

CUMSA

INNOVATIVE SOLUTIONS
FOR YOUR MOLDS





CUMSA

269

HISTORY

A written history, but still with a long way to go

CUMSA was founded by Mr. Alberto Navarra in 1979, when, in association with a small group of Spanish toolmakers, decided to combine their knowledge and create the company.

Their objective was to develop mold projects from the initial stages of design through the serial plastic parts production.

From the early beginning, the company was focused on expanding its operations outside of Spain. Consequently, they first reached out to Mexico, Denmark, and the USA.

In 1992 CUMSA decided to make a 180° turn, took advantage of Mr. Alberto Navarra deep knowledge of the tooling industry, and started to create an innovative range of standard components for molds.

Since then, many products have become a reference standard in the mold making industry due to their simplicity in functionality as well as easy assembling and adjusting. All the products are designed as a result of a deep R+D process, keeping in mind the challenges that designers, mold-makers and molders have to deal with.

Nowadays, CUMSA continues as a family owned and operated company, headquartered in Barcelona, Spain, with subsidiaries in the USA, Portugal, Italy, and China, focused on the design, manufacturing and distribution of innovative standard components for the mold making and molding industries.



CUMSA
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WORLDWIDE PRESENCE

**Globalization
is our DNA**

CUMSA has focused since its beginnings in exporting their products, so any CUMSA component can be purchased by any toolmaker or molder in any country worldwide. This gives

CUMSA the chance to grow as a company, discover new problems all around the world, and find how to solve them in different ways. This vision allows the company the opportunity to have a great international presence, with a distribution network over 45 countries.

CUMSA distribution group is divided by 5 owned facilities:

- EUROCUMSA in Marinha Grande area (Portugal), established in 1998.
- CUMSA Italia in Milano area (Italy), established in 2004.
- CUMSA Standard parts for molds Co. Ltd. , in Shenzhen (China), and CUMSA Asia Pacific, Ltd., in Hong Kong, both established in 2009.
- CUMSA USA in Troy (Michigan-USA), established in 2012.

CUMSA components are directly delivered from its headquarters to Spain and Germany, as well as to those other countries where non CUMSA official dealer is present.

By the end of 2017, another production plant was built in Portugal. CUMSA Tech, whose main goal is the manufacturing of hydraulic cylinders specially designed for the mold making industry, and in addition to, produce a few other components included in this catalogue.

CUMSA VALUES

**Alone we can do so little,
together we can do so much**

CUMSA values are how we believe a company should be. A place where every single worker is an essential part of the process to achieve the objectives as a team.

Each letter of CUMSA name represents our 5 TOP values:

C for Creativity:

Going one step further, creating trendy products, and applying the latest technologies. The creativity should be in all areas of our work.

U for Unity:

We believe that the growth, the progress and the objectives can only be achieved if every single person of the team works with the same goal in mind. Trust, respect, and mutual support are crucial in our working environment.

M for Motivation

Being flexible and agile, with optimism and positive energy is something we look for in our employees. As well as proposing new challenges with self-confidence, fun and a passion for work.

S for Service

Excellence in the service to customers, subsidiaries, suppliers, colleagues, and in general to all the partners of our day to day.

A for Attitude

Open minded, determination to do more and better things, with a lot of attention to detail. Falling and rising, never giving up, improving, exploring, innovating, taking risks, growing, and succeeding.



QUALITY

**Quality is not an act,
it is a habit**

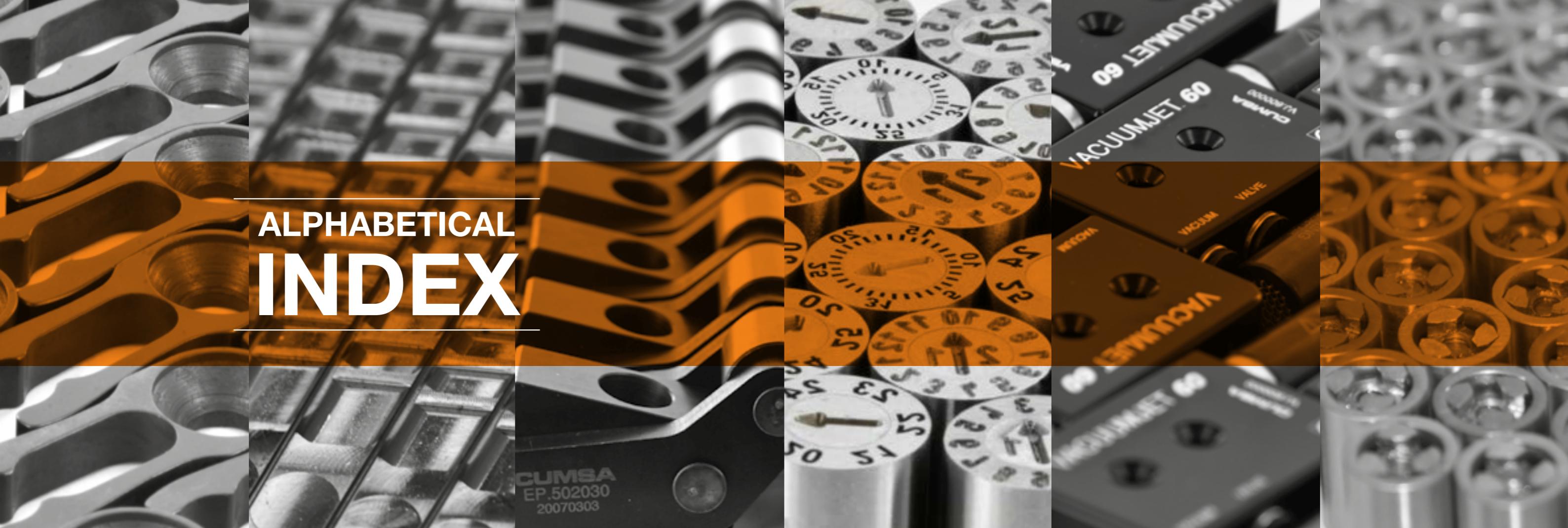
We are committed to the development of effective products and services. Since 1997, CUMSA is certified by a Quality Management System according to the ISO-9001 standards, which is annually audited by the international leading company Det Norske Veritas AS who verifies that all processes meet the standard requirements.

At CUMSA the four 4 main areas of the quality management system are applied to:

- Continuous investment in new IT technologies, production, and testing systems, as well as in new machines to optimize all the processes.
- Quality control through all stages of the production process until the product is delivered to the customer.
- Continuous employee training to increase knowledge and quality awareness regarding services and products.
- Fast and valuable answers to customer's needs, to help them to achieve their requirements.



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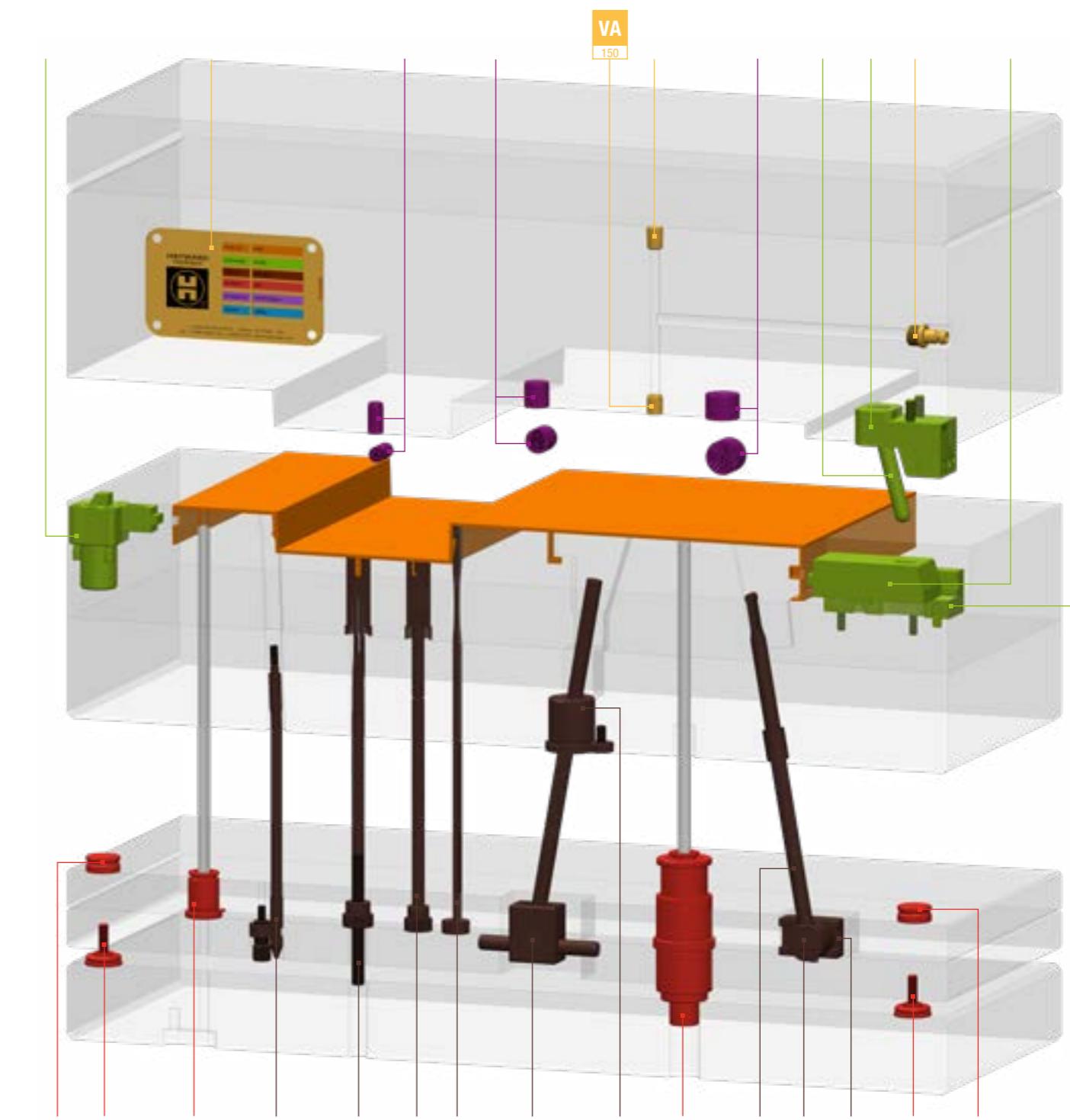
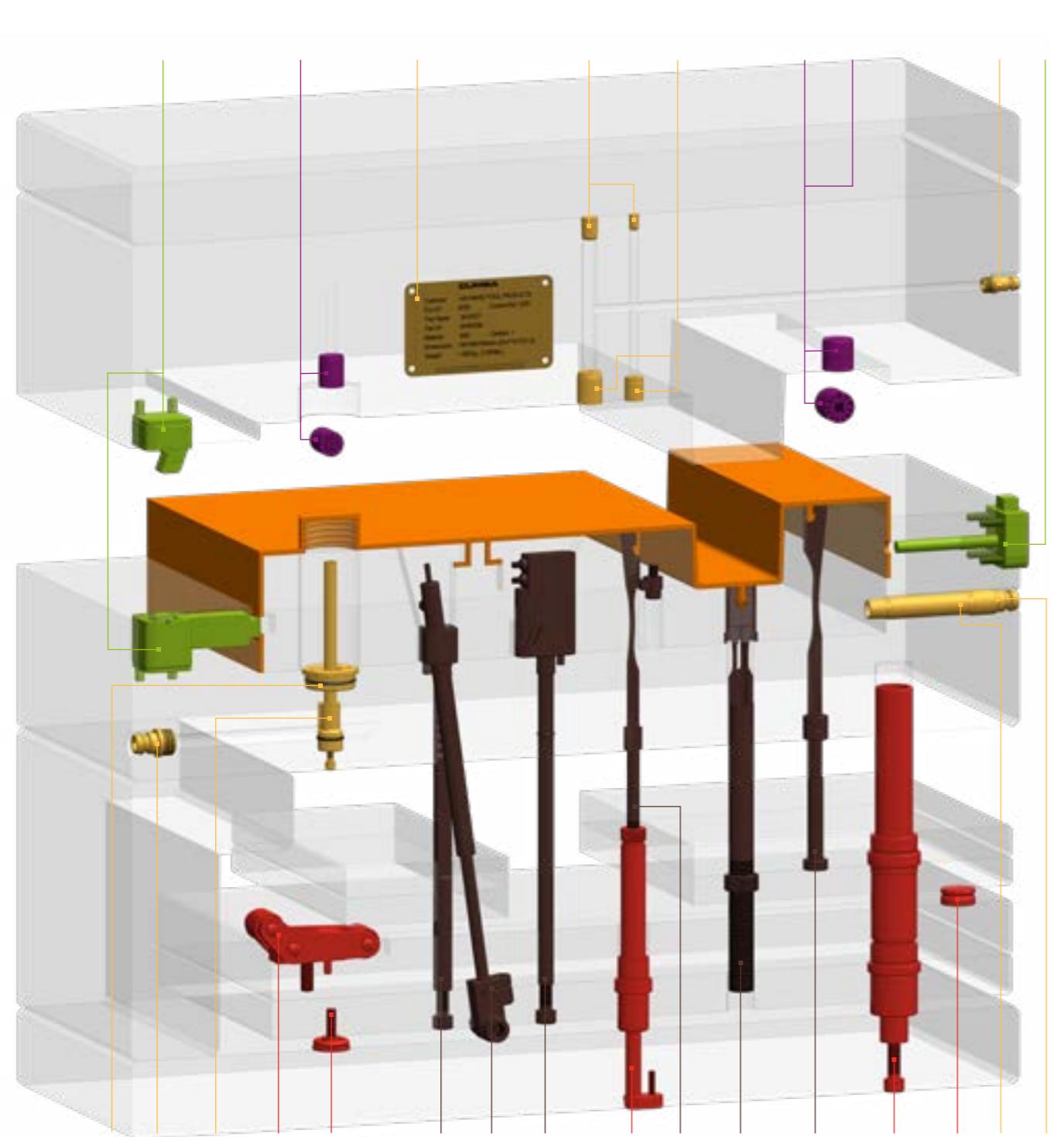
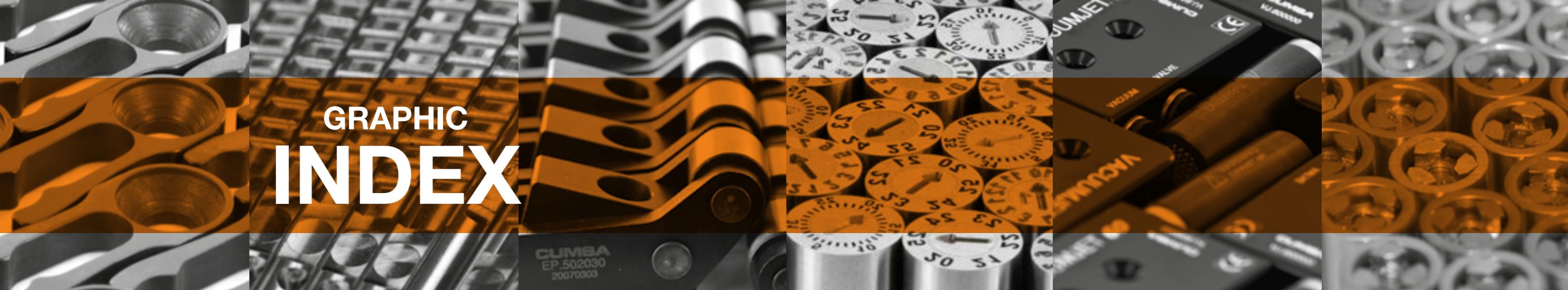
- WL Smart Worm Lifter 56

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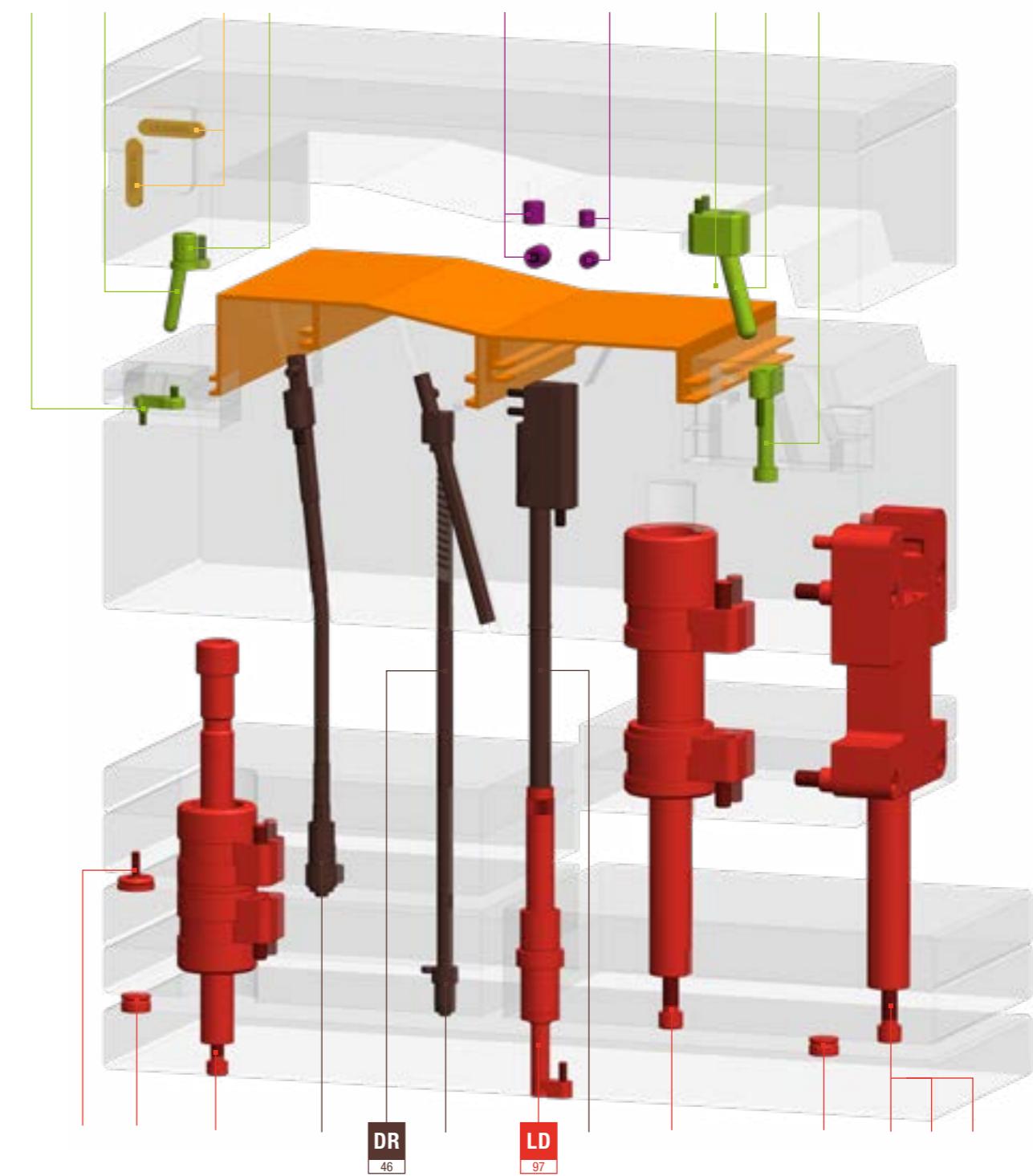
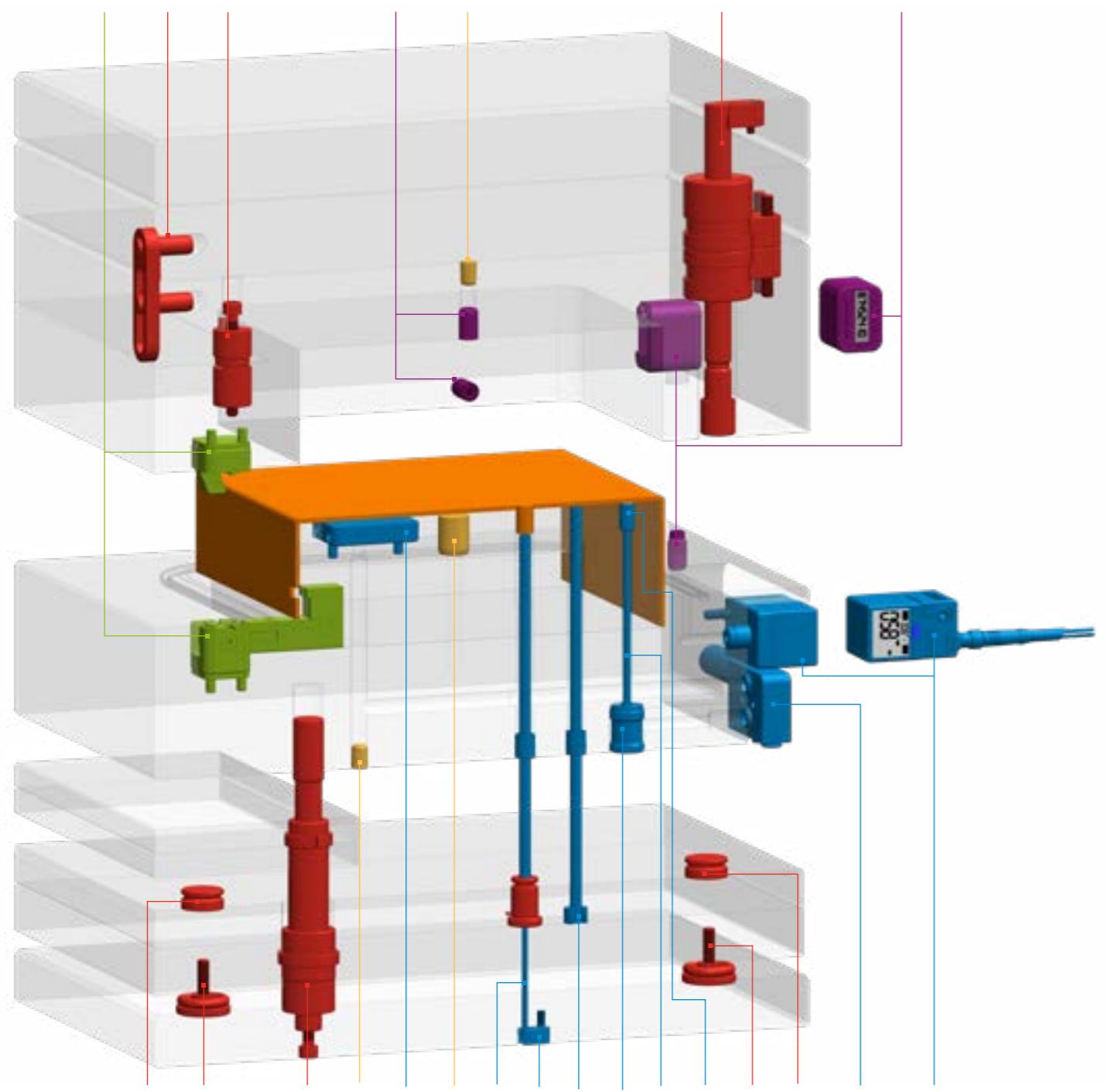
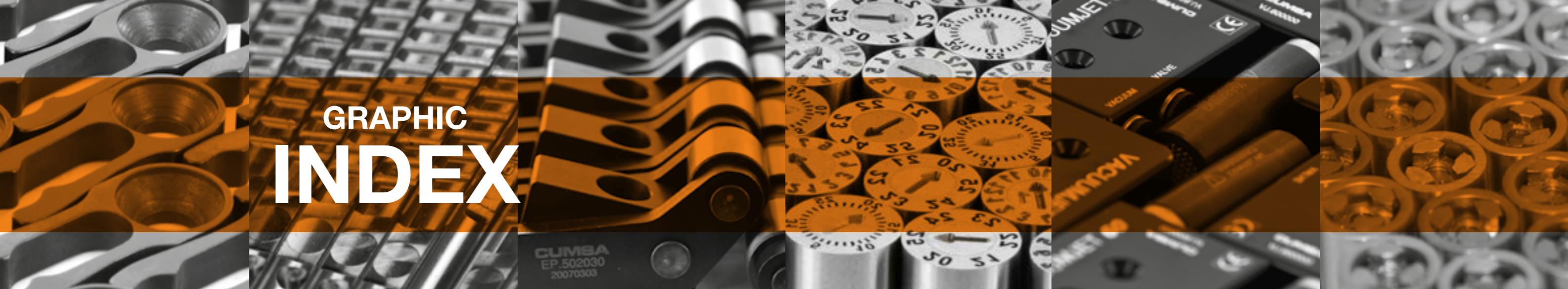
X

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GRAPHIC INDEX



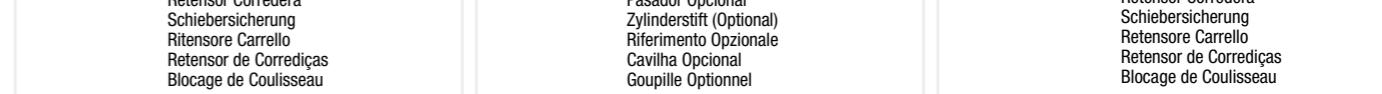
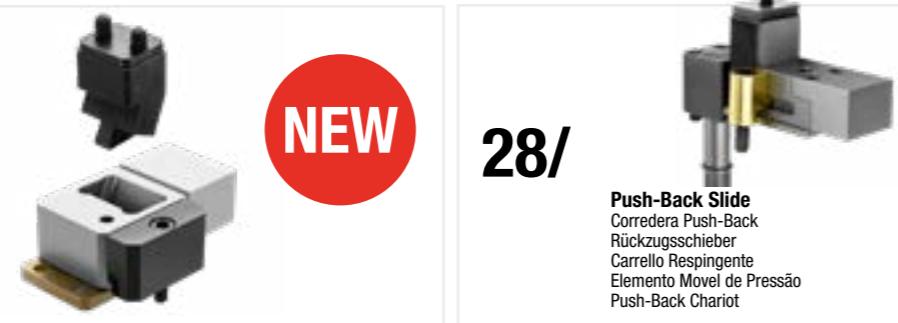
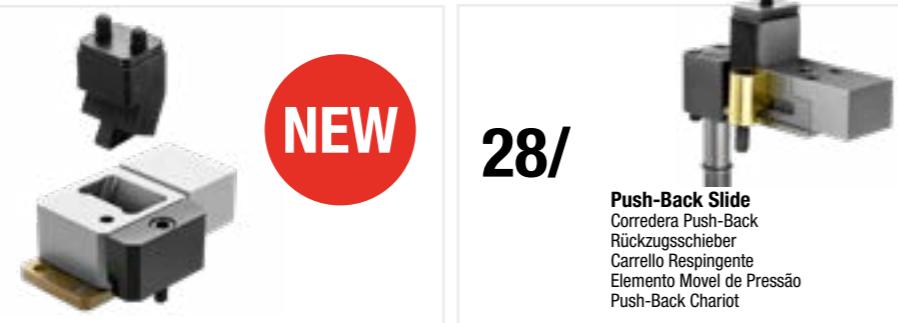
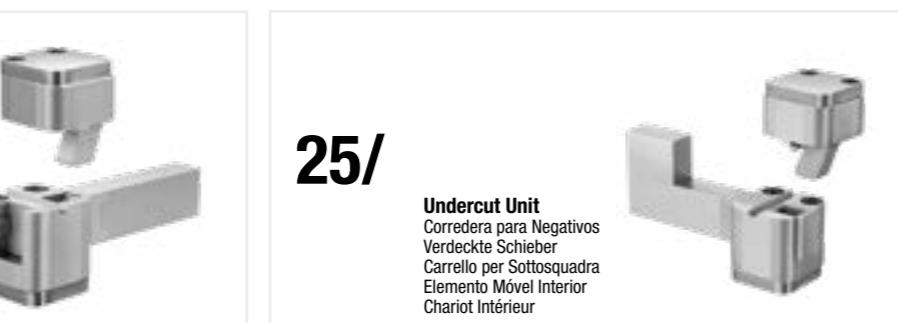
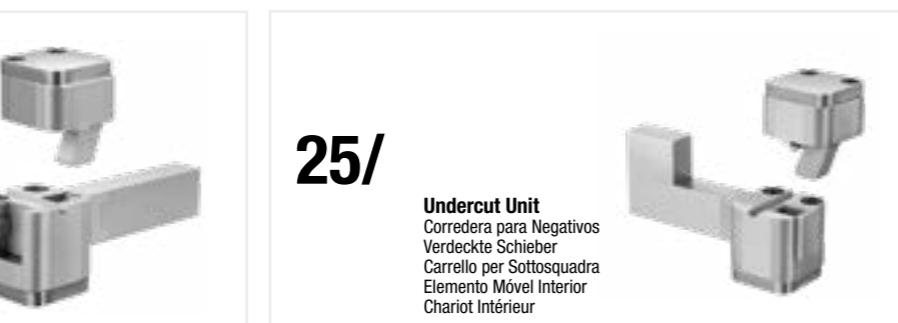


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SLIDES

SLIDES INDEX

ÍNDICE CORREDERAS / INHALTSVERZEICHNIS SCHIEBER
INDICE CORSA / ÍNDICE CORREDIÇAS / INDEX CHARIOTS



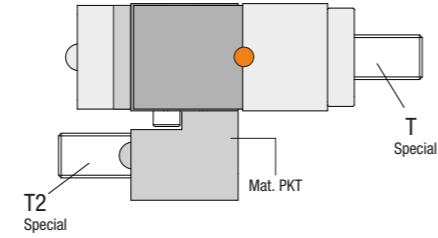
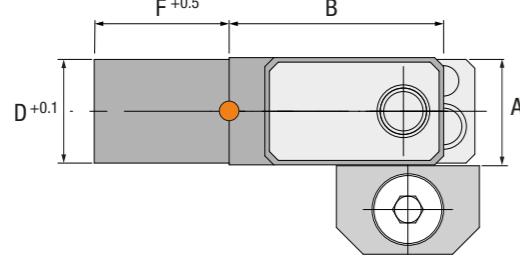
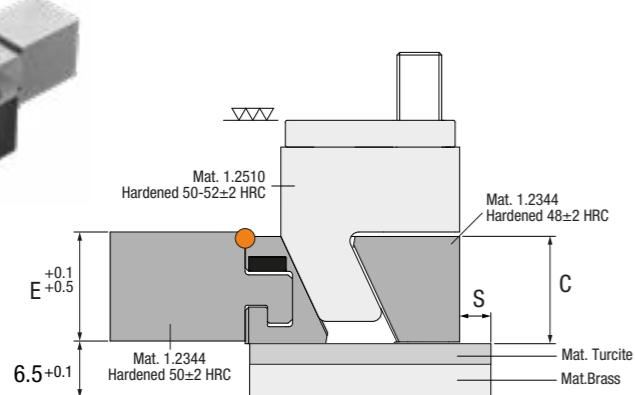


MS

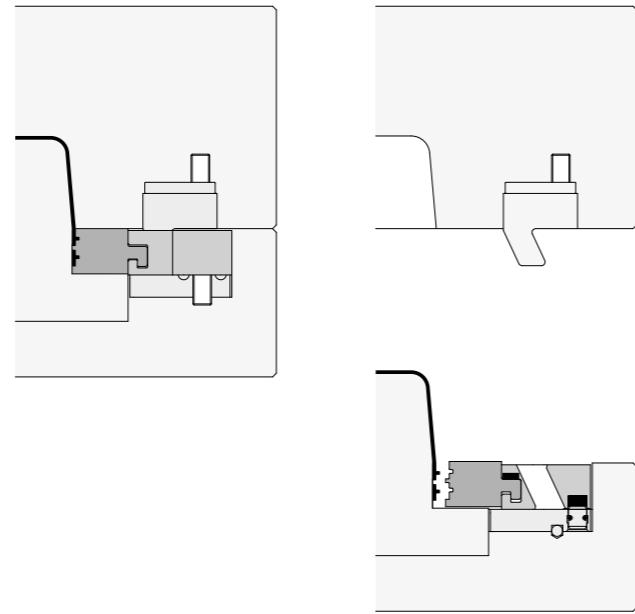
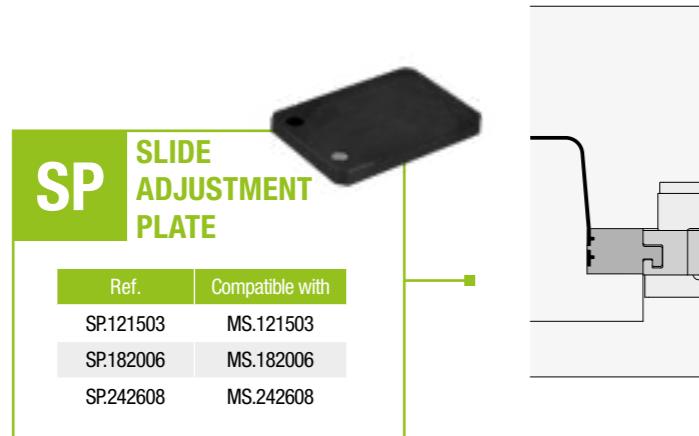
SLIDES



Patented



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MS.182006	18	41	16	17.6	16.5	20	16.5	22.5	47	32.5	16	28	4.5	5	6	M6x40	M5x25	12	26	15.5	7	13
MS.242608	24	45	20	23.6	20.5	26	16.5	26.5	53	38.5	16	28	4.5	5	8	M6x45	M5x25	17	30	16.5	7	15

**MINI SLIDE**

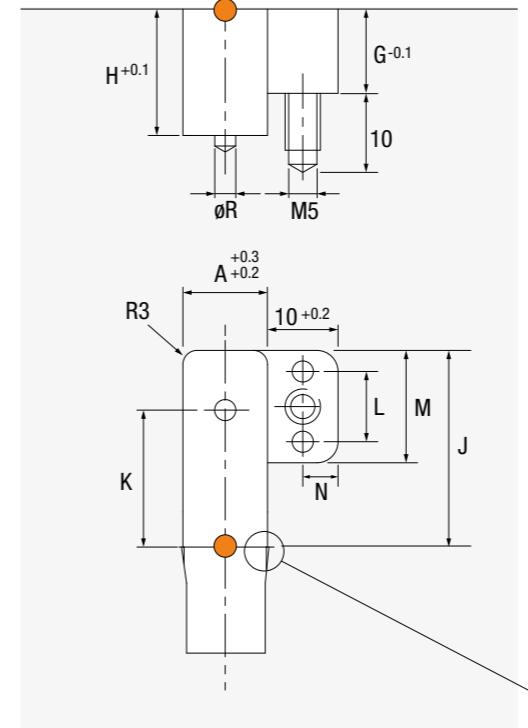
ES Mini Corredora DE Mini Schieber
IT Carrello Mini PT Mini Corrediça FR Mini Coulisseau

INSTALLATION GUIDELINES

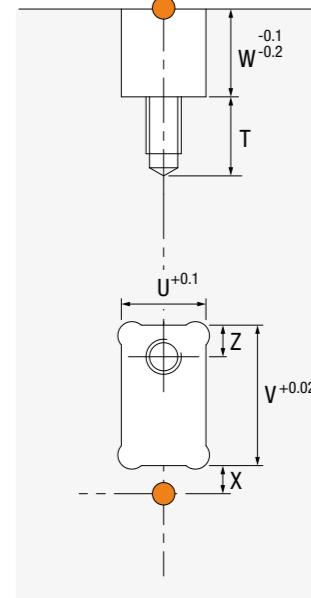
ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

Core Housing

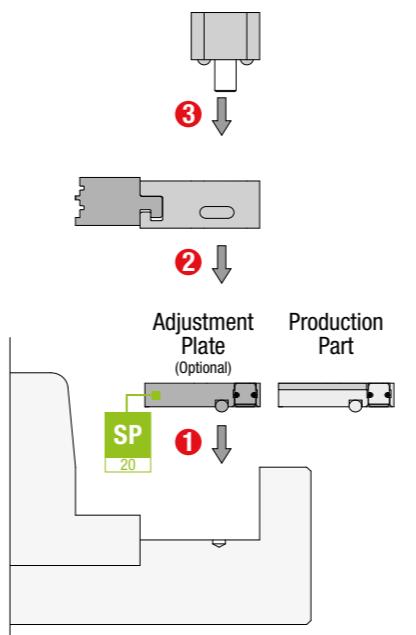
Alojamiento Placa Punzón · Einbaumaße PB Führung · Sede nel Punzone · Alojamento Bucha · Logement dans l'empreinte

**Cavity Housing**

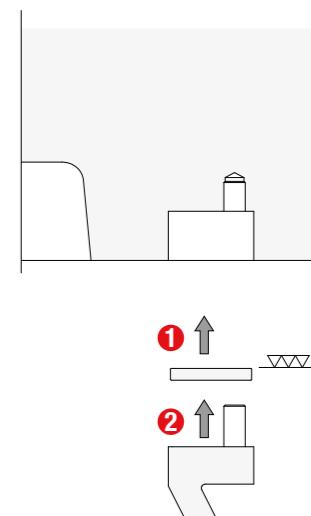
Alojamiento Placa Cavidad · Einbaumaße DR Führung · Sede piastra cavità · Alojamento na Cavidade · Logement dans l'emprise

**Core Slide Installation**

Instalación Placa Punzón · Einbaumaße DR Führung · Installazione piastra punzone · Alojamento na Bucha · Logement dans l'empreinte

**Cavity Slide Installation**

Instalación Placa Cavidad · Einbaumaße DR Führung · Installazione piastra cavità · Instalação da corredeira no lado da cavidade · Logement dans l'emprise

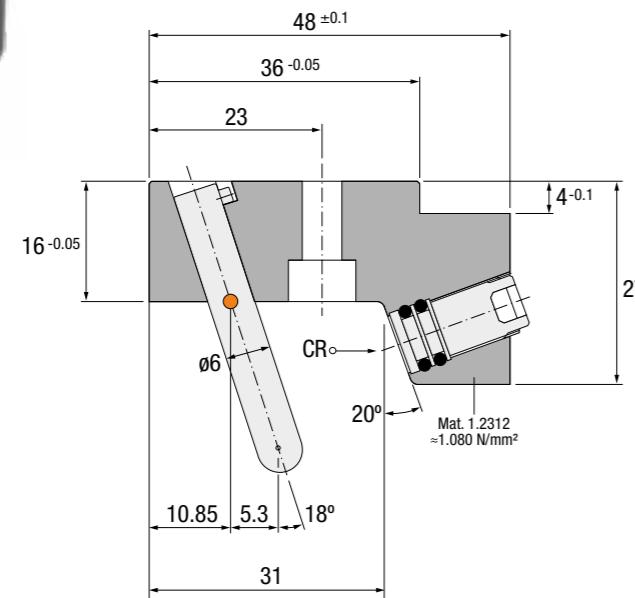


**MG**

Patented

MINI GUIDE

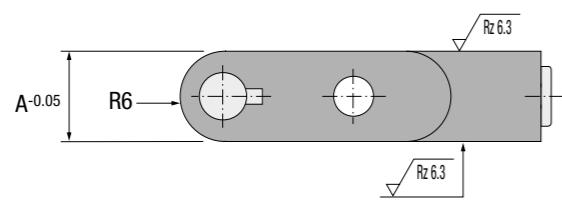
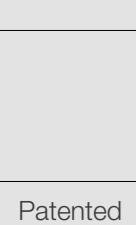
ES Mini Guia DE Mini Schieberführung
IT Mini Guida PT Mini Guia FR Mini Guide



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MG.121648	12	50.000
MG.201648	20	90.000

IMPORTANT !

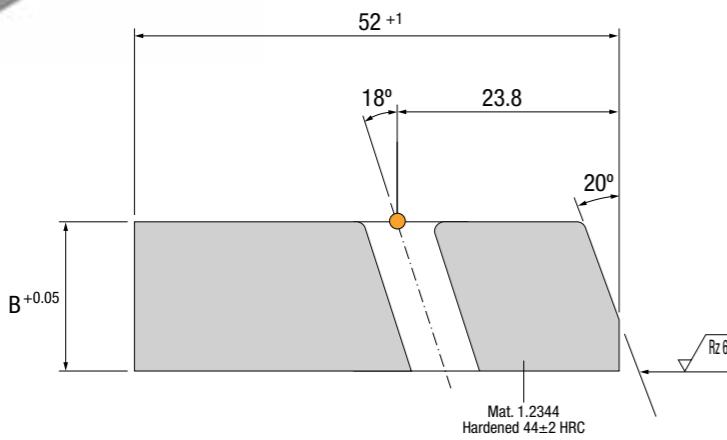
Standard stroke of 4mm.
Recorrido estándar de 4mm.
Standard Hub 4mm.
Corsa carrello 4mm.
Curso standard de 4mm.
Course standard de 4mm.

**MC**

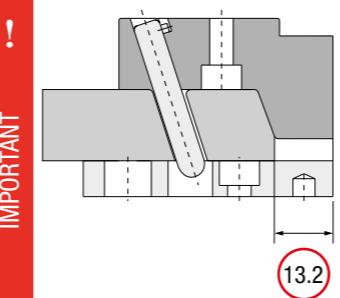
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MINI SLIDE

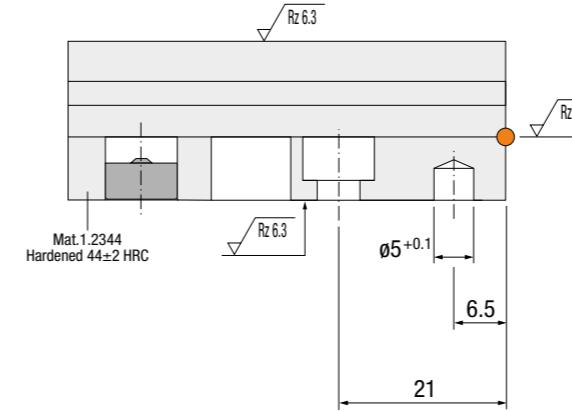
ES Mini Corredora DE Mini Schieber
IT Mini Carrello PT Mini Corrediça FR Mini Coulisseau

Cad Insertion Point

Ref.	A	B
MC.121252	12.5	12
MC.121652	12.5	16
MC.201252	20.5	12
MC.201652	20.5	16

IMPORTANT !**MINI BASE**

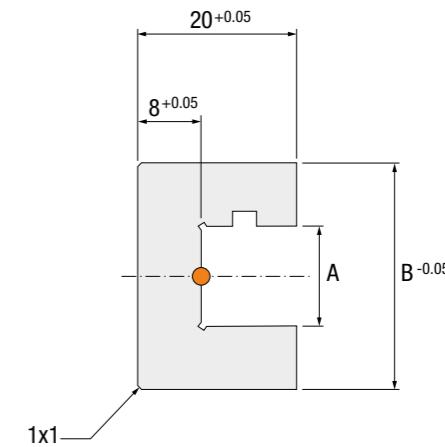
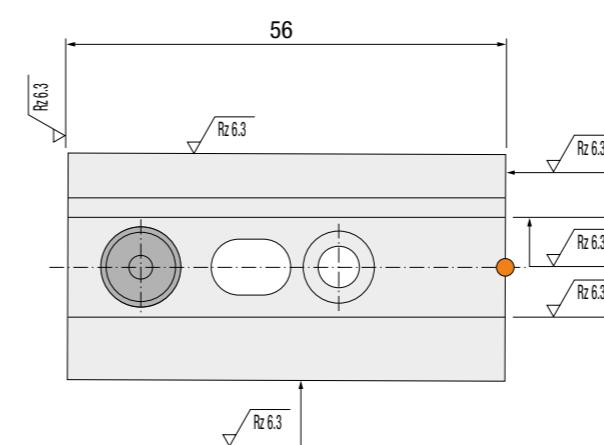
ES Mini Base DE Mini Basis
IT Mini Base PT Mini Base FR Mini Base

Cad Insertion Point

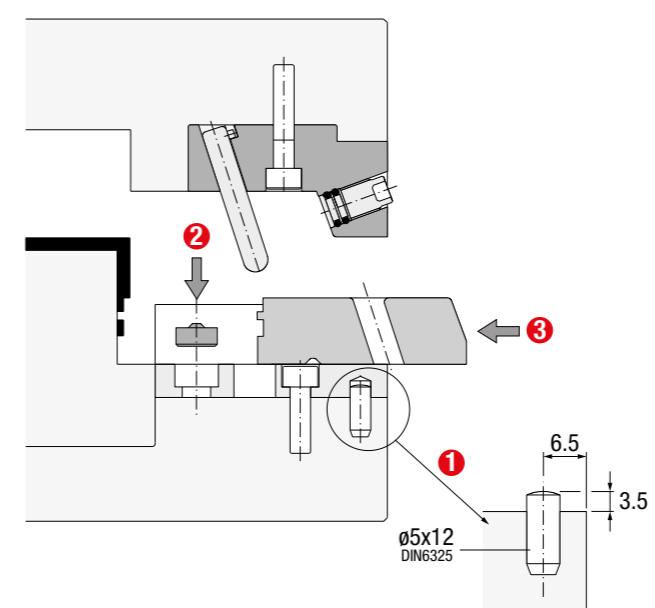
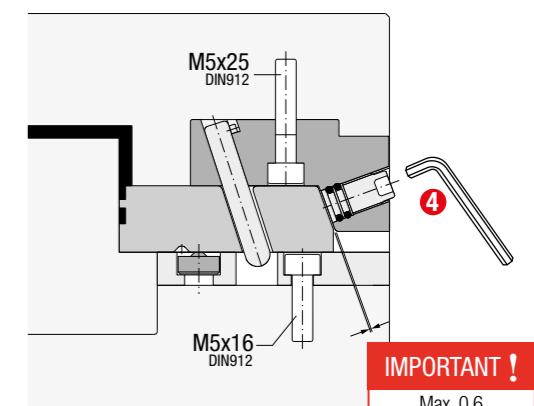
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MB.122056	12.5	28
MB.202056	20.5	36

**MB**

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**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

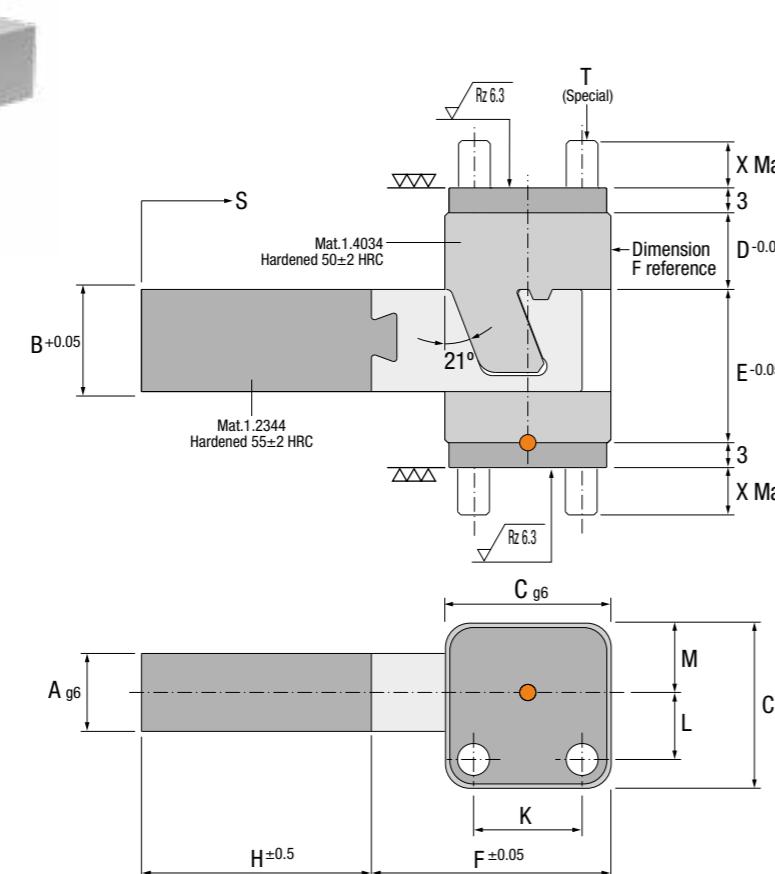
Mold Open**Mold Closed****IMPORTANT !**
Max. 0.6

SU



SLIDE UNIT

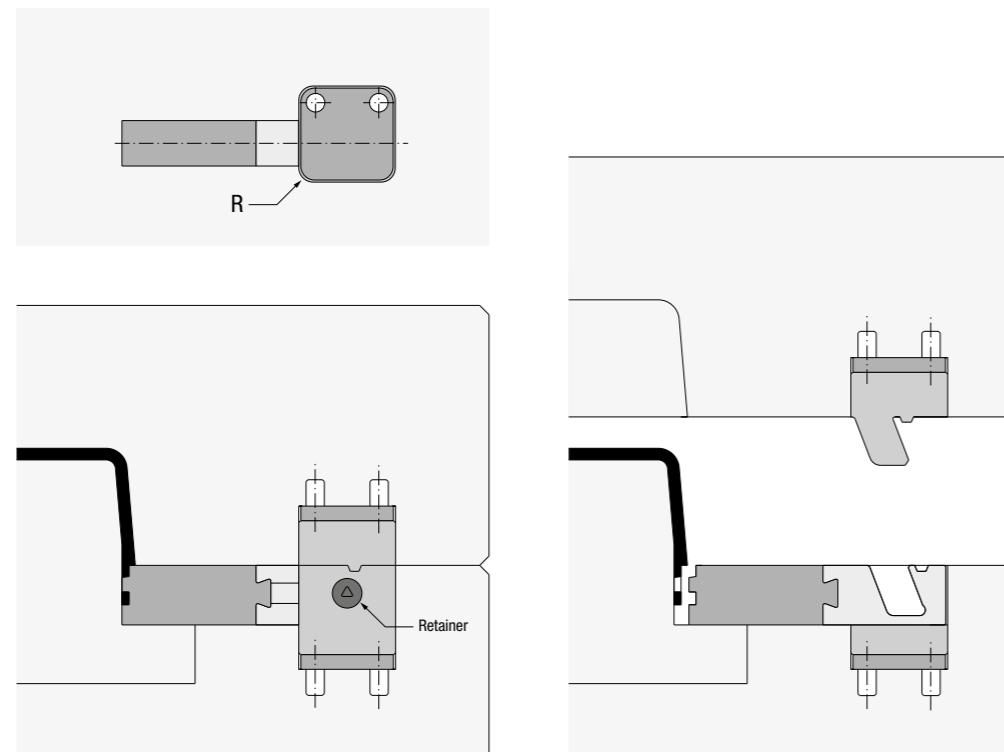
ES Conjunto de Corredera DE Schieber Einheit
IT Gruppo Carrello PT Elemento Móvel FR Chariot



Ref.	A	B	C	D	E	F	H	K	L	M	R	S	T	X
SU.081220	8.2	12	20	10	18	28	32	12.5	8.25	8	3.75	3	M4	6.2
SU.121626	12.2	16	26	12	24	37.5	36	17	10.5	11	4.5	4	M5	7.2
SU.162032	16.2	20	32	16	30	46.5	40	22	13	14	5	5	M6	9.2

Installation Guidelines

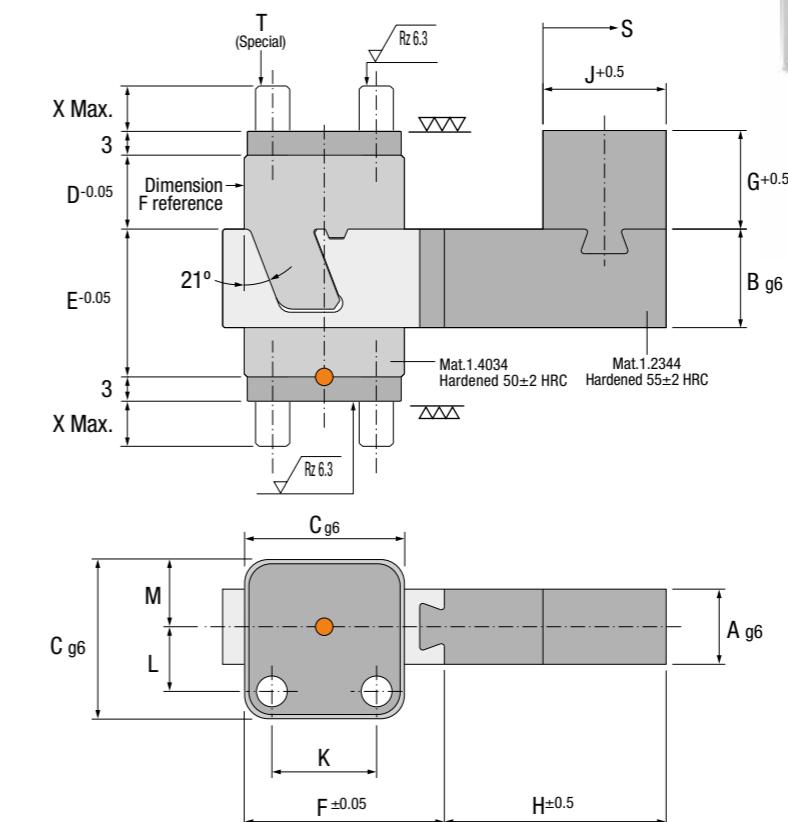
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



UNDERCUT UNIT

ES Corredera para Negativos DE Verdeckte Schieber
IT Carrello per Sottosquadra PT Elemento Móvel Interior FR Chariot Intérieur

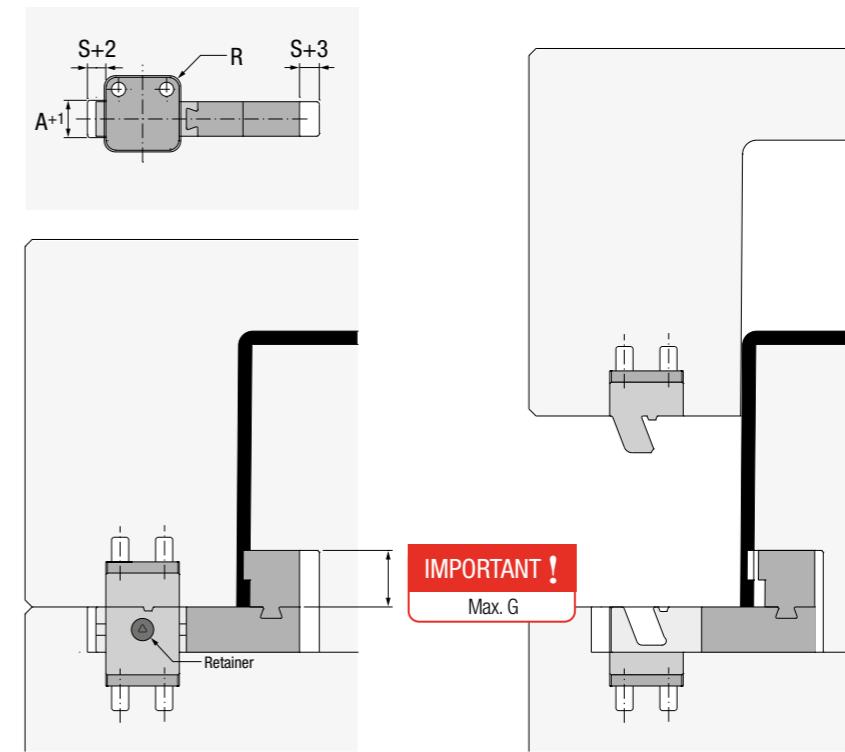
● Cad Insertion Point



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UU.121626	12.2	16	26	12	24	32.5	16	36	20	17	10.5	11	4.5	4	M5	7.2
UU.162032	16.2	20	32	16	30	41	20	50	25	22	13	14	5	5	M6	9.2

