.08020160	80	20	160	-	110	25	13,5	20	13	A
E40.13.08020200	80	20	200	-	150	25	13,5	20	13	A
E40.13.08020250	80	20	250	-	170	40	13,5	20	13	A
E40.13.10020050	100	20	50	50	-	25	13,5	20	13	B
E40.13.10020080	100	20	80	50	-	40	13,5	20	13	B
E40.13.10020100	100	20	100	-	50	25	13,5	20	13	A
E40.13.10020125	100	20	125	-	75	25	13,5	20	13	A
E40.13.10020160	100	20	160	-	110	25	13,5	20	13	A
E40.13.10020200	100	20	200	-	150	25	13,5	20	13	A
E40.13.10020250	100	20	250	-	170	40	13,5	20	13	A
E40.13.10020315	100	20	315	-	235	40	13,5	20	13	A
E40.13.12520050	125	20	50	75	-	25	13,5	20	13	B
E40.13.12520080	125	20	80	75	-	40	13,5	20	13	B
E40.13.12520100	125	20	100	75	50	25	13,5	20	13	C
E40.13.12520125	125	20	125	75	75	25	13,5	20	13	C
E40.13.12520160	125	20	160	75	110	25	13,5	20	13	C
E40.13.12520200	125	20	200	75	150	25	13,5	20	13	C
E40.13.12520250	125	20	250	75	170	40	13,5	20	13	C
E40.13.12520315	125	20	315	75	235	40	13,5	20	13	C
E40.13.16020050	160	20	50	110	-	25	13,5	20	13	B
E40.13.16020080	160	20	80	110	-	40	13,5	20	13	B
E40.13.16020100	160	20	100	110	50	25	13,5	20	13	C
E40.13.16020125	160	20	125	110	75	25	13,5	20	13	C
E40.13.16020160	160	20	160	110	110	25	13,5	20	13	C
E40.13.16020200	160	20	200	110	150	25	13,5	20	13	C
E40.13.16020250	160	20	250	110	170	40	13,5	20	13	D
E40.13.16020315	160	20	315	110	235	40	13,5	20	13	D

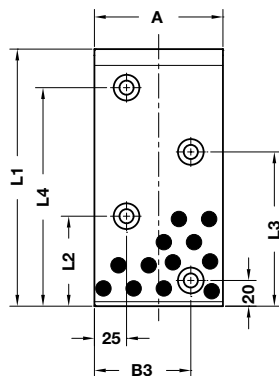
**WEAR PLATE SELF-LUBRICATING AFNOR**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF AFNOR**  
**PIASTRA GUIDA AUTOLUBRIFICANTE AFNOR**



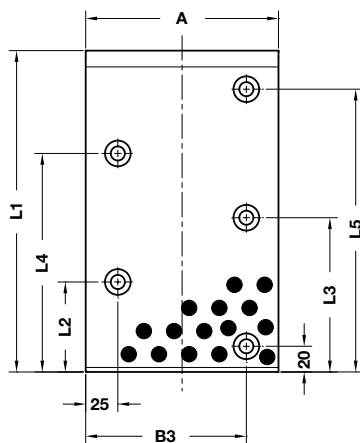
**FORM A**



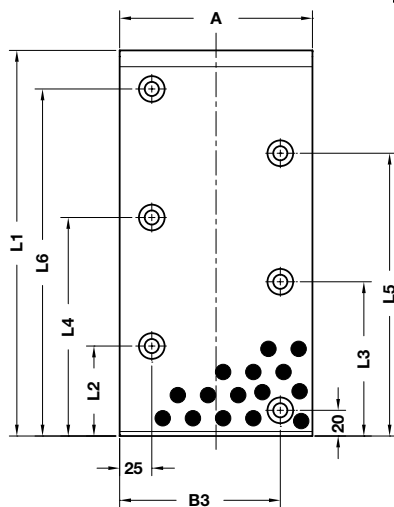
**FORM B**



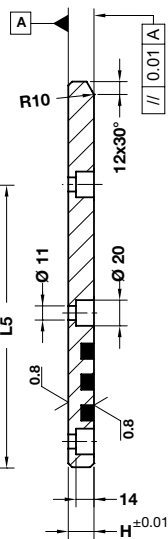
**FORM C**

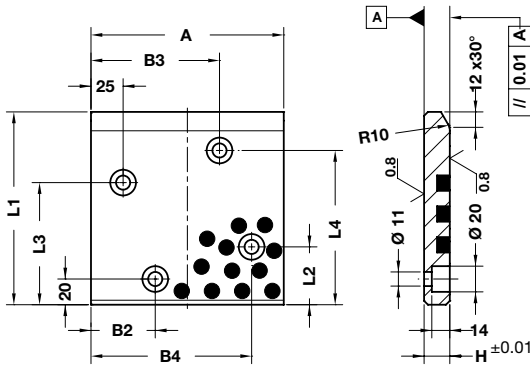


**FORM E**

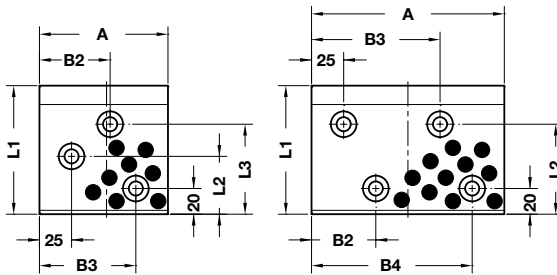


**FORM F**



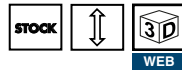
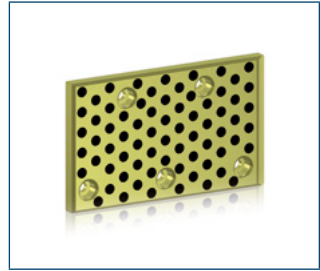


FORM D



FORM G

FORM H



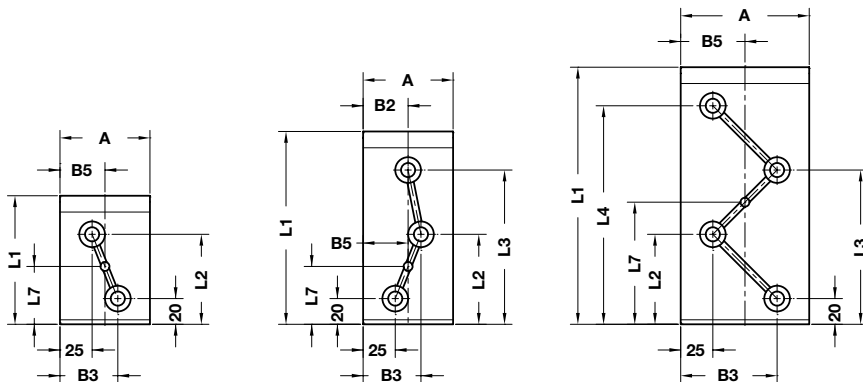
Notes

Material: Bronze + Graphite  
HB > 190

Art.	A=100	H=20	L1=150
E40.14.	100	20	150

OMCR CODE	A	H	L1	B2	B3	B4	L2	L3	L4	L5	L6	Form
E40.14.07020100	70	20	100	-	45	-	70	-	-	-	-	A
E40.14.07020150	70	20	150	35	45	-	70	120	-	-	-	B
E40.14.07020200	70	20	200	-	45	-	70	120	170	-	-	C
E40.14.10020100	100	20	100	55	75	-	45	70	-	-	-	G
E40.14.10020150	100	20	150	-	75	-	45	95	120	-	-	D
E40.14.10020200	100	20	200	-	75	-	70	120	170	-	-	C
E40.14.10020250	100	20	250	-	75	-	70	120	170	220	-	E
E40.14.10020300	100	20	300	-	75	-	70	120	170	220	270	F
E40.14.15020100	150	20	100	50	100	125	70	-	-	-	-	H
E40.14.15020150	150	20	150	50	100	125	45	95	120	-	-	D
E40.14.15020200	150	20	200	-	125	-	70	120	170	-	-	C
E40.14.15020250	150	20	250	-	125	-	70	120	170	220	-	E
E40.14.15020300	150	20	300	-	125	-	70	120	170	220	270	F
E40.14.20020100	200	20	100	75	125	175	70	-	-	-	-	H

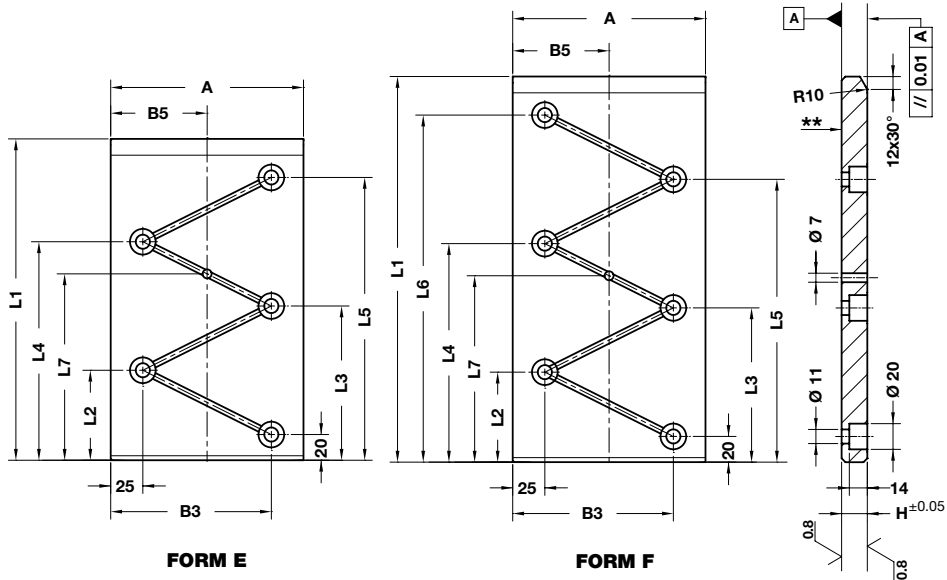
**WEAR PLATE STEEL AFNOR  
GLEITPLATTE STAHL AFNOR  
PIASTRA GUIDA IN ACCIAIO AFNOR**



**FORM A**

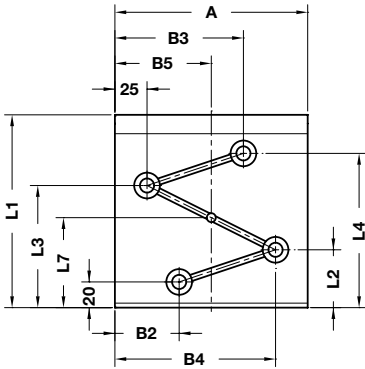
**FORM B**

**FORM C**

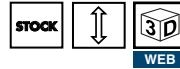
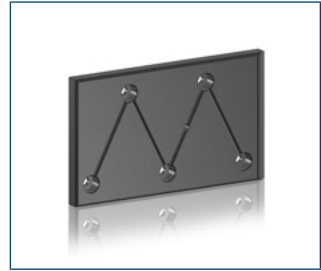
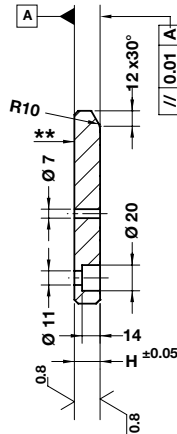


**FORM E**

**FORM F**



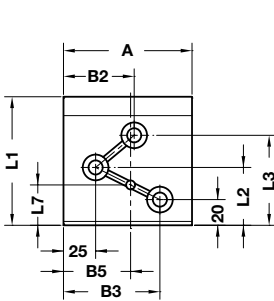
FORM D



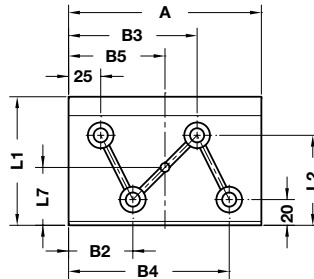
Notes

**Material:** 16MnCr5  
**HRC:** 58-60

(\*\*) Not hardened surface



FORM G

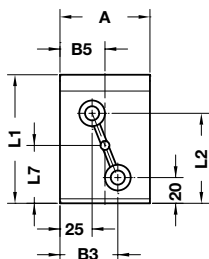


FORM H

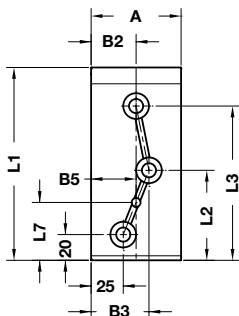
ORDER EXAMPLE	Art.	A=100	H=21	L1=150
	E40.15.	100	21	150

OMCR CODE	A	H	L1	B2	B3	B4	B5	L2	L3	L4	L5	L6	L7	Form
E40.15.07021100	70	21	100	-	45	-	35	70	-	-	-	-	45	A
E40.15.07021150	70	21	150	35	45	-	35	70	120	-	-	-	45	B
E40.15.07021200	70	21	200	-	45	-	35	70	120	170	-	-	95	C
E40.15.10021100	100	21	100	55	75	-	50	45	70	-	-	-	32,5	G
E40.15.10021150	100	21	150	-	75	-	50	45	95	120	-	-	70	D
E40.15.10021200	100	21	200	-	75	-	50	70	120	170	-	-	95	C
E40.15.10021250	100	21	250	-	75	-	50	70	120	170	220	-	145	E
E40.15.10021300	100	21	300	-	75	-	50	70	120	170	220	270	145	F
E40.15.15021100	150	21	100	50	100	125	75	70	-	-	-	-	45	H
E40.15.15021150	150	21	150	50	100	125	75	45	95	120	-	-	70	D
E40.15.15021200	150	21	200	-	125	-	75	70	120	170	-	-	95	C
E40.15.15021250	150	21	250	-	125	-	75	70	120	170	220	-	145	E
E40.15.15021300	150	21	300	-	125	-	75	70	120	170	220	270	145	F
E40.15.20021100	200	21	100	75	125	175	100	70	-	-	-	-	45	H

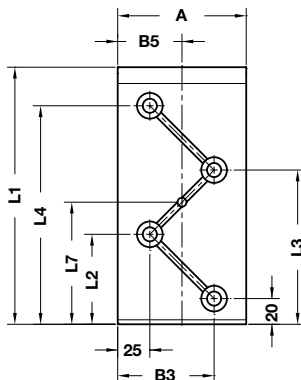
**WEAR PLATE STEEL AFNOR**  
**GLEITPLATTE STAHL AFNOR**  
**PIASTRA GUIDA IN ACCIAIO AFNOR**



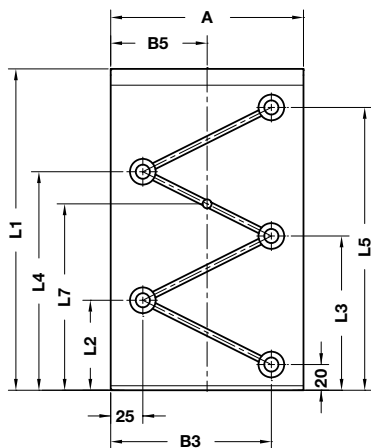
**FORM A**



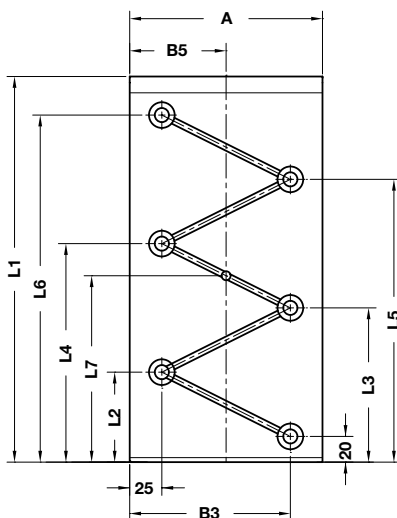
**FORM B**



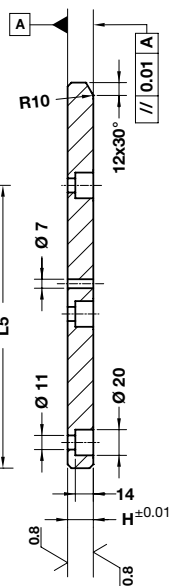
**FORM C**

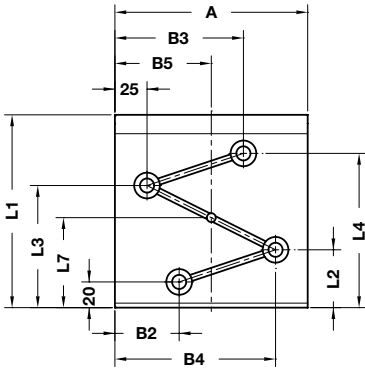


**FORM E**

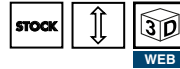
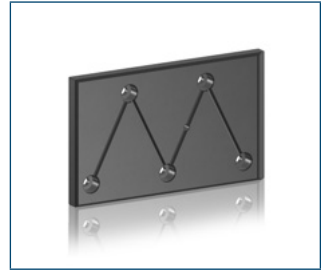
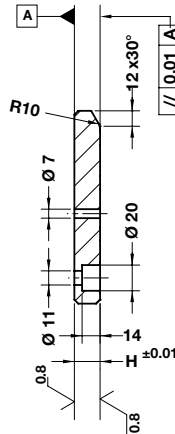


**FORM F**



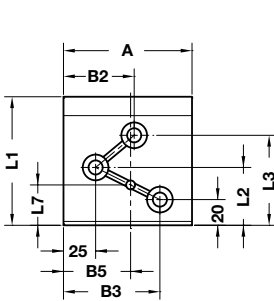


FORM D

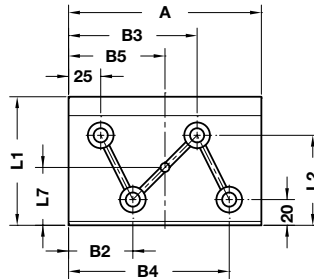


Notes

Material: 16MnCr5  
HRC: 58-60



FORM G

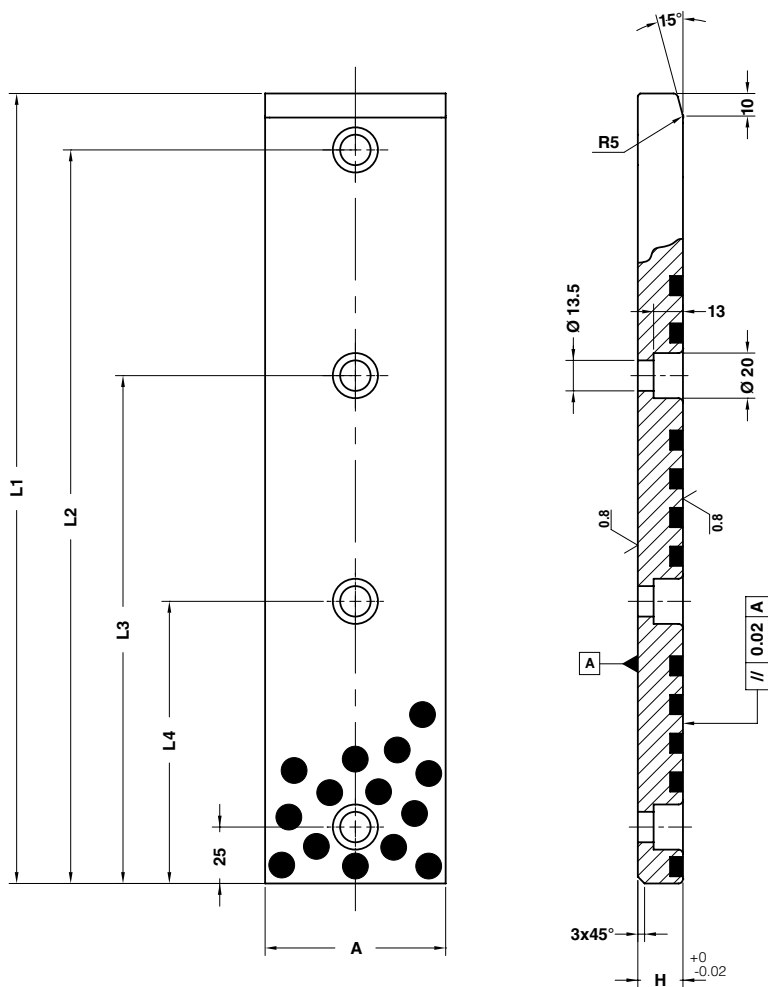


FORM H

ORDER EXAMPLE	Art.	A=100	H=20	L1=150
	E40.16.	100	20	150

OMCR CODE	A	H	L1	B2	B3	B4	B5	L2	L3	L4	L5	L6	L7	Form
E40.16.07020100	70	20	100	-	45	-	35	70	-	-	-	-	45	A
E40.16.07020150	70	20	150	35	45	-	35	70	120	-	-	-	45	B
E40.16.07020200	70	20	200	-	45	-	35	70	120	170	-	-	95	C
E40.16.10020100	100	20	100	55	75	-	50	45	70	-	-	-	32,5	G
E40.16.10020150	100	20	150	-	75	-	50	45	95	120	-	-	70	D
E40.16.10020200	100	20	200	-	75	-	50	70	120	170	-	-	95	C
E40.16.10020250	100	20	250	-	75	-	50	70	120	170	220	-	145	E
E40.16.10020300	100	20	300	-	75	-	50	70	120	170	220	270	145	F
E40.16.15020100	150	20	100	50	100	125	75	70	-	-	-	-	45	H
E40.16.15020150	150	20	150	50	100	125	75	45	95	120	-	-	70	D
E40.16.15020200	150	20	200	-	125	-	75	70	120	170	-	-	95	C
E40.16.15020250	150	20	250	-	125	-	75	70	120	170	220	-	145	E
E40.16.15020300	150	20	300	-	125	-	75	70	120	170	220	270	145	F
E40.16.20020100	200	20	100	75	125	175	100	70	-	-	-	-	45	H

**WEAR PLATE SELF-LUBRICATING VDI 3357**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**PIASTRA GUIDA AUTOLUBRIFICANTE VDI 3357**



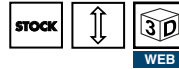
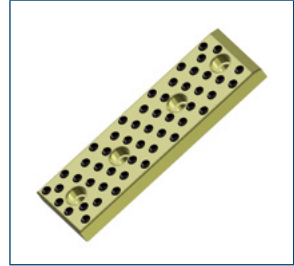


## Notes

**Material:** Bronze + Graphite

**HB** > 190

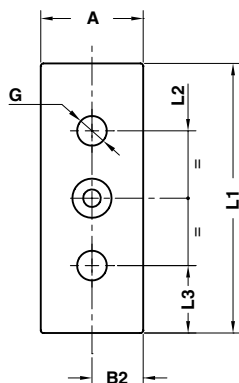
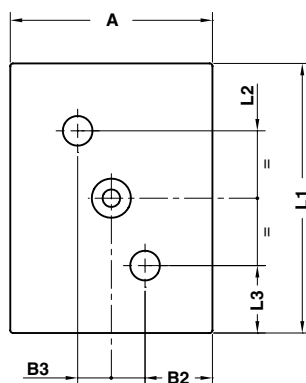
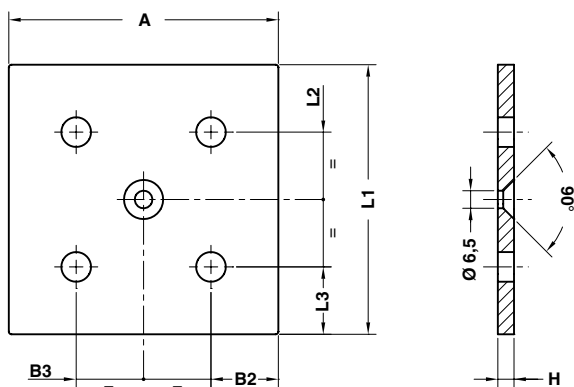
Screws not included



	Art.	A=80	H=20	L1=300
	E40.18.	080	20	300

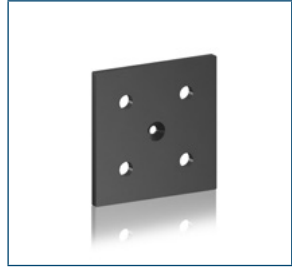
OMCR CODE	A	L1	H	L2	L3	L4
E40.18.05020250	50	250	20	225	165	85
E40.18.05020300	50	300	20	275	195	105
E40.18.05020350	50	350	20	325	225	125
E40.18.05020400	50	400	20	375	255	145
E40.18.05020450	50	450	20	425	285	165
E40.18.05020500	50	500	20	475	325	175
E40.18.08020250	80	250	20	225	165	85
E40.18.08020300	80	300	20	275	195	105
E40.18.08020350	80	350	20	325	225	125
E40.18.08020400	80	400	20	375	255	145
E40.18.08020450	80	450	20	425	285	165
E40.18.08020500	80	500	20	475	325	175
E40.18.10020250	100	250	20	225	165	85
E40.18.10020300	100	300	20	275	195	105
E40.18.10020350	100	350	20	325	225	125
E40.18.10020400	100	400	20	375	255	145
E40.18.10020450	100	450	20	425	285	165
E40.18.10020500	100	500	20	475	325	175
E40.18.12520250	125	250	20	225	165	85
E40.18.12520300	125	300	20	275	195	105
E40.18.12520350	125	350	20	325	225	125
E40.18.12520400	125	400	20	375	255	145
E40.18.12520450	125	450	20	425	285	165
E40.18.12520500	125	500	20	475	325	175
E40.18.16020250	160	250	20	225	165	85
E40.18.16020300	160	300	20	275	195	105
E40.18.16020350	160	350	20	325	225	125
E40.18.16020400	160	400	20	375	255	145
E40.18.16020450	160	450	20	425	285	165
E40.18.16020500	160	500	20	475	325	175

**DISTANCE PLATE FOR WEAR PLATE**  
**HÖHENAUSGLEICH FÜR GLEITPLATTE**  
**DISTANZIALE PER PIASTRA**

**FORM A****FORM B****FORM C**

Notes

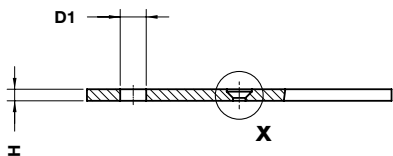
**Material:** S37



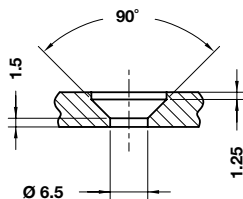
	Art.	A=75	H=6	L1=150
	E40.20.	075	6	150

OMCR CODE	For wear plate	A	L1	L2	L3	B2	B3	G	H	Form
E40.20.0386100	E40.10.03820100	38	100	50	25	19	-	11	6	A
E40.20.0386150	E40.10.03820150	38	150	100	25	19	-	11	6	A
E40.20.0756100	E40.10.07520100	75	100	50	25	25	25	11	6	B
E40.20.0756150	E40.10.07520150	75	150	100	25	37,5	-	11	6	A
E40.20.1006075	E40.10.10018075	100	75	35	15	15	60	11	6	B
E40.20.1006100	E40.10.10020100	100	100	50	25	25	50	11	6	C
E40.20.1006150	E40.10.10020150	100	150	100	25	25	50	11	6	C
E40.20.1256100	E40.10.12525100	125	100	48	20	20	73	13	6	C
E40.20.1506125	E40.10.15025125	150	125	68	25	25	93	13	6	C

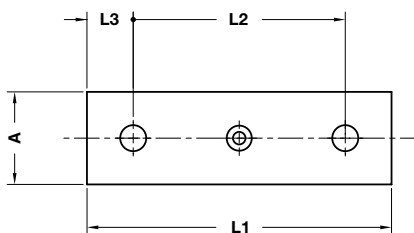
**DISTANCE PLATE FOR WEAR PLATE  
HÖHENAUSGLEICH FÜR GLEITPLATTE  
DISTRANZIALE PER PIASTRA**



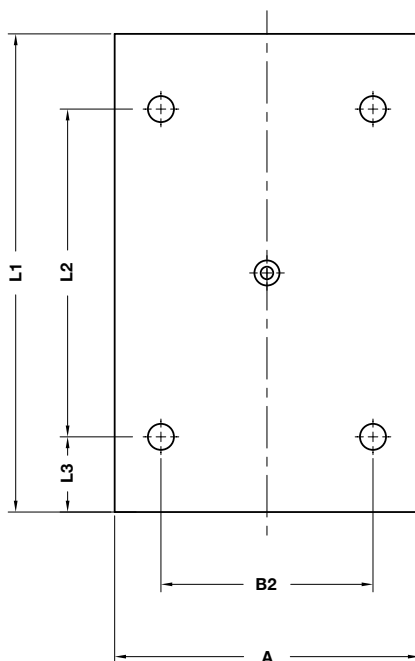
**DETAIL X**



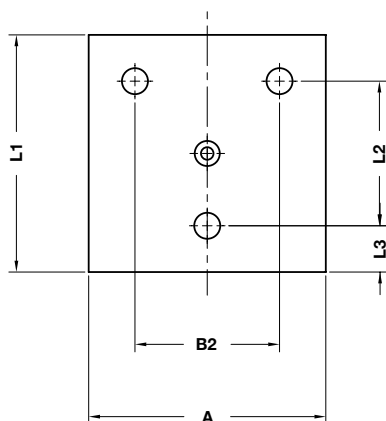
**FORM A**



**FORM C**

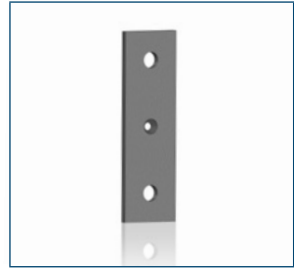


**FORM B**



Notes

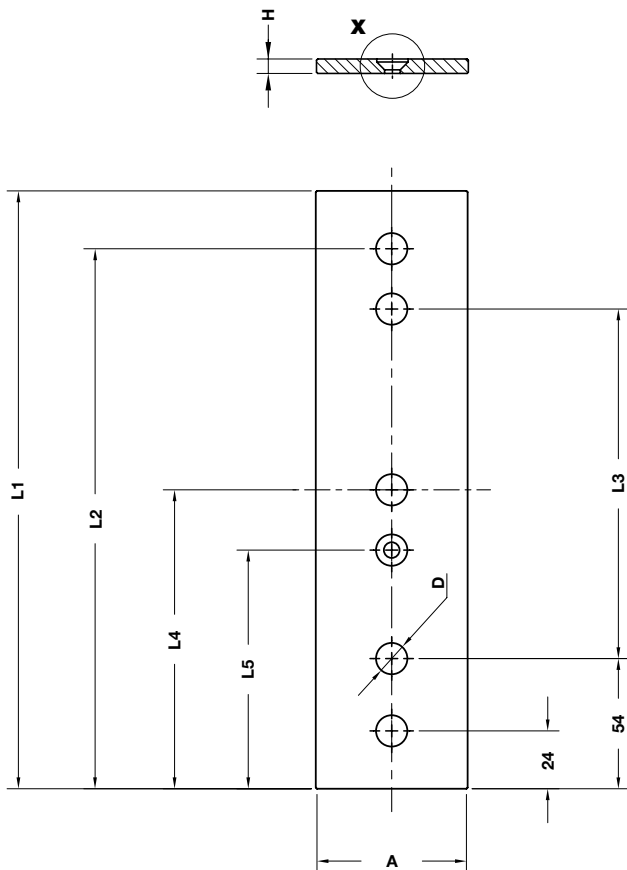
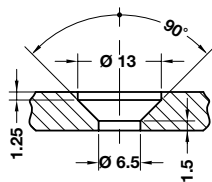
Material: S137



	Art.	A=78	H=6,5	L1=248
	E40.21.	078	6	248

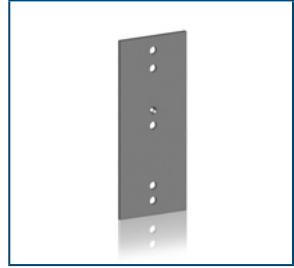
OMCR CODE	For wear plate	A	H	L1	B2	L2	L3	D1	Form
E40.21.0486078	E40.12.05020080	48	6,5	78	-	30	24	9	A
	E40.12.08020050	48	6,5	78	-	30	24	9	A
E40.21.0486098	E40.12.05020100	48	6,5	98	-	50	24	13,5	A
	E40.12.10020050	48	6,5	98	-	50	24	13,5	A
E40.21.0486123	E40.12.05020125	48	6,5	123	-	75	24	13,5	A
	E40.12.12520050	48	6,5	123	-	75	24	13,5	A
E40.21.0486158	E40.12.05020160	48	6,5	158	-	110	24	13,5	A
	E40.12.16020050	48	6,5	158	-	110	24	13,5	A
E40.21.0486198	E40.12.05020200	48	6,5	198	-	150	24	13,5	A
E40.21.0786078	E40.12.08020080	78	6,5	78	-	30	24	13,5	A
E40.21.0786098	E40.12.08020100	78	6,5	98	-	50	24	13,5	A
	E40.12.10020080	78	6,5	98	-	50	24	13,5	A
E40.21.0786123	E40.12.08020125	78	6,5	123	-	75	24	13,5	A
	E40.12.12520080	78	6,5	123	-	75	24	13,5	A
E40.21.0786158	E40.12.08020160	78	6,5	158	-	110	24	13,5	A
	E40.12.16020080	78	6,5	158	-	110	24	13,5	A
E40.21.0786198	E40.12.08020200	78	6,5	198	-	150	24	13,5	A
E40.21.0986098	E40.12.10020100	98	6,5	98	-	50	24	13,5	A
E40.21.0986123	E40.12.10020125	98	6,5	123	-	75	24	13,5	A
E40.21.0986158	E40.12.10020160	98	6,5	158	-	110	24	13,5	A
E40.21.0986198	E40.12.10020200	98	6,5	198	-	150	24	13,5	A
E40.21.0986248	E40.12.10020250	98	6,5	248	-	170	39	13,5	A
E40.21.0986313	E40.12.10020315	98	6,5	313	-	235	39	13,5	A
E40.21.1236098	E40.12.12520100	123	6,5	98	75	50	24	13,5	B
E40.21.1236123	E40.12.12520125	123	6,5	123	75	75	24	13,5	B
E40.21.1236158	E40.12.12520160	123	6,5	158	75	110	24	13,5	B
E40.21.1236198	E40.12.12520200	123	6,5	198	75	150	24	13,5	B
E40.21.1236248	E40.12.12520250	123	6,5	248	75	170	39	13,5	B
E40.21.1236313	E40.12.12520315	123	6,5	313	75	235	39	13,5	B
E40.21.1586098	E40.12.16020100	158	6,5	98	110	50	24	13,5	B
E40.21.1586123	E40.12.16020125	158	6,5	123	75	110	24	13,5	B
E40.21.1586158	E40.12.16020160	158	6,5	158	110	110	24	13,5	B
E40.21.1586198	E40.12.16020200	158	6,5	198	110	150	24	13,5	B
E40.21.1586248	E40.12.16020250	158	6,5	248	110	170	39	13,5	C
E40.21.1586313	E40.12.16020315	158	6,5	313	110	235	39	13,5	C

**DISTANCE PLATE FOR "V" DRIVER**  
**HÖHENAUSGLEICH FÜR PRISMENFUHRUNG**  
**DISTANZIALE PER GUIDA A "V"**

**DETAIL X**

Notes

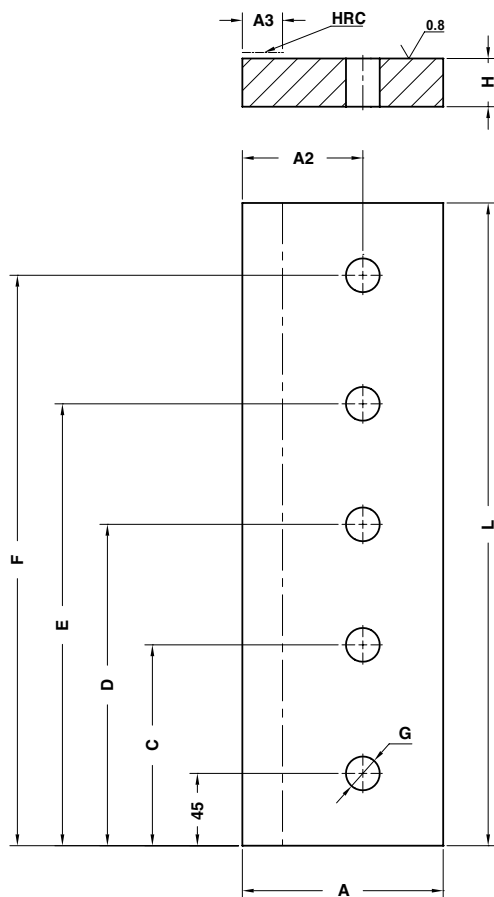
**Material:** S37



	Art.	A=63	H=6,5	L1=248
	E40.22.	063	6	248

OMCR CODE	For "V" driver	A	H	L1	D	L2	L3	L4	L5
E40.22.0636148	E43.13.06544150	63	6,5	148	13	124	45	-	74
E40.22.0636198	E43.13.06544200	63	6,5	198	13	174	95	-	99
E40.22.0636248	E43.13.06544250	63	6,5	248	13	224	145	124	99
E40.22.0636298	E43.13.06544300	63	6,5	298	13	274	195	149	124
E40.22.1236148	E43.21.12552150	123	6,5	148	17	124	45	-	74
E40.22.1236198	E43.21.12552200	123	6,5	198	17	174	95	-	99
E40.22.1236248	E43.21.12552250	123	6,5	248	17	224	145	124	99
E40.22.1236298	E43.21.12552300	123	6,5	298	17	274	195	149	124

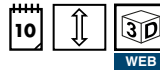
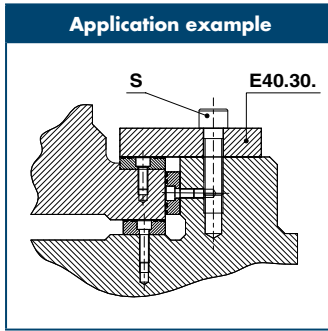
WEAR PLATE STEEL  
GLEITPLATTE STAHL  
PIASTRA GUIDA IN ACCIAIO





**Notes**

**Material:** CK45  
**HRC:** 58÷60

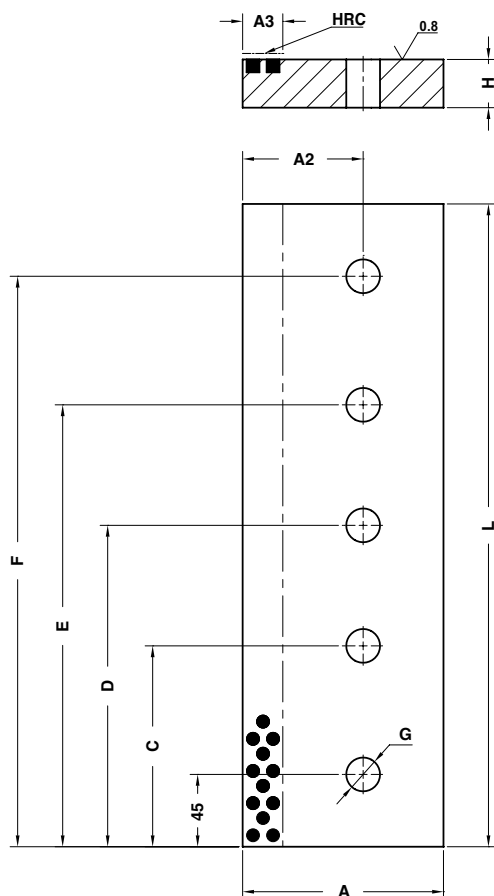


	Art.	A=75	H=25	L1=200
	E40.30.	075	25	200

OMCR CODE	A	A2	A3	L	H	C	D	E	F	G	S
E40.30.07525160	75	40	25	160	25	-	-	-	115	17	Nr.2 - M16x60
E40.30.07525200	75	40	25	200	25	-	-	-	155	17	Nr.2 - M16x60
E40.30.07525250	75	40	25	250	25	-	125	-	205	17	Nr.3 - M16x60
E40.30.10025160	100	60	30	160	25	-	-	-	115	17	Nr.2 - M16x60
E40.30.10025200	100	60	30	200	25	-	-	-	155	17	Nr.2 - M16x60
E40.30.10025250	100	60	30	250	25	-	125	-	205	17	Nr.3 - M16x60
E40.30.10025400	100	60	30	400	25	125	200	275	355	17	Nr.5 - M16x60
E40.30.10030160	100	60	30	160	30	-	-	-	115	21	Nr.2 - M20x70
E40.30.10030200	100	60	30	200	30	-	-	-	155	21	Nr.2 - M20x70
E40.30.10030250	100	60	30	250	30	-	125	-	205	21	Nr.3 - M20x70
E40.30.10030400	100	60	30	400	30	125	200	275	355	21	Nr.5 - M20x70
E40.30.12530160	125	75	30	160	30	-	-	-	115	21	Nr.2 - M20x70
E40.30.12530200	125	75	30	200	30	-	-	-	155	21	Nr.2 - M20x70
E40.30.12530250	125	75	30	250	30	-	125	-	205	21	Nr.3 - M20x70
E40.30.12530400	125	75	30	400	30	125	200	275	355	21	Nr.5 - M20x70

Sliding Elements

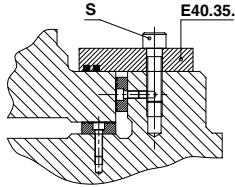
**WEAR PLATE STEEL SELF-LUBRICATING**  
**DECKLEISTE STAHL MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA IN ACCIAIO AUTOLUBRIFICANTE**



### Notes

**Material:** CK45 + Graphite  
**HRC:** 58÷60

### Application example

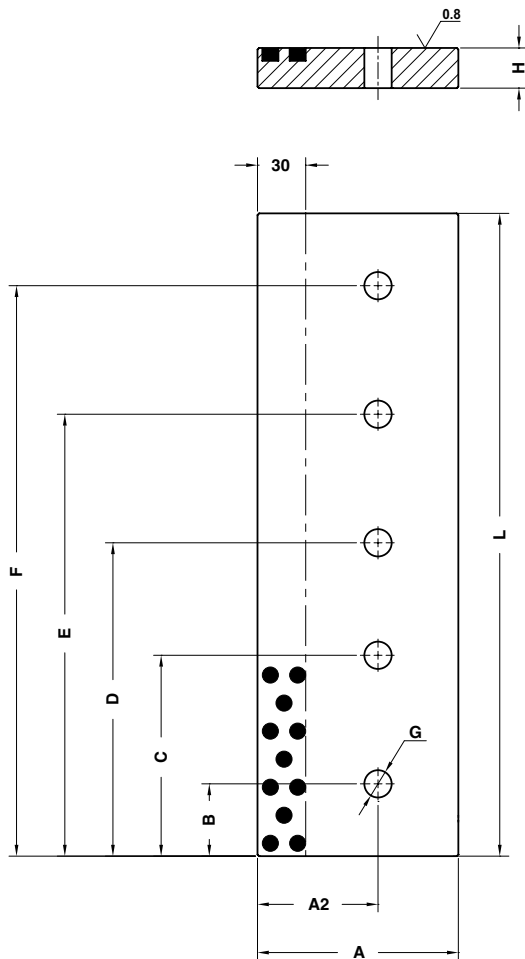


WEB

ORDER EXAMPLE	Art.	A=75	H=25	L1=200
	E40.35.	075	25	200

OMCR CODE	A	A2	A3	L	H	C	D	E	F	G	S
E40.35.07525160	75	40	25	160	25	-	-	-	115	17	Nr.2 - M16x60
E40.35.07525200	75	40	25	200	25	-	-	-	155	17	Nr.2 - M16x60
E40.35.07525250	75	40	25	250	25	-	125	-	205	17	Nr.3 - M16x60
E40.35.10025160	100	60	30	160	25	-	-	-	115	17	Nr.2 - M16x60
E40.35.10025200	100	60	30	200	25	-	-	-	155	17	Nr.2 - M16x60
E40.35.10025250	100	60	30	250	25	-	125	-	205	17	Nr.3 - M16x60
E40.35.10025400	100	60	30	400	25	125	200	275	355	17	Nr.5 - M16x60
E40.35.10030160	100	60	30	160	30	-	-	-	115	21	Nr.2 - M20x70
E40.35.10030200	100	60	30	200	30	-	-	-	155	21	Nr.2 - M20x70
E40.35.10030250	100	60	30	250	30	-	125	-	205	21	Nr.3 - M20x70
E40.35.10030400	100	60	30	400	30	125	200	275	355	21	Nr.5 - M20x70
E40.35.12530160	125	75	30	160	30	-	-	-	115	21	Nr.2 - M20x70
E40.35.12530200	125	75	30	200	30	-	-	-	155	21	Nr.2 - M20x70
E40.35.12530250	125	75	30	250	30	-	125	-	205	21	Nr.3 - M20x70
E40.35.12530400	125	75	30	400	30	125	200	275	355	21	Nr.5 - M20x70

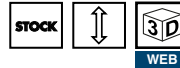
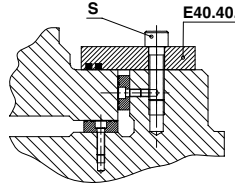
**WEAR PLATE SELF-LUBRICATING**  
**GLEITPLATTE BRONZE MIT FESTSCHMIERSTOFF**  
**PIASTRA GUIDA AUTOLUBRIFICANTE**



### Notes

**Material:** Bronze + Graphite  
**HB > 190**

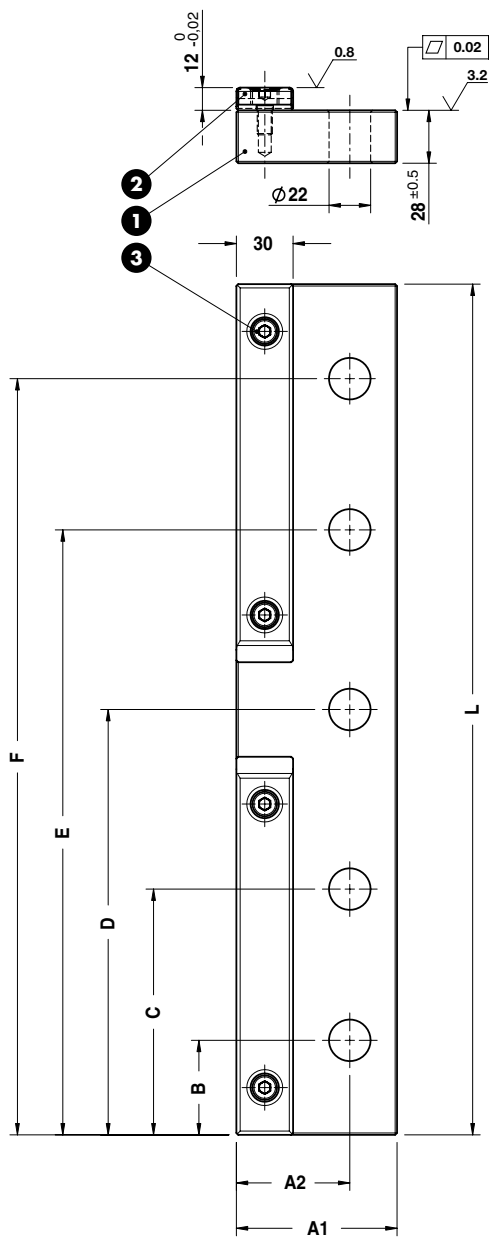
### Application example



Art.	A=85	H=30	L=200
E40.40.	085	30	200

OMCR CODE	A	A2	L	H	B	C	D	E	F	G	S
E40.40.08530160	85	60	160	30	45	-	-	-	115	21	Nr.2 - M20x70
E40.40.08530200	85	60	200	30	45	-	-	-	155	21	Nr.2 - M20x70
E40.40.08530250	85	60	250	30	45	-	125	-	205	21	Nr.3 - M20x70
E40.40.08530300	85	60	300	30	45	-	150	-	255	21	Nr.3 - M20x70
E40.40.08530350	85	60	350	30	45	-	175	-	305	21	Nr.3 - M20x70
E40.40.08530400	85	60	400	30	45	125	200	275	355	21	Nr.5 - M20x70
E40.40.12525160	125	75	160	25	45	-	-	-	115	17	Nr.2 - M16x60
E40.40.12525200	125	75	200	25	45	-	-	-	155	17	Nr.2 - M16x60
E40.40.12525250	125	75	250	25	45	-	125	-	205	17	Nr.3 - M16x60
E40.40.12525400	125	75	400	25	45	125	200	275	355	17	Nr.5 - M16x60
E40.40.12530160	125	75	160	30	45	-	-	-	115	21	Nr.2 - M20x70
E40.40.12530200	125	75	200	30	45	-	-	-	155	21	Nr.2 - M20x70
E40.40.12530250	125	75	250	30	45	-	125	-	205	21	Nr.3 - M20x70
E40.40.12530300	125	75	300	30	45	-	150	-	255	21	Nr.3 - M20x70
E40.40.12530350	125	75	350	30	45	-	175	-	305	21	Nr.3 - M20x70
E40.40.12530400	125	75	400	30	45	125	200	275	355	21	Nr.5 - M20x70
E40.40.12530450	125	75	450	30	50	130	225	320	400	21	Nr.5 - M20x70
E40.40.12530500	125	75	500	30	50	130	250	370	450	21	Nr.5 - M20x70

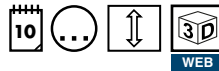
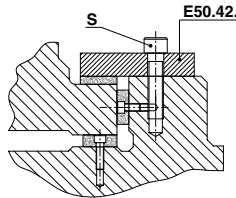
**WEAR PLATE**  
**DECKLEISTE SCHIEBERFÜHRUNG**  
**PIASTRA GUIDA**



Notes

- 1 **Material:** 16MnCr5
- 2 E40.06.
- 3 DIN 912 M8x16

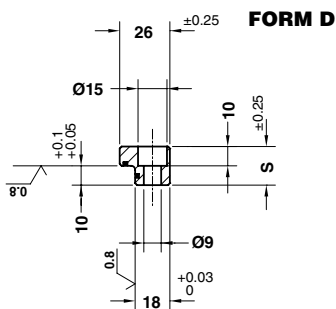
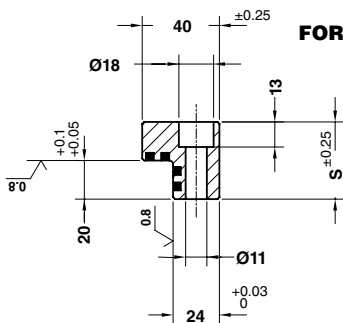
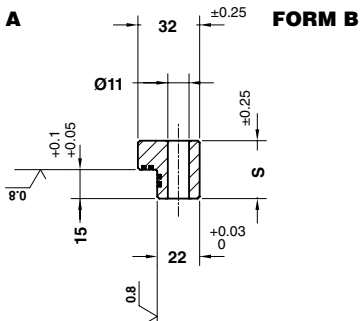
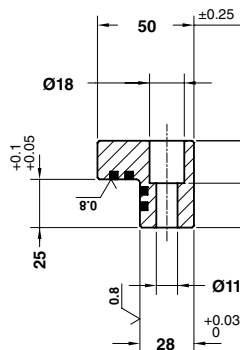
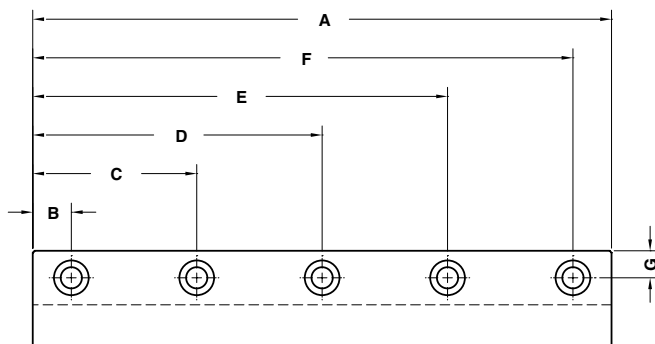
Application example



ORDER EXAMPLE	Art.	A1=85	L=200
	E40.42.	085	200

OMCR CODE	A1	L	A2	B	C	D	E	F	S
E40.42.085160	85	160	60	45	115	-	-	-	Nr2 - M20x60
E40.42.085200	85	200	60	45	155	-	-	-	Nr2 - M20x60
E40.42.085250	85	250	60	45	125	205	-	-	Nr3 - M20x60
E40.42.085300	85	300	60	45	150	255	-	-	Nr3 - M20x60
E40.42.085350	85	350	60	45	175	305	-	-	Nr3 - M20x60
E40.42.085400	85	400	60	45	125	200	275	355	Nr5 - M20x60
E40.42.085450	85	450	60	50	130	225	320	400	Nr5 - M20x60
E40.42.085500	85	500	60	50	130	250	370	450	Nr5 - M20x60
E40.42.125160	125	160	75	45	115	-	-	-	Nr2 - M20x60
E40.42.125200	125	200	75	45	155	-	-	-	Nr2 - M20x60
E40.42.125250	125	250	75	45	125	205	-	-	Nr3 - M20x60
E40.42.125300	125	300	75	45	150	255	-	-	Nr3 - M20x60
E40.42.125350	125	350	75	45	175	305	-	-	Nr3 - M20x60
E40.42.125400	125	400	75	45	125	200	275	355	Nr5 - M20x60
E40.42.125450	125	450	75	50	130	225	320	400	Nr5 - M20x60
E40.42.125500	125	500	75	50	130	250	370	450	Nr5 - M20x60

**ANGULAR GUIDE SELF-LUBRICATING**  
**WINKELLEISTE BRONZE MIT FESTSCHMIERSTOFF**  
**GUIDA ANGOLARE AUTOLUBRIFICANTE**

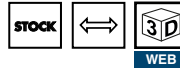
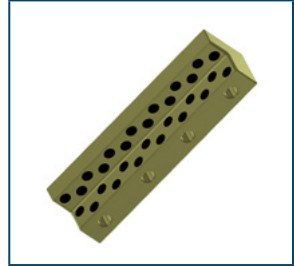
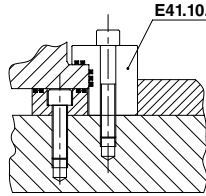