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation





CS

SLIDES



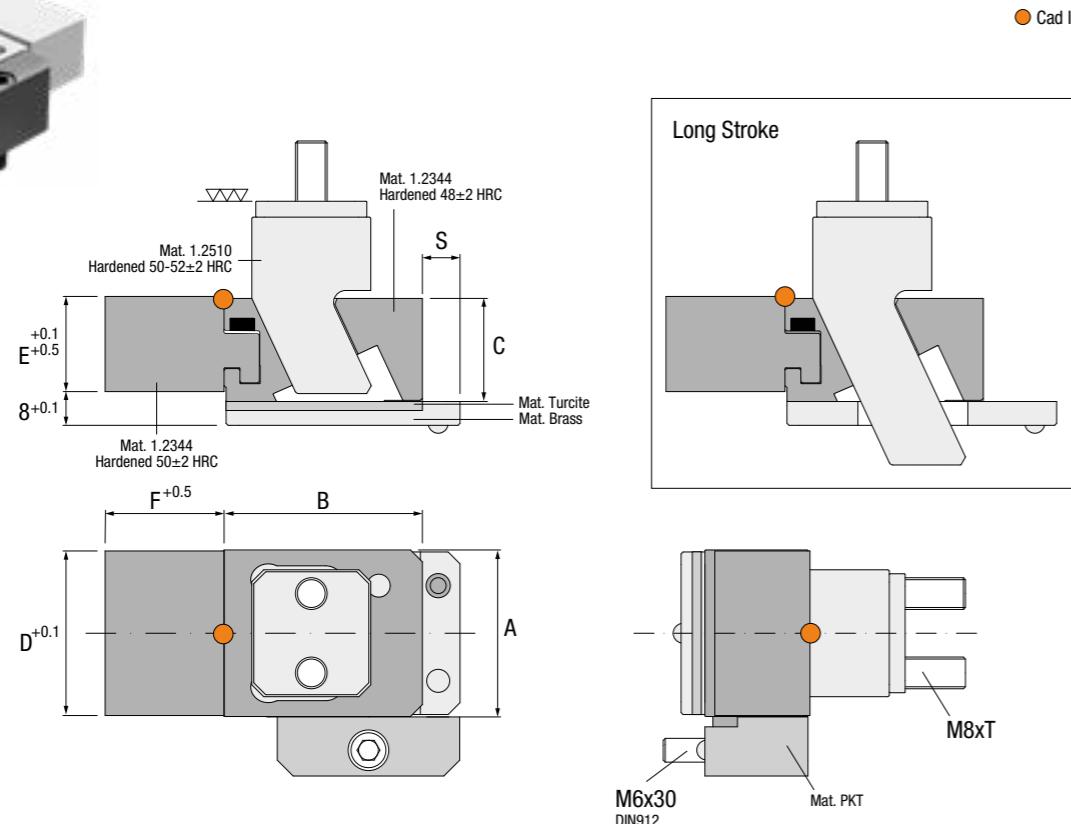
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Max.
150°C

COMPACT SLIDE

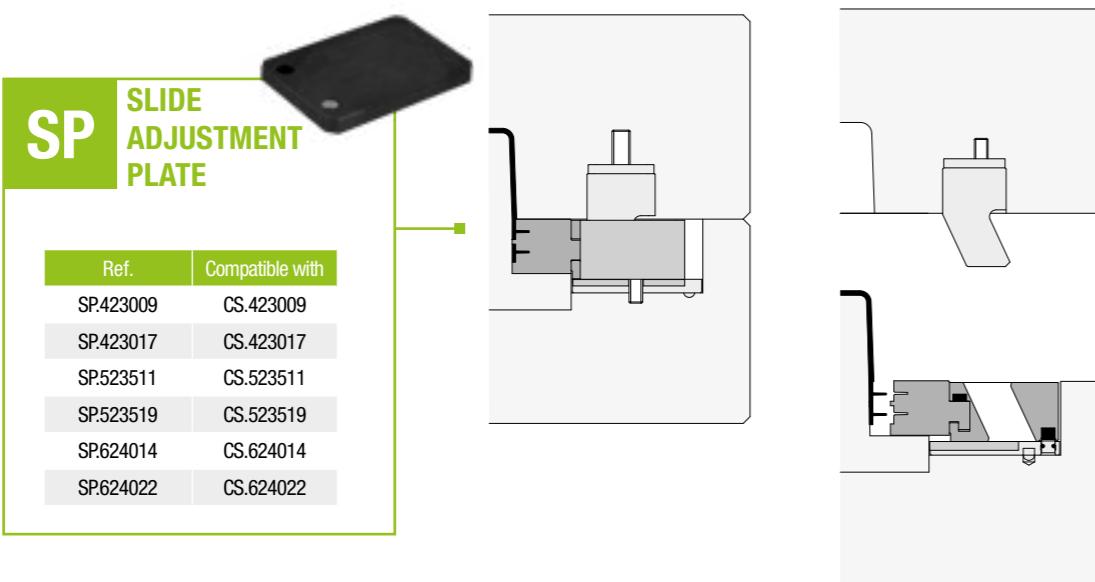
ES Corredera Compacta DE Kompakt Schieber

IT Carrello Compatto PT Corrediça Compacta FR Compact Coulisseau



Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



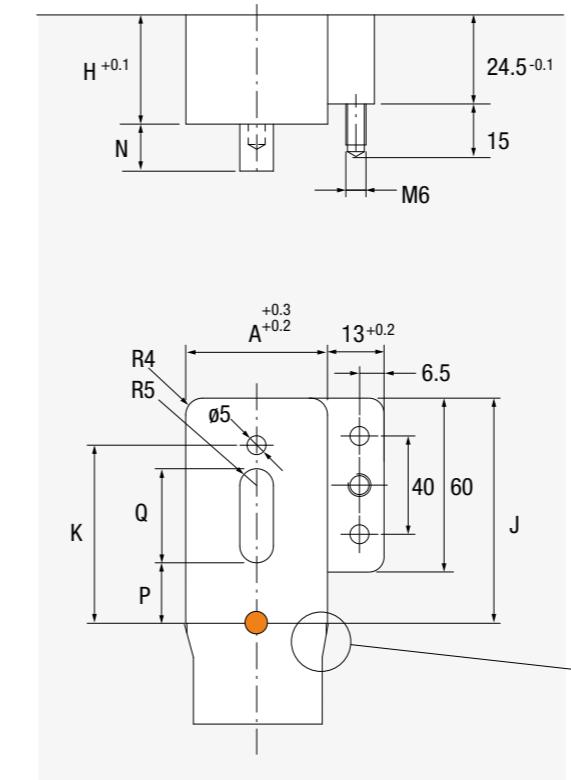
INSTALLATION GUIDELINES

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IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

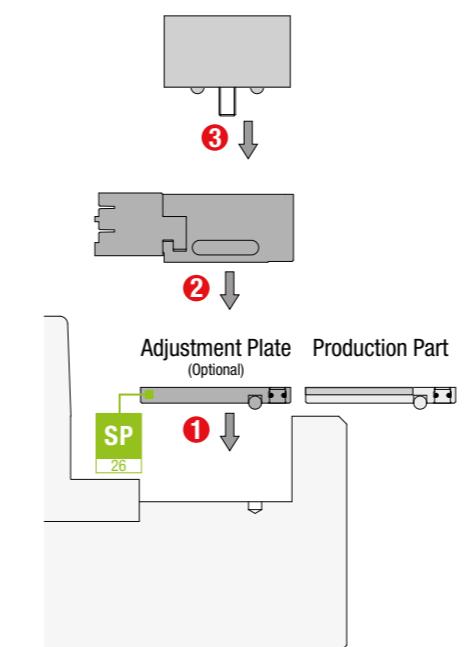
Core Housing

Alojamiento Placa Punzón · Einbaumaße PB Führung · Sede nel Punzone · Alojamento Bucha · Logement dans l'empreinte



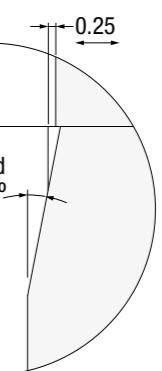
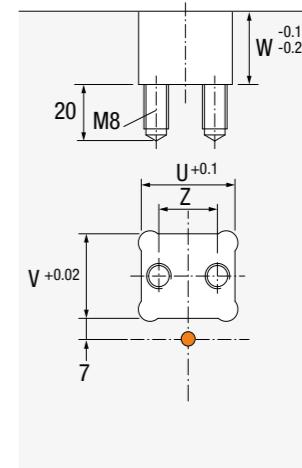
Core Slide Installation

Instalación Placa Punzón · Einbaumaße DR Führung · Installazione piastra punzone · Alojamento na Bucha · Logement dans l'empreinte



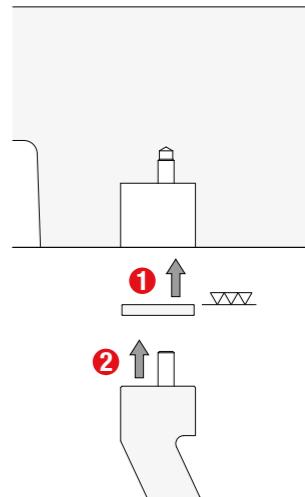
Cavity Housing

Alojamiento Placa Cavidad · Einbaumaße DR Führung · Sede piastra cavità · Alojamento na Cavidade · Logement dans l'empreinte

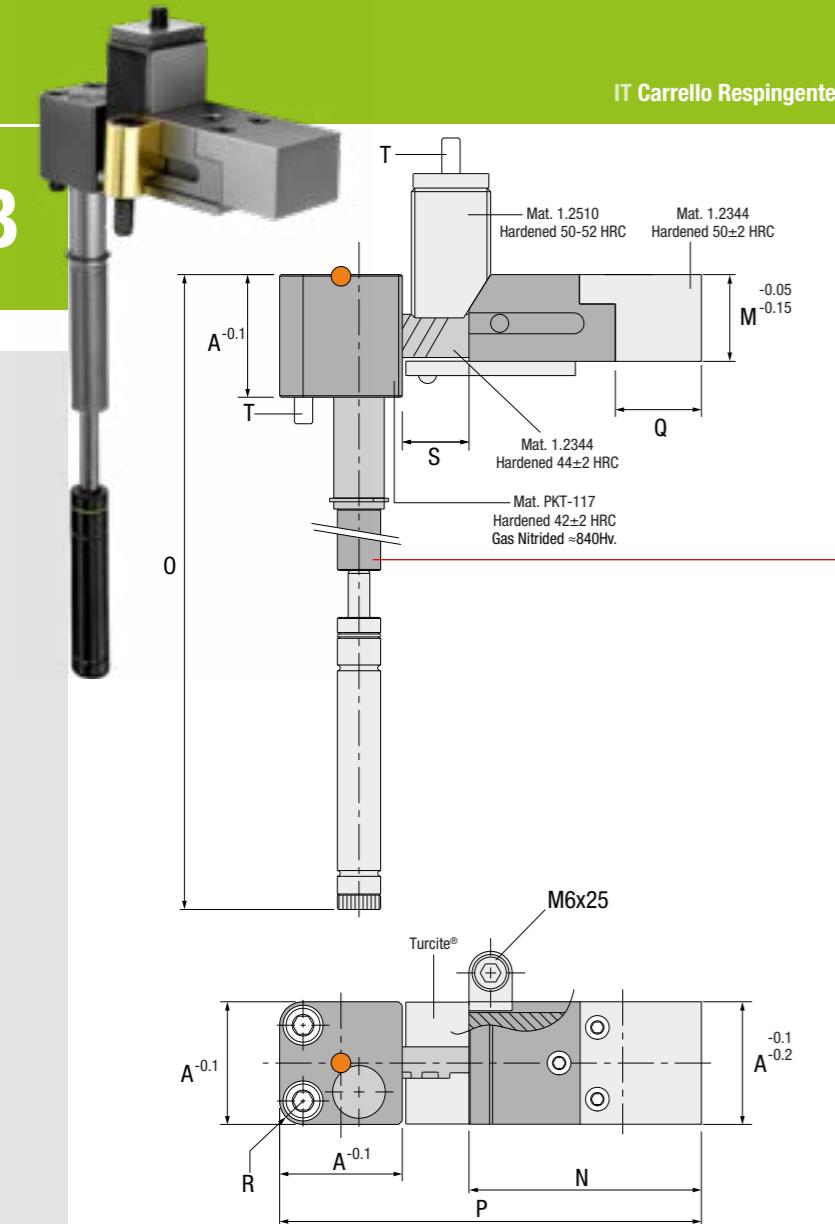


Cavity Slide Installation

Instalación Placa Cavidad · Einbaumaße DR Führung · Installazione piastra cavità · Instalação da corredeira no lado da cavidade · Logement dans l'empreinte



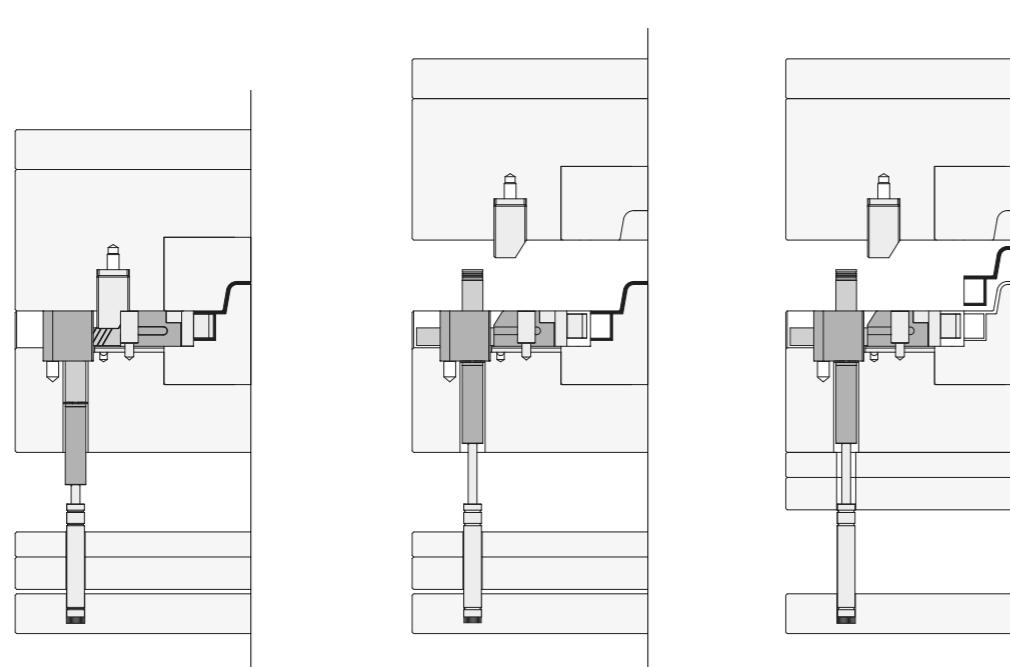
PB



Ref.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	Ref.
PB.282820	28	24	14	19	17	4	8.5	6.5	20	34.5	22	20	50	169	97.5	19	5.5	12	M6	26	19	24	PB.282820-S
PB.343424	34	28	16	24	21	5	10.5	8	24	41.5	25	24	60	209	117.5	24	6.5	16	M8	32	22	28	PB.343424-S

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



PUSH-BACK SLIDE

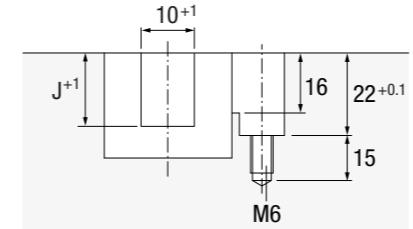
ES Corredera Push-Back DE Rückzugsschieber
IT Carrello Respingente PT Elemento Movel de Pressão FR Push-Back Chariot

INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

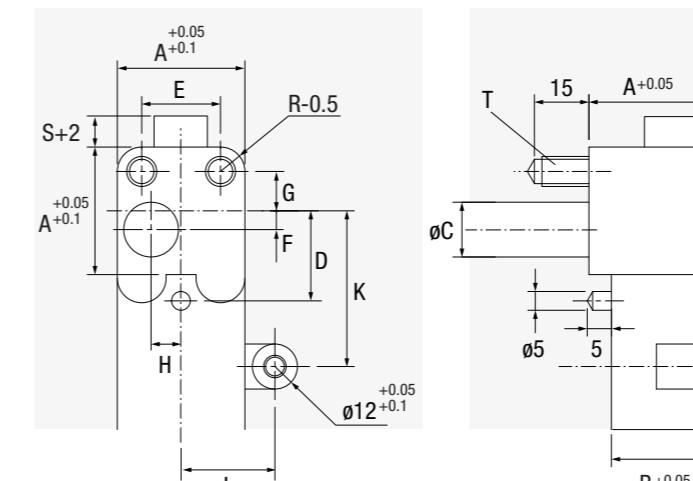
Core Housing

Alojamiento Placa Punzón · Einbaumaße PB Führung · Sede nel Punzone · Alojamento Bucha · Logement dans l'empreinte



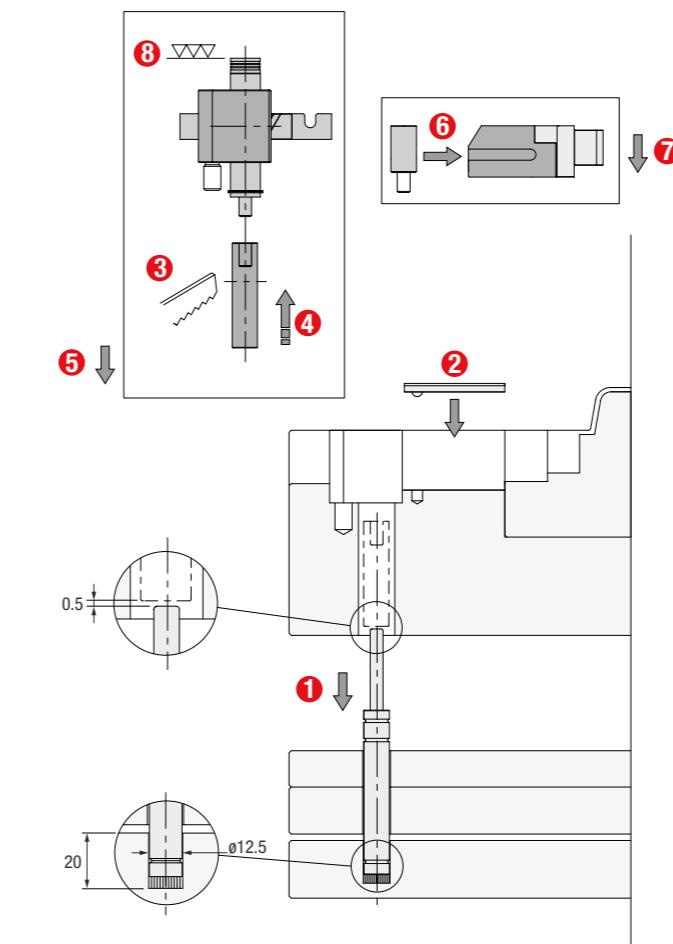
Cavity Housing

Alojamiento Placa Cavidad · Einbaumaße DR Führung · Sede piastra cavità · Alojamento na Cavidade · Logement dans l'emprunte



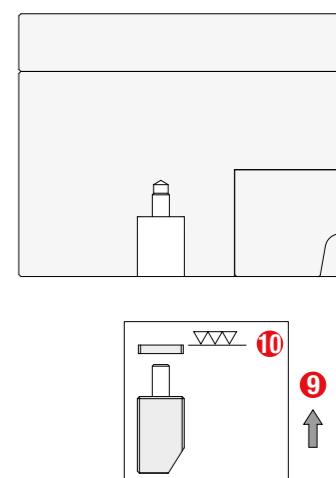
Core Slide Installation

Instalación Placa Punzón · Einbaumaße DR Führung · Installazione piastra punzone · Alojamento na Bucha · Logement dans l'empreinte



Cavity Slide Installation

Instalación Placa Cavidad · Einbaumaße DR Führung · Installazione piastra cavità · Instalação da correija no lado da cavidade · Logement dans l'emprunte

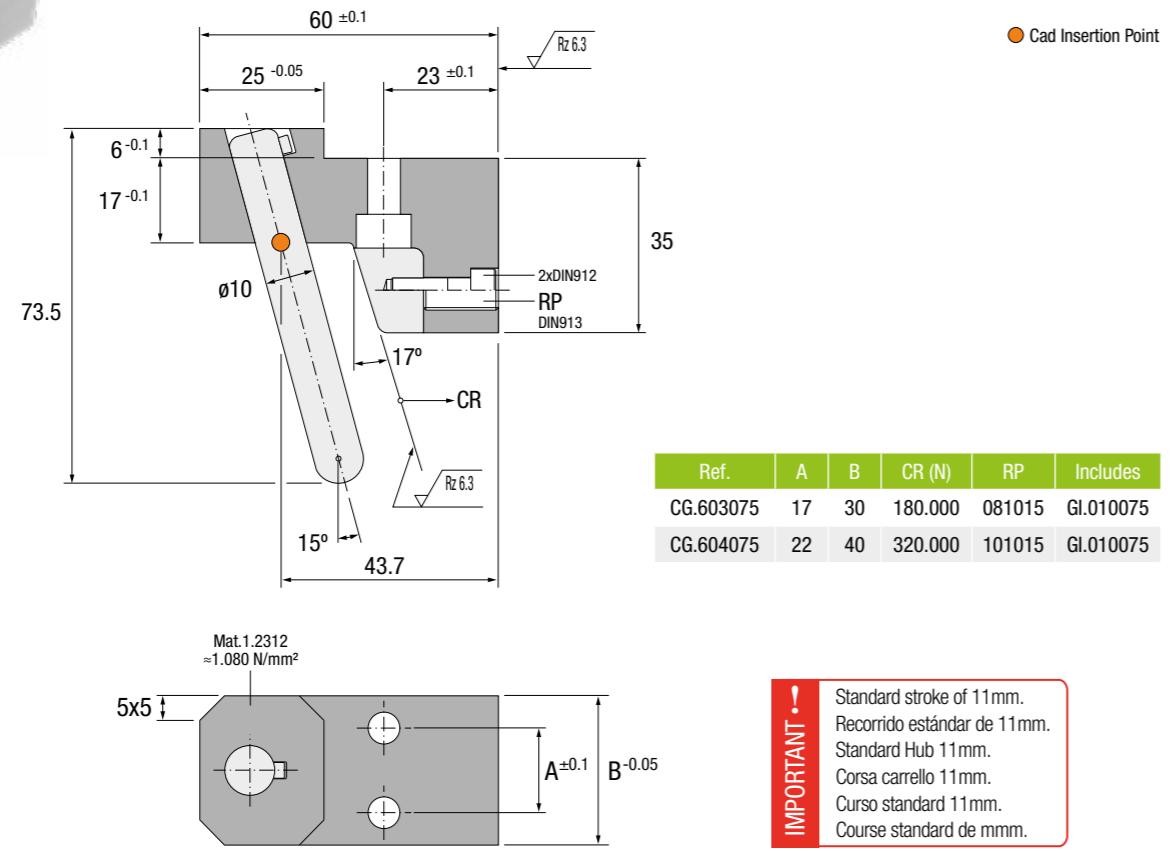


CG



HEEL UNIT - SET

ES Cuña Guía - SET DE Keilführungs - SET
IT Contrasto Guida - SET PT Guia Cunha - SET FR Guide de Chariot - SET



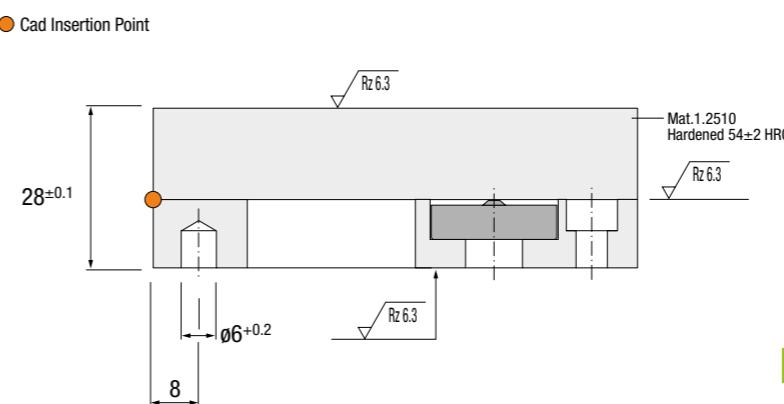
Patented

BC



SLIDE BASE

ES Base Corredera DE Basisführung
IT Base Carrello PT Base da Corredíça FR Embase Coulisseau



Ref.	A	B	C
BC.322885	32	56	21.5
BC.422885	42	66	26.5

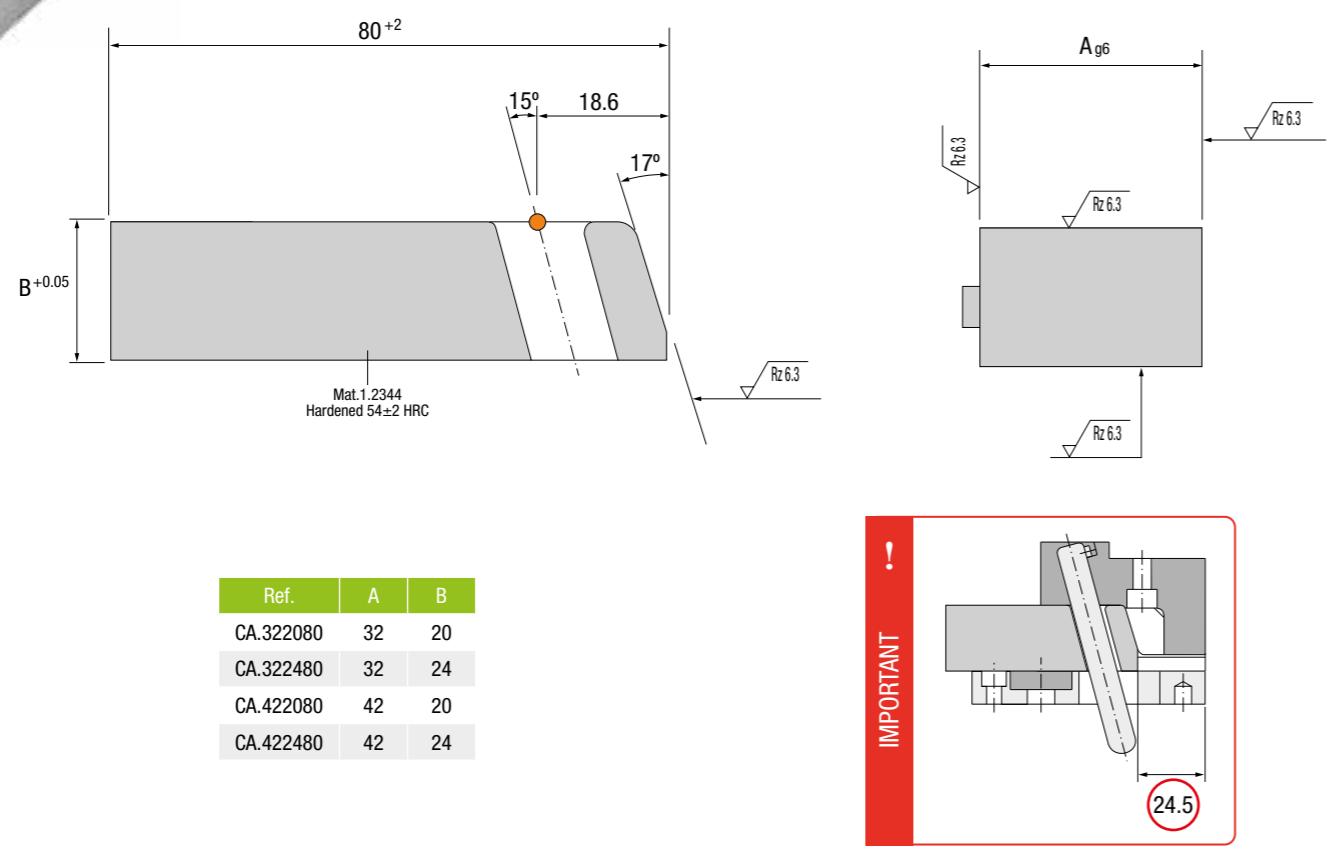
Patented

CA



ADJUSTED SLIDE

ES Corredera Ajustada DE Vorabgestimmter Schieber
IT Carrello Aggiustato PT Corredíça Ajustada FR Coulisseau de Chariot

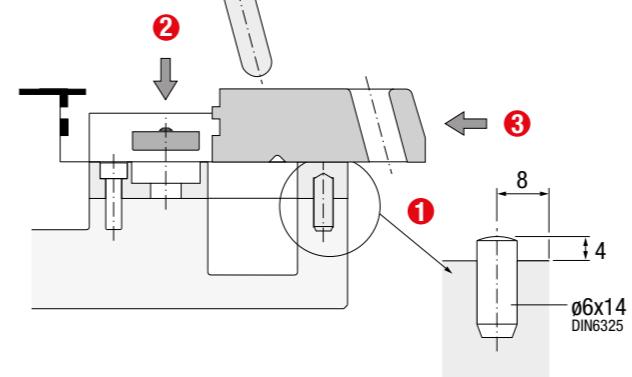
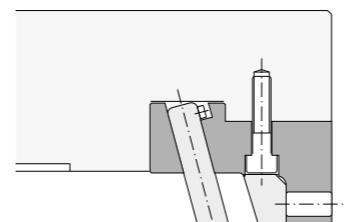


Patented

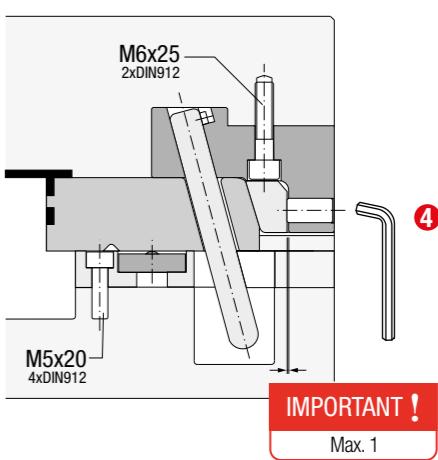
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

Mold Open



Mold Closed

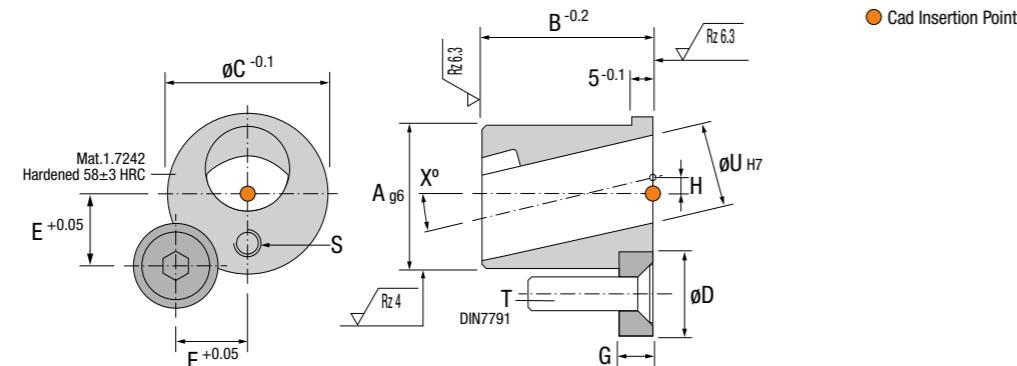


GR



ANGLE PIN HOUSING

ES Guía Regulable DE Schägstiftbuchse
IT Bussola Regolabile PT Guia Regulável FR Guidadge de Verrouillage



Patented

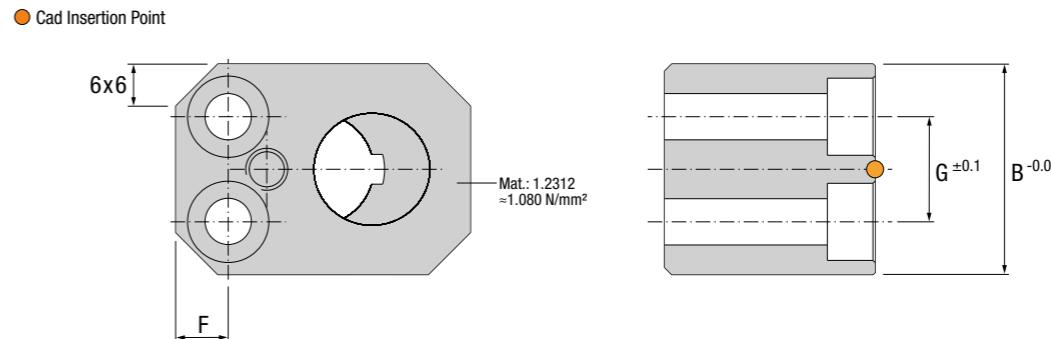
Ref.	A	B	C	D	E	F	G	H	S	T	U	X°
GR.182622-..	18	26	22	12	10.8	7.5	6	3.8	M5x5	M5x16	10	10 15
GR.222826-..	22	28	26	16	11	11	6	4	M6x6	M6x16	12	10 15
GR.283432-..	28	34	32	16	13	13	6	5	M6x6	M6x16	16	10 15
GR.344038-..	34	40	38	20	17	17	8	5.5	M8x6	M8x20	20	10 15
GR.424546-..	42	45	46	20	19.5	19.5	8	6	M8x6	M8x20	24	10 15
GR.465050-..	46	50	50	20	21	21	8	7	M8x6	M8x20	28	10 15

IMPORTANT !

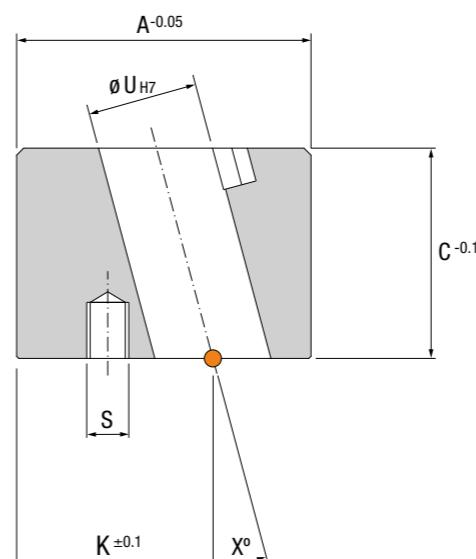
Indicate the desired X dimension after the reference.
Indicar al final de la referencia, la cota X deseada.
Gewünschte X Dimension angeben, nach der Referenznr.
Indicare la quota X desiderata alla fine del codice.
Indique o dimensão X desejada depois da referência.
Préciser le début de référence et le compléter par la dimension X souhaitée.

ANGLE PIN HOUSING

ES Base Guía DE Schägstiftbuchse
IT Base Portacolonna PT Porta Guias FR Socle de Guidadge



BG



Patented

Ref.	A	B	C	F	G	K	S	T	U	X
BG.423016-..	42	30	30	7.5	15	28	M6	M6x35	16	15 20
BG.504020-..	50	40	36	9	22	34	M8	M8x40	20	15 20
BG.554020-..	55	40	40	9	22	38	M8	M8x45	24	15 20
BG.655028-..	65	50	45	12	26	45	M10	M10x50	28	15 20

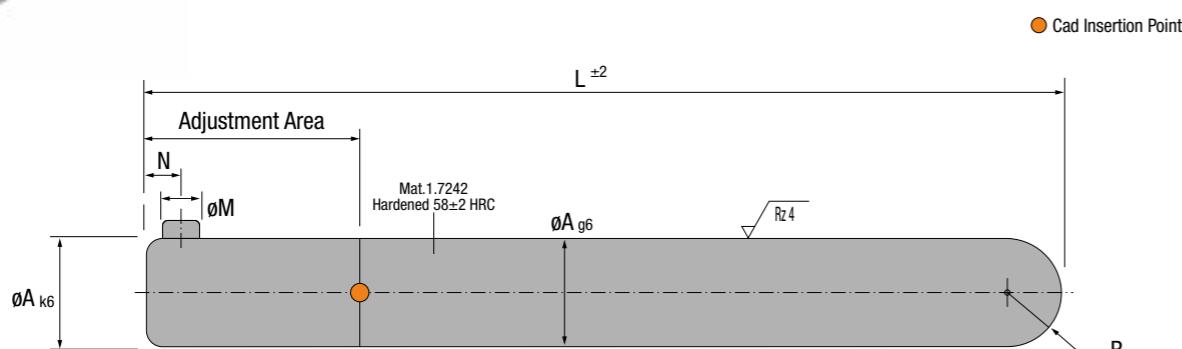
IMPORTANT !

Indicate the desired X dimension after the reference.
Indicar al final de la referencia, la cota X deseada.
Gewünschte X Dimension angeben, nach der Referenznr.
Indicare la quota X desiderata alla fine del codice.
Indique o dimensão X desejada depois da referência.
Préciser le début de référence et le compléter par la dimension X souhaitée.



ANGLE PIN

ES Guía Inclinada DE Schrägstift
IT Colonna Inclinata PT Guia Inclinada FR Doigt de Demoulage



GI

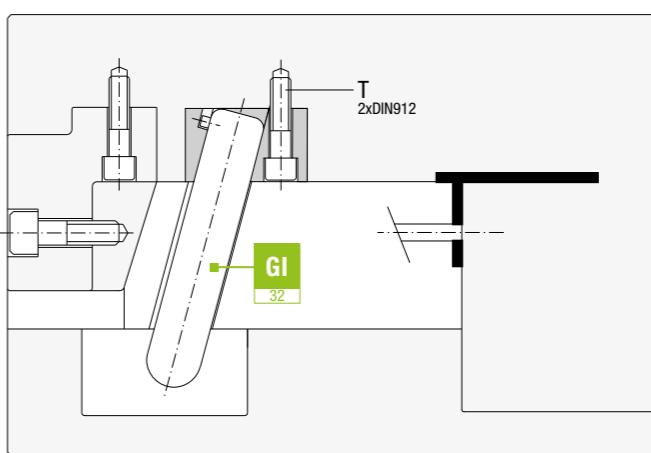
Ref.	A	Adjustament Area	M	N	L	R
Gi.010...	10	≈ 25	4	4	075 090 105	5
Gi.012...	12	≈ 30	4	4	095 110 130	6
Gi.016...	16	≈ 35	4	4	115 135 160	8
Gi.020...	20	≈ 40	6	6	140 165 190	10
Gi.024...	24	≈ 45	6	6	170 195 220	12
Gi.028...	28	≈ 50	6	6	200 225 250	14

IMPORTANT !

Indicate the desired L dimension after the reference.
Indicar al final de la referencia, la cota L deseada.
Gewünschte L Dimension angeben, nach der Referenznr.
Indicare la quota L desiderata alla fine del codice.
Indique o dimensão L desejada depois da referência.
Préciser le début de référence et le compléter par la dimension L souhaitée.

Installation Guidelines

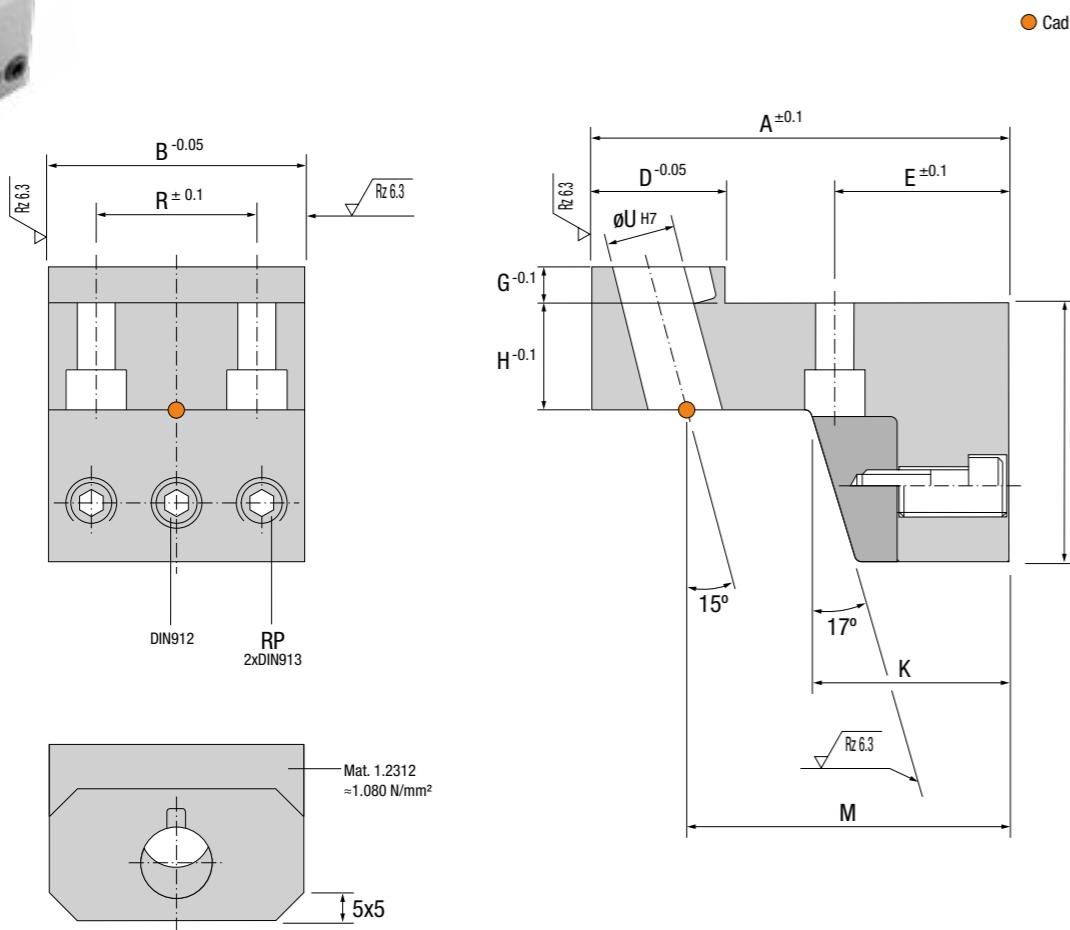
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation





CG

HEEL UNIT
ES Cuña Guía DE Einstellbare Zuhaltung
IT Contrasto Guida PT Guia Cunha FR Base de Verrouillage

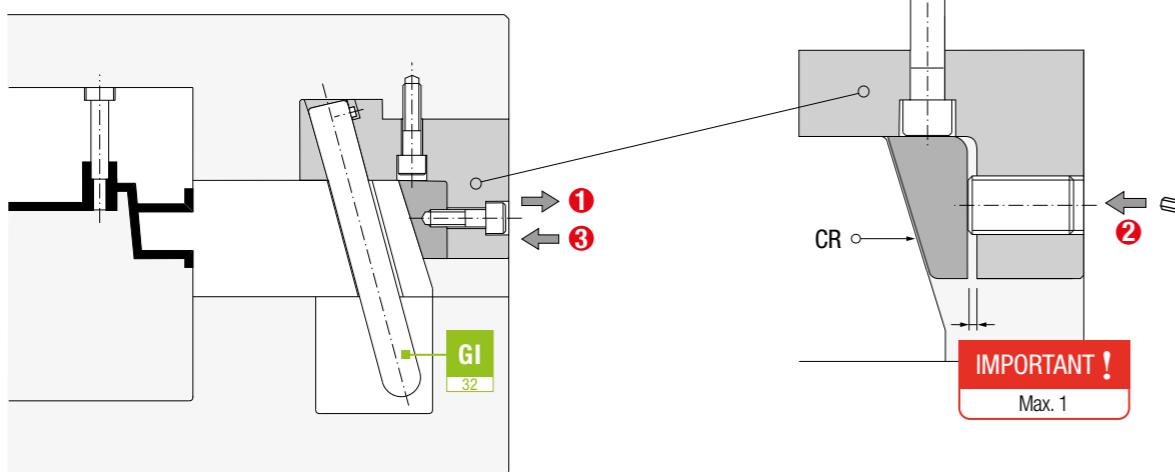


Ref.	A	B	C	D	E	G	H	K	M	R	T	U	RP	CR (N)
CG.603035	60	30	35	25	23	6	17	29	43.7	17	M6x25	10	081015	180.000
CG.604035	60	40	35	25	23	6	17	29	43.7	22	M6x25	10	101015	320.000
CG.754049	75	40	49	30	32	7	20	39	58	22	M8x30	12	101020	320.000
CG.864857	86	48	57	35	36	8	24	44	65	28	M8x35	16	121025	480.000

Installation Guidelines

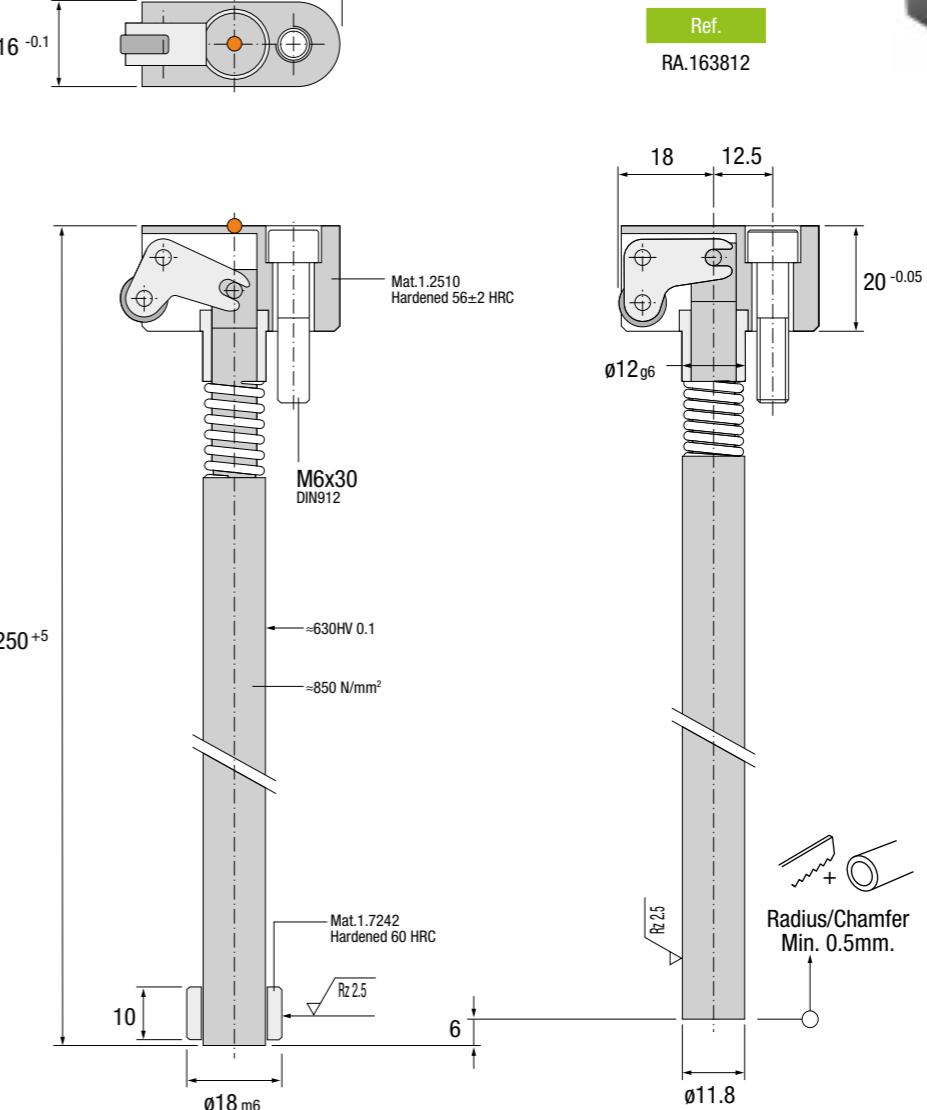
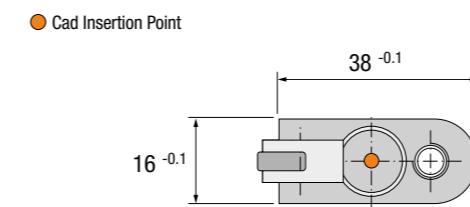
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation

Mold Closed



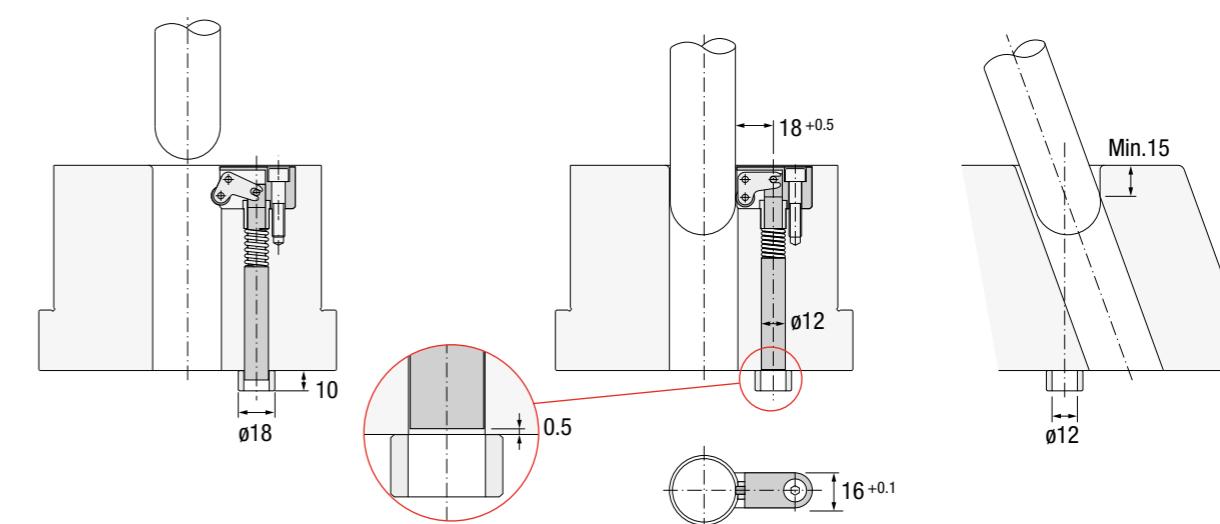
AUTOMATIC RETAINER

ES Retensor Automático DE Zuhaltung Automatisch
IT Ritensore Automatico PT Retensor Automático FR Retenue Automatique



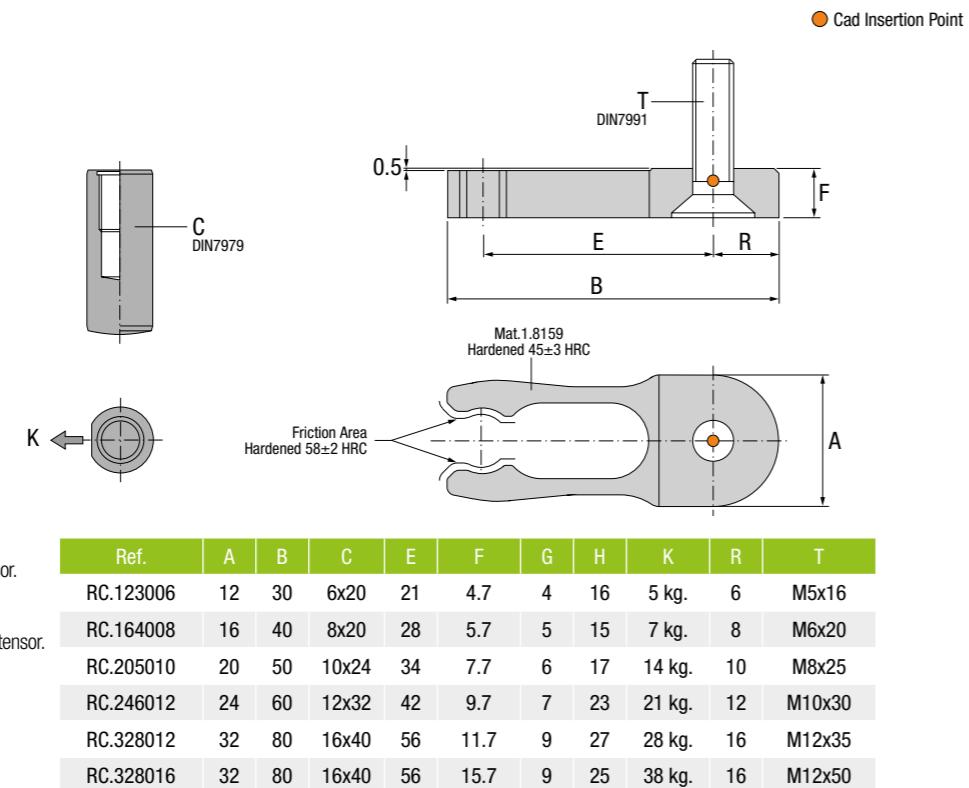
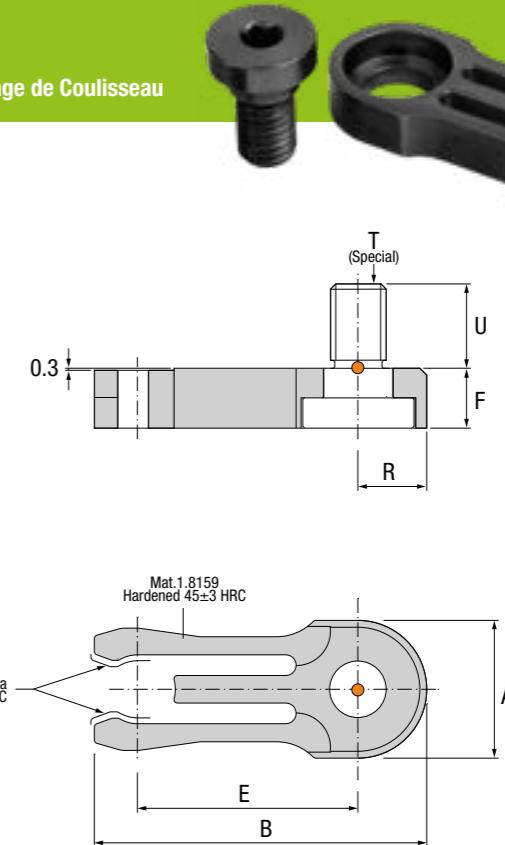
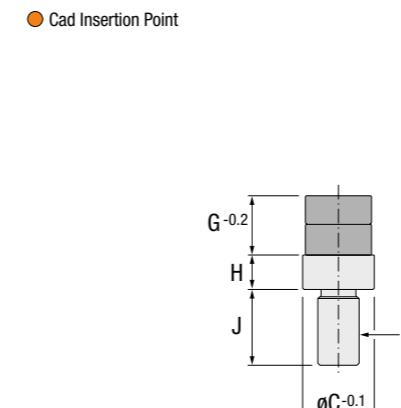
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation



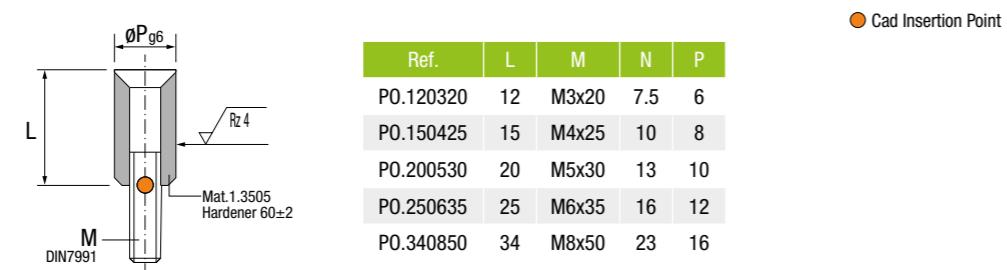
RC

Patented

**SLIDE RETAINER**ES Retensor Corredora DE Schiebersicherung
IT Ritensore Carrello PT Retensor de Corredicas FR Blocage de Coulisseau

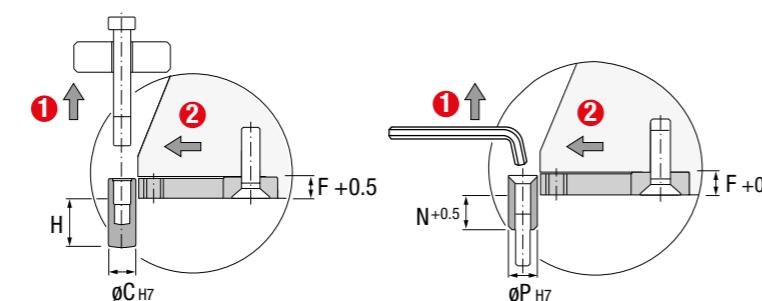
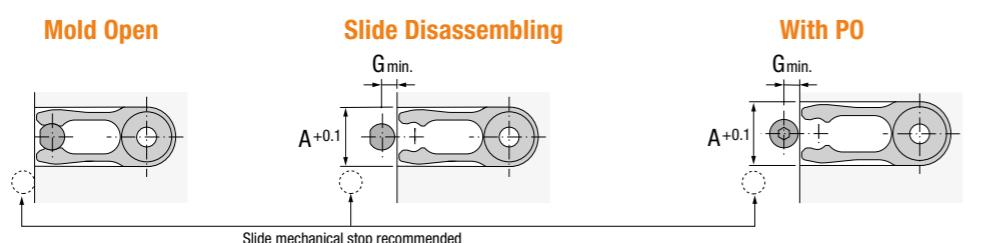
RCM

Patented

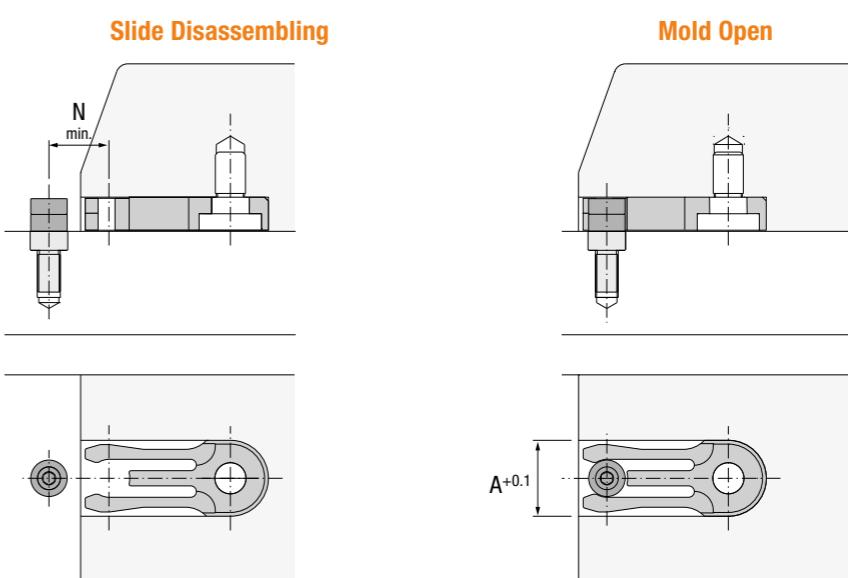
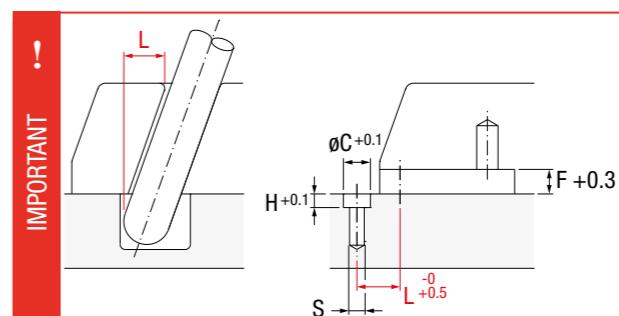


PO

Patented

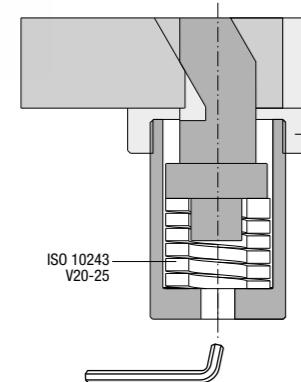
**Installation Guidelines**

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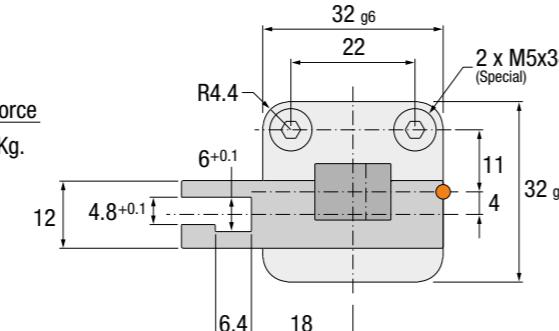


UC

Patented

Ref.
UC.325445

Retraction Force
→ ~40 Kg.
not included

**IMPORTANT !**

Option for machining keyway.
Posibilidad de mecanizado antigiro.
Möglichkeit zur Herstellung einer Aussparung.
Possibilità di lavorazione antigiro.
Possibilidade de maquinar anti-rotação.
Possibilité d'indexer la broche.

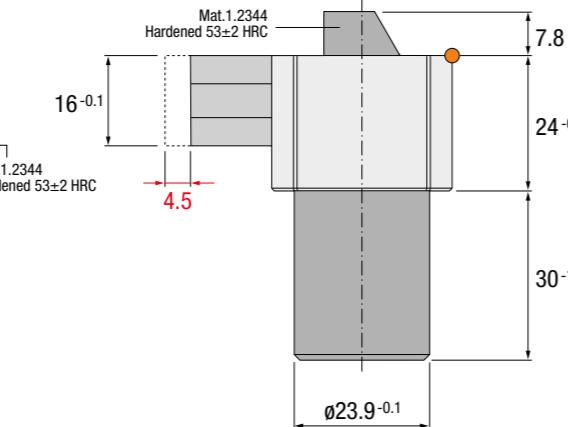
IMPORTANT !

Standard stroke of 4.5mm.
Recorrido estándar de 4.5mm.
Standard Hub 4.5mm.
Corsa del asta 4.5mm.
Curso standard de 4.5mm.
Course standard de 4.5mm.

CORE CAM

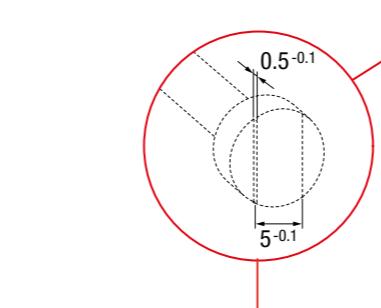
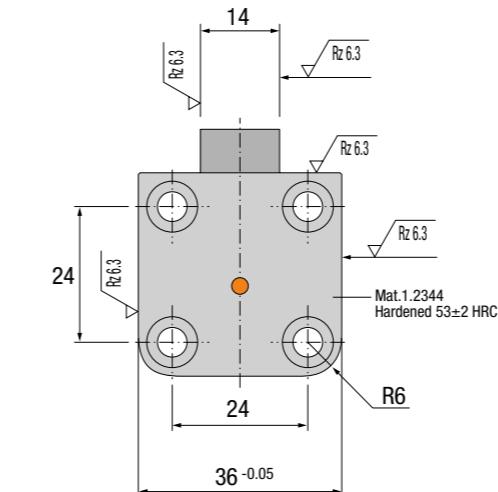
ES Unidad de Punzonado DE Kernstifthalter
IT Unità di Punzonatura PT Unidade de Furação FR Guide Broche

Cad Insertion Point

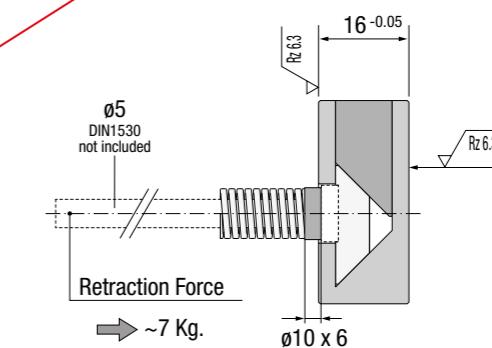
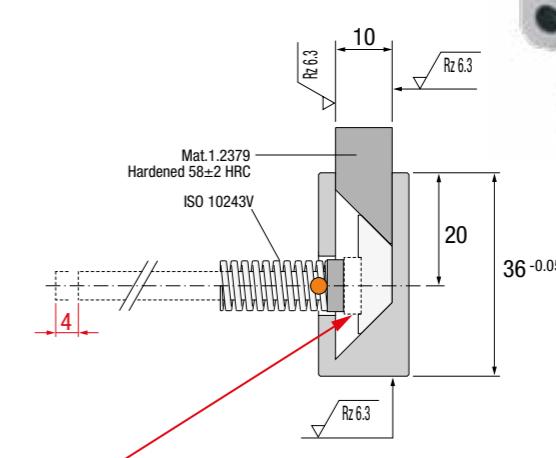
**COMPACT CORING UNIT**

ES Unidad Apriete DE Kompakt Kernstifthalter
IT Unità Compatta di Punzonatura PT Unidade de Aperto FR Butée de Broche

Cad Insertion Point

**IMPORTANT !**

Option for machining keyway.
Posibilidad de mecanizado antigiro.
Möglichkeit zur Herstellung einer Aussparung.
Possibilità di lavorazione antigiro.
Possibilidade de maquinar anti-rotação.
Possibilité d'indexer la broche.

**IMPORTANT !**

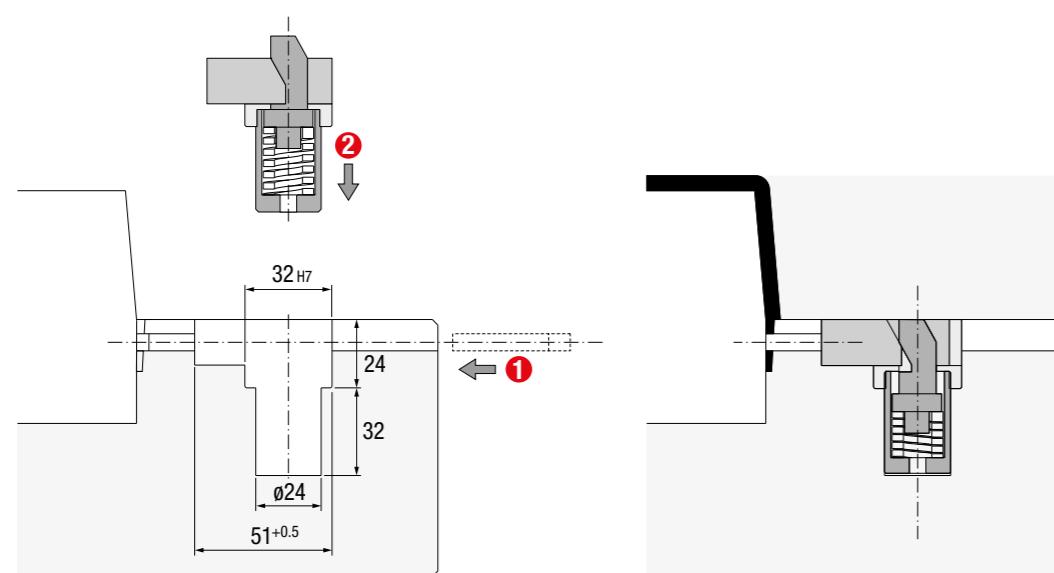
Standard stroke of 4mm.
Recorrido estándar de 4mm.
Standard Hub 4mm.
Corsa del asta 4mm.
Curso standard de 4mm.
Course standard de 4mm.

**UA**

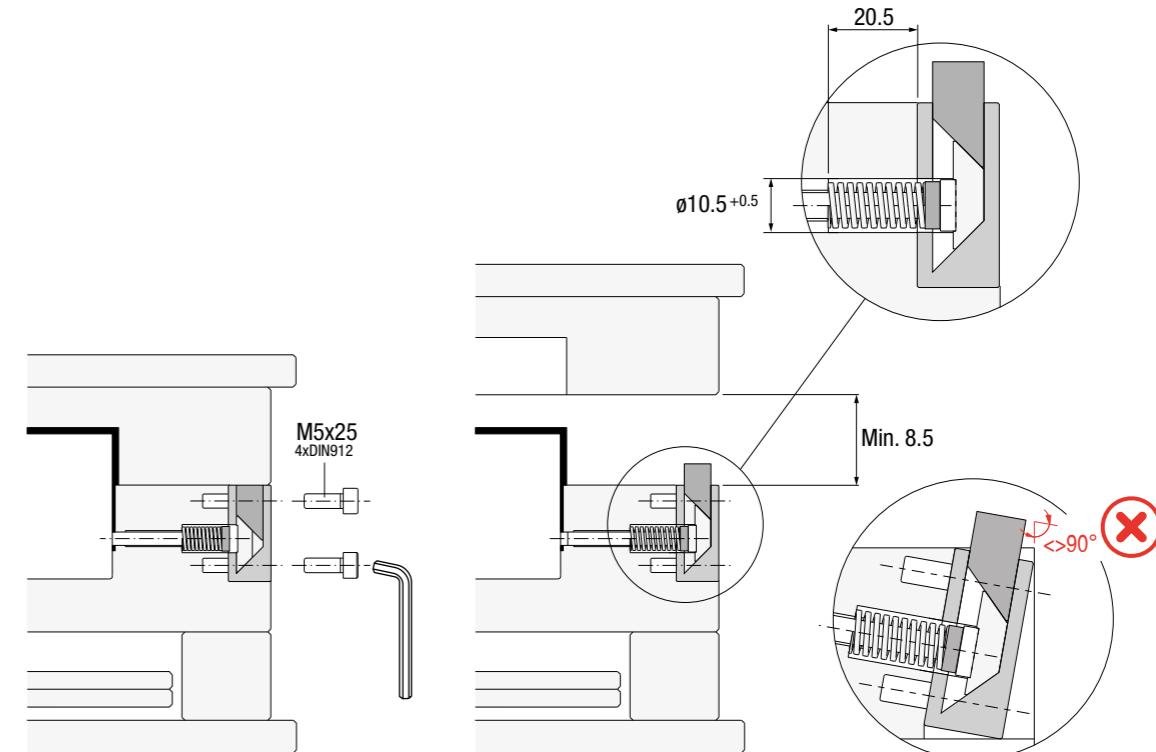
Patented

Ref.
UA.363616**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation





2

UNDERCUTS

UNDERCUTS INDEX

ÍNDICE NEGATIVOS / INHALTSVERZEICHNIS HINTERSCHNEIDUNGEN
INDICE NEGATIVI / ÍNDICE NEGATIVOS / INDEX CONTRE DÉPOUILLES - CLIPS



DOUBLE RACK SYSTEM

by CUMSA

SELECTION TABLE: WHICH DR / KR DO I NEED?

ES TABLA DE SELECCIÓN: Qué DR / KR / XR necesito?

DE AUSWAHLTABELLE: Welcher DR / KR / XR ist am besten geeignet?

IT TABELLA PER SCELTA: Di quale DR / KR / XR ho bisogno?

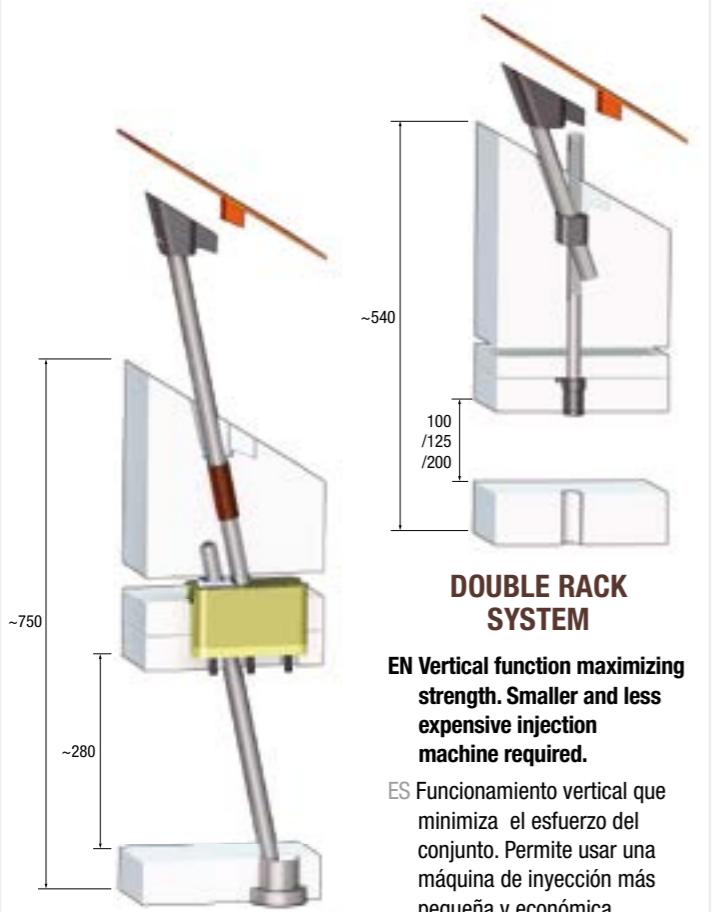
PT TABELA DE SELEÇÃO: Qual é o DR / KR / XR que preciso?

FR TABLEAU DE CORRESPONDANCE: Quel est le DR / KR que j'ai besoin?



COMPARE

Comparativa · Vergleich · Confronto · Comparativo · Comparatif



DOUBLE RACK SYSTEM

EN Vertical function maximizing strength. Smaller and less expensive injection machine required.

ES Funcionamiento vertical que minimiza el esfuerzo del conjunto. Permite usar una máquina de inyección más pequeña y económica.

DE Vertikale Funktion mit maximaler Kraft. Ein kleineres Werkzeug kann eventuell eine kleinere und günstigere Spritzgießmaschine benötigen.

IT Funzionamento verticale che minimizza lo sforzo. Permette di usare una macchina d'iniezione più piccola ed economica.

PT Funcionamento na vertical minimizando o esforço. Permite o uso de máquinas de injeção de menores dimensões e mais económicas.

FR Fonctionnement vertical réduisant les efforts. Permet de réduire la dimension de la presse d'injection et ainsi de réaliser des économies.

CONVENTIONAL SYSTEM

EN Eliminates the need for high-precision angled housings in the core plates.

ES Elimina los complicados taladros inclinados de alta precisión.

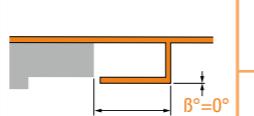
DE Es wird keine hochpräzise Schrägböhrung in der Formplatte benötigt.

IT Elimina le complicate lavorazioni inclinate ad alta precisione.

PT Elimina a necessidade de furos inclinados com precisão.

FR Terminé les logements inclinés de haute précision.

Neutral angles ($\beta^\circ=0^\circ$)



Stroke 100 (DR) Stroke 200 (KR) (Multiply S value x2)

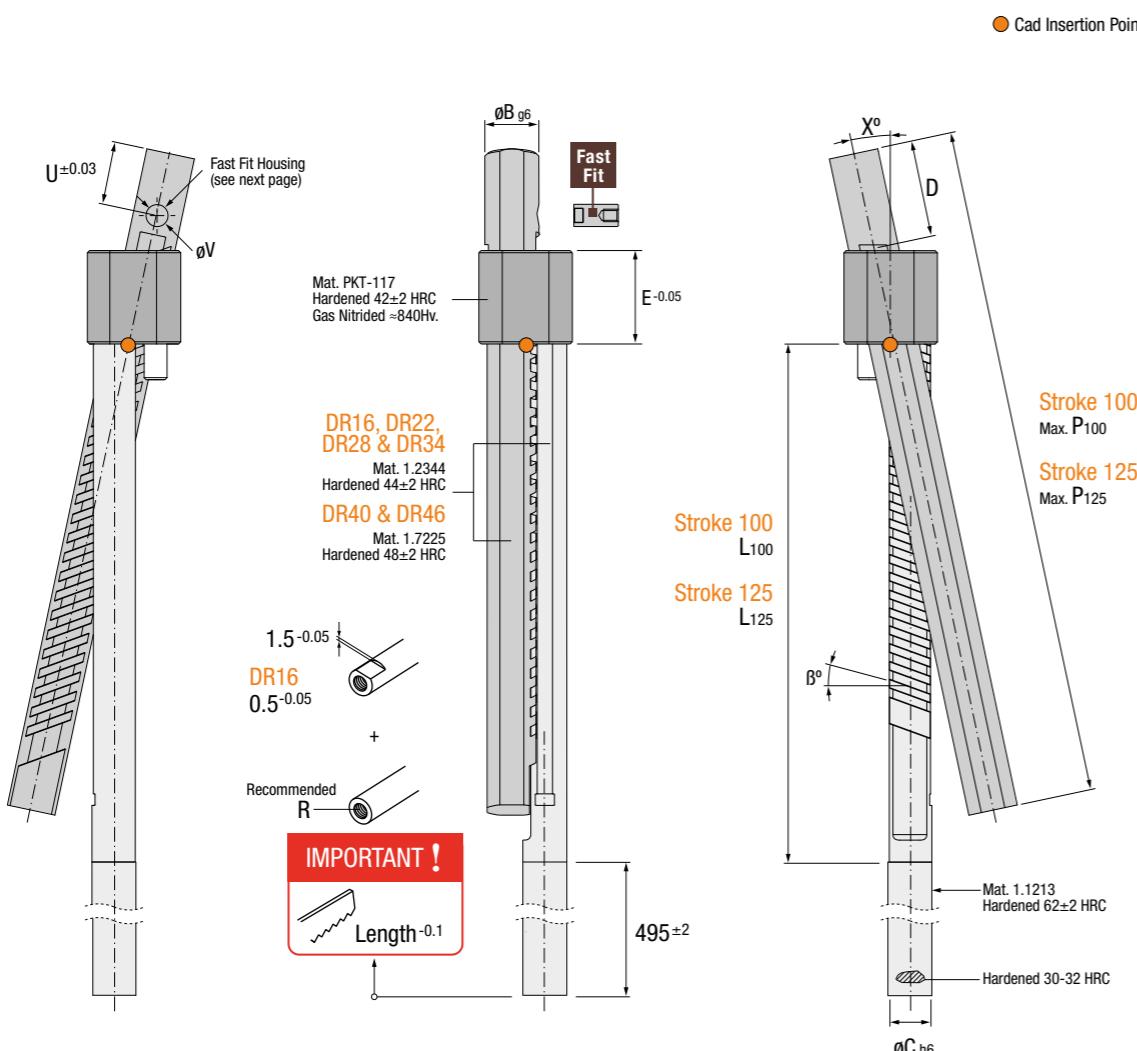
β°	DR.xx100L-8		DR.xx100L-12		DR.xx100L-16		DR.xx100L-20	
	KR.xx200L-8		KR.xx200L-12		KR.xx200L-16			
	S (-B°)	S (+B°)	S (-B°)	S (+B°)	S (-B°)	S (+B°)	S (-B°)	S (+B°)
0	14.0		21.2			28.6	36.4	
1	14.0	14.0	21.1	21.3		28.5	28.8	36.1
2	13.9	14.1	21.1	21.4		28.3	28.9	35.9
3	13.9	14.1	21.0	21.5		28.2	29.1	35.7
4	13.9	14.1	20.9	21.5		28.1	29.2	35.4
5	13.8	14.2	20.8	21.6		27.9	29.4	35.2
6	13.8	14.2	20.7	21.7		27.8	29.5	35.0
7	13.8	14.3	20.7	21.8		27.7	29.7	34.8
8	13.7	14.3	20.6	21.9		27.5	29.8	34.6
9	13.7	14.3	20.5	22.0		27.4	30.0	34.4
10	13.7	14.4	20.4	22.0		27.2	30.2	34.2
11	13.6	14.4	20.4	22.1		27.1	30.3	33.9
12	13.6	14.4	20.3	22.2		27.0	30.5	33.7
13	13.6	14.5	20.2	22.3		26.8	30.7	33.5
14	13.5	14.5	20.1	22.4		26.7	30.8	33.3
15	13.5	14.6	20.1	22.5		26.6	31.0	33.1
16	13.5	14.6	20.0	22.6		26.5	31.2	32.9
17	13.4	14.6	19.9	22.7		26.3	31.4	32.7
18	13.4	14.7	19.8	22.8		26.2	31.6	32.5
19	13.4	14.7	19.8	22.9		26.1	31.8	32.3
20	13.3	14.8	19.7	23.0		25.9	32.0	32.1
21	13.3	14.8	19.6	23.1		25.8	32.2	31.9
22	13.2	14.9	19.5	23.2		25.6	32.4	31.7
23	13.2	14.9	19.4	23.3		25.5	32.6	31.5
24	13.2	14.9	19.4	23.4		25.4	32.8	31.3
25	13.1	15.0	19.3	23.5		25.2	33.1	31.1
26	13.1	15.0	19.2	23.7		25.1		30.9
27	13.1	15.1	19.1	23.8		25.0		30.7
28	13.0	15.1	19.0	23.9		24.8		30.4
29	13.0	15.2	19.0	24.0		24.7		30.2
30	12.9	15.2	18.9	24.2		24.6		30.0
31	12.9	15.3	18.8			24.4		29.8
32	12.9	15.4	18.7			24.3		29.6
33	12.8	15.4	18.6			24.1		29.4
34	12.8	15.5	18.5			24.0		29.2
35	12.7	15.5	18.5			23.8		29.0
36	12.7		18.4			23.7		28.7
37	12.7		18.3			23.5		28.5
38	12.6		18.2			23.4		28.3
39	12.6		18.1			23.2		28.1
40	12.5		18.0			23.1		27.8
41	12.5		17.9			22.9		27.6
42	12.4		17.8			22.7		27.4
43	12.4		17.7			22.6		27.1
44	12.3		17.6			22.4		26.9
45	12.3		17.5			22.2		26.6

Stroke 100 (DR) Stroke 200 (KR) (Multiply S value x2)

β°	DR.xx100L-8		DR.xx100L-12		DR.xx100L-16		DR.xx100L-20	
	KR.xx200L-8		KR.xx200L-12		KR.xx200L-16			
	S (-B°)	S (+B°)	S (-B°)	S (+B°)	S (-B°)	S (+B°)	S (-B°)	S (+B°)
0	17.5		26.5			35.8	45.4	
1	17.5	17.6	26.4	26.6	35.6	36.0	45.2	45.7
2	17.4	17.6	26.3	26.7	35.4	36.2	44.9	46.0
3	17.4	17.6	26.2	26.8	35.3	36.3	44.6	46.3
4	17.3	17.7	26.1	26.9	35.1	36.5	44.3	46.6
5	17.3	17.7	26.0	27.0	34.9	36.7	44.0	46.9
6	17.3	17.8	25.9	27.1	34.7	36.9	43.8	47.3
7	17.2	17.8	25.8	27.2	34.6	37.1	43.5	47.6
8	17.2	17.9	25.7	27.3	34.4	37.3	43.2	47.9
9	17.1	17.9	25.7	27.4	34.2	37.5	43.0	48.2
10	17.1	18.0	25.6	27.6	34.1	37.7	42.7	48.6
11	17.1	18.0	25.5	27.7	33.9	37.9	42.4	48.9
12	17.0	18.1	25.4	27.8	33.7	38.1	42.2	49.3
13	17.0	18.1	25.3	27.9	33.6	38.3	41.9	49.6
14	16.9	18.2	25.2	28.0	33.4			

DOUBLE RACK LIFTER

ES Doble Cremallera DE Zweifach Zahnstangen-System
IT Doppia Cremagliera PT Duplo Rack FR Double Cremagliere



IMPORTANT!
Mirror Part.
Pieza Simétrica.
Symmetrisches Teil.
Versione a Specchio.
Peça em Espelho.
Pièce en Miroir.

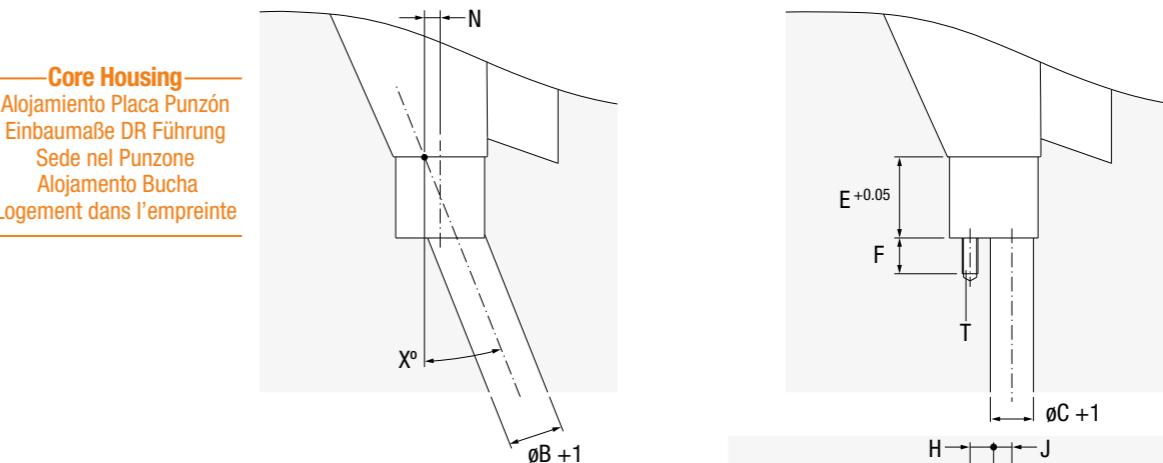
Stroke 100	Stroke 125	X°	A	B	C	D	E	L100	P100	L125	P125	Q	R	T	U	V	Stroke 100-S	Stroke 125-S
DR.16100L-x	-	8 12 16 -	16	9	8	20	20	142	178	-	-	4	M5	M5	10	6	DR.16100L-x-S	-
DR.22100L-x	DR.22125L-x	8 12 16 20	22	12	12	30	22	148	202	202	261	6.5	M6	M6	17	8	DR.22100L-x-S	DR.22125L-x-S
DR.28100L-x	DR.28125L-x	8 12 16 20	28	16	14	36	28	152.5	214	194.5	266	8.5	M8	M8	23	8	DR.28100L-x-S	DR.28125L-x-S
DR.34100L-x	DR.34125L-x	8 12 16 20	34	20	16	36	34	160.5	227	188.5	264	10.5	M8	M8	23	8	DR.34100L-x-S	DR.34125L-x-S
DR.40100L-x	DR.40125L-x	8 12 16 20	40	22	20	36	40	170	244	204	284	10.5	M10	M10	20	10	DR.40100L-x-S	DR.40125L-x-S
DR.46100L-x	DR.46125L-x	8 12 16 20	46	24	24	42	46	175	258	201	289	10.5	M10	M12	26	10	DR.46100L-x-S	DR.46125L-x-S

IMPORTANT !

Replace the **X** in the reference with the required X° dimension (24°, 28°, 32° or 36°) and indicate the required B°.
Sustituir la **X** de la referencia por la cota X° deseada (24°, 28°, 32° or 36°), e indique el ángulo B° requerido.
Ersetzen Sie das **X** der Referenz durch den gewünschten X° Winkel (24°, 28°, 32° or 36°). Geben Sie den benötigten B° Winkel an.
Sostituire la **X** del codice con l'angolo X° desiderato (24°, 28°, 32° or 36°) e indicate la B° richiesta.
Substituir o **X** da referência pela cota X° desejada (24°, 28°, 32° or 36°), e indique o angulo B° pretendido.
Remplacez la valeur **X** par la valeur angulaire X° désirée (24°, 28°, 32° or 36°). Ensuite indiquez l'angle B° correspondant.

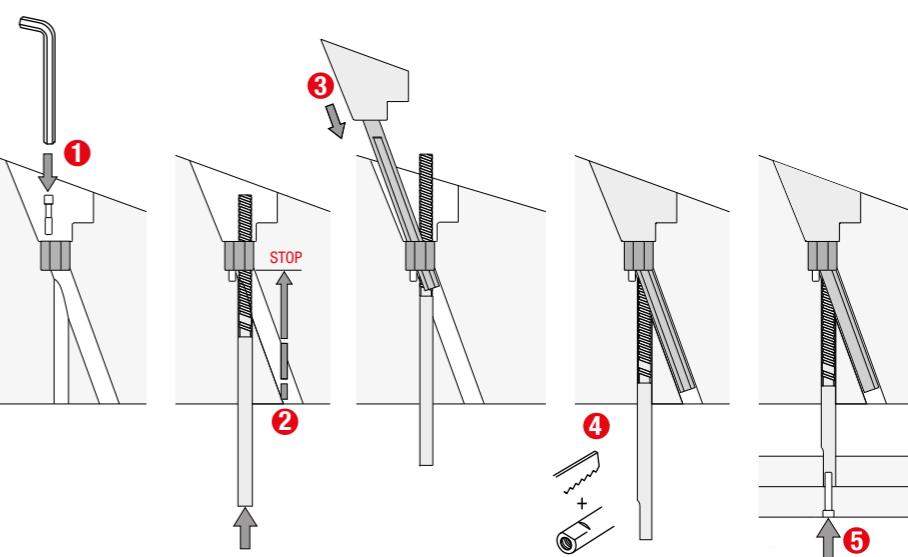
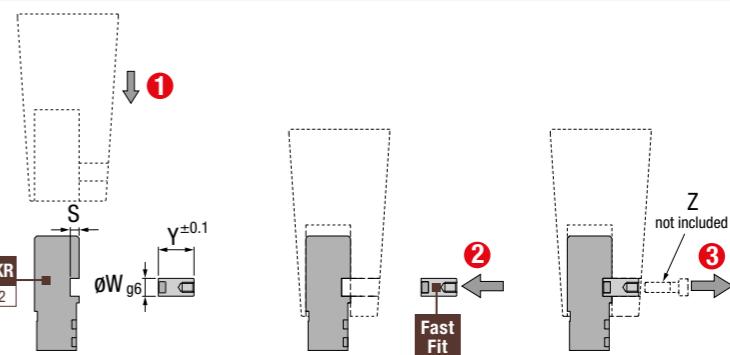
INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

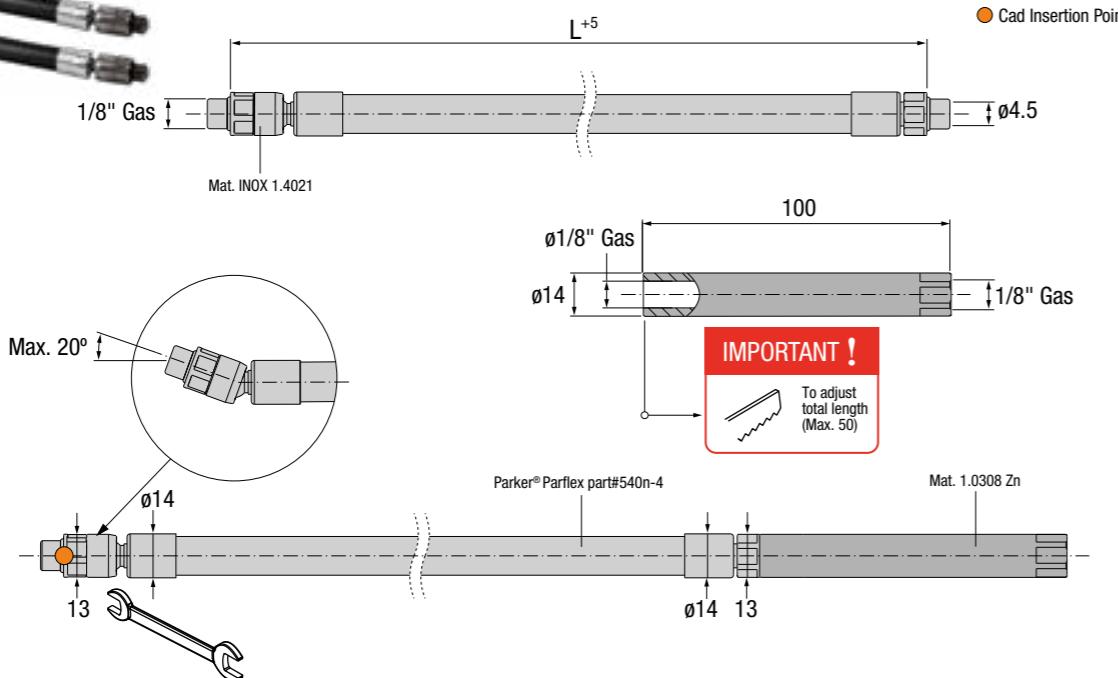


Stroke 100	Stroke 125	Stroke 200	F	G	H	J	K	M	N	S	T	W	Y	Z
DR.16100L..	-	-	10	4.6	4.6	3	2.35	3	2.8	2.5	M5	6	9	M4
DR.22100L..	DR.22125L.. / KR.22125L..	-	13	5.6	5.6	4.2	3.7	4.2	3.5	2.5	M6	8	12	M4
DR.28100L..	DR.28125L.. / KR.28125L..	-	16	7.5	7.5	5	5.4	4.8	4.8	2.5	M8	8	13.5	M4
DR.34100L..	DR.34125L.. / KR.34125L..	-	16	10.5	8	7	7	5	6	4	M8	8	16	M4
DR.40100L..	DR.40125L..	-	20	11	11	7	8	7	7	4	M10	10	20	M6
DR.46100L..	DR.46125L..	-	25	13	13	8	8	9	9	5	M12	10	24	M6
-	-	KR.58200L..	28	15.5	15.5	10	12.2	11.2	10	5	M14	12	30	M6
-	-	KR.76200L..	36	21	21	13	15.2	15.2	12	6	M18	12	36	M6

FAST FIT:
Installation and Removal
Instalación y Desinstalación
Montage und Demontage
Montaggio e Smontaggio
Instalação e Desinstalação
Montage et Démontage



DK



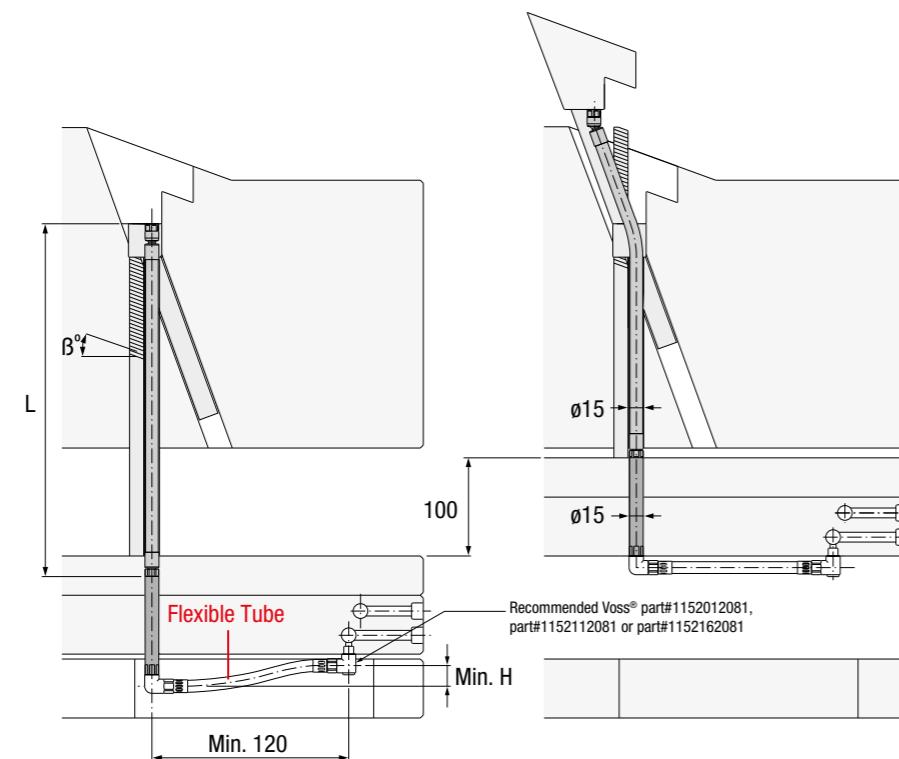
Ref.	β°	H			
		DR.xxxxxx-8	DR.xxxxxx-12	DR.xxxxxx-16	DR.xxxxxx-20
DK.141818...	Negative to 0°	10	10	10	10
	+1° to +9°	10	10	10	15
	+10° to +20°	10	15	20	25
	>+20°	15	20	25	30

IMPORTANT !

Indicate the required **L** dimension; the length will be rounded up to the next multiple of 25mm.
Indicar la cota **L** deseada. Se suministrará redondeada al múltiplo superior de 25mm.
Gewünschte Länge **L** angeben. Die Länge wird auf die nächste Vielfachen von 25 mm abgerundet.
Indicare la lunghezza **L** desiderata; la quota richiesta sarà arrotondata al multiplo di 25mm superiore.
Indicar a cota **L** deseada. Será fornecido com a dimensão múltipla de 25mm seguinte.
Indiquer la cote **L** désirée. Celle-ci sera arrondie à un multiple supérieur de 25 mm.

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



DR COOLING HOSE

ES Refrigeración DR DE Kühlungsschlauch für DR
IT Refrigerazione DR PT Refrigeração DR FR Refroidissement DR

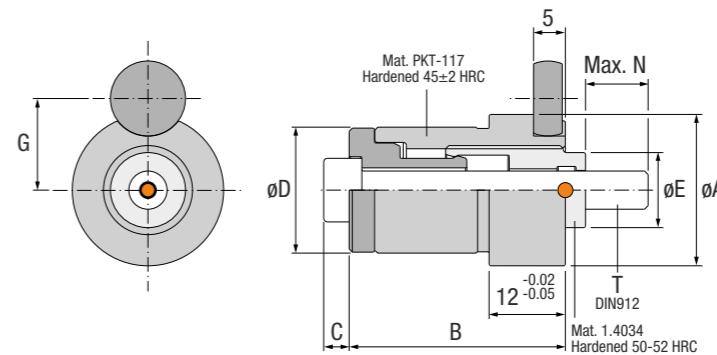
ADJUSTABLE FIXING

ES Fijación Regulable DE Einstellbare Befestigung
IT Fissaggio Regolabile PT Fixação Regulável FR Fixation Reglable



RF

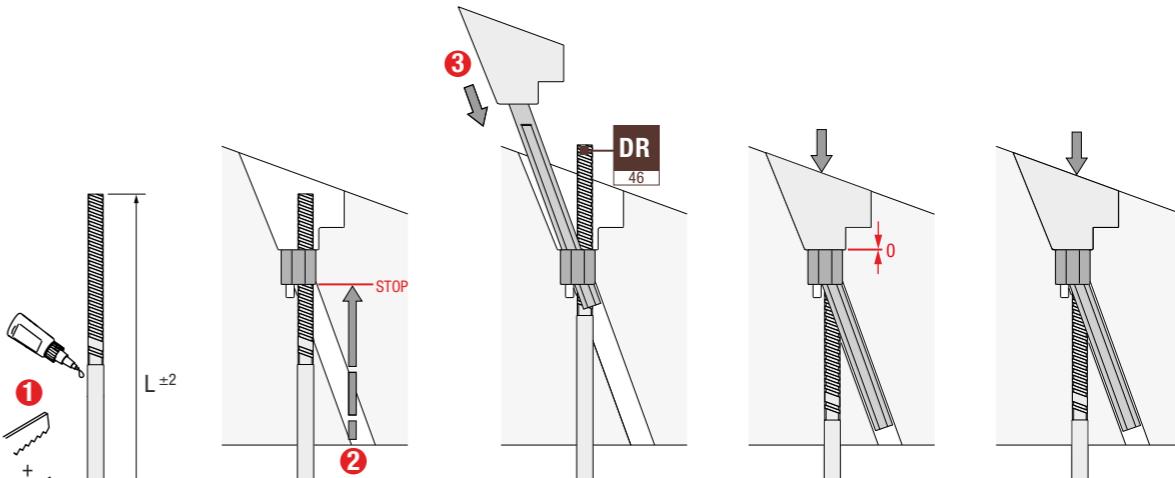
● Cad Insertion Point



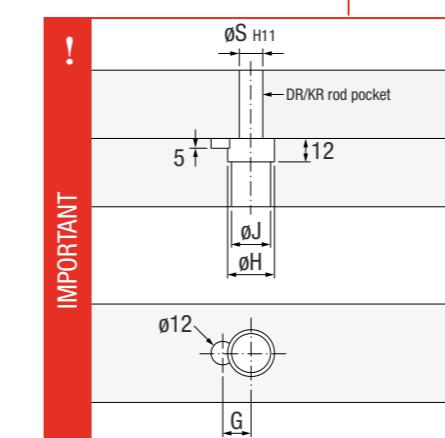
Ref.	A	B	C	D	E	G	H	J	N	T	S	Compatible with
RF.161605	19.8	34	3	15.8	7.8	12.5	20	16	18	M5x45	8	DR16
RF.222006	23.8	34	4	19.8	11.8	14.5	24	20	18	M6x45	12	DR22/KR22
RF.282408	27.8	42	0	23.8	13.8	16.5	28	24	20	M8x50	14-16	DR28/DR34/KR28/KR34
RF.403210	35.8	42	0	31.8	19.8	20.5	36	32	24	M10x50	20-24	DR40/DR46

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



IMPORTANT

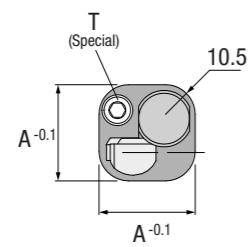
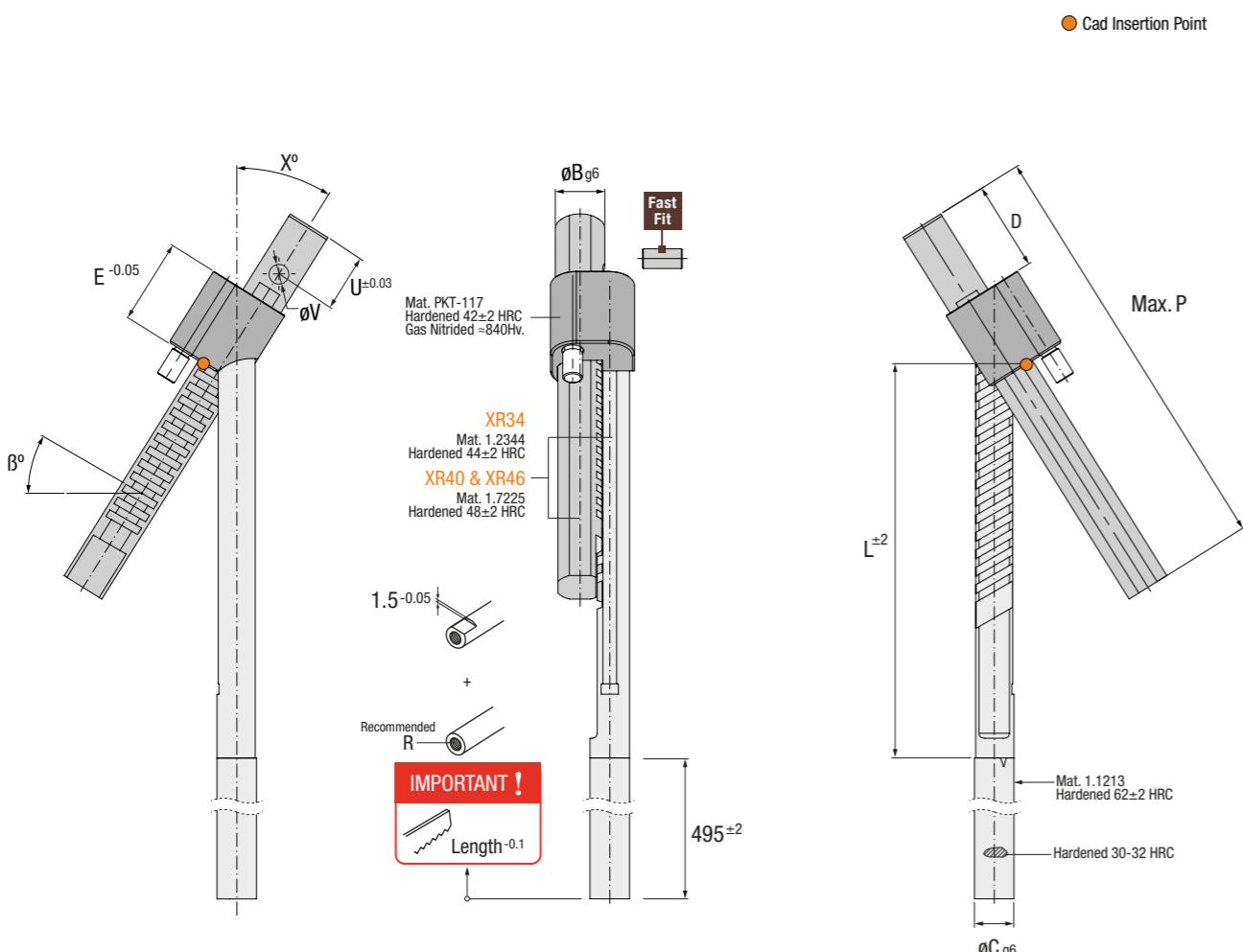


XR

XTREME DOUBLE RACK

ES Doble Cremallera Xtreme DE Xtreme Double Rack

IT Doppia cremagliera Xtreme PT Xtreme Double Rack FR Double Cremailleure Xtreme



Stroke 100	X°	A	B	C	D	E	L	P	R	T	U	V	Stroke 100-S	
XR34100L-x	24	28	32	36	34	20	16	36	34	159	225	M8	M8	XR34100L-x-S
XR40100L-x	24	28	32	36	40	22	20	36	40	170	240	M10	M10	XR40100L-x-S
XR46100L-x	24	28	32	36	46	24	24	42	46	174	255	M10	M12	XR46100L-x-S

IMPORTANT !

Replace the **X** in the reference with the required X° dimension (24°, 28°, 32° or 36°) and indicate the required B°.
 Sustituir la **X** de la referencia por la cota X° deseada (24°, 28°, 32° o 36°), e indique el ángulo B° requerido.
 Ersetzen Sie das **X** der Referenz durch den gewünschten X° Winkel (24°, 28°, 32° oder 36°). Geben Sie den benötigten B° Winkel an.
 Sostituire la **X** del codice con l'angolo X° desiderato (24°, 28°, 32° o 36°) e indicate la B° richiesta.
 Substituir o **X** da referência pela cota X° desejada (24°, 28°, 32° ou 36°), e indique o ângulo B° pretendido.
 Remplacez la valeur **X** par la valeur angulaire X désirée (24°, 28°, 32° ou 36°). Ensuite indiquez l'angle B° correspondant.

INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation

IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

Core Housing

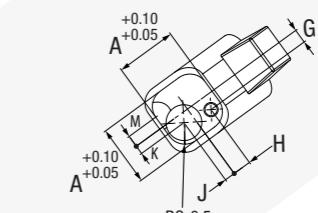
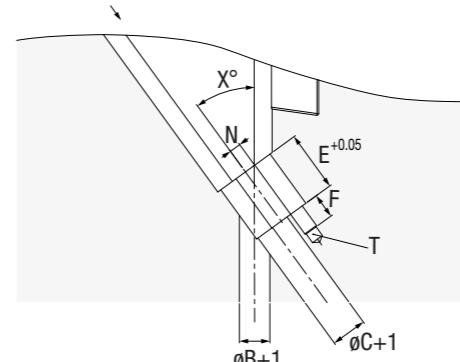
Alojamiento Placa Punzón

Einbaumaße DR Führung

Sede nel Punzone

Alojamento Bucha

Logement dans l'empreinte



Stroke 100	F	G	H	J	K	M	N	S	T	W	Y	Z
XR34100L..	16	8	10.5	6	5	7	6	4	M8	8	16	M4
XR40100L..	20	11	11	7	7	8	7	4	M10	10	20	M6
XR46100L..	25	13	13	9	9	8	8	5	M12	10	24	M6

FAST FIT:**Installation and Removal**

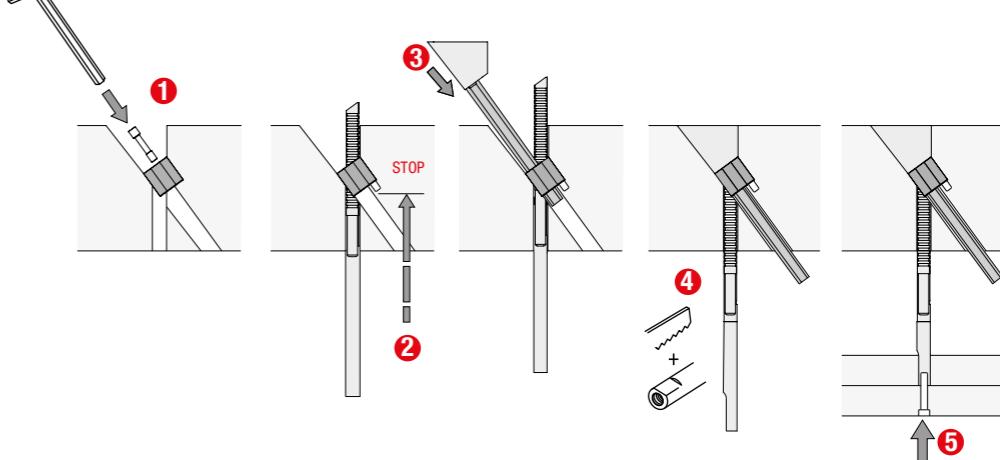
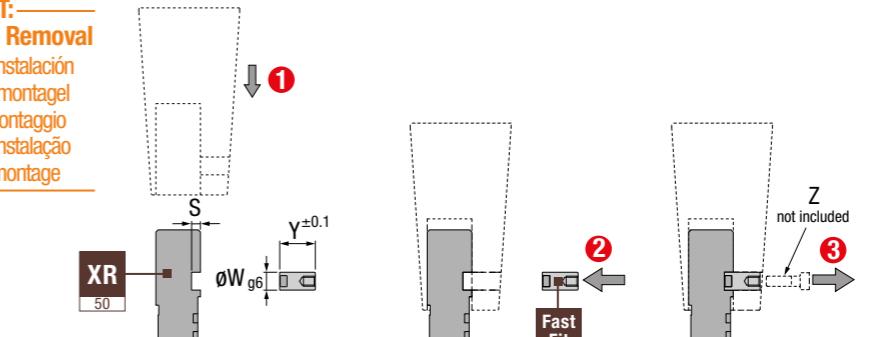
Instalación y Desinstalación

Montage und Demontage

Montaggio e Smontaggio

Instalação e Desinstalação

Montage et Démontage

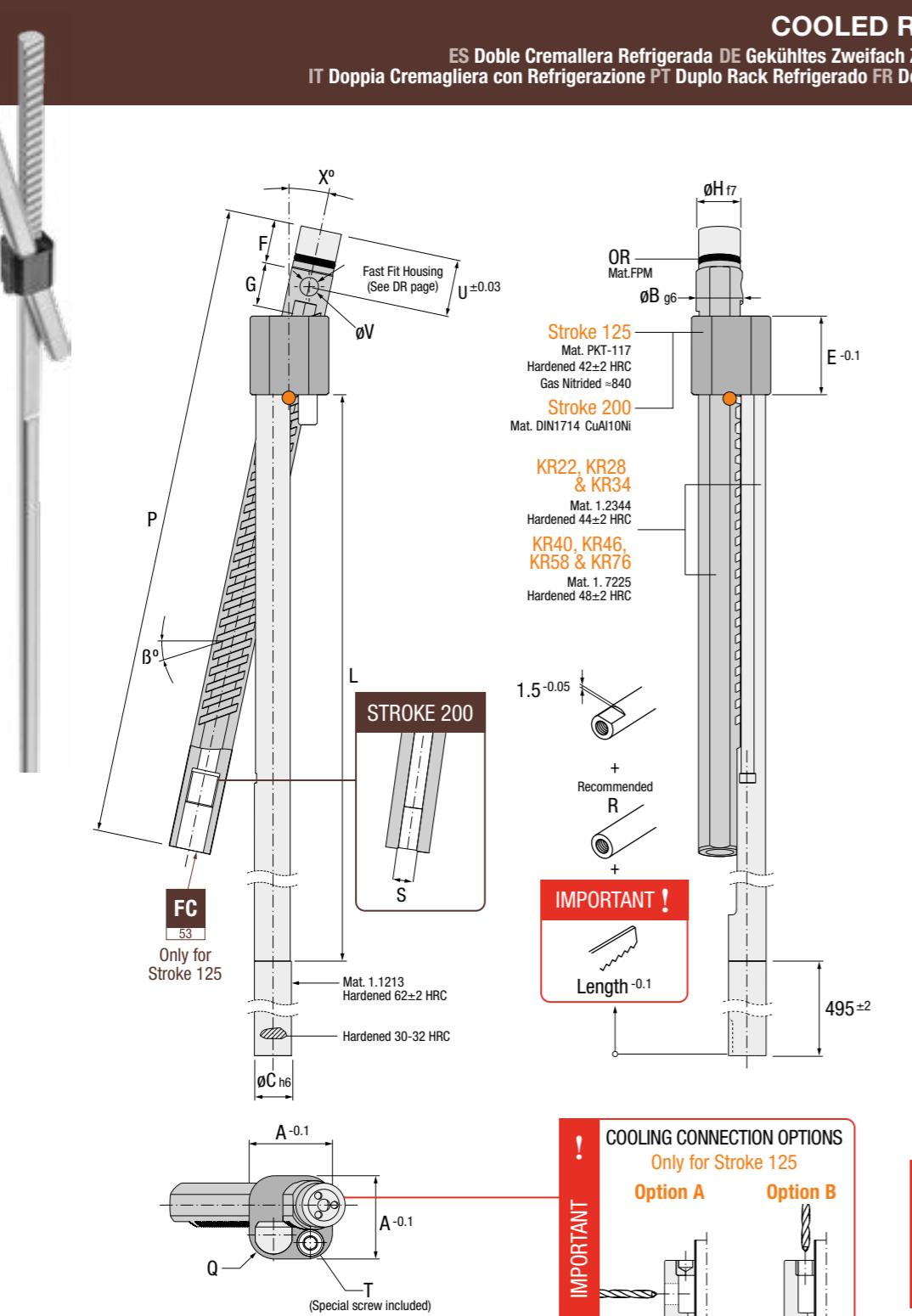


COOLED RACK LIFTER

ES Doble Cremallera Refrigerada DE Gekühltes Zweifach Zahnstangen System
IT Doppia Cremagliera con Refrigerazione PT Duplo Rack Refrigerado FR Double Rack Réfrigéré

KR

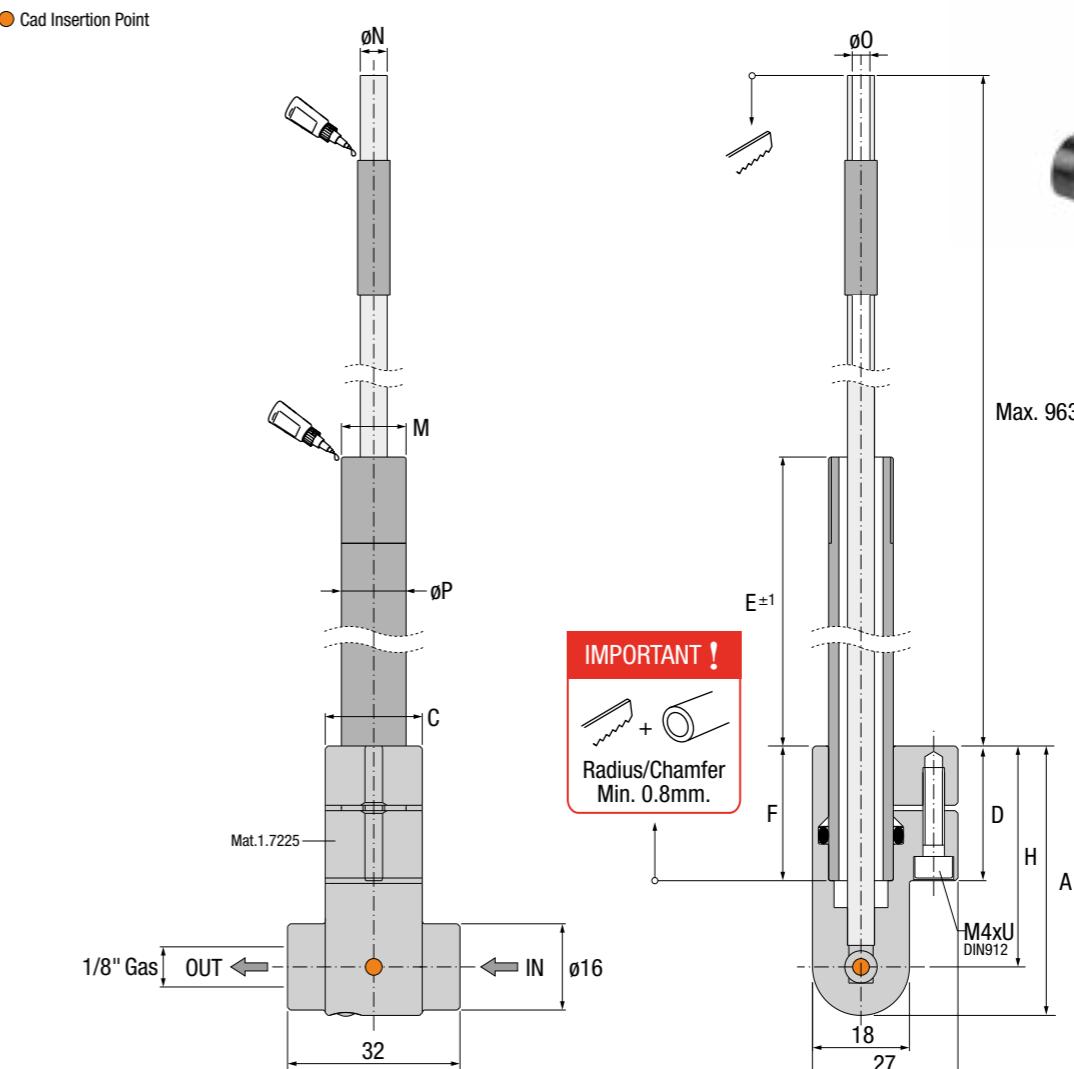
Patented



KR COOLING HOSE

ES Tubo Refrigeración KR DE KR Kühlungsschlauch
IT Sistema Refrigerazione KR PT Tubo de Refrigeração KR FR Tube de Refroidissement KR

FC



Ref.	A	C	D	E	F	H	M	N	O	P	U	Compatible With
FC.220500	40	15	18	483.5	16.5	31	M8x1	3.5	3	8	10	KR.22125L
FC.280500	50	18	25	475	25	41	M10x1	4.5	4	10	16	KR.28125L
FC.340500	50	18	25	475	25	41	M12x1	5	4.5	12	16	KR.34125L
FC.400500	54	20	25	475	25	44	M14x1	7	6.5	14	16	KR.40125L / KR.46125L

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

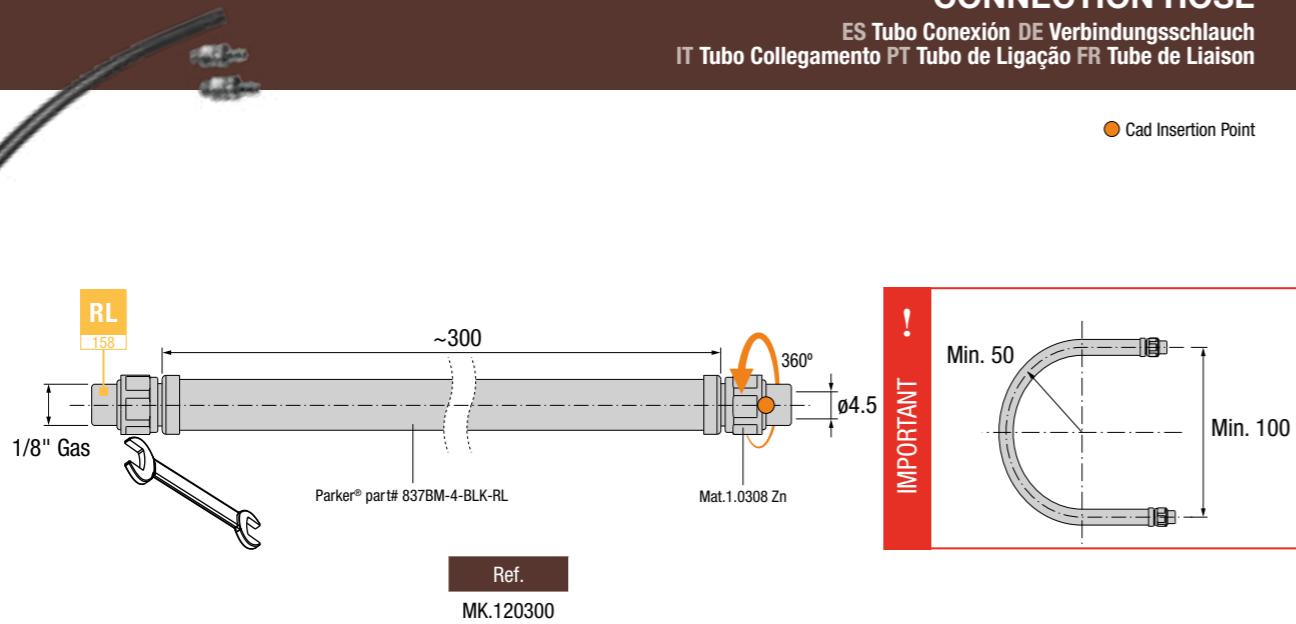
Ref.	Q					
	B ≤ 0°	0° < B ≤ 10°	10° < B ≤ 20°	20° < B ≤ 25°	25° < B ≤ 30°	30° < B ≤ 35°
KR.xx125L-8	10	15	18	20	23	25
KR.xx125L-12	10	16	22	25	29	-
KR.xx125L-16	10	18	26	31	-	-
KR.xx125L-20	10	20	31	-	-	-

IMPORTANT!

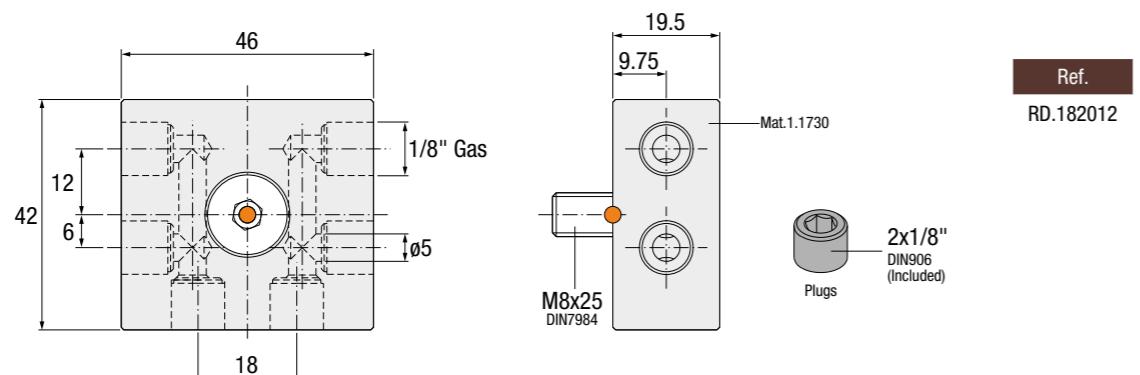
Replace the **x** in the reference with the required X° dimension (8°, 12°, 16° or 20°) and indicate the required B°.
Sustituir la **x** de la referencia por la cota X° deseada (8°, 12°, 16° o 20°), e indique el ángulo B° requerido.
Ersetzen Sie das **x** der Referenz durch den gewünschten X° Winkel (8°, 12°, 16° oder 20°). Geben Sie den benötigten B° Winkel an.
Sostituire la **x** del codice con l'angolo X° desiderato (8°, 12°, 16° o 20°) e indicare la B° richiesta.
Substituir o **x** da referencia pela cota X° desejada (8°, 12°, 16° o 20°), e indique o angulo B° pretendido.
Remplacez la valeur **x** par la valeur angulaire X° désirée (8, 12, 16 ou 20). Ensuite indiquez l'angle B° correspondant.

MKMax.
80°C

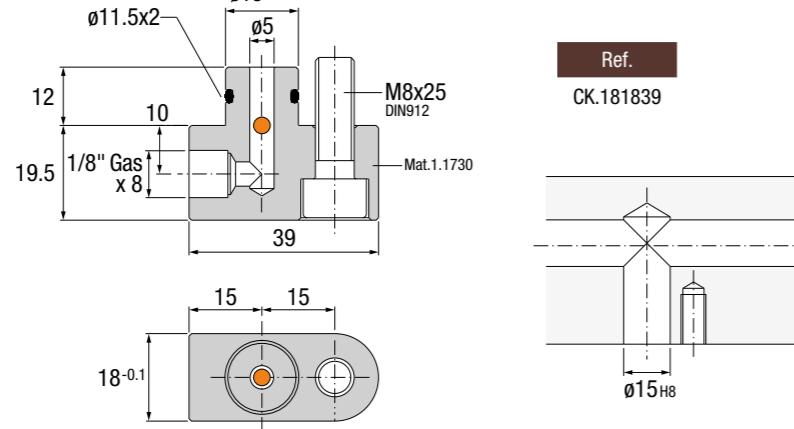
CONNECTION HOSE
 ES Tubo Conexión DE Verbindungsschlauch
 IT Tubo Collegamento PT Tubo de Ligação FR Tube de Liaison

**RD**Max.
80°C

COOLING DISTRIBUTOR
 ES Distribuidor Refrigeración DE Verteilerschlauch
 IT Distributore Refrigerazione PT Distribuidor de Refrigeração FR Distribution de Refroidissement

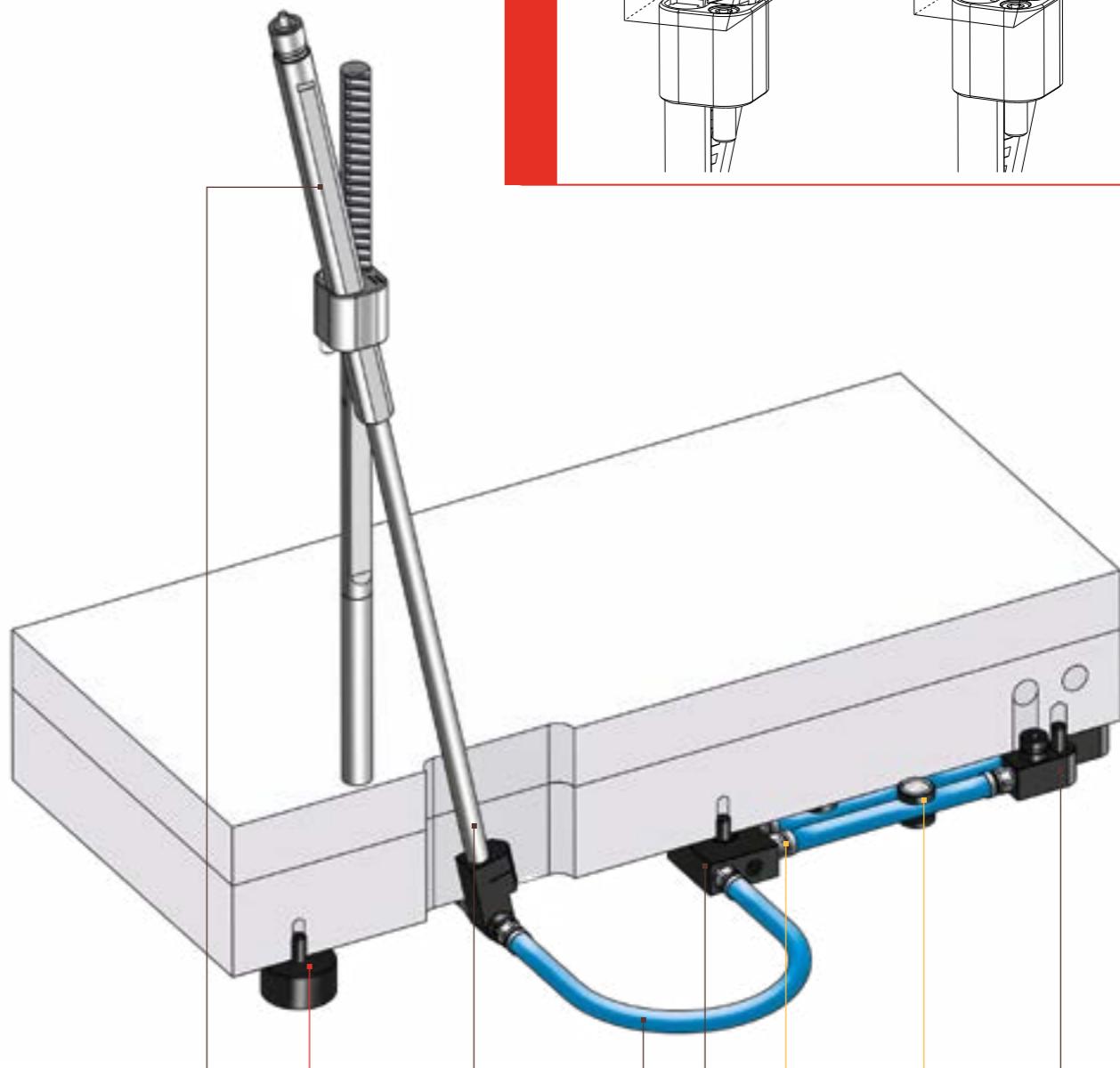
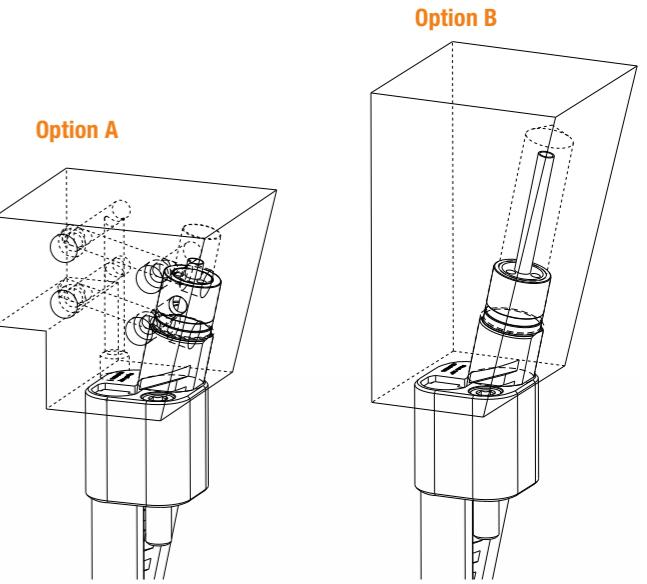
**CK**Max.
80°C

90° PLATE CONNECTOR
 ES Conector Placa a 90° DE 90° Platten-Verbindungsstück
 IT Collegamento Piastra a 90° PT Conector de Placa a 90° FR Connexion Dans la Plaque de 90°

**INSTALLATION GUIDELINES**

ES Consejos de Instalación DE Richtlinien zur Installation
 IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

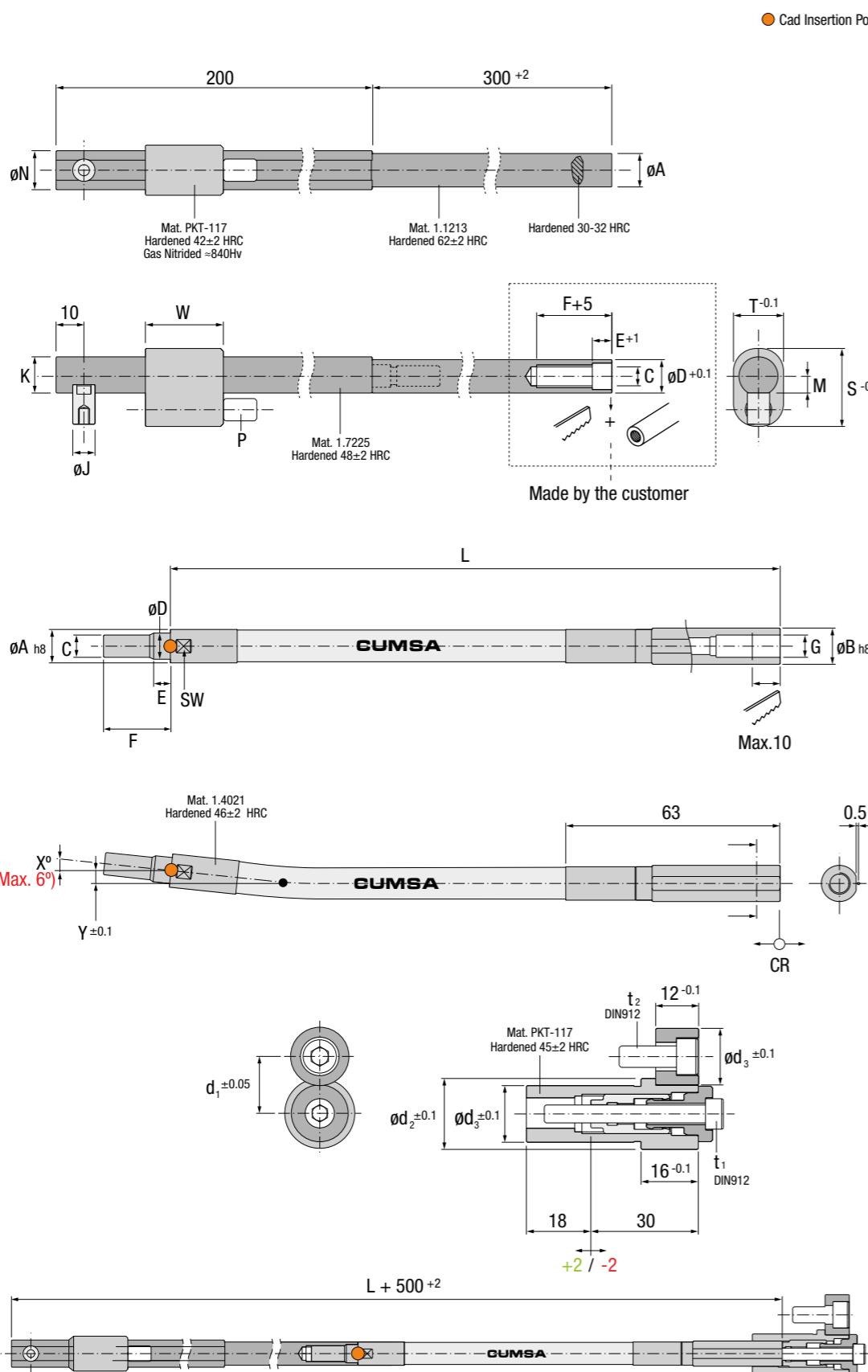
!

COOLING CONNECTION OPTIONS

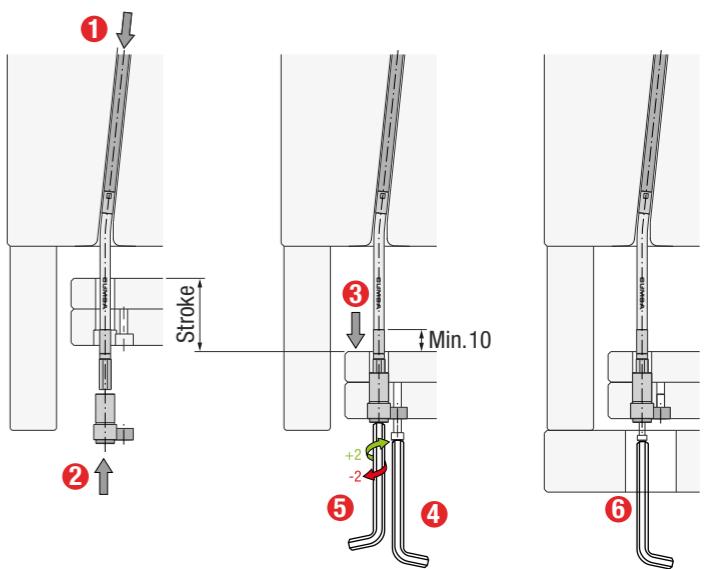
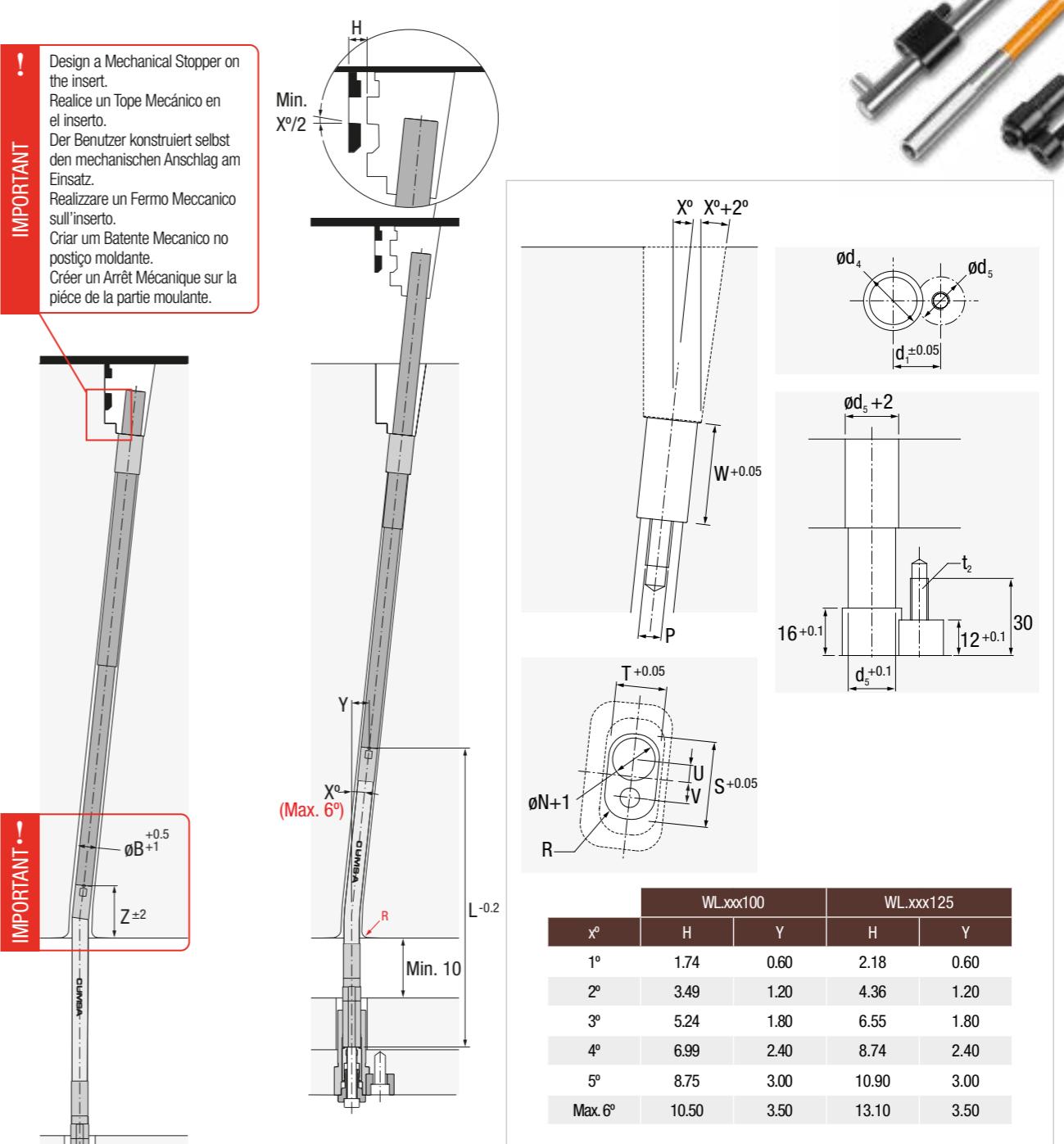
WL

SMART WORM LIFTER

ES Patín Smart Worm DE Smart Worm Lifter
IT Smart Worm Lifter PT Balancé Smart Worm FR Patin Smart Worm

**INSTALLATION GUIDELINES**

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation



WL

WP

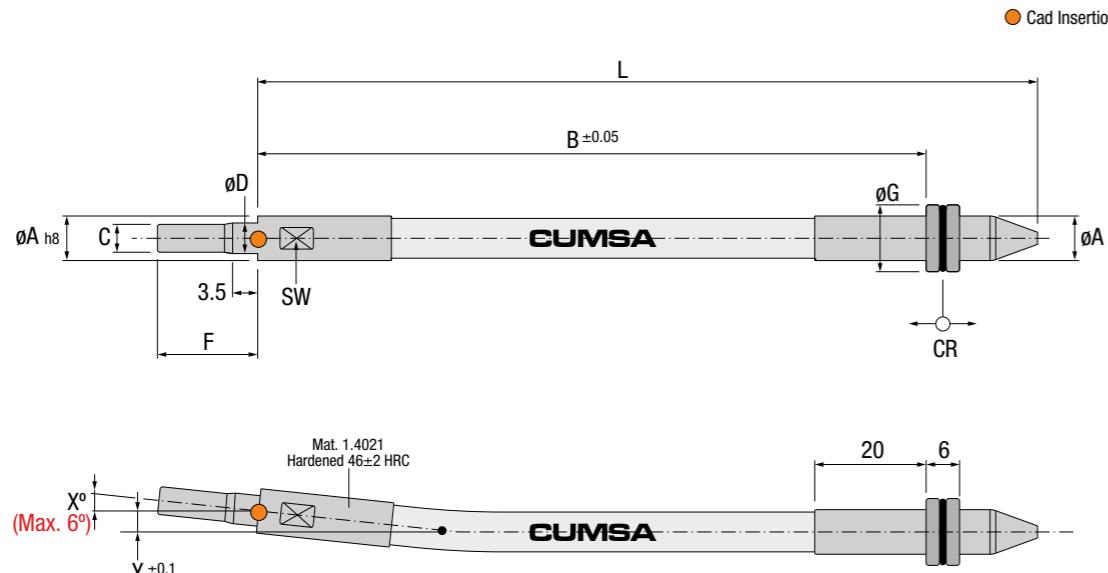
SMART WORM PIN

ES Expulsor Smart Worm DE Smart Worm Pin
IT Pin Smart Worm PT Extractor Smart Worm FR Ejection Smart Worm

WP ADJUSTABLE FIXING

ES Fijación Regulable WP DE WP Einstellbare Befestigung
IT Fissaggio Regolabile WP PT Fixação Regulável WP FR Fixation Réglable WP

Patented



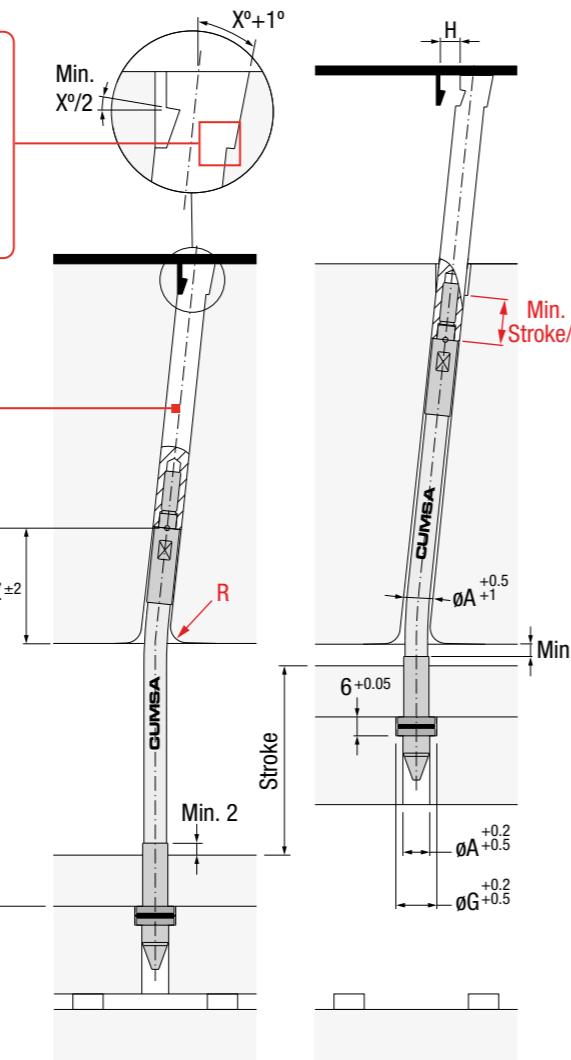
Ref.	A	B	C	D	F	G	L	SW	Z	CR (N)	Max. Stroke
WP.060030	6	90	M4	4.5	12	10	108	5	30	1.000	30
WP.060060	6	120	M4	4.5	12	10	138	5	35	1.000	60
WP.080030	8	90	M5	5.5	18	12	110	7	30	1.500	30
WP.080060	8	120	M5	5.5	18	12	140	7	35	1.500	60

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

IMPORTANT !

Design a Mechanical Stopper on the insert.
Realice un Tope Mecánico en el inserto.
Der Benutzer konstruiert selbst den mechanischen Anschlag am Einsatz.
Realizzare un fermo meccanico sull'inserto.
Criar um batente mecânico no postigo moldante.
Créer un arrêt mécanique sur la pièce de la partie moulante.

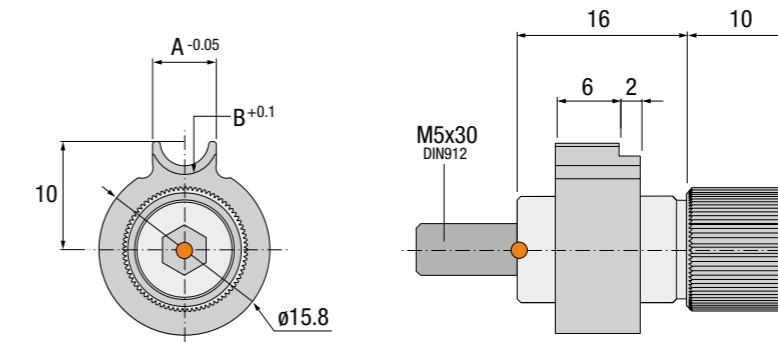


	WP.xx0030	WP.xx0060	
X°	Y	H	H
1°	0.60	0.52	1.04
2°	1.20	1.05	2.09
3°	1.80	1.57	3.14
4°	2.40	2.10	4.19
5°	3.00	2.63	5.25
Max. 6°	3.50	3.15	6.31

Cad Insertion Point

ES Fijación Regulable WP DE WP Einstellbare Befestigung
IT Fissaggio Regolabile WP PT Fixação Regulável WP FR Fixation Réglable WP

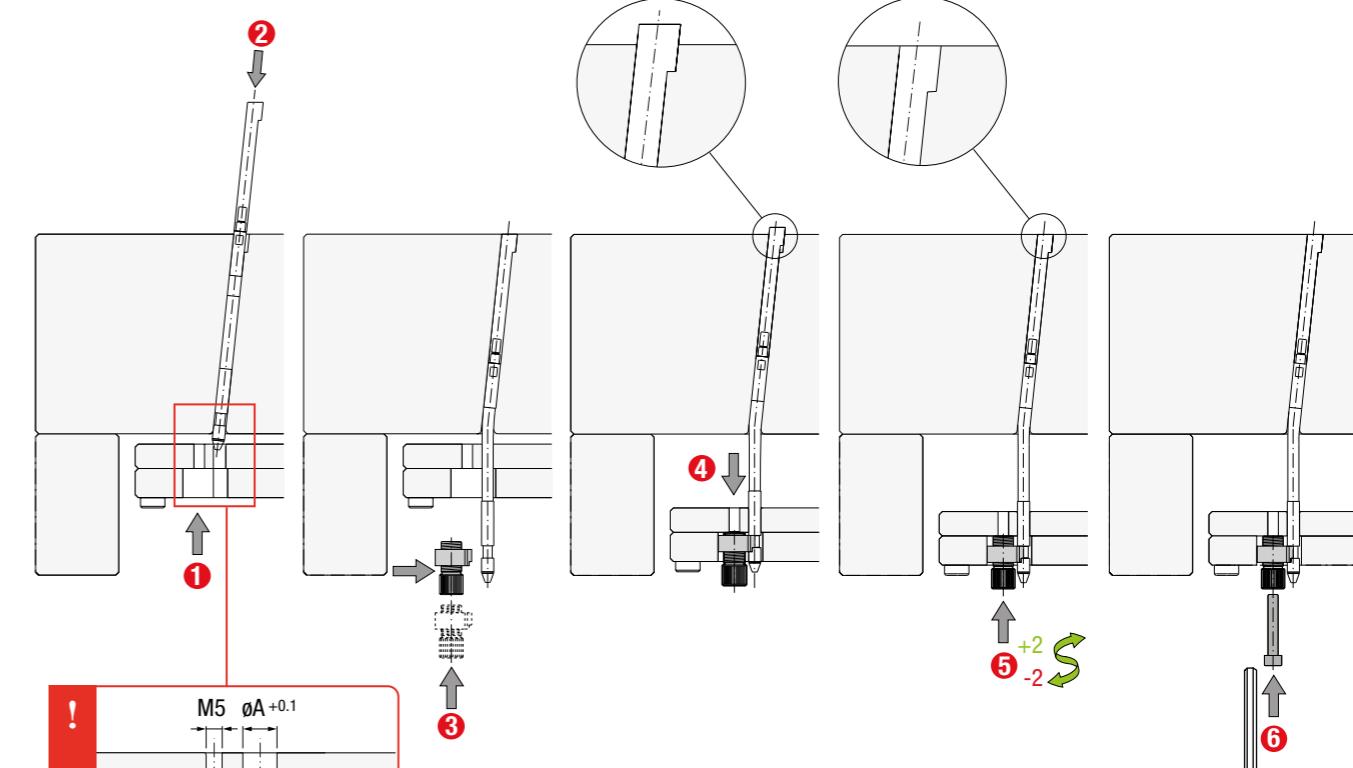
Cad Insertion Point



Ref.	A	B	Compatible With
WF.061608	6	3.1	WP.060xxx
WF.081608	8	4.1	WP.080xxx

Installation Guidelines

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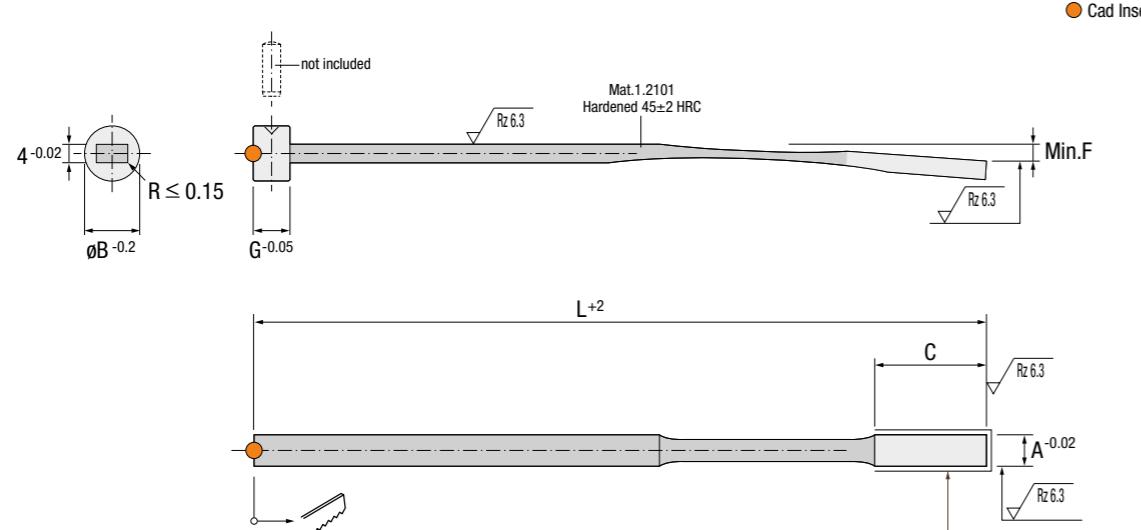


!	M5 ØA +0.1
	Ø16 A +0.1

PF

FLEXIBLE CORE

ES Pinza Flexible DE Flexibler Federauswerfer
IT Pinza Flessibile PT Pinça Flexivel FR Éjecteur Flexible



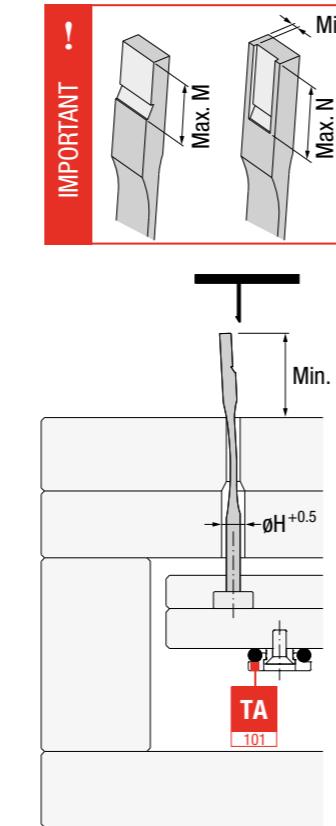
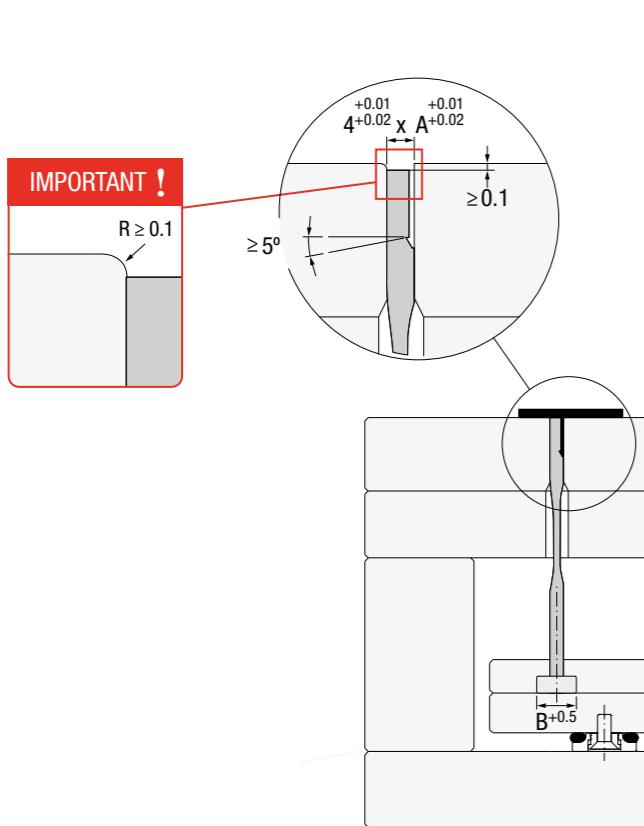
Patented



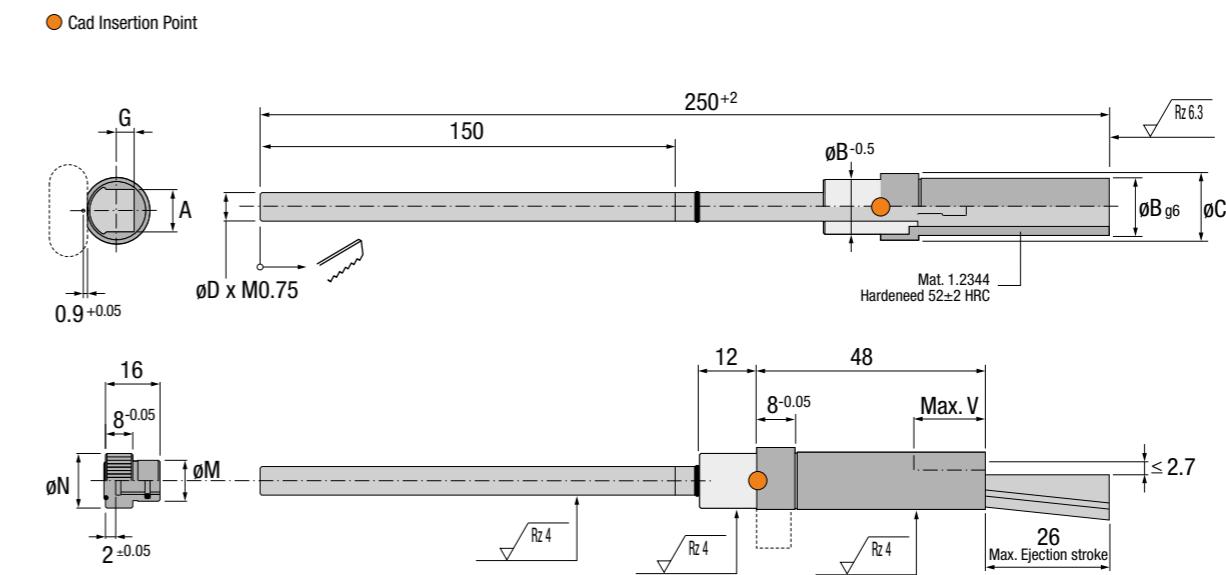
Ref.	A	B	C	F	G	H	L	M	N	P	R	Balinit C®	Hardened
PF.044150	4	8	24	2.5	6	6	150	12	14	0.8	30	•	52±2 HRC
PF.054150	5	8	24	2.5	6	6.5	150	12	14	0.8	30	•	52±2 HRC
PF.064200	6	12	30	2.8	8	7.5	200	18	20	1	36	•	52±2 HRC
PF.0642WB	6	12	30	2.8	8	7.5	200	18	20	1	36	-	56±2 HRC
PF.084200	8	14	30	2.8	8	9	200	18	20	1	36	•	52±2 HRC
PF.0842WB	8	14	30	2.8	8	9	200	18	20	1	36	-	56±2 HRC
PF.104200	10	16	30	2.8	8	11	200	18	20	1	36	•	52±2 HRC
PF.1042WB	10	16	30	2.8	8	11	200	18	20	1	36	-	56±2 HRC
PF.124200	12	18	30	2.8	8	13	200	18	20	1	36	•	52±2 HRC
PF.1242WB	12	18	30	2.8	8	13	200	18	20	1	36	-	56±2 HRC

Installation Guidelines

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**STANDARD LIFTER**

ES Patín Standard DE Schrägschieber
IT Pattino Standard PT Patim Standard FR Patin Standard



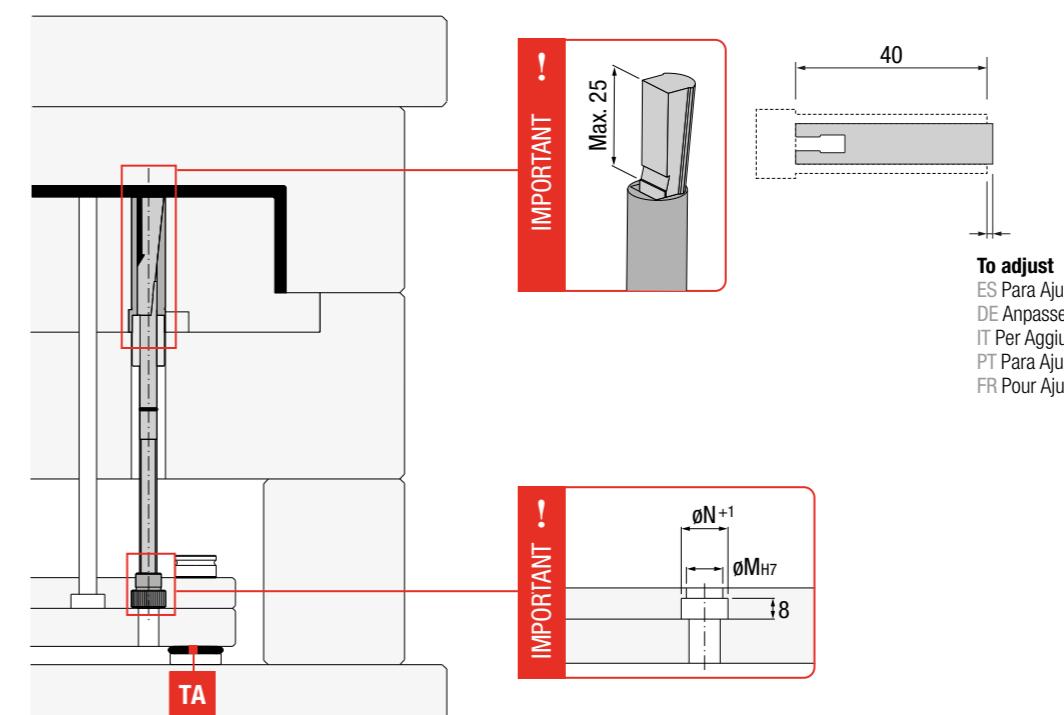
PS

Patented

Ref.	A	B	C	D	G	M	N	R	V
PS.062250	6.2	10	12	6	3.4	12	16	1.25	8
PS.082250	8.2	12	14	6	4	12	16	1.25	15
PS.102250	10.2	14	16	8	4.2	14	18	2	15
PS.122250	12.2	16	18	8	4.2	14	18	2	20

Installation Guidelines

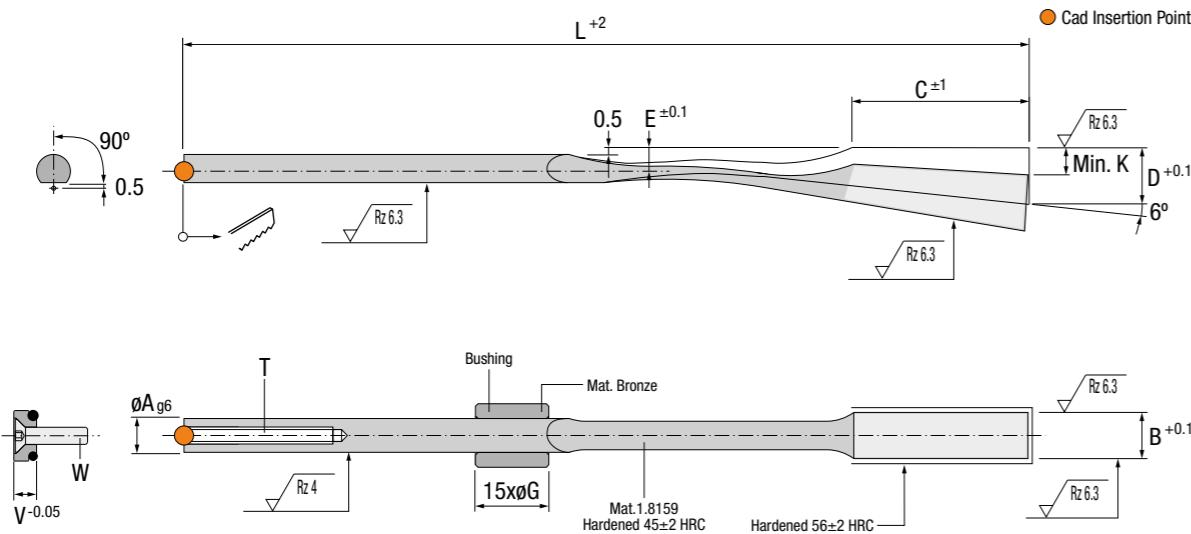
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



To adjust
ES Para Ajustar
DE Anpassen
IT Per Aggiustaggio
PT Para Ajustar
FR Pour Ajustement

SPRUNG CORE

ES Pinza Plana DE Flexible Federauswerfer
IT Pinza Piana PT Pinça Plana FR Éjecteur de Forme



PW

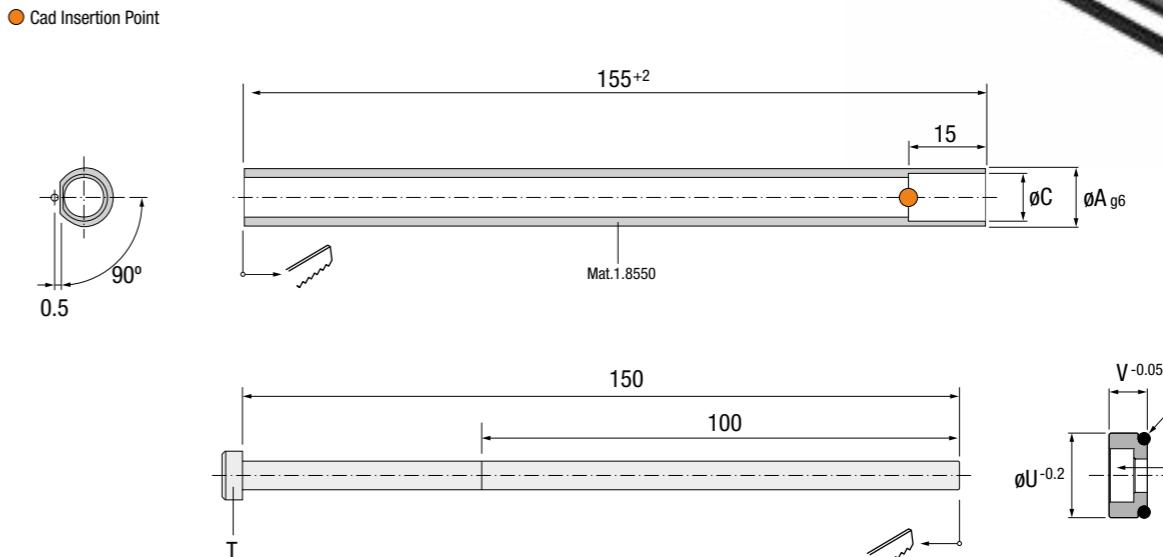
Patented



Ref.	A	B	C	D	E	G	K	L	M	N	R	T	U	V	W	Bushing
PW.060622	6	6.2	22	9	3.5	-	3.5	125	16	18	1.25	M4x36	12	5	M4x16 (DIN7991)	-
PW.060630	6	6.2	30	10	3.5	12	4.5	175	20	26	1.25	M4x36	12	5	M4x16 (DIN7991)	•
PW.060822	6	8.2	22	9	3.5	-	3.5	125	16	18	1.25	M4x36	12	5	M4x16 (DIN7991)	-
PW.060830	6	8.2	30	10	3.5	12	4.5	175	20	26	1.25	M4x36	12	5	M4x16 (DIN7991)	•
PW.080825	8	8.2	25	11.5	4.5	-	4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	-
PW.081025	8	10.2	25	11.5	4.5	-	4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	-
PW.081030	8	10.2	30	11.2	4.5	12	4.5	175	20	26	2	M5x36	14	6	M5x16 (DIN7984)	•
PW.081225	8	12.2	25	11.5	4.5	-	4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	-
PW.081230	8	12.2	30	11.2	4.5	12	4.5	175	20	26	2	M5x36	14	6	M5x16 (DIN7984)	•
PW.101430	10	14.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•
PW.101630	10	16.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•
PW.101830	10	18.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•

SPRUNG CORE EXTENSION

ES Alargo Pinza DE Verlängerung Fed. Auswerfer
IT Prolunga Pinza PT Acrescento da Pinça FR Rallonge d'Éjecteur



AP

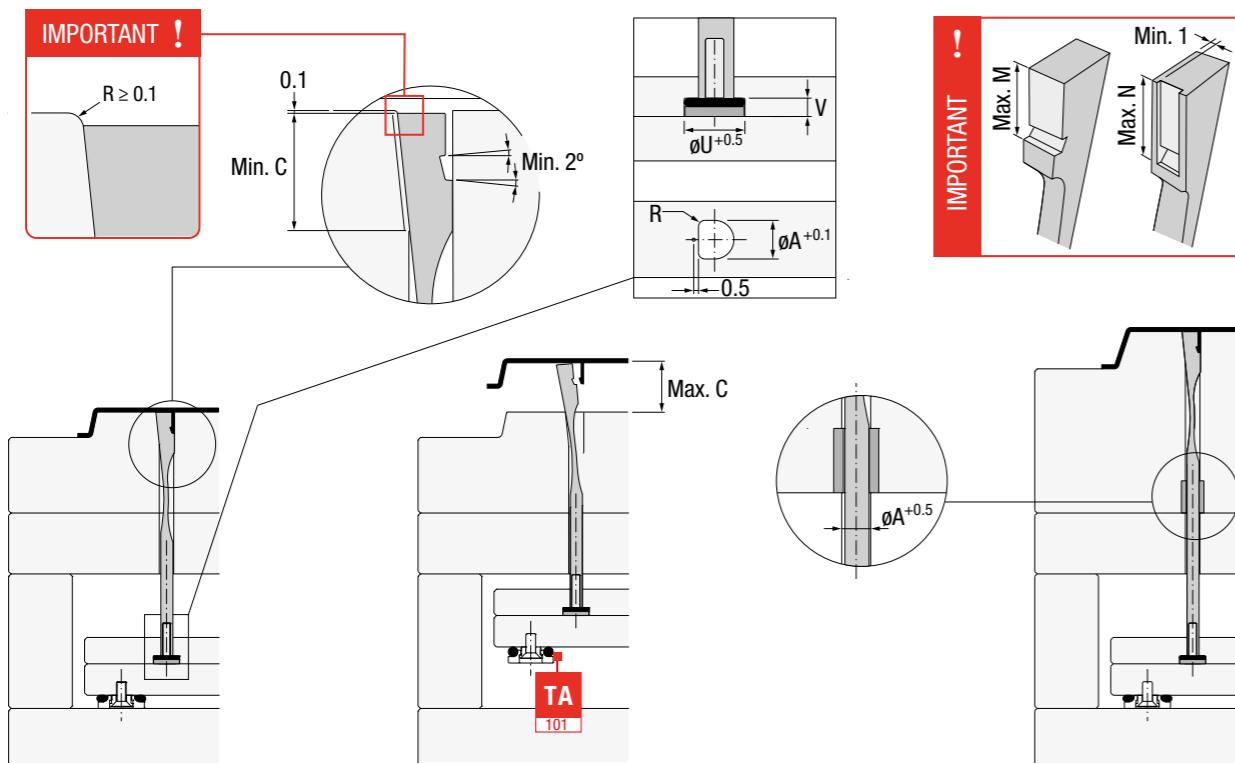
Patented

IMPORTANT !