Notes

**Material:** Bronze + Graphite  
**HB > 190**

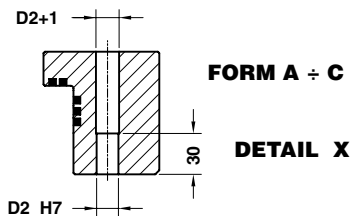
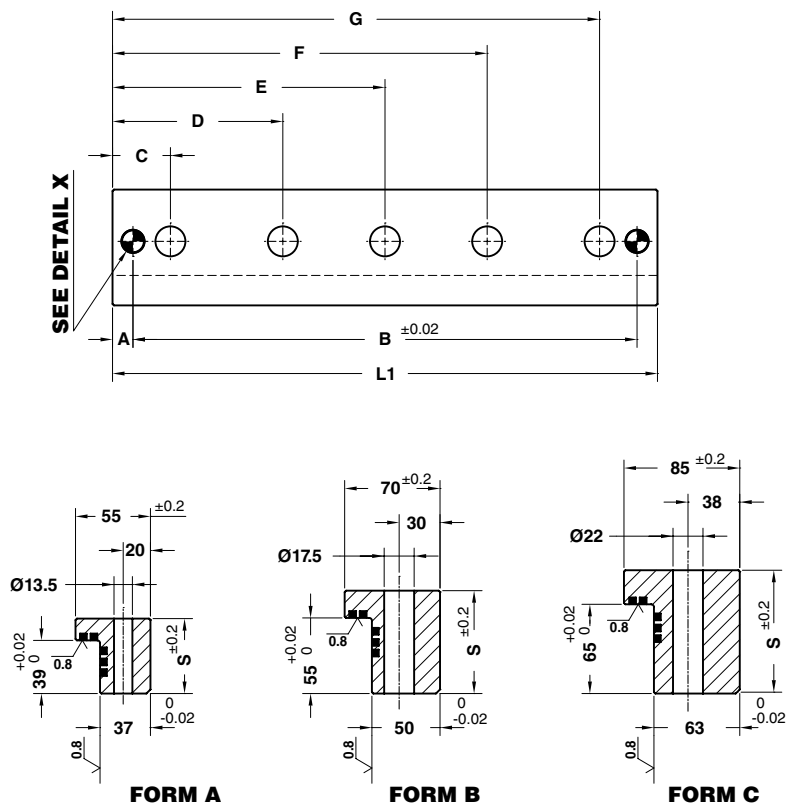
Application example



	Art.	S=30	A=150
	E41.10.	30	150

OMCR CODE	S	A	B	C	D	E	F	G	Form
E41.10.20100	20	100	20	80	-	-	-	9	D
E41.10.20150	20	150	20	75	130	-	-	9	D
E41.10.20200	20	200	20	75	125	180	-	9	D
E41.10.30100	30	100	20	80	-	-	-	11	B
E41.10.30150	30	150	20	75	130	-	-	11	B
E41.10.30200	30	200	20	75	125	180	-	11	B
E41.10.30250	30	250	20	90	160	230	-	11	B
E41.10.40160	40	160	15	145	-	-	-	12	C
E41.10.40250	40	250	15	145	225	-	-	12	C
E41.10.45200	45	200	20	75	125	180	-	14	A
E41.10.45250	45	250	20	90	160	230	-	14	A
E41.10.45300	45	300	20	85	150	215	280	14	A
E41.10.45350	45	350	20	100	175	250	330	14	A

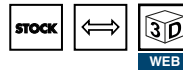
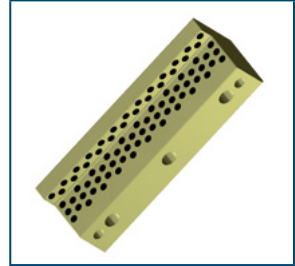
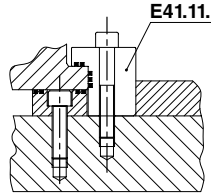
**ANGULAR GUIDE SELF-LUBRICATING VDI 3357**  
**WINKELLEISTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**GUIDA ANGOLARE AUTOLUBRIFICANTE VDI 3357**



Notes

**Material:** Bronze + Graphite  
**HB > 190**

Application example



ORDER EXAMPLE	Art.	S=75	L1=250
	E41.11.	75	250

OMCR CODE	S	L1	A	B	C	D	E	F	G	H	D2	Form
E41.11.55100	55	100	10	80	27,5	-	-	-	72,5	20	10	A
E41.11.55160	55	160	10	140	27,5	-	-	-	132,5	20	10	A
E41.11.75160	75	160	12,5	135	35	-	-	-	125	30	12	B
E41.11.75200	75	200	12,5	175	35	-	-	-	165	30	12	B
E41.11.75250	75	250	12,5	225	35	-	125	-	215	30	12	B
E41.11.75400	75	400	12,5	375	35	125	200	275	365	30	12	B
E41.11.90160	90	160	15	130	42,5	-	-	-	117,5	38	16	C
E41.11.90200	90	200	15	170	42,5	-	-	-	157,5	38	16	C
E41.11.90250	90	250	15	220	42,5	-	125	-	207,5	38	16	C
E41.11.90400	90	400	15	370	42,5	125	200	275	357,5	38	16	C

**GUIDE BAR SELF-LUBRICATING**  
**FÜHRUNGSLEISTE BRONZE MIT FESTSCHMIERSTOFF**  
**LARDONE AUTOLUBRIFICANTE**

**Notes**

**Material:** Bronze + Graphite  
**HB > 190**

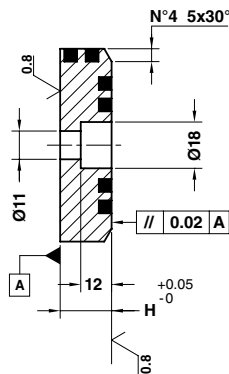
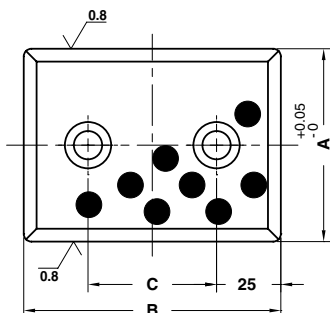
STOCK



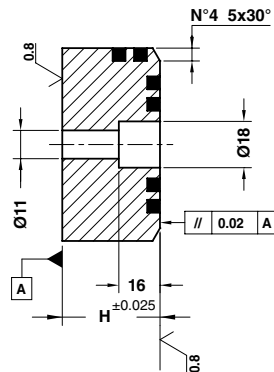
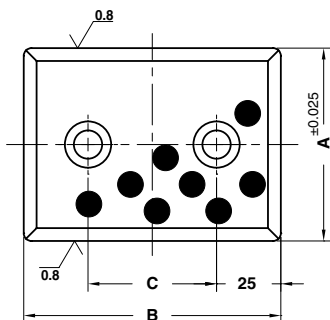
WEB



**FORM A**



**FORM B**



Art.	A=48	H=20	B=100
E42.10.	48	20	100

OMCR CODE	A	B	H	C	Form
E42.10.4820100	48	100	20	50	A
E42.10.4820150	48	150	20	100	A
E42.10.7520100	75	100	20	50	A
E42.10.7520150	75	150	20	100	A
E42.10.7538100	75	100	38	50	B
E42.10.7538150	75	150	38	100	B

## GUIDE BAR STEEL FÜHRUNGSLAISTE STAHL LARDONE IN ACCIAIO

### Notes

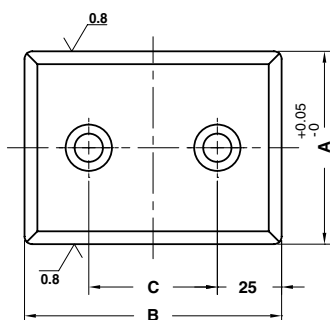
**Material:** 16MnCr5

**HRC:** 58÷60

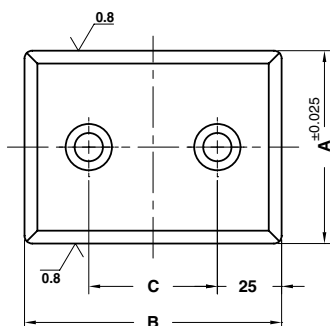
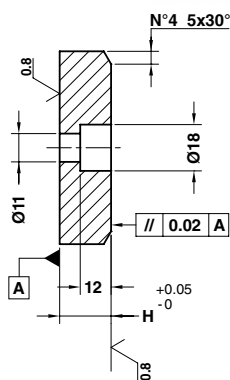
STOCK



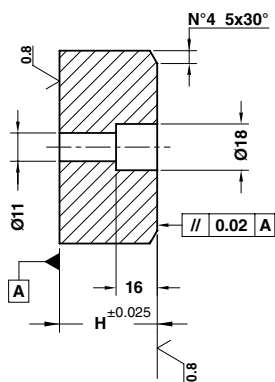
WEB



**FORM A**



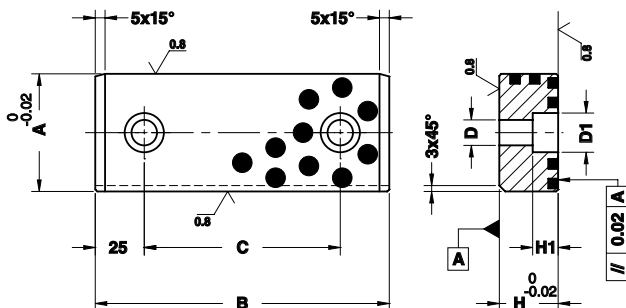
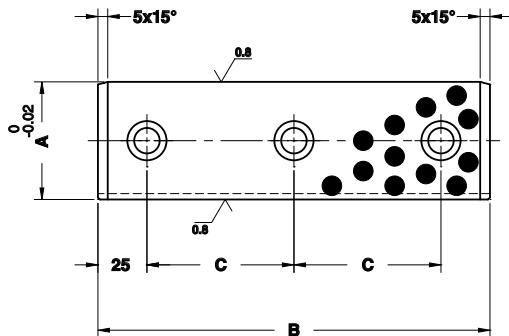
**FORM B**



Art.	A=48	H=20	B=100
E42.11.	48	20	100

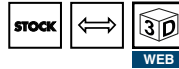
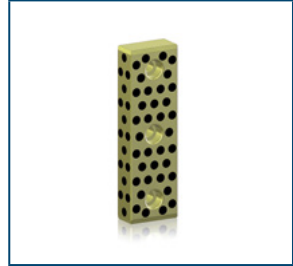
OMCR CODE	A	B	H	C	Form
E42.11.4820100	48	100	20	50	A
E42.11.4820150	48	150	20	100	A
E42.11.7520100	75	100	20	50	A
E42.11.7520150	75	150	20	100	A
E42.11.7538100	75	100	38	50	B
E42.11.7538150	75	150	38	100	B

**GUIDE BAR SELF-LUBRICATING VDI 3357**  
**FÜHRUNGSLEISTE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**LARDONE AUTOLUBRIFICANTE VDI 3357**

**FORM A****FORM B**

Notes

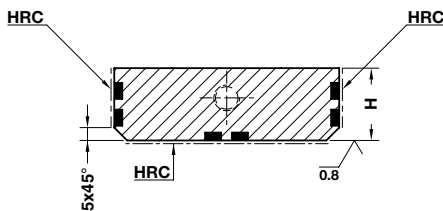
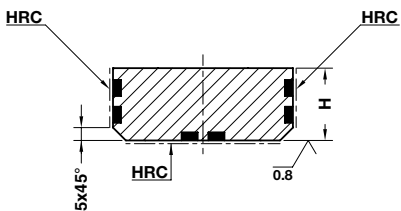
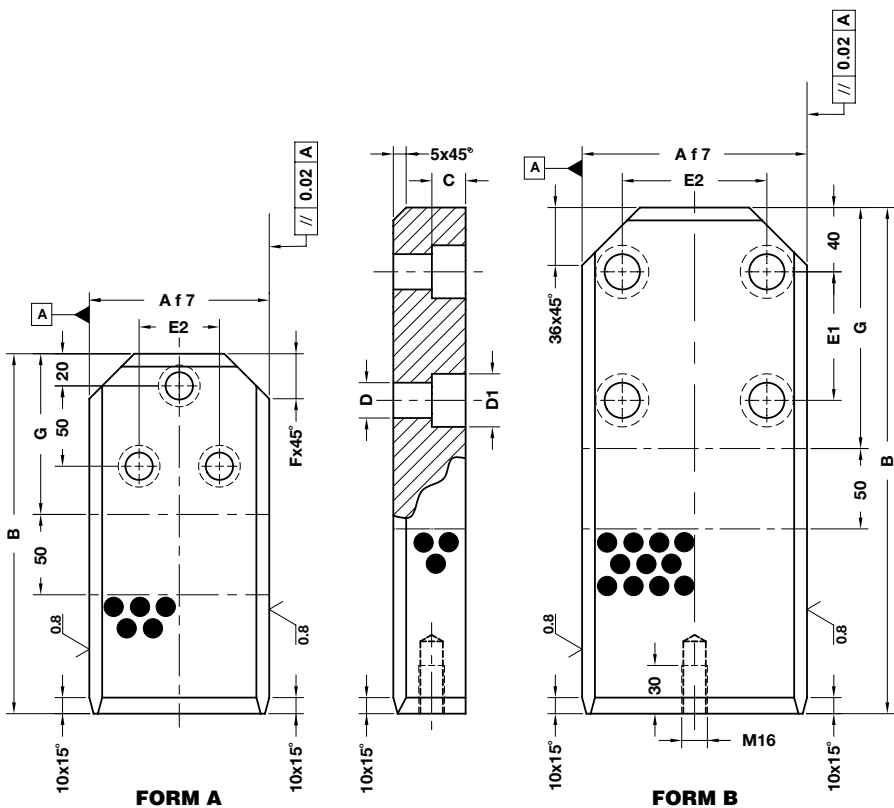
**Material:** Bronze + Graphite  
**HB > 190**



	Art.	A=60	H=30	B=125
	E42.12.	60	30	125

OMCR CODE	A	B	C	H	D	D1	H1	Form
E42.12.2512110	25	110	60	12	9	13	9	A
E42.12.2512120	25	120	70	12	9	13	9	A
E42.12.2515110	25	110	60	15	11	18	11	A
E42.12.2515120	25	120	70	15	11	18	11	A
E42.12.6030125	60	125	75	30	13	20	13	A
E42.12.6030150	60	150	100	30	13	20	13	A
E42.12.6030160	60	160	110	30	13	20	13	A
E42.12.6030200	60	200	75	30	13	20	13	B
E42.12.6040125	60	125	75	40	13	20	13	A
E42.12.6040150	60	150	100	40	13	20	13	A
E42.12.6040160	60	160	110	40	13	20	13	A
E42.12.6040200	60	200	75	40	13	20	13	B

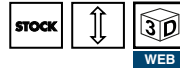
**GUIDE STEEL SELF-LUBRICATING**  
**FÜHRUNGSLASCHE STAHL MIT FESTSCHMIERSTOFF**  
**LARDONE IN ACCIAIO AUTOLUBRIFICANTE**





Notes

**Material:** CK45 + Graphite  
**HRC:** 58÷60



	Art.	A=71	H=36	B=224
	E42.13.	071	36	224

OMCR CODE	A	B	H	C	D	D1	E1	E2	F	G	Form
E42.13.06336180	63	180	36	16	13	20	-	36	18	90	A
E42.13.06336200	63	200	36	16	13	20	-	36	18	90	A
E42.13.06336224	63	224	36	16	13	20	-	36	18	90	A
E42.13.07136180	71	180	36	16	13	20	-	36	18	90	A
E42.13.07136200	71	200	36	16	13	20	-	36	18	90	A
E42.13.07136224	71	224	36	16	13	20	-	36	18	90	A
E42.13.09045200	90	200	45	21	17	26	-	50	28	100	A
E42.13.09045224	90	224	45	21	17	26	-	50	28	100	A
E42.13.09045250	90	250	45	21	17	26	-	50	28	100	A
E42.13.11245200	112	200	45	21	17	26	-	50	28	100	A
E42.13.11245224	112	224	45	21	17	26	-	50	28	100	A
E42.13.11245250	112	250	45	21	17	26	-	50	28	100	A
E42.13.14045315	140	315	45	26	22	33	80	90	-	150	B
E42.13.14045400	140	400	45	26	22	33	80	90	-	150	B
E42.13.14056315	140	315	56	26	22	33	80	90	-	150	B
E42.13.14056400	140	400	56	26	22	33	80	90	-	150	B
E42.13.19045315	190	315	45	26	22	33	80	90	-	150	B
E42.13.19045400	190	400	45	26	22	33	80	90	-	150	B
E42.13.19056315	190	315	56	26	22	33	80	90	-	150	B
E42.13.19056400	190	400	56	26	22	33	80	90	-	150	B
E42.13.24056500	240	500	56	31	26	40	160	160	-	250	B
E42.13.24056630	240	630	56	31	26	40	160	160	-	250	B

Sliding Elements

## GUIDE BAR SELF-LUBRICATING FÜHRUNGSLEISTE BRONZE MIT FESTSCHMIERSTOFF LARDONE AUTOLUBRIFICANTE

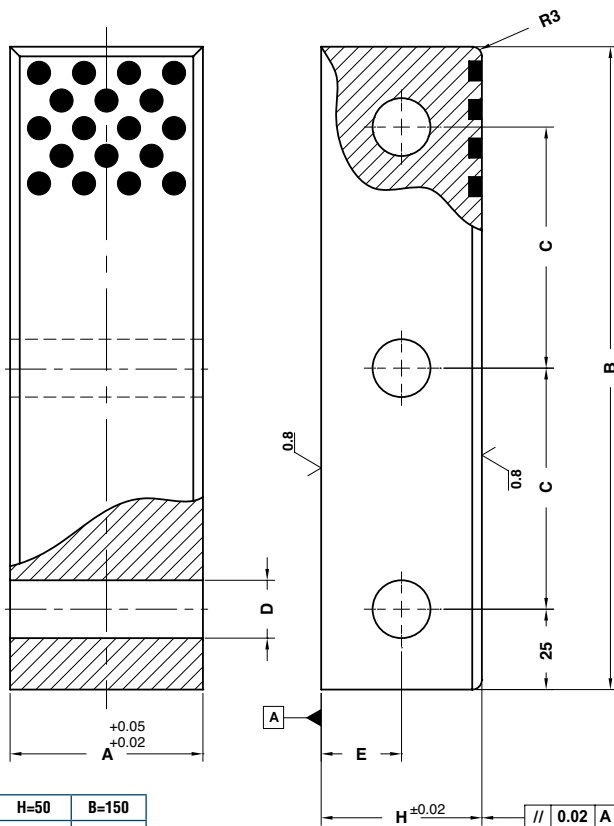
### Notes

**Material:** Bronze + Graphite  
**HB** > 190

STOCK



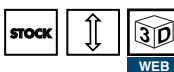
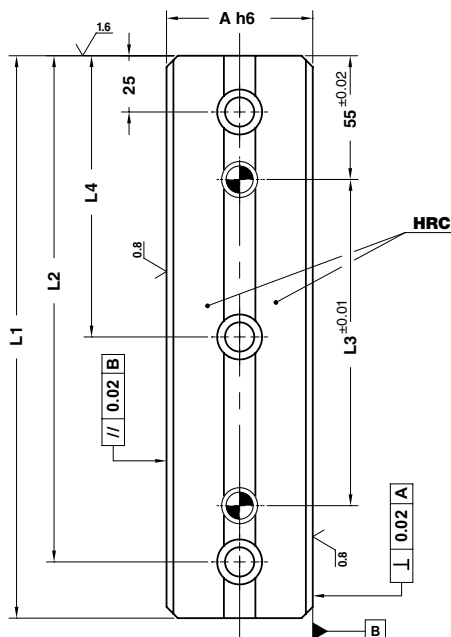
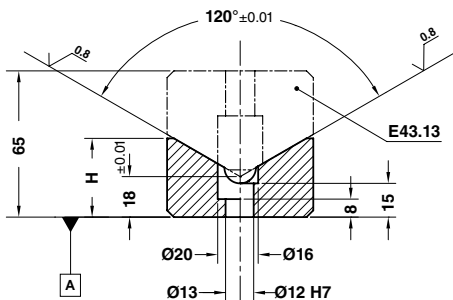
WEB



Art.	A=60	H=50	B=150
E42.15.	060	50	150

OMCR CODE	A	B	C	D	E	H
E42.15.040040150	40	150	50	14	20	40
E42.15.040040200	40	200	75	14	20	40
E42.15.060050150	60	150	50	18	25	50
E42.15.060050200	60	200	75	18	25	50

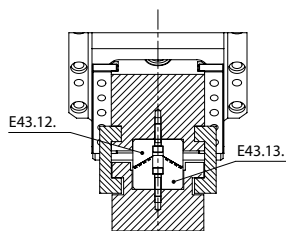
## "V" DRIVER STEEL VDI 3357 PRISMENFÜHRUNG VDI 3357 GUIDA A "V" IN ACCIAIO VDI 3357



### Notes

**Material:** CK45  
**HRC:** 58÷60

### Application example

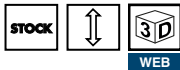
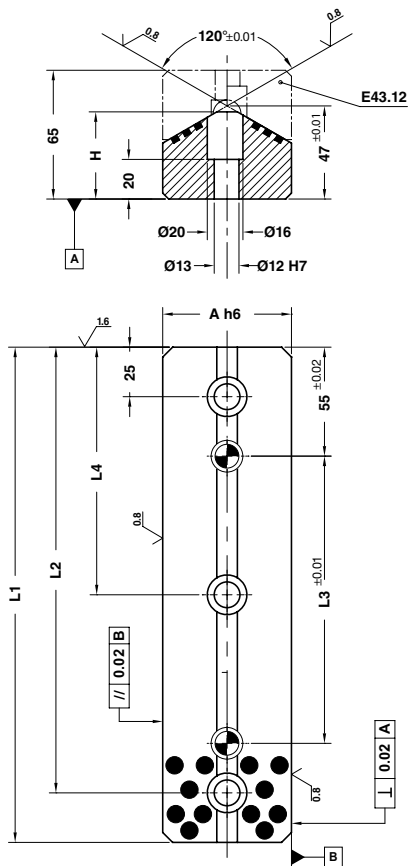


Sliding Elements

Art.	A=65	H=35	L1=150
E43.12.	065	35	150

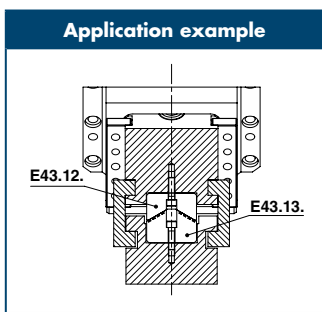
OMCR CODE	A	H	L1	L2	L3	L4
E43.12.06535150	65	35	150	125	45	-
E43.12.06535200	65	35	200	175	95	-
E43.12.06535250	65	35	250	225	145	125
E43.12.06535300	65	35	300	275	195	150

**"V" DRIVER SELF-LUBRICATING VDI 3357**  
**PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**GUIDA A "V" AUTOLUBRIFICANTE VDI 3357**



**Notes**

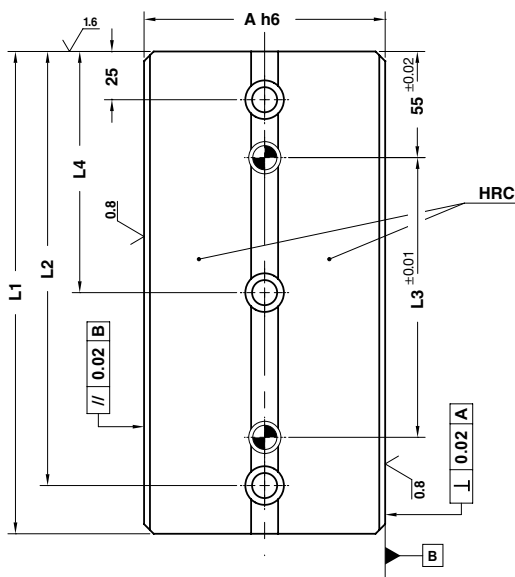
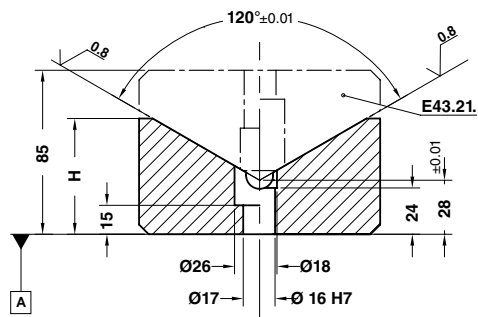
**Material:** Bronze + Graphite  
**HB > 190**



ORDER EXAMPLE	Art.	A=65	H=44	L1=150
	E43.13.	065	44	150

OMCR CODE	A	H	L1	L2	L3	L4
E43.13.06544150	65	44	150	125	45	-
E43.13.06544200	65	44	200	175	95	-
E43.13.06544250	65	44	250	225	145	125
E43.13.06544300	65	44	300	275	195	150

## "V" DRIVER STEEL VDI 3357 PRISMENFÜHRUNG VDI 3357 GUIDA A "V" IN ACCIAIO VDI 3357



STOCK

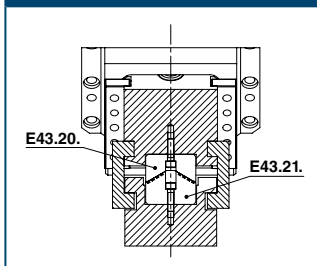


WEB

### Notes

**Material:** CK45  
**HRC:** 58÷60

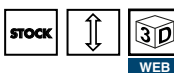
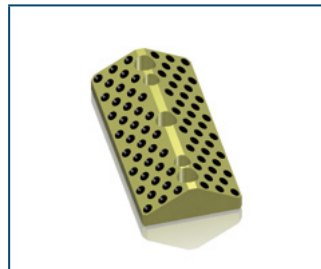
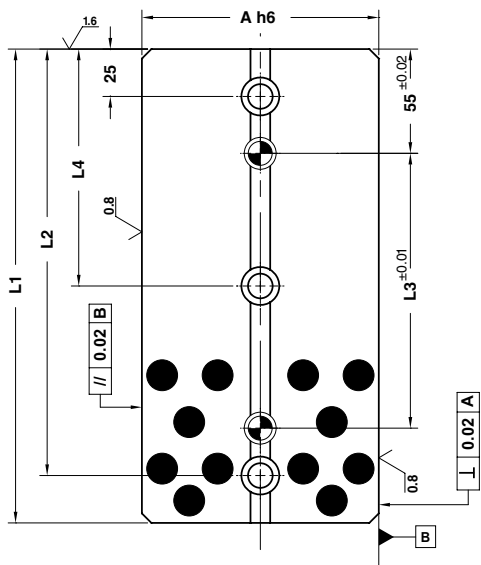
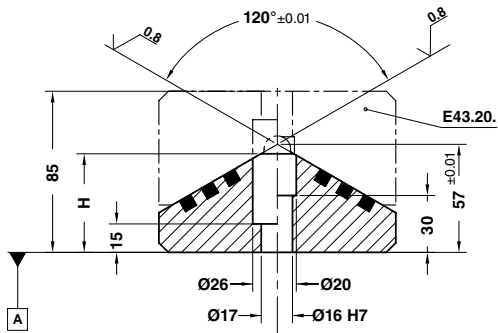
### Application example



Art.	A=125	H=60	L1=150
E43.20.	125	60	150

OMCR CODE	A	H	L1	L2	L3	L4
E43.20.12560150	125	60	150	125	45	-
E43.20.12560200	125	60	200	175	95	-
E43.20.12560250	125	60	250	225	145	125
E43.20.12560300	125	60	300	275	195	150

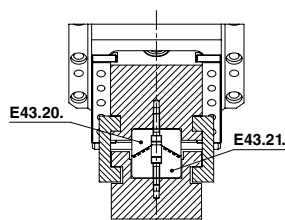
## "V" DRIVER SELF-LUBRICATING VDI 3357 PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF VDI 3357 GUIDA A "V" AUTOLUBRIFICANTE VDI 3357



### Notes

**Material:** Bronze + Graphite  
**HB > 190**

### Application example



Art.	A=125	H=52	L1=200
E43.21.	125	52	200

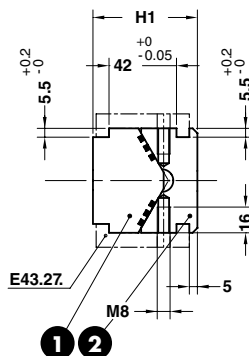
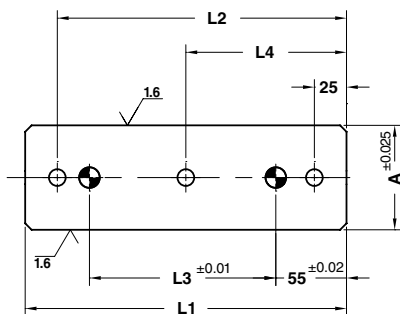
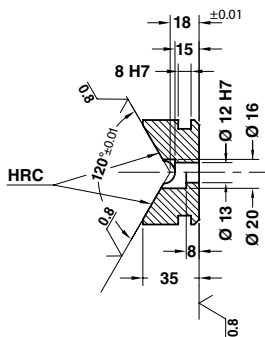
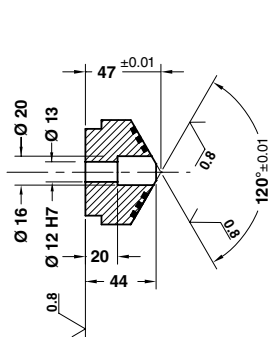
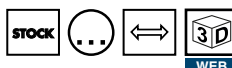
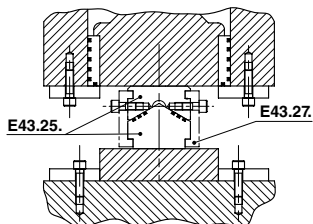
OMCR CODE	A	H	L1	L2	L3	L4
E43.21.12552150	125	52	150	125	45	-
E43.21.12552200	125	52	200	175	95	-
E43.21.12552250	125	52	250	225	145	125
E43.21.12552300	125	52	300	275	195	150

## "V" DRIVER SET PRISMENFÜHRUNGSGRUPPE SET DI GUIDE A "V"

### Notes

- 1** **Material:** Bronze + Graphite  
**HB** > 190
- 2** **Material:** CK45  
**HRC:** 58÷60

### Application example



Art.	A=65	H1=65	L1=200
E43.25.	65	65	200

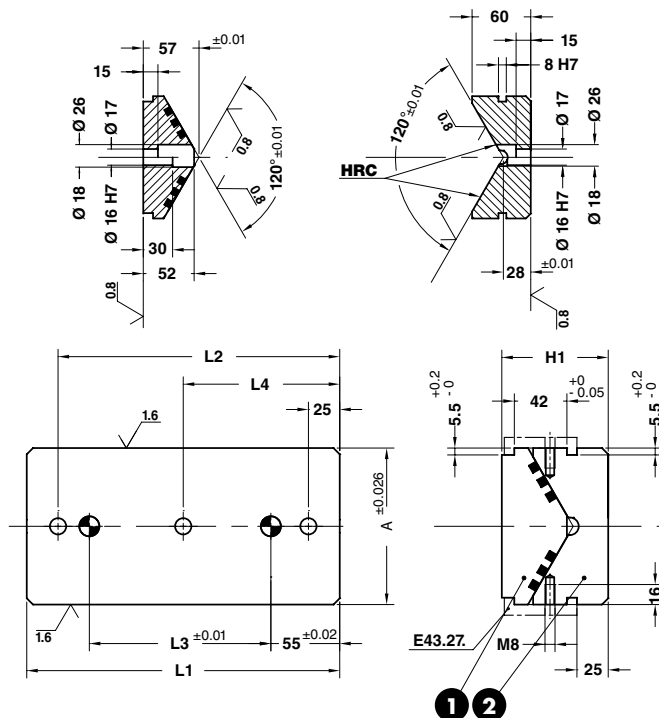
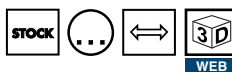
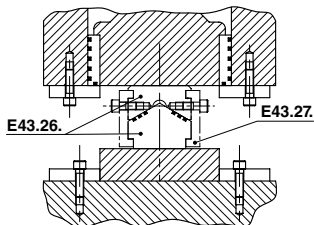
OMCR CODE	A	H1	L1	L2	L3	L4
E43.25.6565150	65	65	150	125	45	-
E43.25.6565200	65	65	200	175	95	-
E43.25.6565250	65	65	250	225	145	125
E43.25.6565300	65	65	300	275	195	150

## "V" DRIVER SET PRISMENFÜHRUNGSGRUPPE SET DI GUIDE A "V"

### Notes

- 1 **Material:** Bronze + Graphite  
**HB** > 190
- 2 **Material:** CK45  
**HRC:** 58±60

### Application example



Art.	A=125	H1=85	L1=250
E43.26.	125	85	250

OMCR CODE	A	H1	L1	L2	L3	L4
E43.26.12585150	125	85	150	125	45	-
E43.26.12585200	125	85	200	175	95	-
E43.26.12585250	125	85	250	225	145	125
E43.26.12585300	125	85	300	275	195	150



**POSITIVE RETURN  
ZWANGSRÜCKHOLER  
GANCIO**

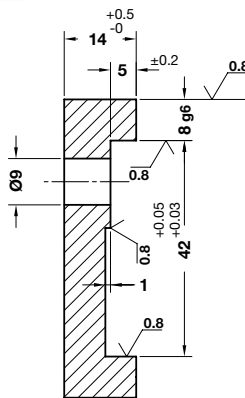
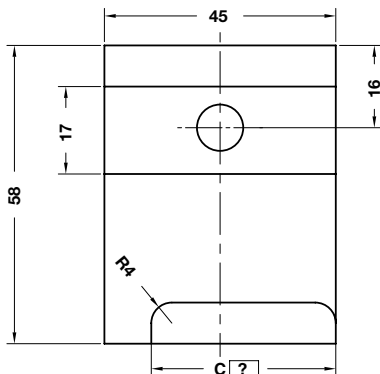
**Notes**

**Material:** 42CrMo4

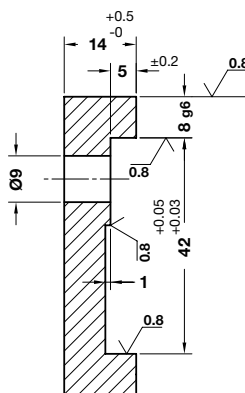
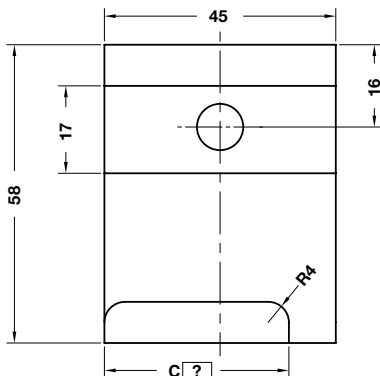
STOCK



**TYPE 01**



**TYPE 02**

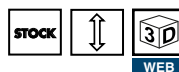
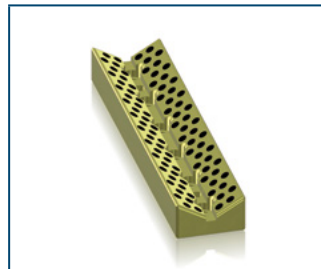
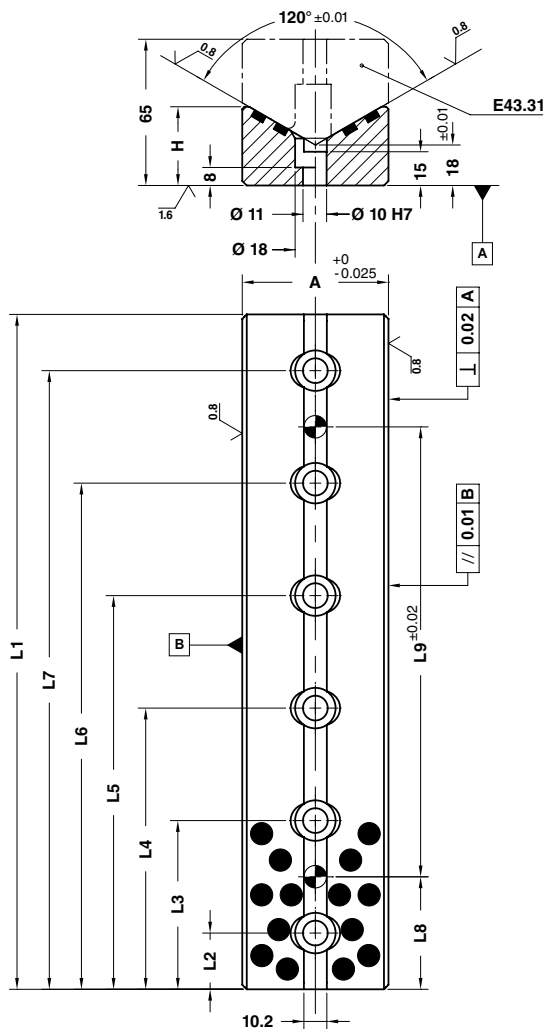


Art.	Type	C
E43.27.	01	?

OMCR CODE	Type
E43.27.01	01
E43.27.02	02

Sliding Elements

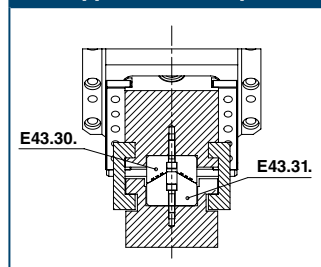
**"V" DRIVER SELF-LUBRICATING**  
**PRISMENFÜHRUNG BRONZE MIT FESTSCHMIERSTOFF**  
**GUIDA A "V" AUTOLUBRIFICANTE**



**Notes**

**Material:** Bronze + Graphite  
**HB > 190**

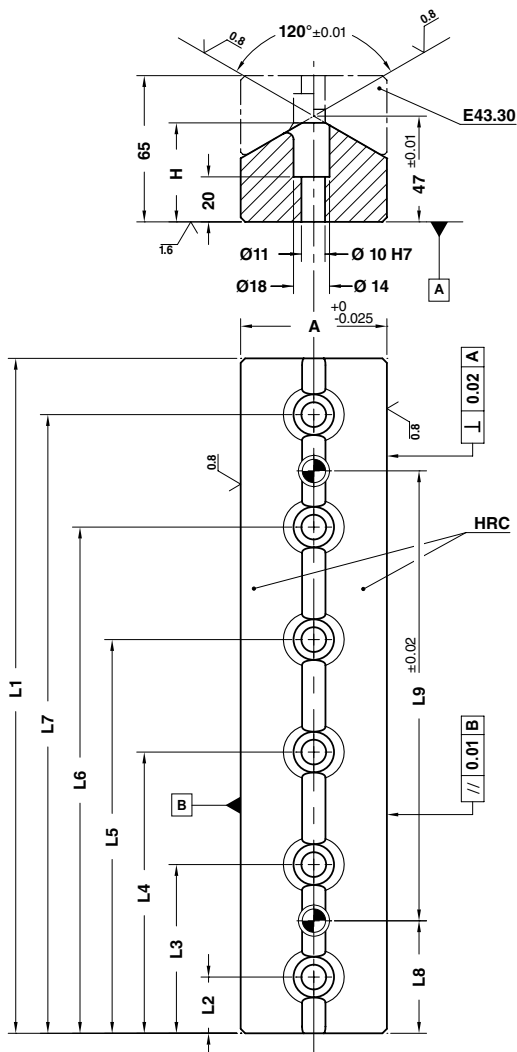
**Application example**



Art.	A=65	H=35	L1=300
E43.30.	65	35	300

OMCR CODE	A	H	L1	L2	L3	L4	L5	L6	L7	L8	L9
E43.30.6535100	65	35	100	20	80	-	-	-	-	40	20
E43.30.6535150	65	35	150	25	75	125	-	-	-	50	50
E43.30.6535200	65	35	200	25	75	125	175	-	-	50	100
E43.30.6535250	65	35	250	25	75	125	175	225	-	50	150
E43.30.6535300	65	35	300	25	75	125	175	225	275	50	200

## "V" DRIVER STEEL PRISMENFÜHRUNG GUIDA A "V" IN ACCIAIO



STOCK

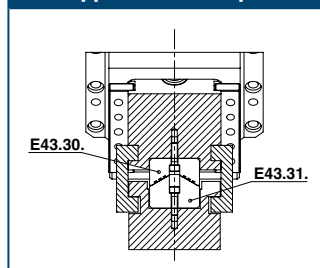


WEB

### Notes

**Material:** CK45 - HRC: 58 ÷ 60

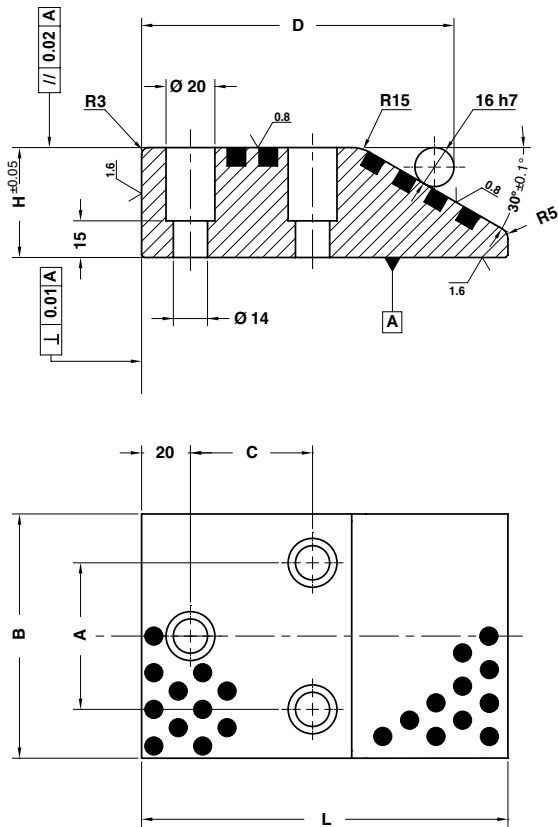
### Application example



Art.	A=65	H=44	L1=250
E43.31.	65	44	250

OMCR CODE	A	H	L1	L2	L3	L4	L5	L6	L7	L8	L9
E43.31.6544100	65	44	100	20	80	-	-	-	-	40	20
E43.31.6544150	65	44	150	25	75	125	-	-	-	50	50
E43.31.6544200	65	44	200	25	75	125	175	-	-	50	100
E43.31.6544250	65	44	250	25	75	125	175	225	-	50	150
E43.31.6544300	65	44	300	25	75	125	175	225	275	50	200

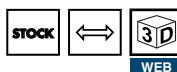
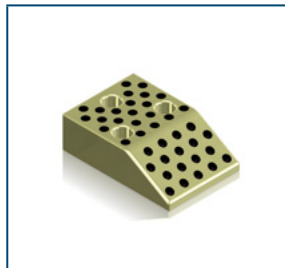
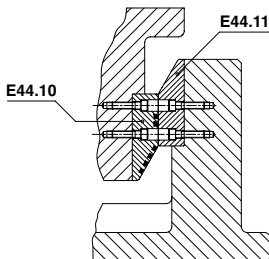
**CAM DWELL WEAR PLATE SELF-LUBRICATING  
 ÜBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF  
 CUNEO AUTOLUBRIFICANTE**



Notes

**Material:** Bronze + Graphite  
**HB > 190**

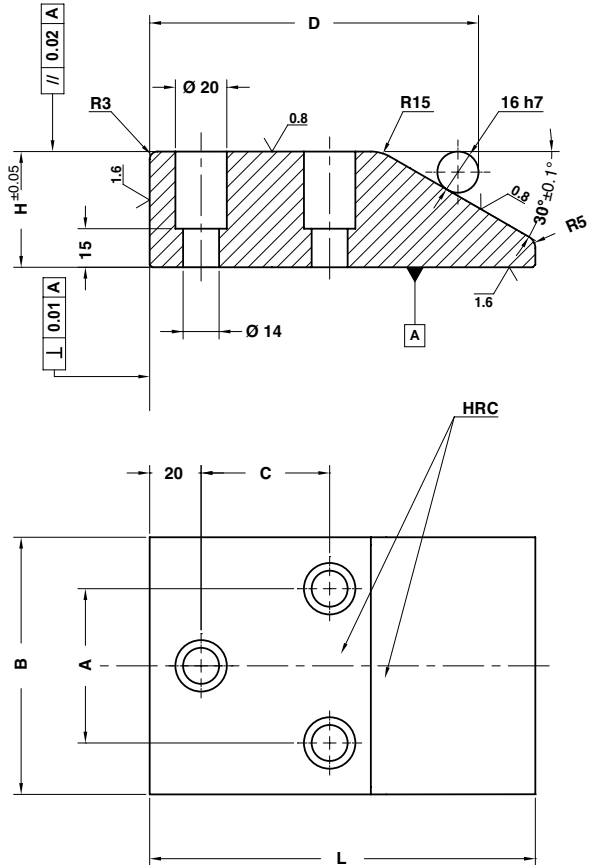
Application example



	Art.	B=125	H=60	L=170
	E44.10.	125	60	170

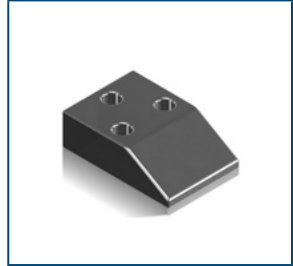
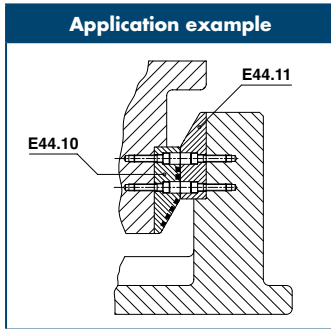
OMCR CODE	B	H	L	A	C	D
E44.10.10030125	100	30	125	60	50	132,8
E44.10.12530125	125	30	125	85	50	132,8
E44.10.16030125	160	30	125	120	50	132,8
E44.10.10045150	100	45	150	60	45	127,9
E44.10.12545150	125	45	150	85	45	127,9
E44.10.16045150	160	45	150	120	45	127,9
E44.10.10060170	100	60	170	60	45	127,9
E44.10.12560170	125	60	170	85	45	127,9
E44.10.16060170	160	60	170	120	45	127,9

**CAM DWELL WEAR PLATE STEEL**  
**ÜBERLAUFKEILE STAHL**  
**CUNEO IN ACCIAIO**



**Notes**

**Material:** 42CrMo4  
**HRC:** 58÷60

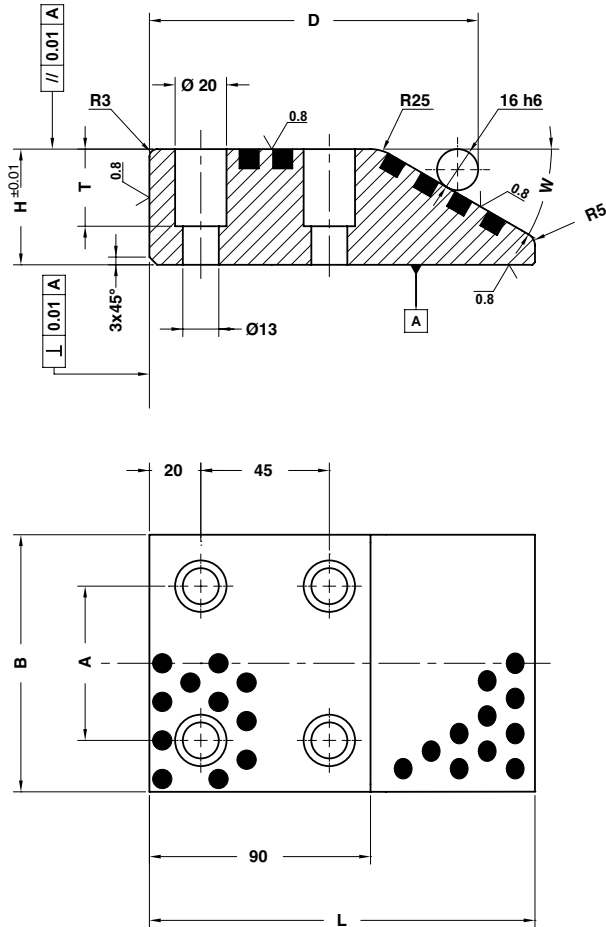


STOCK ↔ 3D WEB

ORDER EXAMPLE	Art.	B=125	H=60	L=170
	E44.11.	125	60	170

OMCR CODE	B	H	L	A	C	D
E44.11.10030125	100	30	125	60	50	132,8
E44.11.12530125	125	30	125	85	50	132,8
E44.11.16030125	160	30	125	120	50	132,8
E44.11.10045150	100	45	150	60	45	127,9
E44.11.12545150	125	45	150	85	45	127,9
E44.11.16045150	160	45	150	120	45	127,9
E44.11.10060170	100	60	170	60	45	127,9
E44.11.12560170	125	60	170	85	45	127,9
E44.11.16060170	160	60	170	120	45	127,9

**CAM DWELL WEAR PLATE SELF-LUBRICATING VDI 3357**  
**ÜBERLAUFKEILE BRONZE MIT FESTSCHMIERSTOFF VDI 3357**  
**CUNEO AUTOLUBRIFICANTE VDI 3357**

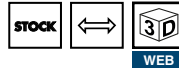
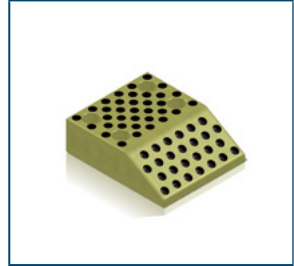
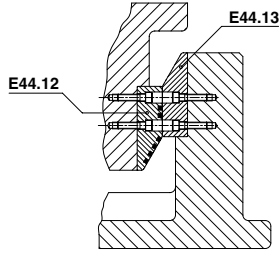




Notes

**Material:** Bronze + Graphite  
**HB > 190**

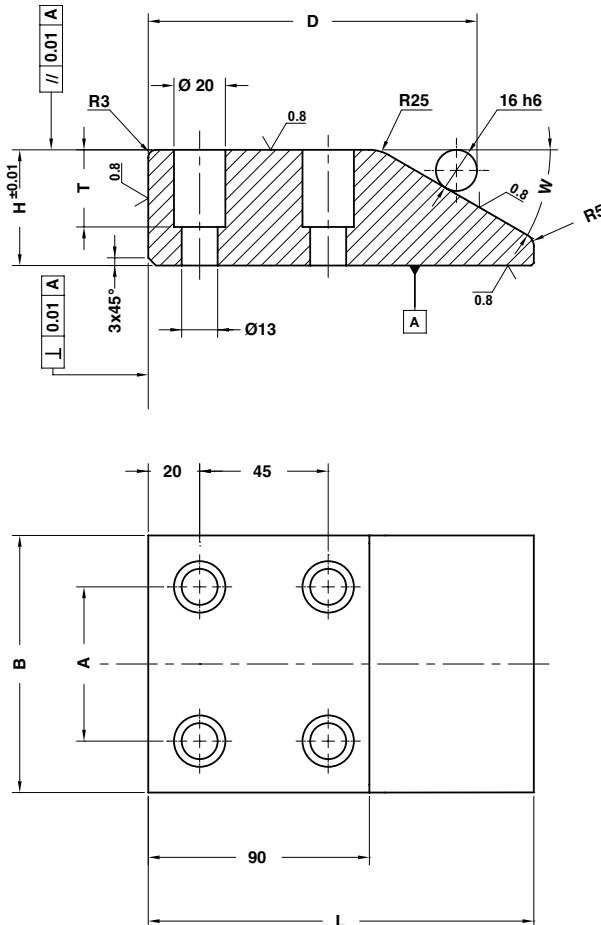
Application example



	Art.	B=125	H=60	L=170
	E44.12.	125	60	170

OMCR CODE	B	H	L	A	D	T	W
E44.12.10045150	100	45	150	60	127,86	30	30°
E44.12.12545150	125	45	150	85	127,86	30	30°
E44.12.15045150	150	45	150	110	127,86	30	30°
E44.12.10045170	100	45	170	60	143,37	30	20°
E44.12.12545170	125	45	170	85	143,37	30	20°
E44.12.15045170	150	45	170	110	143,37	30	20°
E44.12.10060170	100	60	170	60	127,86	45	30°
E44.12.12560170	125	60	170	85	127,86	45	30°
E44.12.15060170	150	60	170	110	127,86	45	30°

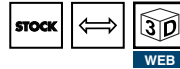
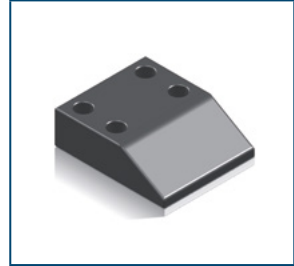
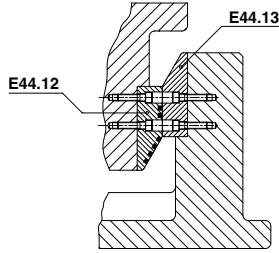
CAM DWELL WEAR PLATE STEEL VDI 3357  
ÜBERLAUFKEILE STAHL VDI 3357  
CUNEO IN ACCIAIO VDI 3357



Notes

**Material:** X155CrVMo121KU  
**HRC:** 58÷62

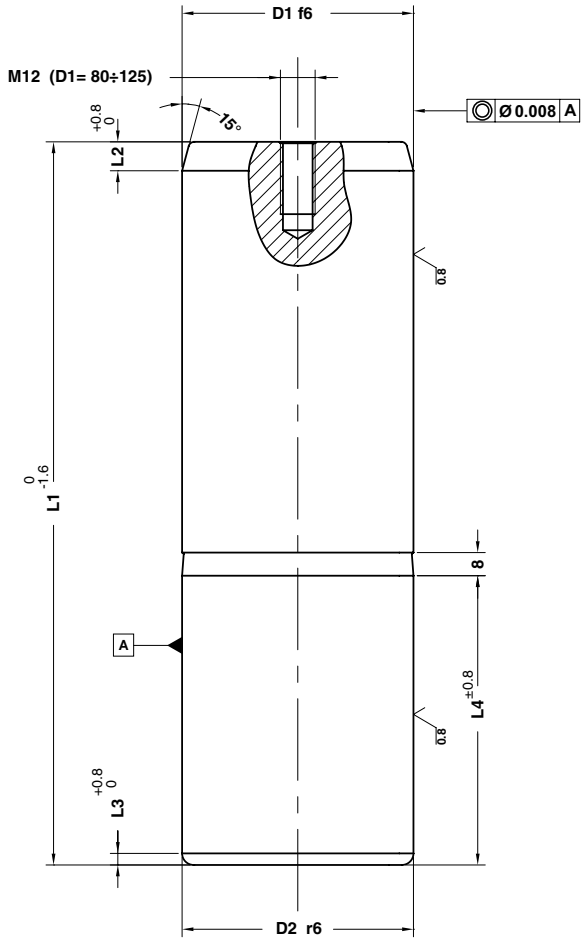
Application example



	Art.	B=125	H=60	L=170
	E44.13.	125	60	170

OMCR CODE	B	H	L	A	D	T	W
E44.13.10045150	100	45	150	60	127,86	30	30°
E44.13.12545150	125	45	150	85	127,86	30	30°
E44.13.15045150	150	45	150	110	127,86	30	30°
E44.13.10045170	100	45	170	60	143,37	30	20°
E44.13.12545170	125	45	170	85	143,37	30	20°
E44.13.15045170	150	45	170	110	143,37	30	20°
E44.13.10060170	100	60	170	60	127,86	45	30°
E44.13.12560170	125	60	170	85	127,86	45	30°
E44.13.15060170	150	60	170	110	127,86	45	30°