Enables a standard length of the PW up to 315mm.
Permite un alargamiento extra de la PW hasta 315mm.
Verlängerung PW bis 315 mm möglich.
Permette un prolungamento extra della PW fino a 315mm.
Possibilidade de obter um comprimento standard de 315mm.
Possibilité d'obtenir une longueur standard de 315mm.

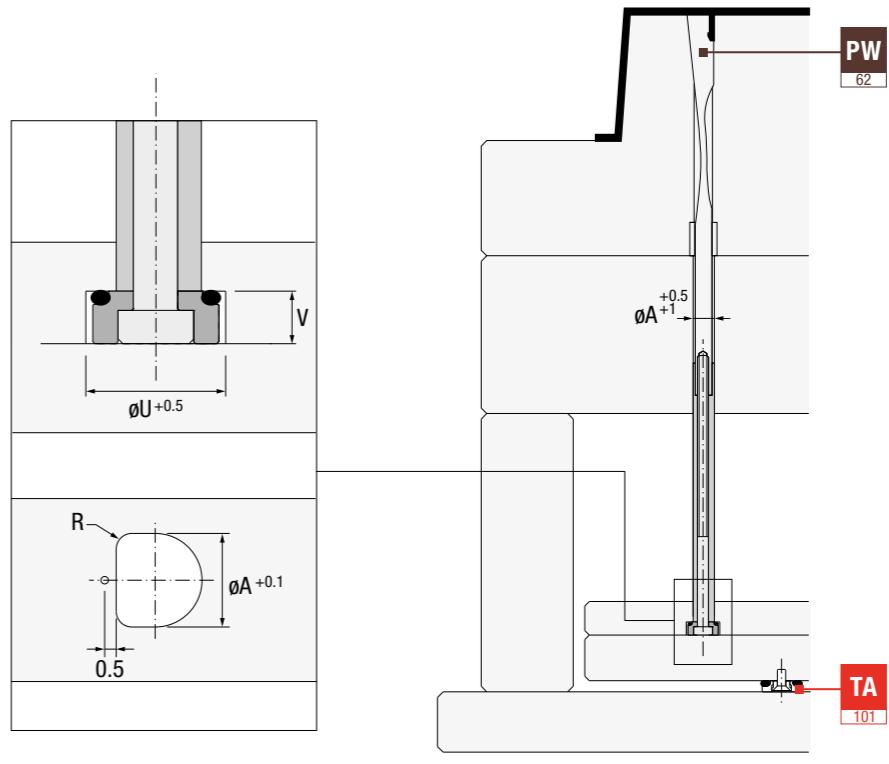
Installation Guidelines

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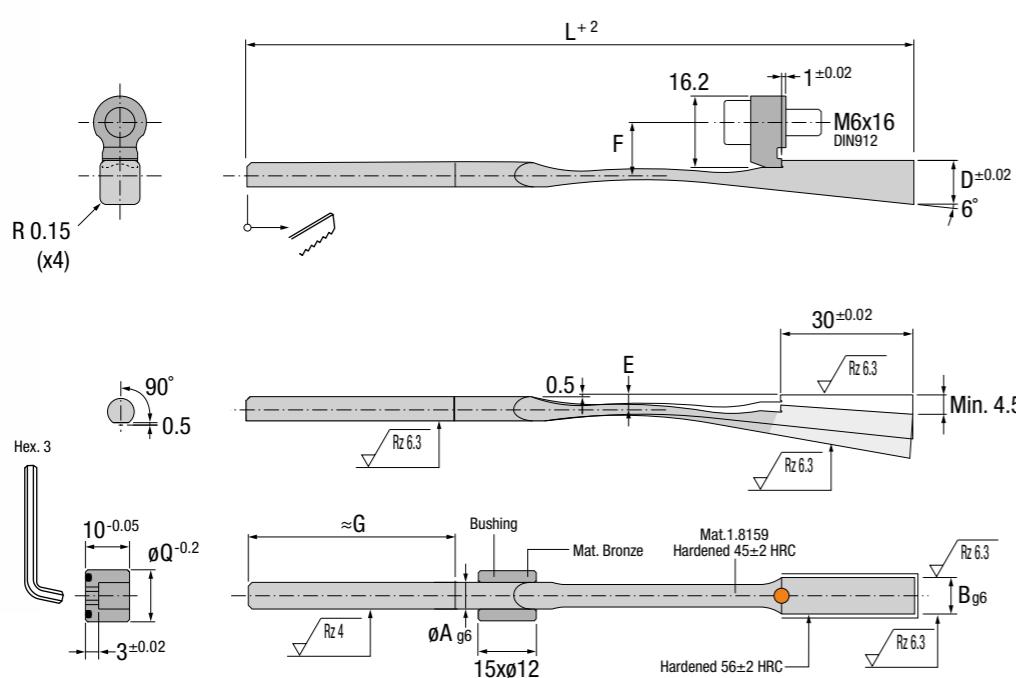
Installation Guidelines

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XTRA SPRUNG CORE
ES Pinza Extra DE Xtra Federnder Auswerfer
IT Pinza Piana Extra PT Pinça Plana Extra FR Éjecteur de Forme Extra



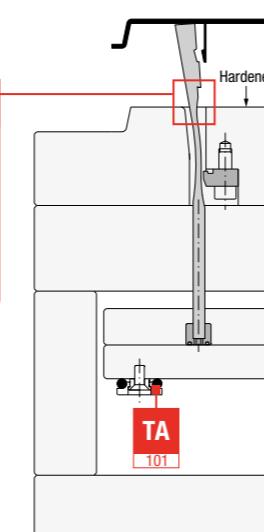
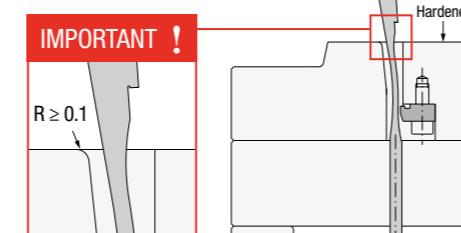
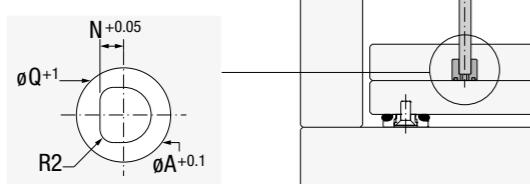
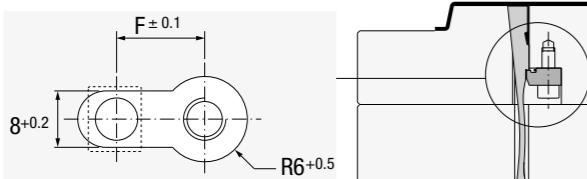
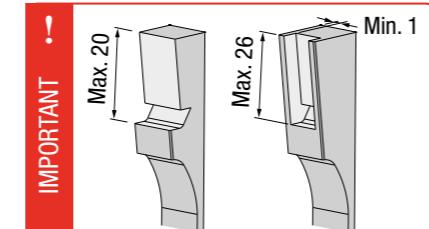
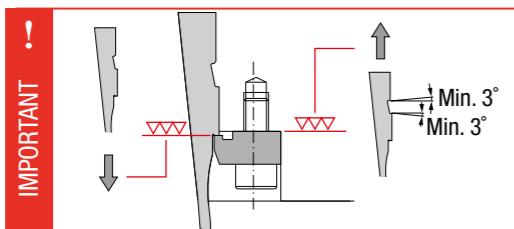
Ref.	A	B	D	E	F	L=175	L=250	L=325	N	Q
PX.060630...	6	6.2	10	3.5	12.5	60	-	80	•	80
PX.060830...	6	8.2	10	3.5	12.5	60	-	80	•	80
PX.081030...	8	10.2	11.2	4.5	13.5	60	-	80	•	80
PX.081230...	8	12.2	11.2	4.5	13.5	60	-	80	•	80

IMPORTANT !

Indicate the desired **L** dimension after the reference.
Indicar al final de la referencia, la cota **L** deseada.
Gewünschte Länge (**L**) angeben.
Indicare la quota **L** desiderata alla fine del codice.
Indique o dimensão **L** desejada depois da referência.
Indiquer la cote **L** désirée per compléter le référence.

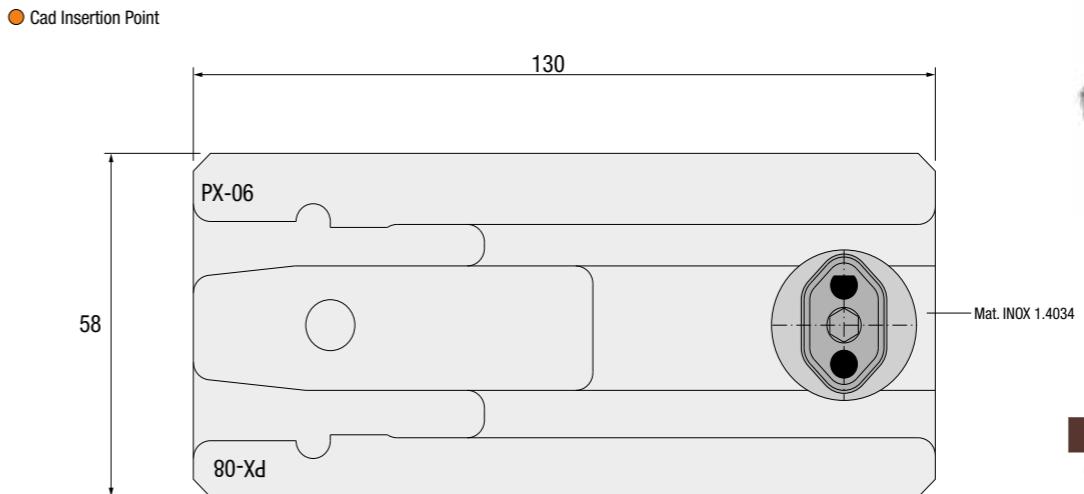
Installation Guidelines

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PX CUTTING JIG

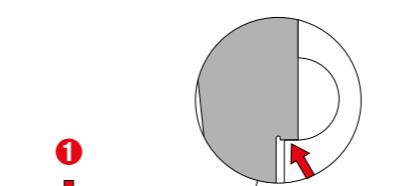
ES Útil de Corte para PX DE PX Anpassungslehre
IT Utensile per Lavorazione PX PT Acessório para Corte da PX FR PX Accessoire d'Ajustement



CX

Use Guidelines

Consejos de Uso · Richtlinien zur Verwendung · Consigli di Uso · Instruções de Utilização · Mode d'Emploi



1 Insert the PX into the corresponding slot, for 6 or 8mm. shank. Ensure that the shape of the PX head is adjusted in the housing support.

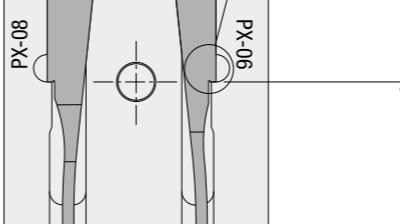
ES Insertar la PX en el alojamiento correspondiente, según sea de diámetro 6 u 8. Verificar que haga tope el perfil de la pinza con el alojamiento del útil.

DE Den federnden Auswerfer PX in den CX einsetzen. Prüfen, dass der federnde Auswerfer am Profil der Anpassungslehre richtig sitzt.

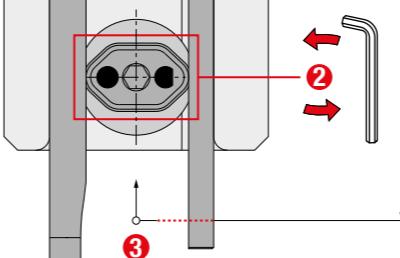
IT Inserire la PX nella relativa sede, a seconda del diametro 6 o 8. Verificare che la testa della pinza sia in battuta sulla sporgenza all'interno dell'utensile.

PT Colocar a PX no alojamento correspondente, em função do diâmetro da haste de 6 ou 8 mm. Verificar se o batente da PX está completamente encostado ao encosto do acessório.

FR Positionner le PX dans son logement correspondant au diamètre de la tige, 6 ou 8 mm. Vérifier que la vis centrale soit en pression contre les faces de mise en position.



Required dimension



2 Use an allen key to select the correct option: flat • or • round.

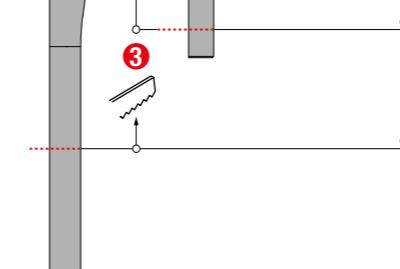
ES Utilizar una llave allen para seleccionar la posición de cara plana • o • redonda, según sea el caso.

DE Mit einem Imbusschlüssel wählen Sie das runde • oder flache • Profil.

IT Usare una brugola per ruotare l'inserto in basso, a seconda che il gambo sia piano • o rotondo •.

PT Utilizar uma chave de allen para selecionar a posição adequada, face plana • ou redonda •.

FR Utiliser une clé 6 pans afin de positionner le type de cale , forme ronde • ou plane •.



3 Cut the PX to the required dimension.

ES Cortar la PX a la dimensión requerida.

DE Den PX auf das gewünschte Maß kürzen.

IT Tagliare la PX alla quota necessaria.

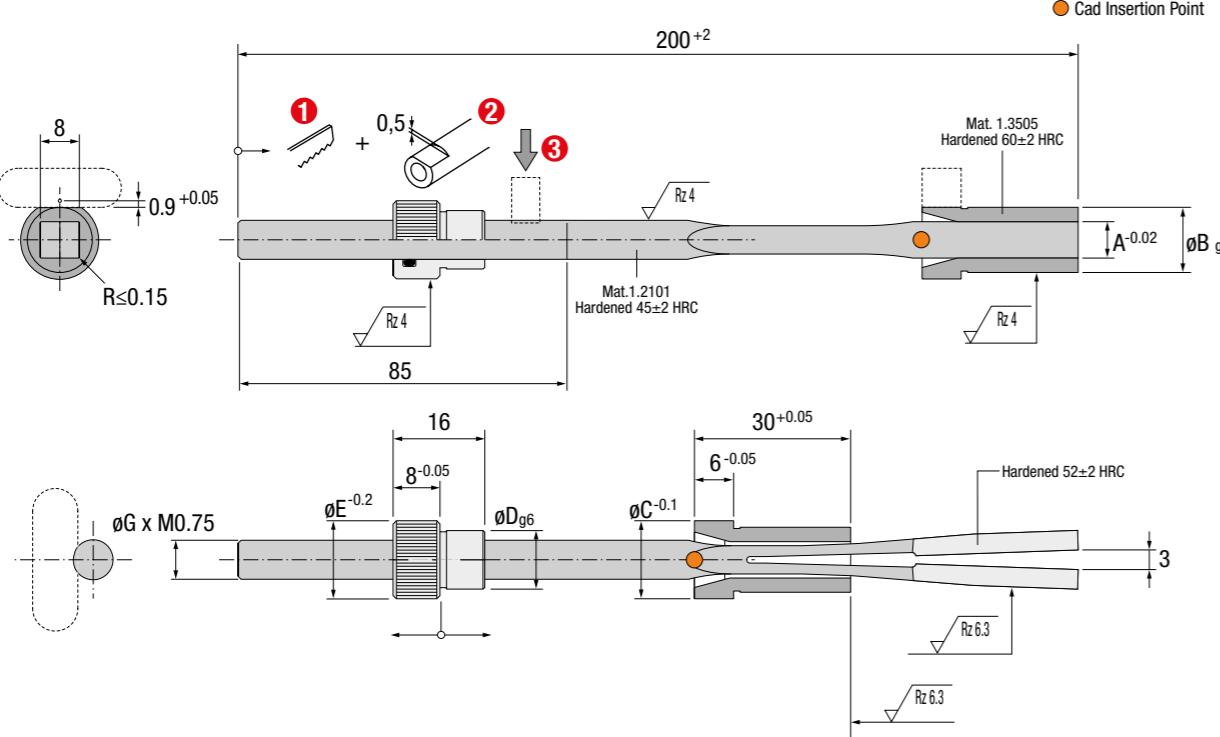
PT Cortar a PX na dimensão requerida.

FR Couper le PX suivant la longueur voulue.

ED

DOUBLE EJECTOR

ES Expulsor Doble DE Doppelauswerfer
IT Espulsore Doppio PT Extractor Duplo FR Éjecteur Double



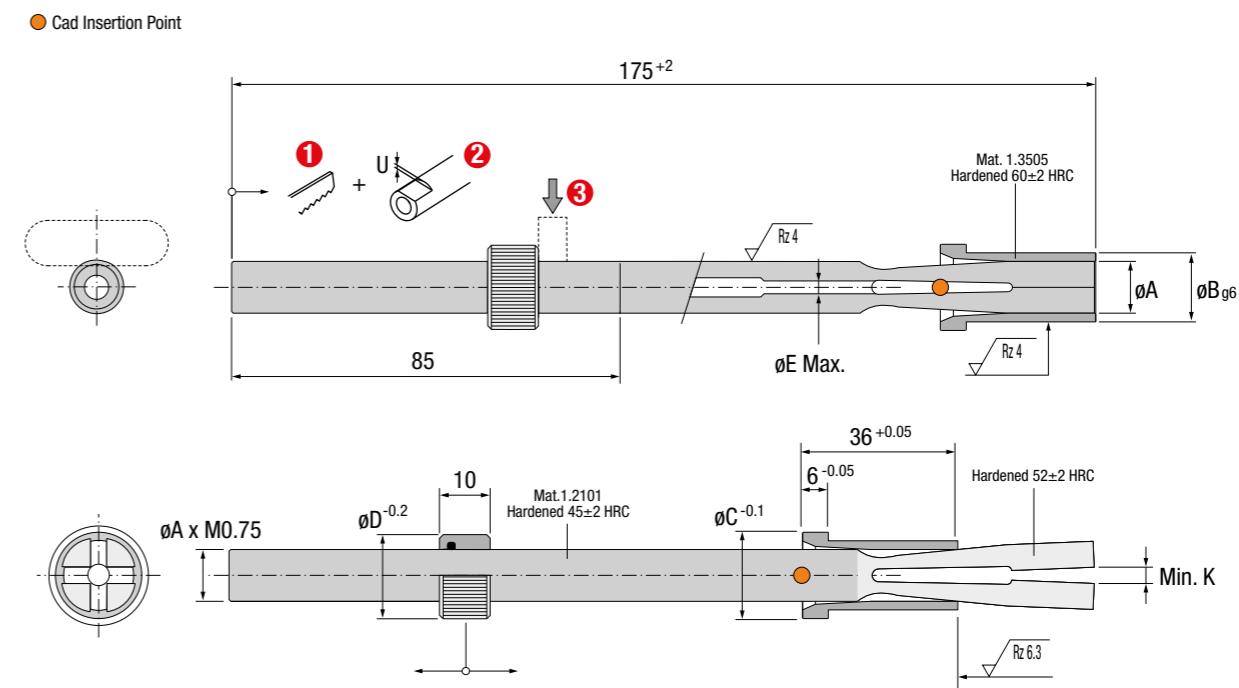
Ref.	A	B	C	D	E	G	H	Balinit C°
ED.068200	6	12	14	10	14	6	10	•
ED.088200	8	14	16	12	16	8	12	•
ED.108200	10	16	18	14	18	8	14	•
ED.128200	12	16	18	16	20	8	15	•

IMPORTANT !

Special lengths of 275 and 350mm. upon request.
Largos especiales de 275 y 350mm. bajo demanda.
Sonderlängen von 275 und 350mm. auf Anfrage.
Lunghezza speciale 275/350mm. su richiesta.
Dimensões especiais de 275 e 350mm. quando pedido.
Longueurs spéciales de 275 et 350mm. sur demande.

TULIP EJECTOR

ES Expulsor Elástico DE Kreuzauswerfer
IT Espulsore Elastico PT Extractor Elástico FR Éjecteur Tulipe



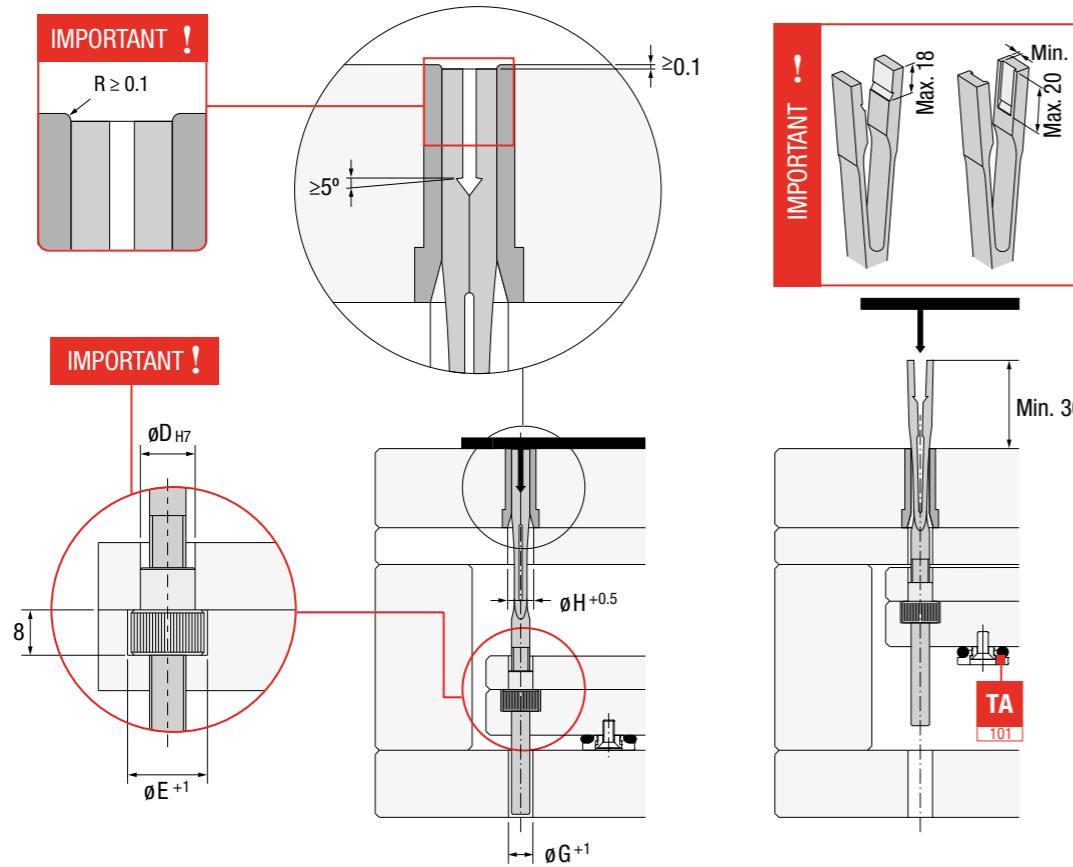
Ref.	A	B	C	D	E	H	K	U	Balinit C°
EE.060175	6	10	12	12	-	9	2.8	0.5	•
EE.082175	8	12	14	14	2	11	2.8	0.5	•
EE.103175	10	14	16	16	3	13	2.8	0.5	•
EE.124175	12	16	18	18	4	15	3	0.5	•
EE.168175	16	20	22	22	8	19	3	1	•

IMPORTANT !

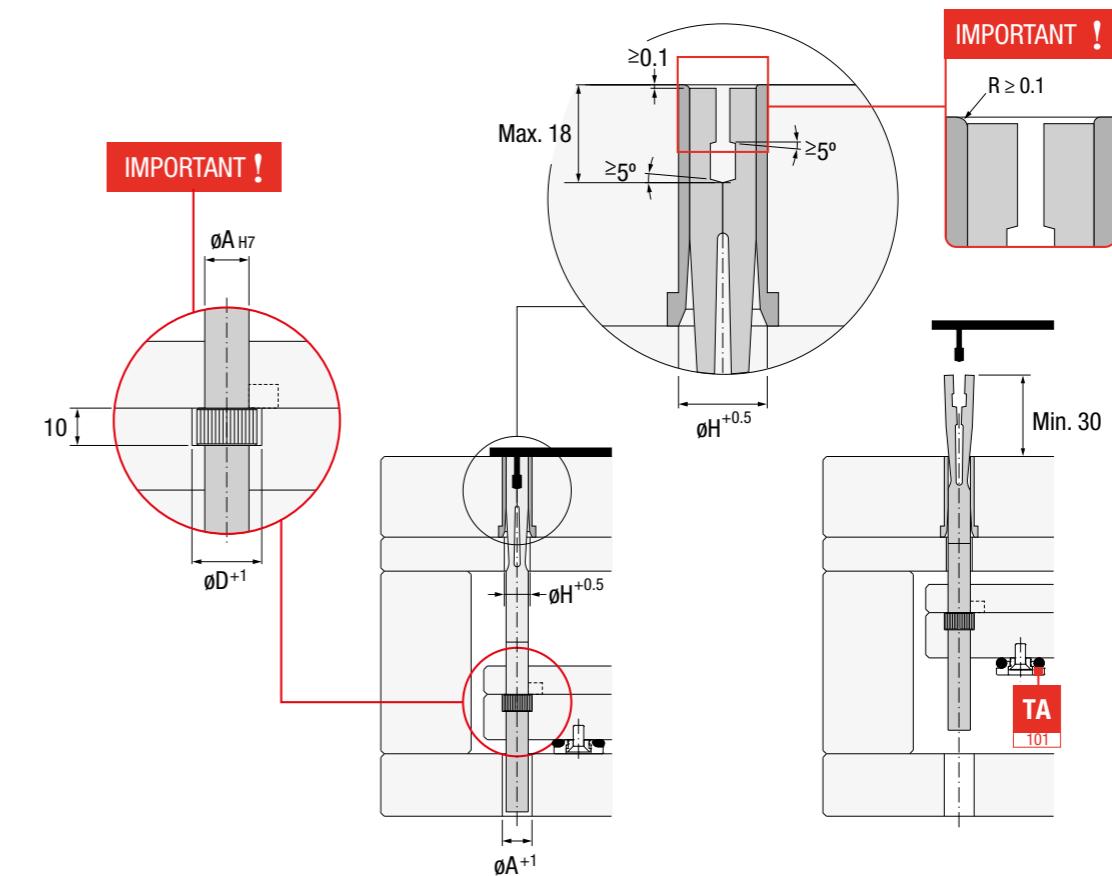
Special lengths of 250 and 325mm. upon request.
Largos especiales de 250 y 325mm. bajo demanda.
Sonderlängen von 250 und 325mm. auf Anfrage.
Lunghezza speciale 250/325mm. su richiesta.
Dimensões especiais de 250 e 325mm. quando pedido.
Longueurs spéciales de 250 et 325mm. sur demande.

Installation Guidelines

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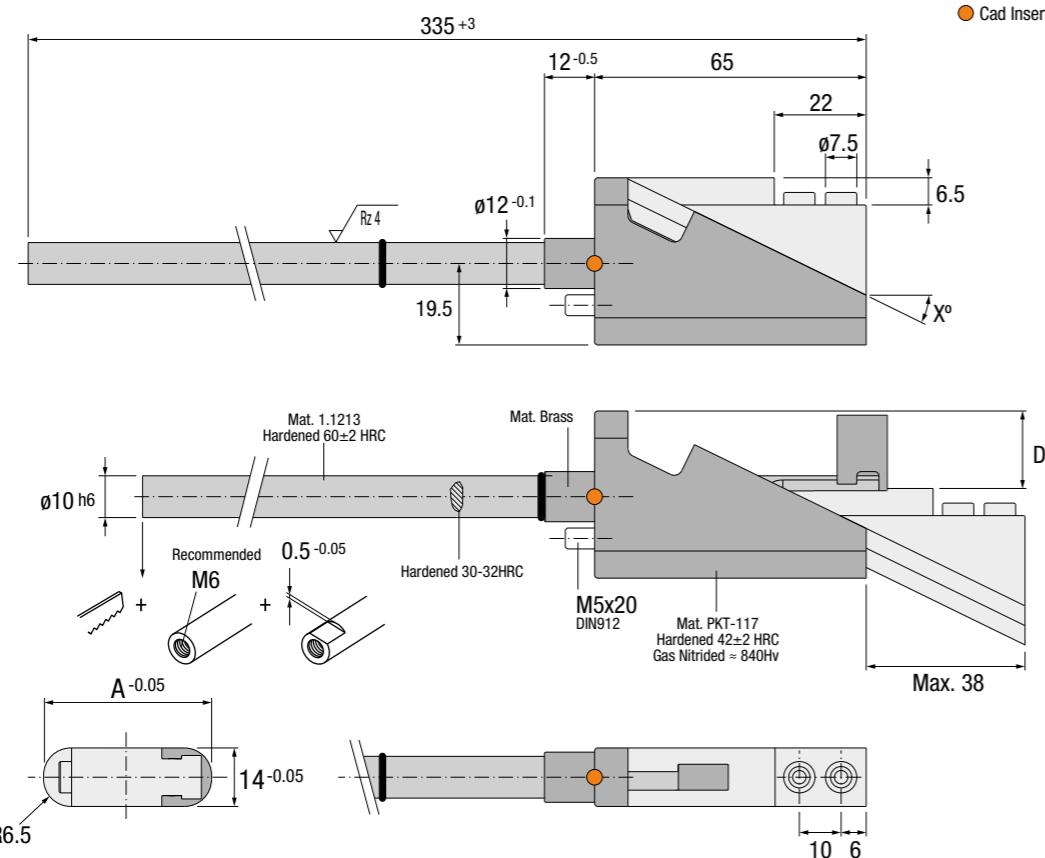
**Installation Guidelines**

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DOG LIFTER - DL

ES Patín Vertical - DL DE Vertikal Schrägschieber - DL
IT Pattino Automatico - DL PT - DL FR Cale Automatique - DL



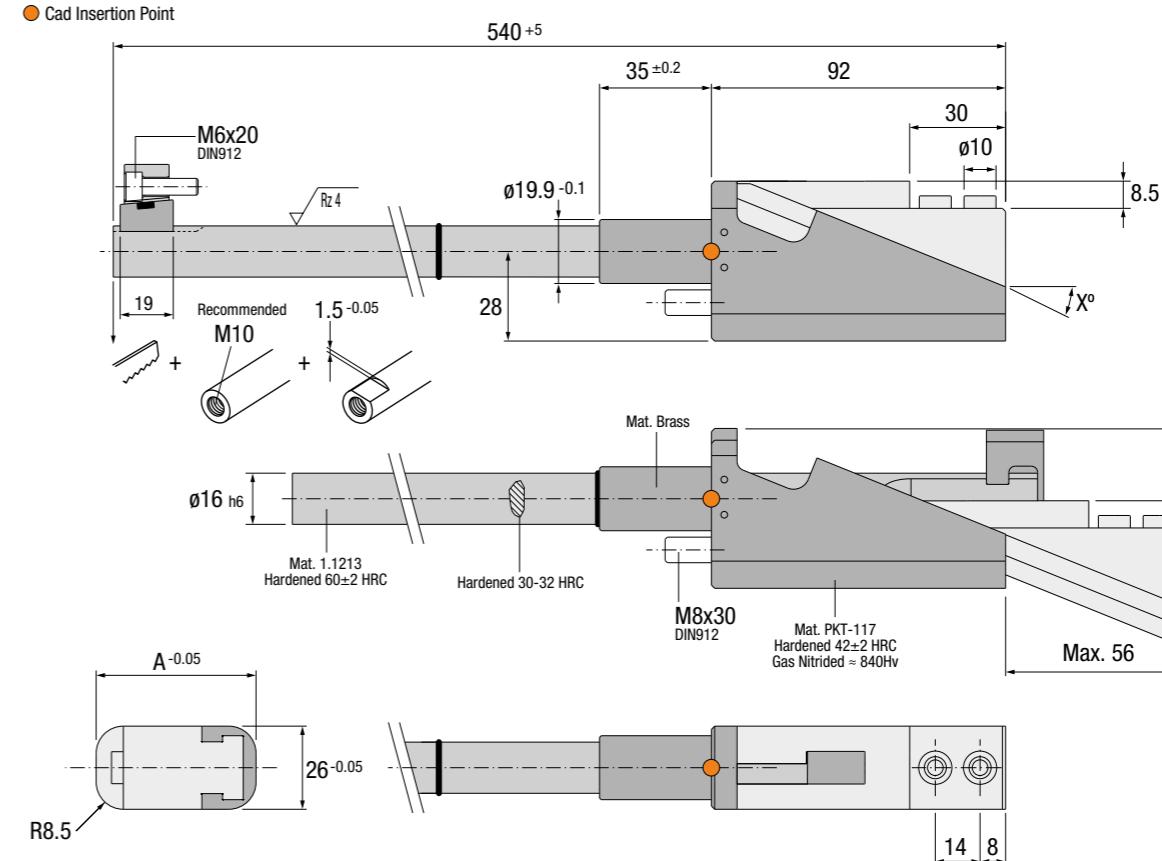
Ref.	A	D	T	X
DL.143465	34	12	M4x20	18
DL.144065	40	18	M4x25	26
DL.144665	46	22	M4x30	31

IMPORTANT !

Special angles available upon request, please contact: technical@cumsa.com
Ángulos especiales disponibles bajo demanda, por favor, contactar: technical@cumsa.com
Sonderwinkel auf Anfrage, bitte kontaktieren Sie: technical@cumsa.com
Angoli speciali disponibili su richiesta, nel caso, scrivete a: technical@cumsa.com
Ângulos especiais por encomenda, por favor contactar: technical@cumsa.com
Pour les angles spécifiques, merci de contacter: technical@cumsa.com

DOG LIFTER - DG

ES Patín Vertical - DG DE Vertikal Schrägschieber - DG
IT Pattino Automatico - DG PT Patim Automatico - DG FR Cale Automatique - DG



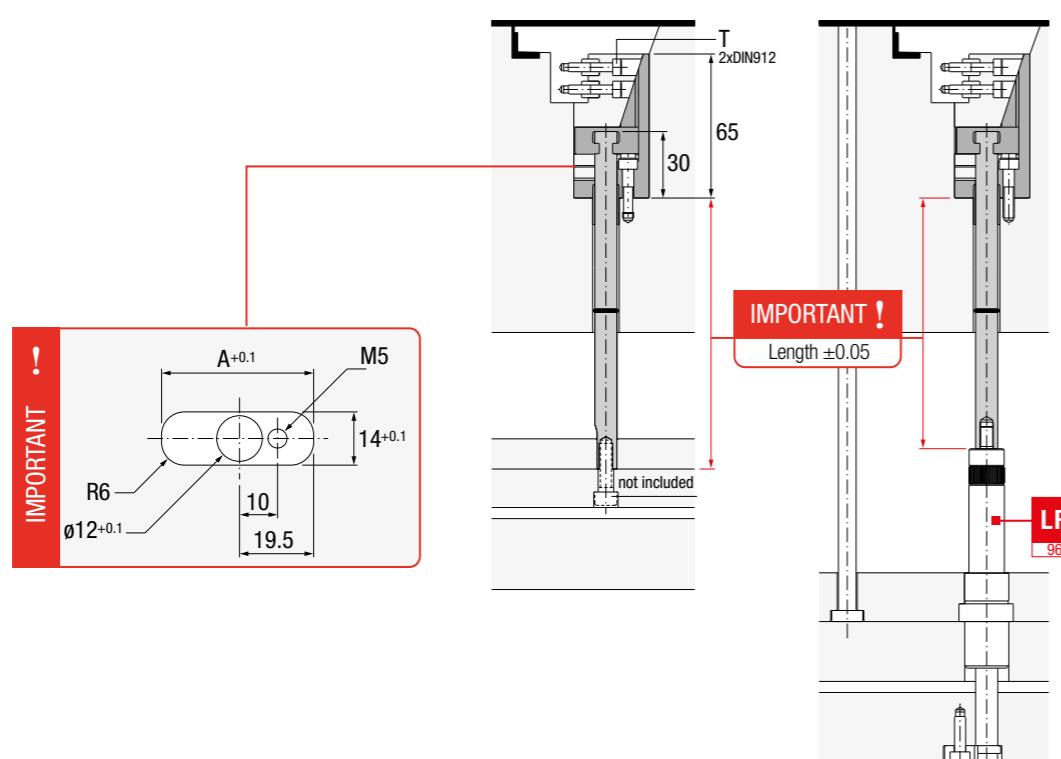
Ref.	A	D	T	X
DG.264592	45	16	M6x30	16
DG.265092	50	22	M6x30	22
DG.265592	55	26	M6x35	26

IMPORTANT !

Special angles available upon request, please contact: technical@cumsa.com
Ángulos especiales disponibles bajo demanda, por favor, contactar: technical@cumsa.com
Sonderwinkel auf Anfrage, bitte kontaktieren Sie: technical@cumsa.com
Angoli speciali disponibili su richiesta, nel caso, scrivete a: technical@cumsa.com
Ângulos especiais por encomenda, por favor contactar: technical@cumsa.com
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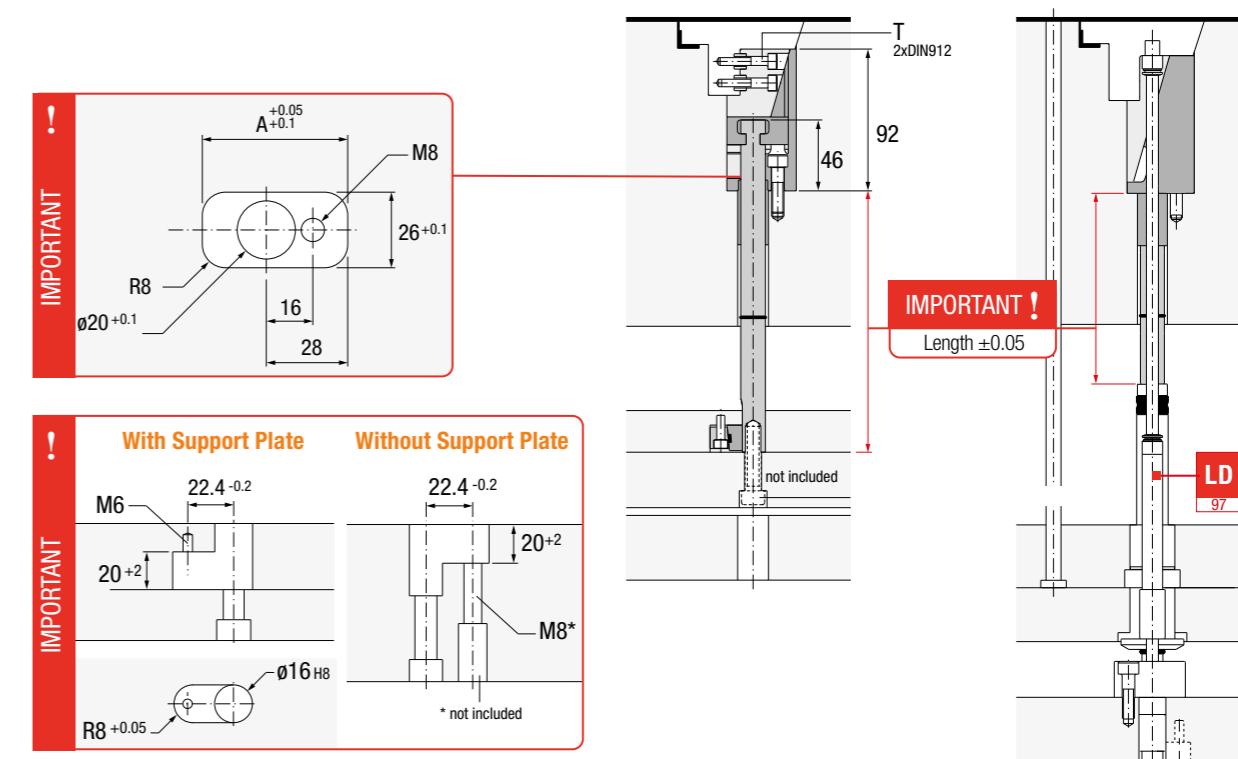
Installation Guidelines

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Installation Guidelines

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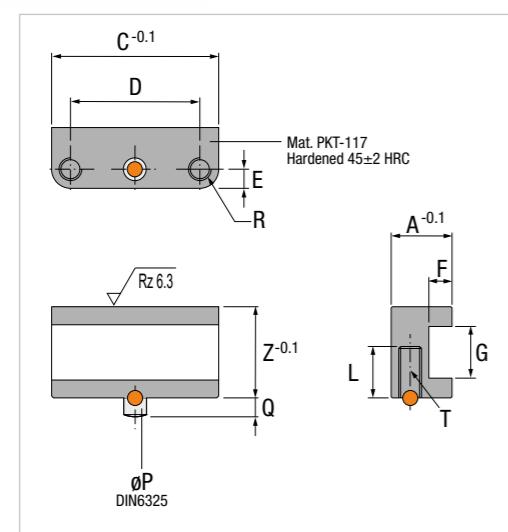




BD

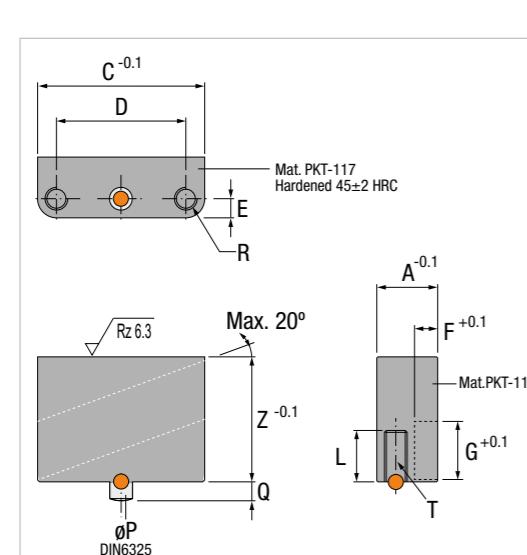
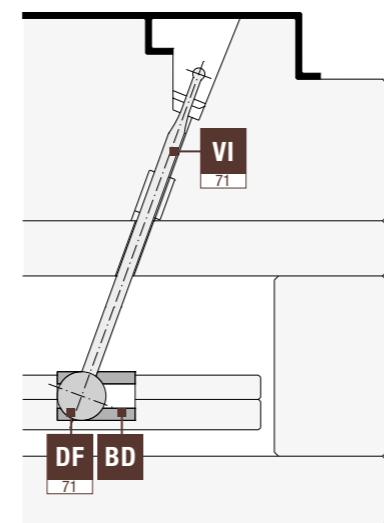
HORIZONTAL AND ADAPTABLE BASE

ES Base Deslizamiento DE Führungsplatte für Waagerechte und Schräge Fläche
IT Base di Soccorso PT Base Deslizamiento FR Embase de Mouvement

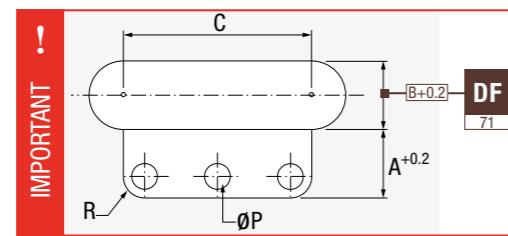


Ref.	A	C	D	E	F	G	L	P	Q	R	T	Z
BD.122036	12	36	28	4	4.8	11.5	10	5	5	4	M5	20
BD.142266	14	66	42	4	6.3	11.5	10	5	5	4	M5	22
BD.162440	16	40	30	5	6.3	13.5	12	6	5	5	M6	24
BD.203260	20	60	44	5	8.3	19	15	6	5	5	M6	32
BD.253872	25	72	56	7	10.3	21	18	8	5	6	M8	38
BD.314890	31	90	74	8	13.3	28	18	10	8	8	M10	48

Horizontal Undercuts



Ref.	A	C	D	E	F	G	L	P	Q	R	T	Z
BD.122836	12	36	28	4	4.8	11.5	10	5	5	4	M5	28
BD.143866	14	66	42	4	6.3	11.5	10	5	5	4	M5	38
BD.163240	16	40	30	5	6.3	13.5	12	6	5	5	M6	32
BD.204060	20	60	44	5	8.3	19	15	6	5	5	M6	40
BD.254672	25	72	56	7	10.3	21	18	8	5	6	M8	46
BD.315890	31	90	74	8	13.3	28	18	10	8	8	M10	58

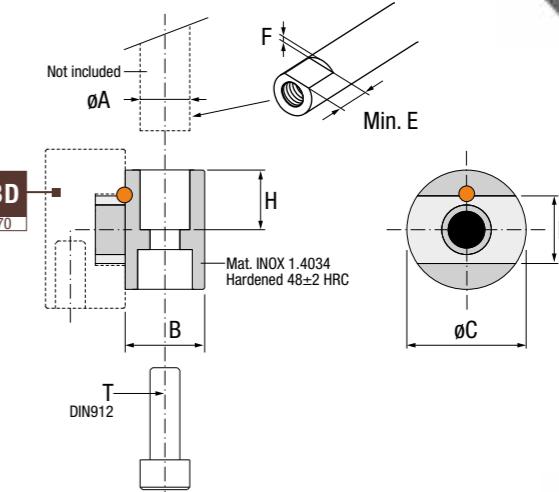


FIXED LIFTER BASE

ES Deslizamiento Fijo DE Gelenkstück für Schrägauswerfer
IT Scorrimento Fisso PT Deslizamento Fijo FR Glissière Fixe

● Cad Insertion Point

Ref.	A	B	C	D	E	F	H	T
DF.061220	6	12	20	11.5	12	0.5	10	M4x12
DF.081220	8	12	20	11.5	12	0.5	10	M5x12
DF.101624	10	16	24	13.5	14	0.5	12	M6x16
DF.121624	12	16	24	13.5	14	1	12	M8x16
DF.162032	16	20	32	19	18	1.5	16	M8x22
DF.202538	20	25	38	21	21	1.5	19	M10x25
DF.253148	25	31	48	28	26	2	24	M12x35



DF

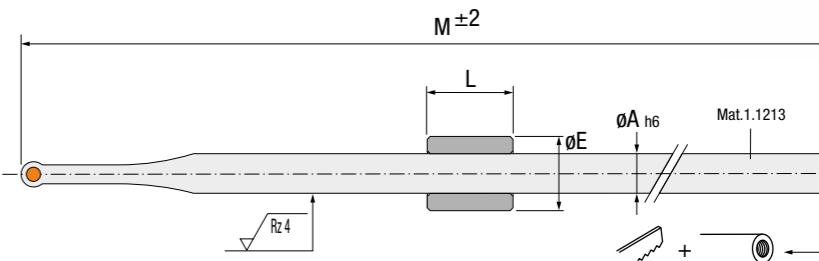
VI

LIFTER SHAFT

ES Varilla Figura DE Stange für Geteilten Auswerfer
IT Asta per inserto figura PT Haste Balancé FR Queue d'Aronde

● Cad Insertion Point

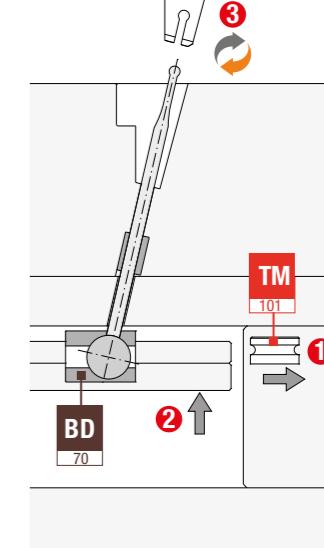
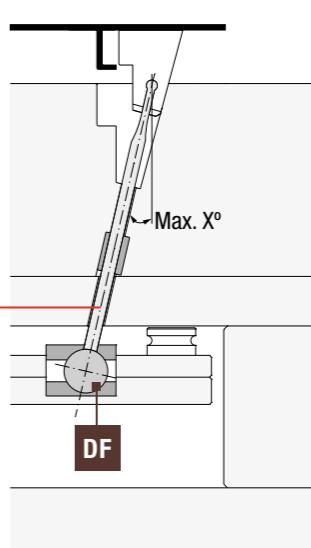
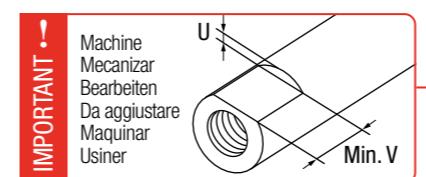
Ref.	A	E	L	M	U	V	X
VI.064200	6	10	15	214	0.5	12	5
VI.085200	8	12	20	217	0.5	12	10
VI.106200	10	14	20	219	0.5	14	15
VI.127200	12	16	20	222	1	14	20



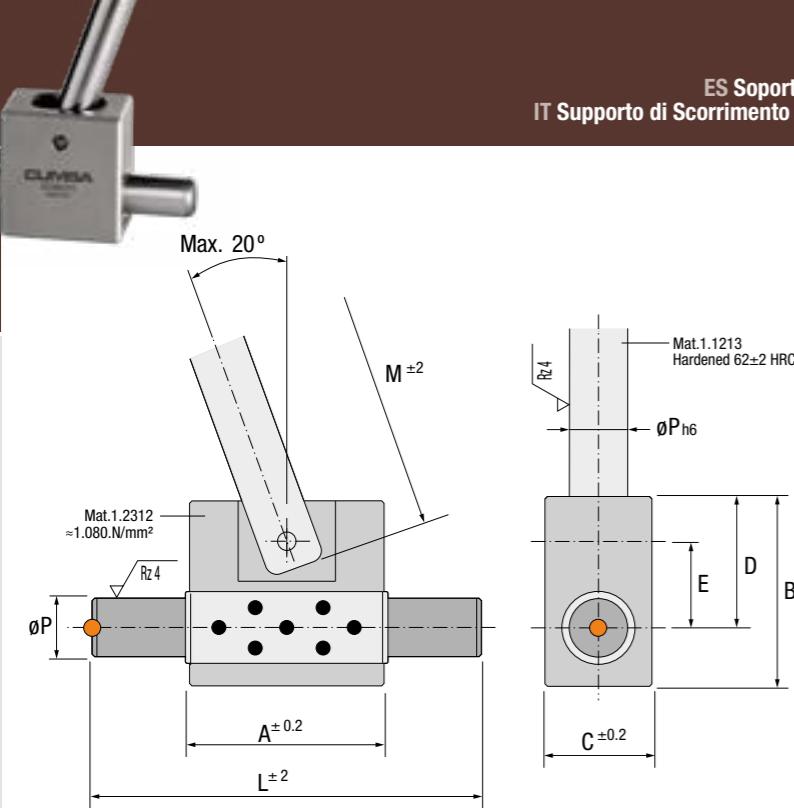
Patented

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SD



Ref.	A	B	C	D	E	L	M	P
SD.3220GR	32	37	20	27	18	80	180	10
SD.3824GR	38	40	24	28	19	80	210	12
SD.4528GR	45	44	28	30	21	100	250	16

IMPORTANT !