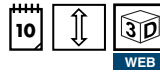
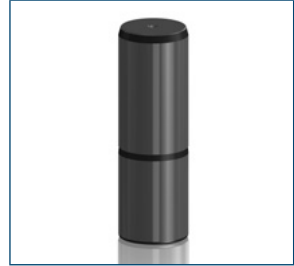
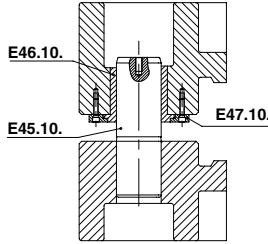
**GUIDE POST DIN 9833**  
**FÜHRUNGSSÄULE DIN 9833**  
**COLONNA DIN 9833**



Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

Application example



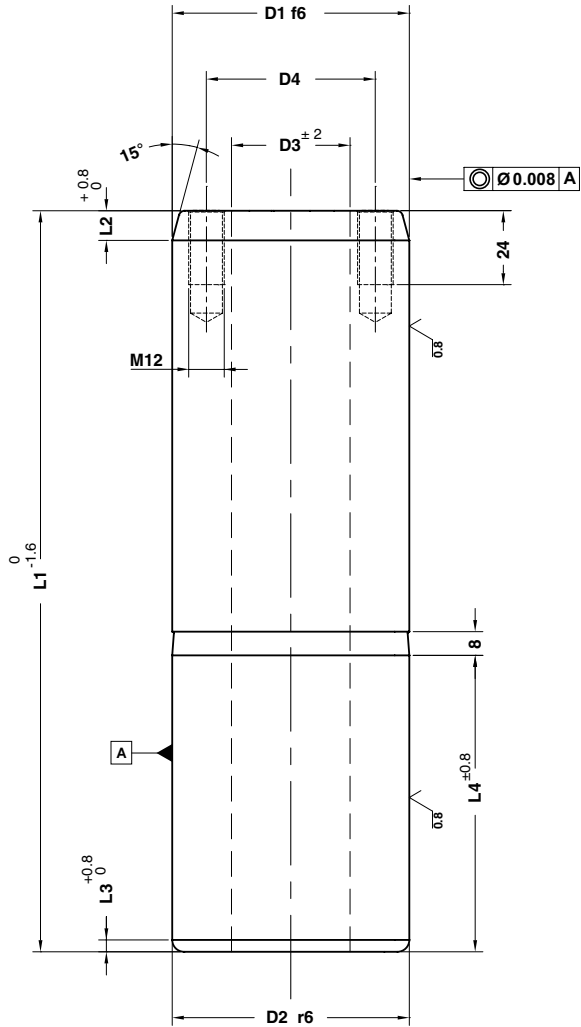
WEB



Art.	D1=80	L1=280
E45.10.	080	280

D1	25	32	40	50	63	80	100	125
D2	25	32	40	50	63	80	100	125
L2	8	8	8	10	10	10	10	12
L3	4	4	4	4	4	4	4	5
L4	40	45	56	70	80	100	125	140
L1								
100	•							
125	•							
140	•	•	•					
160	•	•	•	•				
180	•	•	•	•	•			
200		•	•	•	•			
224			•	•	•	•		
250			•	•	•	•	•	
280			•	•	•	•	•	
315				•	•	•	•	•
355				•	•	•	•	•
400					•	•	•	•
450							•	•
500							•	•

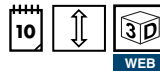
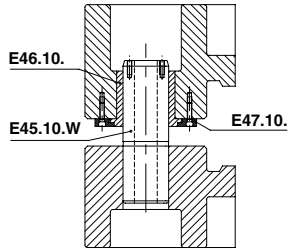
**GUIDE POST DIN 9833  
FÜHRUNGSSÄULE DIN 9833  
COLONNA DIN 9833**



### Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

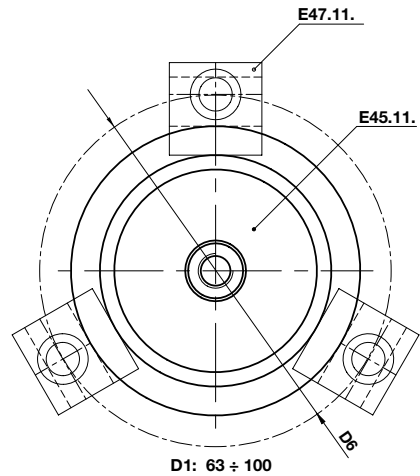
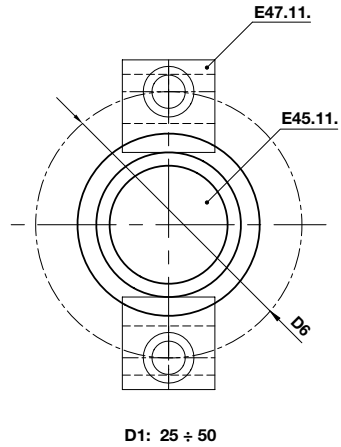
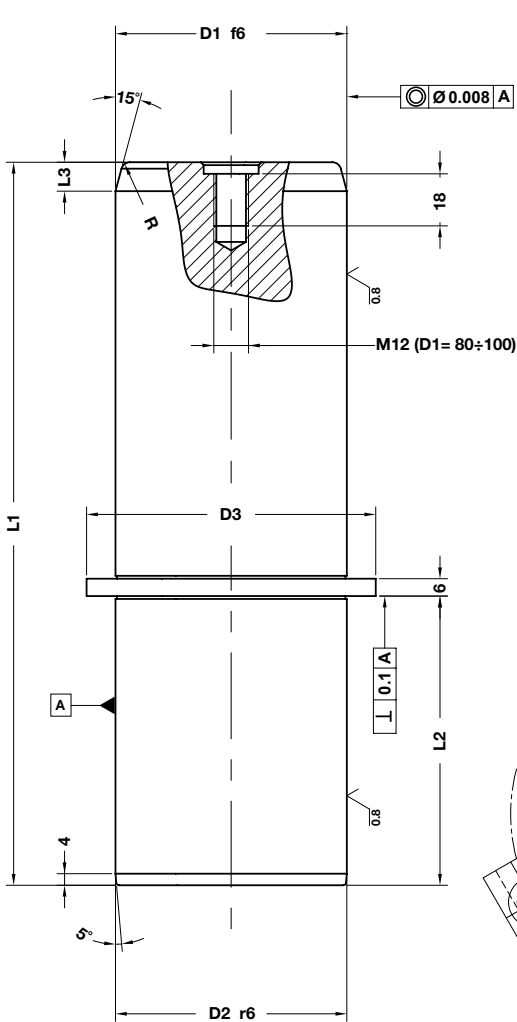
### Application example



ORDER EXAMPLE	Art.	D1=80	L1=224	Type
	E45.10.	080	224	W

D1	80	100	125	160
D2	80	100	125	160
D3	40	50	65	95
D4	58	72	90	132
L2	10	10	12	12
L3	4	4	4	5
L4	100	125	140	180
TYPE	W	W	W	W
L1				
224	•			
250	•			
280	•	•		
315	•	•	•	
355	•	•	•	
400	•	•	•	•
450			•	•
500			•	•
560				•

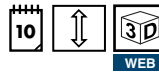
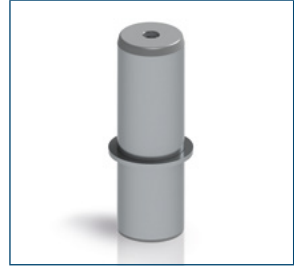
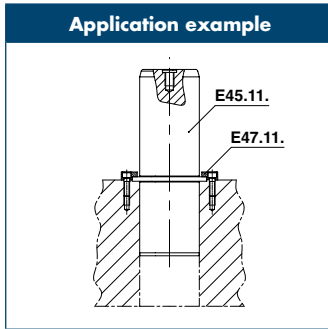
## GUIDE POST NAAMS FÜHRUNGSSÄULE NAAMS COLONNA NAAMS





**Notes**

**Material:** 16MnCr5  
**HRC:** 60÷62



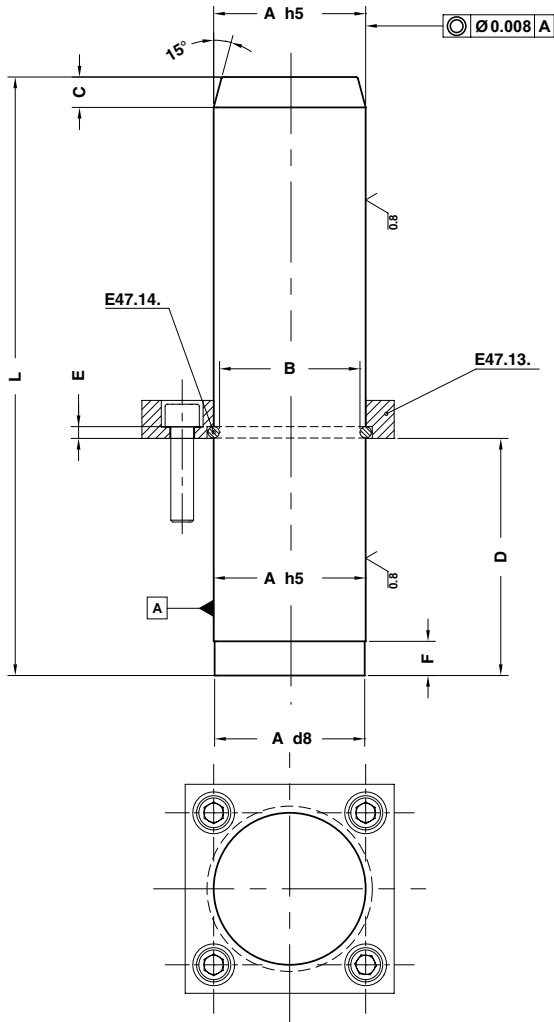
<b>ORDER EXAMPLE</b> 	<b>Art.</b>	<b>D1=80</b>	<b>L1=280</b>
	E45.11.	080	280

D1	25	32	40	50	63	80	100
D2	25	32	40	50	63	80	100
D3	33	40	50	60	80	90	110
D6	68	75	83	93	106	123	143
L2	40	45	56	70	80	100	125
L3	4	8	8	10	10	10	10
R	2	2	2	2,5	2,5	3	3

L1							
140	•	•					
160	•	•	•	•			
180	•	•	•	•			
200		•	•	•	•		
224			•	•	•		
250			•	•	•	•	
280				•	•	•	
315				•	•	•	•
355					•	•	•
400					•	•	•
500						•	•

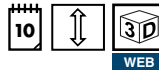
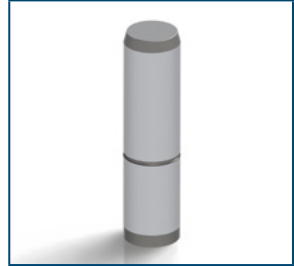
Sliding Elements

AFNOR GUIDE POST  
FÜHRUNGSSÄULE AFNOR  
COLONNA AFNOR



Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

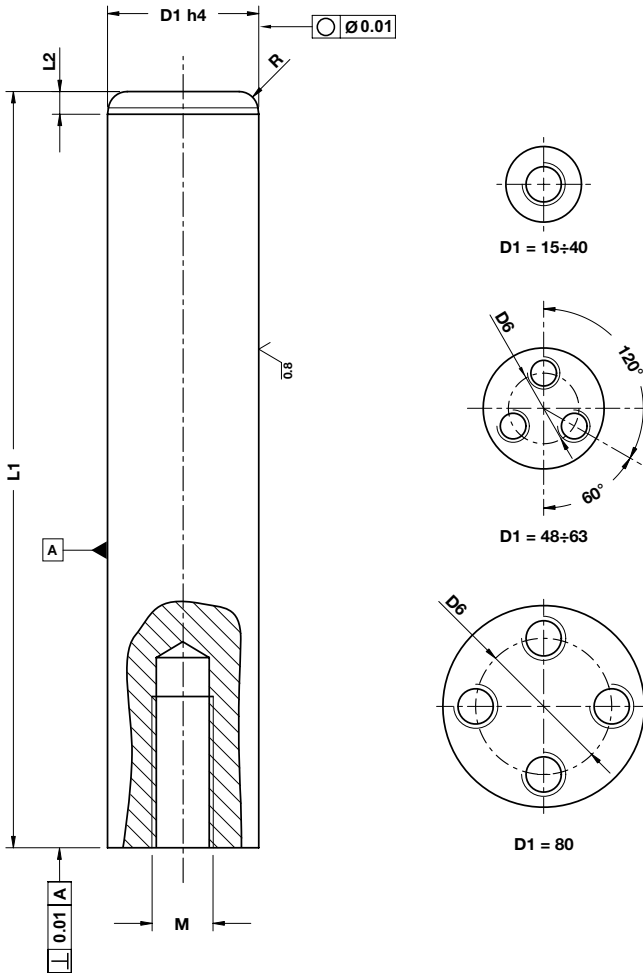


<b>ORDER EXAMPLE</b> 	<b>Art.</b>	<b>A=40</b>	<b>L=250</b>
	E45.12.	040	250

A	25	32	40	50	63	80	100
B	22,3	27,8	35,8	45,8	56,8	73,8	93,8
C	8	10	12	16	16	16	16
D	25	32	63	80	100	125	160
E	2,7	4,2	4,2	4,2	6,2	6,2	6,2
F	8	12	12	12	18	18	18
L							
100	•						
125	•	•					
140	•	•					
160	•	•					
180	•	•	•				
200	•	•	•	•			
220	•	•	•	•			
250		•	•	•	•		
280			•	•	•		
315			•	•	•	•	
355				•	•	•	•
400				•	•	•	•
450						•	•
500							•

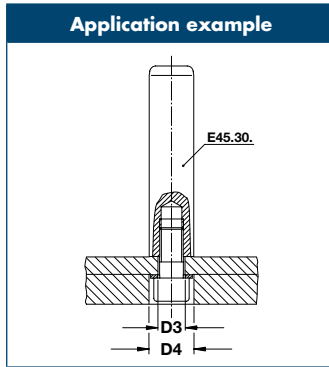
Sliding Elements

**GUIDE POST ENDWISE BOLT-ON TYPE  
FÜHRUNGSSÄULE ZUM ANSCHRAUBEN  
COLONNA DA AVVITARE**



**Notes**

**Material:** 16MnCr5  
**HRC:** 60÷62



ORDER EXAMPLE	Art.	D1=16	L1=100
	E45.30.	016	100

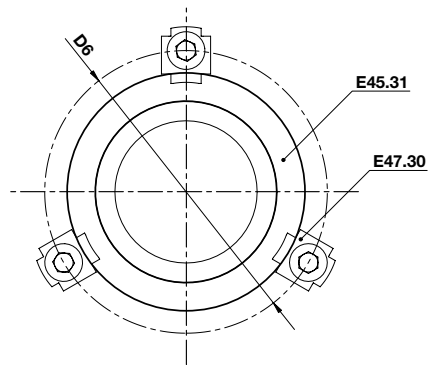
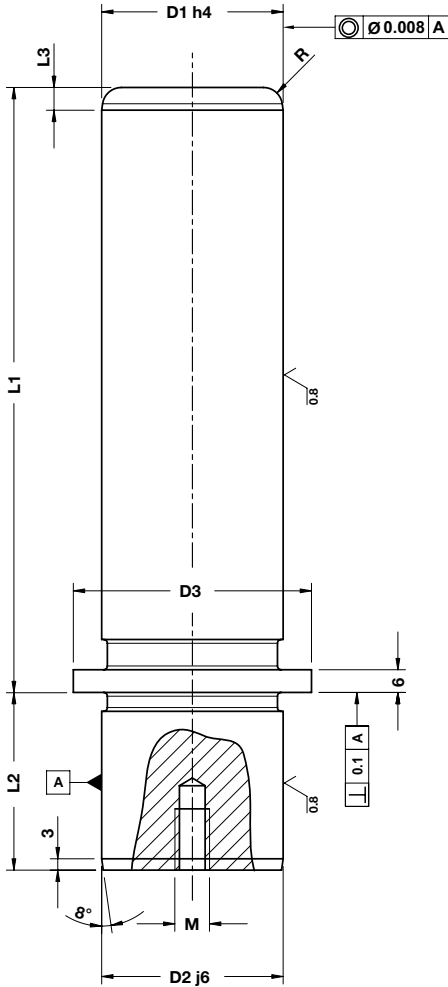
\* Screws tightening torque  
 Anziehdrehmoment  
 Coppie di serraggio delle viti

D1	15	16	19	20	24	25	30	32	38	40	48	50	60	63	80
D3	9	9	11	11	14	14	18	18	18	18	14	14	18	18	18
D4	17	17	20	20	22	22	28	28	28	28	22	22	28	28	28
D6	-	-	-	-	-	-	-	-	-	-	28	28	34	34	54
L2	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
M	8	8	10	10	12	12	16	16	16	16	12	12	16	16	16
R	3	3	3	3	5	5	5	5	5	5	7	7	7	7	7
Screws DIN 912 - 8.8	M8x35		M10x40		M12x40		M16x40				3x M12x50		3x M16x60		4x M16x60
Nm*	21	21	37	37	85	85	150	150	150	150	85	85	200	200	200

L1															
90	•	•													
100	•	•	•	•	•	•									
112	•	•	•	•	•	•									
125	•	•	•	•	•	•	•								
140	•	•	•	•	•	•	•	•							
160	•	•	•	•	•	•	•	•	•						
180	•	•	•	•	•	•	•	•	•	•					
200	•	•	•	•	•	•	•	•	•	•	•				
224	•	•	•	•	•	•	•	•	•	•	•	•			
250	•	•	•	•	•	•	•	•	•	•	•	•	•		
280	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
315	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
355	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
400			•	•	•	•	•	•	•	•	•	•	•	•	•
450					•	•	•	•	•	•	•	•	•	•	•
500					•	•	•	•	•	•	•	•	•	•	•
550							•	•	•	•	•	•	•	•	•
600								•	•	•	•	•	•	•	•
700									•	•	•	•	•	•	•
800										•	•	•	•	•	•

Sliding Elements

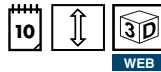
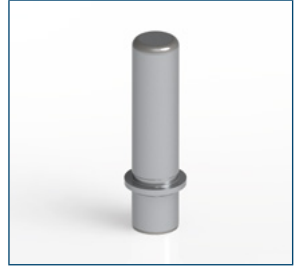
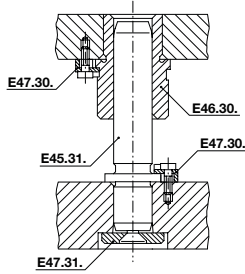
GUIDE POST WITH COLLAR  
FÜHRUNGSSÄULE MIT BUND  
COLONNA CON COLLARE



Notes

**Material:** 16MnCr5  
**HRC:** 60÷62

Application example



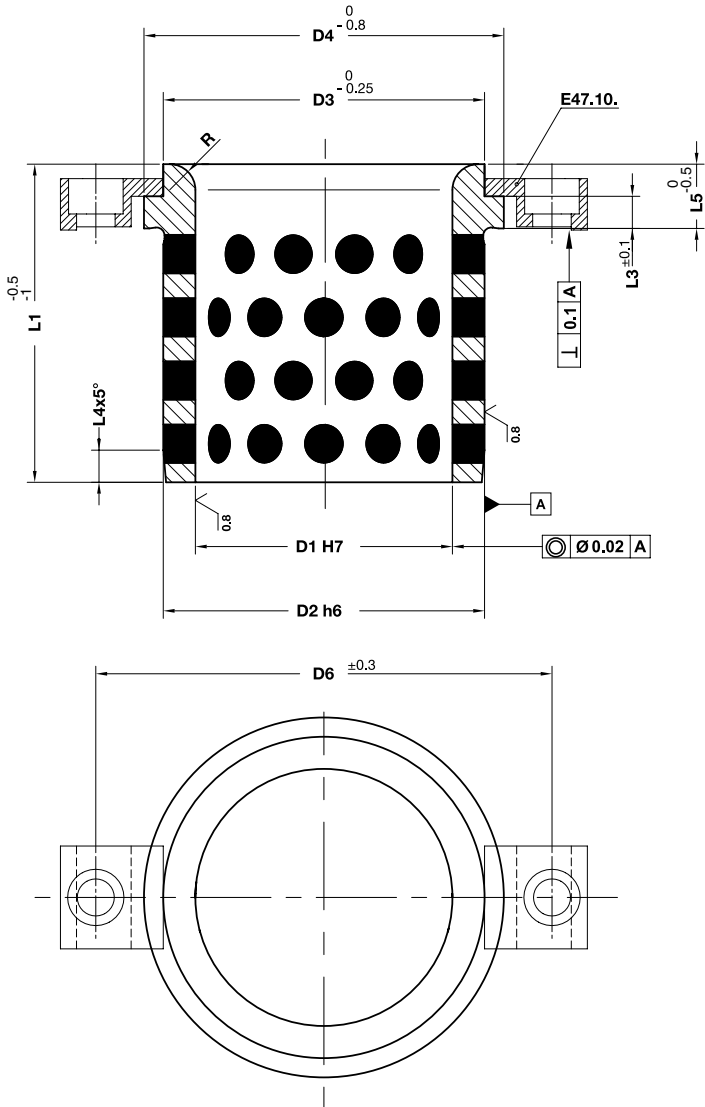
<b>ORDER EXAMPLE</b>	Art.	D1=16	L1=100
	E45.31.	016	100

D1	15	16	19	20	24	25	30	32	38	40	48	50	60	63	80
D2	15	16	19	20	24	25	30	32	38	40	48	50	60	63	80
D3	22	22	25	25	32	32	40	40	50	50	63	63	80	80	95
D6	33	33	36	36	43	43	51	51	61	61	74	74	91	91	106
L2	20	20	23	23	30	30	37	37	37	37	47	47	47	47	60
L3	4	4	4	4	6	6	6	6	6	6	8	8	8	8	8
M	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M8	M12
R	3	3	3	3	5	5	5	5	5	5	7	7	7	7	7

L1															
100	•	•	•	•	•	•									
112	•	•	•	•	•	•	•	•							
125	•	•	•	•	•	•	•	•	•	•					
140	•	•	•	•	•	•	•	•	•	•	•	•			
160	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
180	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
200	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
224					•	•	•	•	•	•	•	•	•	•	•
250					•	•	•	•	•	•	•	•	•	•	•
280							•	•	•	•	•	•	•	•	•
315							•	•	•	•	•	•	•	•	•
355									•	•	•	•	•	•	•
400											•	•	•	•	•

Sliding Elements

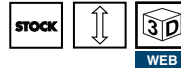
**BUSH SELF-LUBRICATING DIN 9834  
 FÜHRUNGSBUCHSE DIN 9834  
 BOCCOLA AUTOLUBRIFICANTE DIN 9834**





Notes

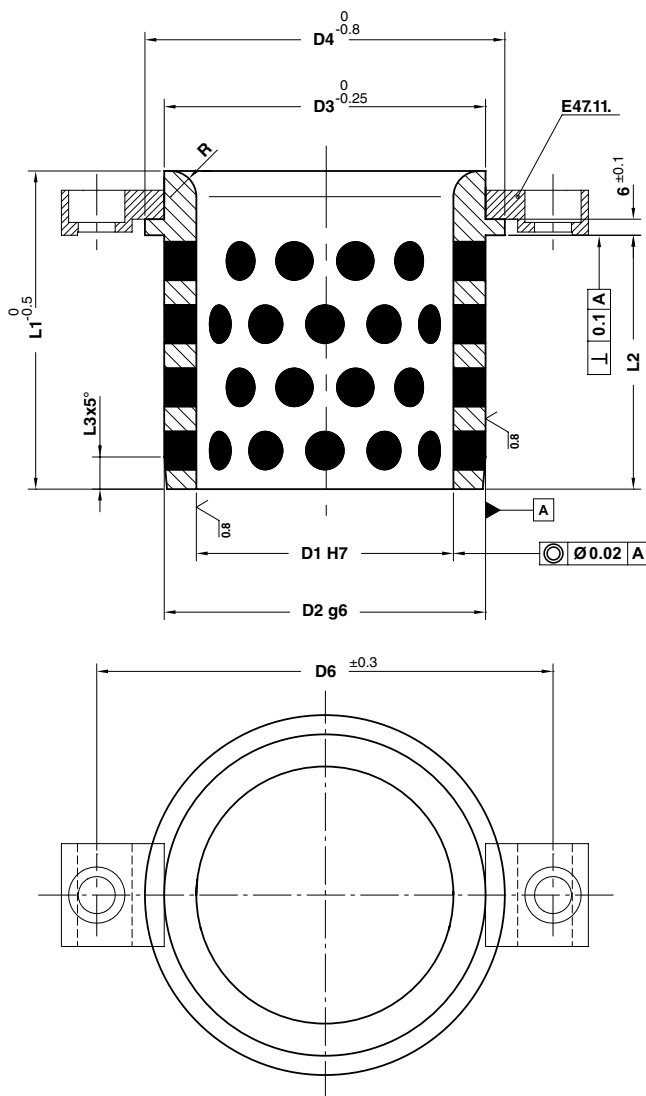
**Material:** Bronze + Graphite  
**HB** > 190



	Art.	D1=50	L1=71
	E46.10.	050	071

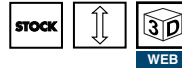
OMCR CODE	D1	D2	D3	D4	D6	L1	L3	L4	L5	R
E46.10.025040	25	32	32	40	58	40	6,3	3	10	3
E46.10.030050	30	40	40	50	66	50	6,3	4	12	3
E46.10.032050	32	40	40	50	66	50	6,3	4	12	3
E46.10.040063	40	50	50	63	79	63	6,3	5	15	3
E46.10.050071	50	63	63	71	89	71	6,3	6,3	17	5
E46.10.060080	60	80	80	90	123	80	10	8	19	6
E46.10.063080	63	80	80	90	123	80	10	8	19	6
E46.10.080100	80	100	100	112	143	100	10	10	22	8
E46.10.100125	100	125	125	140	168	125	10	12,5	21	10
E46.10.125160	125	160	160	180	203	160	10	16	30	12
E46.10.160200	160	200	200	220	243	200	10	16	32	18

**BUSH SELF-LUBRICATING NAAMS**  
**FÜHRUNGSBUCHSE NAAMS**  
**BOCCOLA AUTOLUBRIFICANTE NAAMS**



Notes

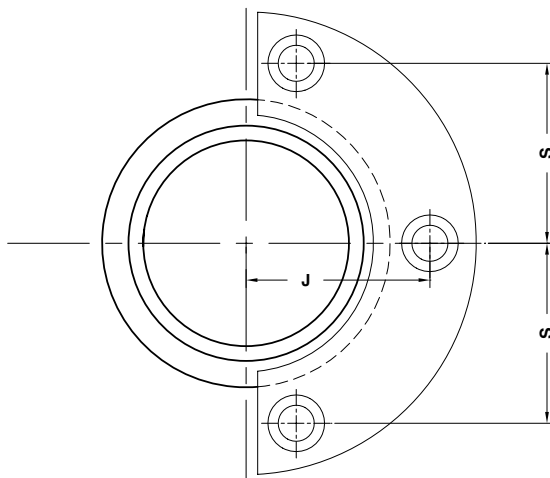
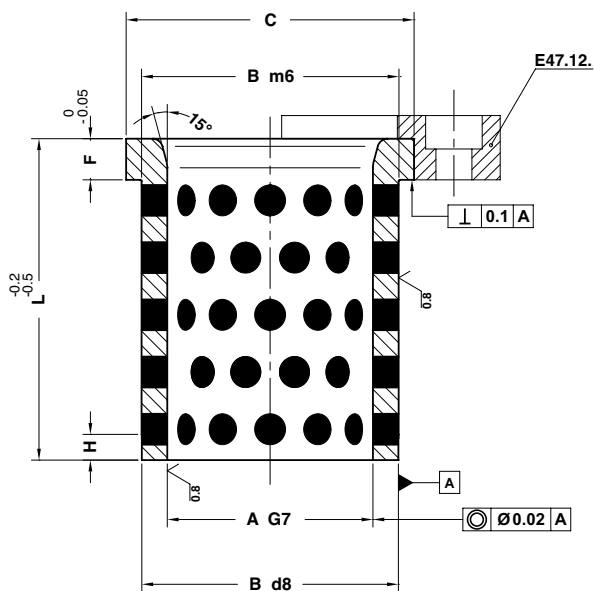
**Material:** Bronze + Graphite  
**HB** > 190



	Art.	D1=50	L1=71
	E46.11.	050	071

OMCR CODE	D1	D2	D3	D4	D6	L1	L2	L3	R
E46.11.025040	25	32	32	40	75	40	30	3	3
E46.11.032050	32	40	40	50	83	50	40	4	3
E46.11.040063	40	50	50	63	93	63	50	5	3
E46.11.050071	50	63	63	71	106	71	56	6,3	5
E46.11.063080	63	80	80	90	123	80	63	8	6
E46.11.080100	80	100	100	112	143	100	80	10	8
E46.11.100125	100	125	125	140	168	125	106	12,5	10
E46.11.125160	125	160	160	180	203	160	132	16	12

**BUSH SELF-LUBRICATING AFNOR**  
**FÜHRUNGSBUCHSE AFNOR**  
**BOCCOLA AUTOLUBRIFICANTE AFNOR**





**Warning:** other dimensions on request.

#### Notes

**Material:** Bronze + Graphite  
**HB** > 190

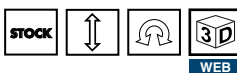
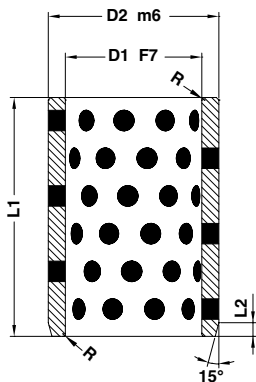


WEB

	Art.	A=50	L=80
	E46.12.	050	080

OMCR CODE	A	B	C	L	F	H	J	S
E46.12.025040	25	35	40	40	5	5	-	20
E46.12.032050	32	44	50	50	6	8	-	25
E46.12.040063	40	52	60	63	8	8	41	38,5
E46.12.050080	50	63	71	80	10	8	49	46
E46.12.063100	63	80	90	100	12	10	57,5	55
E46.12.080125	80	100	112	125	16	10	72	70
E46.12.100160	100	125	140	160	20	10	85	81

## BUSH SELF-LUBRICATING FÜHRUNGSBUCHSE BOCCOLA AUTOLUBRIFICANTE



**Warning:** other dimensions on request.

**Actung:** Sonstige Abmessungen auf Anfrage.

**Attenzione:** altre dimensioni a richiesta

### Notes

**Material:** Bronze + Graphite  
**HB** > 190

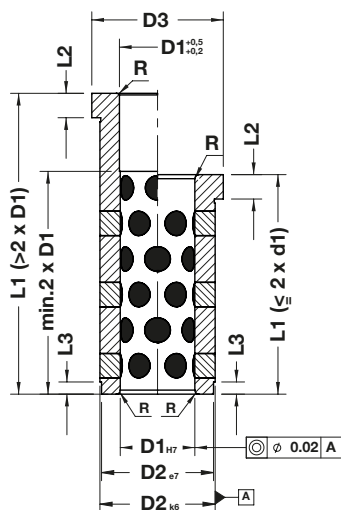
ORDER EXAMPLE	Art.	D1=25	D2=35	L=35
	E46.20.	025	035	035

D1	8	10	12	14	16	18	20	20	25	25	30	30	35
D2	12	14	18	20	22	24	28	30	33	35	38	40	45
R	0,5	0,5	0,5	0,5	0,75	0,75	0,75	0,75	0,75	0,75	0,75	0,75	0,75
L2	2	2	2	2	2	2	4	4	4	4	4	4	4
L1													
8	•	•											
10	•	•											
12	•	•	•	•	•								
15	•	•	•	•	•	•	•						
16			•	•	•	•	•	•	•	•			
20		•	•	•	•	•	•	•	•	•			•
25			•	•	•	•	•	•	•	•			•
30			•	•	•	•	•	•	•	•	•		•
35					•	•	•	•	•	•	•	•	•
40					•	•	•	•	•	•	•	•	•
50							•		•	•	•	•	•
60									•				•
70													
80													
90													
100													
110													
120													
130													
140													
150													

D1	40	40	45	45	50	50	50	50	60	60	65	70	70
D2	50	55	55	60	60	62	65	55	74	75	80	85	90
R	1,5	1,5	1,5	1,5	1,5	1,5	2	70	2	2	2	2	2
L2	4	4	4	4	4	4	4	4	4	4	4	4	4
L1													
8													
10													
12													
15													
16													
20	•	•											
25	•	•											
30	•	•	•	•		•	•		•	•			
35	•	•	•	•		•	•		•	•		•	
40	•	•	•	•	•	•	•	•	•	•		•	
50	•	•	•	•	•	•	•	•	•	•	•	•	•
60	•	•	•	•	•	•	•	•	•	•	•	•	•
70	•			•	•	•	•	•	•	•	•	•	•
80	•			•	•		•		•	•	•	•	•
90													
100							•			•		•	
110													
120													
130													
140													
150													

D1	75	75	80	80	90	110	120	130	140	150	160
D2	90	95	96	100	110	130	140	150	160	170	180
R	2	2	2	2	2	2	2	2	2	2	2
L2	4	4	4	4	4	4	4	4	4	4	4
L1											
8											
10											
12											
15											
16											
20											
25											
30											
35											
40			•	•							
50			•	•							
60	•	•	•	•	•						
70	•	•	•	•	•						
80	•	•	•	•	•	•	•				
90											
100	•	•	•	•	•	•	•	•	•	•	•
110											
120			•	•	•	•	•	•			
130								•			
140				•			•		•		
150										•	•

## BUSH SELF-LUBRICATING FÜHRUNGSBUCHSE BOCCOLA AUTOLUBRIFICANTE



WEB



**Warning:** other dimensions on request.

**Actung:** Sonstige Abmessungen auf Anfrage.

**Attenzione:** altre dimensioni a richiesta

### Notes

**Material:** Bronze + Graphite  
**HB** > 190

ORDER EXAMPLE	Art.	D1=18	D2=26	L1=36
	E46.21.	018	026	036

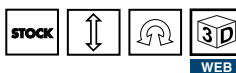
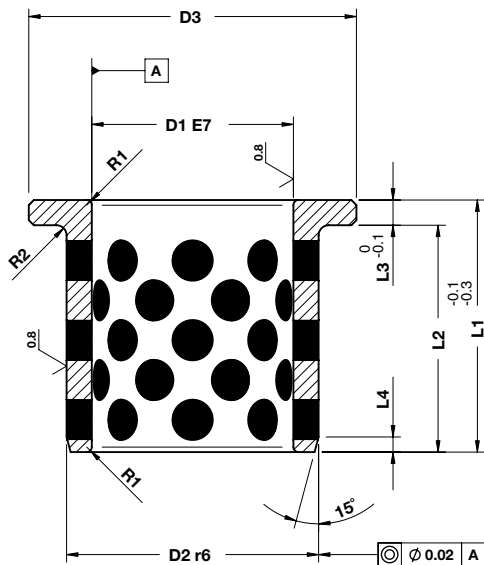
D1	9-10	12	14-15	16	18-20	22-24	30-32	40-42	50	60
D2	14	18	20	22	26	30	42	54	66	80
D3	16	23	25	27	31	35	47	60	72	86
R	0,5	11	1	2	2	3	3	3	3	3
L2	3	6	6	6	6	6	6	10	10	20
L3	1,5	2	2	2	2	3	4	5	5	5

L1										
12	•									
17	•	•	•	•	•	•				
22	•	•	•	•	•	•				
27	•	•	•	•	•	•	•			
36	•	•	•	•	•	•	•			
46	•	•	•	•	•	•	•	•		
56	•	•	•	•	•	•	•	•		
66					•	•	•	•		
76					•	•	•	•	•	
86						•	•	•	•	
96						•	•	•	•	•
116							•	•	•	•
136								•	•	•
156								•	•	•
196									•	•





**BUSH SELF-LUBRICATING**  
**FÜHRUNGSBUCHSE**  
**BOCCOLA AUTOLUBRIFICANTE**



### Notes

**Material:** Bronze + Graphite  
**HB > 190**

ORDER EXAMPLE	Art.	D1=10	L1=20
	E46.22.	010	020

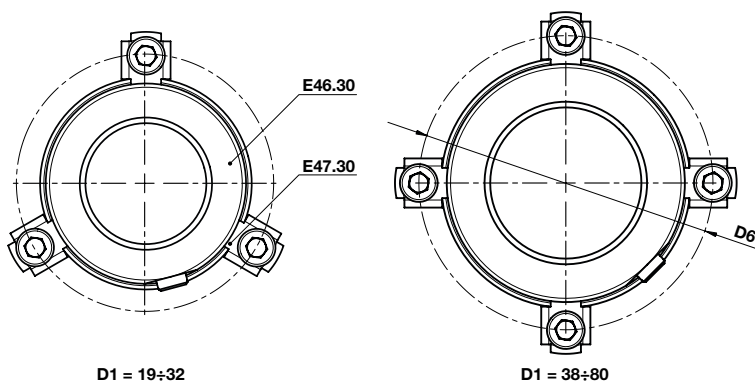
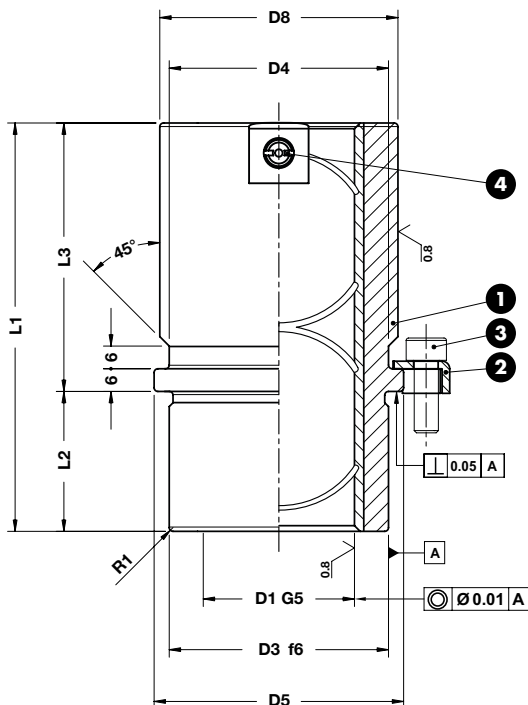
OMCR CODE	D1	D2	D3	L1	L2	L3	L4	R1	R2
E46.22.010015	10	14	22	15	13	2	2	1	0,4
E46.22.010020	10	14	22	20	18	2	2	1	0,4
E46.22.012015	12	18	25	15	12	3	2	1	0,4
E46.22.012020	12	18	25	20	17	3	2	1	0,4
E46.22.013015	13	19	26	15	12	3	2	1	0,4
E46.22.013020	13	19	26	20	17	3	2	1	0,4
E46.22.014015	14	20	27	15	12	3	2	1	0,4
E46.22.014020	14	20	27	20	17	3	2	1	0,4
E46.22.015015	15	21	28	15	12	3	2	1	0,5

OMCR CODE	D1	D2	D3	L1	L2	L3	L4	R1	R2
E46.22.015020	15	21	28	20	17	3	2	1	0,5
E46.22.015025	15	21	28	25	22	3	2	1	0,5
E46.22.015030	15	21	28	30	27	3	2	1	0,5
E46.22.016015	16	22	29	15	12	3	2	1	0,5
E46.22.016020	16	22	29	20	17	3	2	1	0,5
E46.22.016025	16	22	29	25	22	3	2	1	0,5
E46.22.016030	16	22	29	30	27	3	2	1	0,5
E46.22.020015	20	30	40	15	10	5	3	2	0,5
E46.22.020020	20	30	40	20	15	5	3	2	0,5
E46.22.020025	20	30	40	25	20	5	3	2	0,5
E46.22.020030	20	30	40	30	25	5	3	2	0,5
E46.22.020040	20	30	40	40	35	5	3	2	0,5
E46.22.025015	25	35	45	15	10	5	3	2	0,5
E46.22.025020	25	35	45	20	15	5	3	2	0,5
E46.22.025025	25	35	45	25	20	5	3	2	0,5
E46.22.025030	25	35	45	30	25	5	3	2	0,5
E46.22.025040	25	35	45	40	35	5	3	2	0,5
E46.22.030020	30	40	50	20	15	5	3	2	0,5
E46.22.030025	30	40	50	25	20	5	3	2	0,5
E46.22.030030	30	40	50	30	25	5	3	2	0,5
E46.22.030035	30	40	50	35	30	5	3	2	0,5
E46.22.030040	30	40	50	40	35	5	3	2	0,5
E46.22.030050	30	40	50	50	45	5	3	2	0,5
E46.22.031020	31,5	40	50	20	15	5	3	2	0,6
E46.22.031035	31,5	40	50	35	30	5	3	2	0,6
E46.22.035020	35	45	60	20	15	5	3	2	0,6
E46.22.035030	35	45	60	30	25	5	3	2	0,6
E46.22.035040	35	45	60	40	35	5	3	2	0,6
E46.22.035050	35	45	60	50	45	5	3	2	0,6
E46.22.040020	40	50	65	20	15	5	3	2	0,6
E46.22.040030	40	50	65	30	25	5	3	2	0,6
E46.22.040040	40	50	65	40	35	5	3	2	0,6
E46.22.040050	40	50	65	50	45	5	3	2	0,6
E46.22.045030	45	55	70	30	25	5	3	2	0,6
E46.22.045040	45	55	70	40	35	5	3	2	0,6
E46.22.045050	45	55	70	50	45	5	3	2	0,6
E46.22.045060	45	55	70	60	55	5	3	2	0,6
E46.22.050030	50	60	75	30	25	5	3	2	0,6
E46.22.050040	50	60	75	40	35	5	3	2	0,6
E46.22.050050	50	60	75	50	45	5	3	2	0,6
E46.22.050060	50	60	75	60	55	5	3	2	0,6
E46.22.055040	55	65	80	40	35	5	3	2	0,7
E46.22.055060	55	65	80	60	55	5	3	2	0,7
E46.22.060040	60	75	90	40	32,5	7,5	4	3	0,7
E46.22.060050	60	75	90	50	42,5	7,5	4	3	0,7
E46.22.060080	60	75	90	80	72,5	7,5	4	3	0,7
E46.22.063067	63	75	85	67,5	60	7,5	4	3	0,7
E46.22.070050	70	85	105	50	42,5	7,5	4	3	0,7
E46.22.070080	70	85	105	80	72,5	7,5	4	3	0,7
E46.22.075060	75	90	110	60	52,5	7,5	4	3	0,7
E46.22.080060	80	100	120	60	50	10	4	3	0,8
E46.22.080080	80	100	120	80	70	10	4	3	0,8
E46.22.080100	80	100	120	100	90	10	4	3	0,8
E46.22.090060	90	110	130	60	50	10	4	3	0,8
E46.22.090080	90	110	130	80	70	10	4	3	0,8
E46.22.100080	100	120	150	80	70	10	4	3	0,8
E46.22.100100	100	120	150	100	90	10	4	3	0,8
E46.22.120080	120	140	170	80	70	10	4	3	0,8
E46.22.120100	120	140	170	100	90	10	4	3	0,8

Sliding Elements

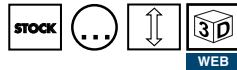


**BUSH BRONZEPLATED ISO 9448-6**  
**FÜHRUNGSBUCHSE MIT BUND BRONZEPLATTIERT ISO 9448-6**  
**BOCCOLA CON RIPORTO IN BRONZO ISO 9448-6**



Notes

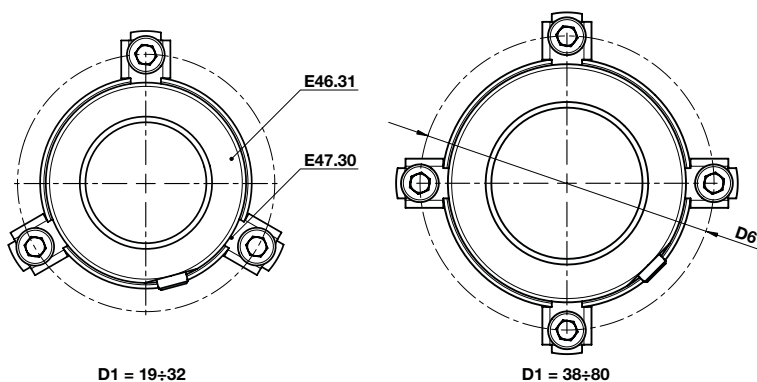
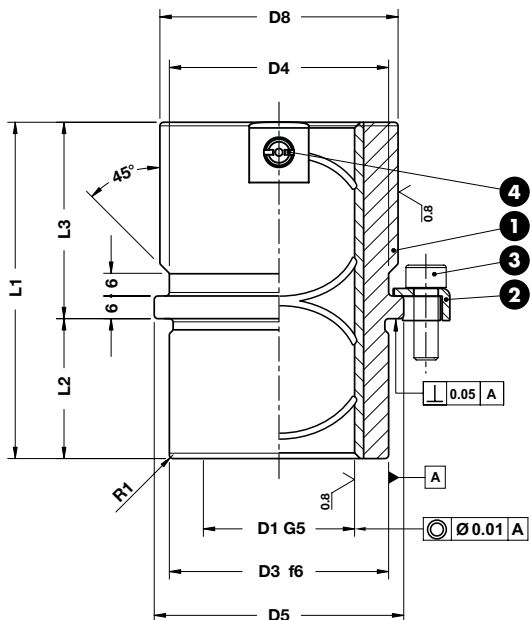
- 1 **Material:** Steel + Bronze - **HRC:** 58÷60 - **HB** > 190
- 2 E47.30.
- 3 M6x20 DIN 7984
- 4 Grease nipple DIN 3405 - A M8x1



	Art.	D1=20	L1=59
	E46.30.	020	059

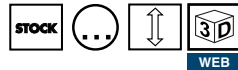
OMCR CODE	D1	D3	D4	D5	D6	D8	L1	L2	L3
E46.30.019059	19	32	32	40	52	39	59	23	36
E46.30.020059	20	32	32	40	52	39	59	23	36
E46.30.024079	24	40	40	48	60	46	79	23	56
E46.30.025079	25	40	40	48	60	46	79	23	56
E46.30.030093	30	48	48	56	67	53	93	30	63
E46.30.032093	32	48	48	56	67	53	93	30	63
E46.30.038108	38	58	58	66	77	63	108	37	71
E46.30.040108	40	58	58	66	77	63	108	37	71
E46.30.048127	48	70	70	80	91	77	127	47	80
E46.30.050127	50	70	70	80	91	77	127	47	80
E46.30.060150	60	85	85	95	106	92	150	60	90
E46.30.063150	63	85	85	95	106	92	150	60	90
E46.30.080150	80	105	105	118	129	115	150	60	90

**BUSH BRONZEPLATED ISO 9448-6**  
**FÜHRUNGSBUCHSE MIT BUND BRONZEPLATTIERT ISO 9448-6**  
**BOCCOLA CON RIPORTO IN BRONZO ISO 9448-6**



Notes

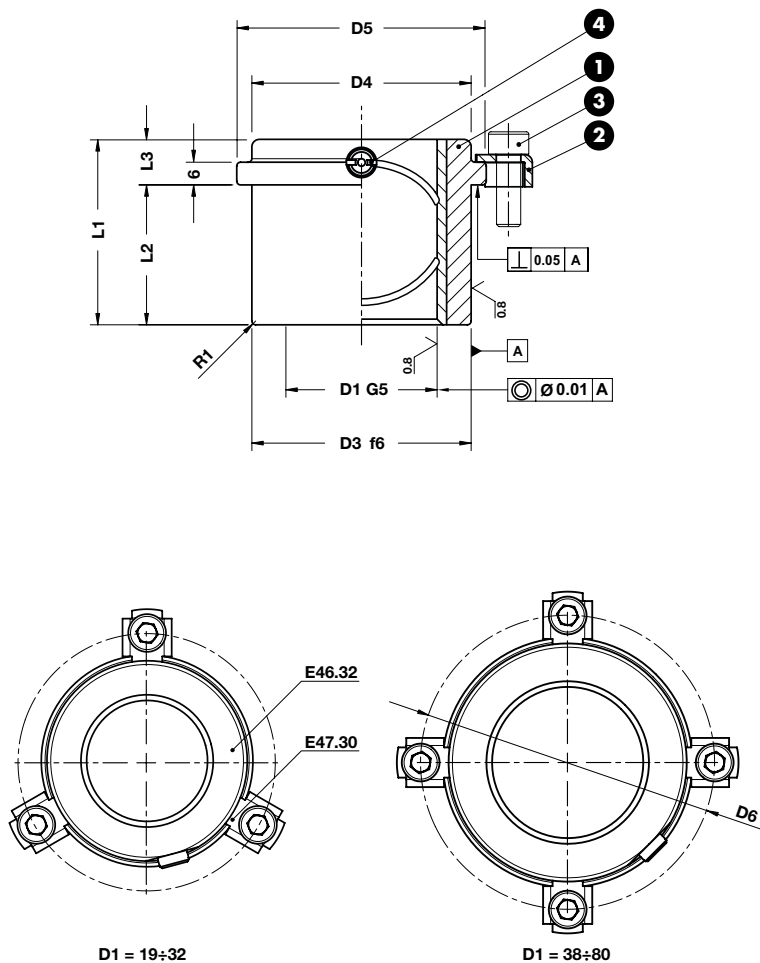
- 1 **Material:** Steel + Bronze - **HRC:** 58÷60 - **HB** > 190
- 2 E47.30.
- 3 M6x20 DIN 7984
- 4 Grease nipple DIN 3405 - A M8x1



	Art.	D1=20	L1=43
	E46.31.	020	043

OMCR CODE	D1	D3	D4	D5	D6	D8	L1	L2	L3
E46.31.019043	19	32	32	40	52	39	43	23	20
E46.31.020043	20	32	32	40	52	39	43	23	20
E46.31.024059	24	40	40	48	60	46	59	23	36
E46.31.025059	25	40	40	48	60	46	59	23	36
E46.31.030075	30	48	48	56	67	53	75	30	45
E46.31.032075	32	48	48	56	67	53	75	30	45
E46.31.038082	38	58	58	66	77	63	82	37	45
E46.31.040082	40	58	58	66	77	63	82	37	45
E46.31.048097	48	70	70	80	91	77	97	47	50
E46.31.050097	50	70	70	80	91	77	97	47	50
E46.31.060116	60	85	85	95	106	92	116	60	56
E46.31.063116	63	85	85	95	106	92	116	60	56
E46.31.080120	80	105	105	118	129	115	120	60	60

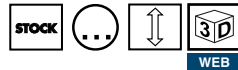
**BUSH BRONZEPLATED ISO 9448-6**  
**FÜHRUNGSBUCHSE MIT BUND BRONZEPLATTIERT ISO 9448-6**  
**BOCCOLA CON RIPORTO IN BRONZO ISO 9448-6**





Notes

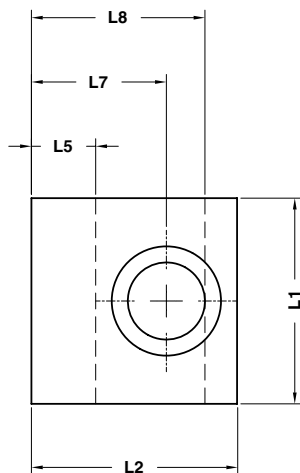
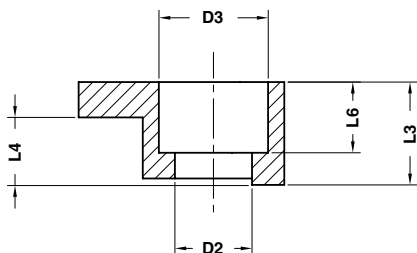
- 1 **Material:** Steel + Bronze - **HRC:** 58÷60 - **HB** > 190
- 2 E47.30.
- 3 M6x20 DIN DIN 7984
- 4 Grease nipple DIN 3405 - A M8x1



ORDER EXAMPLE	Art.	D1=20	L1=35
	E46.32.	020	035

OMCR CODE	D1	D3	D4	D5	D6	L1	L2	L3
E46.32.019035	19	32	32	40	52	35	23	12
E46.32.020035	20	32	32	40	52	35	23	12
E46.32.024035	24	40	40	48	60	35	23	12
E46.32.025035	25	40	40	48	60	35	23	12
E46.32.030042	30	48	48	56	67	42	30	12
E46.32.032042	32	48	48	56	67	42	30	12
E46.32.038052	38	58	58	66	77	52	37	15
E46.32.040052	40	58	58	66	77	52	37	15
E46.32.048065	48	70	70	80	91	65	47	18
E46.32.050065	50	70	70	80	91	65	47	18
E46.32.060080	60	85	85	95	106	80	60	20
E46.32.063080	63	85	85	95	106	80	60	20
E46.32.080080	80	105	105	118	129	80	60	20

**TOE CLAMP FOR BUSH SELF-LUBRICATING DIN 9832**  
**HALTESTÜCK FÜR BUCHSE DIN 9832**  
**RITEGNO PER BOCCOLA AUTOLUBRIFICANTE DIN 9832**

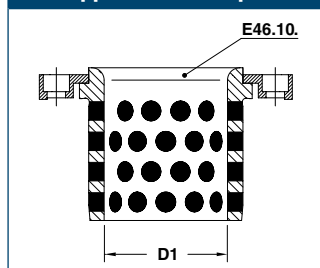


### Notes

**Material:** CK45

Screw included and delivered in plastic bag of 4 pieces each.

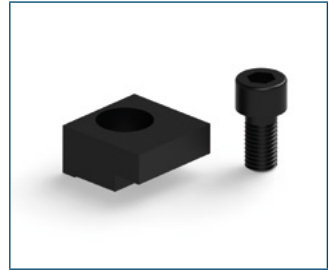
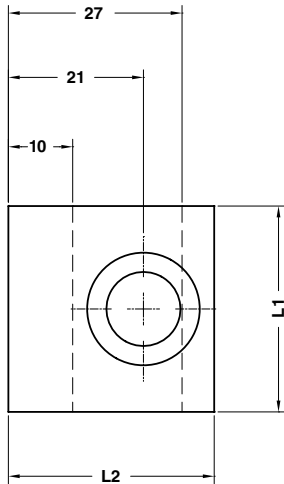
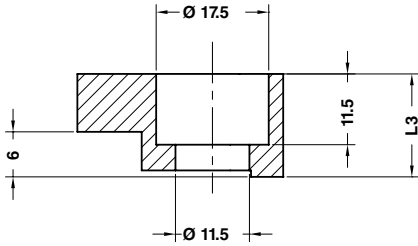
### Application example



ORDER EXAMPLE	Art.	L1=20	L2=20	L3=10
	E47.10.	20	20	10

OMCR CODE	D1	L1	L2	L3	L4	L5	L6	L7	L8	D2	D3	Screw
E47.10.202010	25÷50	20	20	10	6,3	5	7	12,5	16	7	11	M6x16 DIN 912
E47.10.323216	63÷160	32	32	16	10	10	11,5	21	27	11,5	18	M10x20 DIN 912

**TOE CLAMP FOR BUSH SELF-LUBRICATING NAAMS**  
**HALTESTÜCK FÜR BUCHSE NAAMS**  
**RITEGNO PER BOCCOLA AUTOLUBRIFICANTE NAAMS**

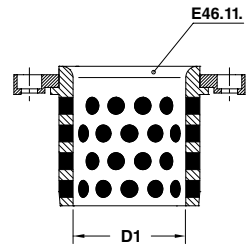


**Notes**

**Material:** CK45

Screw included and delivered in plastic bag of 4 pieces each.

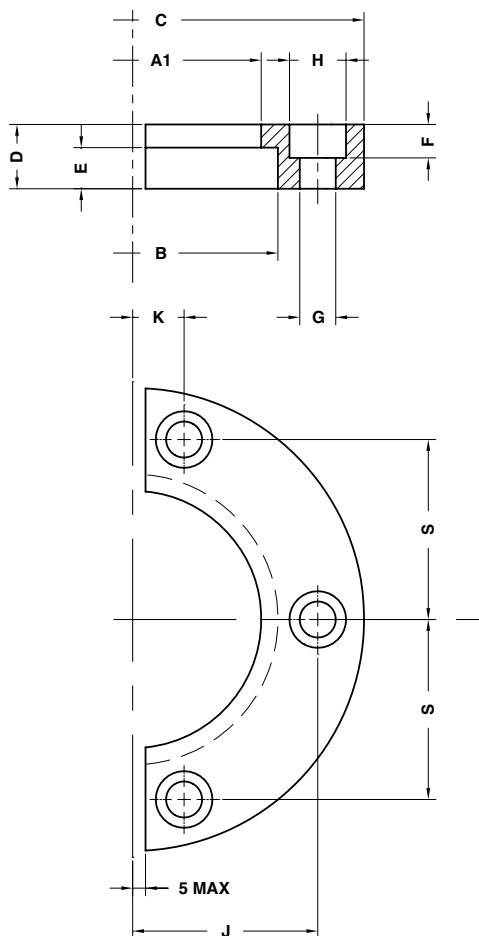
**Application example**



ORDER EXAMPLE	Art.	L1=32	L2=32	L3=16
	E47.11.	32	32	16

OMCR CODE	L1	L2	L3	Screw
E47.11.323216	32	32	16	M10x20 DIN 912

## TOE CLAMP FOR BUSH SELF-LUBRICATING AFNOR HALTESTÜCK FÜR BUCHSE AFNOR RITEGNO PER BOCCOLA AUTOLUBRIFICANTE AFNOR

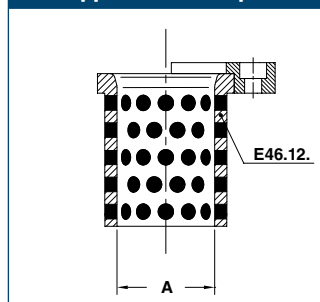


### Notes

**Material:** CK45

Screw included and delivered in plastic bag of 3 pieces each.

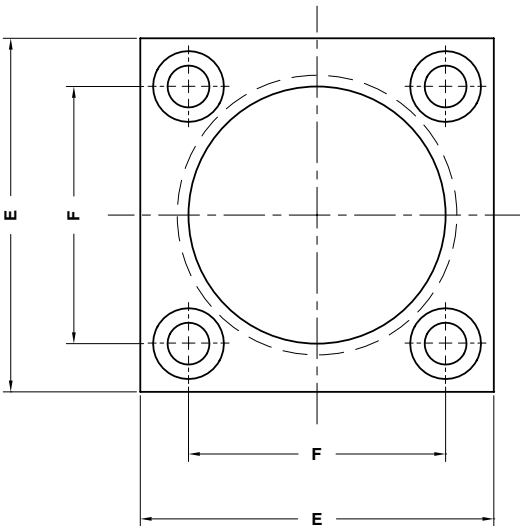
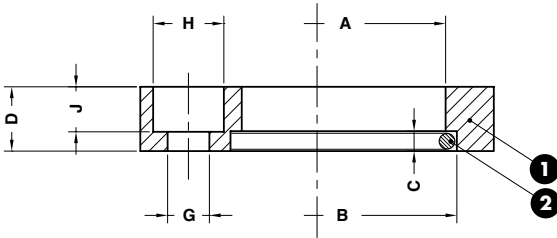
### Application example



ORDER EXAMPLE	Art.	A=63
	E47.12.	063

OMCR CODE	A	A1	B	C	D	E	F	G	H	K	J	S
E47.12.025	25	32	41	72	10	5	7	6,6	12	20	-	20
E47.12.032	32	40	51	80	12	6	7	6,6	12	21	-	25
E47.12.040	40	50	61	100	12	8	7	6,6	12	14	41	38,5
E47.12.050	50	63	72	125	16	10	9	9	16	17	49	46
E47.12.063	63	80	91	140	20	12	11	11	18	17	57,5	55
E47.12.080	80	100	113	180	25	16	13	14	22	20	72	70
E47.12.100	100	125	141	200	32	20	13	14	22	25	85	81

## GUIDE POST RETAINER AFNOR HALTESTÜCK FÜR FÜHRUNGSSÄULE AFNOR RITEGNO PER COLONNA GUIDA AFNOR



### Notes

1 Material: CK45

2 E47.14

Screw included and delivered in plastic bag of 4 pieces each.

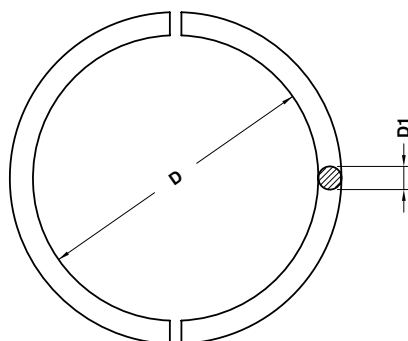
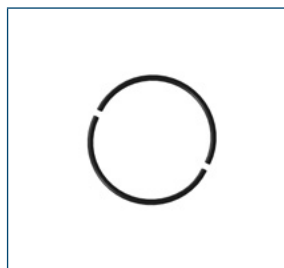
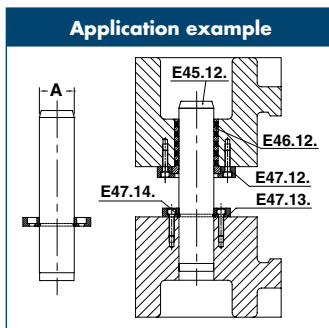
ORDER EXAMPLE	Art.	A=63
	E47.13.	063

OMCR CODE	A	B	C	D	E	F	G	H	J
E47.13.025	25	28	2,7	10	45	31	6,6	12	7
E47.13.032	32	37	4,2	10	56	36	6,6	12	7
E47.13.040	40	45	4,2	12	70	50	6,6	12	7
E47.13.050	50	55	4,2	14	80	55	9	16	9
E47.13.063	63	70	6,2	18	100	70	11	18	11
E47.13.080	80	87	6,2	20	110	80	13	22	14
E47.13.100	100	107	6,2	20	140	100	13	22	14

## GUIDE POST RETAINER RING AFNOR HALTERING FÜR FÜHRUNGSSÄULE AFNOR ANELLO DI TENUTA PER COLONNA GUIDA AFNOR

**Notes**

**Material:** St37



	Art.	A=63
	E47.14.	063

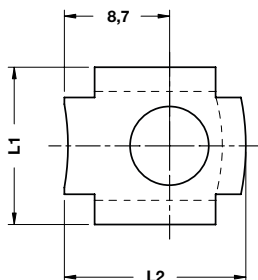
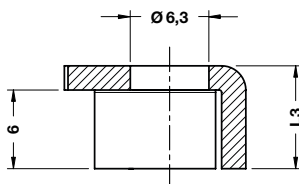
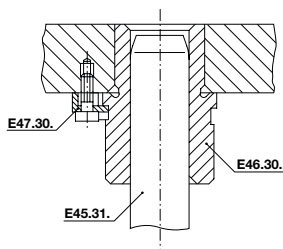
OMCR CODE	A	D	D1
E47.14.025	25	22,5	2,5
E47.14.032	32	28	4
E47.14.040	40	36	4
E47.14.050	50	46	4
E47.14.063	63	57	6
E47.14.080	80	74	6
E47.14.100	100	94	6

## TOE CLAMP HALTESTÜCK RITEGNO

### Notes

**Material:** Steel  
Screw not included

### Application example



ORDER EXAMPLE	Art.	L1=13	L2=15	L3=8,5
	E47.30.	13	15	85

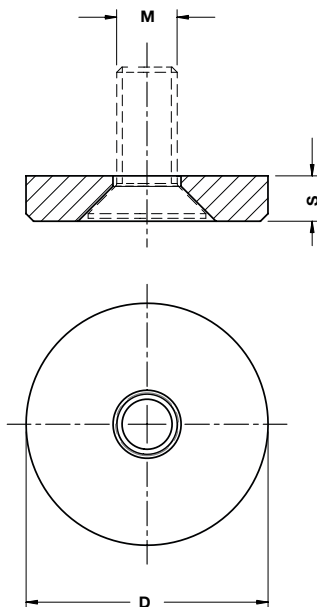
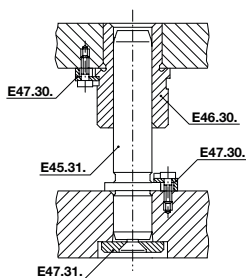
OMCR CODE	L1	L2	L3	Screw
E47.30.131585	13	15	8,5	M6x20 DIN 7984

## RETAINING DISC HALTESCHEIBE DISCO DI FISSAGGIO

### Notes

**Material:** CK45  
Screw not included

### Application example



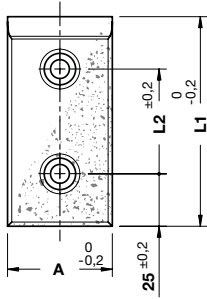
ORDER EXAMPLE	Art.	D= 25
	E47.31.	025

OMCR CODE	D	S	M
E47.31.022	22	6	8
E47.31.025	25	6	8
E47.31.032	32	6	8
E47.31.040	40	6	8
E47.31.050	50	6	8
E47.31.060	60	6	8
E47.31.070	70	6	8
E47.31.093	93	12	12

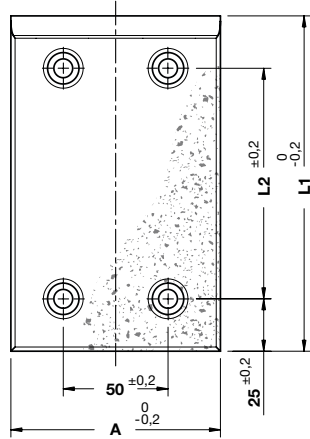




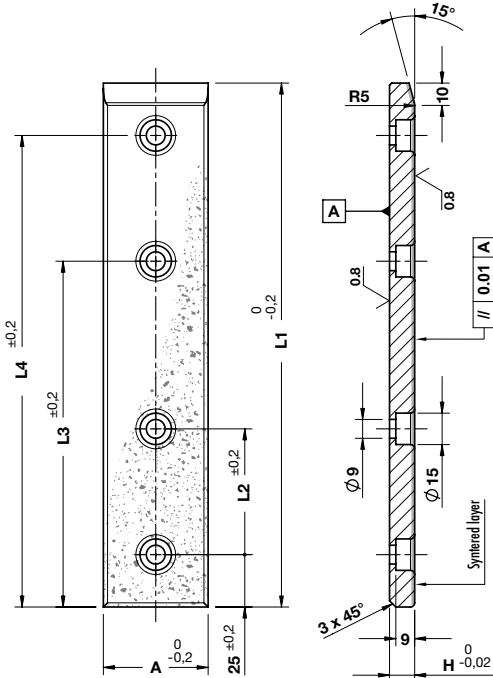
**SINTERED STEEL WEAR PLATE TYPE VDI 3357**  
**GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE TIP VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO SINTERIZZATO TIPO VDI 3357**



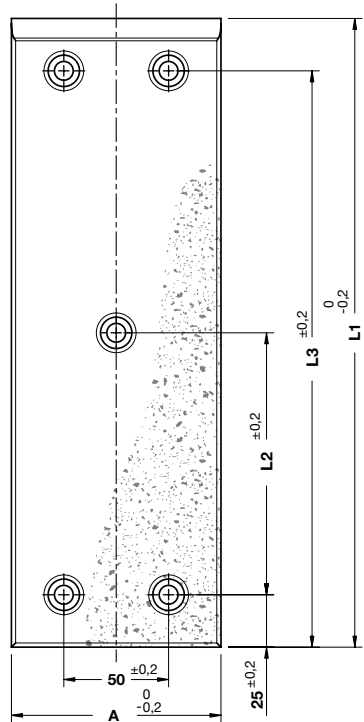
**FORM A**



**FORM B**



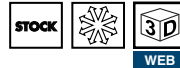
**FORM C**



**FORM D**

Notes

**Material:** Steel + SINT300®

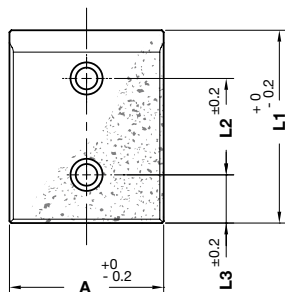


WEB

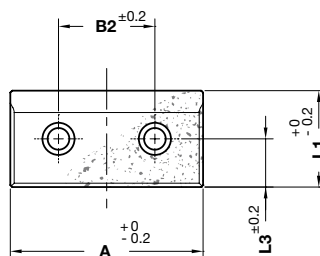
	Art.	A=50	H=12	L1=80
	E50.06.	050	12	080

OMCR CODE	A	H	L1	L2	L3	L4	FORM
E50.06.03012080	30	12	80	30	-	-	A
E50.06.03012100	30	12	100	50	-	-	A
E50.06.03012125	30	12	125	75	-	-	A
E50.06.03012160	30	12	160	110	-	-	A
E50.06.03012200	30	12	200	150	-	-	A
E50.06.04012080	40	12	80	30	-	-	A
E50.06.04012100	40	12	100	50	-	-	A
E50.06.04012125	40	12	125	75	-	-	A
E50.06.04012160	40	12	160	110	-	-	A
E50.06.04012200	40	12	200	150	-	-	A
E50.06.05012080	50	12	80	30	-	-	A
E50.06.05012100	50	12	100	50	-	-	A
E50.06.05012125	50	12	125	75	-	-	A
E50.06.05012160	50	12	160	110	-	-	A
E50.06.05012200	50	12	200	150	-	-	A
E50.06.05012250	50	12	250	60	165	225	C
E50.06.05012300	50	12	300	80	195	275	C
E50.06.05012350	50	12	350	100	225	325	C
E50.06.05012400	50	12	400	120	255	375	C
E50.06.06012080	60	12	80	30	-	-	A
E50.06.06012100	60	12	100	50	-	-	A
E50.06.06012125	60	12	125	75	-	-	A
E50.06.06012160	60	12	160	110	-	-	A
E50.06.06012200	60	12	200	150	-	-	A
E50.06.08012080	80	12	80	30	-	-	A
E50.06.08012100	80	12	100	50	-	-	A
E50.06.08012125	80	12	125	75	-	-	A
E50.06.08012160	80	12	160	110	-	-	A
E50.06.08012200	80	12	200	150	-	-	A
E50.06.10012125	100	12	125	75	-	-	B
E50.06.10012160	100	12	160	110	-	-	B
E50.06.10012200	100	12	200	150	-	-	B
E50.06.10012250	100	12	250	200	-	-	B
E50.06.10012300	100	12	300	125	275	-	D

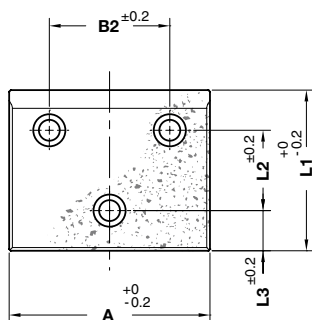
**SINTERED STEEL WEAR PLATE TYPE VDI 3357**  
**GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE TIP VDI 3357**  
**PIASTRA GUIDA IN ACCIAIO SINTERIZZATO TIPO VDI 3357**



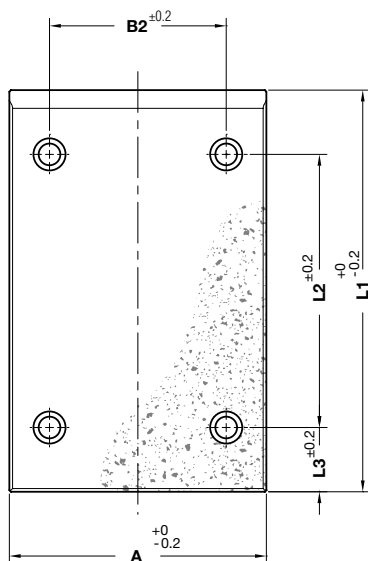
**FORM A**



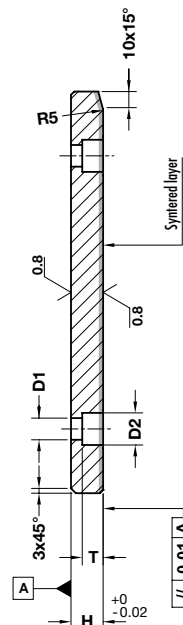
**FORM B**



**FORM C**

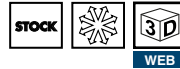


**FORM D**



Notes

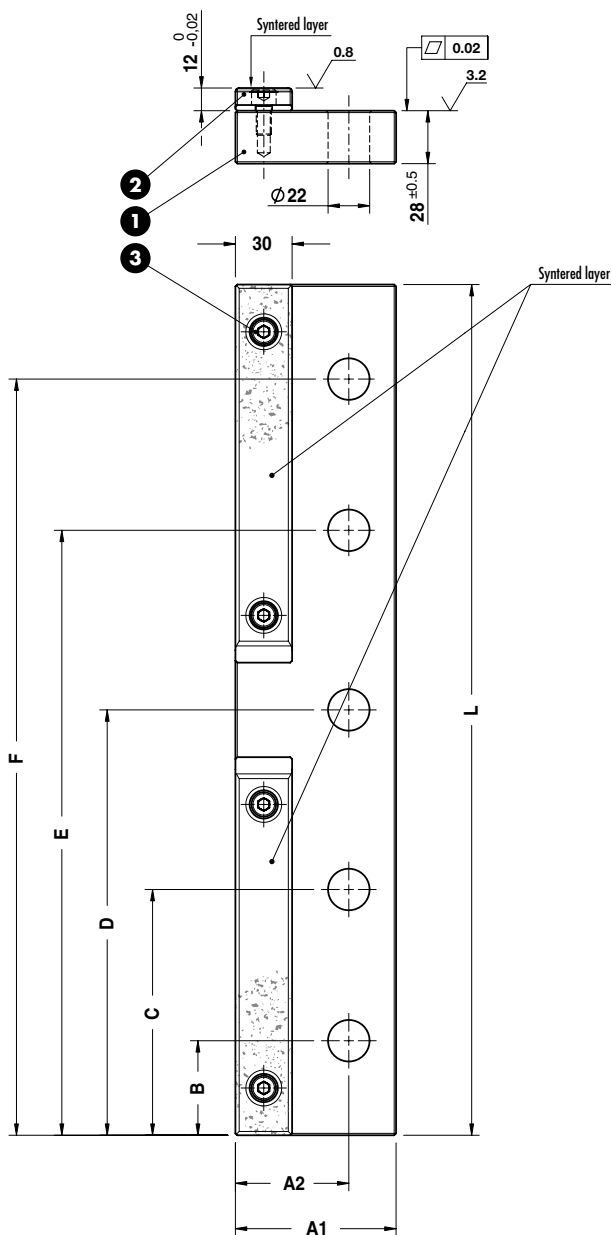
**Material:** Steel + SINT300®



	Art.	A=125	H=20	L1=50
	E50.12.	125	20	050

OMCR CODE	A	H	L1	B2	L2	L3	D1	D2	T	Form
E50.12.05020080	50	20	80	-	30	25	9	15	9	A
E50.12.05020100	50	20	100	-	50	25	13,5	20	13	A
E50.12.05020125	50	20	125	-	75	25	13,5	20	13	A
E50.12.05020160	50	20	160	-	110	25	13,5	20	13	A
E50.12.05020200	50	20	200	-	150	25	13,5	20	13	A
E50.12.08020050	80	20	50	30	-	25	9	15	9	B
E50.12.08020080	80	20	80	-	30	25	13,5	20	13	A
E50.12.08020100	80	20	100	-	50	25	13,5	20	13	A
E50.12.08020125	80	20	125	-	75	25	13,5	20	13	A
E50.12.08020160	80	20	160	-	110	25	13,5	20	13	A
E50.12.08020200	80	20	200	-	150	25	13,5	20	13	A
E50.12.08020250	80	20	250	-	170	40	13,5	20	13	A
E50.12.10020050	100	20	50	50	-	25	13,5	20	13	B
E50.12.10020080	100	20	80	50	-	40	13,5	20	13	B
E50.12.10020100	100	20	100	-	50	25	13,5	20	13	A
E50.12.10020125	100	20	125	-	75	25	13,5	20	13	A
E50.12.10020160	100	20	160	-	110	25	13,5	20	13	A
E50.12.10020200	100	20	200	-	150	25	13,5	20	13	A
E50.12.10020250	100	20	250	-	170	40	13,5	20	13	A
E50.12.10020315	100	20	315	-	235	40	13,5	20	13	A
E50.12.12520050	125	20	50	75	-	25	13,5	20	13	B
E50.12.12520080	125	20	80	75	-	40	13,5	20	13	B
E50.12.12520100	125	20	100	75	50	25	13,5	20	13	C
E50.12.12520125	125	20	125	75	75	25	13,5	20	13	C
E50.12.12520160	125	20	160	75	110	25	13,5	20	13	C
E50.12.12520200	125	20	200	75	150	25	13,5	20	13	C
E50.12.12520250	125	20	250	75	170	40	13,5	20	13	C
E50.12.12520315	125	20	315	75	235	40	13,5	20	13	C
E50.12.16020050	160	20	50	110	-	25	13,5	20	13	B
E50.12.16020080	160	20	80	110	-	40	13,5	20	13	B
E50.12.16020100	160	20	100	110	50	25	13,5	20	13	C
E50.12.16020125	160	20	125	110	75	25	13,5	20	13	C
E50.12.16020160	160	20	160	110	110	25	13,5	20	13	C
E50.12.16020200	160	20	200	110	150	25	13,5	20	13	C
E50.12.16020250	160	20	250	110	170	40	13,5	20	13	D
E50.12.16020315	160	20	315	110	235	40	13,5	20	13	D

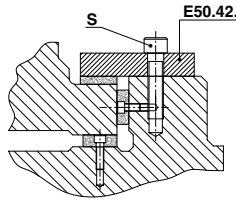
**SINTERED STEEL WEAR PLATE**  
**GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE**  
**PIASTRA GUIDA IN ACCIAIO SINTERIZZATO**



### Notes

- 1** Material: CK45
- 2** E50.06.
- 3** DIN 912 M8x16

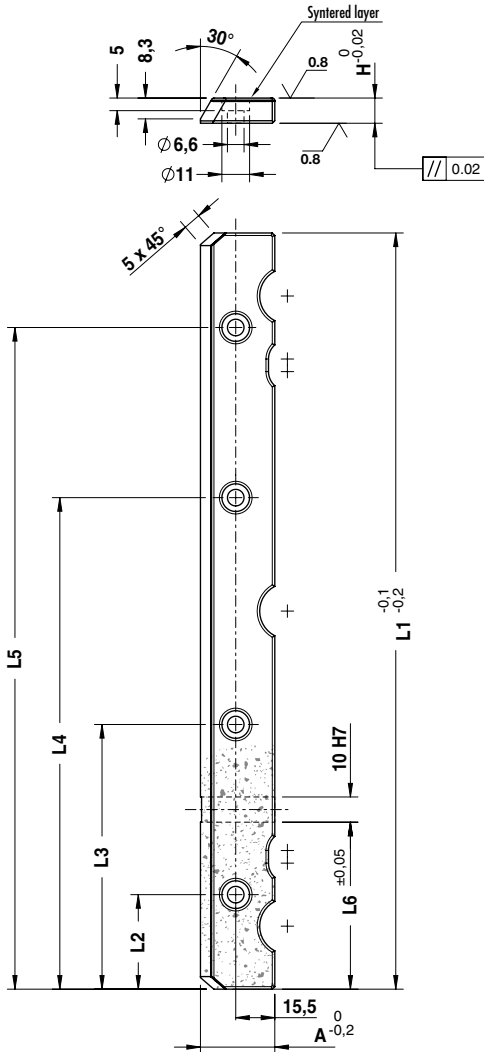
### Application example



ORDER EXAMPLE	Art.	A1=85	L=200
	E50.42.	085	200

OMCR CODE	A1	L	A2	B	C	D	E	F	S
E50.42.085160	85	160	60	45	115	-	-	-	Nr2 - M20x60
E50.42.085200	85	200	60	45	155	-	-	-	Nr2 - M20x60
E50.42.085250	85	250	60	45	125	205	-	-	Nr3 - M20x60
E50.42.085300	85	300	60	45	150	255	-	-	Nr3 - M20x60
E50.42.085350	85	350	60	45	175	305	-	-	Nr3 - M20x60
E50.42.085400	85	400	60	45	125	200	275	355	Nr5 - M20x60
E50.42.085450	85	450	60	50	130	225	320	400	Nr5 - M20x60
E50.42.085500	85	500	60	50	130	250	370	450	Nr5 - M20x60
E50.42.125160	125	160	75	45	115	-	-	-	Nr2 - M20x60
E50.42.125200	125	200	75	45	155	-	-	-	Nr2 - M20x60
E50.42.125250	125	250	75	45	125	205	-	-	Nr3 - M20x60
E50.42.125300	125	300	75	45	150	255	-	-	Nr3 - M20x60
E50.42.125350	125	350	75	45	175	305	-	-	Nr3 - M20x60
E50.42.125400	125	400	75	45	125	200	275	355	Nr5 - M20x60
E50.42.125450	125	450	75	50	130	225	320	400	Nr5 - M20x60
E50.42.125500	125	500	75	50	130	250	370	450	Nr5 - M20x60

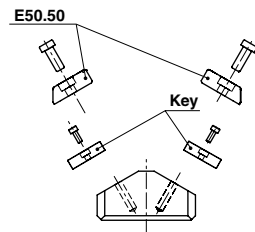
## SINTERED STEEL WEAR PLATE GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE PIASTRA GUIDA IN ACCIAIO SINTERIZZATO



### Notes

**Material:** Steel + SINT300®

### Application example

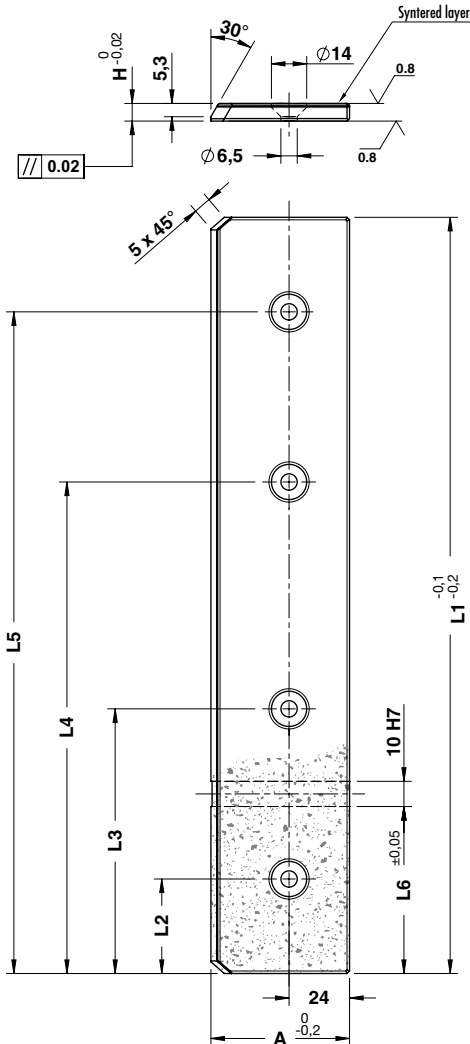


Art.	A=29,5	H=10	L1=200
E50.50	030	10	200

OMCR CODE	A	H	L1	L2	L3	L4	L5	L6
E50.50.03010150	29,5	10	150	18,5	75	131,5	-	36
E50.50.03010200	29,5	10	200	30,5	100	169,5	-	70
E50.50.03010250	29,5	10	250	35	90	160	215	70
E50.50.03010300	29,5	10	300	37,5	105	195	262,5	66,25



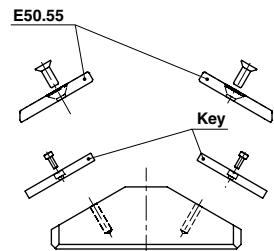
## SINTERED STEEL WEAR PLATE GLEITPLATTE STAHL MIT SINTERGLEITFLÄCHE PIASTRA GUIDA IN ACCIAIO SINTERIZZATO



### Notes

**Material:** Steel + SINT300®

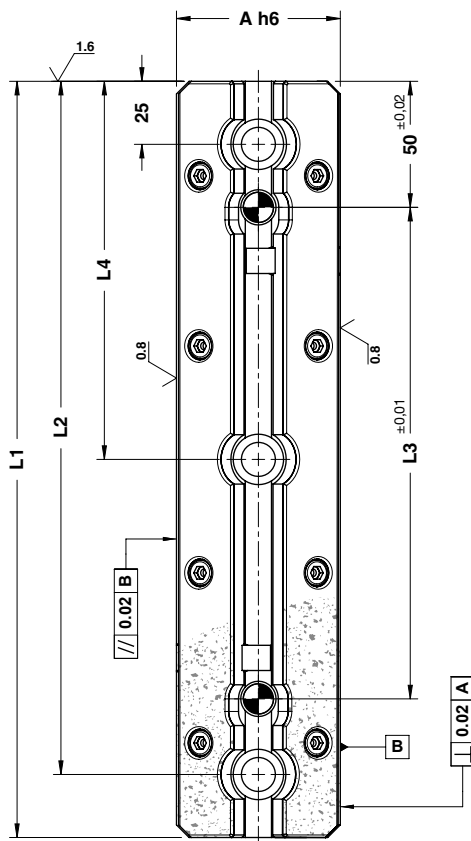
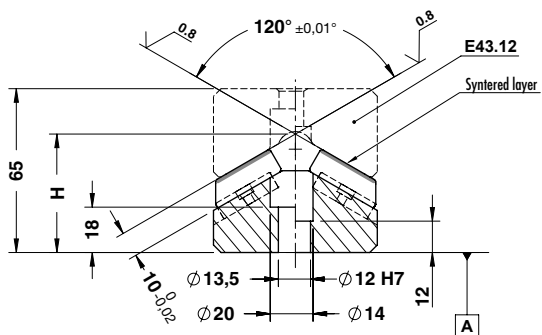
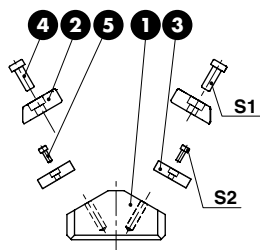
### Application example



Art.	A=30	H=7	L1=200
E50.55	030	07	200

OMCR CODE	A	H	L1	L2	L3	L4	L5	L6
E50.55.05507150	55	7	150	18,5	75	131,5	-	36
E50.55.05507200	55	7	200	30,5	100	169,5	-	70
E50.55.05507250	55	7	250	35	90	160	215	70
E50.55.05507300	55	7	300	37,5	105	195	262,5	66,25

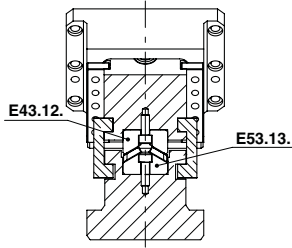
**SINTERED "V" DRIVER  
PRISMENFÜHRUNG STAHL MIT SINTERGLEITFLÄCHE  
GUIDA A "V" IN ACCIAIO SINTERIZZATO**



## Notes

- 1 Material:** Steel
- 2** E50.50
- 3 Key - Material:** CK45
- 4** DIN 7984 - M6 x 16
- 5** DIN 912 - M3 x 8

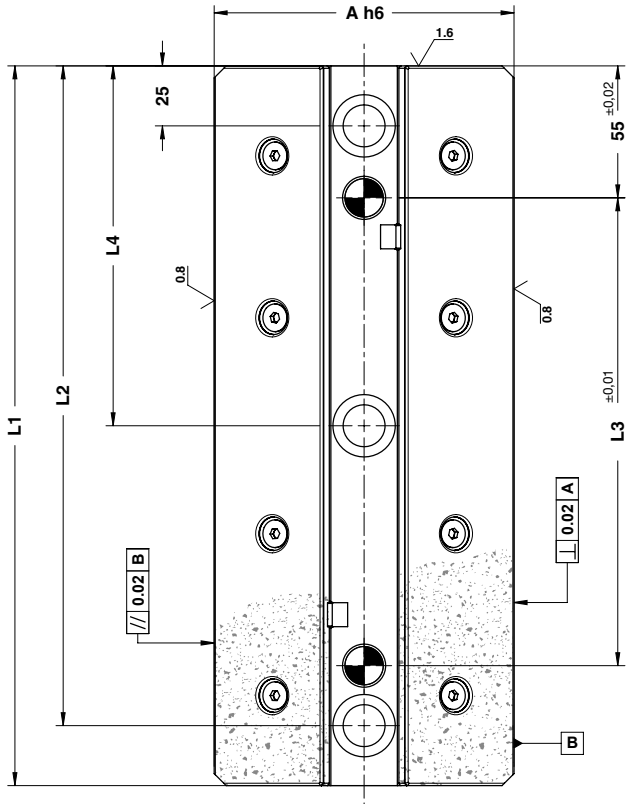
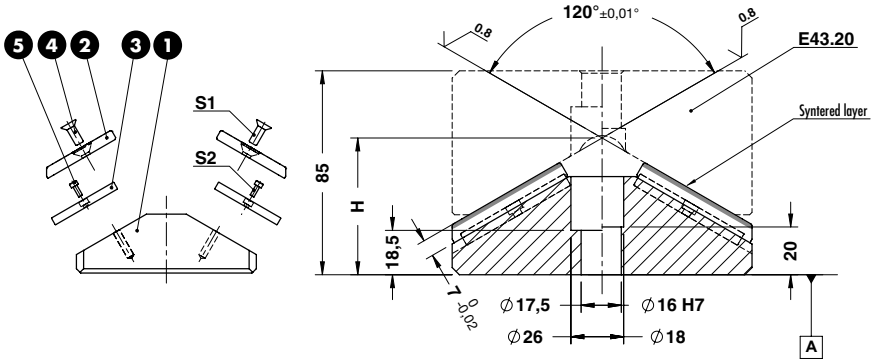
## Application example



ORDER EXAMPLE	Art.	A=65	H=47	L1=200
	E53.13.	065	47	200

OMCR CODE	A	H	L1	L2	L3	L4	S1	S2
E53.13.06547150	65	47	150	125	45	-	Nr6 - M6 x 16	Nr2 - M3 x 8
E53.13.06547200	65	47	200	175	95	-	Nr6 - M6 x 16	Nr2 - M3 x 8
E53.13.06547250	65	47	250	225	145	125	Nr8 - M6 x 16	Nr2 - M3 x 8
E53.13.06547300	65	47	300	275	195	150	Nr8 - M6 x 16	Nr2 - M3 x 8

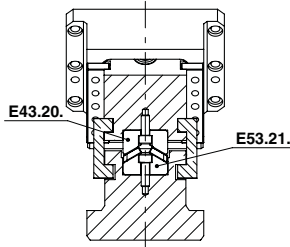
**SINTERED "V" DRIVER**  
**PRISMENFÜHRUNG STAHL MIT SINTERGLEITFLÄCHE**  
**GUIDA A "V" IN ACCIAIO SINTERIZZATO**



Notes

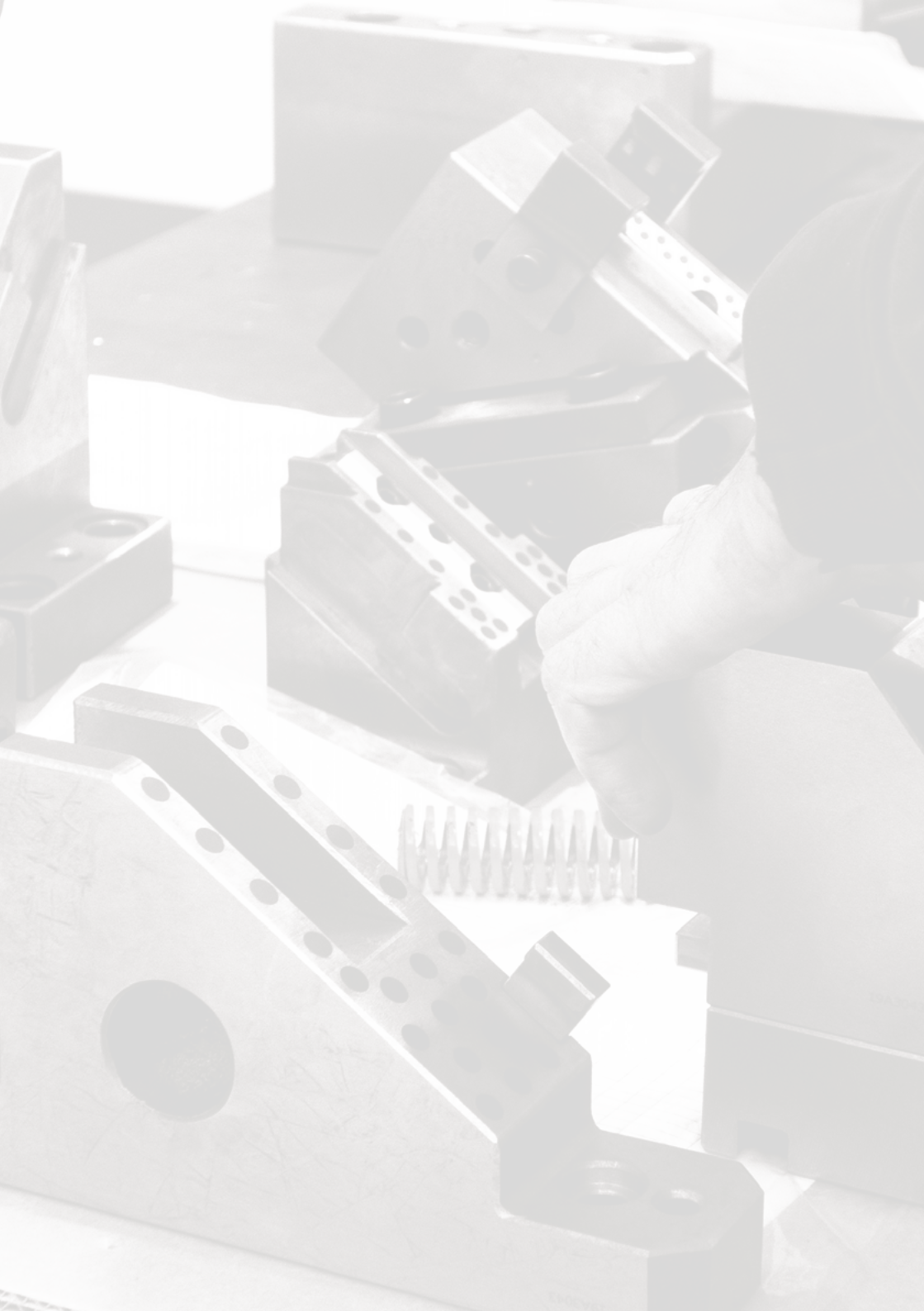
- 1 **Material:** Steel
- 2 E50.55
- 3 Key - **Material:** CK45
- 4 DIN 7984 - M6 x 16
- 5 DIN 912 - M3 x 8

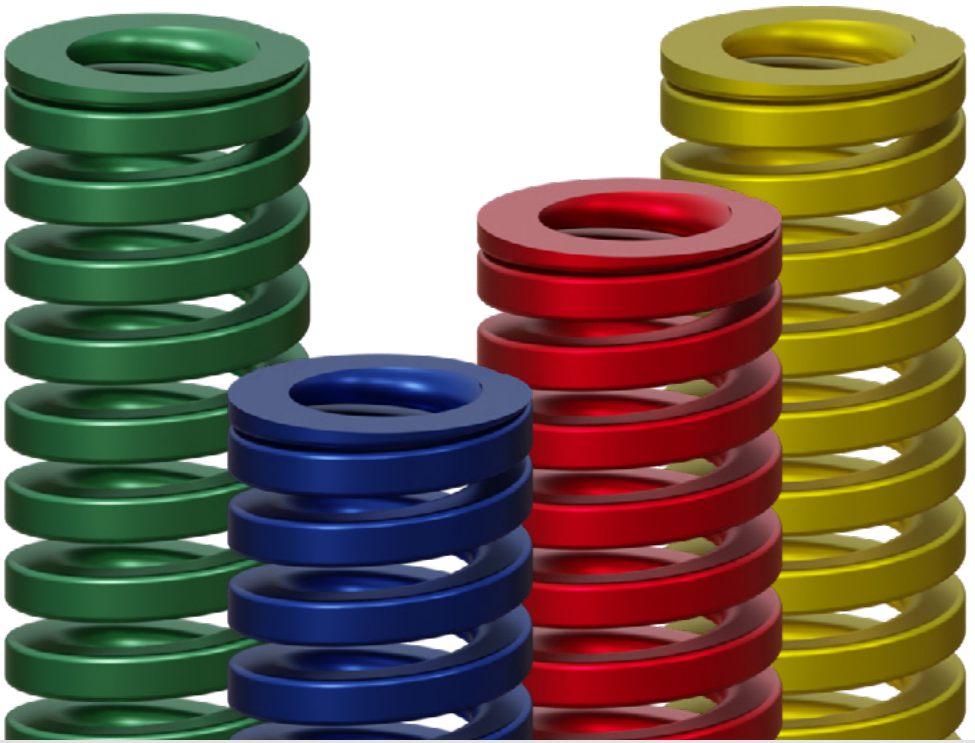
Application example



	Art.	A=125	H=57	L1=200
	E53.21.	125	57	200

OMCR CODE	A	H	L1	L2	L3	L4	S1	S2
E53.21.12557150	125	57	150	125	45	-	Nr6 - M6 x 16	Nr2 - M3 x 8
E53.21.12557200	125	57	200	175	95	-	Nr6 - M6 x 16	Nr2 - M3 x 8
E53.21.12557250	125	57	250	225	145	125	Nr8 - M6 x 16	Nr2 - M3 x 8
E53.21.12557300	125	57	300	275	195	150	Nr8 - M6 x 16	Nr2 - M3 x 8





Wire Springs  
Schraubendruckfedern  
Molle a Filo

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

# Wire Springs

## Schraubendruckfedern

### Molle a Filo

Ⓞ Springs are mechanical parts, that in working condition are having elastic deformations, without permanent deformations. OMCR offers a wide range in this catalog, which allows for different classes of load for the same diameter. The more widespread use is in the dies for sheet metal working, here die springs are avoiding wrinkles and making easier the extraction of the punches. However recently die springs have started to be used in other areas, such as plastic molding and industrial applications.

Ⓞ Federn sind mechanische Bauteile, die sich bei Belastung elastisch verformen, jedoch danach wieder in ihren Ursprungszustand zurückkehren. Druckfedern sind so konzipiert, dass sie großen Kräften auf engstem Raum standhalten. Druckfedern der Firma OMCR finden ihren Einsatz hauptsächlich bei der Blechbearbeitung. Sie dienen zur Vermeidung von Faltenbildung und erleichtern das Herausziehen der Stempelwerkzeuge während der Blechbearbeitung. Die Druckfedern werden seit einigen Jahren in vielen Bereichen der Industrie eingesetzt.

Ⓞ Le molle sono elementi meccanici che in esercizio subiscono deformazioni elastiche, senza presentare deformazioni permanenti. Le molle sono studiate per sopportare carichi elevati in ingombri limitati. Esse sono molto diffuse negli stampi per la lavorazione della lamiera, in cui consentono di evitare le grinze e agevolare l'estrazione dei punzoni. Tuttavia nel tempo si sono notevolmente diffuse anche nello stampaggio della plastica e in svariate applicazioni industriali.



# OMCR<sup>®</sup>

STANDARD DIE COMPONENTS



### GB DIE SPRINGS FEATURES

Springs are manufactured, using special high performance steels and designed to withstand high loads in restricted spaces. Through the continuous improvement, high quality springs, are manufactured by modern equipments and reliable production processes. Springs production processes have very low environmental impact and our products are fully compliant to RoHS and Reach specs. The certifications according to ISO TS 16949, ISO 9001 and ISO 14001 \* (Environment) are evidences of our efforts in satisfying the customer through a sustainable production. The high quality of the springs is confirmed by the excellent results of endurance and life fatigue tests daily leaded in Q/dept. In this catalog OMCR offers a wide range of die springs, so that you could have different loads in the same dimensions, diameter and length.

### CRITERIA FOR SELECTION ON WIRE SPRINGS

For obtaining excellent performances by the die springs, it is very important to figure out the most appropriate one in terms of loads and stress. An inaccurate choice of the die springs can compromise the functionality of the application, causing early breakages. Here below we present some considerations and diagrams, useful for helping the user in choosing the most appropriate spring for its own application. This criteria is based on fBL (solid block), i.e. the maximum deflection available for the spring. Picture 1 shows the "Working Conditions" of springs. The spring is preloaded to f1 and to cyclically stressed till to f2 (working deflection). The graph in Figure 2, "Conditions of Work and Fatigue Resistance", expresses the relationship between the percentage of use of the solid block (%fBL) and stress ( $\tau$ ); the stress ( $\tau$ ) increases, as much as %fBL grows. The graph suggests to use springs giving them a pre-load (f1) of at least 13% of fBL; it doesn't recommend to apply to springs a working deflection (f2) over 80% of fBL (1). For the selection and verification of the correct use of springs, it is preferred to convert f1 and f2, as percentages of the Solid Block fBL, respectively  $\%1=f1/fBL \times 100$  e  $\%2=f2/fBL \times 100$ . The color scale provides a qualitative indication of the fatigue life. So, we deduce from the graph that subjecting a spring to low stress and limiting the use of fBL% (left side of the graph), we obtain a greater fatigue life. On the other side submitting the spring to high stresses and/or extensive use of fBL% (right side of the graph), the chance of early breaking increases.

### USE RECOMANDATION

Springs are designed for being used in normal environmental conditions (temperature from -5° to 70°C, non-aggressive atmosphere, etc.) and they have several applications. OMCR strongly discourages to use the springs overlapped in vertical group and recommends to guide the springs during their use. Please note that the contents of the catalog are based on experimental data. Information on the fatigue life are qualitative and the duration is expected to be reached or exceeded by 90% of the springs belonging to the same production batch.

## ① EINFÜHRUNG

Federn sind mechanische Bauteile, die sich bei Belastung elastisch verformen, jedoch danach wieder in ihren Ursprungszustand zurückkehren. Druckfedern sind so konzipiert, dass sie großen Kräften auf engstem Raum standhalten. Druckfedern der Firma OMCR finden ihren Einsatz hauptsächlich bei der Blechbearbeitung. Sie dienen zur Vermeidung von Faltenbildung und erleichtern das Herausziehen der Stempelwerkzeuge während der Blechbearbeitung. Die Druckfedern werden seit einigen Jahren in vielen Bereichen der Industrie eingesetzt.

## EIGENSCHAFTEN DER SCHRAUBENDRUCKFEDERN

Die Druckfedern sind aus hochfesten Federstahldrähten gefertigt, die höchste Leistung auf engstem Raum gewährleisten. Das etablierte Umweltmanagement steht für sichere und effiziente Produktionsverfahren, die nach ISO TS 16949 und der ISO 14001 (Umweltschutz) zertifiziert ist. Unsere Produkte halten alle strengen Richtlinien für gefährliche Stoffe (RoHS und Reach) ein. Sie werden einer ständigen Qualitätskontrolle unterzogen. Auf speziellen Prüfanlagen werden Dauertests gefahren.

## AUSWAHLKRITERIEN FÜR SCHRAUBENDRUCKFEDERN

Die „falsche“ Berechnung der Druckfeder kann die Lebensdauer beeinträchtigen und kann zu Funktionsstörungen oder sogar Brüchen führen. Vor der Berechnung sollten die Anforderungen bezüglich der Abmessung der Federn, der geforderte Federweg, die Federkraft und die Beanspruchung der Feder genau definiert werden. Die folgenden Ausführungen und Diagramme können Ihnen bei der Auswahl ihrer Federn helfen. Das Diagramm „fig.1“ zeigt die Arbeitsbedingung. Die Druckfeder wird vorgespannt auf  $f_1$  (Vorspannung) und zyklisch beansprucht bis  $f_2$  (Endfederweg). Das Diagramm „fig.2“ zeigt die Arbeitsbedingungen und den Dauerfestigkeitsbereich. Es wird das Verhältnis zwischen der Spannung ( $\tau$ ) und der % Blockweges angezeigt (%fBL). Das Diagramm empfiehlt einen Vorspannungsweg ( $f_1$ ) für die Druckfeder von mindestens 13 % fBL und rät von einem Federweg von über 80% fBL ab. Die farbliche Darstellung zeigt die zu erwartende Dauerfestigkeit der Feder. Grüner Bereich: optimaler Einsatzbereich. Die Federn sind geringeren Belastungen ausgesetzt. Gelber Bereich: Grenzbereich. Die Federn sind Belastungen ausgesetzt, die die Dauerfestigkeit verringern können. Roter Bereich: niedrige Dauerfestigkeit, Bruchgefahr.

## BENUTZERHINWEISE

Alle Federn sind für Temperaturen von  $-5^{\circ}\text{C}$  bis ca.  $100^{\circ}\text{C}$  ausgelegt. Es muss darauf geachtet werden, dass die Federn nicht für einen Gebrauch in aggressiven Atmosphären gedacht sind. Jegliche Abweichung kann zur Beeinträchtigung der Leistungen der Druckfedern führen. Wir raten davon ab, die Druckfedern ohne vollständige Führung übereinander zu setzen. Alle im Katalog genannten Daten beruhen auf jahrelangen Erfahrungswerten. Die Angaben zur Dauerfestigkeit sind qualitativ, und es wird erwartet, dass 90 % der Federn einer Charge die erwartete Lebensdauer erreichen oder überschreiten.

## ① CARATTERISTICHE DELLE MOLLE A FILO

Le molle OMCR sono molle di elevata qualità, realizzate con acciai speciali ad alte prestazioni. I materiali vengono trasformati da moderni macchinari, attraverso processi produttivi affidabili e migliorati costantemente. I processi produttivi sono a limitato impatto ambientale, certificati da un sistema di gestione ambientale conforme alla ISO 14001 e rispettano le direttive RoHS e Reach, circa l'assenza di sostanze pericolose. Un sistema di gestione per la Qualità, certificato secondo la ISO/TS16949 è un ulteriore garanzia di competenza e professionalità per gli utilizzatori finali. Ma sono i severi test di durata a fatica, quotidianamente effettuati sui banchi di prova, a confermare l'elevato livello di affidabilità delle nostre molle.

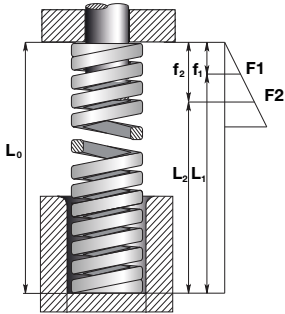
## CRITERI DI SCELTA DELLE MOLLE A FILO

La scelta della molla corretta per dimensioni, carichi e sollecitazioni è il prerequisito per un funzionamento efficace ed efficiente dell'applicazione in cui è usata. La scelta della molla non idonea per un'applicazione, può comportare un cattivo funzionamento del sistema o problemi di rotture. Nel seguito riportiamo delle considerazioni e dei grafici che possono aiutare l'utilizzatore nella scelta della molla più idonea per la propria applicazione. Tali considerazioni si basano sulla fBL (freccia a blocco), ossia la massima deflessione possibile per la molla. Il disegno in fig.1 mostra le "Condizioni di Lavoro". La molla viene precaricata a  $f_1$  e sollecitata ciclicamente fino a  $f_2$  (freccia di lavoro). Il grafico di fig.2, "Condizioni di Lavoro e Resistenza a Fatica", esprime la relazione tra la percentuale di utilizzo della freccia a blocco (%fBL) e la sollecitazione unitaria ( $\tau$ ): al crescere di %fBL, cresce il valore della sollecitazione unitaria  $\tau$ . Il grafico raccomanda di utilizzare le molle con una precarica ( $f_1$ ) pari almeno 13% fBL., mentre sconsiglia di sottoporre le molle a frecce di lavoro ( $f_2$ ) oltre 80% fBL(1). La scala cromatica fornisce un'indicazione qualitativa della resistenza a fatica. Quindi dal grafico deduciamo che sottoponendo una molla a basse sollecitazioni e limitato utilizzo della %fBL (parte sx del grafico), si ottiene una maggiore resistenza a fatica. Al contrario applicando alla molla elevate sollecitazioni e/o ampio utilizzo della %fBL. (zona dx del grafico), aumenta la possibilità di rotture precoci.