Longer M available as special.
Posibilidad de varilla (cota M) más larga.
Längere M-Maße als Sonderfertigung verfügbar.
Possibilità di avere M speciale di lunghezza maggiore.
Cota M de maiores dimensões por encomenda.
Possibilité de tige plus longue (cote M).

IMPORTANT !

The unit and the rod are delivered separately.
El cuerpo y la varilla se entregan separados.
Die Schubstange ist nicht montiert.
Il gruppo e l'asta si consegnano separatamente.
O corpo e a haste são fornecidos em separado.
Le corps et la tige sont livrés démontés.

ANGLED GUIDE BUSH

ES Casquillo Inclinado DE Schrägbuchse
IT Bussola Inclinata PT Casquilho Inclinado FR Cale Escamotable

Cad Insertion Point

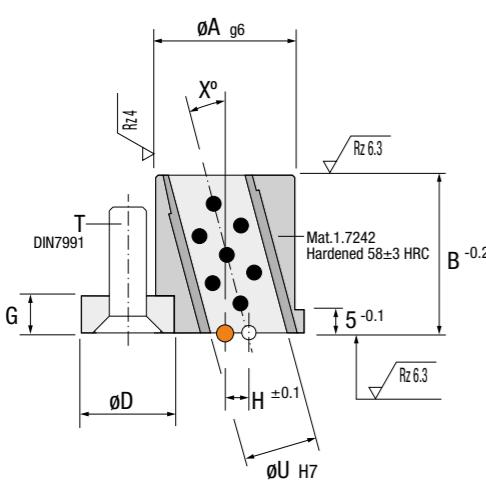
Ref.	A	B	C	D	E	G	H	S	T	U	X
CI.3034GR-5	30	34	34	16	20	6	0	M4x6	M6x16	10	5
CI.3438GR-5	34	38	38	20	24	8	0	M6x6	M8x20	12	5
CI.4040GR-5	40	40	44	20	27	8	0	M6x6	M8x20	16	5
CI.3034GR-10	30	34	34	16	20	6	7	M6x6	M6x16	10	10
CI.3438GR-10	34	38	38	20	24	8	8.5	M8x6	M8x20	12	10
CI.4040GR-10	40	40	44	20	27	8	8.5	M8x6	M8x20	16	10
CI.3034GR-15	30	34	34	16	20	6	7	M6x6	M6x16	10	15
CI.3438GR-15	34	38	38	20	24	8	8.5	M8x6	M8x20	12	15
CI.4040GR-15	40	40	44	20	27	8	8.5	M8x6	M8x20	16	15
CI.3034GR-20	30	34	34	16	20	6	7	M6x6	M6x16	10	20
CI.3438GR-20	34	38	38	20	24	8	8.5	M8x6	M8x20	12	20
CI.4040GR-20	40	40	44	20	27	8	8.5	M8x6	M8x20	16	20

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione
Instruções de Instalação · Mode d'Installation

Mold Closed

Mold Open



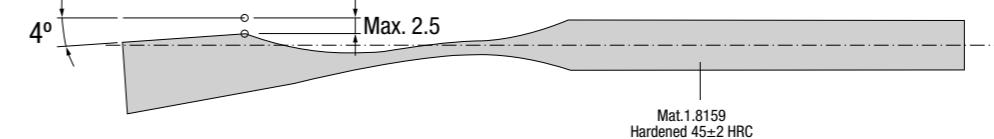
CUMSA

SPECIAL SPRUNG CORE

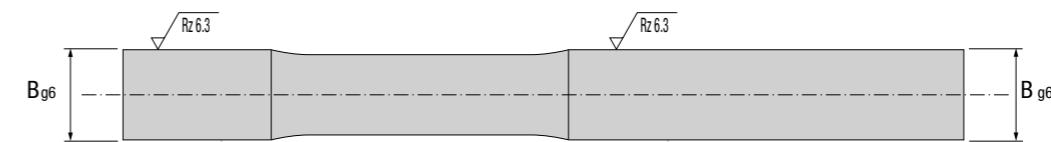
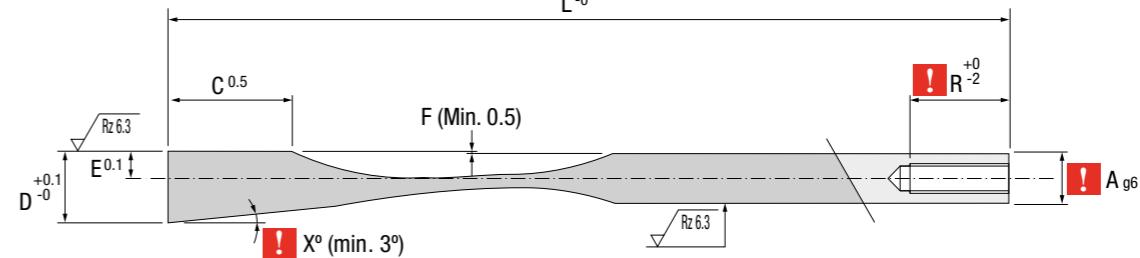
ES Pinza Plana Especial DE Sonder Federnder Auswerfer
IT Pinza Piana Speciale PT Pinça Plana Especial FR Ejecuteur de Forme Spécial

Cad Insertion Point

Open Position



Closed Position



IMPORTANT !

The dimensions A, R and X° will be determined by CUMSA depending on the head dimensions required by the customer.
Las cotas A, R y X° serán determinadas en CUMSA según las dimensiones de la cabeza solicitadas por el cliente.
Die Maße A, R, und X° werden von CUMSA festgelegt und sind abhängig von den gewünschten Kopfmaßen.
Le quote A, R e X° saranno determinate da CUMSA secondo le dimensioni della testa richieste dal cliente.
A cota A, R y X° serão determinadas pela CUMSA segundo as dimensões da cabeça solicitada pelo cliente.
Les cotes A, R et X° sont déterminées par CUMSA en fonction des dimensions de la tête de l'éjecteur.

Ref.	B	C	D	E	F	L	Quantity

How To Order This Part?

¿Cómo Realizar un Pedido? · Bestellvorgang · Come Realizzare un Ordine? · Como Realizar um Pedido? · Comment Effectuer une Commande?

1 ORDER. When the enquiry is received, Cumsa will design the sprung core and send the drawing to the customer, with the unit price and the delivery time, for acceptance.

ES PEDIDO. Una vez recibida la solicitud, CUMSA diseñará el plano de la pieza y lo enviará al cliente, junto con el precio y el plazo para su aprobación.

DE BESTELLUNG. Nach Erhalt der Anfrage erstellt CUMSA eine Zeichnung des Fed. Auswerfers incl. Stückpreis und Lieferzeit, die vom Kunden freigegeben werden muss.

IT ORDINE. Una volta ricevuta la richiesta, CUMSA disegnerà il progetto corrispondente e lo invierà al cliente, unito al prezzo e al tempo di consegna, per la sua approvazione.

PT PEDIDO. Uma vez recebida a consulta, a CUMSA desenha a peça e envia o mesmo para o cliente, com o preço e prazo para a sua aprovação.

FR COMMANDE : A la réception de votre demande, CUMSA dessinera le plan de détail de votre éjecteur spécial. Le dessin, ainsi que le prix et le délai seront joints dans l'attente de votre validation.

2 DELIVERY. 4 weeks, from order confirmation.

ES ENTREGA. El plazo de entrega es de 4 semanas, tras la confirmación del pedido.

DE LIEFERUNG. Lieferzeit 4 Wochen ab Auftragsbestätigung.

IT REALIZZAZIONE. Il tempo di consegna è di 4 settimane, data conferma ordine.

PT ENTREGA. O prazo de entrega é de 4 semanas a partir da data de confirmação.

FR REALISATION : Le délai de livraison est de 4 semaines, à partir de la validation de l'offre.



A black and white photograph of a mechanical assembly, likely a piston or cylinder, showing internal components like a connecting rod and bearings.

3

EJECTION

CUMSA
EP.502030
20070303

EJECTION INDEX

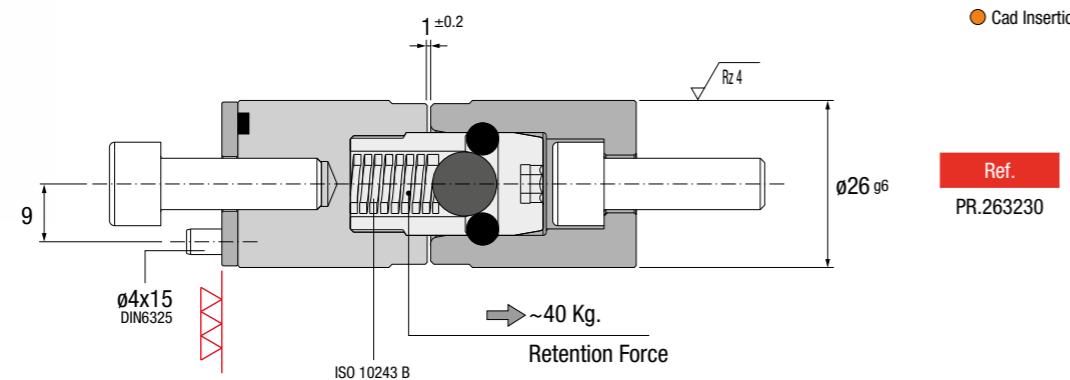
ÍNDICE EXPULSIÓN / INHALTSVERZEICHNIS AUSWERFEN
INDICE ESPULSIONE / ÍNDICE EXTRACÇÃO / INDEX ÉJECTIONS

	78/	Plate Retainer Retensor Placas Platten Verriegelung Ritensore Piastra Retensor de Placa Tire Plaques		78/	Stroke Limiter Limitador de Recorrido Hubbegrenzer Limitatore Apertura Limitador de Curso Limiteur de Course		79/	Modular Retainer Retensor Modular Mitnehmer Modular Ritensore Modulare Retensor Modular Retenu Modulée
	80/	Latch Lock Gatillo Simple / Klinkenzug Gancio Sgancio / Gatillo Simples Crochet Ouverture Gradué		81/	Internal Latch Lock Gatillo Interno / Interne Klinkenzug Gancio Sgancio Interno / Gatillo Interno Crochet Plaque Interne		82/	Superior Double Ejector Doble Expulsión Superior Zweistufenauswerfer DX Doppia Espulsione Superiore Dupla Extracção Superior Double Ejection Supérieur
	83/	Superior Plate Separator Separador Placas Superior Superior Zweistufenauswerfer Separatore Piastra Superiore Separador de Chapas Superior Séparateur de Plaques		84/	External Superior Plate Separator Separador Placas Superiores Externa Externe Obere Plattentrennung Separatore Piastra Superiori Esterno Separador Chapas Superior Externo Séparateur Plaque Supérieure Externe		92/	External Synchronized Plates Sincronizador de Placas Externo Externe Plattensynchronisation Sincronizzatore di Piastra Esterno Sincronizador Chapas Externo Synchronisation Mouvement Plaques
	86/	Plate Accelerator Elevador Placas Auswerferplatten-Beschleuniger Acceleratore Piastra Espulsione Acelerador de Chapa Accélérateur Batterie d'Éjection		87/	Double Ejection Doble Expulsión Zweistufenauswerfer Doppia Espulsione Dupla Extracção Double Ejection		88/	Rear Double Ejector Doble Expulsión Inferior Zweistufenauswerfer DY Doppia Espulsione Inferiore Dupla extracção inferior Double Ejection inférieur
	89/	Compact Double Ejection Doble Expulsión Compacta Kompakter Zweistufenauswerfer Doppia Espulsione Compatta Dupla Extracção Compacta Double Ejection Compact		90/	External Double Ejection Doble Expulsión Externa Externer Zweistufenauswerfer Doppia Espulsione Esterna Dupla Extracção Externa Double Éjection Externe		94/	EX-EY-EZ Rod Extension Alargo EX-EY-EZ EX-EY-EZ Verlängerungsstange Estensione EX-EY-EZ Extensor para EX-EY-EZ Extention pour EX-EY-EZ
	94/	EX-EY-EZ External Fixing Fijación Externa EX-EY-EZ EX-EY-EZ Externe Befestigung EX-EY-EZ Fissaggio Esterno Fixação Externa EX-EY-EZ Fixation Externa pour EX-EY-EZ		95/	Accelerated Ejector Acelerador Expulsión Vorschub-Auswerfer Acceleratore di Espulsione Acelerador de Extracção Accélérateur d'Éjection		96/	Threaded Limiter Limitador con Rosca Auswerfer Begrenzer mit Gewindeaufnahme Limitatore Filettato Limitador com Rosca Limiteur avec Vis
	96/	Threaded Limiter Adapter Adaptador para Limitador Roscado Gewindeadapter Adattatore per Limitatore Filettato Adaptador para Limitador Roscado Adaptateur pour Limiteur avec Vis		97/	Dog Lifter Limiter Limitador Patín Hubbegrenzer Limitatore Pattino Limitador Patim Automático Limiteur		98/	Ejector Base Base Expulsora Aufnahme für Auswerfer Base Espulsore Base de Extracção Embases d'Éjection
	99/	Headless Ejector Pin Varilla Expulsora Auswerfer ohne Kopf Asta Espulsore Extractor Sem Cabeça Ejecteur sans Tête		99/	Headless Ejector Sleeve Tubular Expulsión Auswerferhülsen ohne Kopf Espulsore Tubolare Extractor Tubular sem Cabeça Tubulaire sans Tête		100/	Ejector Foot Distanciador Placa Anschlagscheibe Distanziale Piastra Botão de Encosto Repos de Batterie
	100/	Safety Stopper Tope Magnético Abstandhalter, magnetisch Blocco Magnetico Bloco Magnético Butée Magnétique		101/	Ejector Plate Spacer Distanciador Placa Auswerferplatte Abstandhalter Distanziale Piastra Espaçador de Chapas Entretoise de Passage		101/	Shock Absorber Tope Amortiguador Dämpfungsscheibe Blocc Ammortizzante Batente Amortecedor Repos de Batterie avec Amortissement

PR

**PLATE RETAINER**

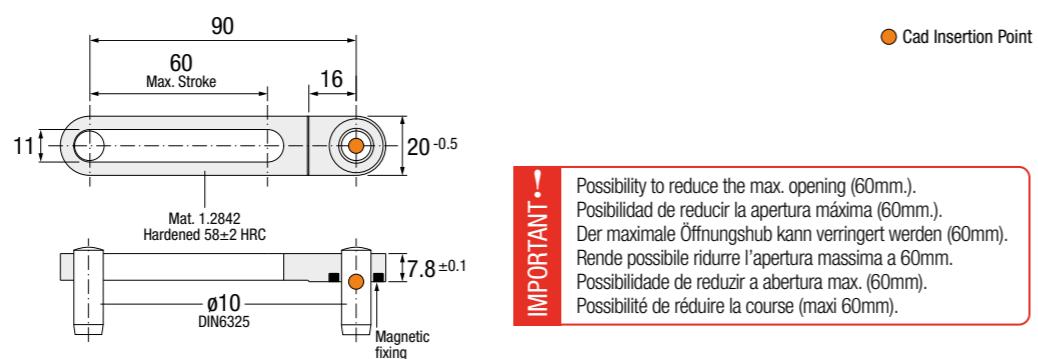
ES Retensor Placas DE Platten Verriegelung
IT Ritensore Piastra PT Retensor de Placa FR Tire Plaques



SL

**STROKE LIMITER**

ES Limitador de Recorrido DE Hubbegrenzer
IT Limitatore Apertura PT Limitador de Curso FR Limiteur de Course

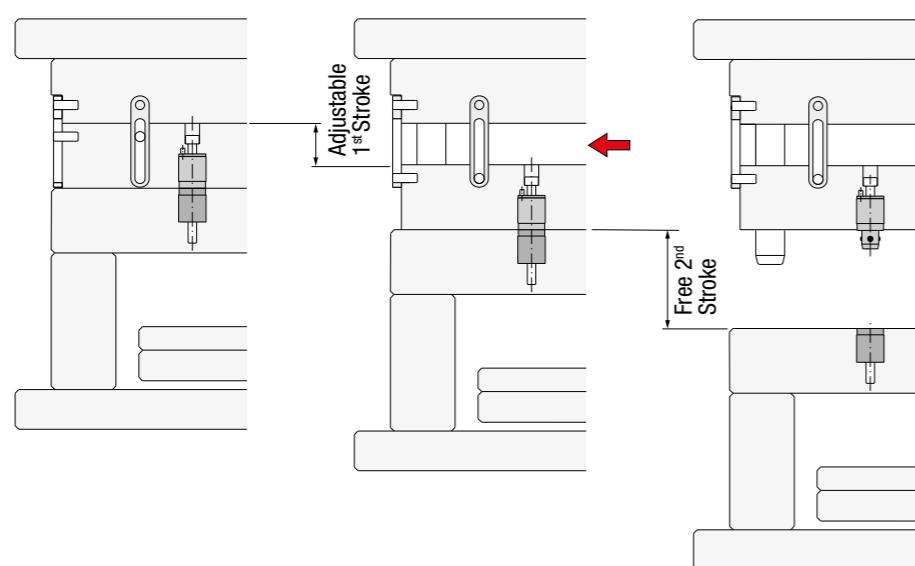


IMPORTANT !

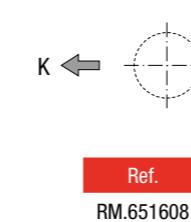
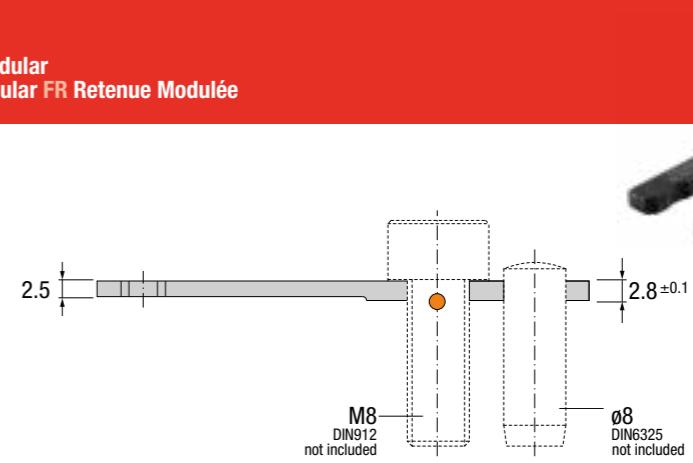
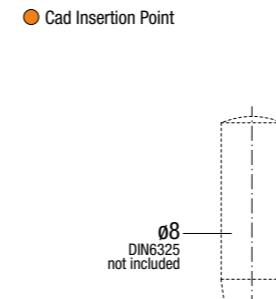
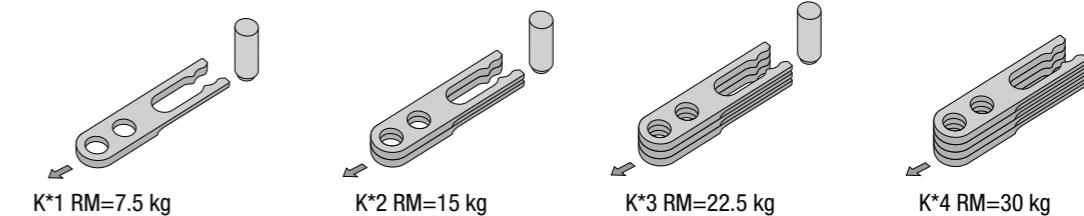
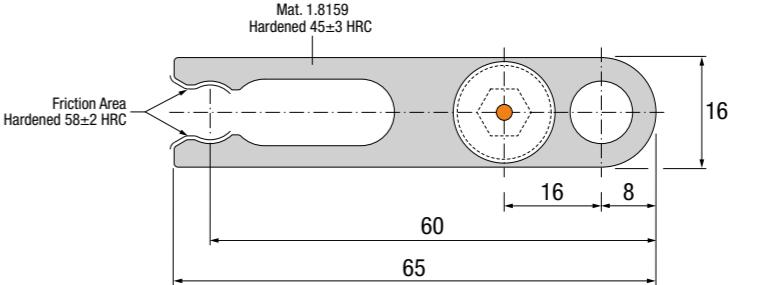
Possibility to reduce the max. opening (60mm.).
Posibilidad de reducir la apertura máxima (60mm.).
Der maximale Öffnungshub kann verringert werden (60mm).
Rende possibile ridurre l'apertura massima a 60mm.
Possibilitade de reduzir a abertura max. (60mm).
Possibilité de réduire la course (maxi 60mm).

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

**MODULAR RETAINER**

ES Retensor Modular DE Mitnehmer Modular
IT Ritensore Modulare PT Retensor Modular FR Retenue Modulée

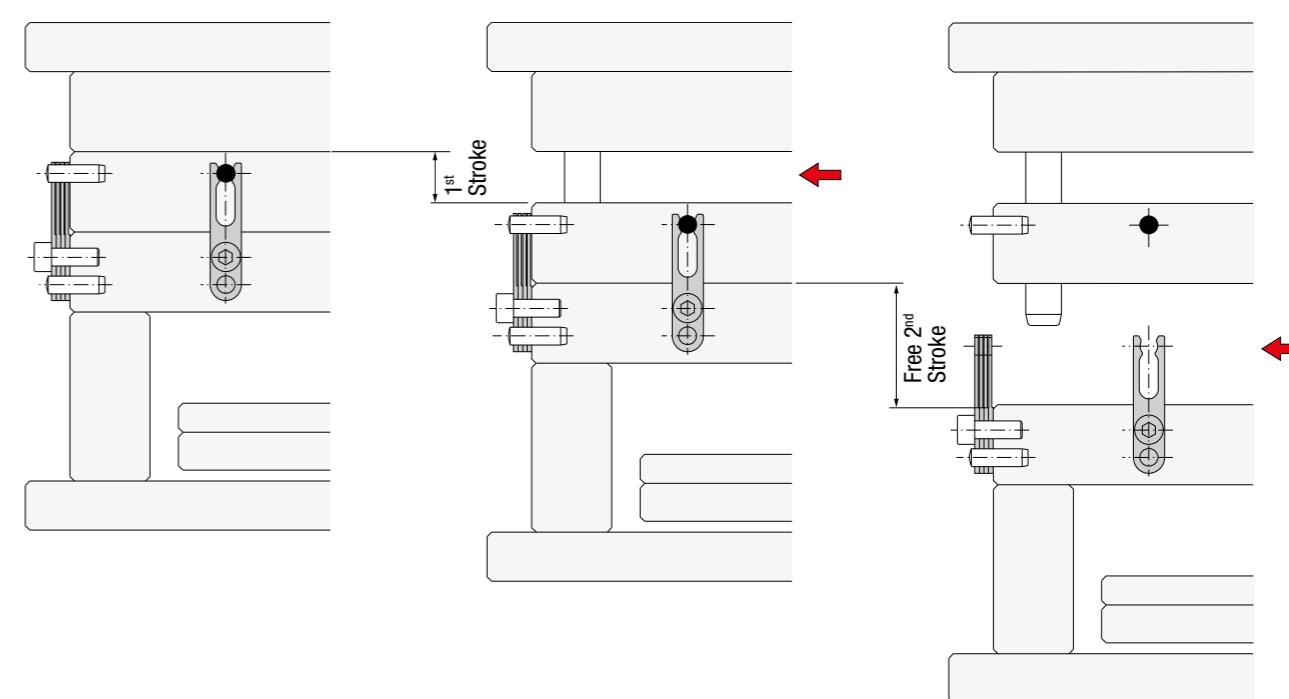
Ref.
RM.651608

IMPORTANT !

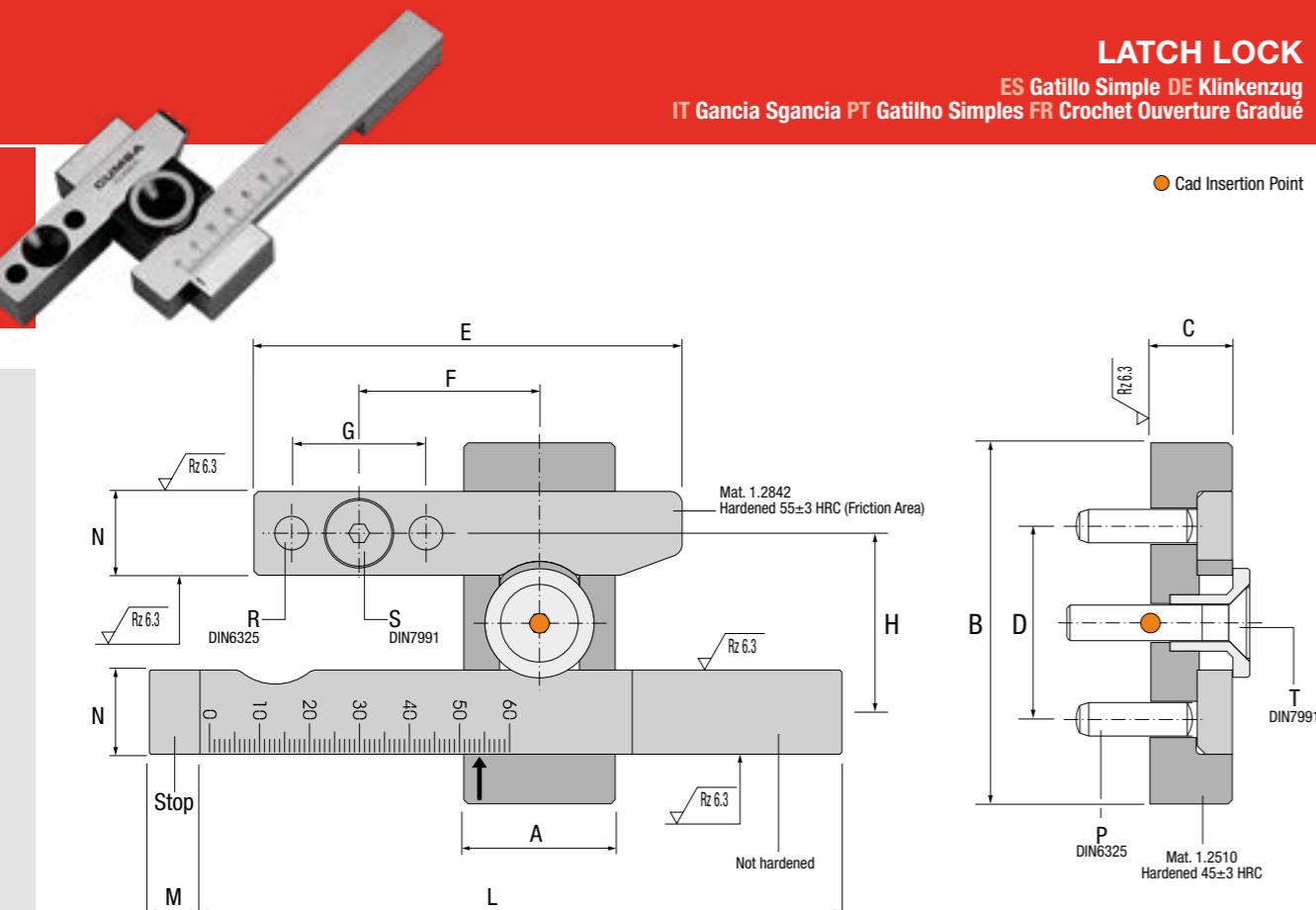
K=Approximate resistance value that can be obtained by grouping clips.
K=Valor aproximado da resistencia que se pode obter agrupando clips.
K=Zirka Widerstand beim Einbau entsprechend obiger Darstellung.
K=Valore approssimativo di resistenza che si può ottenere raggruppando più ritensori.
K=Valor aproximado de resistência que se pode obter agrupando clips.
K=Valeur approximative que l'on peut obtenir en assemblant les retenues.

Installation Guidelines

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GS

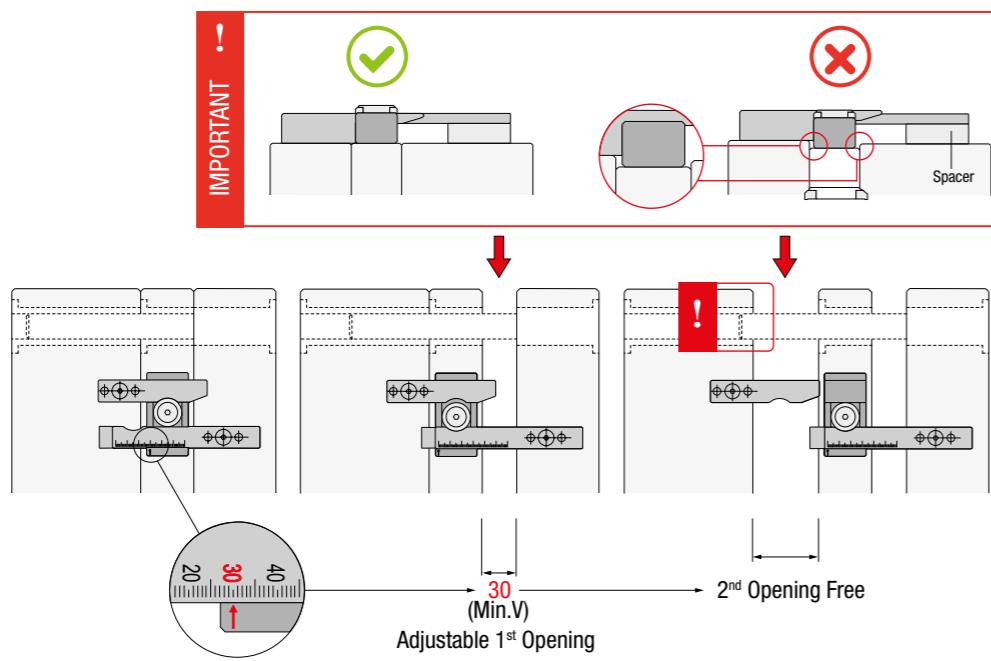
**IMPORTANT !**

After selecting the required stroke, fix the scale lever.
Después de seleccionar el recorrido deseado, fijar la leva graduada.
Nach der Wahl des gew. Hubes befestigen Sie die skalierte Leiste.
Dopo aver selezionato la corsa richiesta, fissare la riga graduata.
Depois de seleccionar o curso adequado, fixe a régua graduada.
Après avoir sélectionnée la course d'ouverture, fixer la règle graduée.

Ref.	A	B	C	D	E	F	G	H	L	M	N	P (x2)	R (x4)	S (x2)	T	V	Scale
GS.226616	22	66	16	38	75	30	25	32	105	10	15	Ø6x20	Ø6x30	M6x30	M6x35	10	40
GS.368619	36	86	19	46	102	43	32	42.7	153	12	20	Ø8x24	Ø8x36	M8x35	M8x40	11.5	60
GS.421024	42	106	24	56	124	51	40	50.2	190	15	24.5	Ø10x30	Ø10x40	M10x40	M10x45	14	80

Installation Guidelines

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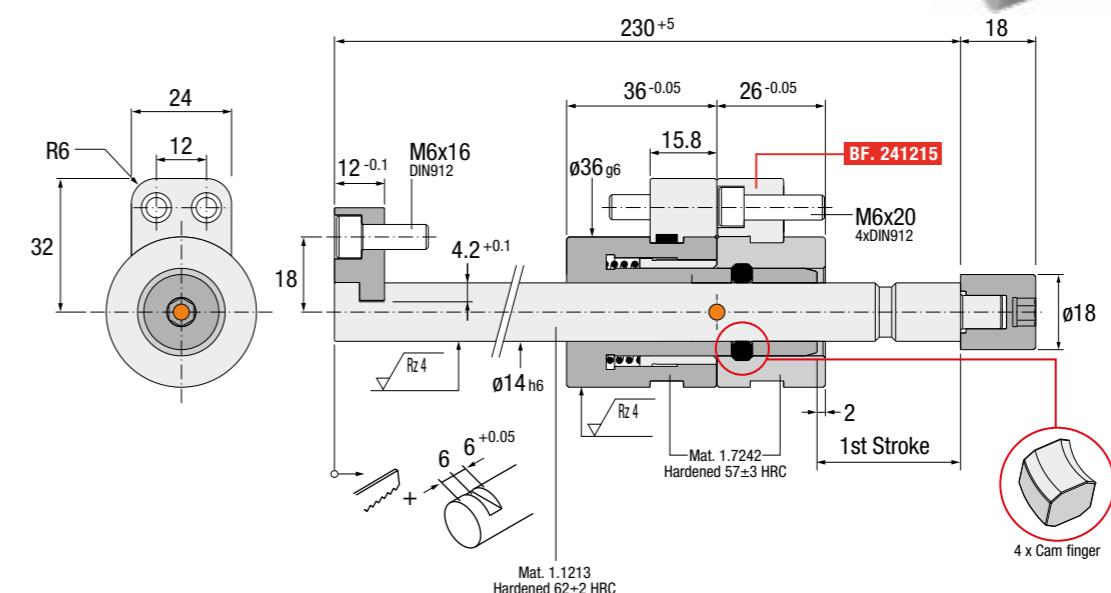
IMPORTANT !**LATCH LOCK**

ES Gatillo Simple DE Klinkenzug
IT Gancia Sgancia PT Gatilho Simples FR Crochet Ouverture Gradué

INTERNAL LATCH LOCK

ES Gatillo Interno DE Interne Klinkenzug
IT Gancia Sgancia Interno PT Gatilho Interno FR Tire Plaque Interne

● Cad Insertion Point



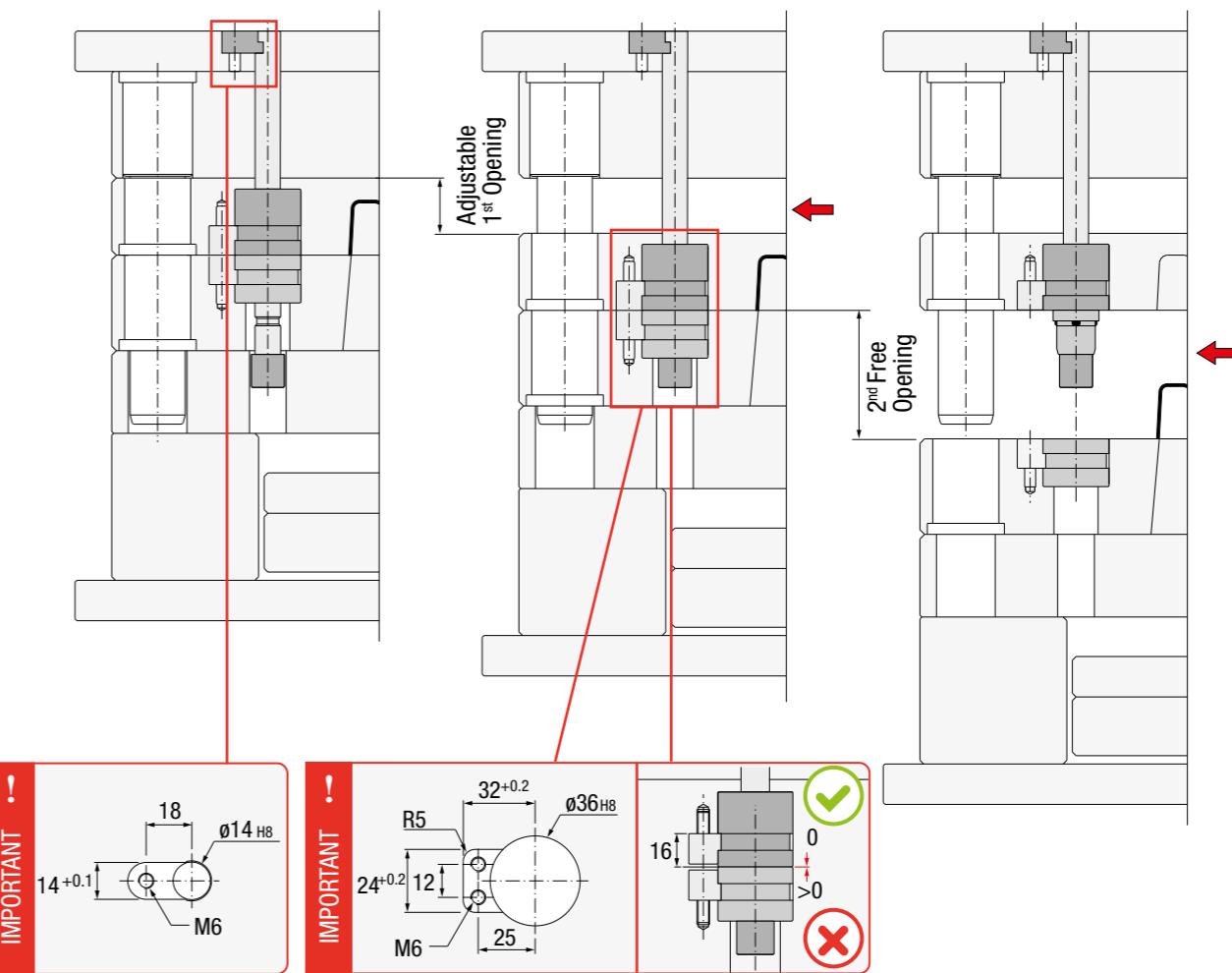
Ref. MX.143662

IMPORTANT !

2 BF.241215 units included. More units can be ordered separately.
Se sumintran 2 unidades de BF.241215. Se pueden pedir más unidades por separado.
2 St.BF.241215 enthalten. Mehr Einheiten können einzeln bestellt werden.
Vengono forniti 2 BF.241215. E' possibile ordinare altri separatamente.
2 unidades BF.241215 incluidas. Possibilidade de encomendar mais unidades individualmente.
2 unités BF.241215 inclus. Possibilité de commander à la pièce.

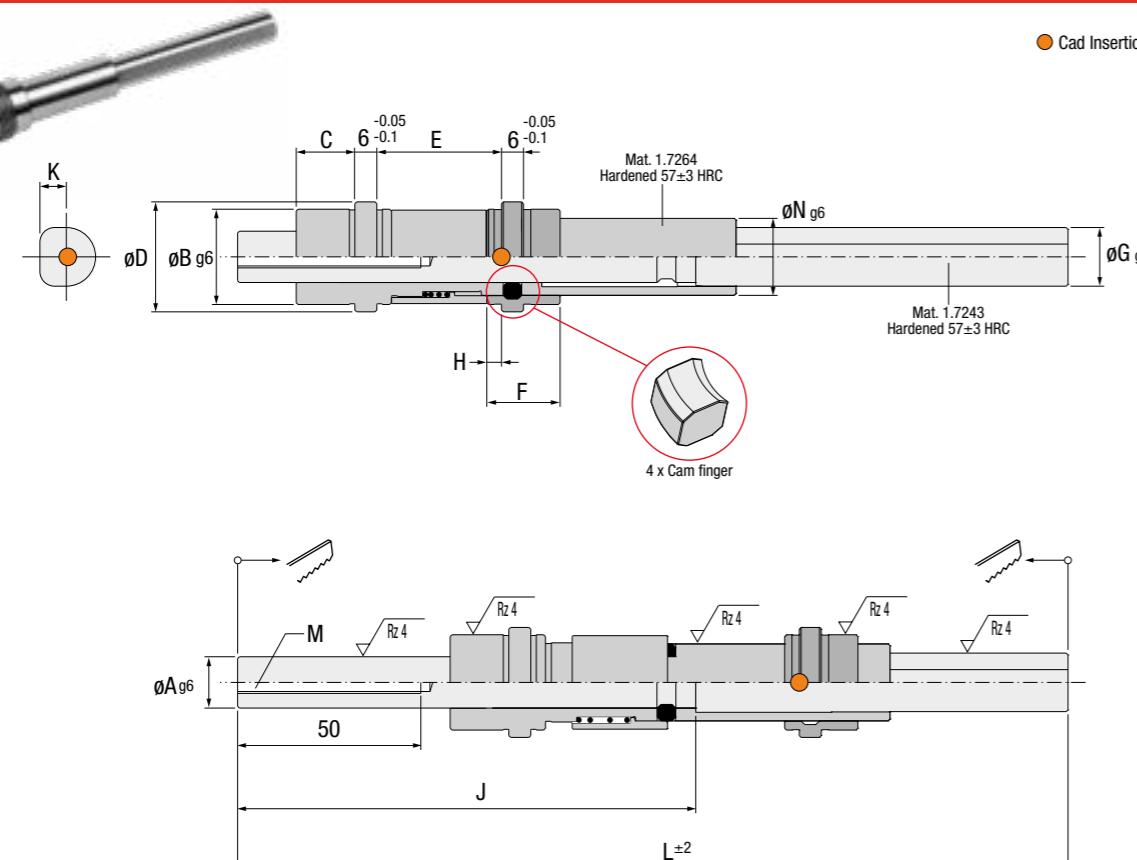
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SUPERIOR DOUBLE EJECTOR
 ES Doble Expulsión Superior DE Zweistufenauswerfer DX
 IT Doppia Espulsione Superiore PT Dupla Extração Superior FR Double Ejection Supérieur

DX



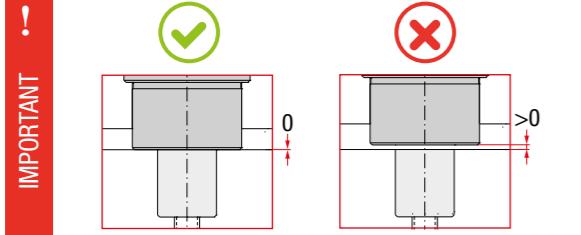
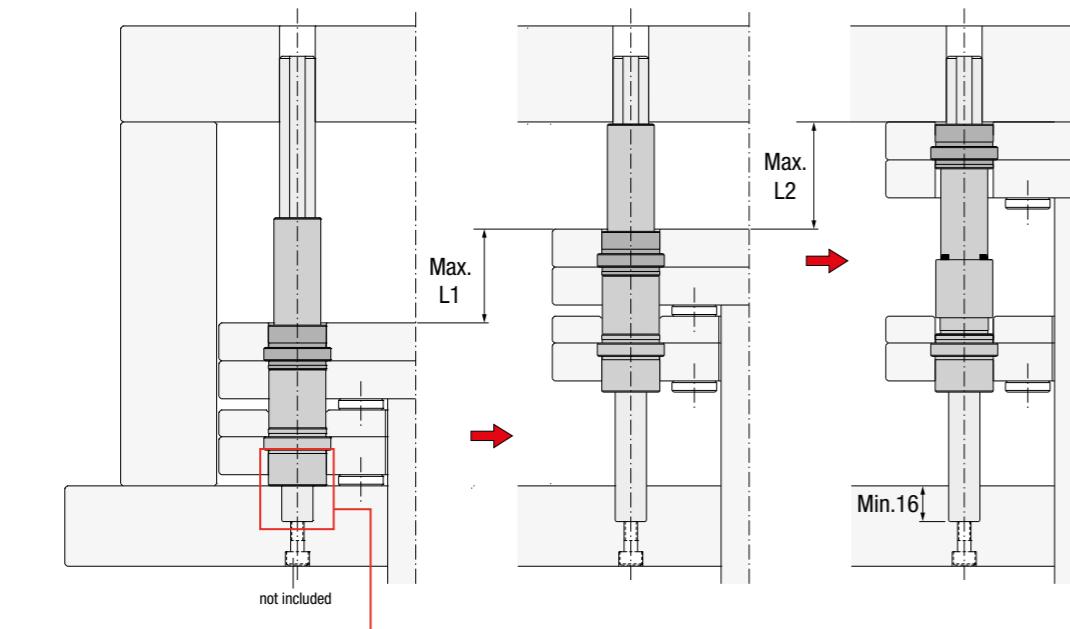
Patented



Ref.	A	B	C	D	E	F	G	H	J	K	L	M	N	L1	L2
DX.142622	14	26	16	30	34	20	16	4	125	7.2	243	M6	21	42	48
DX.163027	16	30	21	34	44	23	18	6	152	8	314	M8	24	54	80

Installation Guidelines

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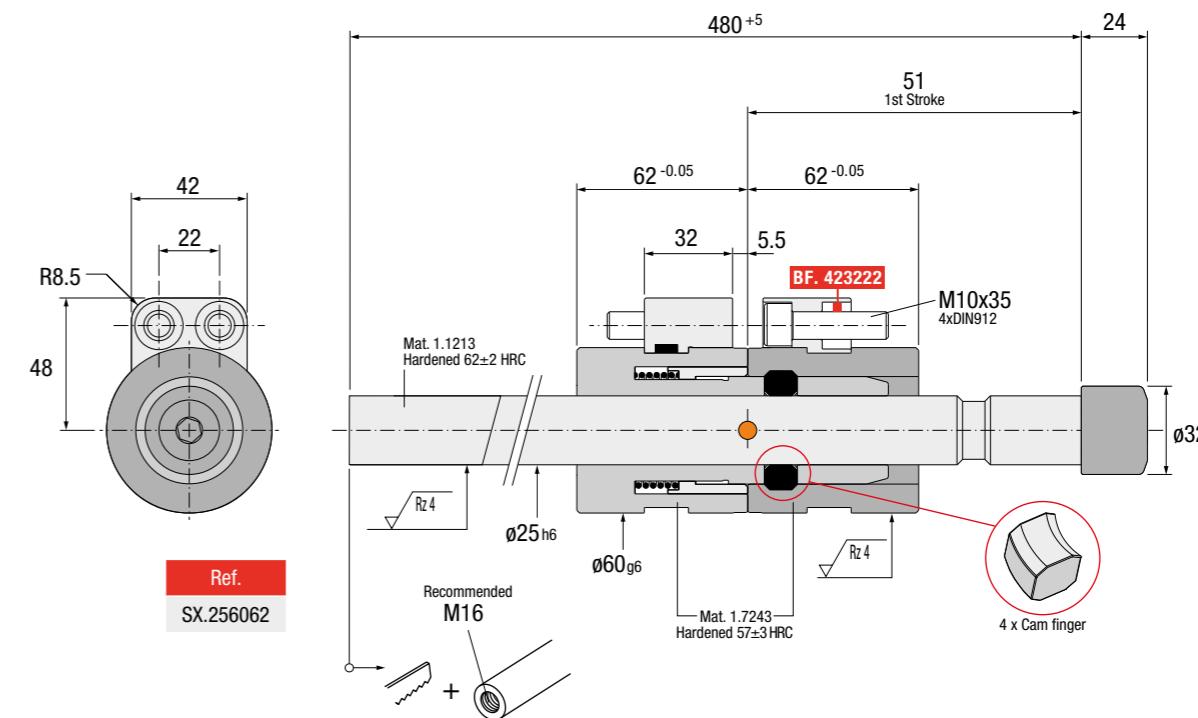


SUPERIOR PLATE SEPARATOR

ES Separador Placas Superior DE Superior Zweistufenauswerfer
 IT Separatore Piastra Superiore PT Separador de Chapas Superior FR Séparateur de Plaques

SX

● Cad Insertion Point

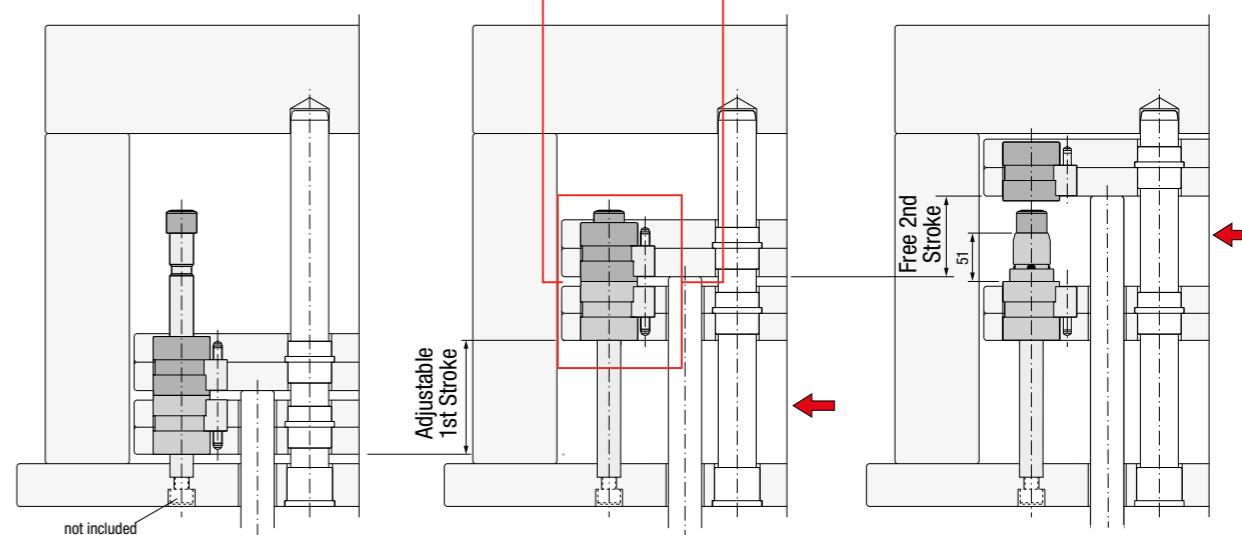
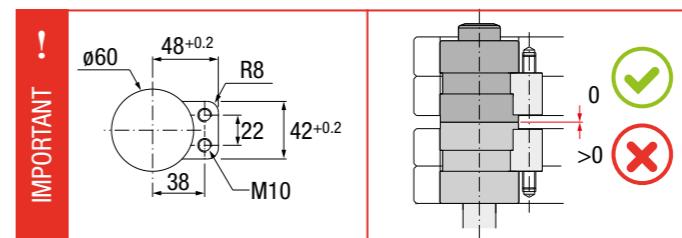


IMPORTANT !

2 BF.423222 units included. More units can be ordered separately.
 Se suministran 2 unidades de BF.423222. Se pueden pedir más unidades por separado.
 2 St. BF.423222 enthalten. Mehr Einheiten können einzeln bestellt werden.
 Vengono forniti 2 BF.423222. E' possibile ordinarne altri separatamente.
 2 unidades BF.423222 incluidas. Possibilidade de encomendar mais unidades individualmente.
 2 unités BF.423222 inclus. Possibilité de commander à la pièce.

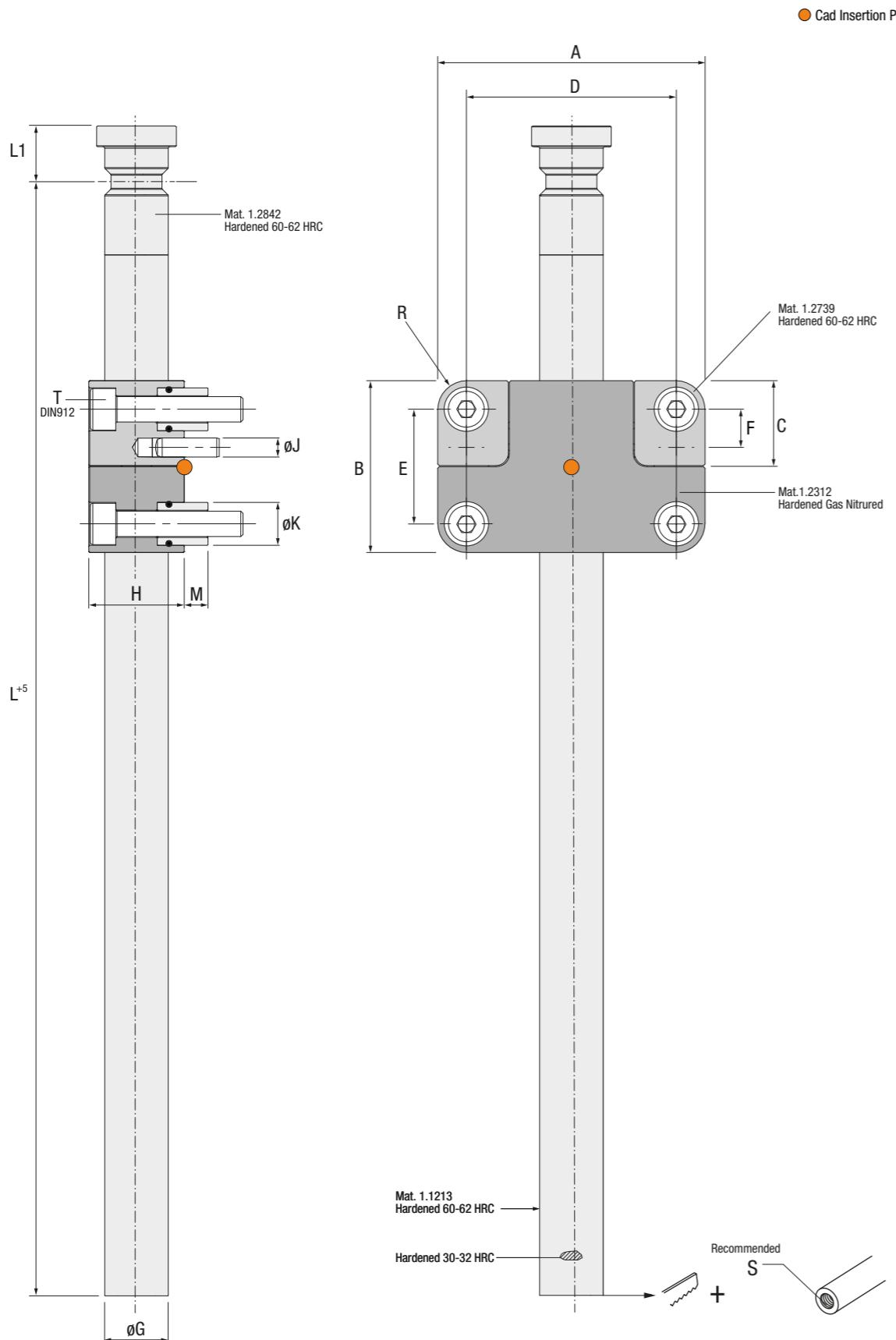
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



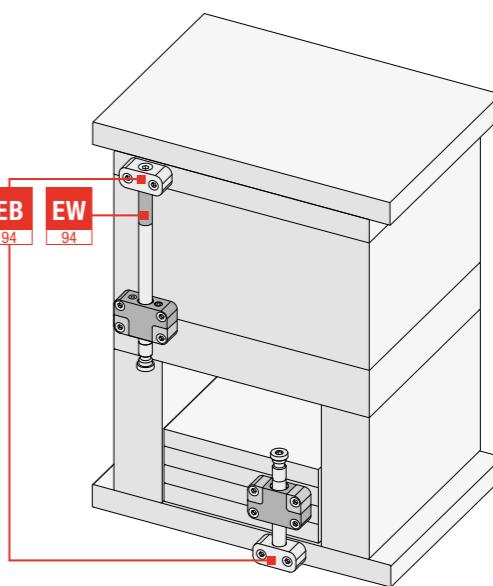
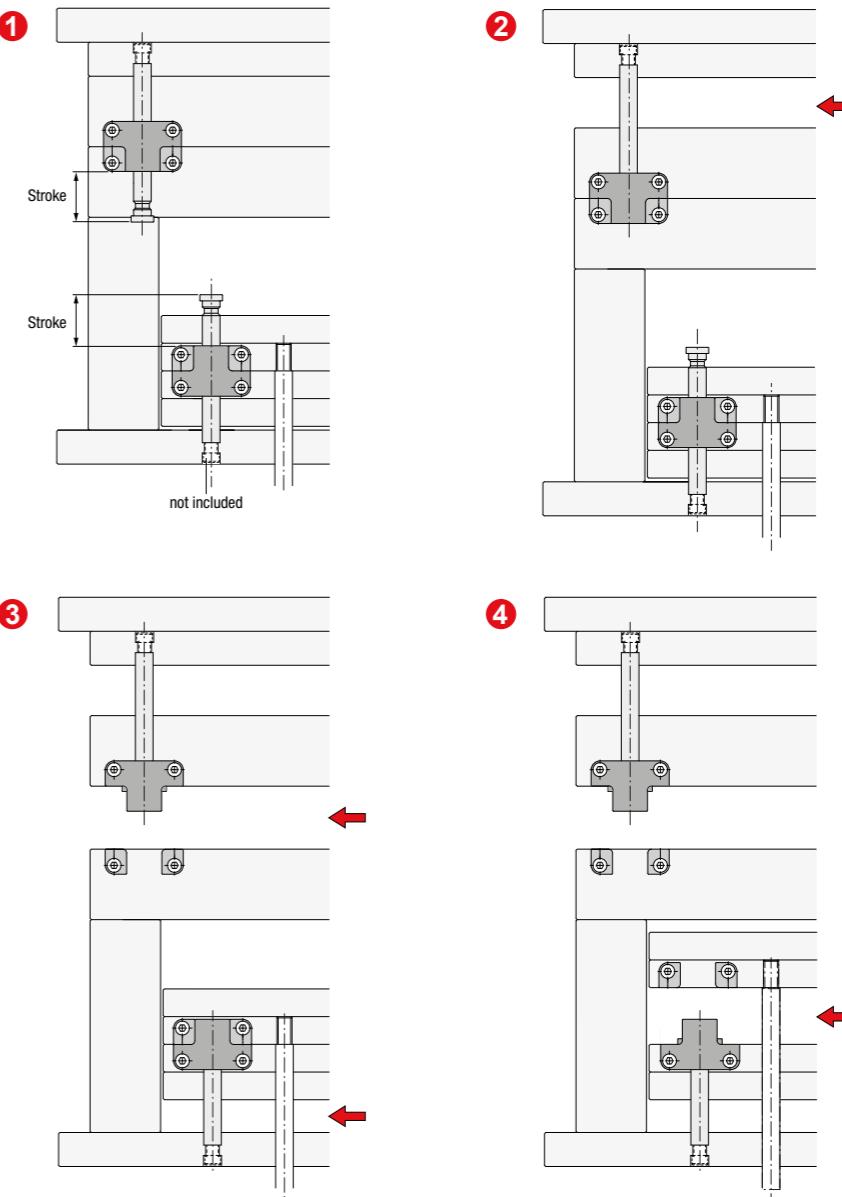
EXTERNAL SUPERIOR PLATE SEPARATOR

ES Separador Placas Superiores Externa DE Externe Obere Plattentrennung
IT Separatore Piastre Superiori Esterno PT Separador Chapas Superior Extero FR Séparateur Plaque Supérieure Externe



INSTALLATION GUIDELINES

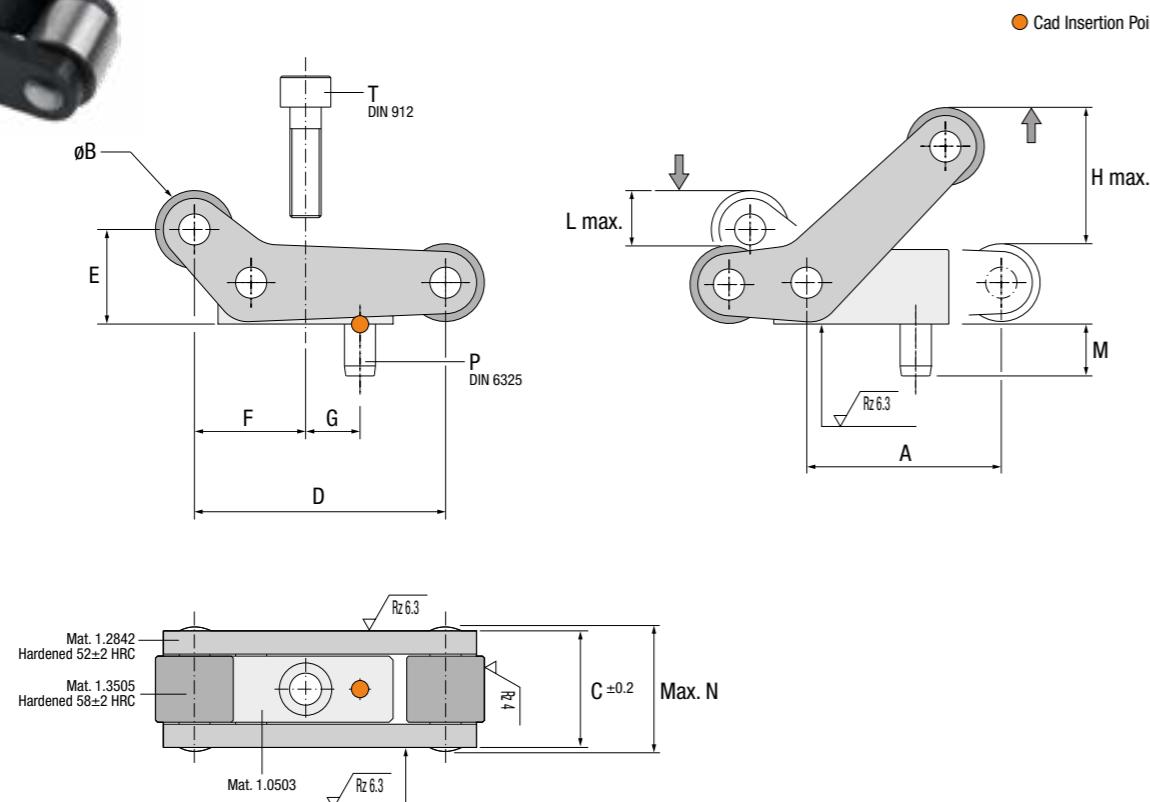
ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation



Ref.	A	B	C	D	E	F	G	H	J	K	L	L1	M	R	S	T	Min. Stroke	Max. Stroke	RF (N)
EX.140600	62	40	20	48	26	9	14	22	$\varnothing 4x14$ (DIN6325)	10.5	348	13	5.5	7.2	M8	M6x30	4	250	4.000
EX.200800	84	54	27	66	36	12	20	30	$\varnothing 6x20$ (DIN7979)	13.5	348	17.5	7.5	9.2	M12	M8x40	5	250	9.000
EX.321200	126	84	42	102	60	20	32	46	$\varnothing 10x30$ (DIN7979)	18.5	530	27	11.5	12.5	M16	M12x65	8	375	20.000
EX.501600	174	120	60	140	86	26	50	64	$\varnothing 12x40$ (DIN7979)	25	530	40	15.5	17	M24	M16x90	10	375	40.000



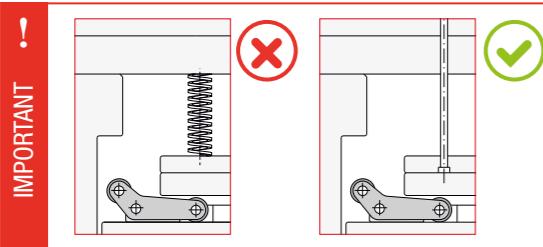
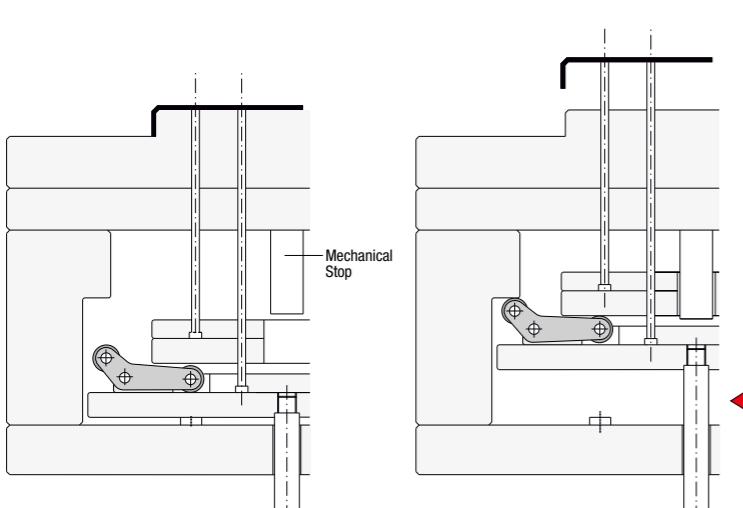
PLATE ACCELERATOR
 ES Elevador Placas DE Auswerferplatten-Beschleuniger
 IT Accelleratore Piastra Espulsione PT Accelerador de Chapa FR Accélérateur Batterie d'Éjection



Ref.	A	B	C	D	E	F	G	H max.	L max.	M	N	P	T	Max. Force
EP.200813	20	8	13.2	25.8	9.4	11.4	5.9	11.6	4.4	5	15	Ø2.5x10	M3x12	125 kg.
EP.251016	25	10	16	32.3	11.8	14.3	7	15	5.7	6	18.5	Ø3x12	M4x16	250 kg.
EP.371522	37.5	15	22	48.5	17.7	21.5	10.5	23.5	9.1	8	25	Ø4x16	M6x25	350 kg.
EP.502030	50	20	30	64.6	23.6	28.6	14	32	12.5	10	34	Ø5x20	M8x30	800 kg.

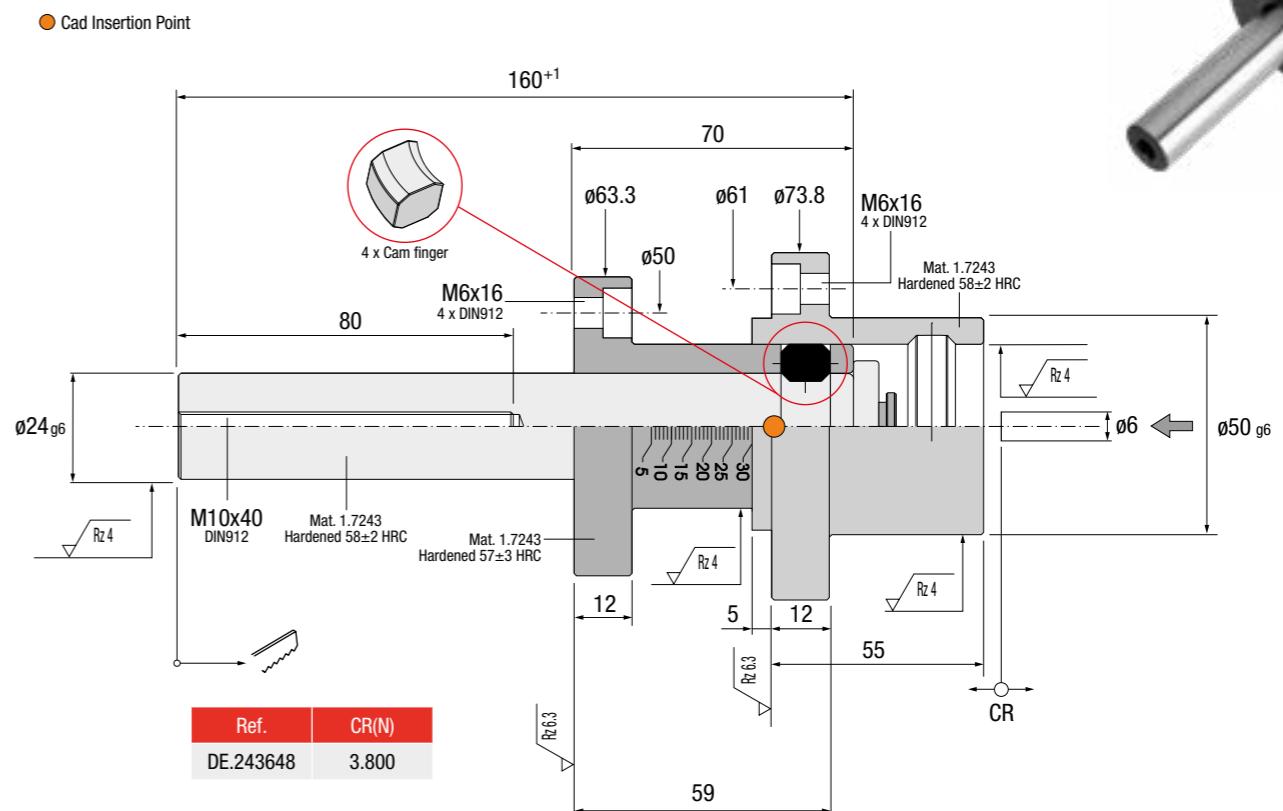
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



DOUBLE EJECTION

ES Doble Expulsión DE Zweistufenauswerfer
 IT Doppia Espulsione PT Dupla Extração FR Double Ejection

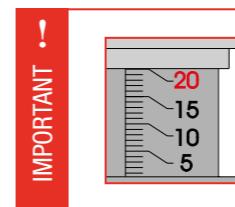


IMPORTANT !

Use the scale from 0 to 30mm, to select the first stroke.
 Seleccionar el primer recorrido mediante la regulación de 0 a 30 mm.
 Um den 1. Hub festzulegen, die Einteilung von 0 - 30 mm.
 Selezionare la prima corsa mediante la regolazione da 0 a 30mm.
 Seleccionar o primeiro curso mediante a regulação de 0 a 30 mm.
 Sélectionner la 1ère course par le curseur de 0 à 30 mm.

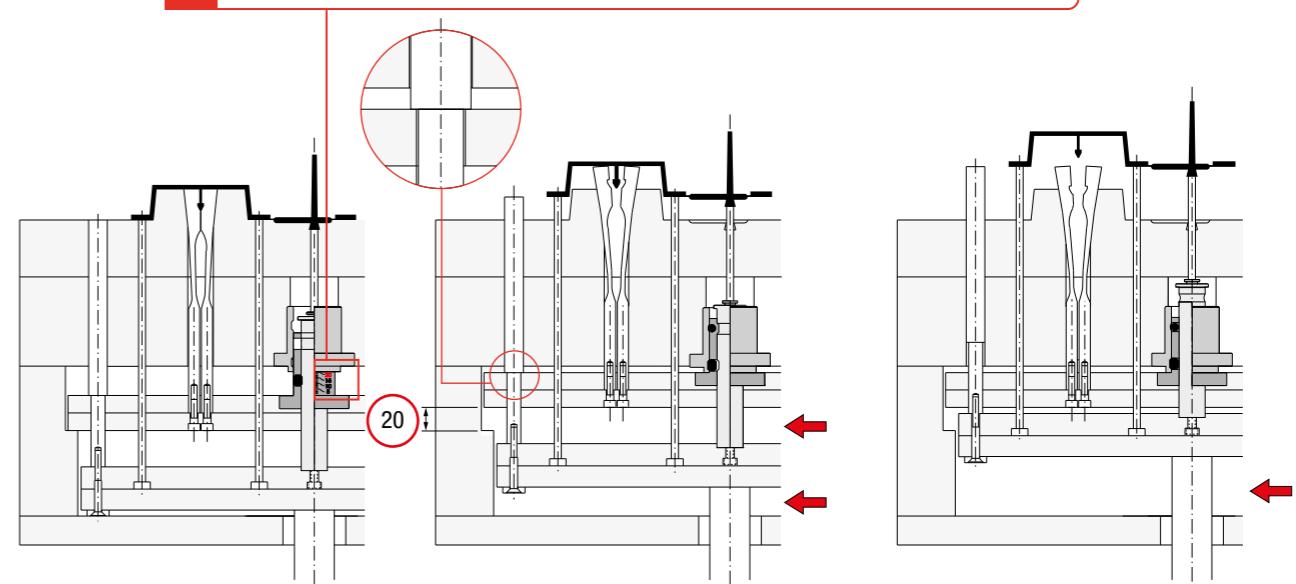
Installation Guidelines

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Adjustable 1st opening
 Ajustable en la 1^a apertura
 Werkzeug öffnet Trennebene 1, Platte blockt
 1^a apertura regolabile.
 1^a abertura ajustavel
 1ère ouverture ajustable

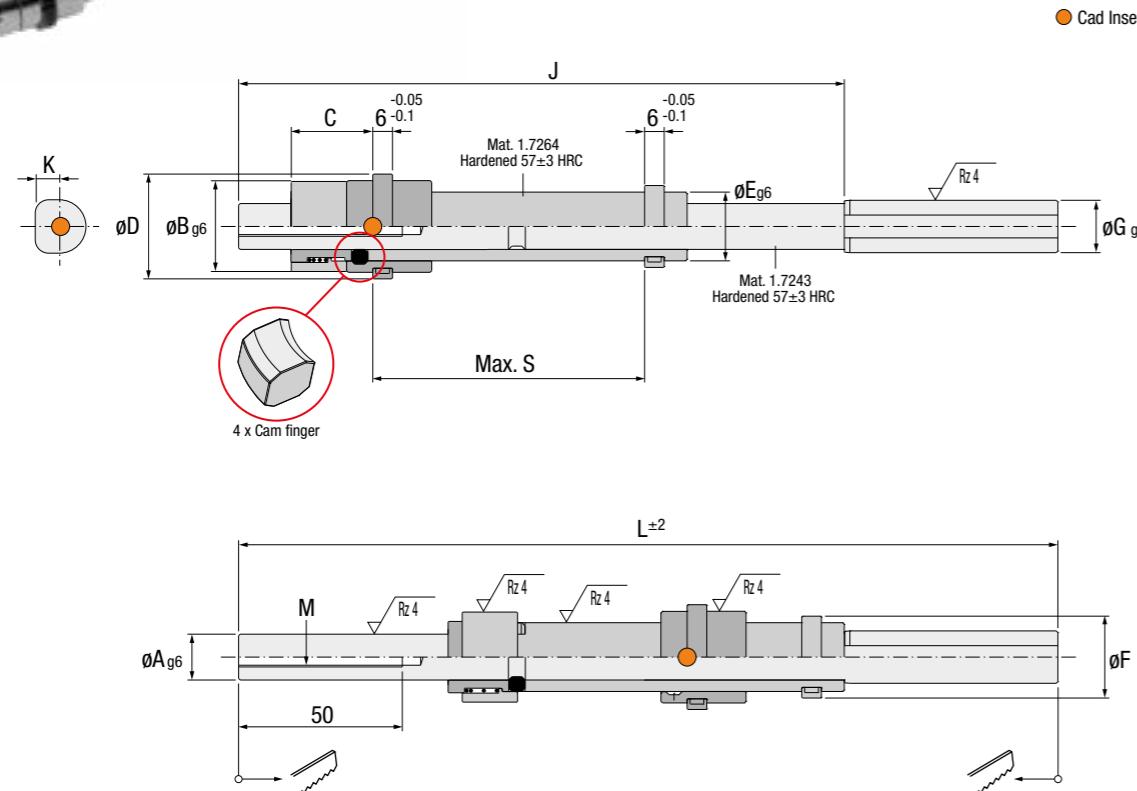
And free 2nd Opening
 Y 2^a Apertura libre
 Und freien 2. Hub
 E una 2^a corsa libera
 E um 2^o curso livre
 Puis un 2^{ème} mouvement libre





REAR DOUBLE EJECTOR

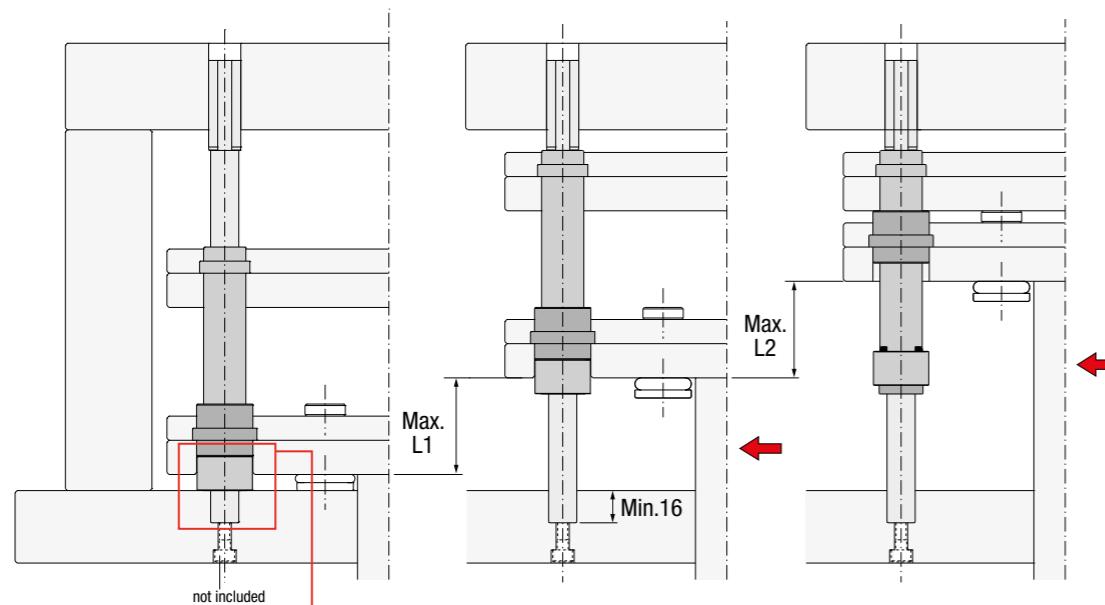
IT Doppia Espulsione Inferiore **PT Dupla extracção inferior** **FR Double Ejection inférieur**



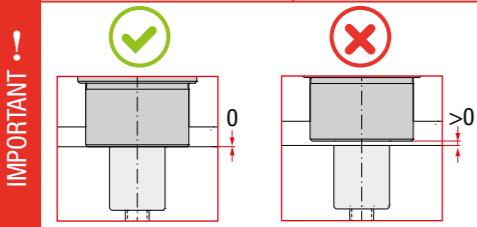
Ref.	A	B	C	D	E	F	G	J	K	L	M	L1	L2	S
DY.142825	14	28	25	32	21	25	16	185	7.2	270	M6	48	62	8
DY.163230	16	32	30	36	24	28	18	252	8	337	M8	60	89	12

— Installation Guideline

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

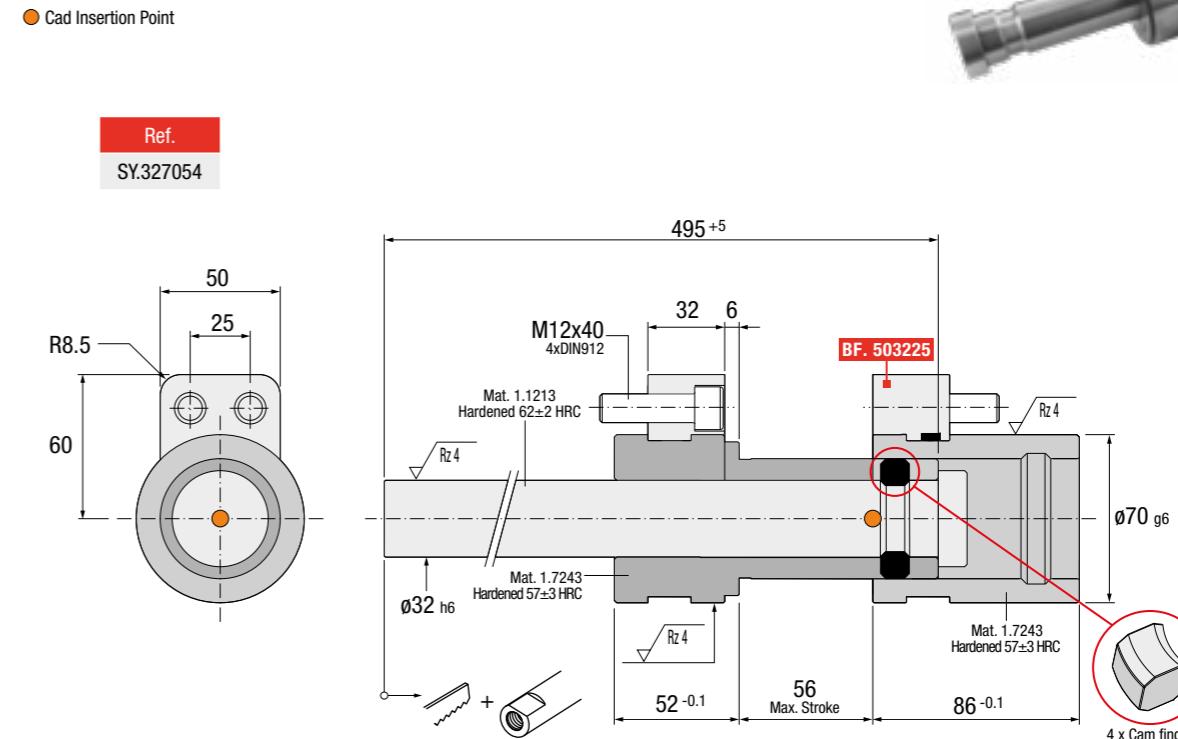


IMPORTANT !



COMPACT DOUBLE EJECTION

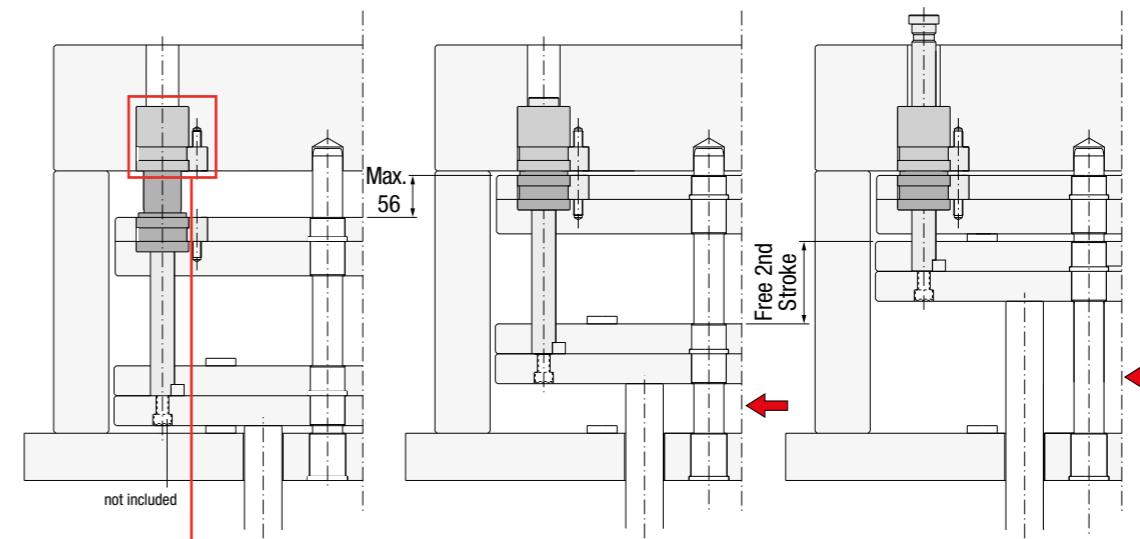
**ES Doble Expulsión Compacta DE Kompakter Zweistufenauswerfer
IT Doppia Espulsione Compatta PT Dupla Extração Compacta FR Double Ejection Compact**



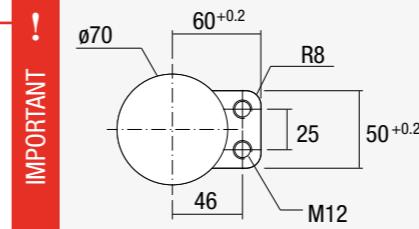
IMPORTANT!
2 BF.503225 units included. More units could be ordered separately.
Se suministran 2 unidades de BF.503225. Se pueden pedir más unidades por separado.
2 St. BF.503225 enthalten. Mehr Einheiten können einzeln bestellt werden.
Vengono forniti 2 BF.503225. E' possibile ordinarne altri separatamente.
2 unidades BF.503225 incluidas. Possibilidade de encomendar mais unidades individualmente
2 unités BF.503225 inclus. Possibilité de commander à la pièce.

Installation Guidelines –

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



7

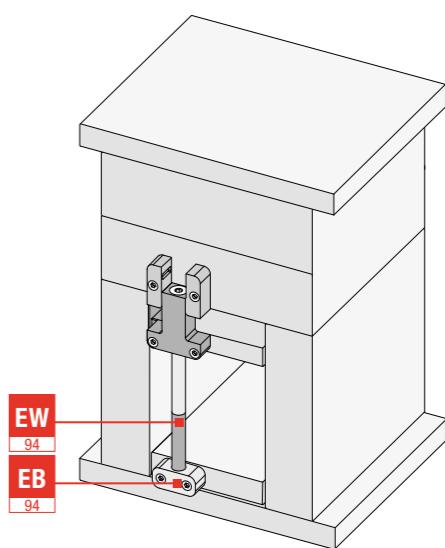
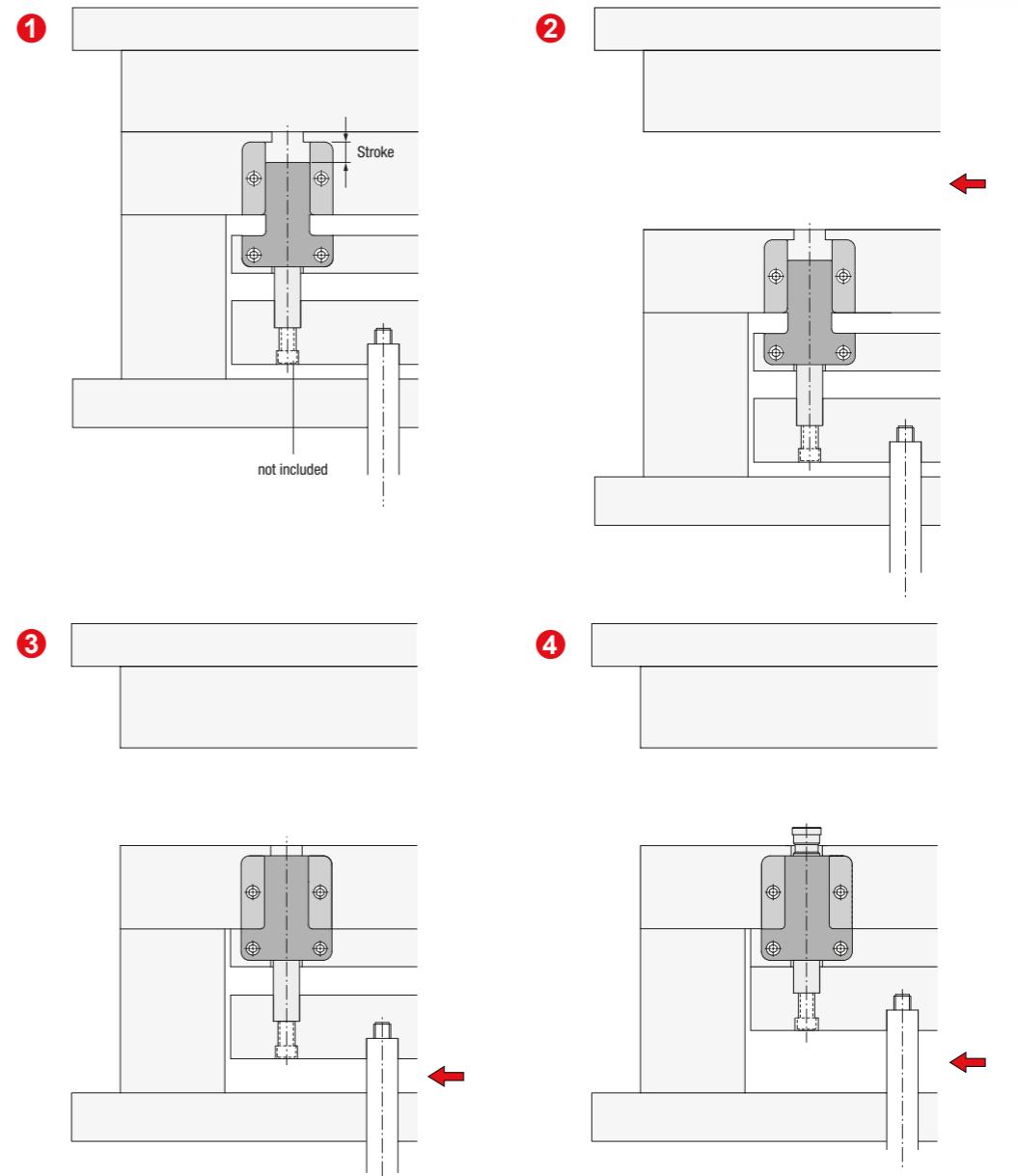
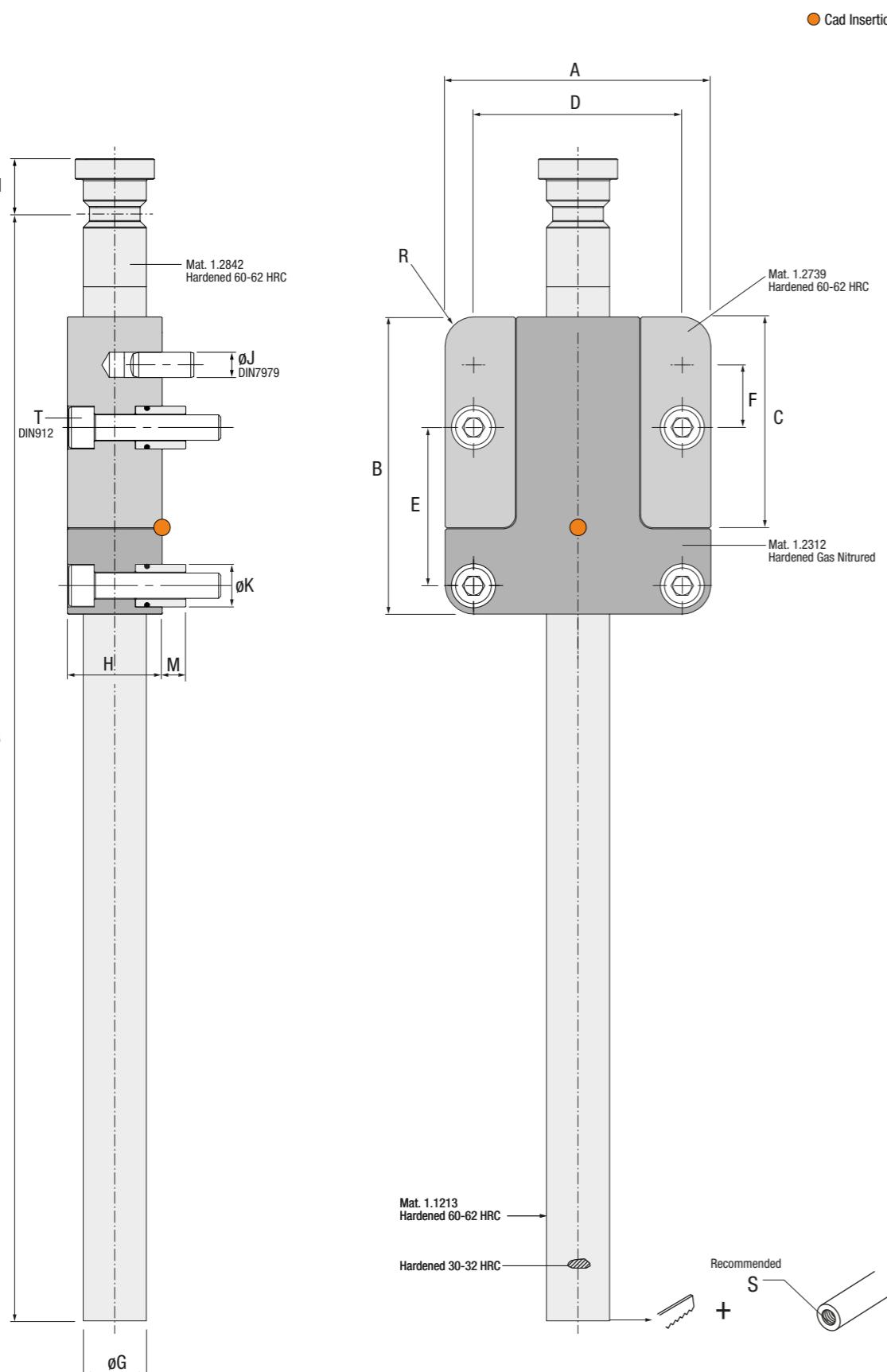


EXTERNAL DOUBLE EJECTION
 ES Doble Expulsión Externa DE Externen Zweistufenauswerfer
 IT Doppia Espulsione Esterna PT Dupla Extração Externa FR Double Éjection Externe

INSTALLATION GUIDELINES

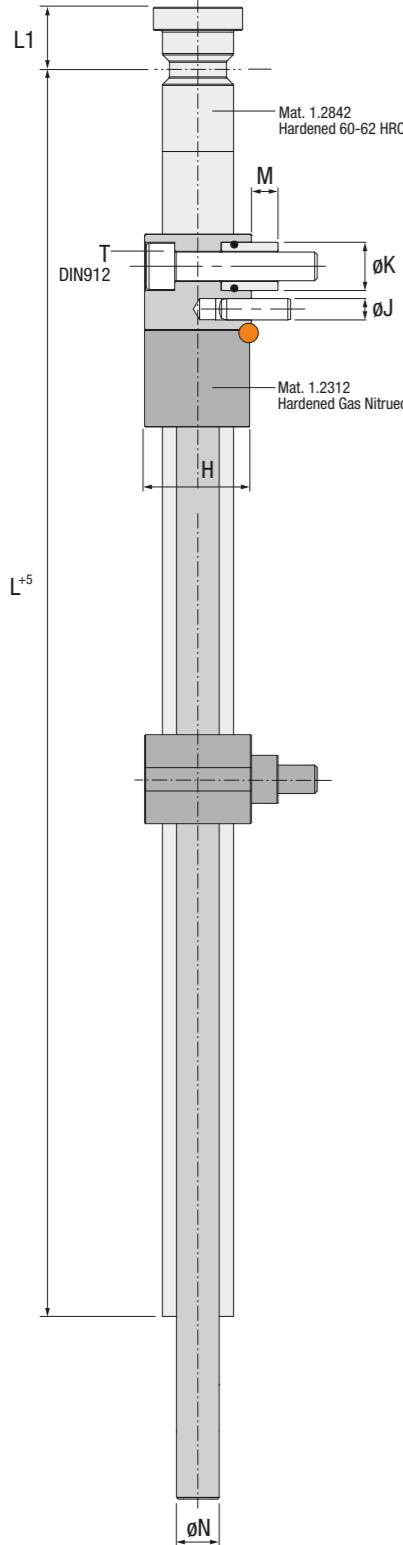
ES Consejos de Instalación DE Richtlinien zur Installation
 IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

EY



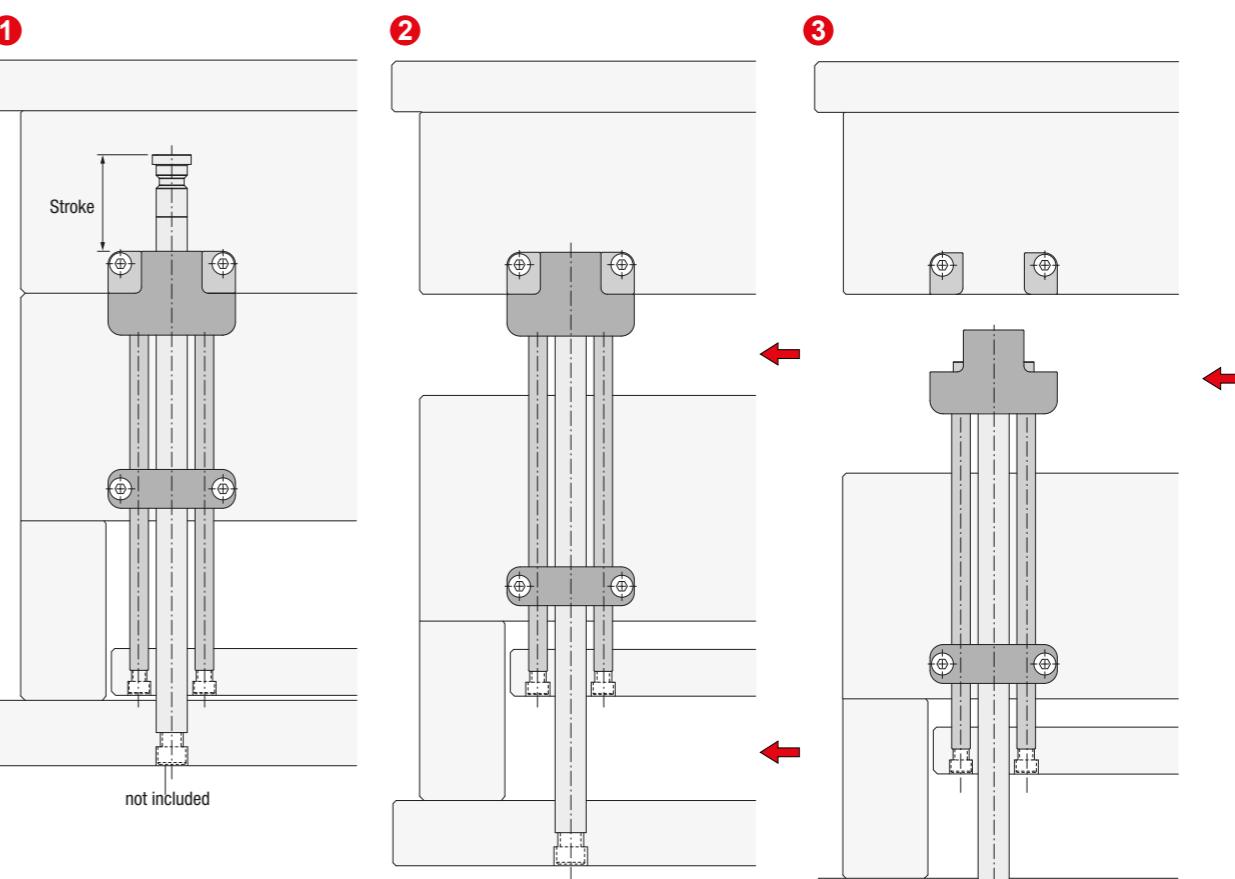
EXTERNAL SYNCHRONIZED PLATES

ES Sincronizador de Placas Extero DE Externe Plattsynchronisation
IT Sincronizzatore di Piastra Esterno PT Sincronizator Chapas Extero Externa FR Synchronisation Mouvement Plaques

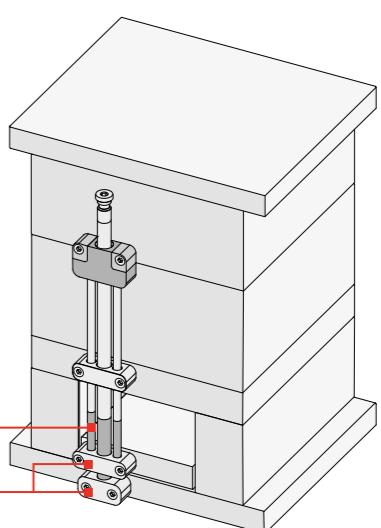


INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation



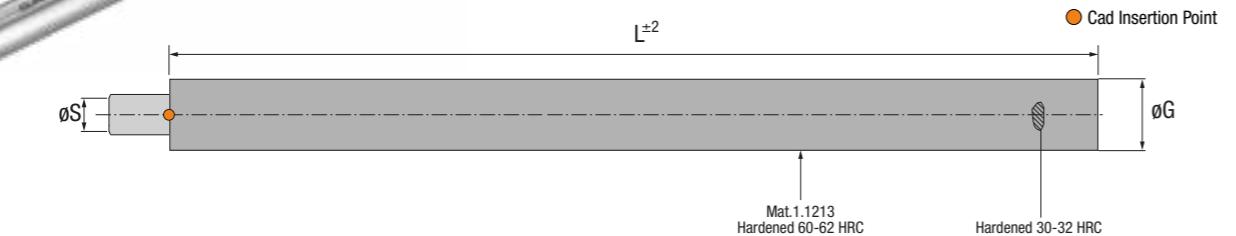
not included



Ref.	A	B	C	D	E	F	G	H	J	K	L	L1	M	N	P	Q	R	S	T	V	W	Min. Stroke	Max. Stroke	RF (N)
EZ.140608	62	40	20	48	33	9	14	22	ø4x14 (DIN6325)	10.5	348	13	5.5	8	M5	30	7.2	M8	M6x30	300	20	4	250	4.000
EZ.200812	84	54	27	66	45	12	20	30	ø6x20 (DIN7979)	13.5	348	17.5	7.5	12	M8	42	9.2	M12	M8x40	300	25	5	250	9.000
EZ.321220	126	84	42	102	72	20	32	46	ø10x30 (DIN7979)	18.5	530	27	11.5	20	M12	65	12.5	M16	M12x65	450	42	8	375	20.000
EZ.501625	174	120	60	140	103	26	50	64	ø12x40 (DIN7979)	25	530	40	15.5	25	M16	92	17	M24	M16x90	450	60	10	375	40.000

EX-EY-EZ ROD EXTENSION

ES Alargo EX-EY-EZ DE EX-EY-EZ Verlängerungsstange
IT Estensione EX-EY-EZ PT Extensor para EX-EY-EZ FR Extention pour EX-EY-EZ



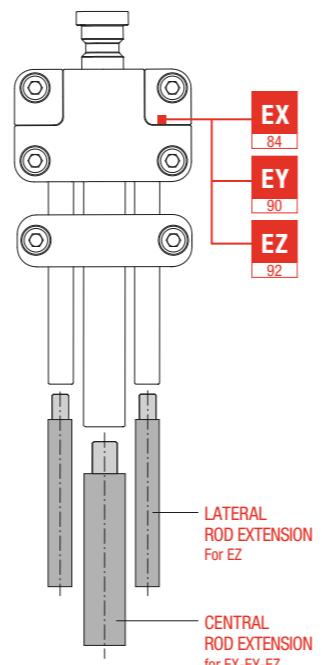
CENTRAL ROD EXTENSION

Ref.	G	L	S	Compatible with
EW.140033	14	330	M8	EX.14 / EY.14 / EZ.14
EW.200033	20	330	M12	EX.20 / EY.20 / EZ.20
EW.320049	32	495	M16	EX.32 / EY.32 / EZ.32
EW.500049	50	495	M24	EX.50 / EY.50 / EZ.50

LATERAL ROD EXTENSION

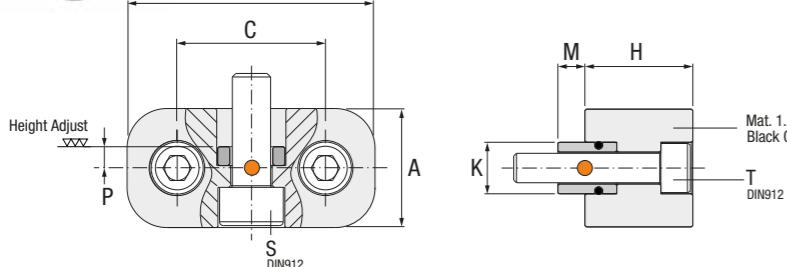
Ref.	G	L	S	Compatible with
EW.140833	8	330	M5	EZ.14
EW.201233	12	330	M8	EZ.20
EW.322049	20	495	M12	EZ.32
EW.502549	25	495	M16	EZ.50

IMPORTANT !
Order 2 lateral rod extension for each EZ.
Pedir 2 extensiones laterales para cada EZ.
Bestellen Sie 2 seitliche Stangenverlängerung für jeden EZ.
Ordinare 2 estensioni laterali per ogni EZ.
Pedir 2 extensores laterais para cada EZ.
Demander 2 extensions latérales pour chacune EZ.