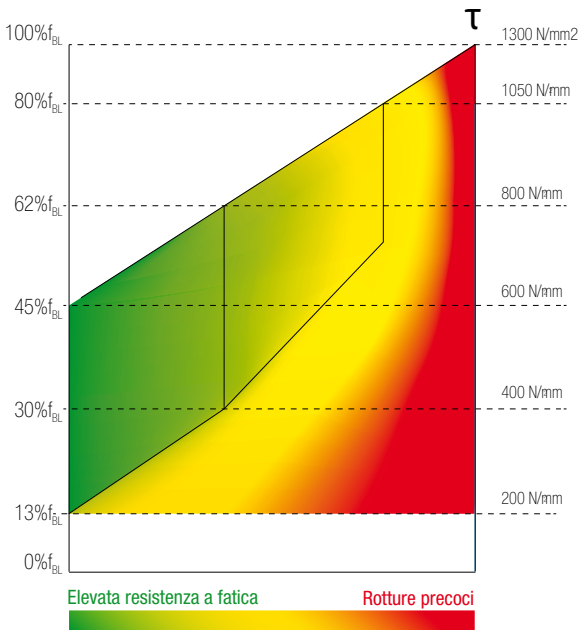
## RACCOMANDAZIONI PER L'UTILIZZO

Tutte le molle sono progettate per un utilizzo in condizioni ambientali normali (temperature  $-5^{\circ}$  ÷  $100^{\circ}$ C, atmosfera non aggressiva, ecc): in condizioni diverse le performance delle molle potrebbero subire alcune variazioni. Sconsigliamo vivamente l'utilizzo di molle sovrapposte e raccomandiamo anche di tenere le molle guidate durante il loro impiego. Precisiamo che i contenuti del catalogo sono stati costruiti in base a dati sperimentali. Le informazioni relative alla resistenza a fatica sono qualitative, inoltre la durata attesa si prevede possa essere raggiunta o superata dal 90% delle molle, appartenenti ad un unico lotto.





- Ⓜ TIME AND SPRING LIFE DIAGRAM
- Ⓧ ZEIT-UND DAUERFESTIGKEITSSCHAUBILD
- Ⓛ IL DIAGRAMMA DELLE SOLLECITAZIONI



**FIG.1 Condizioni di Lavoro**  
 $f_1$  = freccia di precarica, minimo 13% di  $f_{BL}$   
**F1** = carico della molla compressa a  $f_1$   
 $f_2$  = freccia di lavoro, massimo 80% di  $f_{BL}$   
**F2** = carico della molla compressa a  $f_2$

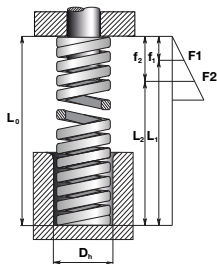


**FIG.2** Condizioni di Lavoro e Resistenza a Fatica

LIGHT LOADS	MEDIUM LOADS	STRONG LOADS	EXTRA STRONG LOADS
<b>F01.05</b>	<b>F01.10</b>	<b>F01.15</b>	<b>F01.20</b>
			
<b>DIN ISO 10243</b> WIRE SPRING GREEN SCHRAUBENDRUCKFEDER GRÜN MOLLA A FILO VERDE	<b>DIN ISO 10243</b> WIRE SPRING BLUE SCHRAUBENDRUCKFEDER BLAU MOLLA A FILO BLU	<b>DIN ISO 10243</b> WIRE SPRING RED SCHRAUBENDRUCKFEDER ROT MOLLA A FILO ROSSA	<b>DIN ISO 10243</b> WIRE SPRING YELLOW SCHRAUBENDRUCKFEDER GELB MOLLA A FILO GIALLA
1102	1104	1108	1110



**WIRE SPRING, COLOUR "GREEN" DIN ISO 10243**  
**SCHRAUBENDRUCKFEDER, KENNFARBE "GRÜN" DIN ISO 10243**  
**MOLLA A FILO, COLORE "VERDE" DIN ISO 10243**



Ø 10 - 25



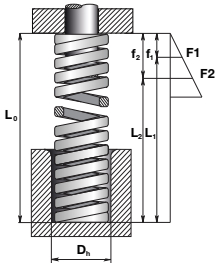
**Work Conditions**  
**f1** = pre-compression, min 13% Fbl  
**F1** = spring force when compressed f1  
**f2** = work travel, max 80% Fbl  
**F2** = spring force when compressed f2 (N)  
**Dh** = Hole diameter (mm)  
**Ds** = Rod Diameter (mm)  
**L0** = Free lenght (mm)  
**Rg** = Force / displacement rate (N/mm)  
**Fbl** = Max deflection (mm)

	Art.	<b>D<sub>s</sub> = 10</b>	<b>L<sub>0</sub> = 44</b>
	F01.05	<b>10</b>	<b>044</b>

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.05.10025	10	5	25	10	13	3,9	39	5,8	58	8,0	80	10,3	103
F01.05.10032			32	8,5	16	4,9	42	7,4	63	10,2	86	13,1	111
F01.05.10038			38	6,8	20	5,9	40	8,8	60	12,1	82	15,6	106
F01.05.10044			44	6	23	6,8	41	10,1	61	14,0	84	18,0	108
F01.05.10051			51	5	26	7,8	39	11,8	59	16,2	81	20,9	105
F01.05.10064			64	4,3	33	9,8	42	14,6	63	20,2	87	26,0	112
F01.05.10076			76	3,2	39	11,7	37	17,6	56	24,2	77	31,2	100
F01.05.10305			305	1,1	156	46,9	52	70,3	77	96,9	107	125,0	138
F01.05.13025			25	17,9	13	3,9	69	5,8	104	8,0	143	10,3	184
F01.05.13032			32	16,4	16	4,9	81	7,4	121	10,2	167	13,1	215
F01.05.13038	38	13,6	20	5,9	80	8,8	119	12,1	164	15,6	212		
F01.05.13044	44	12,1	23	6,8	82	10,1	123	14,0	169	18,0	218		
F01.05.13051	51	11,4	26	7,8	89	11,8	134	16,2	185	20,9	238		
F01.05.13064	64	9,3	33	9,9	92	14,8	138	20,4	190	26,3	245		
F01.05.13076	76	7,1	39	11,7	83	17,6	125	24,2	172	31,2	222		
F01.05.13089	89	5,4	46	13,7	74	20,5	111	28,3	153	36,5	197		
F01.05.13305	305	1,4	156	46,9	66	70,3	98	96,9	136	125,0	175		
F01.05.16025	16	8	25	23,4	13	3,9	90	5,8	136	8,0	187	10,3	241
F01.05.16032			32	22,9	16	4,9	112	7,4	169	10,2	232	13,1	300
F01.05.16038			38	19,3	20	5,9	113	8,8	169	12,1	233	15,6	301
F01.05.16044			44	17,1	23	6,8	115	10,1	173	14,0	239	18,0	308
F01.05.16051			51	15,7	26	7,8	123	11,8	185	16,2	254	20,9	328
F01.05.16064			64	10,7	33	9,9	106	14,8	158	20,4	218	26,3	281
F01.05.16076			76	8,0	39	11,7	117	17,6	176	24,2	242	31,2	312
F01.05.16089			89	5,9	46	13,7	118	20,5	177	28,3	243	36,5	314
F01.05.16102			102	7,8	52	15,7	122	23,5	183	32,4	253	41,8	326
F01.05.16305			305	2,5	156	46,9	117	70,3	176	96,9	242	125,0	313
F01.05.20025	20	10	25	55,8	13	3,8	213	5,7	320	7,9	441	10,2	569
F01.05.20032			32	45	16	4,7	211	7,0	316	9,7	436	12,5	563
F01.05.20038			38	33,3	19	5,6	187	8,4	281	11,6	387	15,0	500
F01.05.20044			44	30	22	6,6	198	9,9	297	13,6	409	18,0	540
F01.05.20051			51	24,5	25	7,5	184	11,3	276	15,5	380	20,0	490
F01.05.20064			64	20	31	9,4	188	14,1	281	19,4	388	25,0	500
F01.05.20076			76	16	37	11,1	178	16,7	266	22,9	367	30,0	480
F01.05.20089			89	14	44	13,1	184	19,7	276	27,1	380	35,0	490
F01.05.20102			102	12	51	15,4	185	23,1	277	31,8	381	41,0	492
F01.05.20115			115	10,9	58	17,3	188	25,9	282	35,7	389	46,0	501
F01.05.20127	127	9,5	64	19,1	182	28,7	273	39,5	375	51,0	485		
F01.05.20139	139	8,4	70	21	176	31,5	265	43,4	365	56,0	470		
F01.05.20152	152	7,5	76	22,9	172	34,3	257	47,3	355	61,0	458		
F01.05.20305	305	4	153	45,8	183	68,6	275	94,6	378	122,0	488		
F01.05.25025	25	12,5	25	100	13	3,8	383	5,7	574	7,9	791	10,2	1020
F01.05.25032			32	80,3	16	4,7	376	7,0	565	9,7	778	12,5	1004
F01.05.25038			38	62	19	5,6	349	8,4	523	11,6	721	15,0	930
F01.05.25044			44	52,9	22	6,6	348	9,9	524	13,6	722	18,0	952
F01.05.25051			51	44	25	7,5	330	11,3	495	15,5	682	20,0	880
F01.05.25064			64	35,2	31	9,4	330	14,1	495	19,4	682	25,0	880
F01.05.25076			76	28	37	11,1	311	16,7	466	22,9	642	30,0	840
F01.05.25089			89	24	44	13,1	315	19,7	473	27,1	651	35,0	840
F01.05.25102			102	21,1	51	15,4	324	23,1	487	31,8	670	41,0	865
F01.05.25115			115	18,7	58	17,3	323	25,9	484	35,7	667	46,0	860
F01.05.25127	127	16,7	64	19,1	319	28,7	479	39,5	660	51,0	852		
F01.05.25139	139	15,3	70	21	321	31,5	482	43,4	664	56,0	857		
F01.05.25152	152	14	76	22,9	320	34,3	480	47,3	662	61,0	854		
F01.05.25178	178	12,5	89	26,6	333	39,9	499	55,0	688	71,0	888		
F01.05.25203	203	10,4	101	30,4	316	45,6	474	62,8	653	81,0	842		
F01.05.25305	305	7,0	153	45,8	320	68,6	480	94,6	662	122,0	854		



## WIRE SPRING, COLOUR "GREEN" DIN ISO 10243 SCHRAUBENDRUCKFEDER, KENNFARBE "GRÜN", DIN ISO 10243 MOLLA A FILO, COLORE "VERDE", DIN ISO 10243



Ø 32 - 63

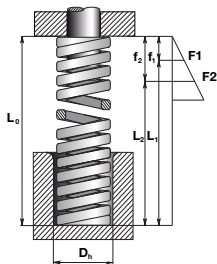


**Work Conditions**  
**f1** = pre-compression, min 13% Fbl  
**F1** = spring force when compressed f1  
**f2** = work travel, max 80% Fbl  
**F2** = spring force when compressed f2 (N)  
**Dh** = Hole diameter (mm)  
**Ds** = Rod Diameter (mm)  
**L0** = Free lenght (mm)  
**Rg** = Force / displacement rate (N/mm)  
**Fbl** = Max deflection (mm)

ORDER EXAMPLE	Art.	D <sub>h</sub> = 32	L <sub>0</sub> = 44
	F01.05	32	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <i>f</i> <sub>BL</sub>		45% <i>f</i> <sub>BL</sub>		62% <i>f</i> <sub>BL</sub>		80% <i>f</i> <sub>BL</sub>	
						mm	N	mm	N	mm	N	mm	N
F01.05.32038	32	16	38	94,0	19	5,6	529	8,4	793	11,6	1093	15,0	1410
F01.05.32044			44	79,5	23	6,8	537	10,1	805	14,0	1109	18,0	1431
F01.05.32051			51	67,0	25	7,5	503	11,3	754	15,5	1039	20,0	1340
F01.05.32054			64	53,0	31	9,4	497	14,1	745	19,3	1027	25,0	1325
F01.05.32076			76	44,0	38	11,3	495	16,9	743	23,3	1023	30,0	1320
F01.05.32089			89	37,2	44	13,1	488	19,7	732	27,1	1009	35,0	1302
F01.05.32102			102	32,0	51	15,4	492	23,1	738	31,8	1017	41,0	1312
F01.05.32115			115	29,0	58	17,3	500	25,9	750	35,7	1034	46,0	1334
F01.05.32127			127	25,0	64	19,1	478	28,7	717	39,5	988	51,0	1275
F01.05.32139			139	23,0	70	21	483	31,5	725	43,4	998	56,0	1288
F01.05.32152			152	21,5	76	22,9	492	34,3	738	47,3	1016	61,0	1312
F01.05.32178			178	18,2	89	26,6	485	39,9	727	55,0	1001	71,0	1292
F01.05.32203			203	15,8	101	30,4	480	45,6	720	62,8	992	81,0	1280
F01.05.32254			254	12,5	128	38,3	478	57,4	717	79,1	988	102,0	1275
F01.05.32305			305	10,3	153	45,8	471	68,6	707	94,6	974	122,0	1257
F01.05.40051			51	92,0	25	7,5	690	11,3	1035	15,5	1426	20,0	1840
F01.05.40064	64	73,0	31	9,4	684	14,1	1027	19,4	1414	25,0	1825		
F01.05.40076	76	63,0	38	11,3	709	16,9	1063	23,3	1465	30,0	1890		
F01.05.40089	89	51,0	44	13,1	669	19,7	1004	27,1	1383	35,0	1785		
F01.05.40102	102	43,0	51	15,4	661	23,1	992	31,8	1366	41,0	1763		
F01.05.40115	115	39,6	58	17,3	683	25,9	1025	35,7	1412	46,0	1822		
F01.05.40127	127	37,0	64	19,1	708	28,7	1061	39,5	1462	51,0	1887		
F01.05.40139	139	32,0	70	21	672	31,5	1008	43,4	1389	56,0	1792		
F01.05.40152	152	28,0	76	22,9	641	34,3	961	47,3	1324	61,0	1708		
F01.05.40178	178	25,2	89	26,6	671	39,9	1006	55,0	1367	71,0	1789		
F01.05.40203	203	22,7	101	30,4	690	45,6	1034	62,8	1425	81,0	1839		
F01.05.40254	254	17,0	128	38,3	650	57,4	975	79,1	1344	102,0	1734		
F01.05.40305	305	14,8	153	45,8	677	68,6	1016	94,6	1399	122,0	1806		
F01.05.50064	64	156,0	31	9,4	1463	14,1	2194	19,4	3023	25,0	3900		
F01.05.50076	76	125,0	38	11,3	1406	16,9	2109	23,3	2906	30,0	3750		
F01.05.50089	89	109,0	44	13,1	1431	19,7	2146	27,1	2957	35,0	3815		
F01.05.50102	102	94,0	51	15,4	1445	23,1	2168	31,8	2987	41,0	3854		
F01.05.50115	115	81,0	58	17,3	1397	25,9	2096	35,7	2888	46,0	3726		
F01.05.50127	127	71,0	64	19,1	1358	28,7	2037	39,5	2806	51,0	3621		
F01.05.50139	139	66,5	70	21	1397	31,5	2095	43,4	2886	56,0	3724		
F01.05.50152	152	60,0	76	22,9	1373	34,3	2059	47,3	2837	61,0	3660		
F01.05.50178	178	52,0	89	26,6	1385	39,9	2077	55,0	2861	71,0	3692		
F01.05.50203	203	44,0	101	30,4	1337	45,6	2005	62,8	2762	81,0	3564		
F01.05.50254	254	35,0	128	38,3	1339	57,4	2008	79,1	2767	102,0	3570		
F01.05.50305	305	28,5	153	45,8	1304	68,6	1956	94,6	2695	122,0	3477		
F01.05.63076	76	189,0	38	11,3	2126	16,9	3189	23,3	4394	30,0	5670		
F01.05.63089	89	158,0	44	13,1	2074	19,7	3111	27,1	4286	35,0	5530		
F01.05.63102	102	131,0	51	15,4	2014	23,1	3021	31,8	4163	41,0	5371		
F01.05.63115	115	116,0	58	17,3	2001	25,9	3002	35,7	4135	46,0	5336		
F01.05.63127	127	103,0	64	19,1	1970	28,7	2955	39,5	4071	51,0	5253		
F01.05.63152	152	84,3	76	22,9	1928	34,3	2893	47,3	3985	61,0	5142		
F01.05.63178	178	71,5	89	26,6	1904	39,9	2856	55,0	3934	71,0	5077		
F01.05.63203	203	61,7	101	30,4	1874	45,6	2811	62,8	3873	81,0	4998		
F01.05.63254	254	47,0	128	38,3	1798	57,4	2697	79,1	3715	102,0	4794		
F01.05.63305	305	38,2	153	45,8	1748	68,6	2621	94,6	3612	122,0	4660		

## WIRE SPRING, COLOUR "BLUE" DIN ISO 10243 SCHRAUBENDRUCKFEDER, KENNFARBE "BLAU" DIN ISO 10243 MOLLA A FILO, COLORE "BLU" DIN ISO 10243



Ø 10 - 25



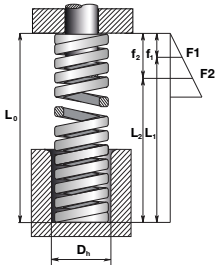
### Work Conditions

- f1 = pre-compression, min 13% Fbl
- F1 = spring force when compressed f1
- f2 = work travel, max 80% Fbl
- F2 = spring force when compressed f2 (N)
- Dh = Hole diameter (mm)
- Ds = Rod Diameter (mm)
- L0 = Free lenght (mm)
- Rg = Force / displacement rate (N/mm)
- Fbl = Max deflection (mm)

ORDER EXAMPLE	Art.	D <sub>h</sub> = 10	L <sub>0</sub> = 44
	F01.10	10	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.10.10025	10	5	25	16.0	12	3.6	57	5.3	86	7.4	118	9.5	152
F01.10.10032			32	13.0	15	4.6	59	6.9	89	9.5	123	12.2	159
F01.10.10038			38	11.9	18	5.4	64	8.1	96	11.2	133	14.4	171
F01.10.10044			44	10.3	21	6.3	65	9.4	97	12.4	139	16.7	172
F01.10.10051			51	8.9	24	7.3	65	10.9	97	15.0	134	19.4	173
F01.10.10064			64	7.5	30	9.1	68	13.7	103	18.8	141	24.3	182
F01.10.10076			76	5.3	36	10.8	57	16.3	86	22.4	119	28.9	153
F01.10.10305			305	1.6	145	43.5	70	65.3	104	89.9	144	116.0	186
F01.10.13025			25	30.0	12	3.6	107	5.3	160	7.4	221	9.5	285
F01.10.13032			32	24.8	15	4.6	113	6.9	170	9.5	234	12.2	303
F01.10.13038	38	21.4	18	5.4	116	8.1	173	11.2	239	14.4	308		
F01.10.13044	44	18.5	21	6.3	116	9.4	174	12.9	239	16.7	309		
F01.10.13051	51	15.5	24	7.3	113	10.9	169	15.0	233	19.4	301		
F01.10.13064	64	12.1	30	9.1	110	13.7	165	18.8	228	24.3	294		
F01.10.13076	76	10.2	36	10.8	111	16.3	166	22.4	228	28.9	295		
F01.10.13089	89	8.4	42	12.7	106	19.0	160	26.2	220	33.8	284		
F01.10.13305	305	2.1	145	43.5	91	65.3	137	89.9	189	116.0	244		
F01.10.16025	25	49.4	12	3.6	176	5.3	264	7.4	364	9.5	469		
F01.10.16032	32	37.1	15	4.6	170	6.9	255	9.5	351	12.2	453		
F01.10.16038	38	33.9	18	5.4	183	8.1	275	11.2	378	14.4	488		
F01.10.16044	44	30.0	21	6.3	188	9.4	282	12.9	388	16.7	501		
F01.10.16051	51	26.4	24	7.3	192	10.9	288	15.0	397	19.4	512		
F01.10.16064	64	20.5	30	9.1	187	13.7	280	18.8	386	24.3	498		
F01.10.16076	76	17.8	36	10.8	193	16.3	289	22.4	399	28.9	514		
F01.10.16089	89	15.2	42	12.7	193	19.0	289	25.2	398	33.8	514		
F01.10.16102	102	13.5	49	14.6	196	21.8	295	30.1	406	38.8	524		
F01.10.16305	305	4.8	145	43.5	209	65.3	313	89.9	432	116.0	557		
F01.10.20025	25	98.0	12	3.5	345	5.3	518	7.3	714	9.4	921		
F01.10.20032	32	72.6	15	4.5	327	6.8	490	9.3	675	12.0	871		
F01.10.20038	38	56.0	18	5.3	294	7.9	441	10.9	608	14.0	784		
F01.10.20044	44	47.5	21	6.2	294	9.3	441	12.8	607	16.5	784		
F01.10.20051	51	41.7	24	7.1	297	10.7	446	14.7	614	19.0	792		
F01.10.20064	64	32.3	30	9.0	291	13.5	436	18.6	601	24.0	775		
F01.10.20076	76	25.1	35	10.5	264	15.8	395	21.7	545	28.0	703		
F01.10.20089	89	22.0	41	12.4	272	18.6	408	25.6	563	33.0	726		
F01.10.20102	102	19.8	48	14.3	282	21.4	423	29.5	583	38.0	752		
F01.10.20115	115	18.1	54	16.1	292	24.2	438	33.3	603	43.0	778		
F01.10.20127	127	16.6	60	18.0	299	27.0	448	37.2	618	48.0	797		
F01.10.20139	139	15.1	65	19.5	294	29.3	442	40.3	609	52.0	785		
F01.10.20152	152	13.2	71	21.4	282	32.1	423	44.2	583	57.0	752		
F01.10.20305	305	6.1	143	42.8	261	64.1	391	88.4	539	114.0	695		
F01.10.25025	25	147.0	12	3.5	518	5.3	777	7.3	1071	9.4	1382		
F01.10.25032	32	118.0	15	4.5	531	6.8	797	9.3	1097	12.0	1416		
F01.10.25038	38	93.0	18	5.3	488	7.9	732	10.9	1009	14.0	1302		
F01.10.25044	44	80.8	21	6.2	500	9.3	750	12.8	1033	16.5	1333		
F01.10.25051	51	68.6	24	7.1	489	10.7	733	14.7	1010	19.0	1303		
F01.10.25064	64	53.0	30	9.0	477	13.5	716	18.6	986	24.0	1272		
F01.10.25076	76	43.2	35	10.5	454	15.8	680	21.7	937	28.0	1210		
F01.10.25089	89	38.2	41	12.4	473	18.6	709	25.6	977	33.0	1261		
F01.10.25102	102	33.0	48	14.3	470	21.4	705	29.5	972	38.0	1254		
F01.10.25115	115	28.0	54	16.1	452	24.2	677	33.3	933	43.0	1204		
F01.10.25127	127	25.9	60	18.0	466	27.0	699	37.2	963	48.0	1243		
F01.10.25139	139	23.2	65	19.5	452	29.3	679	40.3	935	52.0	1206		
F01.10.25152	152	20.8	71	21.4	445	32.1	667	44.2	919	57.0	1186		
F01.10.25178	178	17.8	84	25.1	447	37.7	671	51.9	924	67.0	1193		
F01.10.25203	203	15.8	95	28.5	450	42.8	675	58.9	931	76.0	1201		
F01.10.25305	305	10.2	143	42.8	436	64.1	654	88.4	901	114.0	1163		

**WIRE SPRING, COLOUR "BLUE" DIN ISO 10243**  
**SCHRAUBENDRUCKFEDER, KENNFARBE "BLAU" DIN ISO 10243**  
**MOLLA A FILO, COLORE "BLU" DIN ISO 10243**



**Work Conditions**

- f1 = pre-compression, min 13% Fbl
- F1 = spring force when compressed f1
- f2 = work travel, max 80% Fbl
- F2 = spring force when compressed f2 (N)
- Dh = Hole diameter (mm)
- Ds = Rod Diameter (mm)
- L0 = Free lenght (mm)
- Rg = Force / displacement rate (N/mm)
- Fbl = Max deflection (mm)



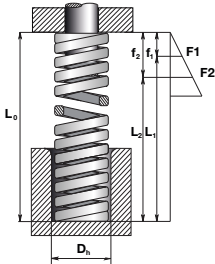
Ø 32 - 63



ORDER EXAMPLE	Art.	D <sub>s</sub> = 32	L <sub>0</sub> = 44
	F01.10	32	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.10.32038	32	16	38	185.0	18	5.3	971	7.9	1457	10.9	2007	14.0	2590
F01.10.32044			44	158.0	21	6.2	978	9.3	1466	12.8	2020	16.5	2607
F01.10.32051			51	134.0	24	7.1	955	10.7	1432	14.7	1973	19.0	2546
F01.10.32054			64	99.0	30	9.0	891	13.5	1337	18.2	1841	24.0	2376
F01.10.32076			76	80.5	35	10.5	845	15.8	1268	21.7	1747	28.0	2254
F01.10.32089			89	69.1	41	12.4	855	18.6	1283	25.6	1767	33.0	2280
F01.10.32102			102	58.8	48	14.3	838	21.4	1257	29.5	1732	38.0	2234
F01.10.32115			115	51.5	54	16.1	830	24.2	1246	33.3	1716	43.0	2215
F01.10.32127			127	44.8	60	18.0	806	27.0	1210	37.2	1667	48.0	2150
F01.10.32139			139	42.3	65	19.5	825	29.3	1237	40.3	1705	52.0	2200
F01.10.32152			152	37.8	71	21.4	808	32.1	1212	44.2	1670	57.0	2155
F01.10.32078			178	32.5	84	25.1	817	37.7	1225	51.9	1688	67.0	2178
F01.10.32203			203	28.9	95	28.5	824	42.8	1235	58.9	1702	76.0	2196
F01.10.32254			254	21.4	119	35.6	762	53.4	1144	73.6	1576	95.0	2033
F01.10.32305			305	18.3	143	42.8	782	64.1	1173	88.4	1617	114.0	2086
F01.10.40051			51	181.6	24	7.1	1294	10.7	1941	14.7	2674	19.0	3450
F01.10.40064	64	140.0	30	9.0	1260	13.5	1890	18.6	2604	24.0	3360		
F01.10.40076	76	108.0	35	10.5	1134	15.8	1701	21.7	2344	28.0	3024		
F01.10.40089	89	90.7	41	12.4	1122	18.6	1684	25.6	2320	33.0	2993		
F01.10.40102	102	81.0	48	14.3	1154	21.4	1731	29.5	2385	38.0	3078		
F01.10.40115	115	71.8	54	16.1	1158	24.2	1737	33.3	2393	43.0	3087		
F01.10.40127	127	62.7	60	18.0	1129	27.0	1693	37.2	2332	48.0	3010		
F01.10.40139	139	57.5	65	19.5	1121	29.3	1682	40.3	2317	52.0	2990		
F01.10.40152	152	51.6	71	21.4	1103	32.1	1654	44.2	2279	57.0	2941		
F01.10.40178	178	44.1	84	25.1	1108	37.7	1662	51.9	2290	67.0	2955		
F01.10.40203	203	36.7	95	28.5	1046	42.8	1569	58.9	2162	76.0	2789		
F01.10.40254	254	30.1	119	35.6	1072	53.4	1608	73.6	2216	95.0	2860		
F01.10.40305	305	24.6	143	42.8	1052	64.1	1577	88.4	2173	114.0	2804		
F01.10.50064	64	209.0	30	9.0	1881	13.5	2822	18.6	3887	24.0	5016		
F01.10.50076	76	168.0	35	10.5	1764	15.8	2646	21.7	3646	28.0	4704		
F01.10.50089	89	140.0	41	12.4	1733	18.6	2599	25.6	3581	33.0	4620		
F01.10.50102	102	119.0	48	14.3	1696	21.4	2544	29.5	3505	38.0	4522		
F01.10.50115	115	106.0	54	16.1	1709	24.2	2564	33.3	3532	43.0	4558		
F01.10.50127	127	97.0	60	18.0	1746	27.0	2619	37.2	3608	48.0	4656		
F01.10.50139	139	87.0	65	19.5	1697	29.3	2545	40.3	3506	52.0	4524		
F01.10.50152	152	80.0	71	21.4	1710	32.1	2565	44.2	3534	57.0	4560		
F01.10.50178	178	69.5	84	25.1	1746	37.7	2619	51.9	3609	67.0	4657		
F01.10.50203	203	59.8	95	28.5	1704	42.8	2556	58.9	3522	76.0	4545		
F01.10.50229	229	50.9	108	32.3	1642	48.4	2462	66.7	3392	86.0	4377		
F01.10.50254	254	43.9	119	35.6	1564	53.4	2346	73.6	3232	95.0	4171		
F01.10.50305	305	38.6	143	42.8	1650	64.1	2475	88.4	3410	114.0	4400		
F01.10.63076	76	312.0	35	10.5	3276	15.8	4914	21.7	6770	28.0	8736		
F01.10.63089	89	260.0	41	12.4	3218	18.6	4826	25.6	6650	33.0	8580		
F01.10.63102	102	221.0	48	14.3	3149	21.4	4724	29.5	6508	38.0	8398		
F01.10.63115	115	187.0	54	16.1	3015	24.2	4523	33.3	6232	43.0	8041		
F01.10.63127	127	168.0	60	18.0	3024	27.0	4536	37.2	6250	48.0	8064		
F01.10.63152	152	136.0	71	21.4	2907	32.1	4361	44.2	6008	57.0	7752		
F01.10.63178	178	114.0	84	25.1	2864	37.7	4296	51.9	5919	67.0	7638		
F01.10.63203	203	100.0	95	28.5	2850	42.8	4275	58.9	5890	76.0	7600		
F01.10.63229	229	89.2	108	32.3	2877	48.4	4315	66.7	5945	86.0	7671		
F01.10.63254	254	78.4	119	35.6	2793	53.4	4190	73.6	5772	95.0	7448		
F01.10.63305	305	64.7	143	42.8	2766	64.1	4149	88.4	5716	114.0	7376		

## WIRE SPRING, COLOUR "RED" DIN ISO 10243 SCHRAUBENDRUCKFEDER, KENNFARBE "ROT" DIN ISO 10243 MOLLA A FILO, COLORE "ROSSO" DIN ISO 10243



Ø 10 - 25

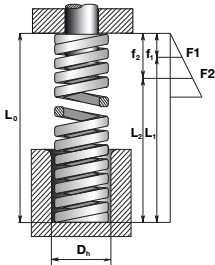


**Work Conditions**  
**f1** = pre-compression, min 13% Fbl  
**F1** = spring force when compressed f1  
**f2** = work travel, max 80% Fbl  
**F2** = spring force when compressed f2 (N)  
**Dh** = Hole diameter (mm)  
**Ds** = Rod Diameter (mm)  
**L0** = Free lenght (mm)  
**Rg** = Force / displacement rate (N/mm)  
**Fbl** = Max deflection (mm)

ORDER EXAMPLE	Art.	D <sub>h</sub> = 10	L <sub>0</sub> = 44
	F01.15	10	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% f <sub>BL</sub>		45% f <sub>BL</sub>		62% f <sub>BL</sub>		80% f <sub>BL</sub>	
						mm	N	mm	N	mm	N	mm	N
F01.15.10025	10	5	25	22,1	9	2,8	62	4,2	93	5,8	129	7,5	166
F01.15.10032			32	17,5	12	3,6	63	5,4	95	7,4	130	9,6	168
F01.15.10038			38	17,1	14	4,3	73	6,4	110	8,8	151	11,4	195
F01.15.10044			44	15,0	17	5,0	74	7,4	111	10,2	153	13,2	198
F01.15.10051			51	12,8	19	5,7	73	8,6	110	11,9	152	15,3	196
F01.15.10064			64	10,7	24	7,2	77	10,8	116	14,9	159	19,2	205
F01.15.10076		76	7,5	29	8,6	64	12,8	96	17,7	133	22,8	171	
F01.15.10305		305	2,1	114	34,3	72	51,5	108	70,9	149	91,5	192	
F01.15.13025		25	42,1	9	2,8	118	4,2	178	5,8	245	7,5	316	
F01.15.13032		32	33,2	12	3,6	120	5,4	179	7,4	247	9,6	319	
F01.15.13038		38	29,3	14	4,3	125	6,4	188	8,8	259	11,4	334	
F01.15.13044		44	24,6	17	5,0	122	7,4	183	10,2	252	13,2	325	
F01.15.13051	51	19,6	19	5,7	113	8,6	169	11,9	232	15,3	300		
F01.15.13064	64	15,0	24	7,2	108	10,8	162	14,9	223	19,2	288		
F01.15.13076	76	13,2	29	8,6	113	12,8	169	17,7	233	22,8	301		
F01.15.13089	89	11,4	33	10,0	114	15,0	171	20,7	236	26,7	304		
F01.15.13305	305	2,8	114	34,3	96	51,5	144	70,9	199	91,5	256		
F01.15.16025	25	75,7	9	2,8	213	4,2	319	5,8	440	7,5	568		
F01.15.16032	32	52,8	12	3,6	190	5,4	285	7,4	393	9,6	507		
F01.15.16038	38	48,5	14	4,3	207	6,4	311	8,8	429	11,4	553		
F01.15.16044	44	42,8	17	5,0	212	7,4	318	10,2	438	13,2	565		
F01.15.16051	51	37,1	19	5,7	213	8,6	319	11,9	440	15,3	568		
F01.15.16064	64	30,3	24	7,2	218	10,8	327	14,9	451	19,2	582		
F01.15.16076	76	25,7	29	8,6	220	12,8	330	17,7	454	22,8	586		
F01.15.16089	89	21,7	33	10,0	217	15,0	326	20,7	449	26,7	579		
F01.15.16102	102	19,3	38	11,5	222	17,2	332	23,7	458	30,6	591		
F01.15.16305	305	7,1	114	34,3	244	51,5	365	70,9	504	91,5	650		
F01.15.20025	25	216,0	9	2,8	608	4,2	911	5,8	1256	7,5	1620		
F01.15.20032	32	168,0	12	3,6	605	5,4	907	7,4	1250	9,6	1613		
F01.15.20038	38	129,0	14	4,1	532	6,2	798	8,5	1100	11,0	1419		
F01.15.20044	44	112,0	16	4,9	546	7,3	819	10,1	1128	13,0	1456		
F01.15.20051	51	94,0	19	5,6	529	8,4	793	11,6	1093	15,0	1410		
F01.15.20064	64	72,1	24	7,1	514	10,7	771	14,7	1062	19,0	1370		
F01.15.20076	76	59,7	29	8,6	515	12,9	772	17,8	1064	23,0	1373		
F01.15.20089	89	50,5	34	10,1	511	15,2	767	20,9	1057	27,0	1364		
F01.15.20102	102	44,2	39	11,6	514	17,4	771	24,0	1062	31,0	1370		
F01.15.20115	115	38,4	44	13,1	504	19,7	756	27,1	1042	35,0	1344		
F01.15.20127	127	34,1	48	14,3	486	21,4	729	29,4	1004	38,0	1296		
F01.15.20139	139	31,0	53	15,8	488	23,6	732	32,5	1009	42,0	1302		
F01.15.20152	152	28,2	58	17,2	486	25,9	730	35,6	1005	46,0	1297		
F01.15.20305	305	15,0	114	34,1	512	51,2	768	70,5	1058	91,0	1365		
F01.15.25025	25	375,0	9	2,8	1055	4,2	1582	5,8	2180	7,5	2813		
F01.15.25032	32	297,0	12	3,6	1069	5,4	1604	7,4	2210	9,6	2851		
F01.15.25038	38	219,0	14	4,1	903	6,2	1355	8,5	1867	11,0	2409		
F01.15.25044	44	187,0	16	4,9	912	7,3	1367	10,1	1884	13,0	2431		
F01.15.25051	51	156,0	19	5,6	878	8,4	1316	11,6	1814	15,0	2340		
F01.15.25064	64	123,0	24	7,1	876	10,7	1315	14,7	1811	19,0	2337		
F01.15.25076	76	99,0	29	8,6	854	12,9	1281	17,8	1765	23,0	2277		
F01.15.25089	89	84,0	34	10,1	851	15,2	1276	20,9	1758	27,0	2268		
F01.15.25102	102	73,0	39	11,6	849	17,4	1273	24,0	1754	31,0	2263		
F01.15.25115	115	65,0	44	13,1	853	19,7	1280	27,1	1764	35,0	2276		
F01.15.25127	127	57,7	48	14,3	822	21,4	1233	29,4	1699	38,0	2193		
F01.15.25139	139	52,7	53	15,8	830	23,6	1245	32,5	1715	42,0	2213		
F01.15.25152	152	47,8	58	17,2	825	25,9	1237	35,6	1704	46,0	2199		
F01.15.25178	178	41,0	66	19,9	815	29,8	1222	41,1	1684	53,0	2173		
F01.15.25203	203	35,8	76	22,9	819	34,3	1228	47,3	1692	61,0	2184		
F01.15.25305	305	22,9	114	34,1	782	51,2	1172	70,5	1615	91,0	2084		

**WIRE SPRING, COLOUR "RED" DIN ISO 10243**  
**SCHRAUBENDRUCKFEDER, KENNFARBE "ROT" DIN ISO 10243**  
**MOLLA A FILO, COLORE "ROSSO" DIN ISO 10243**



Ø 32 - 63

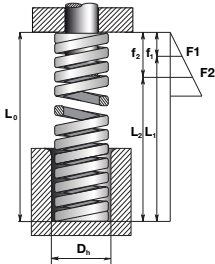


**Work Conditions**  
**f1** = pre-compression, min 13% Fbl  
**F1** = spring force when compressed f1  
**f2** = work travel, max 80% Fbl  
**F2** = spring force when compressed f2 (N)  
**Dh** = Hole diameter (mm)  
**Ds** = Rod Diameter (mm)  
**L0** = Free lenght (mm)  
**Rg** = Force / displacement rate (N/mm)  
**Fbl** = Max deflection (mm)

ORDER SAMPLE	Art.	D <sub>s</sub> = 32	L <sub>0</sub> = 44
	F01.15	32	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>G</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.15.32038	32	16	38	388,0	14	4,1	1601	6,2	2401	8,5	3308	11,0	4268
F01.15.32044			44	324,0	16	4,9	1580	7,3	2369	10,1	3264	13,0	4212
F01.15.32051			51	272,0	19	5,6	1530	8,4	2295	11,6	3162	15,0	4080
F01.15.32064			64	212,0	24	7,1	1511	10,7	2266	14,7	3122	19,0	4028
F01.15.32076			76	172,0	29	8,6	1484	12,9	2225	17,8	3066	23,0	3956
F01.15.32089			89	141,0	34	10,1	1428	15,2	2141	20,9	2950	27,0	3807
F01.15.32102			102	122,0	39	11,6	1418	17,4	2127	24,0	2931	31,0	3782
F01.15.32115			115	107,0	44	13,1	1404	19,7	2107	27,1	2902	35,0	3745
F01.15.32127			127	93,0	48	14,3	1325	21,4	1988	29,4	2739	38,0	3534
F01.15.32139			139	86,0	53	15,8	1355	23,6	2032	32,5	2799	42,0	3612
F01.15.32152			152	78,0	58	17,2	1346	25,9	2018	35,6	2781	46,0	3588
F01.15.32078			178	67,2	66	19,9	1336	29,8	2003	41,1	2760	53,0	3562
F01.15.32203			203	59,1	76	22,9	1352	34,3	2028	47,3	2794	61,0	3605
F01.15.32254			254	46,4	95	28,5	1322	42,8	1984	58,9	2733	76,0	3526
F01.15.32305			305	38,0	114	34,1	1297	51,2	1945	70,5	2680	91,0	3458
F01.15.40051			51	350,0	19	5,6	1969	8,4	2953	11,6	4069	15,0	5250
F01.15.40064	64	269,0	24	7,1	1917	10,7	2875	14,7	3961	19,0	5111		
F01.15.40076	76	219,0	29	8,6	1889	12,9	2833	17,8	3904	23,0	5037		
F01.15.40089	89	190,0	34	10,1	1924	15,2	2886	20,9	3976	27,0	5130		
F01.15.40102	102	163,0	39	11,6	1895	17,4	2842	24,0	3916	31,0	5053		
F01.15.40115	115	142,0	44	13,1	1864	19,7	2796	27,1	3852	35,0	4970		
F01.15.40127	127	128,0	48	14,3	1824	21,4	2736	29,4	3770	38,0	4864		
F01.15.40139	139	115,0	53	15,8	1811	23,6	2717	32,5	3743	42,0	4830		
F01.15.40152	152	108,0	58	17,2	1811	25,9	2717	35,6	3743	46,0	4830		
F01.15.40178	178	89,0	66	19,9	1769	29,8	2653	41,1	3656	53,0	4717		
F01.15.40203	203	77,0	76	22,9	1761	34,3	2642	47,3	3640	61,0	4697		
F01.15.40254	254	61,0	95	28,5	1739	42,8	2608	58,9	3593	76,0	4636		
F01.15.40305	305	51,0	114	34,1	1740	51,2	2611	70,5	3597	91,0	4641		
F01.15.50064	64	413,0	24	7,1	2943	10,7	4414	14,7	6081	19,0	7847		
F01.15.50076	76	339,0	29	8,6	2924	12,9	4386	17,8	6043	23,0	7797		
F01.15.50089	89	288,0	34	10,1	2916	15,2	4374	20,9	6026	27,0	7776		
F01.15.50102	102	245,0	39	11,6	2848	17,4	4272	24,0	5886	31,0	7595		
F01.15.50115	115	215,0	44	13,1	2822	19,7	4233	27,1	5832	35,0	7525		
F01.15.50127	127	192,0	48	14,3	2736	21,4	4104	29,4	5654	38,0	7296		
F01.15.50139	139	168,0	53	15,8	2646	23,6	3969	32,5	5468	42,0	7056		
F01.15.50152	152	154,0	58	17,2	2657	25,9	3985	35,6	5490	46,0	7084		
F01.15.50178	178	134,0	66	19,9	2663	29,8	3995	41,1	5504	53,0	7102		
F01.15.50203	203	117,0	76	22,9	2676	34,3	4015	47,3	5531	61,0	7137		
F01.15.50254	254	89,0	95	28,5	2537	42,8	3805	58,9	5242	76,0	6764		
F01.15.50305	305	73,0	114	34,1	2491	51,2	3737	70,5	5148	91,0	6643		
F01.15.63076	76	618,0	29	8,6	5330	12,9	7995	17,8	11016	23,0	14214		
F01.15.63089	89	515,0	34	10,1	5214	15,2	7822	20,9	10776	27,0	13905		
F01.15.63102	102	438,0	39	11,6	5092	17,4	7638	24,0	10523	31,0	13578		
F01.15.63115	115	370,0	44	13,1	4956	19,7	7284	27,1	10096	35,0	12950		
F01.15.63127	127	330,0	48	14,3	4745	21,4	7118	29,4	9807	38,0	12654		
F01.15.63152	152	269,0	58	17,2	4640	25,9	6960	35,6	9590	46,0	12374		
F01.15.63178	178	226,0	66	19,9	4492	29,8	6738	41,1	9283	53,0	11978		
F01.15.63203	203	198,0	76	22,9	4529	34,3	6794	47,3	9361	61,0	12078		
F01.15.63254	254	155,0	95	28,5	4418	42,8	6626	58,9	9130	76,0	11780		
F01.15.63305	305	128,0	114	34,1	4368	51,2	6552	70,5	9027	91,0	11648		

## WIRE SPRING, COLOUR "YELLOW" DIN ISO 10243 SCHRAUBENDRUCKFEDER, KENNFARBE "GELB" DIN ISO 10243 MOLLA A FILO, COLORE "GIALLO" DIN ISO 10243



### Work Conditions

- f1 = pre-compression, min 13% Fbl
- F1 = spring force when compressed f1
- f2 = work travel, max 80% Fbl
- F2 = spring force when compressed f2 (N)
- Dh = Hole diameter (mm)
- Ds = Rod Diameter (mm)
- L0 = Free lenght (mm)
- Rg = Force / displacement rate (N/mm)
- Fbl = Max deflection (mm)



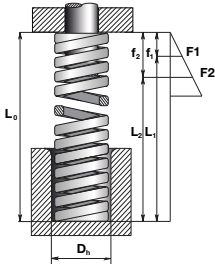
Ø 10 - 25



ORDER EXAMPLE	Art.	D <sub>s</sub> = 10	L <sub>0</sub> = 44
	F01.20	10	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.20.10025	10	5	25	36,8	8	2,3	86	3,5	128	4,8	177	6,2	228
F01.20.10032			32	27,9	10	3,0	84	4,5	126	6,2	173	8,0	223
F01.20.10038			38	23,7	12	3,6	84	5,3	127	7,4	175	9,5	225
F01.20.10044			44	19,2	14	4,1	79	6,2	119	8,5	162	11,0	211
F01.20.10051			51	16,5	16	4,9	80	7,3	121	10,1	166	13,0	215
F01.20.10064			64	13,2	20	6,0	79	9,0	119	12,4	164	16,0	211
F01.20.10076			76	10,9	24	7,1	78	10,7	117	14,7	161	19,0	207
F01.20.10305			305	2,6	95	28,5	74	42,8	111	58,9	153	76,0	198
F01.20.13025			25	58,5	8	2,3	136	3,5	204	4,8	281	6,2	363
F01.20.13032			32	43,9	10	3,0	132	4,5	198	6,2	272	8,0	351
F01.20.13038	38	36,0	12	3,6	128	5,3	192	7,4	265	9,5	342		
F01.20.13044	44	30,3	14	4,1	125	6,2	188	8,5	258	11,0	333		
F01.20.13051	51	26,2	16	4,9	128	7,3	192	10,1	264	13,0	341		
F01.20.13064	64	21,2	20	6,0	127	9,0	191	12,4	263	16,0	339		
F01.20.13076	76	17,1	24	7,1	122	10,7	183	14,7	252	19,0	325		
F01.20.13089	89	14,5	28	8,3	120	12,4	179	17,1	247	22,0	319		
F01.20.13305	305	4,3	95	28,5	123	42,8	184	58,9	253	76,0	327		
F01.20.16025	25	118,0	8	2,3	274	3,5	412	4,8	567	6,2	732		
F01.20.16032	32	89,0	10	3,0	267	4,5	401	6,2	552	8,0	712		
F01.20.16038	38	72,1	12	3,6	257	5,3	385	7,4	531	9,5	685		
F01.20.16044	44	60,9	14	4,1	251	6,2	377	8,5	519	11,0	670		
F01.20.16051	51	52,3	16	4,9	255	7,3	382	10,1	527	13,0	680		
F01.20.16064	64	41,2	20	6,0	247	9,0	371	12,4	511	16,0	659		
F01.20.16076	76	34,1	24	7,1	243	10,7	364	14,7	502	19,0	648		
F01.20.16089	89	29,5	28	8,3	243	12,4	365	17,1	503	22,0	649		
F01.20.16102	102	25,6	33	9,8	250	14,6	374	20,1	516	26,0	666		
F01.20.16305	305	8,4	95	28,5	239	42,8	359	58,9	495	76,0	638		
F01.20.20025	25	293,0	8	2,3	681	3,5	1022	4,8	1408	6,2	1817		
F01.20.20032	32	224,0	10	3,0	672	4,5	1008	6,2	1389	8,0	1792		
F01.20.20038	38	177,0	12	3,6	631	5,3	946	7,4	1303	9,5	1682		
F01.20.20044	44	149,0	14	4,1	615	6,2	922	8,5	1270	11,0	1639		
F01.20.20051	51	128,0	16	4,9	624	7,3	936	10,1	1290	13,0	1664		
F01.20.20064	64	99,0	20	6,0	594	9,0	891	12,4	1228	16,0	1584		
F01.20.20076	76	81,7	24	7,1	582	10,7	873	14,7	1203	19,0	1552		
F01.20.20089	89	69,5	28	8,3	573	12,4	860	17,1	1185	22,0	1529		
F01.20.20102	102	60,6	33	9,8	591	14,6	886	20,1	1221	26,0	1576		
F01.20.20115	115	53,0	36	10,9	576	16,3	865	22,5	1191	29,0	1537		
F01.20.20127	127	47,5	40	12,0	570	18,0	855	24,8	1178	32,0	1520		
F01.20.20139	139	43,0	44	13,1	564	19,7	847	27,1	1166	35,0	1505		
F01.20.20152	152	39,0	48	14,3	556	21,4	834	29,4	1149	38,0	1482		
F01.20.20305	305	21,2	95	28,5	604	42,8	906	58,9	1249	76,0	1611		
F01.20.25025	25	459,0	8	2,3	1067	3,5	1601	4,8	2206	6,2	2846		
F01.20.25032	32	374,0	10	3,0	1123	4,5	1685	6,2	2321	8,0	2995		
F01.20.25038	38	346,0	12	3,6	1233	5,3	1849	7,4	2547	9,5	3287		
F01.20.25044	44	244,0	14	4,1	1007	6,2	1510	8,5	2080	11,0	2684		
F01.20.25051	51	207,5	16	4,9	1012	7,3	1517	10,1	2091	13,0	2698		
F01.20.25064	64	161,0	20	6,0	966	9,0	1449	12,4	1996	16,0	2576		
F01.20.25076	76	130,8	24	7,1	932	10,7	1398	14,7	1926	19,0	2485		
F01.20.25089	89	110,5	28	8,3	912	12,4	1367	17,1	1884	22,0	2431		
F01.20.25102	102	96,3	33	9,8	939	14,6	1408	20,1	1940	26,0	2504		
F01.20.25115	115	85,7	36	10,9	932	16,3	1398	22,5	1926	29,0	2485		
F01.20.25127	127	76,3	40	12,0	916	18,0	1373	24,8	1892	32,0	2442		
F01.20.25139	139	68,9	44	13,1	904	19,7	1357	27,1	1869	35,0	2412		
F01.20.25152	152	63,5	48	14,3	905	21,4	1357	29,4	1870	38,0	2413		
F01.20.25178	178	53,9	55	16,5	889	24,8	1334	34,1	1838	44,0	2372		
F01.20.25203	203	47,0	64	19,1	899	28,7	1348	39,5	1858	51,0	2397		
F01.20.25305	305	30,9	95	28,5	881	42,8	1321	58,9	1820	76,0	2348		

## WIRE SPRING, COLOUR "YELLOW" DIN ISO 10243 SCHRAUBENDRUCKFEDER, KENNFARBE "GELB" DIN ISO 10243 MOLLA A FILO, COLORE "GIALLO" DIN ISO 10243



Ø 32 - 63



**Work Conditions**  
**f1** = pre-compression, min 13% Fbl  
**F1** = spring force when compressed f1  
**f2** = work travel, max 80% Fbl  
**F2** = spring force when compressed f2 (N)  
**Dh** = Hole diameter (mm)  
**Ds** = Rod Diameter (mm)  
**L0** = Free lenght (mm)  
**Rg** = Force / displacement rate (N/mm)  
**Fbl** = Max deflection (mm)

ORDER EXAMPLE	Art.	D <sub>h</sub> = 32	L <sub>0</sub> = 44
	F01.20	32	044

OMCR CODE	D <sub>h</sub>	D <sub>s</sub>	L <sub>0</sub>	R <sub>g</sub>	f <sub>BL</sub>	30% <sub>f<sub>BL</sub></sub>		45% <sub>f<sub>BL</sub></sub>		62% <sub>f<sub>BL</sub></sub>		80% <sub>f<sub>BL</sub></sub>	
						mm	N	mm	N	mm	N	mm	N
F01.20.32038	32	16	38	528,2	12	3,6	1882	5,3	2823	7,4	3889	9,5	5018
F01.20.32044			44	424,4	14	4,1	1751	6,2	2626	8,5	3618	11,0	4668
F01.20.32051			51	353,0	16	4,9	1721	7,3	2581	10,1	3557	13,0	4589
F01.20.32054			64	269,2	20	6,0	1615	9,0	2423	12,4	3338	16,0	4307
F01.20.32076			76	218,5	24	7,1	1557	10,7	2335	14,7	3217	19,0	4152
F01.20.32089			89	180,3	28	8,3	1488	12,4	2231	17,1	3074	22,0	3967
F01.20.32102			102	155,0	33	9,8	1511	14,6	2267	20,1	3123	26,0	4030
F01.20.32115			115	140,0	36	10,9	1523	16,3	2284	22,5	3147	29,0	4060
F01.20.32127			127	124,0	40	12,0	1488	18,0	2232	24,8	3075	32,0	3968
F01.20.32139			139	112,3	44	13,1	1474	19,7	2211	27,1	3046	35,0	3931
F01.20.32152			152	102,0	48	14,3	1454	21,4	2180	29,4	3004	38,0	3876
F01.20.32078			178	88,2	55	16,5	1455	24,8	2183	34,1	3008	44,0	3881
F01.20.32203			203	76,0	64	19,1	1454	28,7	2180	39,5	3004	51,0	3876
F01.20.32254			254	60,8	80	24,0	1459	36,0	2189	49,6	3016	64,0	3891
F01.20.32305			305	49,0	95	28,5	1397	42,8	2095	58,9	2886	76,0	3724
F01.20.40051			51	628,0	16	4,9	3062	7,3	4592	10,1	6327	13,0	8164
F01.20.40064			64	487,0	20	6,0	2922	9,0	4383	12,4	6039	16,0	7792
F01.20.40076			76	379,0	24	7,1	2700	10,7	4051	14,7	5581	19,0	7201
F01.20.40089	89	321,0	28	8,3	2648	12,4	3972	17,1	5473	22,0	7062		
F01.20.40102	102	281,0	33	9,8	2740	14,6	4110	20,1	5662	26,0	7306		
F01.20.40115	115	245,0	36	10,9	2664	16,3	3997	22,5	5506	29,0	7105		
F01.20.40127	127	221,0	40	12,0	2652	18,0	3978	24,8	5481	32,0	7072		
F01.20.40139	139	190,0	44	13,1	2494	19,7	3741	27,1	5154	35,0	6650		
F01.20.40152	152	168,0	48	14,3	2394	21,4	3591	29,4	4948	38,0	6384		
F01.20.40178	178	146,0	55	16,5	2409	24,8	3614	34,1	4979	44,0	6424		
F01.20.40203	203	132,0	64	19,1	2525	28,7	3787	39,5	5217	51,0	6732		
F01.20.40254	254	107,0	80	24,0	2568	36,0	3852	49,6	5307	64,0	6848		
F01.20.40305	305	87,8	95	28,5	2502	42,8	3753	58,9	5171	76,0	6673		
F01.20.50064	64	709,0	20	6,0	4254	9,0	6381	12,4	8792	16,0	11344		
F01.20.50076	76	572,0	24	7,1	4076	10,7	6113	14,7	8423	19,0	10868		
F01.20.50089	89	475,0	28	8,3	3919	12,4	5878	17,1	8099	22,0	10450		
F01.20.50102	102	405,0	33	9,8	3949	14,6	5923	20,1	8161	26,0	10530		
F01.20.50115	115	352,0	36	10,9	3828	16,3	5742	22,5	7911	29,0	10208		
F01.20.50127	127	316,0	40	12,0	3792	18,0	5688	24,8	7837	32,0	10112		
F01.20.50139	139	274,0	44	13,1	3596	19,7	5394	27,1	7432	35,0	9590		
F01.20.50152	152	239,0	48	14,3	3406	21,4	5109	29,4	7039	38,0	9082		
F01.20.50178	178	215,0	55	16,5	3548	24,8	5321	34,1	7332	44,0	9460		
F01.20.50203	203	187,0	64	19,1	3576	28,7	5365	39,5	7391	51,0	9537		
F01.20.50254	254	153,0	80	24,0	3672	36,0	5508	49,6	7589	64,0	9792		
F01.20.50305	305	127,0	95	28,5	3620	42,8	5429	58,9	7480	76,0	9652		
F01.20.63076	76	952,0	24	7,1	6783	10,7	10175	14,7	14018	19,0	18088		
F01.20.63089	89	819,0	28	8,3	6757	12,4	10135	17,1	13964	22,0	18018		
F01.20.63102	102	700,0	33	9,8	6825	14,6	10238	20,1	14105	26,0	18200		
F01.20.63115	115	620,0	36	10,9	6743	16,3	10114	22,5	13935	29,0	17980		
F01.20.63127	127	565,0	40	12,0	6780	18,0	10170	24,8	14012	32,0	18080		
F01.20.63152	152	459,0	48	14,3	6527	21,4	9790	29,4	13488	38,0	17404		
F01.20.63178	178	384,0	55	16,5	6356	24,8	9504	34,1	13094	44,0	16896		
F01.20.63203	203	337,0	64	19,1	6445	28,7	9668	39,5	13320	51,0	17187		
F01.20.63254	254	263,0	80	24,0	6312	36,0	9468	49,6	13045	64,0	16832		
F01.20.63305	305	218,0	95	28,5	6213	42,8	9320	58,9	12840	76,0	16568		







# Gas Springs Gasdruckfedern Molle a Gas

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

# Gas Springs

## Gasdruckfedern

### Molle a Gas

Ⓞ The **Gas Springs** line close a gap where ever the accent is on accommodation of the utmost force component within a minimum of space – or where exceedingly large travel is demanded : OMCR Gas springs take care of both demands, even in combination. The pressure medium is a commercially available, environment-friendly nitrogen. OMCR gas springs have a standard charge pressure of max. 150 bar (some special to 180 bar). Depending on the spring size and spring type, starting spring forces of 20 daN to 20000 daN can be realised.

Ⓞ OMCR Gasdruckfedern werden eingesetzt, wenn große Federkräfte auf kleinstmöglichem Raum unterzubringen sind, wenn große Federwege benötigt werden oder wenn beide Forderungen gleichzeitig erfüllt werden müssen. Das Druckmedium ist handelsüblicher und umweltfreundlicher Stickstoff. OMCR Gasdruckfedern werden serienmäßig bis max. 150 bar (180 bar) gefüllt. Je nach Federgröße und Federtyp lassen sich Anfangs-Federkräfte von 20 daN bis 20000 daN realisieren.

Ⓞ Le **molle a gas** OMCR vengono utilizzate quando è necessaria la sistemazione di un componente con massima forza entro un minimo spazio - o dove è richiesta una corsa estremamente grande: le molle a gas OMCR ricoprono entrambe le esigenze, anche in combinazione. Il gas utilizzato per la messa in pressione è un azoto ecologico disponibile in commercio. Le molle a gas OMCR hanno una pressione di carica standard di max. 150bar (alcune speciali a 180 bar). A seconda delle dimensioni della molla e del tipo di molla, è possibile realizzare forze di molla di partenza da 20 daN a 20000 daN.

# OMCR®

STANDARD DIE COMPONENTS



## GB PRESSURE BUILD UP

In operation the piston rod enters the spring space whose volume is progressively reduced.

Depending on the stroke length, the volume of the pressure chamber is reduced. The resulting increase in pressure can be read from the diagram of the spring size as a factor. The final force is therefore the initial spring force multiplied to Pressure build-up factor. (Fig.2)

Modification of charge pressure allows variation of the force rating and can be predetermined from the spring diagram. (Fig.1)

## D DRUCKAUFBAU

Beim Federhub dringt die Kolbenstange in den Druckraum ein. Je nach Hublänge wird das Volumen des Druckraumes verkleinert. Der dadurch bedingte Druckanstieg ist vom Schaubild der Federgröße als Faktor abzulesen. Die Endkraft ist also die Anfangsfederkraft Druckaufbaufaktor. (Abb.2)

Durch den einstellbaren Fülldruck lässt sich die Anfangsfederkraft variieren. Diese ist vom Schaubild der jeweiligen Federtype abzulesen.. (Abb.1)

## I INCREMENTO PRESSIONE

In lavoro, l'asta del pistone penetra nella cavità del corpo cilindrico. Con l'aumento della lunghezza della corsa eseguita, viene ridotto il volume del vano di compressione. L'incremento di pressione determinato da ciò potrà essere visto nel diagramma relativo e venir letto come un coefficiente. La forza finale esercitata dalla molla è data, perciò, dalla sua forza iniziale moltiplicata per tale coefficiente. (Fig.2)

La forza iniziale può variare per mezzo della pressione di carica, e può esser calcolata dal diagramma specifico della molla. (Fig.1)

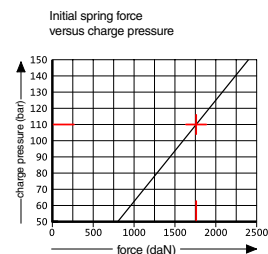


Fig. 1

Example:

Gas spring loaded at a pressure of 150 Bar, will give an initial force of 2400 DaN. (code G01.020.02400xxx)

Gas spring loaded at a pressure of 110 Bar, its initial force will be 1750 DaN (code G01.020.02400xxxW110)

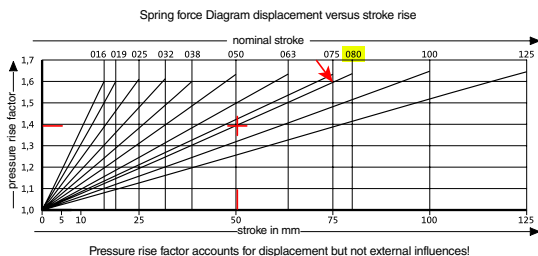


Fig. 2

Example:

(code G01.020.02400080)  
Nominal stroke 80mm, used stroke 50mm:  
build up factor: 1,4 strength after 50mm of travel :  
2400 x 1.4 : 3360 DaN

(code G01.020.02400080W110)  
Nominal stroke 80mm, used stroke 50mm:  
coefficient 1,4 Istrength after 50mm of travel : 1750 x  
1.4 : 2450 DaN

**ALL OMCR GAS SPRINGS MEET THE REQUIREMENTS OF THE PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU.**



**GB DIRECTIVE 2014/68/EU**

The Pressure Equipment Directive (2014/68/EU) was ratified by the European parliament and the Council of Europe in May 1997. The requirements of the pressure equipment directive came into force throughout the EU on 29 May 2002.

The directive defines pressure equipment as vessels, pipework, safety devices and pressure accessories. In terms of the directive a vessel is a casing which is designed and manufactured to contain fluids under pressure.

It follows from this definition that nitrogen gas springs of all sizes are deemed to be pressure vessels and must in this respect comply with the pressure equipment directive (2014/68/EU) from 29 May 2002.

**D RICHTLINIE 2014/68/EU**

Die Druckgeräte Richtlinie (2014/68/EU) wurde im Mai 1997 vom Europäischen Parlament und vom Europarat angenommen. Seit dem 29. Mai 2002 sind die Bestimmungen der Druckgeräte-Richtlinie in der gesamten EU zwingend. Die Richtlinie definiert Druckgeräte als Behälter, Rohrleitungen, Sicherheitszubehör und Druckzubehör. Gemäß der EN Richtlinie ist ein Behälter ein Gehäuse, das für die Aufnahme unter Druck stehender Fluide konstruiert und hergestellt wurde. Aus dieser Definition geht hervor, dass Stickstoff Gasdruckfedern aller Größen als Druckbehälter zu gelten haben und in dieser Eigenschaft nach dem 29. Mai 2002 der Druckgeräte-Richtlinie (2014/68/EU) entsprechen müssen.

**I DIRETTIVA 2014/68/EU**

La Direttiva sulle Apparecchiature a Pressione (2014/68/UE) è stata accolta nel maggio 1997 dal Parlamento Europeo e dal Consiglio d'Europa. Dal 29 maggio 2002 le disposizioni della Direttiva sulle Apparecchiature a Pressione sono effettive nell'intera Comunità Europea. La Direttiva definisce come apparecchiature a pressione: i contenitori, le condutture, gli accessori di sicurezza e gli accessori sottoposti a pressione, connessi con i vari sistemi a pressione. In conformità alla Direttiva una molla a gas è un recipiente che è stato progettato e costruito per contenere fluidi posti sotto pressione. Da questa definizione deriva che le molle a gas a pressione di azoto di tutte le grandezze sono da considerarsi dei contenitori a pressione e che, per questa loro caratteristica, esse devono essere conformi – a partire dal 29 maggio 2002 – al dettato della Direttiva sulle Apparecchiature a Pressione (2014/68/UE).

## GB MAINTENANCE

OMCR gas springs are designed for long-term maintenance-free operation. We recommend lightly oiling the piston rod before using. For more informations, please see instruction manual.

### ATTENTION

When safety functions are triggered (overstroke, return stroke, or overpressure protection), the gas springs can no longer be repaired!

### CAUTION

Gas springs may only be charged with commercial grade 5.0 nitrogen gas.

### ACCESSORIES

The range of accessories for gas springs includes fastening devices, charging and control units, screw connections and lines for setting up compound systems. OMCR is not liable if fittings that are not original OMCR fittings or fastening, accessory, and attachment parts that are not released by OMCR are used.

## D MAINTENANCE

OMCR-Gasdruckfedern sind für wartungsfreien Dauerbetrieb ausgelegt. Vor dem Einsatz ist zu empfehlen, die Kolbenstange leicht einzuölen. Siehe Benutzerhandbuch für weitere Informationen.

### ACHTUNG

Bei ausgelösten Sicherheitsfunktionen (Überhub-Schutz, Rückhub-Schutz oder Überdruck-Schutz) sind die Gasdruckfedern nicht mehr reparabel!

### ACHTUNG

Gasdruckfedern dürfen nur mit handelsüblichem Stickstoff der Güteklasse 5.0 gefüllt werden.

### ZUBEHÖR

Das Gasdruckfeder Zubehörprogramm umfasst Befestigungen, Auffüll- und Kontrollgeräte, Verschraubungen und Leitungen für Verbundsystemanordnung. Bei Verwendung von nicht Original- OMCR- oder von OMCR nicht freigegebenen Befestigungs-, Zubehör- und Anbauteilen erlischt jegliche Haftung.

## I MANUTENZIONE

Le molle a gas OMCR sono state progettate per un servizio continuativo senza manutenzione. Si raccomanda di oliare leggermente l'asta del pistone prima dell'impiego. Vedi manuale d'uso per ulteriori informazioni.

### ATTENZIONE

Se le funzioni di sicurezza sono state attivate, (protezione da sovracorsa, protezione da corsa di ritorno o protezione da sovrappressione), le molle a gas non sono più riparabili!

### ATTENZIONE

Le molle a gas devono essere caricate esclusivamente con azoto della classe di qualità 5.0 commerciale.

### ACCESSORI

L'assortimento di accessori disponibili per le molle a gas comprende elementi di fissaggio, apparecchiature di controllo, raccorderia e tubi per la realizzazione di sistemi a molle multiple. L'utilizzo di componenti di fissaggio e componenti accessorie non originali OMCR o non autorizzate da OMCR comporta l'annullamento della garanzia

## Ⓖ MOUNTING EXAMPLES

Mounting possibilities for gas springs are listed below. For additional information on mounting, see the corresponding pages in the catalogue.

## Ⓓ MOUNTING EXAMPLES

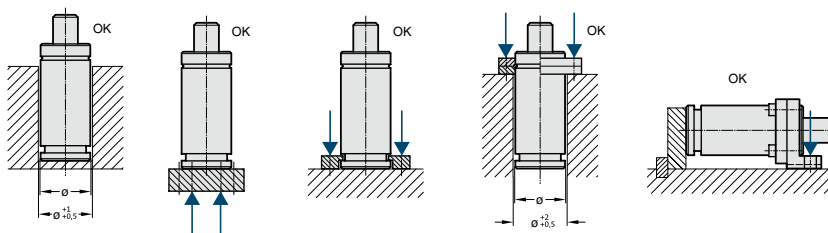
Die Befestigungsmöglichkeiten werden im Folgenden beschrieben. Weitere Informationen zur Montage finden Sie auf den entsprechenden Seiten des Katalogs.

## Ⓘ ESEMPI DI MONTAGGIO

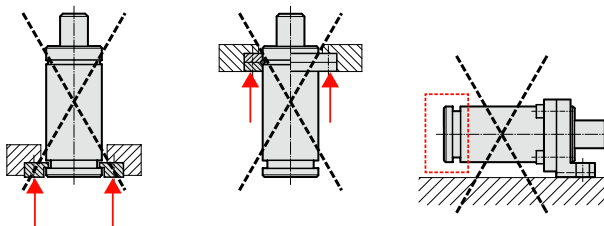
Le possibilità di fissaggio sono descritte di seguito. Per maggiori informazioni sui montaggi, vedi le pagine dedicate nel catalogo.



**CORRECT FIXING :**



**INCORRECT FIXING :**



## GE MOUNTING INSTRUCTIONS

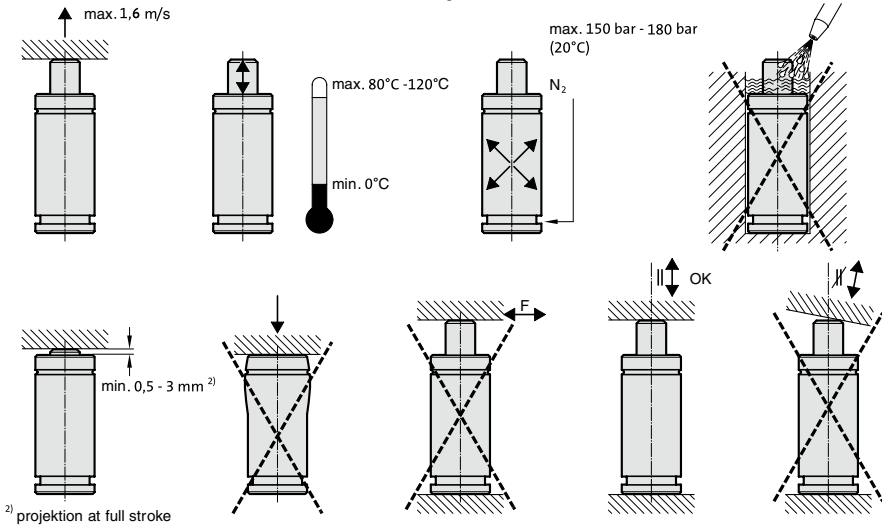
To achieve the best possible service-life and safety from the gas spring, the directions below must be followed.

## DE MONTAGEBEISPIELE

Die Befestigungsmöglichkeiten werden im Folgenden beschrieben. Weitere Informationen zur Montage finden Sie auf den entsprechenden Seiten des Katalogs.

## IT MOUNTING INSTRUCTIONS

Qui di seguito vengono illustrate alcune possibili modalità di montaggio delle molle a gas.



<sup>2)</sup> proiezione at full stroke

## GE WARNINGS

1. Secure the gas spring to the tool/machine whenever possible, using the threaded hole(s) in the base of the gas spring or a suitable flange.
2. The threaded hole in the piston rod top should not be used for mounting purposes. It is only to be used when carrying and servicing the gas spring.
3. Do not use the gas spring in such a way that the piston rod is realised freely from its compressed position, as this could cause internal damage to the gas spring.
4. Make sure the gas spring is mounted parallel to the direction of the compression stroke.
5. Ensure the contact surface of the piston rod top is perpendicular to the direction of the compression stroke and is sufficiently hardened.
6. The gas spring should not be subjected to the side loads.
7. Protect the piston rod against mechanical damage and contact with fluids.
8. We recommend providing a stroke reserve of 10% of the nominal stroke length or 5 mm.
9. The maximum charging pressure as a function of the working temperature must not be exceeded as it may affect the safety of the product.
10. Exceeding the gas spring's recommended operating temperature will shorten the service-life of the gas spring.
11. The entire contact surface of the piston rod / piston should be used.

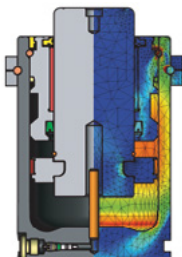


## ⓘ **WARNUNG**

1. Wenn möglich, Sichern der Gasdruckfeder im Werkzeug / Maschine unter Verwendung der im Federboden eingebrachten Gewindebohrungen oder Befestigungselemente.
2. Die Gewindebohrung in der Kolbenstange darf nicht zur Befestigung der Gasdruckfeder verwendet werden. Sie dient ausschließlich zu Transport und Wartungszwecken.
3. Gasdruckfeder nicht in einer Art und Weise einsetzen, dass die Kolbenstange abrupt aus der gedrückten Position frei wird (innere Beschädigung der Gasdruckfeder).
4. Gasdruckfeder parallel zur Krafteinleitung einbauen.
5. Kontaktoberfläche zur Betätigung der Kolbenstange muss rechtwinklig zum Gasdruckfederhub sein und sollte eine hinreichende Härte aufweisen.
6. Es dürfen keine seitlichen Kräfte auf die Gasdruckfeder wirken.
7. Kolbenstange gegen mechanische Beschädigung und Kontakt mit Flüssigkeiten schützen.
8. Es wird empfohlen, eine Hubreserve von 10% der nominellen Hublänge oder 5 mm vorzusehen.
9. Der maximale Fülldruck (bei 20°C) darf nicht überschritten werden, da ansonsten keine Systemsicherheit gewährleistet werden kann.
10. Ein Überschreiten der max. zulässigen Arbeitstemperatur verringert die Lebensdauer der Gasdruckfeder wesentlich.
11. Die Oberfläche der Kolbenstange/des Kolbens sollte komplett beaufschlagt werden

## ⓘ **AVVERTENZE**

1. Quando possibile è preferibile effettuare il fissaggio della molla nello stampo/macchina utilizzando i fori filettati esistenti nel fondello della molla, oppure uno degli elementi di fissaggio forniti a richiesta.
2. Il foro filettato esistente nel pistone non deve venir utilizzato per il fissaggio della molla. Essodeve servire esclusivamente per le operazioni di trasporto e manutenzione.
3. Non si deve installare la molla a gas in maniera tale che, nel funzionamento, l'asta del pistone possa venir liberata in modo improvviso e non frenato dalla posizione di molla compressa (ne potrebbero derivare dei danneggiamenti agli organi interni della molla).
4. Montare la molla a gas in modo da assicurarle una posizione parallela alla direzione della forza di compressione con cui verrà azionata.
5. La superficie di appoggio che preme sulla testa del pistone per comprimere la molla deve essere perpendicolare alla corsa del pistone stesso e dovrebbe anche presentare unadurezza sufficiente a svolgere con continuità tale funzione.
6. La molla non deve mai venir sollecitata da forze laterali.
7. Proteggere l'asta del pistone da danneggiamenti dovuti a urti meccanici, oppure a contatto con fluidi esterni.
8. Si raccomanda inoltre di prevedere una riserva di corsa pari al 10% della corsa nominale o di 5 mm.
9. Non si deve superare la massima pressione di carica (a 20°C) dipendente dalla temperaturadi funzionamento perché diversamente non potrà venir garantita la sicurezza del sistema.
10. Il superamento della massima temperatura ammissibile per il funzionamento accorcia in misura sostanziale la durata utile della molla a gas.
11. La superficie del pistone / dell'asta del pistone deve venir integralmente coinvolta nel funzionamento



Standard Die Components • IT: 10077 San Maurizio Cas. Tel. +39 011 9964611 • Fax +39 011 996466		<b>OMCR</b>	
<b>Model No. G01.30.05000100</b>			
Order No.	Part No.	Material	Finish
Filling pressure: 150 bar	Spring Force: 5000 daN		
PED approved for 2,000,000 strokes at full stroke load.			
Gasdruckfeder – Warnung! Nicht öffnen – hoher Druck; Fülldruck max. 150 bar. Bitte Bedienungsanleitung beachten! Gas Spring – Warning! Do not open/high pressure; filling pressure max. 150 bar. Please follow instructions for use! Ressort à gaz – Attention! Ne pas ouvrir - haute pression; pression de remplissage max. 15 MPa. Veuillez observer les instructions d'emploi! Molla a gas – Attenzione! Non aprire - alta pressione; pressione de riempimento max. 150 bar. Si prega di osservare le istruzioni per l'uso! Muelle de gas – Atención! No abrir - alta presión; cargado a máx. 150 bar. ¡Por favor observe las instrucciones!			

### GB PED APPROVED

PED Approval for 2 million strokes. OMCR Gas Springs are developed, manufactured and tested for a minimum of 2 million\* full strokes in accordance with PED 2014/68/EU. The springs deliver this full performance at the maximum permissible limits in terms of filling pressure and operating temperature - even when combined with any of the various mounting types available.

### D PED ZULASSUNG

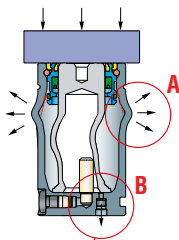
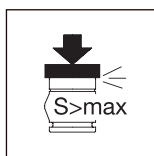
OMCR Gasdruckfedern sind gemäß DGRL 2014/68/EU entwickelt, hergestellt und geprüft für min. 2 Millionen\* voll genutzte Hübe. Und das bei maximal zulässigem Fülldruck und maximal zulässiger Betriebstemperatur. Dies gilt auch in Verbindung mit sämtlichen spezifizierten Befestigungsarten.

\*Berechnungswert für Dauerfestigkeit

### I APPROVAZIONE PED

Le molle a gas OMCR sono state sviluppate, prodotte e testate per 2 milioni\* di corse secondo DGRL2014/68/UE. Le molle raggiungono questo rendimento massimo ai limiti assoluti accettabili in termini di pressione di riempimento e temperatura operativa – anche quando sono abbinate con alcuni dei diversi tipi di montaggio disponibili.

\*Valore stimato per la resistenza



### GB OVERSTROKE PROTECTION

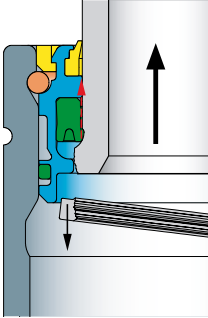
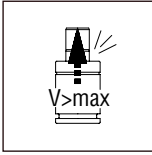
In the event of an overstroke and depending on the spring type, the patented protection system will ensure that either the cylinder wall of the gas spring is deformed in a predefined manner (A) or the piston rod destroys a rupture bolt in the floor of the cylinder (B), thereby allowing the gas to escape into the atmosphere.

### D ÜBERHUB-SCHUTZ

Wird ein Überhub ausgeführt, gewährleisten je nach Federtyp die patentierten Schutzsysteme, dass sich entweder die Zylinderwand der Gasdruckfeder definiert verformt (A) oder die Kolbenstange eine Berstschaube im Zylinderboden zerstört (B) und in beiden Fällen das Gas nach außen entweicht.

### I PROTEZIONE EXTRACORSA

In caso di sovracorsa a seconda del tipo di molla, il sistema di protezione brevettato assicurerà che né la parete del cilindro della molla a gas si deformi in una maniera predefinita (A), né l'asta del pistone distrugga il perno nella base del cilindro (B), così permettendo al gas di rilasciarsi nell'atmosfera.



### GB RETURN STROKE PROTECTION

If, for any reason, tool component should get stuck and the piston rod should be freely released from its compressed position, conventional gas spring may pose safety risk as the piston may not be retined in the gas spring.

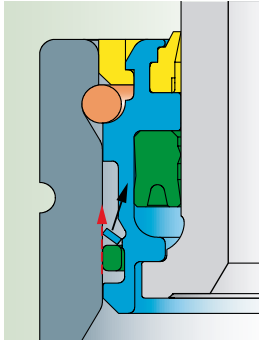
OMCR Gas Spring have special guides and a patented safety stop in the piston rods ensure your safety. If the speed is too high during the return stroke, the collar on the piston rod will automatically break. The integrated safety stop then destroys the seal, which allows the gas to escape into the atmosphere and the gas spring become depressurised.

### D RÜCKHUB-SCHUTZ

Wenn sich Werkzeugkomponenten verklemmen und die gedrückte Kolbenstange anschließend plötzlich entlastet wird, besteht bei herkömmlichen Gasdruckfedern die Gefahr, dass die Kolbenstange nicht in der Gasdruckfeder verbleibt. Hier sorgen spezielle Führungen und ein patentierter Sicherheitsstopp in den Kolbenstangen für Sicherheit. Ist die Geschwindigkeit beim Rückhub zu hoch, bricht automatisch der Bund der Kolbenstange. Der integrierte Sicherheitsstopp zerstört die Dichtung, das Gas entweicht nach außen und die Gasdruckfeder wird drucklos.

### I PROTEZIONE CORSA DI RITORNO INCONTROLLATA

Se, per un qualsiasi motivo, i componenti dello stampo dovessero bloccarsi rilasciando il pistone in maniera incontrollata si potrebbe presentare un rischio per la sicurezza. Le molle a gas OMCR hanno un sistema brevettato di guide e fermi che assicurano la sicurezza. Se la velocità di ritorno è troppo alta, la flangia di sicurezza sulla guarnizione viene automaticamente distrutta. In questo modo il gas fuoriesce nell'atmosfera e la molla a gas perde la pressione.



### Ⓒ OVERPRESSURE PROTECTION

Conventional gas springs can burst if the internal pressure rises above a maximum permitted value. If this happens, parts flying around can become dangerous projectiles.

With OMCR Gas Spring if the pressure rises above the maximum permitted value, the safety collar on the sealing set is automatically destroyed. The gas then escapes into the atmosphere and the gas spring is depressurised.

### Ⓒ OVERPRESS ÜBERDRUCK-SCHUTZ

Steigt der Innendruck über den zulässigen Wert, können herkömmliche Gasdruckfedern bersten und stellen ein Sicherheitsrisiko für Bediener und Werkzeug dar. Steigt der Druck über den zulässigen Wert, wird der Sicherheitsbund am Dichtungssatz oder an einer Berstschraube automatisch zerstört. Das Gas entweicht nach außen und die Gasdruckfeder wird drucklos.

### Ⓒ PROTEZIONE SOVRAPRESSIONE

Le molle a gas convenzionali possono esplodere se la pressione interna supera il massimo valore concesso. Se questo accade, parti che voleranno per aria possono diventare proiettili pericolosi. Le molle a gas OMCR sono diverse: se la pressione supera il massimo valore concesso, la flangia di sicurezza sulla guarnizione viene automaticamente distrutta. In questo modo il gas fuoriesce nell'atmosfera e la molla a gas perde la pressione.

### Ⓒ WARNING

**After a protection function is triggered, the spring cannot be repaired and can no longer be used.** It must be replaced completely.

Please refer to the relevant data sheets to check the current safety equipment which is provided with the gas spring you are interested in, or contact OMCR directly

for more information. For the safe handling of gas springs and other nitrogen products, the safety regulations must be observed.

Maintenance work on the product may only be done, if nitrogen gas is no longer contained in the gas spring.

### Ⓒ WARNING

**Nach Aktivierung einer Schutzfunktion ist die Feder irreparabel und kann nicht mehr verwendet werden.** Sie muss vollständig ersetzt werden. Die mit den Gasdruckfedern gelieferte Sicherheitsausrüstung entnehmen Sie bitte dem Produktblatt oder wenden Sie sich für weitere Informationen direkt an OMCR. Für den sicheren Umgang mit Gasdruckfedern und anderem Zubehör sind die Sicherheitsvorschriften unbedingt zu beachten. Wartungsarbeiten am Produkt dürfen nur durchgeführt werden, wenn kein Stickstoff mehr in der Gasfeder vorhanden ist.

### Ⓒ ATTENZIONE

**Dopo l'attivazione di una funzione di protezione la molla è irreparabile e non può più essere utilizzata.** Deve essere interamente sostituita. Fare riferimento alla scheda di prodotto per controllare l'equipaggiamento di sicurezza in dotazione con le molle a gas o contatta direttamente OMCR per ulteriori informazioni. Per una gestione sicura delle molle a gas e degli altri accessori, è indispensabile osservare le norme di sicurezza. Si possono eseguire interventi di manutenzione sul prodotto solo se l'azoto non è più presente nella molla a gas.

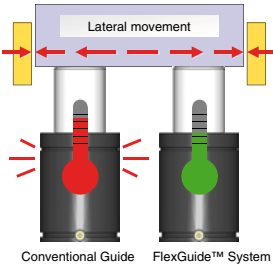


## THE FLEX GUIDE™ SYSTEM

The Flex Guide™ System is a flexible guide in the gas spring which absorbs lateral movements of the piston rod. It minimises friction and lowers the operating temperature.

Flex Guide™ System benefits :

- Extended service life
- Increased stroke frequency, i.e. more strokes per minute



## THE FLEX GUIDE™ SYSTEM

Das Flex Guide™ System, eine flexible Führung in der Gasdruckfeder, nimmt seitliche Kolbenstangenbewegungen auf. Es minimiert die Reibung und senkt die Betriebstemperatur.

Flex Guide™ System benefits :

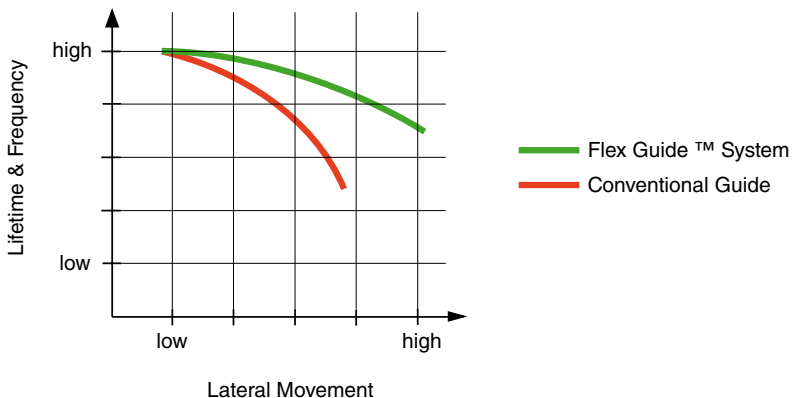
- Längere Lebensdauer
- Höhere Hubfrequenz, d. h. mehr Hübe pro Minute

## THE FLEX GUIDE™ SYSTEM

Il Flex Guide™ System consiste in speciali guide interne al cilindro che assorbono i movimenti laterali, riducendo attrito e temperatura di lavoro.

Vantaggi Flex Guide™ System:

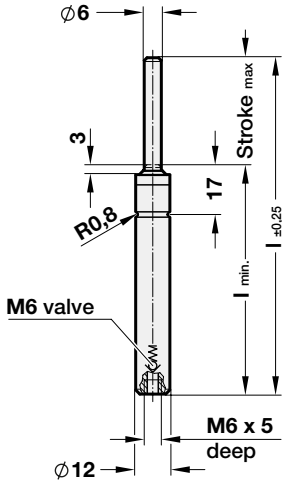
- Incremento durata cilindro
- incremento frequenza lavoro; aumento corse/minuto



				
<p><b>MICRO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1128</p>	<p><b>MICRO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1130</p>	<p><b>MICRO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1132</p>	<p><b>MICRO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1134</p>	<p><b>MICRO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1136</p>
				
<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1138</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1140</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1142</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1144</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1146</p>
				
<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1148</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1150</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1152</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1154</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1156</p>
				
<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1158</p>	<p><b>POWERLINE</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1160</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1162</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1164</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1166</p>

<p><b>G01.30.01500</b></p> 	<p><b>G01.30.03000</b></p> 	<p><b>G01.30.05000</b></p> 	<p><b>G01.30.07500</b></p> 	<p><b>G01.30.10000</b></p> 
<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1168</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1170</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1172</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1174</p>	<p><b>ISO</b> GAS SPRING GASDRUCKFEDER MOLLA A GAS</p> <p>1176</p>
<p><b>G02.10</b></p> 	<p><b>G02.15</b></p> 	<p><b>G02.20</b></p> 		
<p>UPPER FLANGE OBERER FLANSCH FLANGIA SUPERIORE</p> <p>1178</p>	<p>MIDDLE FLANGE ZENTRALER FLANSCH FLANGIA CENTRALE</p> <p>1180</p>	<p>LOWERFLANGE UBERER FLANSCH FLANGIA INFERIORE</p> <p>1181</p>		
<p><b>G03.11</b></p> 	<p><b>G03.12</b></p> 	<p><b>G03.13</b></p> 	<p><b>G03.14</b></p> 	<p><b>G03.50</b></p> 
<p>ACCESSORIES ZUBEHÖR ACCESSORI</p> <p>1189</p>	<p>GAUGING HOSE 0° MESSSCHLAUCH BEIDSEITIG 0° TUBO CONNESSIONE 0°</p> <p>1194</p>	<p>GAUGING HOSE 0°-90° MESSSCHLAUCH BEIDSEITIG 0°-90° TUBO CONNESSIONE 0°-90°</p> <p>1194</p>	<p>GAUGING HOSE 90° MESSSCHLAUCH BEIDSEITIG 90° TUBO CONNESSIONE 90°</p> <p>1195</p>	<p>CONTROL PANEL KONTROLLARMATUR PANNELLO DI CONTROLLO</p> <p>1196</p>

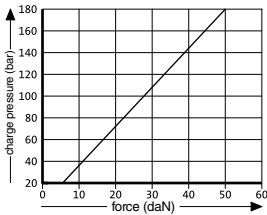
**GAS SPRING - SMALL DIMENSION AND LOW FORCE**  
**GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT**  
**MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA**



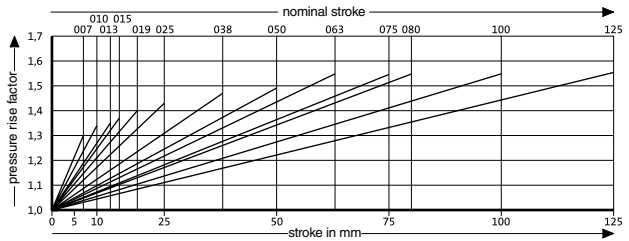
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!



## GAS SPRING - SMALL DIMENSION AND LOW FORCE GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA

	Art.	Init.Spring Force (daN) = 13	Stroke = 7
	G01.10	00013	007

**\* UNFILLED**

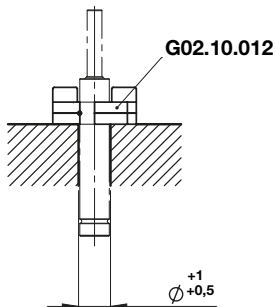
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.10.00000.007	00000*	7	56	49
G01.10.00013.007	00013	7	56	49
G01.10.00025.007	00025	7	56	49
G01.10.00038.007	00038	7	56	49
G01.10.00050.007	00050	7	56	49
G01.10.00000.010	00000*	10	62	52
G01.10.00013.010	00013	10	62	52
G01.10.00025.010	00025	10	62	52
G01.10.00038.010	00038	10	62	52
G01.10.00050.010	00050	10	62	52
G01.10.00000.013	00000*	12,7	67,4	54,7
G01.10.00013.013	00013	12,7	67,4	54,7
G01.10.00025.013	00025	12,7	67,4	54,7
G01.10.00038.013	00038	12,7	67,4	54,7
G01.10.00050.013	00050	12,7	67,4	54,7
G01.10.00000.015	00000*	15	72	57
G01.10.00013.015	00013	15	72	57
G01.10.00025.015	00025	15	72	57
G01.10.00038.015	00038	15	72	57
G01.10.00050.015	00050	15	72	57
G01.10.00000.019	00000*	19	80	61
G01.10.00013.019	00013	19	80	61
G01.10.00025.019	00025	19	80	61
G01.10.00038.019	00038	19	80	61
G01.10.00050.019	00050	19	80	61
G01.10.00000.025	00000*	25	92	67
G01.10.00013.025	00013	25	92	67
G01.10.00025.025	00025	25	92	67
G01.10.00038.025	00038	25	92	67
G01.10.00050.025	00050	25	92	67
G01.10.00000.038	00000*	38	118	80
G01.10.00013.038	00013	38	118	80
G01.10.00025.038	00025	38	118	80
G01.10.00038.038	00038	38	118	80
G01.10.00050.038	00050	38	118	80

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.10.00000.050	00000*	50	142	92
G01.10.00013.050	00013	50	142	92
G01.10.00025.050	00025	50	142	92
G01.10.00038.050	00038	50	142	92
G01.10.00050.050	00050	50	142	92
G01.10.00000.063	00000*	63,5	172	108,5
G01.10.00013.063	00013	63,5	172	108,5
G01.10.00025.063	00025	63,5	172	108,5
G01.10.00038.063	00038	63,5	172	108,5
G01.10.00050.063	00050	63,5	172	108,5
G01.10.00000.075	00000*	75	195	120
G01.10.00013.075	00013	75	195	120
G01.10.00025.075	00025	75	195	120
G01.10.00038.075	00038	75	195	120
G01.10.00050.075	00050	75	195	120
G01.10.00000.080	00000*	80	205	125
G01.10.00013.080	00013	80	205	125
G01.10.00025.080	00025	80	205	125
G01.10.00038.080	00038	80	205	125
G01.10.00050.080	00050	80	205	125
G01.10.00000.100	00000*	100	245	145
G01.10.00013.100	00013	100	245	145
G01.10.00025.100	00025	100	245	145
G01.10.00038.100	00038	100	245	145
G01.10.00050.100	00050	100	245	145
G01.10.00000.125	00000*	125	295	170
G01.10.00013.125	00013	125	295	170
G01.10.00025.125	00025	125	295	170
G01.10.00038.125	00038	125	295	170
G01.10.00050.125	00050	125	295	170

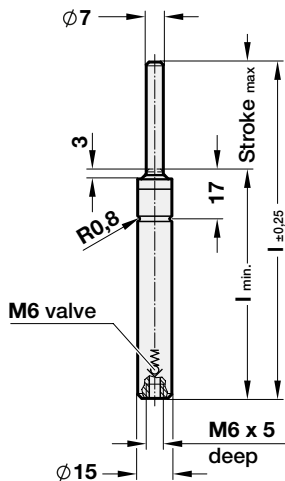
**SPRING FORCE MARKING:**

Initial spring force [daN]	Pressure [bar]	Colour
.00000.	00	black
.00013.	45	green
.00025.	90	blue
.00038.	135	red
.00050.	180	yellow

**MOUNTING EXAMPLES :**



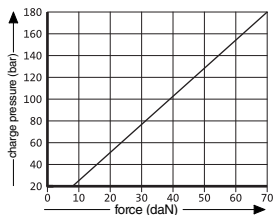
**GAS SPRING - SMALL DIMENSION AND LOW FORCE**  
**GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT**  
**MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA**



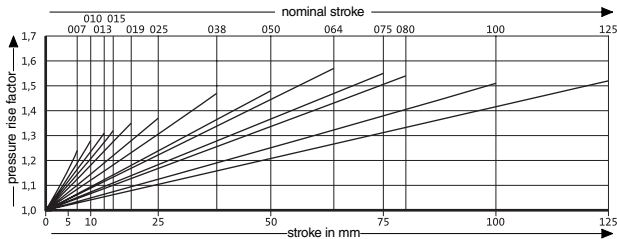
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - SMALL DIMENSION AND LOW FORCE GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA

	Art.	Init.Spring Force (daN) = 18	Stroke = 7
	G01.11	00018	007

\* UNFILLED

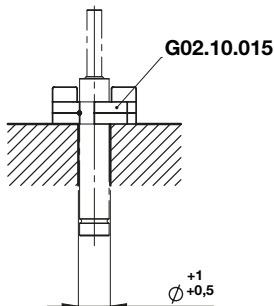
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.11.00000.007	00000*	7	56	49
G01.11.00018.007	00018	7	56	49
G01.11.00035.007	00035	7	56	49
G01.11.00050.007	00050	7	56	49
G01.11.00070.007	00070	7	56	49
G01.11.00000.010	00000*	10	62	52
G01.11.00018.010	00018	10	62	52
G01.11.00035.010	00035	10	62	52
G01.11.00050.010	00050	10	62	52
G01.11.00070.010	00070	10	62	52
G01.11.00000.013	00000*	12,7	67,4	54,7
G01.11.00018.013	00018	12,7	67,4	54,7
G01.11.00035.013	00035	12,7	67,4	54,7
G01.11.00050.013	00050	12,7	67,4	54,7
G01.11.00070.013	00070	12,7	67,4	54,7
G01.11.00000.015	00000*	15	72	57
G01.11.00018.015	00018	15	72	57
G01.11.00035.015	00035	15	72	57
G01.11.00050.015	00050	15	72	57
G01.11.00070.015	00070	15	72	57
G01.11.00000.019	00000*	19	80	61
G01.11.00018.019	00018	19	80	61
G01.11.00035.019	00035	19	80	61
G01.11.00050.019	00050	19	80	61
G01.11.00070.019	00070	19	80	61
G01.11.00000.025	00000*	25	92	67
G01.11.00018.025	00018	25	92	67
G01.11.00035.025	00035	25	92	67
G01.11.00050.025	00050	25	92	67
G01.11.00070.025	00070	25	92	67
G01.11.00000.038	00000*	38,1	118,2	80,1
G01.11.00018.038	00018	38,1	118,2	80,1
G01.11.00035.038	00035	38,1	118,2	80,1
G01.11.00050.038	00050	38,1	118,2	80,1
G01.11.00070.038	00070	38,1	118,2	80,1

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.11.00000.050	00000*	50	142	92
G01.11.00018.050	00018	50	142	92
G01.11.00035.050	00035	50	142	92
G01.11.00050.050	00050	50	142	92
G01.11.00070.050	00070	50	142	92
G01.11.00000.063	00000*	63,5	172	108,5
G01.11.00018.063	00018	63,5	172	108,5
G01.11.00035.063	00035	63,5	172	108,5
G01.11.00050.063	00050	63,5	172	108,5
G01.11.00070.063	00070	63,5	172	108,5
G01.11.00000.075	00000*	75	195	120
G01.11.00018.075	00018	75	195	120
G01.11.00035.075	00035	75	195	120
G01.11.00050.075	00050	75	195	120
G01.11.00070.075	00070	75	195	120
G01.11.00000.080	00000*	80	205	125
G01.11.00018.080	00018	80	205	125
G01.11.00035.080	00035	80	205	125
G01.11.00050.080	00050	80	205	125
G01.11.00070.080	00070	80	205	125
G01.11.00000.100	00000*	100	245	145
G01.11.00018.100	00018	100	245	145
G01.11.00035.100	00035	100	245	145
G01.11.00050.100	00050	100	245	145
G01.11.00070.100	00070	100	245	145
G01.11.00000.125	00000*	125	295	170
G01.11.00018.125	00018	125	295	170
G01.11.00035.125	00035	125	295	170
G01.11.00050.125	00050	125	295	170
G01.11.00070.125	00070	125	295	170

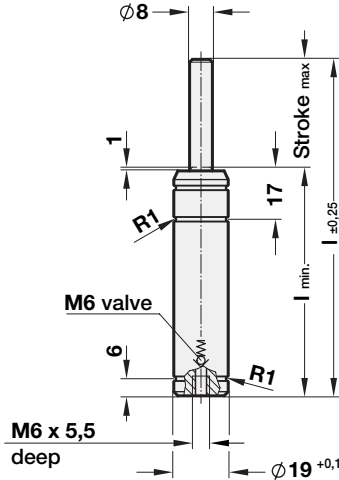
SPRING FORCE MARKING:

Initial spring force [daN]	Pressure [bar]	Colour
.00000.	00	black
.00018.	45	green
.00035.	90	blue
.00050.	135	red
.00070.	180	yellow

MOUNTING EXAMPLES :



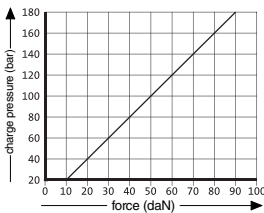
**GAS SPRING - SMALL DIMENSION AND LOW FORCE**  
**GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT**  
**MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA**



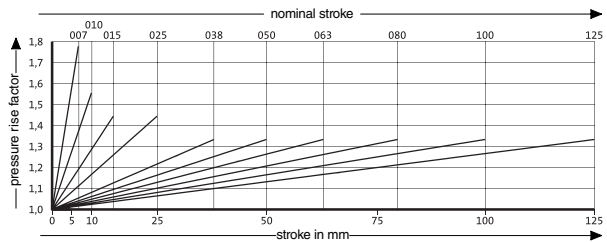
Notes


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - SMALL DIMENSION AND LOW FORCE GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA

	Art.	Init.Spring Force (daN) = 30	Stroke = 7
	G01.12	00030	007

**\* UNFILLED**

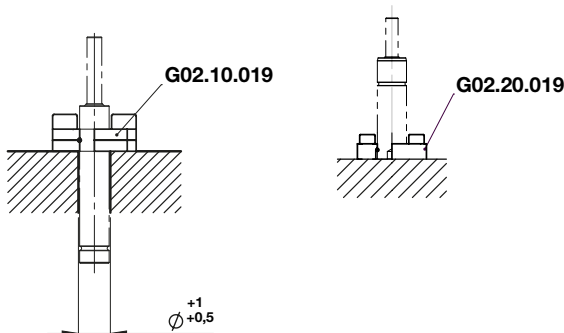
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.12.00000.007	00000*	7	56	49
G01.12.00030.007	00030	7	56	49
G01.12.00050.007	00050	7	56	49
G01.12.00070.007	00070	7	56	49
G01.12.00090.007	00090	7	56	49
G01.12.00000.010	00000*	10	62	52
G01.12.00030.010	00030	10	62	52
G01.12.00050.010	00050	10	62	52
G01.12.00070.010	00070	10	62	52
G01.12.00090.010	00090	10	62	52
G01.12.00000.015	00000*	15	72	57
G01.12.00030.015	00030	15	72	57
G01.12.00050.015	00050	15	72	57
G01.12.00070.015	00070	15	72	57
G01.12.00090.015	00090	15	72	57
G01.12.00000.025	00000*	25	92	67
G01.12.00030.025	00030	25	92	67
G01.12.00050.025	00050	25	92	67
G01.12.00070.025	00070	25	92	67
G01.12.00090.025	00090	25	92	67
G01.12.00000.038	00000*	38,1	118,2	80,1
G01.12.00030.038	00030	38,1	118,2	80,1
G01.12.00050.038	00050	38,1	118,2	80,1
G01.12.00070.038	00070	38,1	118,2	80,1
G01.12.00090.038	00090	38,1	118,2	80,1

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.12.00000.050	00000*	50	142	92
G01.12.00030.050	00030	50	142	92
G01.12.00050.050	00050	50	142	92
G01.12.00070.050	00070	50	142	92
G01.12.00090.050	00090	50	142	92
G01.12.00000.063	00000*	63,5	172	108,5
G01.12.00030.063	00030	63,5	172	108,5
G01.12.00050.063	00050	63,5	172	108,5
G01.12.00070.063	00070	63,5	172	108,5
G01.12.00090.063	00090	63,5	172	108,5
G01.12.00000.080	00000*	80	205	125
G01.12.00030.080	00030	80	205	125
G01.12.00050.080	00050	80	205	125
G01.12.00070.080	00070	80	205	125
G01.12.00090.080	00090	80	205	125
G01.12.00000.100	00000*	100	245	145
G01.12.00030.100	00030	100	245	145
G01.12.00050.100	00050	100	245	145
G01.12.00070.100	00070	100	245	145
G01.12.00090.100	00090	100	245	145
G01.12.00000.125	00000*	125	295	170
G01.12.00030.125	00030	125	295	170
G01.12.00050.125	00050	125	295	170
G01.12.00070.125	00070	125	295	170
G01.12.00090.125	00090	125	295	170

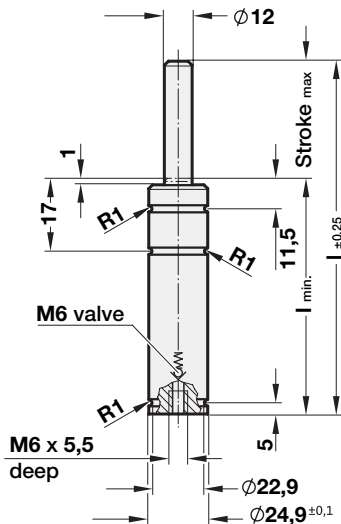
**SPRING FORCE MARKING:**

Initial spring force [daN]	Pressure [bar]	Colour
.00000.	00	black
.00030.	60	green
.00050.	100	blue
.00070.	140	red
.00090.	180	yellow

**MOUNTING EXAMPLES :**



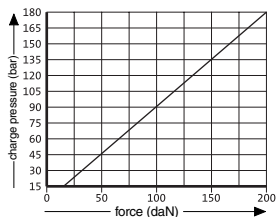
**GAS SPRING - SMALL DIMENSION AND LOW FORCE**  
**GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT**  
**MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA**



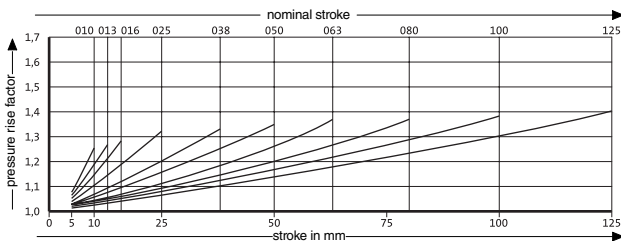
Notes			

Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - SMALL DIMENSION AND LOW FORCE GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA

	Art.	Init.Spring Force (daN) = 50	Stroke = 10
	G01.13	00050	010

**\* UNFILLED**

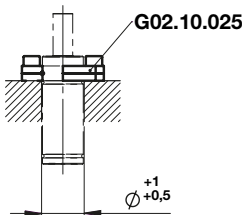
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.13.00000.010	00000*	10	62	52
G01.13.00050.010	00050	10	62	52
G01.13.00100.010	00100	10	62	52
G01.13.00150.010	00150	10	62	52
G01.13.00200.010	00200	10	62	52
G01.13.00000.013	00000*	12,7	67,4	54,7
G01.13.00050.013	00050	12,7	67,4	54,7
G01.13.00100.013	00100	12,7	67,4	54,7
G01.13.00150.013	00150	12,7	67,4	54,7
G01.13.00200.013	00200	12,7	67,4	54,7
G01.13.00000.015	00000*	15	72	57
G01.13.00050.015	00050	15	72	57
G01.13.00100.015	00100	15	72	57
G01.13.00150.015	00150	15	72	57
G01.13.00200.015	00200	15	72	57
G01.13.00000.016	00000*	16	74	58
G01.13.00050.016	00050	16	74	58
G01.13.00100.016	00100	16	74	58
G01.13.00150.016	00150	16	74	58
G01.13.00200.016	00200	16	74	58
G01.13.00000.025	00000*	25	92	67
G01.13.00050.025	00050	25	92	67
G01.13.00100.025	00100	25	92	67
G01.13.00150.025	00150	25	92	67
G01.13.00200.025	00200	25	92	67
G01.13.00000.038	00000*	38,1	118,2	80,1
G01.13.00050.038	00050	38,1	118,2	80,1
G01.13.00100.038	00100	38,1	118,2	80,1
G01.13.00150.038	00150	38,1	118,2	80,1
G01.13.00200.038	00200	38,1	118,2	80,1

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.13.00000.050	00000*	50	142	92
G01.13.00050.050	00050	50	142	92
G01.13.00100.050	00100	50	142	92
G01.13.00150.050	00150	50	142	92
G01.13.00200.050	00200	50	142	92
G01.13.00000.063	00000*	63,5	172	108,5
G01.13.00050.063	00050	63,5	172	108,5
G01.13.00100.063	00100	63,5	172	108,5
G01.13.00150.063	00150	63,5	172	108,5
G01.13.00200.063	00200	63,5	172	108,5
G01.13.00000.080	00000*	80	205	125
G01.13.00050.080	00050	80	205	125
G01.13.00100.080	00100	80	205	125
G01.13.00150.080	00150	80	205	125
G01.13.00200.080	00200	80	205	125
G01.13.00000.100	00000*	100	245	145
G01.13.00050.100	00050	100	245	145
G01.13.00100.100	00100	100	245	145
G01.13.00150.100	00150	100	245	145
G01.13.00200.100	00200	100	245	145
G01.13.00000.125	00000*	125	295	170
G01.13.00050.125	00050	125	295	170
G01.13.00100.125	00100	125	295	170
G01.13.00150.125	00150	125	295	170
G01.13.00200.125	00200	125	295	170

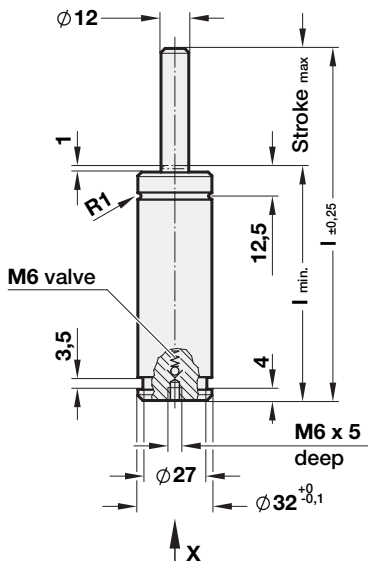
**SPRING FORCE MARKING:**

Initial spring force [daN]	Pressure [bar]	Colour
.00000.	00	black
.00050.	45	green
.00100.	90	blue
.00150.	135	red
.00200.	180	yellow

**MOUNTING EXAMPLES :**



**GAS SPRING - SMALL DIMENSION AND LOW FORCE**  
**GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT**  
**MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA**

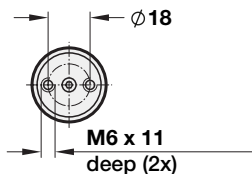


**Notes**

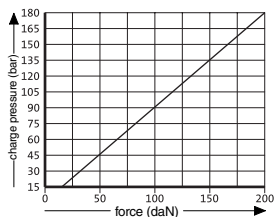


Max. piston speed: 1.6 m/s

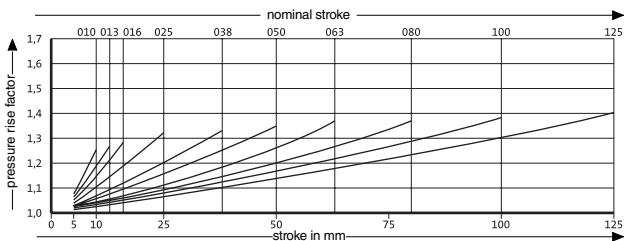
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!



## GAS SPRING - SMALL DIMENSION AND LOW FORCE GASDRUCKFEDER, KLEINE ABMESSUNG, NIEDRIGE FEDERKRAFT MOLLA A GAS DI PICCOLA DIMENSIONE E CON BASSA FORZA DELLA MOLLA

	Art.	Init.Spring Force (daN) = 50	Stroke = 10
	G01.14	00050	010

\* UNFILLED

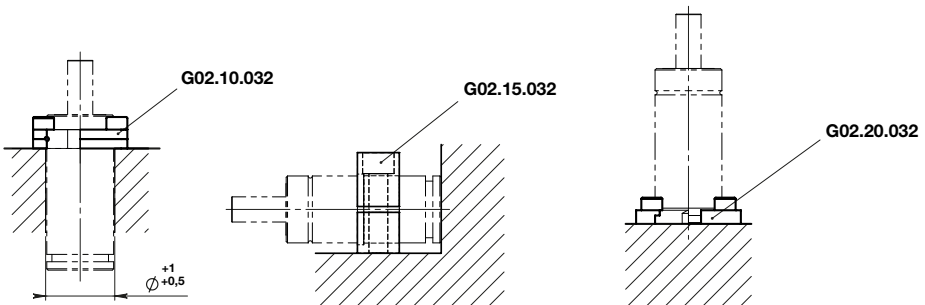
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.14.00000.010	00000*	10	70	60
G01.14.00050.010	00050	10	70	60
G01.14.00100.010	00100	10	70	60
G01.14.00150.010	00150	10	70	60
G01.14.00200.010	00200	10	70	60
G01.14.00000.013	00000*	12,7	75,4	62,7
G01.14.00050.013	00050	12,7	75,4	62,7
G01.14.00100.013	00100	12,7	75,4	62,7
G01.14.00150.013	00150	12,7	75,4	62,7
G01.14.00200.013	00200	12,7	75,4	62,7
G01.14.00000.016	00000*	16	82	66
G01.14.00050.016	00050	16	82	66
G01.14.00100.016	00100	16	82	66
G01.14.00150.016	00150	16	82	66
G01.14.00200.016	00200	16	82	66
G01.14.00000.025	00000*	25	100	75
G01.14.00050.025	00050	25	100	75
G01.14.00100.025	00100	25	100	75
G01.14.00150.025	00150	25	100	75
G01.14.00200.025	00200	25	100	75
G01.14.00000.038	00000*	38,1	126,2	88,1
G01.14.00050.038	00050	38,1	126,2	88,1
G01.14.00100.038	00100	38,1	126,2	88,1
G01.14.00150.038	00150	38,1	126,2	88,1
G01.14.00200.038	00200	38,1	126,2	88,1

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.14.00000.050	00000*	50	150	100
G01.14.00050.050	00050	50	150	100
G01.14.00100.050	00100	50	150	100
G01.14.00150.050	00150	50	150	100
G01.14.00200.050	00200	50	150	100
G01.14.00000.063	00000*	63,5	177	113,5
G01.14.00050.063	00050	63,5	177	113,5
G01.14.00100.063	00100	63,5	177	113,5
G01.14.00150.063	00150	63,5	177	113,5
G01.14.00200.063	00200	63,5	177	113,5
G01.14.00000.080	00000*	80	210	130
G01.14.00050.080	00050	80	210	130
G01.14.00100.080	00100	80	210	130
G01.14.00150.080	00150	80	210	130
G01.14.00200.080	00200	80	210	130
G01.14.00000.100	00000*	100	250	150
G01.14.00050.100	00050	100	250	150
G01.14.00100.100	00100	100	250	150
G01.14.00150.100	00150	100	250	150
G01.14.00200.100	00200	100	250	150
G01.14.00000.125	00000*	125	300	175
G01.14.00050.125	00050	125	300	175
G01.14.00100.125	00100	125	300	175
G01.14.00150.125	00150	125	300	175
G01.14.00200.125	00200	125	300	175

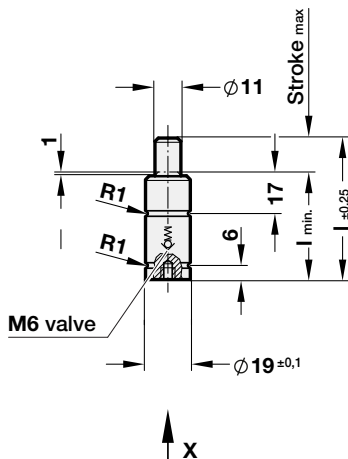
SPRING FORCE MARKING:

Initial spring force [daN]	Pressure [bar]	Colour
.00000.	00	black
.00050.	45	green
.00100.	90	blue
.00150.	135	red
.00200.	180	yellow

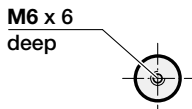
MOUNTING EXAMPLES :



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



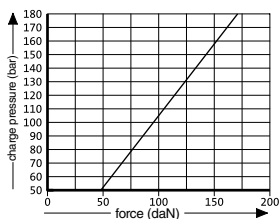
View X - Gas spring



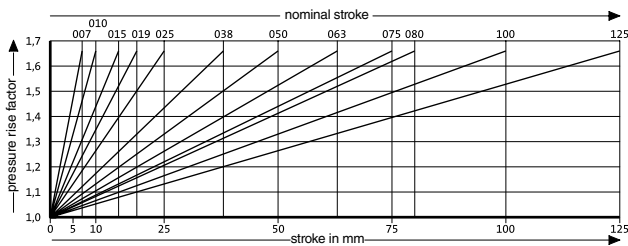
Notes			

Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



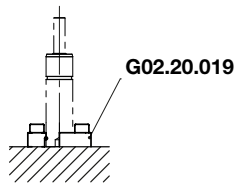
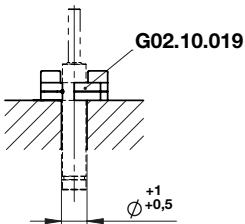
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

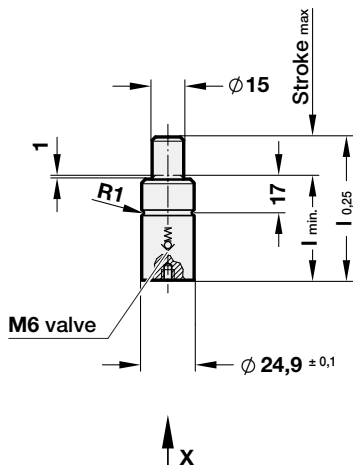
	Art.	Stroke = 7
	G01.20.00170	007

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.00170.007	00170	7	44	37
G01.20.00170.010		10	50	40
G01.20.00170.015		15	60	45
G01.20.00170.019		19	68	49
G01.20.00170.025		25	80	55
G01.20.00170.038		38	106	68
G01.20.00170.050		50	130	80
G01.20.00170.063		63	156	93
G01.20.00170.075		75	185	110
G01.20.00170.080		80	195	115
G01.20.00170.100		100	235	135
G01.20.00170.125		125	285	160

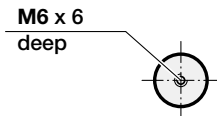
### MOUNTING EXAMPLES :



**GAS SPRING - POWERLINE**  
**GASDRUCKFEDER POWERLINE**  
**MOLLA A GAS POWERLINE**



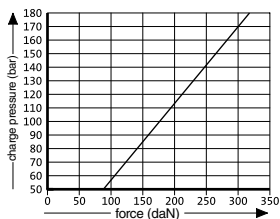
View X - Gas spring



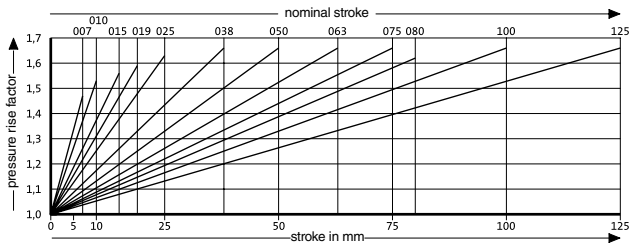
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure




Spring force Diagram displacement versus stroke rise



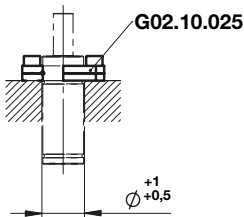
Pressure rise factor accounts for displacement but not external influences!

**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**

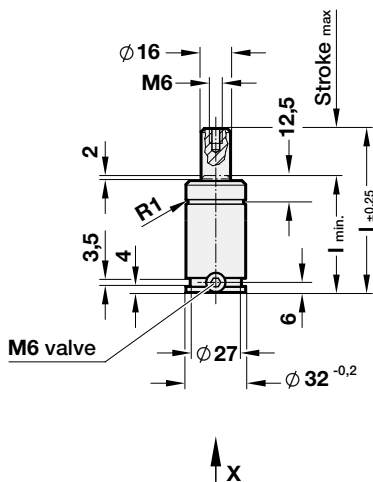
	Art.	Stroke = 7
	G01.20.00320	007

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.00320.007	00320	7	44	37
G01.20.00320.010		10	50	40
G01.20.00320.015		15	60	45
G01.20.00320.019		19	68	49
G01.20.00320.025		25	80	55
G01.20.00320.038		38	106	68
G01.20.00320.050		50	130	80
G01.20.00320.063		63	156	93
G01.20.00320.075		75	185	110
G01.20.00320.080		80	195	115
G01.20.00320.100		100	235	135
G01.20.00320.125		125	285	160

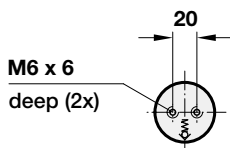
**MOUNTING EXAMPLES :**



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



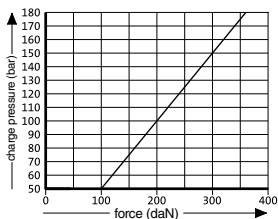
View X - Gas spring



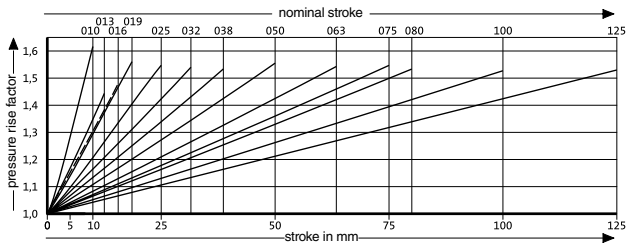
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



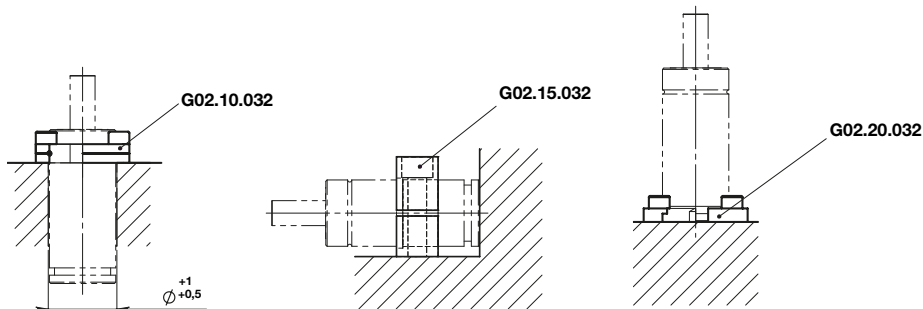
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

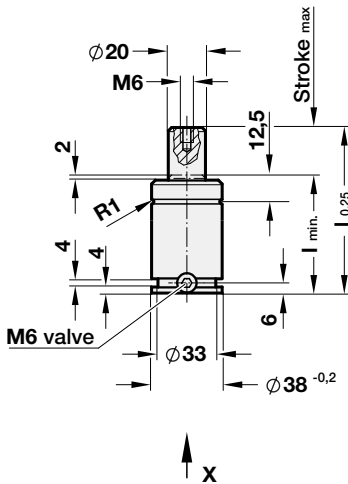
	Art.	Stroke = 10
	G01.20.00350	010

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.00350.010	00350	10	50	40
G01.20.00350.013		13	56	43
G01.20.00350.016		16	62	46
G01.20.00350.019		19	68	49
G01.20.00350.025		25	80	55
G01.20.00350.032		32	94	62
G01.20.00350.038		38	106	68
G01.20.00350.050		50	130	80
G01.20.00350.063		63	156	93
G01.20.00350.075		75	180	105
G01.20.00350.080		80	190	110
G01.20.00350.100		100	230	130
G01.20.00350.125		125	280	155

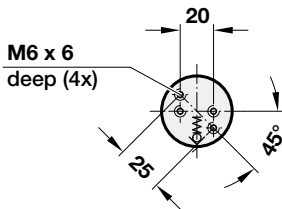
### MOUNTING EXAMPLES :



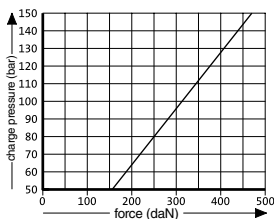
**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



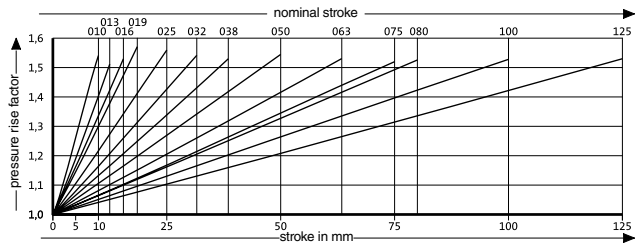
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!




**Notes**




Max. piston speed: 1.6 m/s

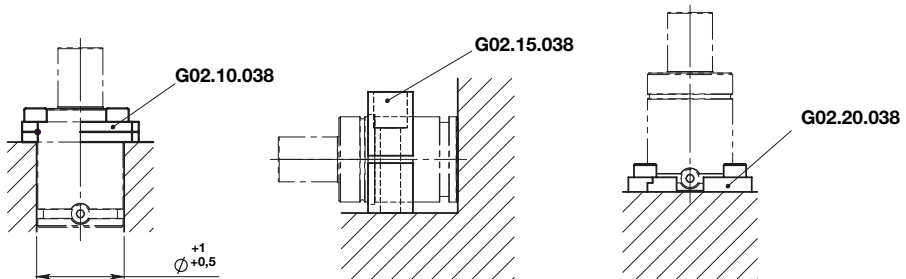


**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**

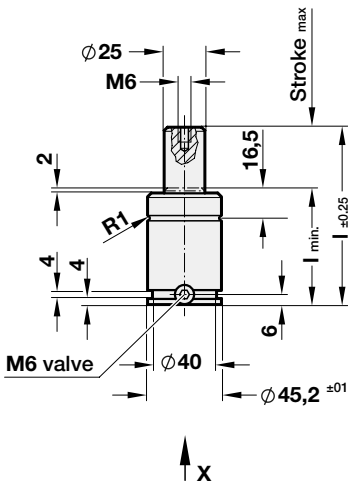
	Art.	Stroke = 10
	G01.20.00500	010

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.00500.010	00470	10	50	40
G01.20.00500.013		13	56	43
G01.20.00500.016		16	62	46
G01.20.00500.019		19	68	49
G01.20.00500.025		25	80	55
G01.20.00500.032		32	94	62
G01.20.00500.038		38	106	68
G01.20.00500.050		50	130	80
G01.20.00500.063		63	156	93
G01.20.00500.075		75	180	105
G01.20.00500.080		80	190	110
G01.20.00500.100		100	230	130
G01.20.00500.125		125	280	155

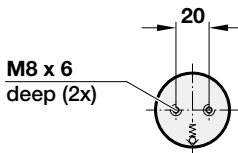
**MOUNTING EXAMPLES :**



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



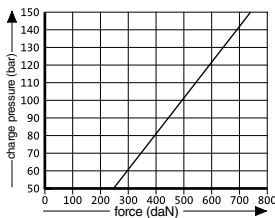
View X - Gas spring



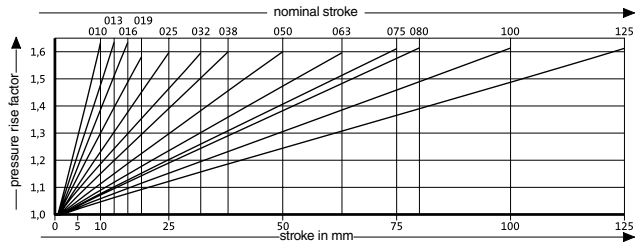
Notes			

Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



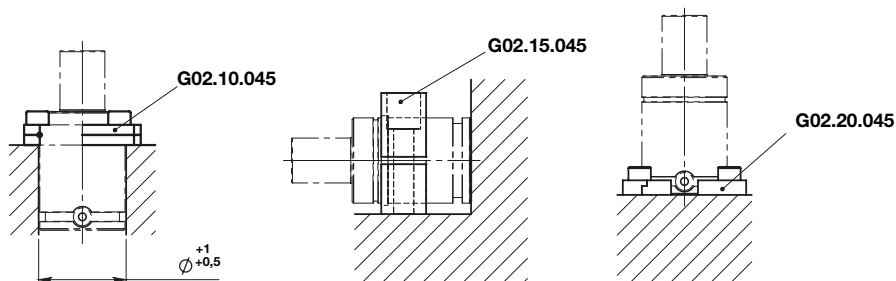
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

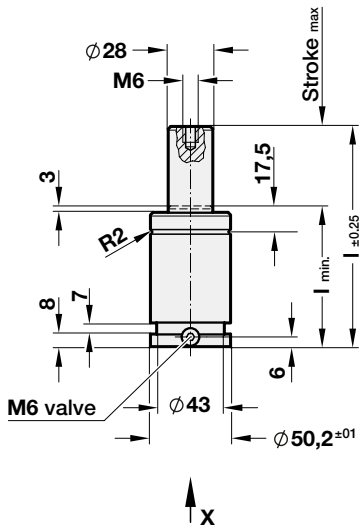
	Art.	Stroke = 10
	G01.20.00750	010

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.00750.010	00750	10	52	42
G01.20.00750.013		13	58	45
G01.20.00750.016		16	64	48
G01.20.00750.019		19	70	51
G01.20.00750.025		25	82	57
G01.20.00750.032		32	96	64
G01.20.00750.038		38	108	70
G01.20.00750.050		50	132	82
G01.20.00750.063		63	158	95
G01.20.00750.075		75	182	107
G01.20.00750.080		80	192	112
G01.20.00750.100		100	232	132
G01.20.00750.125		125	282	157

### MOUNTING EXAMPLES :



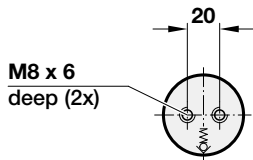
**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



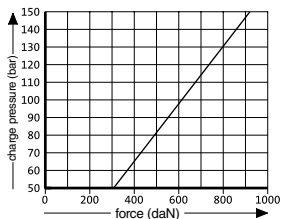
**Notes**


Max. piston speed: 1.6 m/s

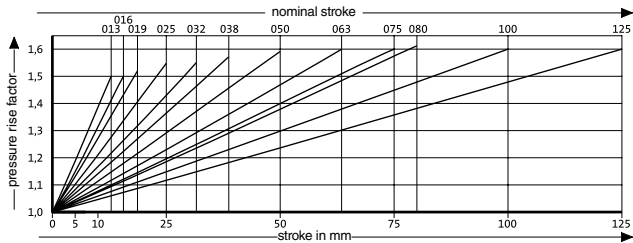
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



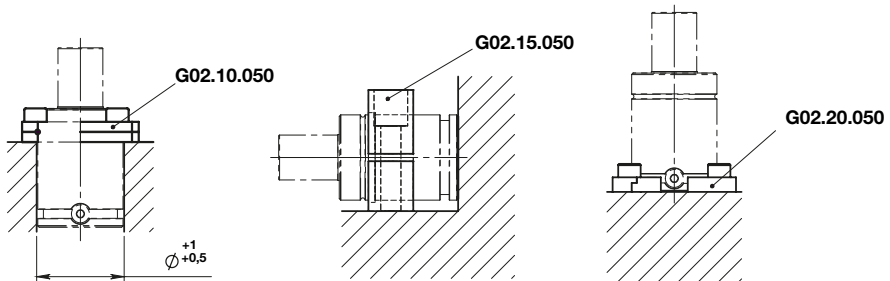
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

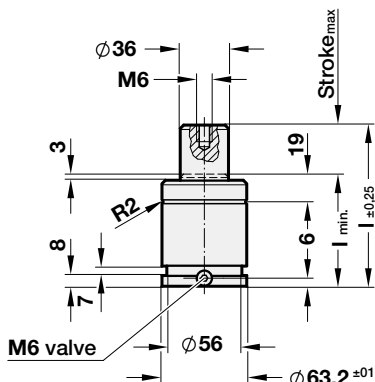
	Art.	Stroke = 13
	G01.20.01000	013

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.01000.013	00920	13	64	51
G01.20.01000.016		16	70	54
G01.20.01000.019		19	76	57
G01.20.01000.025		25	88	63
G01.20.01000.032		32	102	70
G01.20.01000.038		38	114	76
G01.20.01000.050		50	138	88
G01.20.01000.063		63	164	101
G01.20.01000.075		75	188	113
G01.20.01000.080		80	198	118
G01.20.01000.100		100	238	138
G01.20.01000.125		125	288	163

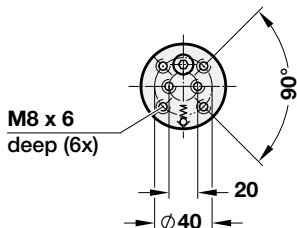
### MOUNTING EXAMPLES :



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



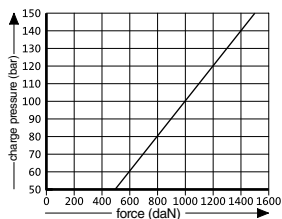
**View X - Gas spring**



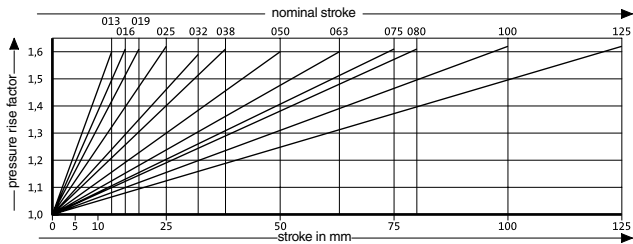
**Notes**


Max. piston speed: 1.6 m/s

**Initial spring force versus charge pressure**



**Spring force Diagram displacement versus stroke rise**



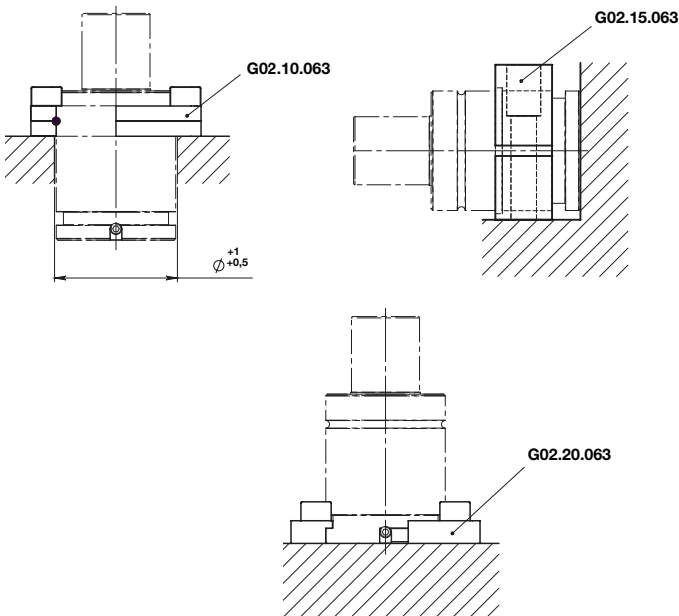
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

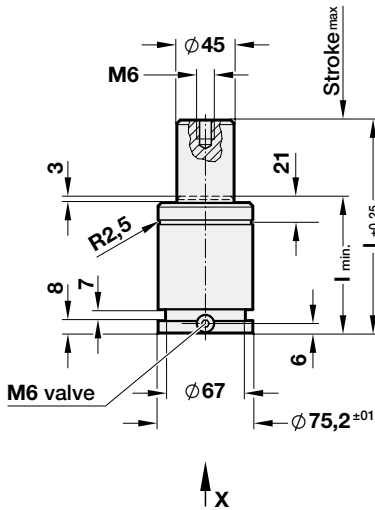
	Art.	Stroke = 13
	G01.20.01500	013

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.01500.013	01500	13	70	57
G01.20.01500.016		16	76	60
G01.20.01500.019		19	82	63
G01.20.01500.025		25	94	69
G01.20.01500.032		32	108	76
G01.20.01500.038		38	120	82
G01.20.01500.050		50	144	94
G01.20.01500.063		63	170	107
G01.20.01500.075		75	194	119
G01.20.01500.080		80	204	124
G01.20.01500.100		100	244	144
G01.20.01500.125		125	294	169

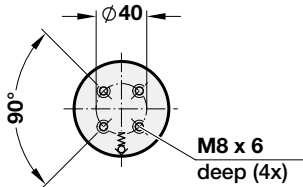
### MOUNTING EXAMPLES :



**GAS SPRING - POWERLINE**  
**GASDRUCKFEDER POWERLINE**  
**MOLLA A GAS POWERLINE**



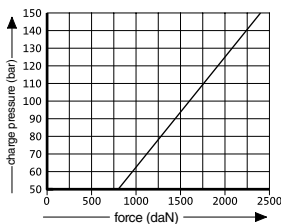
View X - Gas spring



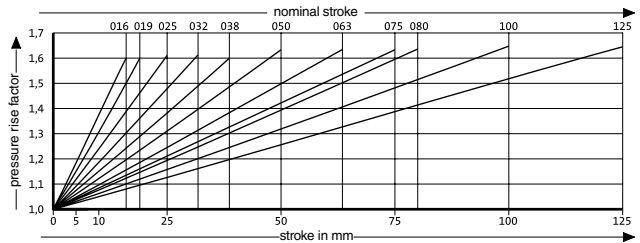
Notes


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

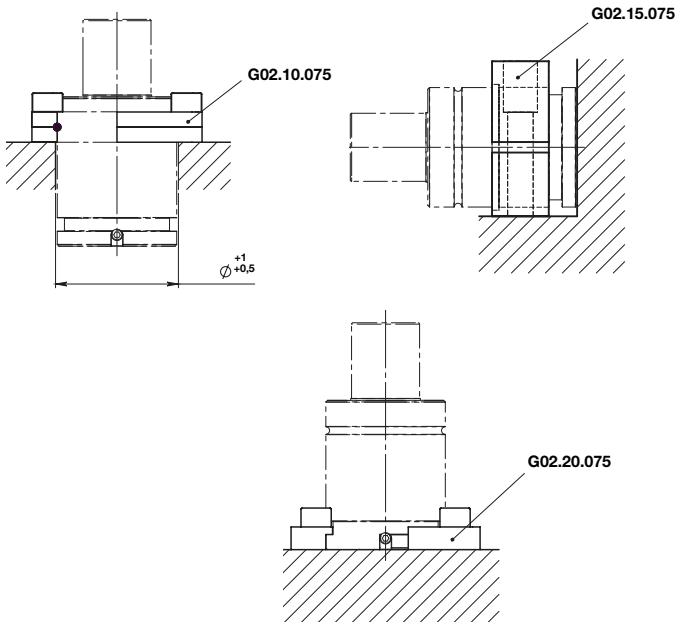


## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

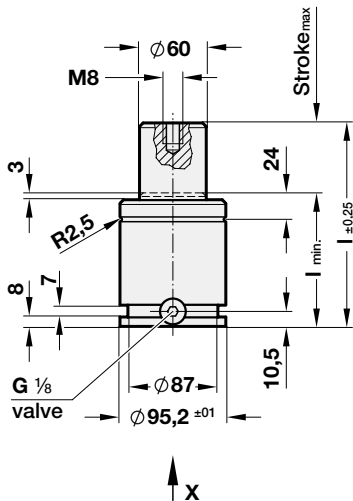
	Art.	Stroke = 16
	G01.20.02400	016

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.02400.016	02400	16	77	61
G01.20.02400.019		19	83	64
G01.20.02400.025		25	95	70
G01.20.02400.032		32	109	77
G01.20.02400.038		38	121	83
G01.20.02400.050		50	145	95
G01.20.02400.063		63	171	108
G01.20.02400.075		75	195	120
G01.20.02400.080		80	205	125
G01.20.02400.100		100	245	145
G01.20.02400.125		125	295	170

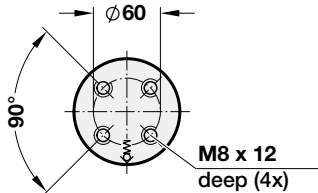
### MOUNTING EXAMPLES :



**GAS SPRING - POWERLINE**  
**GASDRUCKFEDER POWERLINE**  
**MOLLA A GAS POWERLINE**



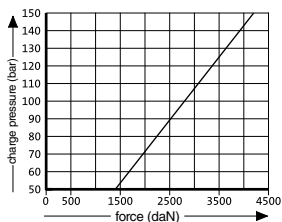
View X - Gas spring



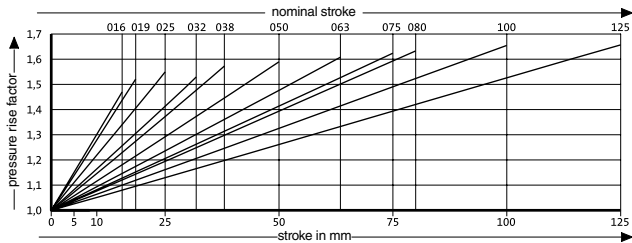
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure




Spring force Diagram displacement versus stroke rise



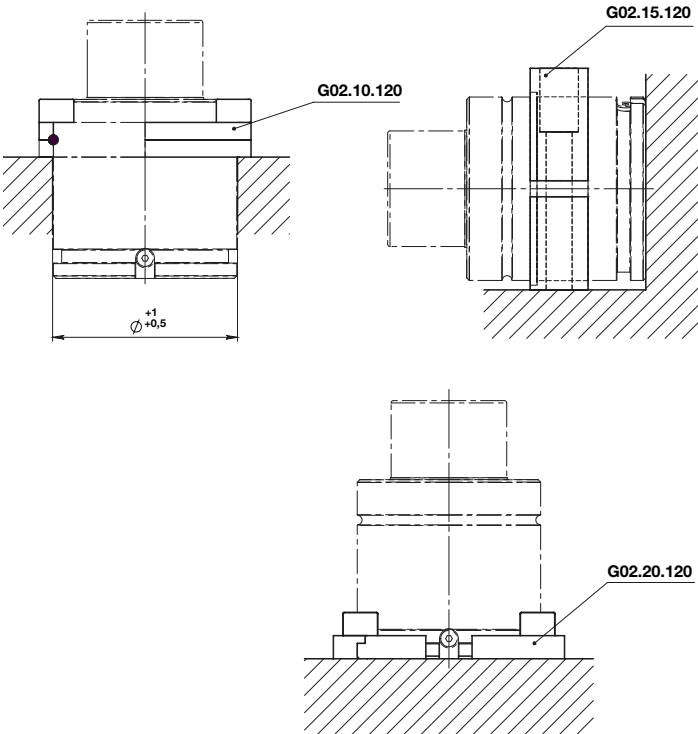
Pressure rise factor accounts for displacement but not external influences!

**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**

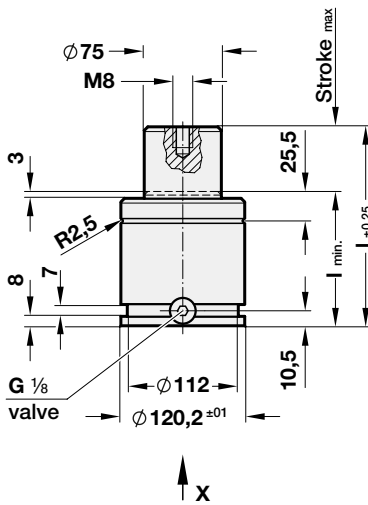
	Art.	Stroke = 16
	G01.20.04200	016

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.04200.016	04200	16	90	74
G01.20.04200.019		19	96	77
G01.20.04200.025		25	108	83
G01.20.04200.032		32	122	90
G01.20.04200.038		38	134	96
G01.20.04200.050		50	158	108
G01.20.04200.063		63	184	121
G01.20.04200.075		75	208	133
G01.20.04200.080		80	218	138
G01.20.04200.100		100	258	158
G01.20.04200.125		125	308	183

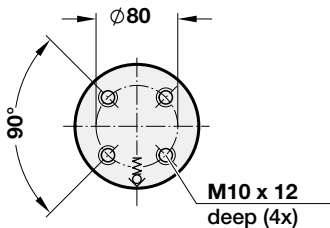
**MOUNTING EXAMPLES :**



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



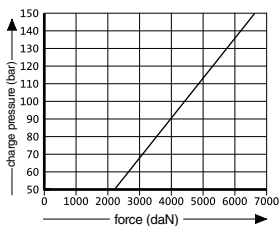
View X - Gas spring



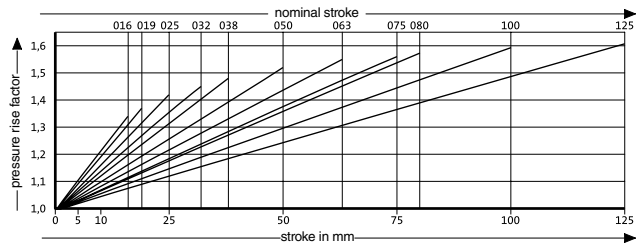
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



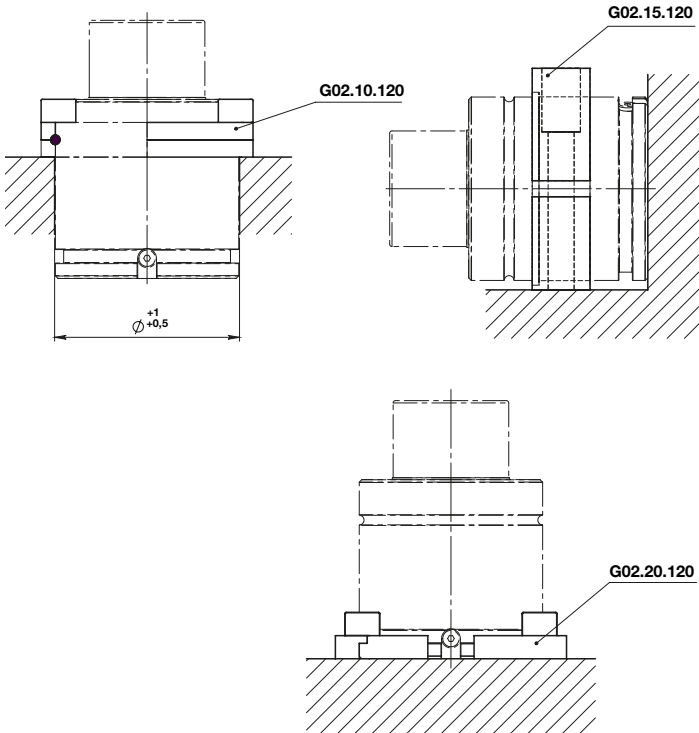
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

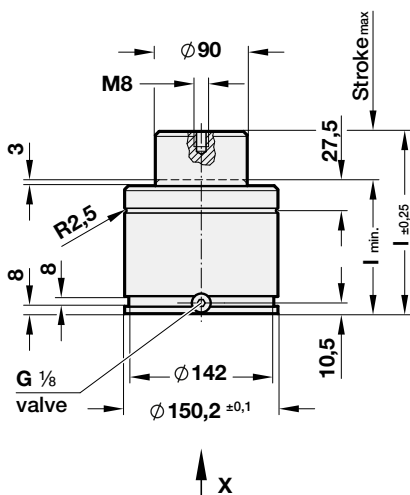
	Art.	Stroke = 16
	G01.20.06600	016

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.06600.016	06600	16	100	84
G01.20.06600.019		19	106	87
G01.20.06600.025		25	118	93
G01.20.06600.032		32	132	100
G01.20.06600.038		38	144	106
G01.20.06600.050		50	168	118
G01.20.06600.063		63	194	131
G01.20.06600.075		75	218	143
G01.20.06600.080		80	228	148
G01.20.06600.100		100	268	168
G01.20.06600.125		125	318	193

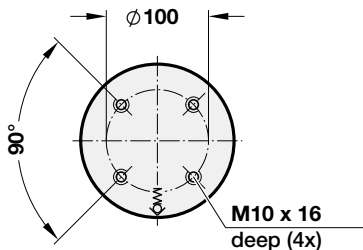
### MOUNTING EXAMPLES :



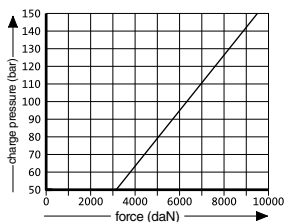
**GAS SPRING - POWERLINE**  
**GASDRUCKFEDER POWERLINE**  
**MOLLA A GAS POWERLINE**



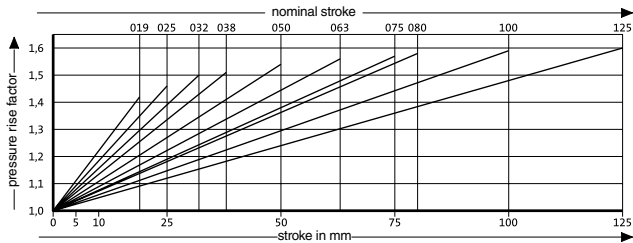
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!



Notes

APPROVED PED 2014/68/EU	VDI	ISO	
S>max	V>max	P>max	Flex Guide™

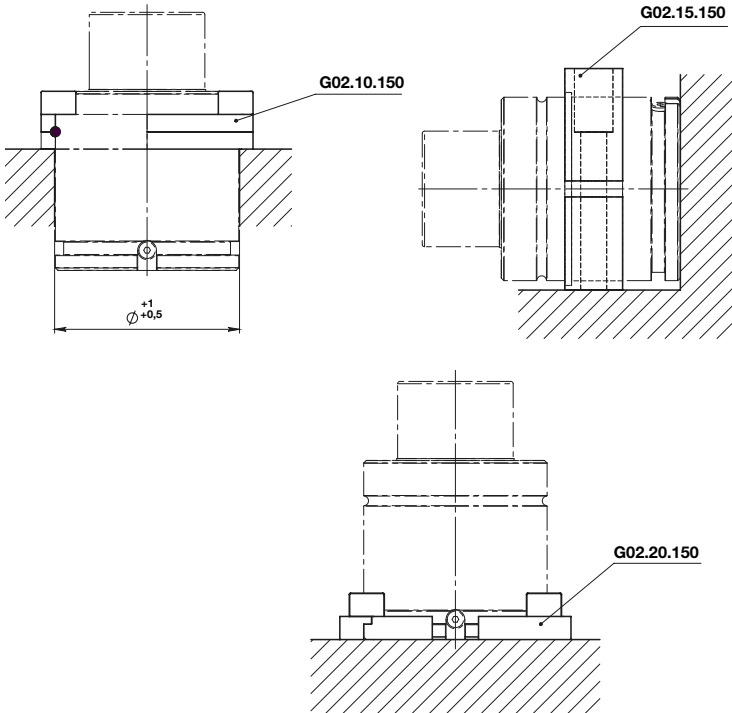
Max. piston speed: 1.6 m/s

**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**

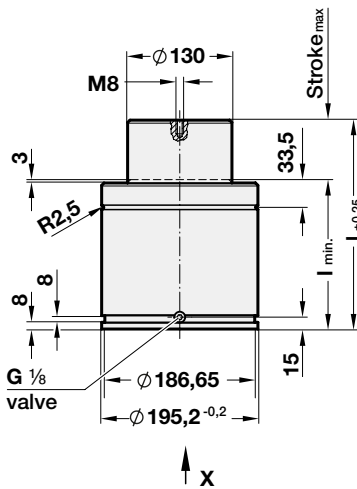
	Art.	Stroke = 19
	G01.20.09500	019

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.09500.019	09500	19	116	97
G01.20.09500.025		25	128	103
G01.20.09500.032		32	142	110
G01.20.09500.038		38	154	116
G01.20.09500.050		50	178	128
G01.20.09500.063		63	204	141
G01.20.09500.075		75	228	153
G01.20.09500.080		80	238	158
G01.20.09500.100		100	278	178
G01.20.09500.125		125	328	203

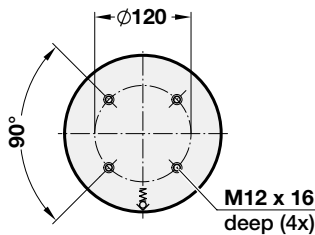
**MOUNTING EXAMPLES :**



**GAS SPRING - POWERLINE  
GASDRUCKFEDER POWERLINE  
MOLLA A GAS POWERLINE**



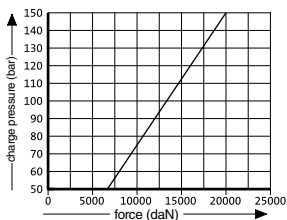
View X - Gas spring



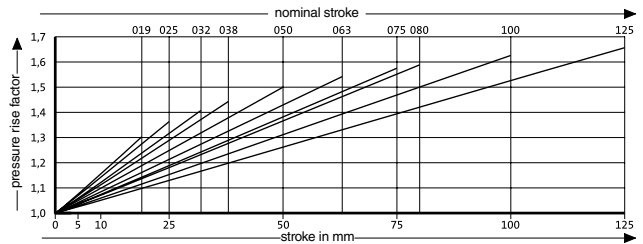
Notes


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

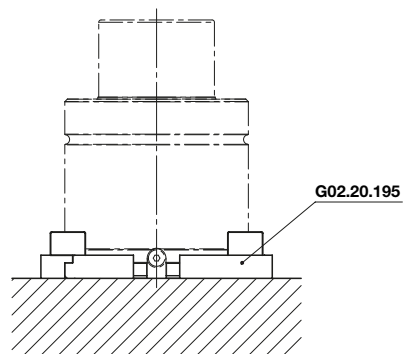
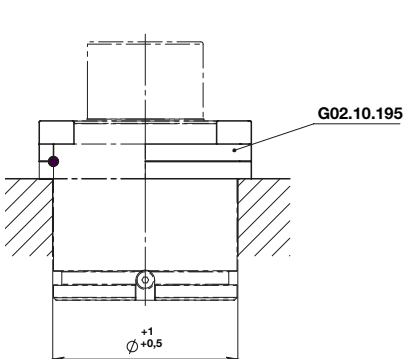


## GAS SPRING - POWERLINE GASDRUCKFEDER POWERLINE MOLLA A GAS POWERLINE

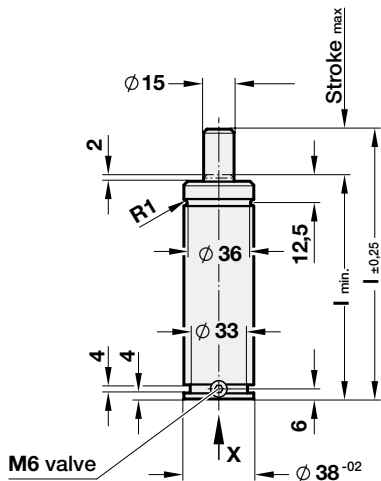
	Art.	Stroke = 19
	G01.20.20000	019

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.20.20000.019	20000	19	148	129
G01.20.20000.025		25	160	135
G01.20.20000.032		32	174	142
G01.20.20000.038		38	186	148
G01.20.20000.050		50	210	160
G01.20.20000.063		63	236	173
G01.20.20000.075		75	260	185
G01.20.20000.080		80	270	190
G01.20.20000.100		100	310	210
G01.20.20000.125		125	360	235

### MOUNTING EXAMPLES :



**GAS SPRING - STANDARD**  
**GASDRUCKFEDER STANDARD**  
**MOLLA A GAS STANDARD**

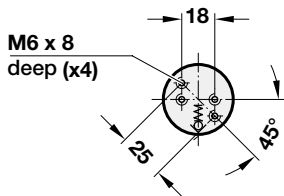


**Notes**

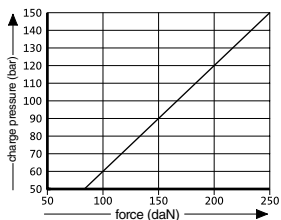
APPROVED PED 2014/68/EU	VDI	ISO	
S>max	V>max	P>max	Flex Guide™

Max. piston speed: 1.6 m/s

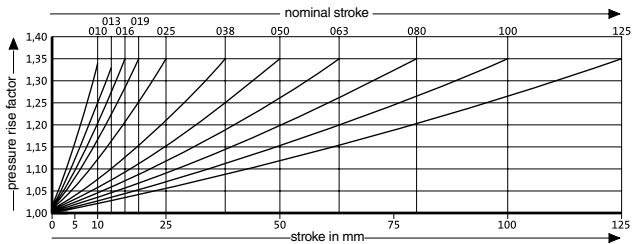
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



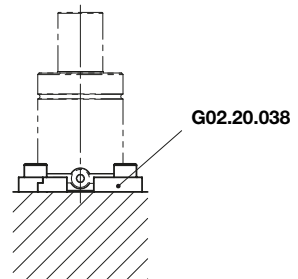
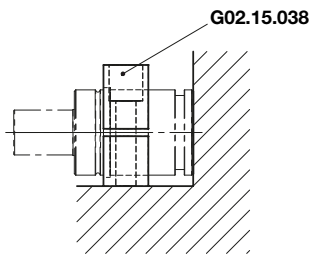
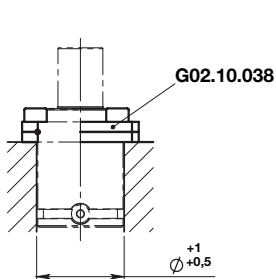
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

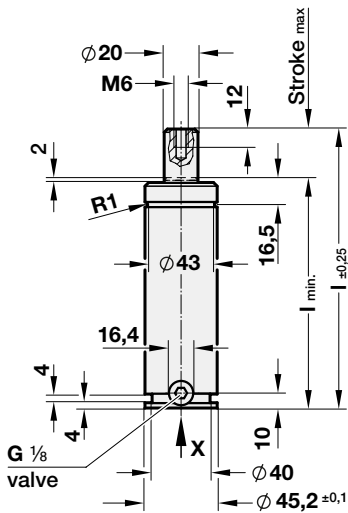
	Art.	Stroke = 10
	G01.30.00250	10

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.00250.010	00250	10	70	60
G01.30.00250.013		12,7	75,4	62,7
G01.30.00250.016		16	82	66
G01.30.00250.019		19	88	69
G01.30.00250.025		25	100	75
G01.30.00250.038		38,1	126,2	88,1
G01.30.00250.050		50	150	100
G01.30.00250.063		63,5	177	113,5
G01.30.00250.080		80	210	130
G01.30.00250.100		100	250	150
G01.30.00250.125		125	300	175

### MOUNTING EXAMPLES :



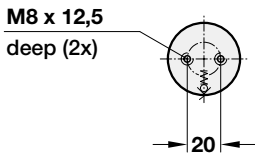
**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



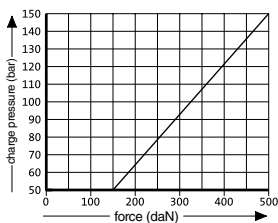
**Notes**


Max. piston speed: 1.6 m/s

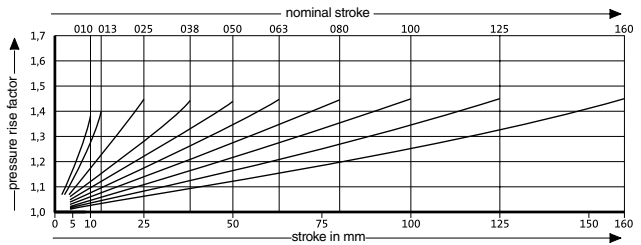
**View X - Gas spring**



**Initial spring force versus charge pressure**



**Spring force Diagram displacement versus stroke rise**



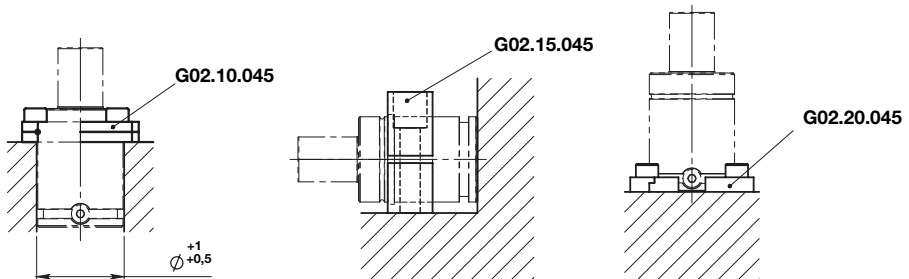
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

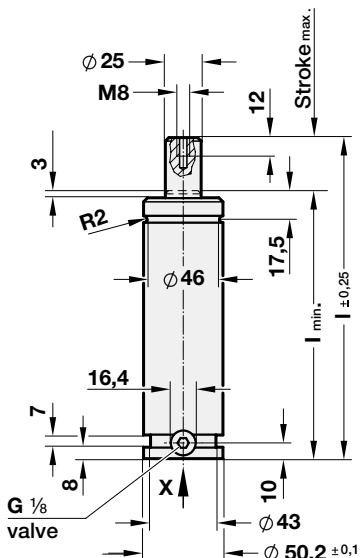
	Art.	Stroke = 10
	G01.30.00500	010

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.00500.010	00500	10	105	95
G01.30.00500.013		12,7	110,4	97,7
G01.30.00500.025		25	135	110
G01.30.00500.038		38,1	161,2	123,1
G01.30.00500.050		50	185	135
G01.30.00500.063		63,5	212	148,5
G01.30.00500.080		80	245	165
G01.30.00500.100		100	285	185
G01.30.00500.125		125	335	210
G01.30.00500.160		160	405	245

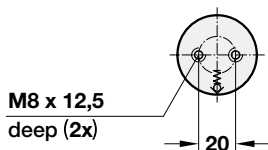
### MOUNTING EXAMPLES :



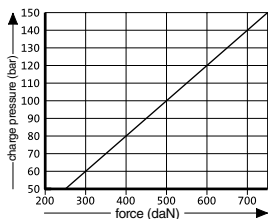
**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



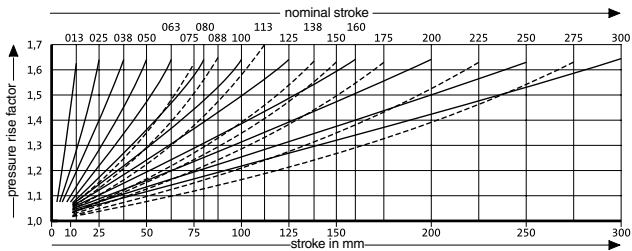
View X - Gas spring



Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!



**Notes**



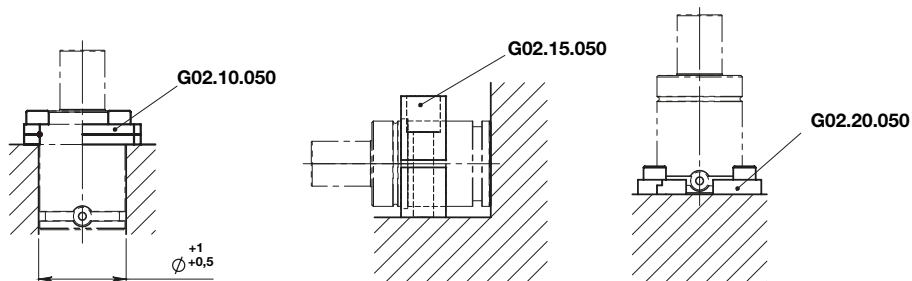
Max. piston speed: 1.6 m/s

## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

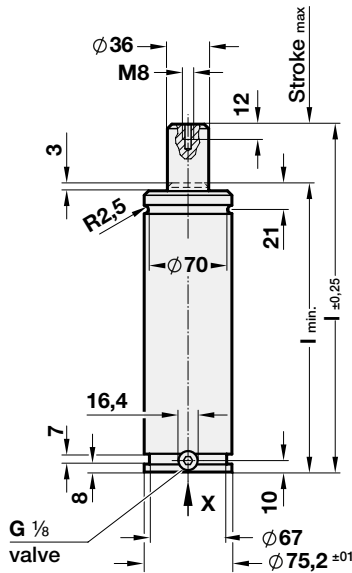
	Art.	Stroke = 12,7
	G01.30.00750	013

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.00750.013	00750	12,7	120,4	107,7
G01.30.00750.025		25	145	120
G01.30.00750.038		38,1	171,2	133,1
G01.30.00750.050		50	195	145
G01.30.00750.063		63,5	222	158,5
G01.30.00750.075		75	245	170
G01.30.00750.080		80	255	175
G01.30.00750.088		87,5	270	182,5
G01.30.00750.100		100	295	195
G01.20.00750.113		112,5	320	207,5
G01.30.00750.125		125	345	220
G01.30.00750.138		137,5	370	232,5
G01.30.00750.150		150	395	245
G01.30.00750.160		160	415	255
G01.30.00750.175		175	445	270
G01.30.00750.200		200	495	295
G01.30.00750.225		225	545	320
G01.30.00750.250		250	595	345
G01.30.00750.275		275	645	370
G01.30.00750.300		300	695	395

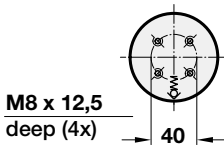
### MOUNTING EXAMPLES :



**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



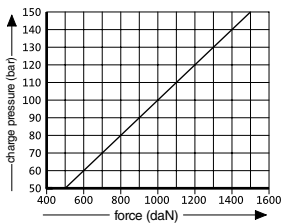
**View X - Gas spring**



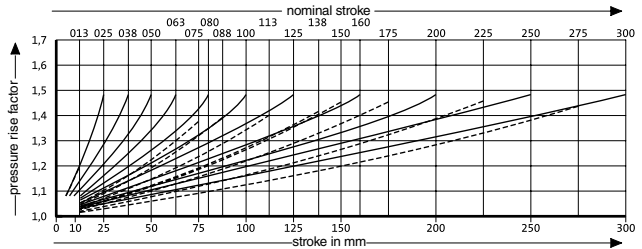
**Notes**


**Max. piston speed: 1.6 m/s**

**Initial spring force versus charge pressure**



**Spring force Diagram displacement versus stroke rise**



Pressure rise factor accounts for displacement but not external influences!

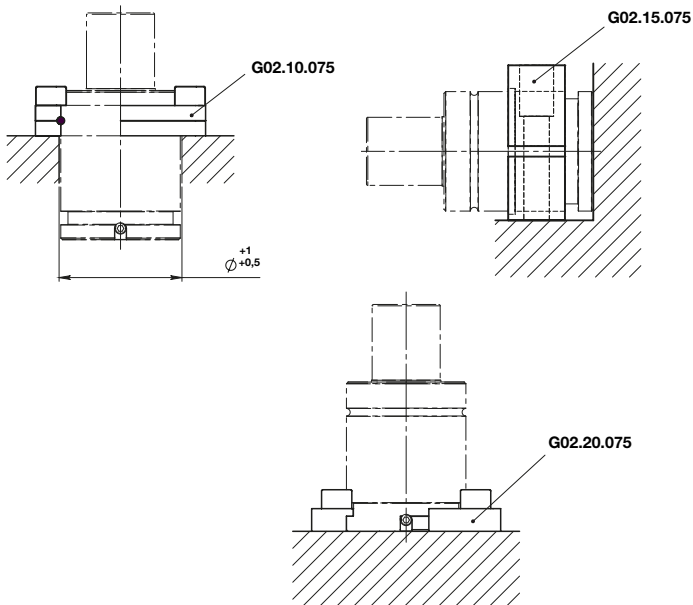


## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

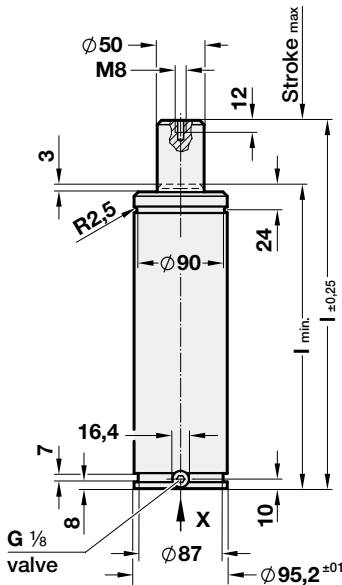
	Art.	Stroke = 12,7
	G01.30.01500	013

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.01500.013	01500	12,7	135	122,3
G01.30.01500.025		25	160	135
G01.30.01500.038		38,1	186,2	148,1
G01.30.01500.050		50	210	160
G01.30.01500.063		63,5	237	173,5
G01.30.01500.075		75	260	185
G01.30.01500.080		80	270	190
G01.30.01500.088		87,5	285	197,5
G01.30.01500.100		100	310	210
G01.30.01500.113		112,5	335	222,5
G01.30.01500.125		125	360	235
G01.30.01500.138		137,5	385	247,5
G01.30.01500.150		150	410	260
G01.30.01500.160		160	430	270
G01.30.01500.175		175	460	285
G01.30.01500.200		200	510	310
G01.30.01500.225		225	560	335
G01.30.01500.250		250	610	360
G01.30.01500.275		275	660	385
G01.30.01500.300		300	710	410

### MOUNTING EXAMPLES :



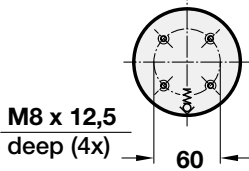
**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



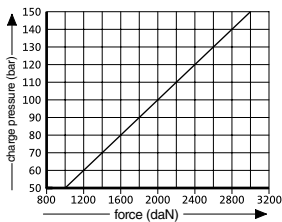
**Notes**


Max. piston speed: 1.6 m/s

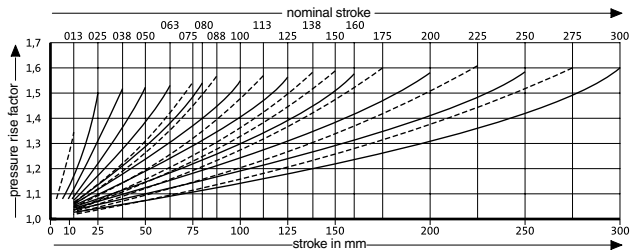
**View X - Gas spring**



**Initial spring force versus charge pressure**



**Spring force Diagram displacement versus stroke rise**



Pressure rise factor accounts for displacement but not external influences!

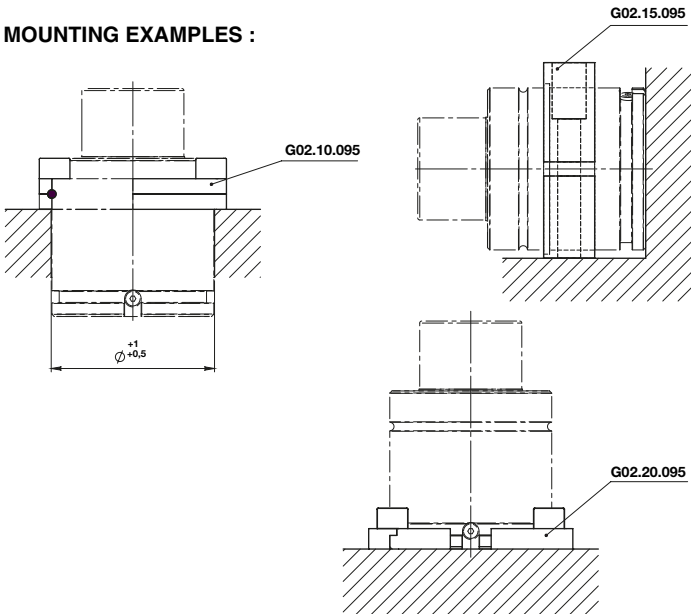
## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

	Art.	Stroke = 12,7
	G01.30.03000	013

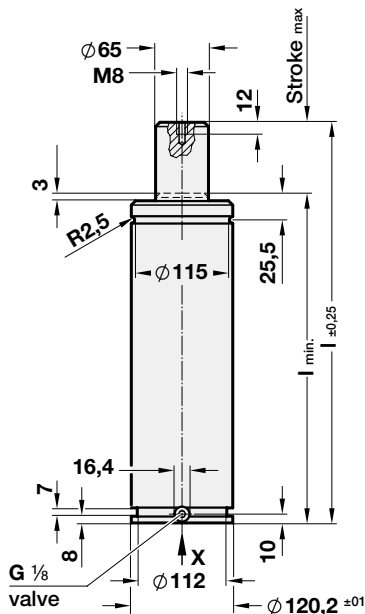
OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.03000.013*	03000	12,7	145	132,3
G01.30.03000.025		25	170	145
G01.30.03000.038		38,1	196,2	158,1
G01.30.03000.050		50	220	170
G01.30.03000.063		63,5	247	183,5
G01.30.03000.075*		75	270	195
G01.30.03000.080		80	280	200
G01.30.03000.088*		87,5	295	207,5
G01.30.03000.100		100	320	220
G01.30.03000.113*		112,5	345	232,5
G01.30.03000.125		125	370	245
G01.30.03000.138*		137,5	395	257,5
G01.30.03000.150*		150	420	270
G01.30.03000.160		160	440	280
G01.30.03000.175*		175	470	295
G01.30.03000.200		200	520	320
G01.30.03000.225*		225	570	345
G01.30.03000.250		250	620	370
G01.30.03000.275*		275	670	395
G01.30.03000.300		300	720	420

\* Special stroke lengths Not for gas springs to Renault Standard EM24.54.700.

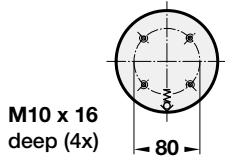
### MOUNTING EXAMPLES :



**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



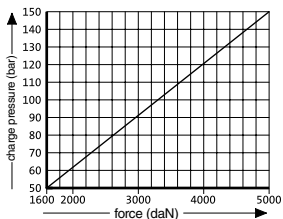
View X - Gas spring



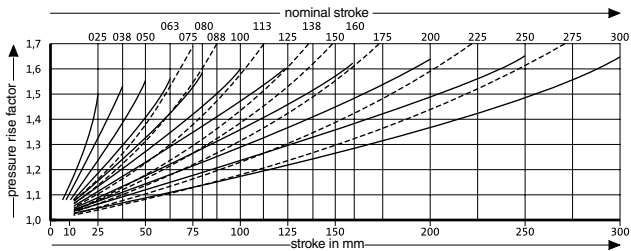
**Notes**


Max. piston speed: 1.6 m/s

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



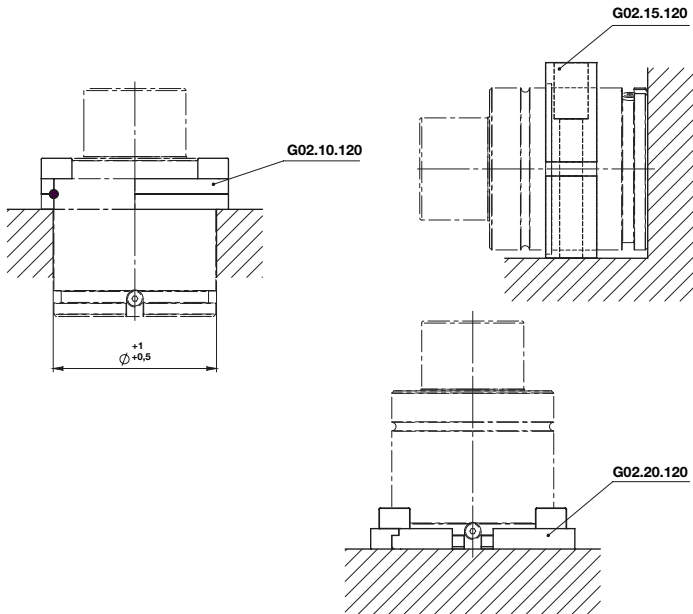
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

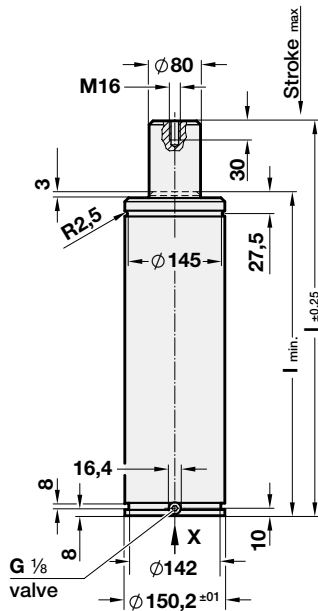
	Art.	Stroke = 25
	G01.30.05000	025

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.05000.025	05000	25	190	165
G01.30.05000.038		38,1	216,2	178,1
G01.30.05000.050		50	240	190
G01.30.05000.063		63,5	267	203,5
G01.30.05000.075		75	290	215
G01.30.05000.080		80	300	220
G01.30.05000.088		87,5	315	227,5
G01.30.05000.100		100	340	240
G01.30.05000.113		112,5	365	252,5
G01.30.05000.125		125	390	265
G01.30.05000.138		137,5	415	277,5
G01.30.05000.150		150	440	290
G01.30.05000.160		160	460	300
G01.30.05000.175		175	490	315
G01.30.05000.200		200	540	340
G01.30.05000.225		225	590	365
G01.30.05000.250		250	640	390
G01.30.05000.275		275	690	415
G01.30.05000.300		300	740	440

### MOUNTING EXAMPLES :



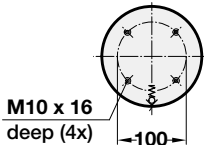
**GAS SPRING - STANDARD  
GASDRUCKFEDER STANDARD  
MOLLA A GAS STANDARD**



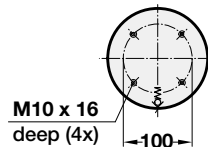
**Notes**


Max. piston speed: 1.6 m/s

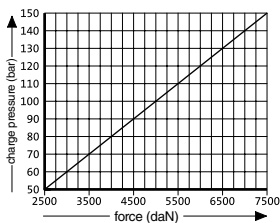
**View X - Gas spring**



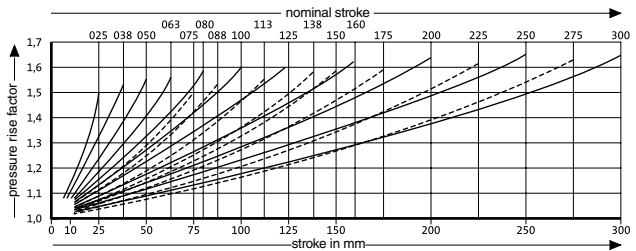
**View X - Gas spring**



**Initial spring force versus charge pressure**



**Spring force Diagram displacement versus stroke rise**



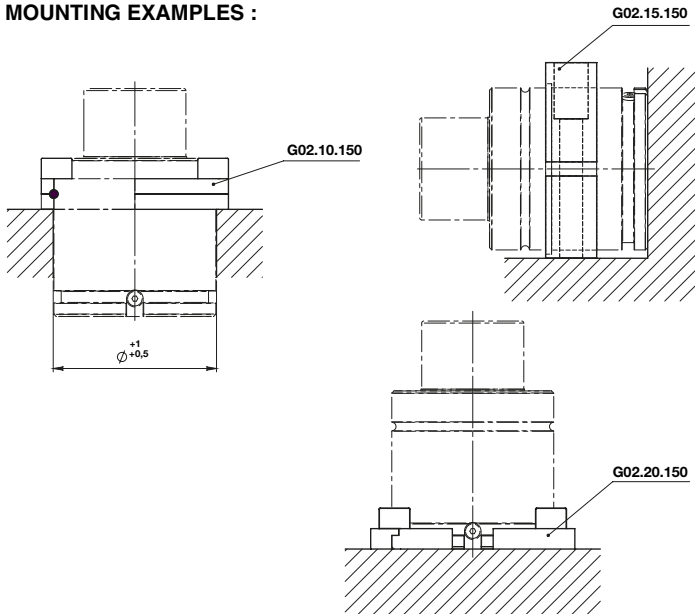
Pressure rise factor accounts for displacement but not external influences!

## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

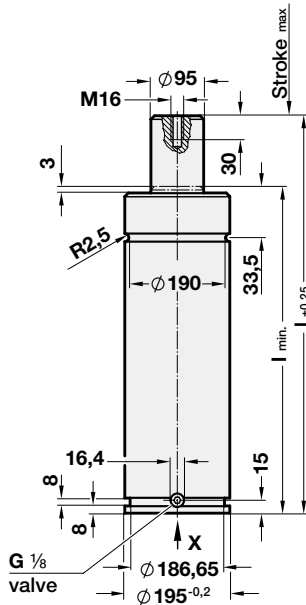
	Art.	Stroke = 25
	G01.30.07500	025

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.07500.025	07500	25	205	180
G01.30.07500.038		38,1	231,2	193,1
G01.30.07500.050		50	255	205
G01.30.07500.063		63,5	282	218,5
G01.30.07500.075		75	305	230
G01.30.07500.080		80	315	235
G01.30.07500.088		87,5	330	242,5
G01.30.07500.100		100	355	255
G01.30.07500.113		112,5	380	267,5
G01.30.07500.125		125	405	280
G01.30.07500.138		137,5	430	292,5
G01.30.07500.150		150	455	305
G01.30.07500.160		160	475	315
G01.30.07500.175		175	505	330
G01.30.07500.200		200	555	355
G01.30.07500.225		225	605	380
G01.30.07500.250		250	655	405
G01.30.07500.275	275	705	430	
G01.30.07500.300	300	755	455	

### MOUNTING EXAMPLES :



## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD



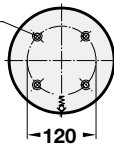
### Notes



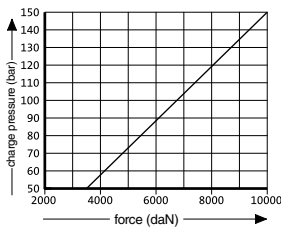
Max. piston speed: 1.6 m/s

View X - Gas spring

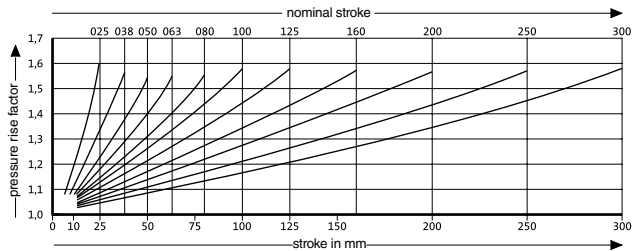
M12 x 16  
deep (4x)



Initial spring force  
versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!

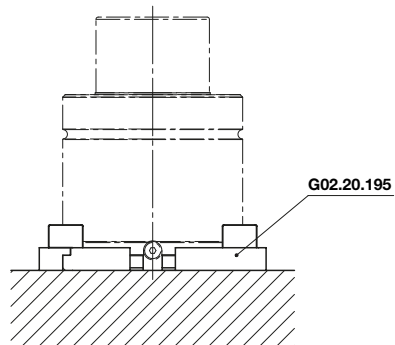
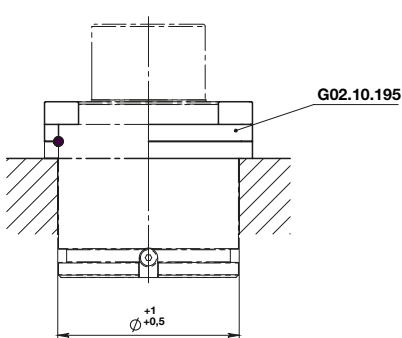


## GAS SPRING - STANDARD GASDRUCKFEDER STANDARD MOLLA A GAS STANDARD

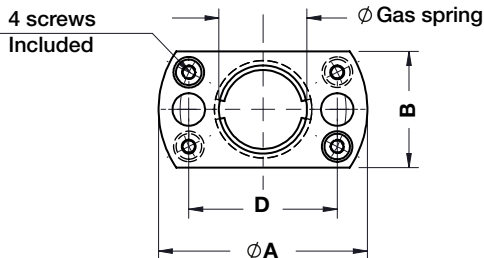
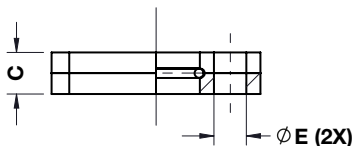
	Art.	Stroke = 25
	G01.30.10000	025

OMCR CODE	INITIAL SPRING FORCE (daN)	STROKE max.	l	l min.
G01.30.10000.025	10000	25	210	185
G01.30.10000.038		38,1	236,2	198,1
G01.30.10000.050		50	260	210
G01.30.10000.063		63,5	287	223,5
G01.30.10000.080		80	320	240
G01.30.10000.100		100	360	260
G01.30.10000.125		125	410	285
G01.30.10000.160		160	480	320
G01.30.10000.200		200	560	360
G01.30.10000.250		250	660	410
G01.30.10000.300		300	760	460

### MOUNTING EXAMPLES :



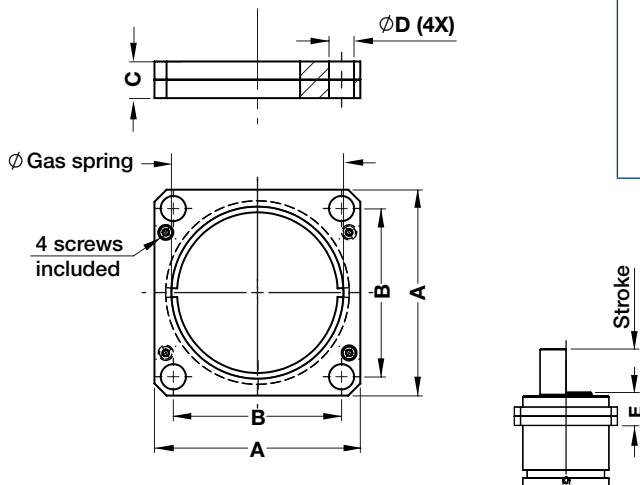
## UPPER FLANGE FOR GAS SPRING OBERER FLANSCH FÜR GASDRUCKFEDERN FLANGIA SUPERIORE PER CILINDRO AZOTO



	Art.	Gas Spring Diameter = 15
	G02.10	015

OMCR CODE	Ø A	B	C	Ø D	E	Ø GAS SPRING
G02.10.012	34	21	9	24	6,6	12
G02.10.015	37	24	9	27	6,6	15
G02.10.019	45	25	9	32	7	19
G02.10.025	50	30	9	38	6,6	25

## UPPER FLANGE FOR GAS SPRING OBERER FLANSCH FÜR GASDRUCKFEDERN FLANGIA SUPERIORE PER CILINDRO AZOTO

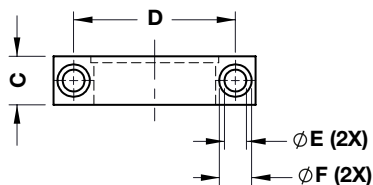
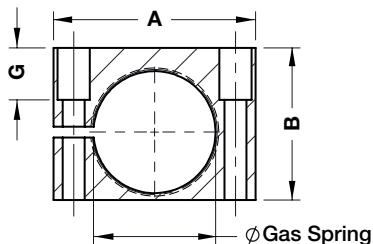


	Art.	Gas Spring Diameter = 38
	G02.10	038

OMCR CODE	$\phi$ A	B	C	D	$\phi$ E	$\phi$ GAS SPRING
G02.10.032	45	35	9	7	17	32
G02.10.038	52	40	9	7	17	38
G02.10.045	64	50	13	9	23	45
G02.10.050	70	56,5	13	9	24	50
G02.10.063	90	73,5	16	11	27	63
G02.10.075	90	73,5	16	11	29	75
G02.10.095	110	92	18	13	33	95
G02.10.120	130	109,5	21	13	36	120
G02.10.150	162	138	27	17,5	41	150
G02.10.195	210	170	27	17,5	47	195

Gas Springs

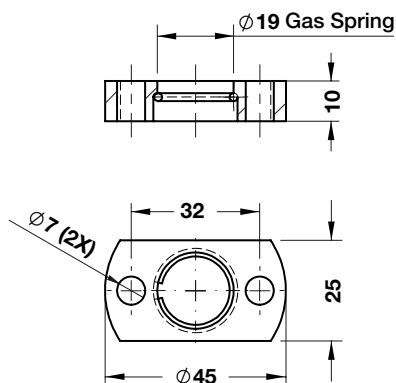
## MIDDLE FLANGE FOR GAS SPRING ZENTRALER FLANSCH FÜR GASDRUCKFEDERN FLANGIA CENTRALE PER CILINDRO AZOTO



	Art.	Gas Spring Diameter = 50
	G02.15	050

OMCR CODE	A	B	C	D	Ø E	Ø F	G	Ø GAS SPRING
G02.15.032	68	48	20	50	9	15	10	32
G02.15.038	74	54	20	54	9	15	16	38
G02.15.045	80	60	20	60	9	15	22	45
G02.15.050	90	70	30	68	11	18	25	50
G02.15.063	108	82	30	84	11	18	27	63
G02.15.075	125	94	30	100	13,5	20	32	75
G02.15.095	140	115	30	115	13,5	20	33	95
G02.15.120	170	140	30	145	13,5	20	58	120
G02.15.150	200	170	30	175	13,5	20	68	150

**LOWER FLANGE FOR GAS SPRING**  
**UBERER FLANSCH FÜR GASDRUCKFEDERN**  
**FLANGIA INFERIORE PER CILINDRO AZOTO**

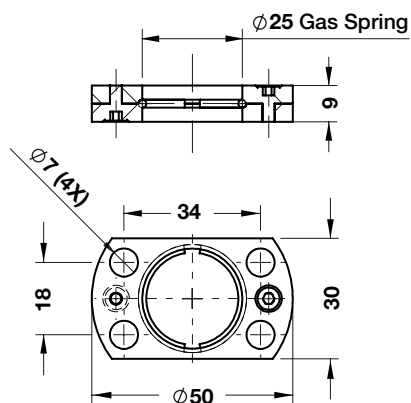


ORDER EXAMPLE	Art.	Gas Spring Diameter = 19
	G02.20	019

OMCR CODE	Ø GAS SPRING
G02.20.019	19

## G02.20

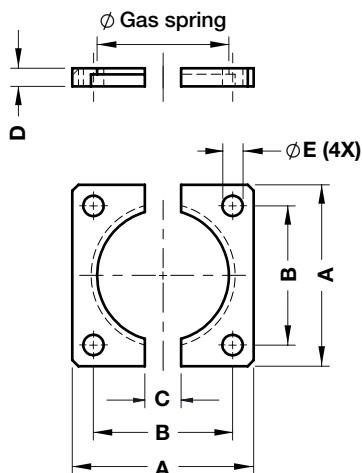
**LOWER FLANGE FOR GAS SPRING**  
**UBERER FLANSCH FÜR GASDRUCKFEDERN**  
**FLANGIA INFERIORE PER CILINDRO AZOTO**



ORDER EXAMPLE	Art.	Gas Spring Diameter = 25
	G02.20	025

OMCR CODE	Ø GAS SPRING
G02.20.025	25

**LOWER FLANGE FOR GAS SPRING**  
**UBERER FLANSCH FÜR GASDRUCKFEDERN**  
**FLANGIA INFERIORE PER CILINDRO AZOTO**



ORDER EXAMPLE	Art.	Gas Spring Diameter = 45
	G02.20	045

OMCR CODE	A	B	C	D	Ø E	Ø GAS SPRING
G02.20.032	50	35	12	7	7	32
G02.20.038	55	40	12	7	7	38
G02.20.045	70	50	20	7	9	45
G02.20.050	75	56,5	24	12	9	50
G02.20.063	100	73,5	24	12	11	63
G02.20.075	100	73,5	24	12	11	75
G02.20.095	120	92	24	12	13	95
G02.20.120	140	109,5	24	12	13	120
G02.20.150	190	138	24	12	17,5	150
G02.20.195	210	170	24	13	17	195



## CONNECTOR SYSTEMS

### GB DESCRIPTION

Connecting gas springs in one more systems enables the user to monitor gas spring pressure from outside the tool, to adjust it if necessary, to fill it and to drain it.

The connector system has many advantages including ease of maintenance, reliability and improvement in the quality of gas spring use in the tool.

### D BESCHREIBUNG

Das Verbinden von Gasdruckfedern in einem oder mehreren Systemen bietet dem Anwender die Möglichkeit, den Gasdruck der Gasdruckfedern außerhalb des Werkzeugs zu überwachen, nach Bedarf einzustellen, zu befüllen und abzulassen. Die Vorteile des Verbundsystems liegen in der Wartungsfreundlichkeit.

### I DESCRIZIONE

La connessione delle molle a gas in uno o più sistemi offre all'utente la possibilità di monitorare la pressione dall'esterno dell'utensile, di regolarla secondo necessità, di caricare o di scaricare il gas. Il vantaggio offerto dai sistemi interconnessi è quello di semplificare la manutenzione e di incrementare la sicurezza e la qualità del funzionamento delle molle a gas

### MINIMESS-SYSTEM

- + Small external hose diameter 5 mm
- + Small bending radius  $R_{min} = 20$
- + High pressure resistance
- + Vibration-proof measurement couplings
- + Connector with valve
- + No tools needed for connecting hose to adapter, and disconnecting
- ± Swaged non-detachable hose fitting
- Not for use with a pressure reservoir

### TECHNICAL DATA:

- Hose:** Polyamide 11, black, dimpled
- Hose fittings:** Free cutting steel, zinc-plated
- Measuring couplings:** Free cutting steel, zinc-plated
- Adapter:** Steel, burnished
- Max. permi. pressure:** 630 bar
- Temperature range:** 0–100°C

### Recommended application:

Most commonly used system for all gas springs with G1/8 gas connection.

Not suitable for use with a pressure reservoir due to small internal diameter (reduced flow volume).

### Einsatzempfehlung:

Meist eingesetztes System für alle Gasdruckfedern mit G1/8 Gasanschluss. Wegen kleinem Innendurchmesser nicht für den Einsatz in Verbindung mit Druckspeichertank geeignet (verminderte Durchflussmenge).

### Raccomandazioni per l'impiego:

Si tratta del sistema più frequentemente impiegato per le molle a gas con foro di carica filettato G1/8. A causa del minimo diametro interno non idoneo all'utilizzo con accumulatore a serbatoio (ridotta portata).



## CONNECTOR SYSTEMS

### GB INSTRUCTIONS FOR HOSE ASSEMBLY

Never exceed the maximum pressures and temperatures for the hoses. Ensure that all hoses and adaptors are perfectly clean prior to assembly. The sheathing of the hoses must be perforated so that they can be used for pressurised gas. Follow the instructions below to ensure functionality and maximum service life for the hose connection:

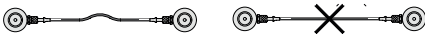
### D ANLEITUNG FÜR DIE SCHLAUCHMONTAGE

Nie die für Druck und Temperatur der Schläuche angegebenen Höchstwerte überschreiten. Vor der Montage ist für die einwandfreie Sauberkeit aller Schläuche und Adapter zu sorgen. Die Ummantelung der Schläuche muss perforiert sein, damit sie für unter Druck stehendes Gas verwendet werden können. Um die Funktionsfähigkeit sicherzustellen und die Lebensdauer der Schlauchleitungen nicht durch zusätzliche Beanspruchung zu verkürzen, sind nachfolgende Anforderungen zu erfüllen.

### I ISTRUZIONI PER ASSEMBLAGGIO IMPIANTO

Non superare, in nessun caso, le indicazioni di massima temperatura e pressione indicate per il tubo flessibile in questione. Prima del montaggio verificare la perfetta pulizia di tutti i tubi e di tutta la raccorderia di connessione e di adattamento. La guaina di rivestimento dei tubi flessibili deve essere perforata e adatta all'alta pressione del gas. Allo scopo di assicurare la funzionalità dei circuiti idraulici e non pregiudicare la durata utile, seguire le informazioni qui di seguito esposte:

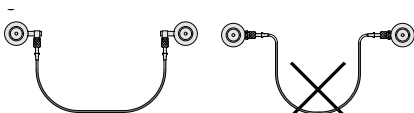
- ① Select a hose length to provide a certain amount of play.



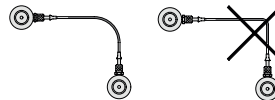
- ② The longitudinal marking on the hose must not be twisted during assembly.



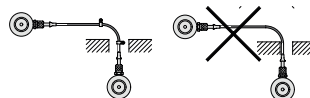
- ③ Use only hose fittings which prevent kinks forming in the hose.



- ④ Any bends in the hose must always have the recommended minimum radius, as detailed in the catalogue.



- ④ The hose must be connected correctly to avoid mechanical damage.



Refer to DIN 20066 for further details on installing hose connections.

**Attention!** Any modifications whatsoever to the product are prohibited.

## CONNECTOR SYSTEM EXAMPLE

### GB GROUP SERIES CONNECTION

**FUNCTION:** The springs are interconnected and there is just one test line to the control fitting.

**NOTE:** When installing gas springs always remove the valve from the gas spring.

### D BATTERIE-REIHENANSCHLUSS

**FUNKTION:** Die Federn werden miteinander verbunden und mit nur einer Prüfleitung an die Kontrollarmatur angeschlossen.

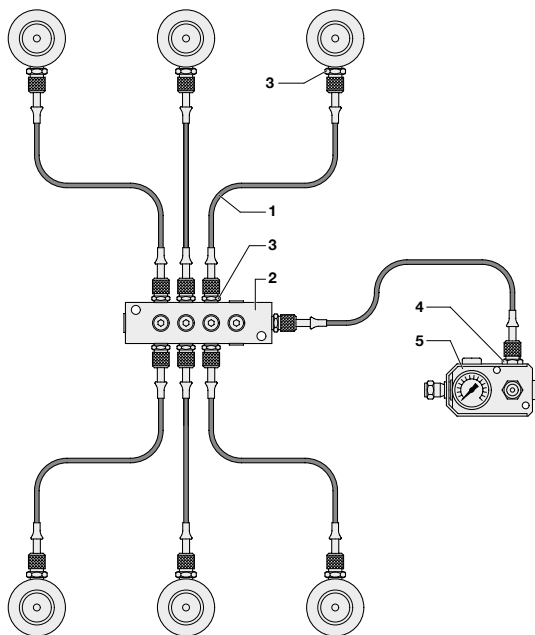
**HINWEIS:** Bei Verbundanordnung der Gasdruckfedern Ventil aus den GF entnehmen!

### I CONNESSIONE IN SERIE

#### FUNZIONAMENTO:

Le molle vengono collegate fra di loro e, tutte assieme, al complesso di controllo per mezzo di un unico tubo flessibile di controllo.

**NOTE:** Nelle connessioni a rete di molle multiple è necessario smontare la valvola da ogni singola molla a gas.



ITEM No.	DESCRIPTION	Q. TY	ORDER No.
1	Gauging hose	7	G03.12.XXXX
2	Distributor	1	G01.11.0011
3	Gauging Coupling	13	G03.11.000X
4	Gauging Coupling	1	G01.11.000X
5	Control fitting	1	G03.50.000X

## CONNECTOR SYSTEM EXAMPLE

### GB GROUP SERIES CONNECTION

**FUNCTION:** The springs are interconnected and there is just one test line to the control fitting.

**NOTE:** When installing gas springs always remove the valve from the gas spring.

### D BATTERIE-REIHENANSCHLUSS

**FUNKTION:** Die Federn werden miteinander verbunden und mit nur einer Prüfleitung an die Kontrollarmatur angeschlossen.

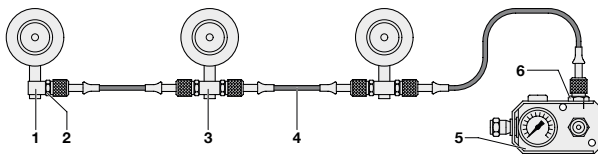
**HINWEIS:** Bei Verbundanordnung der Gasdruckfedern Ventil aus den GF entnehmen!

### I CONNESSIONE IN SERIE

#### FUNZIONAMENTO:

Le molle vengono collegate fra di loro e, tutte assieme, al complesso di controllo per mezzo di un unico tubo flessibile di controllo.

**NOTE:** Nelle connessioni a rete di molle multiple è necessario smontare la valvola da ogni singola molla a gas.



ITEM No.	DESCRIPTION	Q. TY	ORDER No.
1	Simple adaptor	1	G01.11.0008 (9)
2	Gauging Coupling	5	G01.11.0003
3	Multiple adapter	2	G01.11.0006 (7)
4	Gauging hose	3	G03.12.XXXX
5	Control fitting	1	G03.50.000X
6	Gauging Coupling	1	G01.11.000X

## CONNECTOR SYSTEM EXAMPLE

### GB INDEPENDENT TEST CONNECTION

**FUNCTION:** The springs work independently and have a gauging coupling with valve. If required the springs can be tested and pressure adjusted individually. A control fitting is used for the purpose.

**NOTE:** When installing gas springs always remove the valve from the gas spring.

### D AUTONOM-PRUFANSCHLUSS

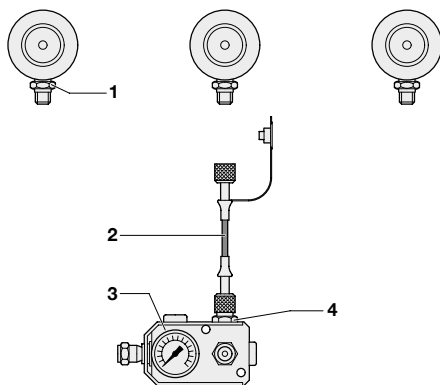
**FUNKTION:** Die Federn arbeiten autonom und sind mit einer Messkupplung mit Ventileinsatz ausgerüstet.

**HINWEIS:** Bei Verbundanordnung der Gasdruckfedern Ventil aus den GF entnehmen!

### I INDEPENDENT TEST CONNECTION

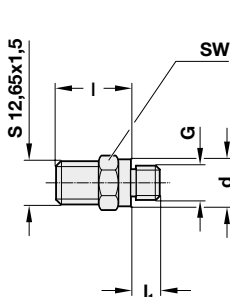
**FUNZIONAMENTO:** Le molle lavorano in maniera autonoma e sono equipaggiate ciascuna con un raccordo di misura (G03.11.0001) provvisto di valvola.

**NOTE:** Nelle connessioni con raccordo con valvola è necessario smontare la valvola dalla molla a gas.



ITEM No.	DESCRIPTION	Q. TY	ORDER No.
1	Gauging Coupling	3	G03.11.000X
2	Gauging hose	1	G03.12.XXXX
3	Control fitting	1	G03.50.000X
4	Gauging Coupling	1	G03.11.000X

## GAUGING COUPLING MESSKUPPLUNG RACCORDO



### FOR CONNECTION TO GAS SPRINGS

G03.11.0001 with valve | G03.11.0003 without valve

### FOR CONNECTION TO CONTROL PANEL

G03.11.0002 with valve | G03.11.0002 with valve

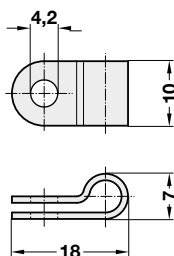
**NOTE:** The measuring coupling with valve is used for standard assembly layouts.

ORDER EXAMPLE	Art.	Connection type: 1/8 with valve
	G03.11	0001

OMCR CODE	G	d	SW	I	I <sub>1</sub>
G03.11.0001	G 1/8	14	14	22	8
G03.11.0002	G 1/4	19	19	21	10
G03.11.0003	G 1/8	14	14	22	8
G03.11.0004	G 1/4	19	19	21	10

## G03.11

## HOSE CLAMP SCHLAUCHSCHELL FASCETTA PER TUBO



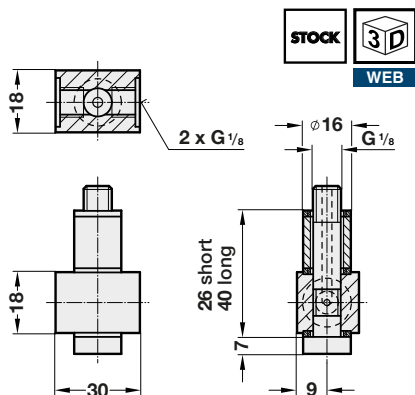
ORDER EXAMPLE	Art.	HOSE CLUMP
	G03.11	0005

OMCR CODE	HOSE DIAMETER
G03.11.0005	5

Hose clamp for gauging hose  $\varnothing$  5mm

**NOTE:** Supplied without screws

## DUAL ADAPTER G1/8 ZWEIFACH ADAPTER G1/8 RACCORDO DOPPIO G1/8

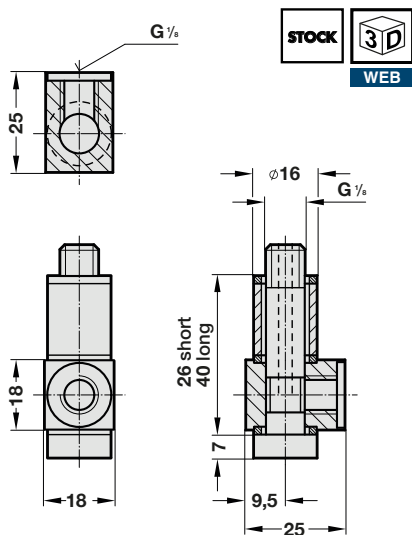


	Art.	Connection type: SHORT
	G03.11	0007

OMCR CODE	TYPE
G03.11.0006	LONG
G03.11.0007	SHORT

# G03.11

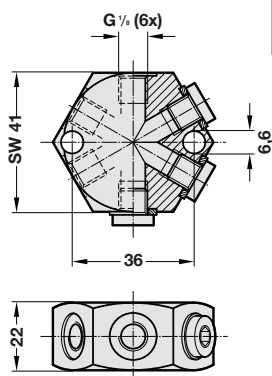
## GAUGING COUPLING G1/8 EINFACH ADAPTER G1/8 RACCORDO SINGOLO G1/8



	Art.	Connection type: SHORT
	G03.11	0009

OMCR CODE	TYPE
G03.11.0008	LONG
G03.11.0009	SHORT

**DISTRIBUTOR BLOCK G1/8, 6 PORTS**  
**VERTEILERBLOCK G1/8, 6 ANSCHLUSSE**  
**BLOCCHETTO DISTRIBUZIONE G1/8 6 ATTACCHI**

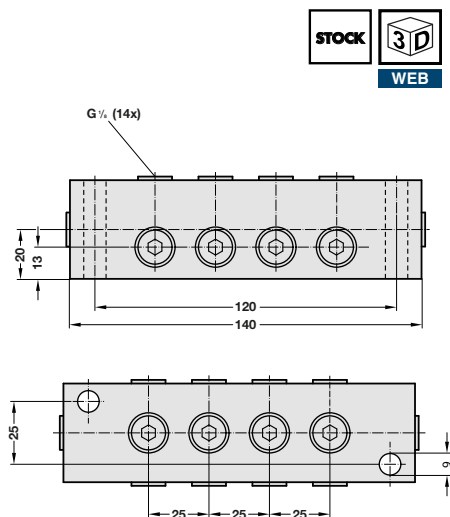


Art.	Connection type: 6 SLOTS
G03.11	0010

OMCR CODE	PORTS
G03.11.0010	6

## G03.11

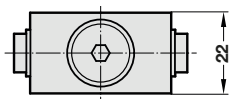
**DISTRIBUTOR BLOCK G1/8, 14 PORTS**  
**VERTEILERBLOCK G1/8, 14 ANSCHLUSSE**  
**BLOCCHETTO DISTRIBUZIONE G1/8 14 ATTACCHI**



Art.	Connection type: 14 SLOTS
G03.11	0011

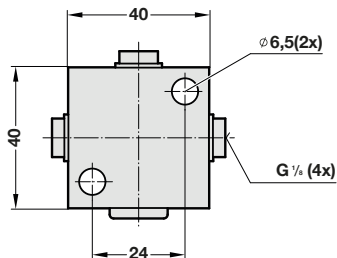
OMCR CODE	PORTS
G03.11.0011	14

**DISTRIBUTOR BLOCK G1/8, 4 PORTS**  
**VERTEILERBLOCK G1/8, 4 ANSCHLUSSE**  
**BLOCCHETTO DISTRIBUZIONE G1/8 4 ATTACCHI**



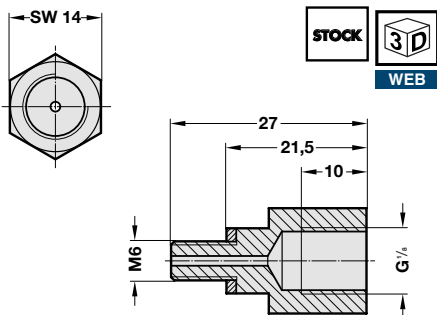
ORDER EXAMPLE	Art.	Connection type: 4 SLOTS
	G03.11	0012

OMCR CODE	PORTS
G03.11.0012	4





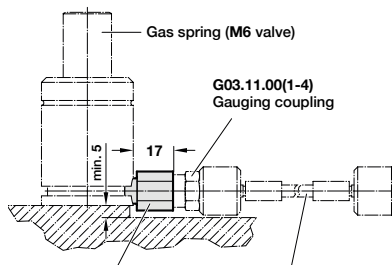
## CONNECTION FITTING M6 - G1/8 ANSCHLUSSADAPTER M6 - G1/8 RACCORDO DA M6 A G1/8



	Art.	Connection FITTING
	G03.11	0013

<b>OMCR CODE</b>
G03.11.0013

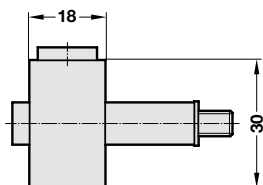
### MOUNTING EXAMPLES :



G03.11.0013  
Connection adaptor M6 - G 1/8

# G03.11

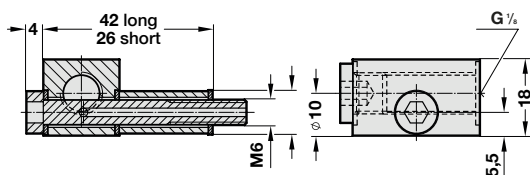
## DUAL ADAPTER M6 ZWEIFACH ADAPTER M6 RACCORDO DOPPIO M6



	Art.	Connection type: SHORT
	G03.11	0015

OMCR CODE	TYPE
G03.11.0014	LONG
G03.11.0015	SHORT

**NOTE:** For connection of gas springs with M6 filling connection

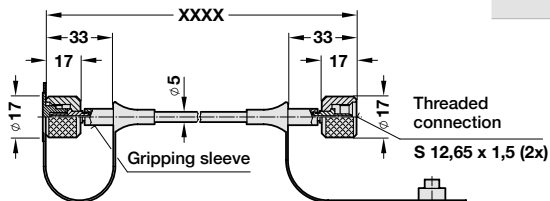


## GAUGING HOSE BOTH ENDS STRAIGHT MESSCHLAUCH BEIDSEITIG GERADE TUBO CONNESSIONE 0° - 0°



	Art.	Connection length = 350 mm
	G03.12	0350

OMCR CODE	LENGHT
G03.12.	XXXX



### ORDER EXAMPLE

Shortest factory length: 90 mm  
**XXXX**: Length in mm  
 Minimum bending radius: R20

\*Measuring hose available in the following lengths:

5 mm step range < 1000 mm  
 10 mm step range > 1000 mm  
 Max length :3000mm

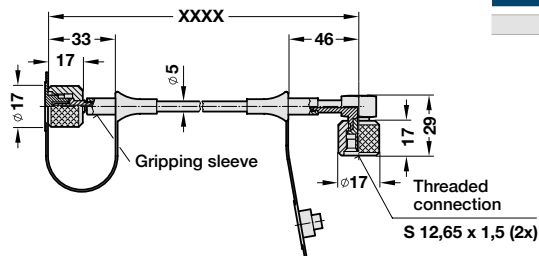
# G03.13

## GAUGING HOSE ONE END STRAIGHT ONE 90° MESSCHLAUCH EIDSEITIG GERADE / 90° TUBO CONNESSIONE 0° - 90°



	Art.	Connection length = 350 mm
	G03.13	0350

OMCR CODE	LENGHT
G03.13.	XXXX



### ORDER EXAMPLE

Shortest factory length: 90 mm  
**XXXX**: Length in mm  
 Minimum bending radius: R20

\*Measuring hose available in the following lengths:

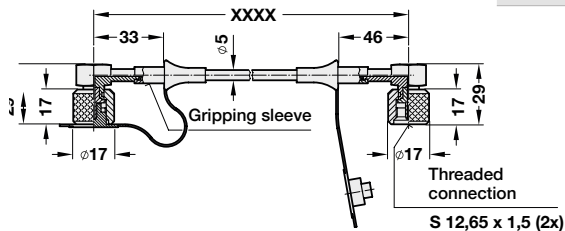
5 mm step range < 1000 mm  
 10 mm step range > 1000 mm  
 Max length :3000mm

**GAUGING HOSE BOTH ENDS 90°**  
**MESSSCHLAUCH BEIDSEITIG 90°**  
**TUBO CONNESSIONE 90° - 90°**



Art.	Connection length = 350 mm
G03.14	0350

OMCR CODE	LENGHT
G03.14.	XXXX



**ORDER EXAMPLE**

Shortest factory length: 90 mm  
 XXXX: Length in mm  
 Minimum bending radius: R20

\*Measuring hose available in the following lengths:

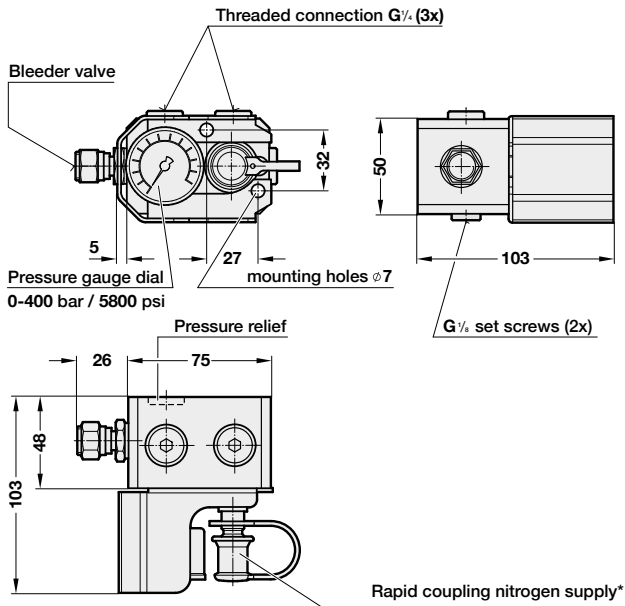
5 mm step range < 1000 mm  
 10 mm step range > 1000 mm  
 Max lenght :3000mm

## CONTROL FITTING KONTROLLARMATUR PANNELLO DI CONTROLLO



ORDER EXAMPLE	Art.	Control Panel Model
	G03.50	0003

OMCR CODE	TYPE
G03.50.0001	1
G03.50.0002	2
G03.50.0003	3
G03.50.0004	4



ITEM No.	DESCRIPTION
1	without pressure switch
	ohne Druckschalter
	senza interruttore pressostatico
2	with pressure switch
	mit Druckschalter
3	without pressure switch and with pressure relief
	ohne Druckschalter und mit Berstsicherung
	senza interruttore pressostatico e con sicurezza anti-scoppio
4	with pressure switch, with pressure relief
	mit Druckschalter und mit Berstsicherung
	con interruttore pressostatico e con sicurezza anti-scoppio

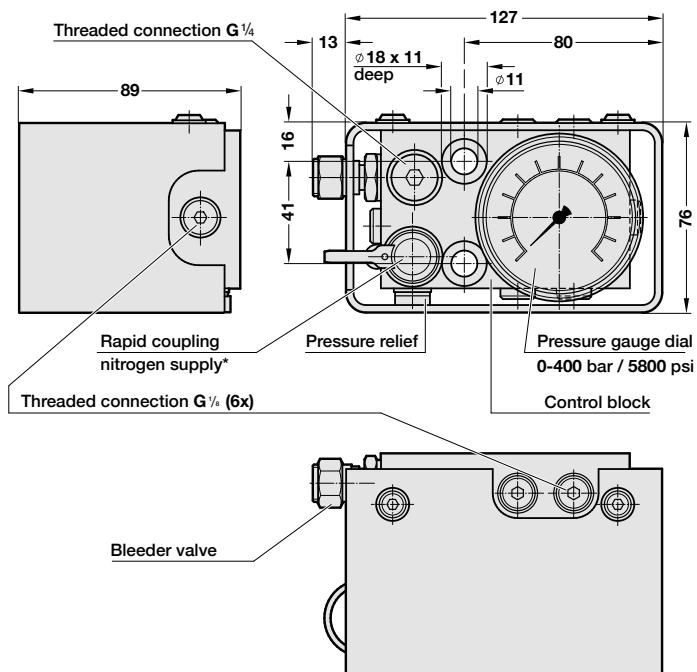
**CONTROL FITTING WITHOUT PRESSURE SWITCH WITH PRESSURE RELIEF**  
**KONTROLLARMATUR OHNE DRUCKSHALTER MIT BERSTSICHERUNG**  
**PANNELLO DI CONTROLLO SENZA INTERRUOTORE PRESSOSTATICO CON ANTISCOPPIO**



ORDER EXAMPLE	Art.	Control Panel Model
	G03.50	0005

OMCR CODE

G03.50.0005



**DESCRIPTION:** The control fitting is used to constantly monitor the filling pressure of one or more gas springs.

The control fitting is equipped with rapid coupling for nitrogen supply and a bleeder valve. There are three G1/8 ports for simultaneous pressure checking at the control fitting. Measuring range from 0 - 400 bar / 5800 psi.

NEW Cam Unit  
Gas Springs  
Wire Springs  
Eyebolts  
Elastomers

**OMCR**<sup>®</sup>  
STANDARD DIE COMPONENTS

**PRODUCTS**

DIE COMPONENTS



CAM UNITS



GAS SPRINGS



WIRE SPRINGS



LIFTING ELEMENTS



SLIDING ELEMENTS



Performance with our  
ON-SERVICE

ENGINEERING team  
SPECIAL APPLICATIONS



Experience to support you  
PROTOTYPING TO CREATION  
CUSTOMIZED product

NEW  
**CHW**



Ⓒ Specifications enclosed in the publication are not binding. OMCR Srl may bring any changes for technical improvements without notice.

Ⓓ Die in diesen Unterlagen enthaltenen Daten sind nicht verbindlich. Die Firma OMCR Srl behält sich vor, Änderungen bzgl. technischer Verbesserungen ohne Vorankündigung einzubringen.

Ⓘ I dati contenuti nella presente pubblicazione non sono impegnativi. La OMCR Srl si riserva di apportare modifiche per miglioramenti tecnici senza preavviso.