EX-EY-EZ EXTERNAL FIXING

ES Fijación Externa EX-EY-EZ DE EX-EY-EZ Externe Befestigung
IT EX-EY-EZ Fissaggio Esterno PT Fixação Externa EX-EY-EZ FR Fixation Externe pour EX-EY-EZ

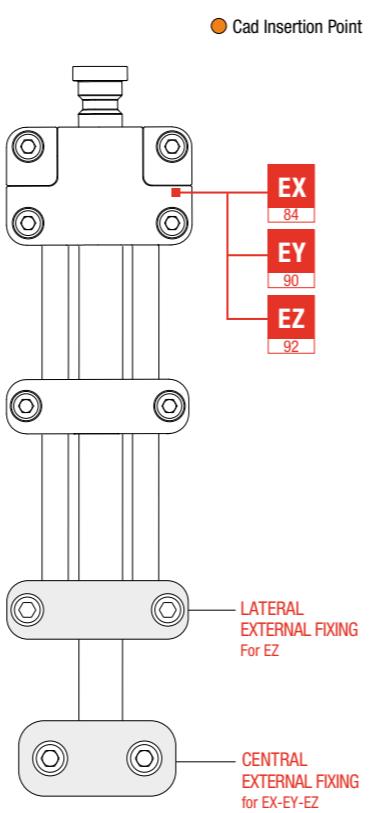


CENTRAL EXTERNAL FIXING

Ref.	A	B	C	K	H	M	P	S	T	Compatible with
EB.140020	24	50	30	10.5	22	5.5	4.5	M8x25	M6x30	EX.14 / EY.14 / EZ.14
EB.200025	34	60	38	13.5	30	7.5	7	M12x35	M8x40	EX.20 / EY.20 / EZ.20
EB.320042	50	86	52	18.5	46	11.5	11	M16x45	M12x65	EX.32 / EY.32 / EZ.32
EB.500060	66	100	64	25	64	15.5	15	M24x60	M16x90	EX.50 / EY.50 / EZ.50

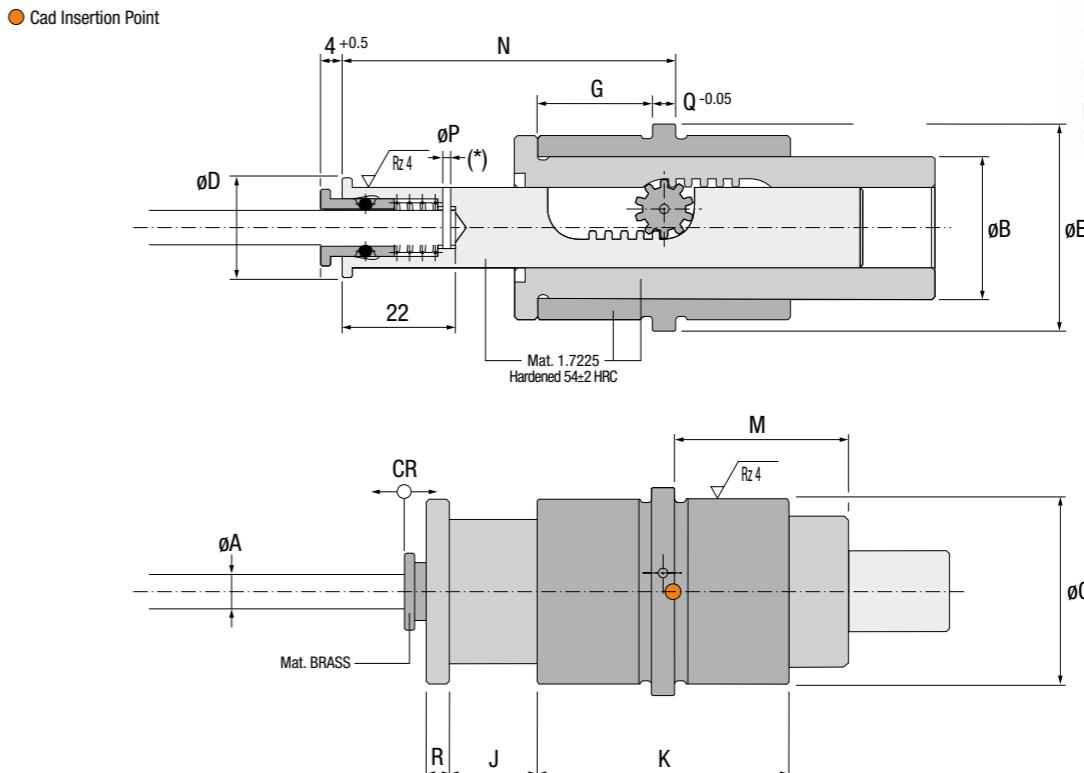
LATERAL EXTERNAL FIXING

Ref.	A	B	C	K	H	M	P	S	T	Compatible with
EB.140824	20	62	48	10.5	22	5.5	6	M5x20	M6x30	EZ.14
EB.201234	25	84	66	13.5	30	7.5	6.5	M8x25	M8x40	EZ.20
EB.322050	42	126	102	18.5	46	11.5	15	M12x50	M12x65	EZ.32
EB.502566	60	174	140	25	64	15.5	19	M16x60	M16x90	EZ.50



ACCELERATED EJECTOR

ES Acelerador Expulsión DE Vorschub-Auswerfer
IT Acceleratore di Espulsione PT Acelerador de Extracção FR Accélérateur d'Éjection

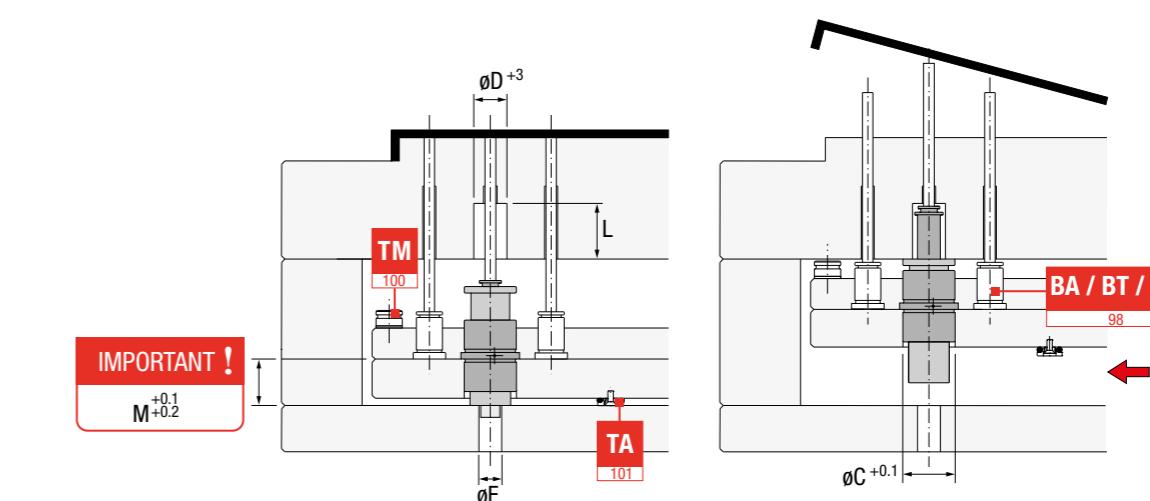


Ref.	A	B	C	D	E	F	G	J	K	L	M	N	P	Q	R	CR (N)
AE.031620	3	16	20	12.5	22	13	14	8	32	22	17	37	-	4	3	1.800
AE.041620	4	16	20	12.5	22	13	14	8	32	22	17	37	-	4	3	1.800
AE.052430	5	24	30	16	34	16	20	15	44	36	27	57	2	4	3	2.800
AE.062430	6	24	30	16	34	16	20	15	44	36	27	57	2	4	3	3.800
AE.082430	8	24	30	17	34	17	20	15	44	36	27	57	2	4	3	4.700
AE.103036	10	30	36	21.5	40	21	28	20	62	46	34	78	2	6	4	6.400
AE.123036	12	30	36	21.5	40	21	28	20	62	46	34	78	2	6	4	7.600

IMPORTANT !
(*) Possibility to key for using a curved ejector pin. (except AE.031620 & AE.041620)
(*) Posibilidad de usar un antírgiro para los expulsores con forma. (excepto AE.031620 & AE.041620)
(*) Verdreh sicherung möglich für einen Auswerfer mit Kontur. (außer AE.031620 & AE.041620)
(*) Possibilità di usare un antirrotazione per gli espulsori sagomati. (salvo AE.031620 & AE.041620)
(*) Possibilidade de posicionar para extractores com perfil. (except AE.031620 & AE.041620)
(*) Possibilité d'indexer l'éjecteur. (sauf AE.031620 & AE.041620)

Installation Guidelines

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EW

AE

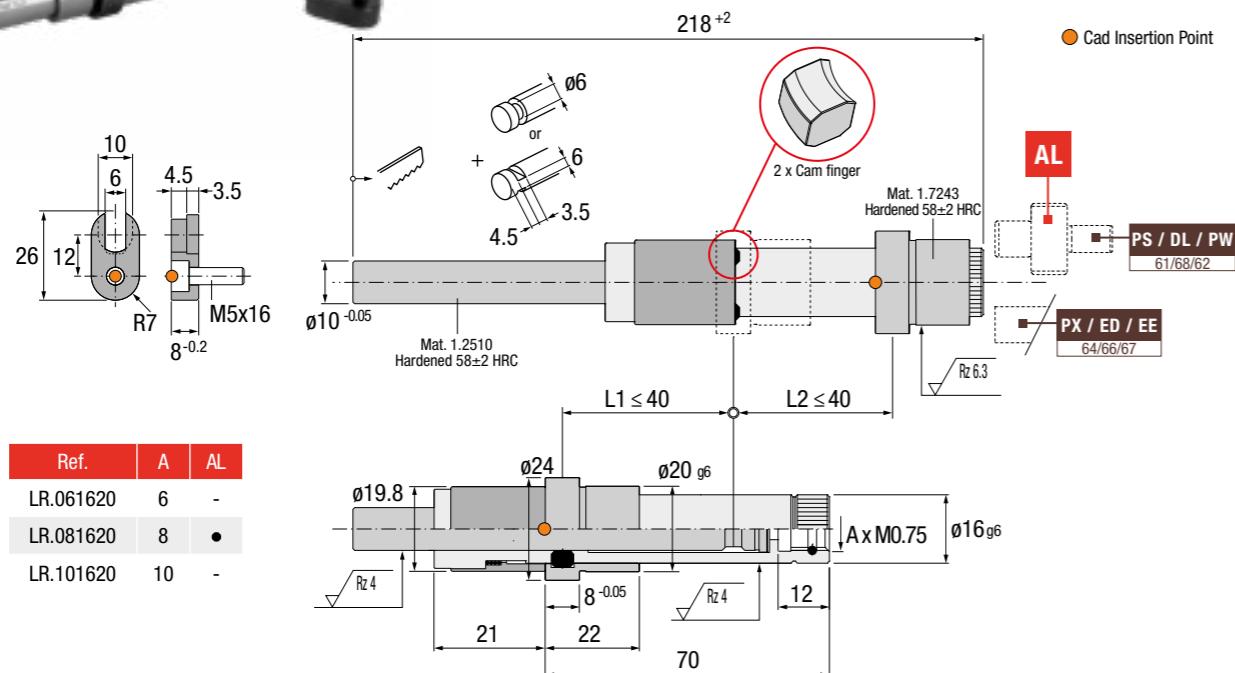
EB

95

LR

THREADED LIMITER

ES Limitador con Rosca DE Auswerfer - Begrenzer mit Gewindeaufnahme
IT Limittatore Filetato PT Limitor com Rosca FR Limiteur avec Vis

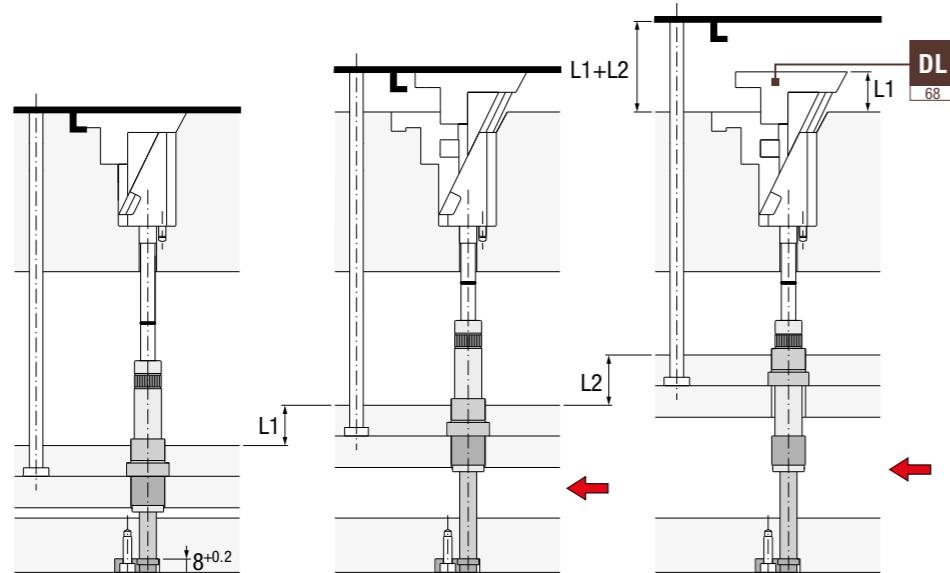


Patented



Installation Guidelines

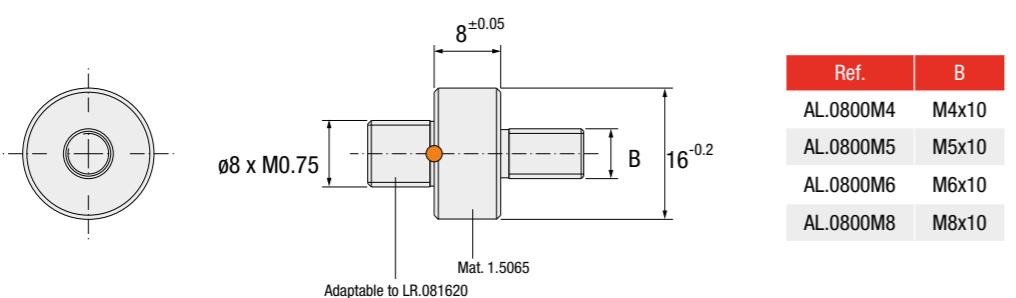
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



AL

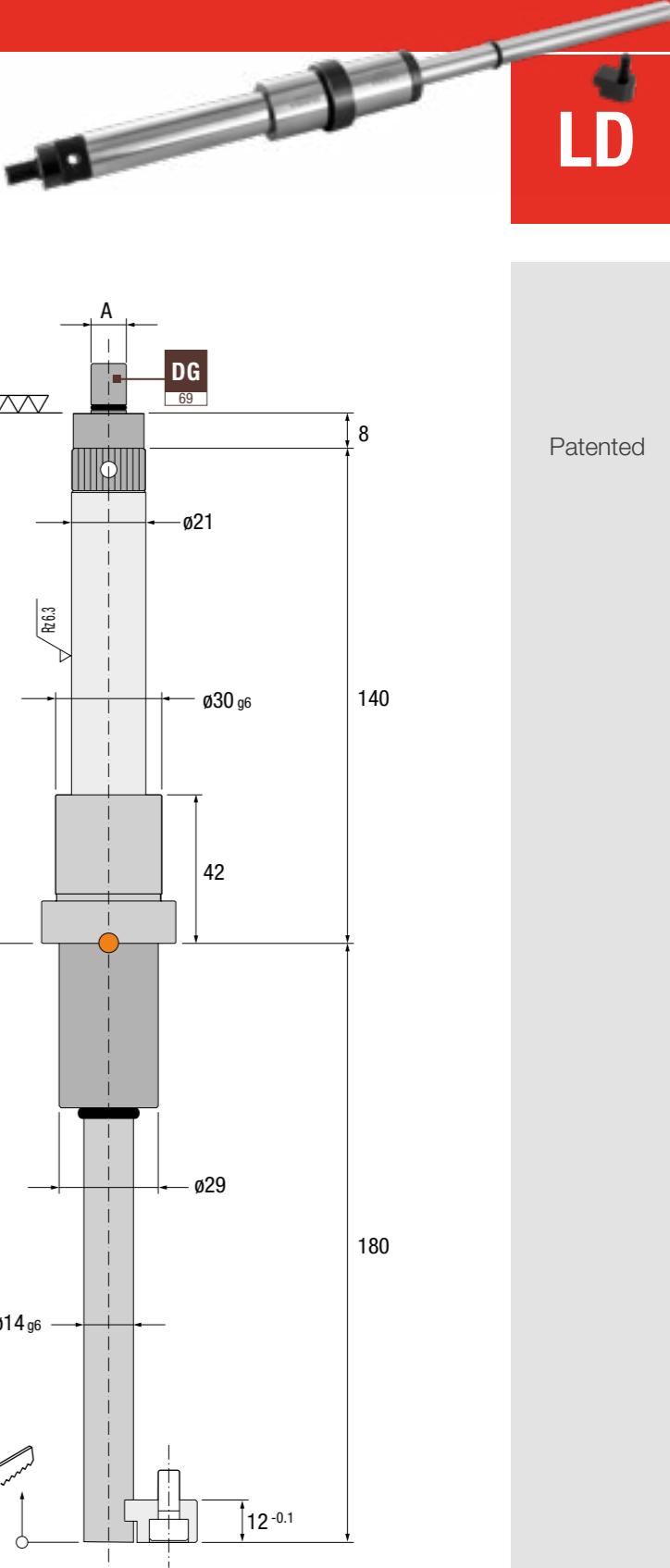
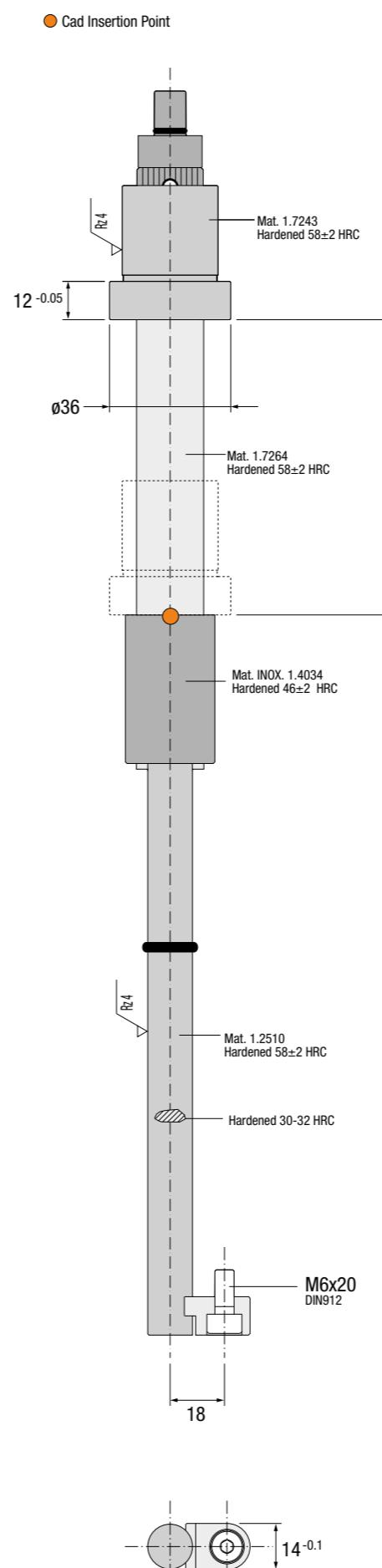
THREADED LIMITER ADAPTER

ES Adaptador para Limitador Roscado DE Gewindeadapter
IT Adattatore per Limitatore Filetato PT Adaptador para Limitador Roscado FR Cadaptateur pour Limiteur avec Vis



DOG LIFTER LIMITER

ES Limitador Patín DE Hubbegrenzer
IT Limittatore Pattino PT Limitor Patim Automático FR Limiteur

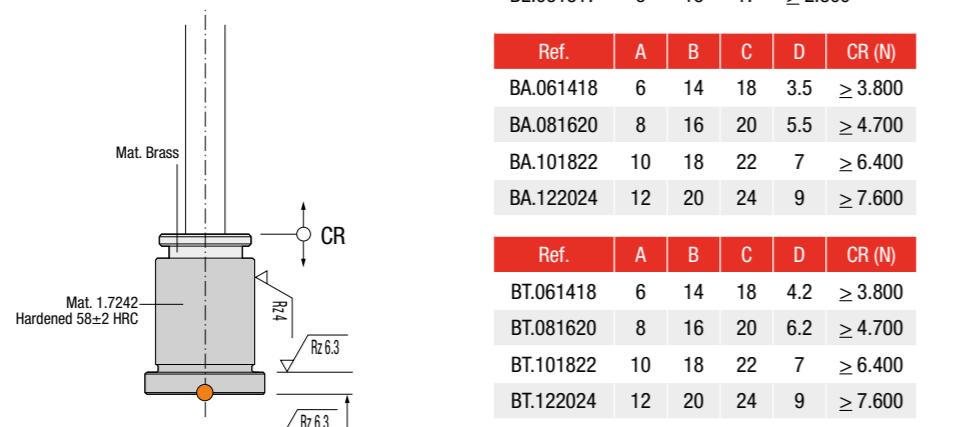
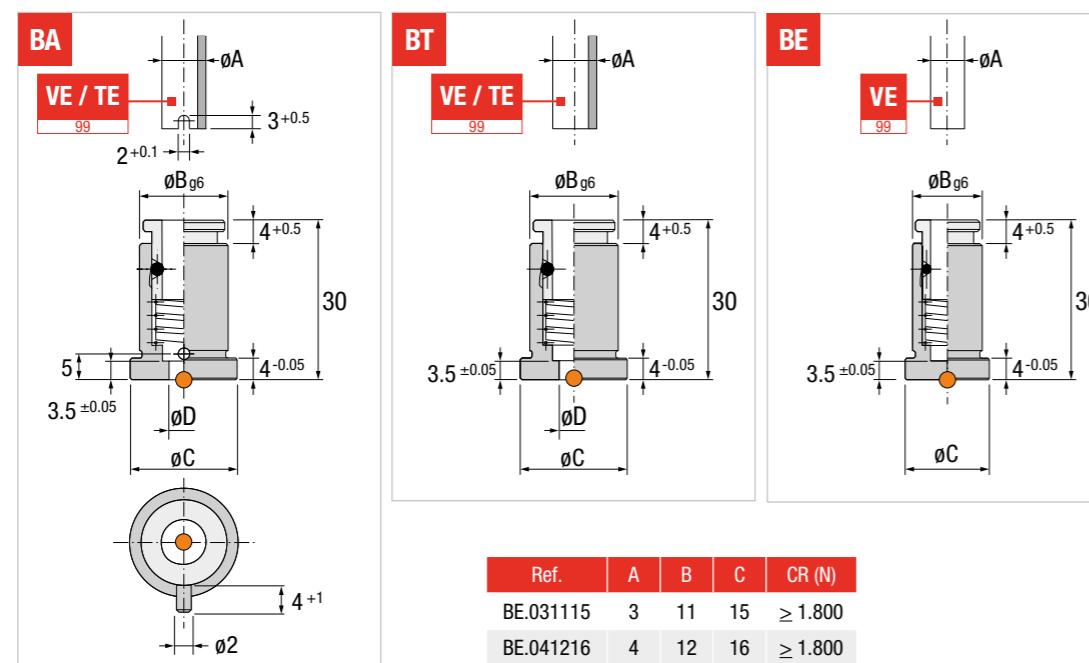




BA-BE-BT

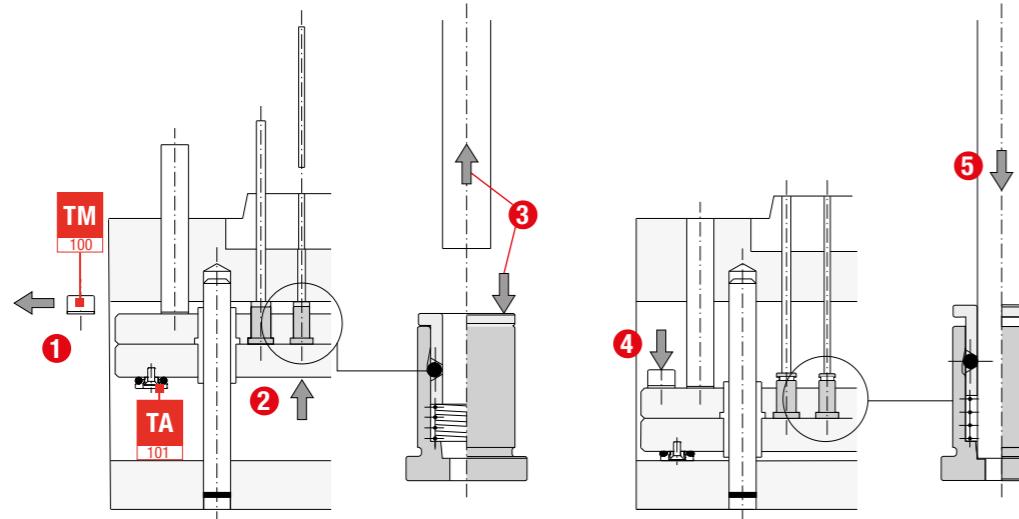
EJECTOR BASE

ES Base Expulsora DE Aufnahme für Auswerfer
IT Base Espulsore PT Base de Extractores FR Embases d'Ejection



Installation Guidelines

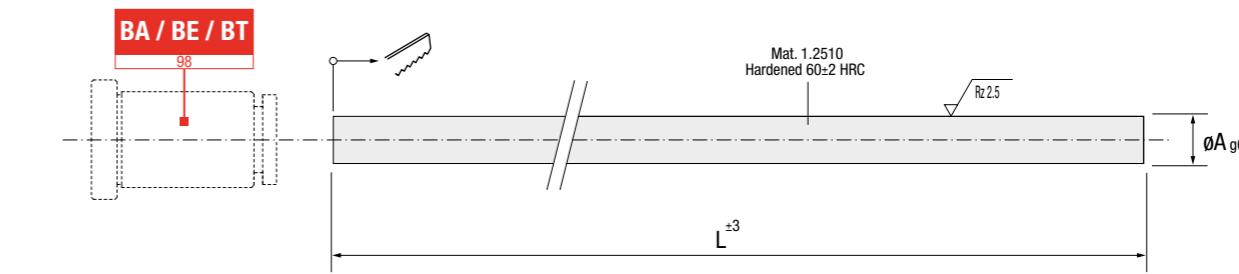
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



HEADLESS EJECTOR PIN

ES Varilla Expulsora DE Auswerfer ohne Kopf
IT Asta Espulsore PT Extractor sem Cabeça FR Ejecteur sans Tête

● Cad Insertion Point



IMPORTANT!

Indicate the desired **L** dimension after the reference.
Indicar la cota **L** necesaria después de la referencia.
Gewünschte Länge **L** angeben.
Indicare la quota **L** desiderata dopo il codice.
Indique a dimensão **L** desejada depois da referência.
Indiquer longueur (**L**) désirée après référence.

Ref.	A	L
VE.030...	3	600
VE.080...	8	800
VE.100...	10	600

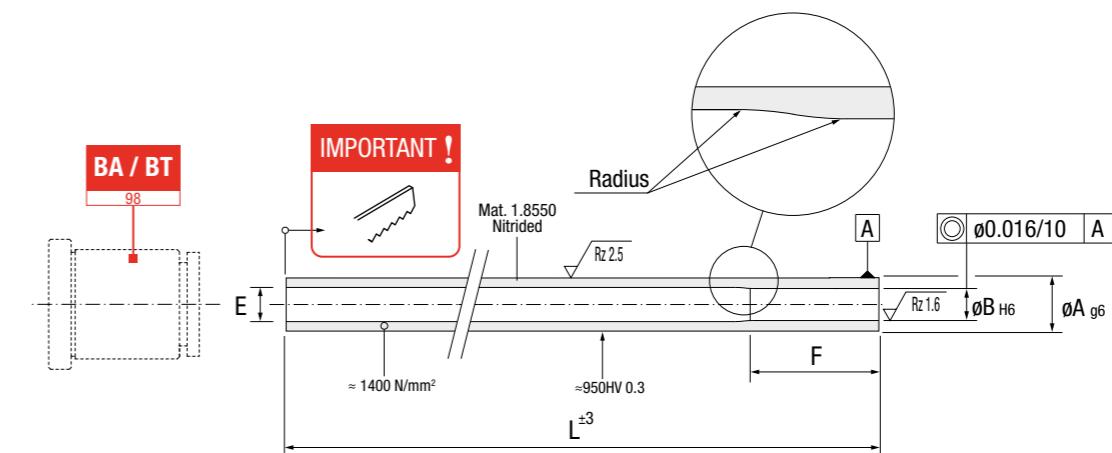
VE

TE

HEADLESS EJECTOR SLEEVE

ES Tubular Expulsión DE Auswerferhülsen ohne Kopf
IT Espulsore Tubolare PT Extractor Tubular sem Cabeça FR Tubulaire sans Tête

● Cad Insertion Point



IMPORTANT!

Indicate the desired **L** dimension after the reference.
Indicar la cota **L** necesaria después de la referencia.
Gewünschte Länge **L** angeben.
Indicare la quota **L** desiderata dopo il codice.
Indique a dimensão **L** desejada depois da referência.
Indiquer longueur (**L**) désirée après référence.

Ref.	A	B	E	F	L
TE.063...	6	3	3.2	30	400 500 600 800
TE.106...	10	6	6.2	40	400 500 600 800
TE.128...	12	8	8.2	45	400 500 600 800

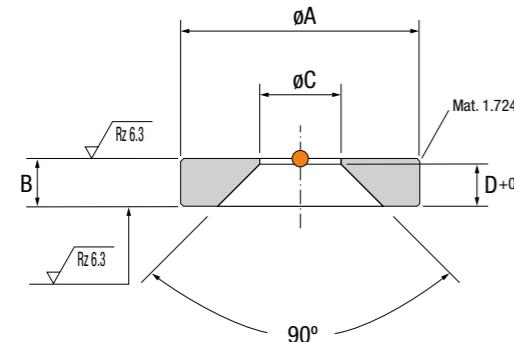
Patented

DP

**EJECTOR FOOT**

ES Distanciador Placa DE Anschlagscheibe
IT Distanziale Piastra PT Botão de Encosto FR Repos de Batterie

● Cad Insertion Point

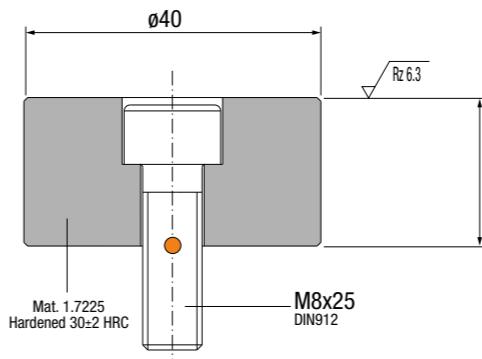


Ref.	A	B	C	D
DP.200506	20	5	6.5	3.5
DP.250508	25	5	8.5	4.4
DP.280610	28	6	12	5.5

EJECTOR PLATE SPACER

ES Distanciador Placa DE Auswerferplatte Abstandhalter
IT Distanziale Piastra PT Espaçador de Chapas FR Entretoise de Passage

● Cad Insertion Point



Ref.	A
TR.204008	20
TR.404008	40



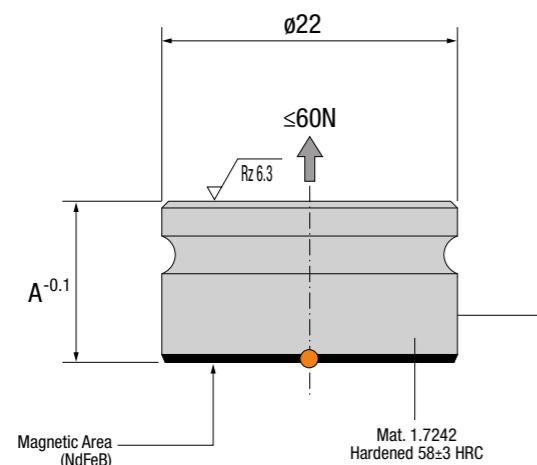
TR

TM

**SAFETY STOPPER**

ES Tope Magnético DE Abstandhalter Magnetisch
IT Blocco Magnetico PT Bloco Magnético FR Butée Magnétique

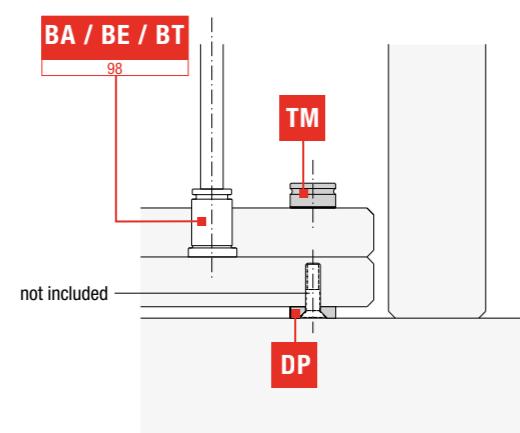
● Cad Insertion Point



Ref.	A
TM.102214	10
TM.122214	12.5
TM.152214	15
TM.202214	20

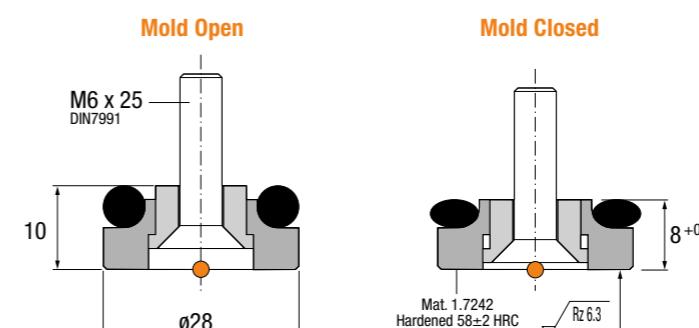
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

**SHOCK ABSORBER**

ES Tope Amortiguador DE Dämpfungsscheibe
IT Blocco Ammortizzante PT Bloco Amortecedor FR Repos de Batterie avec Amortissement

● Cad Insertion Point

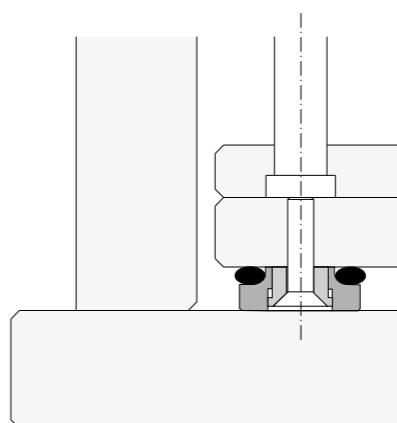


Ref.
TA.280806

!
IMPORTANT
Supplied only in bags of 4 units.
Suministrado en bolsas de 4 uds.
Verpackungseinheit 4 Stück.
Vendute in confezioni da 4 pezzi.
Fornecidos em sacos de 4 unidades.
Emballé en sac de 4 unités.

Installation Guidelines

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4

TRACEABILITY

TRACEABILITY INDEX

ÍNDICE TRAZABILIDAD / INHALTSVERZEICHNIS KENNZEICHNUNG
INDICE RINTRACCIABILITÁ / ÍNDICE RASTREABILIDADE / INDEX TRAÇABILITÉS



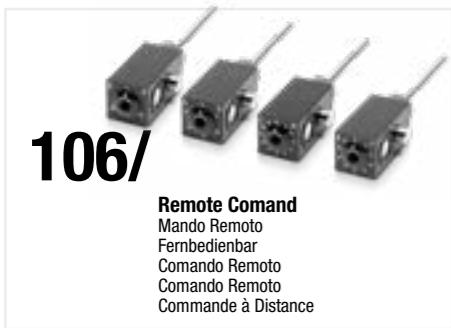
106/

Remote Date Stamp
Fechador Remoto
Ferngesteuerter Datumssteller
Datario Remoto
Remote Date Stamp
Dateur à Réglage Exterieur



106/

Remote Date Stamp Shaft Set
Conjunto Varilla para Fechador Remoto
Fernbedienbares Wellenset
Set Asta per Datario Remoto
Conjunto Transmissão para Datador Remoto
Jeu de Tige pour Changement d'Information



106/

Remote Command
Mando Remoto
Fernbedienbar
Comando Remoto
Commando Remoto
Commande à Distance



108/

Turning Key
Llave de Giro
Montageschlüssel
Chiave di Aggiornamento
Chave de Rotação
Clé de Changement d'Information



108/

Shaft Cutting Jig
Utile de Corte para la Varilla
Einstellungsvorrichtung Zum Ablängen
Utensile per Taglio Asta
Gabarito para Corte de Veio de Transmissão
Outil de Coupe pour les Tiges



109/

Reference Insert
Inserto Referencia
Recyclingeinsätze
Inserti di Riciclaggio
Indicadores de Reciclaje
Pion de Recyclage



109/

Mark Insert
Inserto Marca
Einsätze für Symbole
Inserto Simbolo
Postiço de Marcas
Insert de Marque



110/

Interchangeable Insert
Inserto Intercambiable
Einsatz, austauschbar
Inserto Intercambiabile
Postiço Intermutável
Ensemble Interchangeable



110/

Turning Insert
Inserto Giratorio
Einsätze Drehbar
Inserto Girante
Postiço Giratório
Insert Tournant

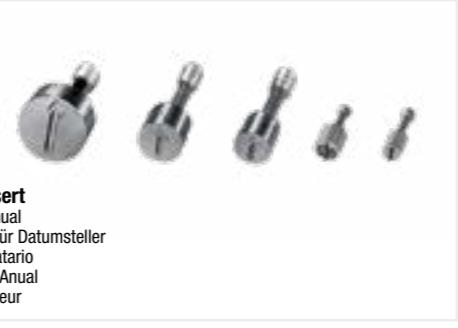
111/

Unit Date Stamp
Fechador Unitario
Datumstelleinheit
Datario Unitario
Datador Unitário
Kit Mini Dateur



112/

Date Stamp
Fechador Anual
Datumsteller
Datario Annuale
Datador Anual
Corps Dateur



112/

Date Insert
Inserto Anual
Einsätze für Datumsteller
Inserto Datario
Indicador Anual
Insert Dateur



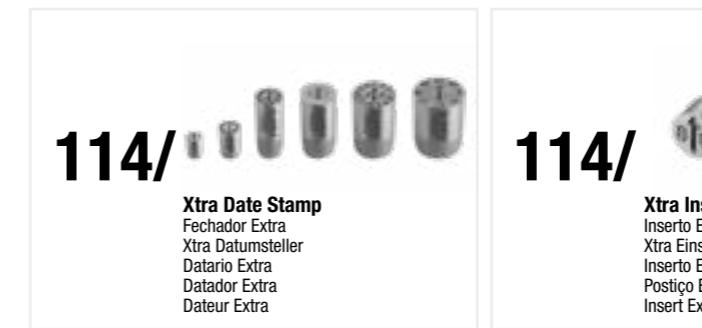
113/

Date Stamp Plus
Fechador Anual Plus
Datumsteller Plus
Datario Annuale Plus
Datador Anual Plus
Dateur Plus



113/

Removal Jig
Extractor Fechador
Abzieher für Datumsteller
Estrattore Datario
Extrator de Datador
Extracteur pour Dateur



114/

Xtra Date Stamp
Fechador Extra
Xtra Datumsteller
Datario Extra
Datador Extra
Dateur Extra



114/

Xtra Insert
Inserto Extra
Xtra Einsätz
Inserto Extra
Postiço Extra
Insert Extra



116/

Temperature Dater
Fechador Temperatura
Datumsteller, wärmebeständig
Datario Temperatura
Datador Temperatura
Dateur Haute Température



116/

Temperature Insert
Inserto Temperatura
Einsätze, wärmebeständig
Inserto Temperatura
Indicador Temperatura
Insert Haute Température



117/

Block Base
Base Monobloque
Aufnahme Datumsblock
Base Monoblocco
Base Monobloco
Multi Dateur



117/

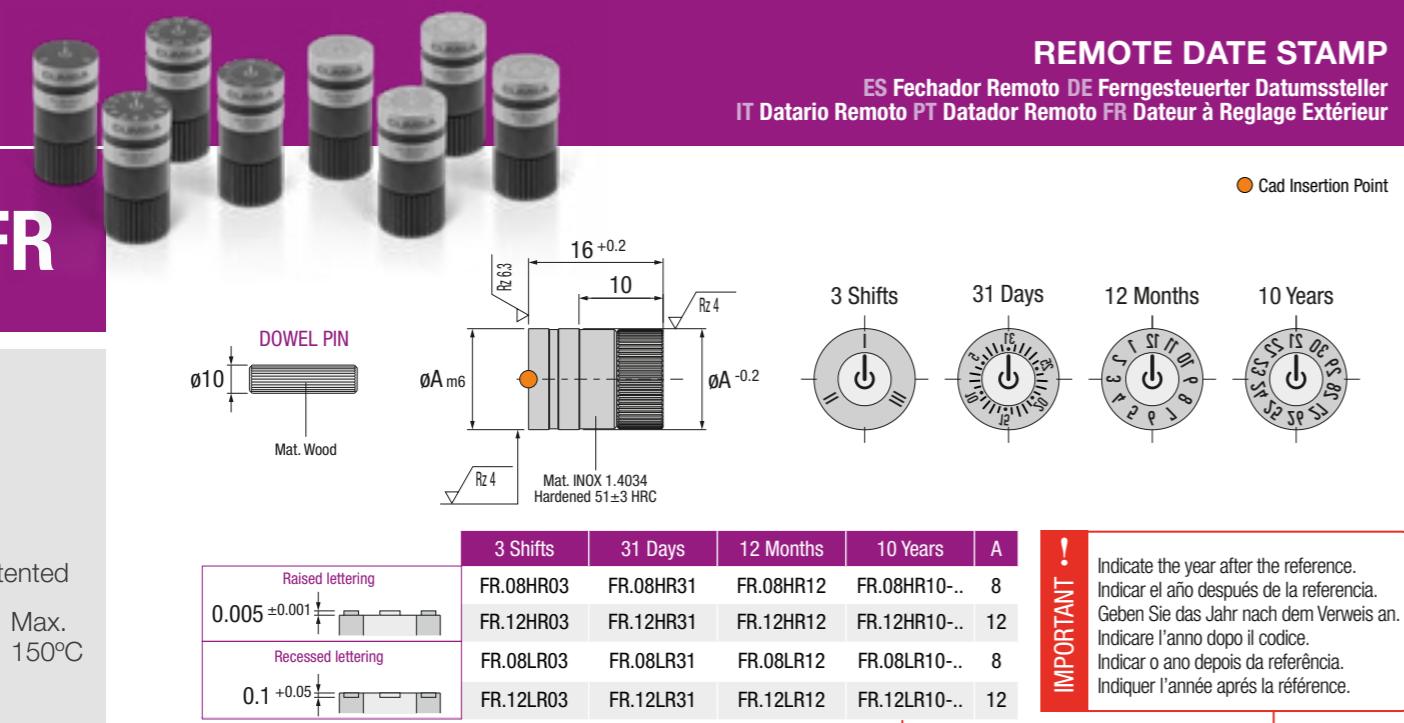
Block Insert
Postiço Monobloque
Einsätze für Datumsblöcke
Inserto Monobloco
Postiço Monobloco
Inserts Multi Dateur



118/

Cycle Counter
Contador Ciclos
Zähler
Conta Cicli
Contador de Ciclos
Compteur de Cycle

FR

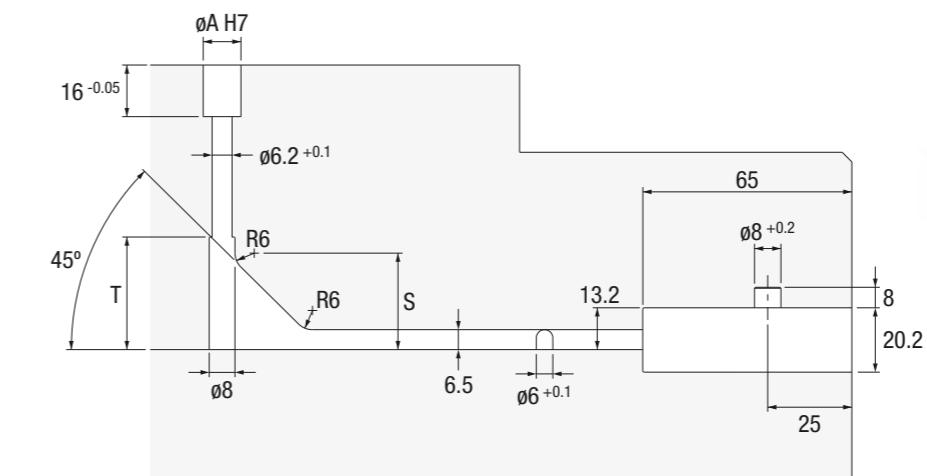


Patented
Max. 150°C

FR

INSTALLATION GUIDELINES

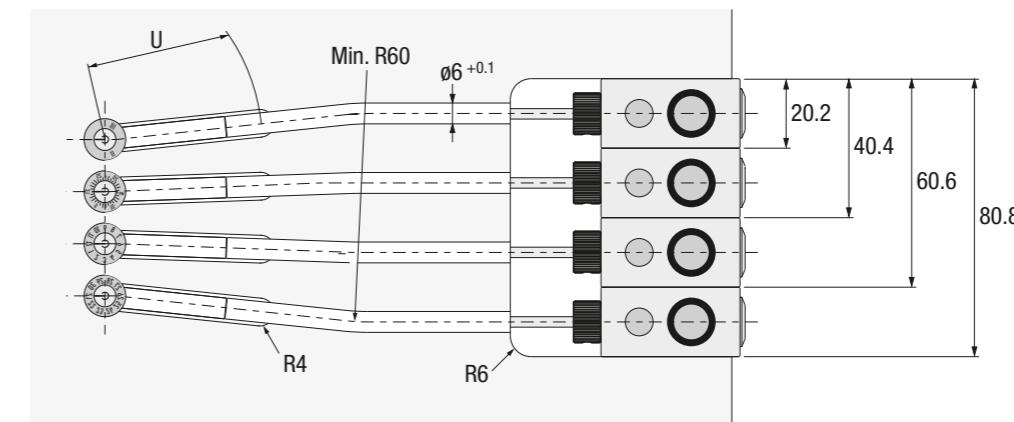
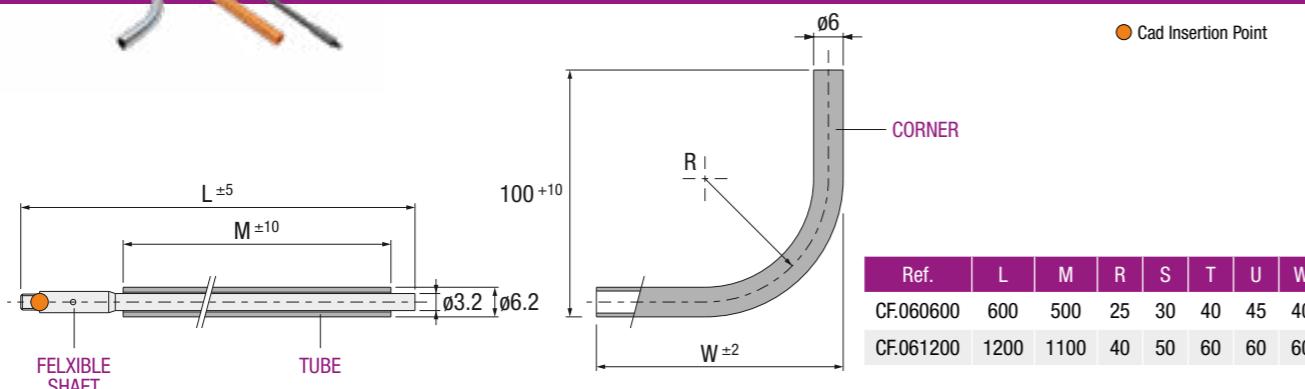
ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation



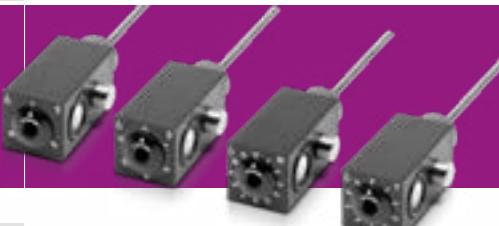
CF

REMOTE DATE STAMP SHAFT SET

ES Conjunto Varilla para Fechador Remoto DE Fernbedienbares Wellenset IT Set Asta per Datario Remoto
PT Conjunto de Transmissão para Datador Remoto FR Jeu de Tige pour Changement d'Information

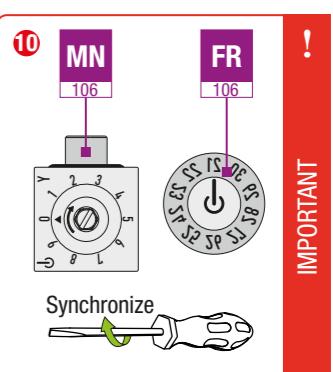
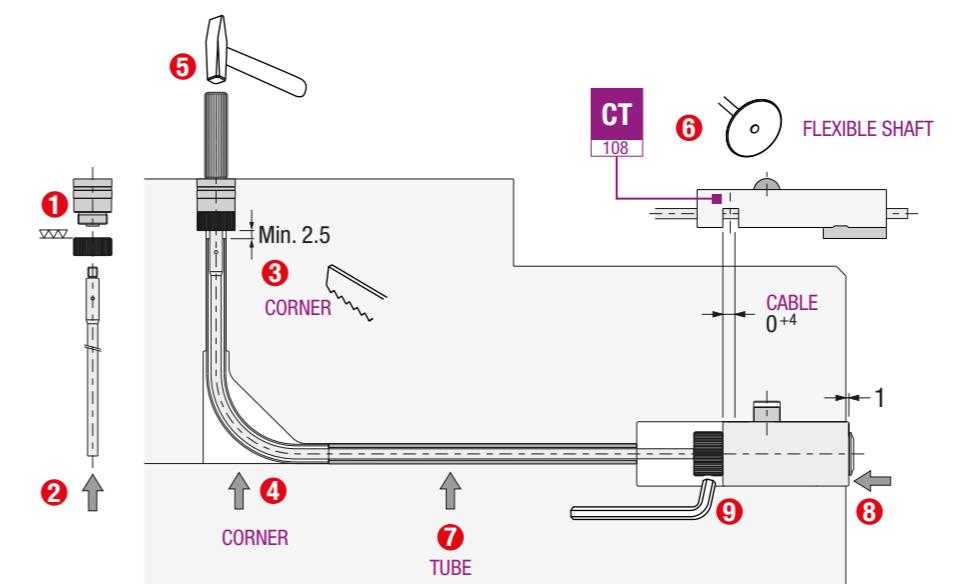
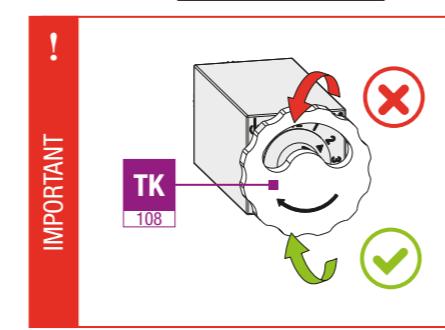
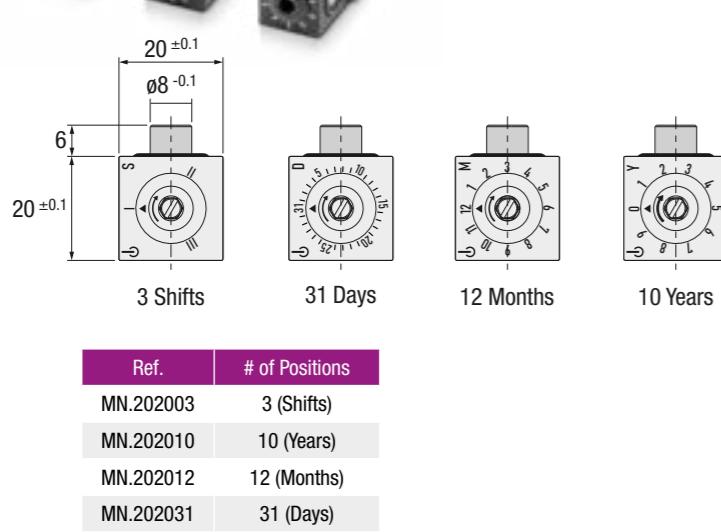


MN



REMOTE COMMAND

ES Mando Remoto DE Fernbedienbar
IT Comando Remoto PT Comando Remoto FR commande à Distance



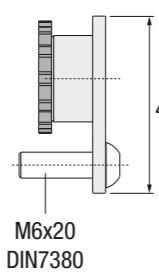


TK

TURNING KEY

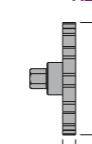
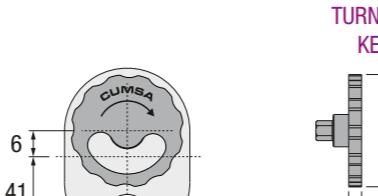
ES Llave de Giro DE Montageschlüssel
IT Chiave per Aggiornamento PT Chave de Rotação FR Clé de Changement d'Information

TURNING KEY SUPPORT

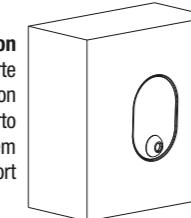
CUMSA
TK.412903M6x20
DIN7380

● Cad Insertion Point

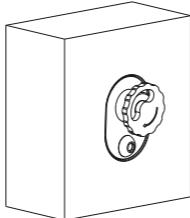
TURNING KEY

Ref.
TK.412903Ø26
3
29
41
6
41
29
3

Warehouse and transport position
Posición en almacén y durante el transporte
Werkzeuglager- und Transportposition
Posizione in magazzino e durante il trasporto
Posição de armazém
Position lors du stockage et du transport

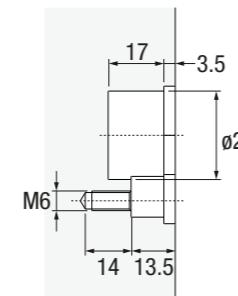
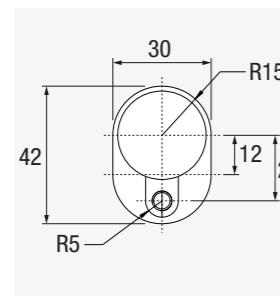


Molding position
Posición en producción
Werkzeugpositionfixierung
Posizione di stampaggio
Posição de moldagem
Position lors de la production



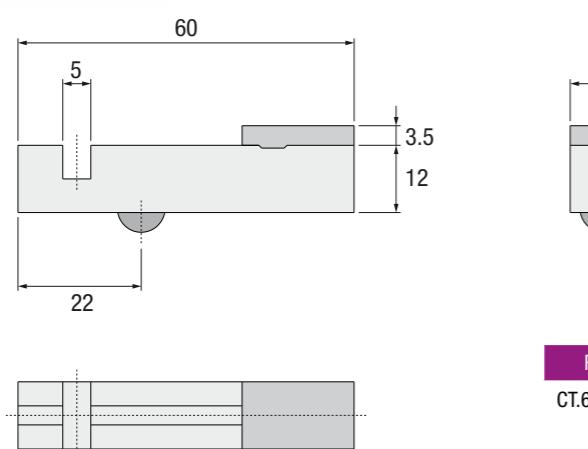
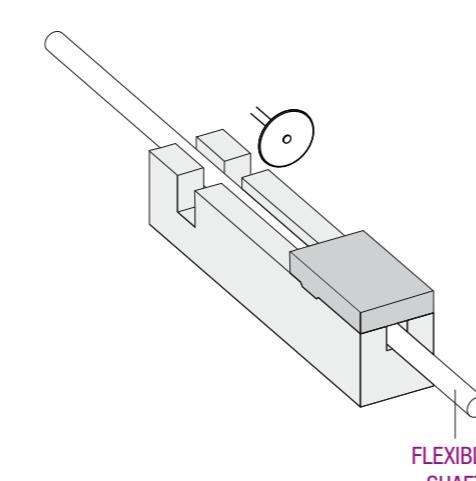
Installation Guidelines

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SHAFT CUTTING JIG

ES Util de Corte para la Varilla DE Einstellungsvorrichtung Zum Ablängen
IT Utensile per Taglio Asta PT Gabarito para Corte de Veio de Transmissão FR Outil de Coupe Pour les Tiges

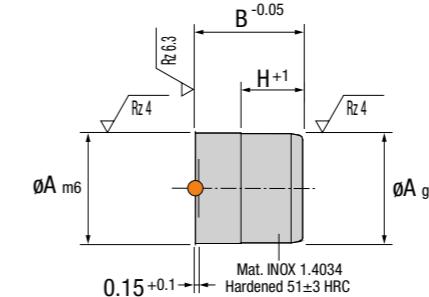
Ref.
CT.601212

FLEXIBLE SHAFT

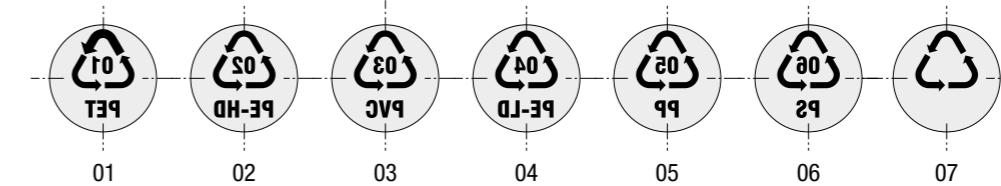
REFERENCE INSERT

ES Inserto Referencia DE Recyclingeinsätze
IT Inserti di Riciclaggio PT Indicadores de Reciclagem FR Pion de Recyclage

● Cad Insertion Point



Mat. INOX 1.4034 Hardened 51±3 HRC



01 02 03 04 05 06 07

Ref.	A	B	E	H	K	S
IR.1012..	10	12	8	7	1.5	5.6
IR.1212..	12	12	10	7	1.8	6.8
IR.1616..	16	16	12	9	2.4	9
IR.2016..	20	16	16	9	3.2	11.5

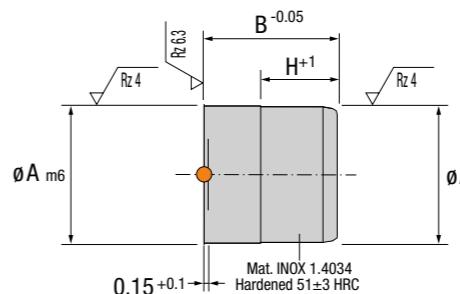
IMPORTANT !

Indicate the model after the reference.
Indicar el modelo después de la referencia.
Wählen Sie den Typ entsprechend der Referenz.
Indicare il modello dopo il codice.
Indicar o modelo depois da referência.
Indiquer le sigle après la référence.

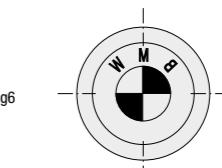
MARK INSERT

ES Inserto Marca DE Einsätze für Symbole
IT Inserto Simbolo PT Postigo de Marcas FR Insert de Marquage

● Cad Insertion Point



Mat. INOX 1.4034 Hardened 51±3 HRC

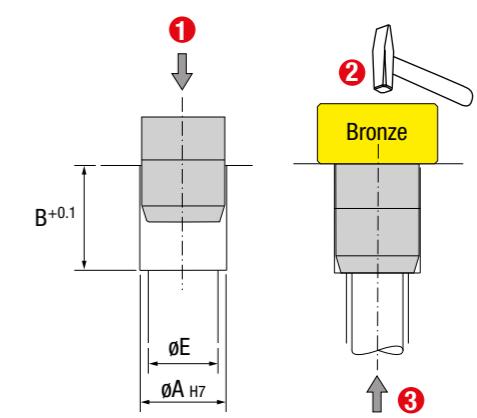


Ref.	Blank Ref.	A	B	E	H
IM.041000	IM.041000-BLANK	4	10	2	6
IM.051000	IM.051000-BLANK	5	10	3	6
IM.061000	IM.061000-BLANK	6	10	4	6
IM.081200	IM.081200-BLANK	8	12	6	7
IM.101200	IM.101200-BLANK	10	12	8	7
IM.121200	IM.121200-BLANK	12	12	10	7
IM.161600	IM.161600-BLANK	16	16	12	9
IM.201600	IM.201600-BLANK	20	16	16	9

IMPORTANT !

Send DXF file with your design.
Envíenos un archivo DXF con su diseño.
Senden Sie als DXF File.
Inviare un file DXF con il disegno dell'incisione richiesta.
Envie-nos um ficheiro em DXF com o seu desenho.
Envoyez nous le fichier DXF du dessin.

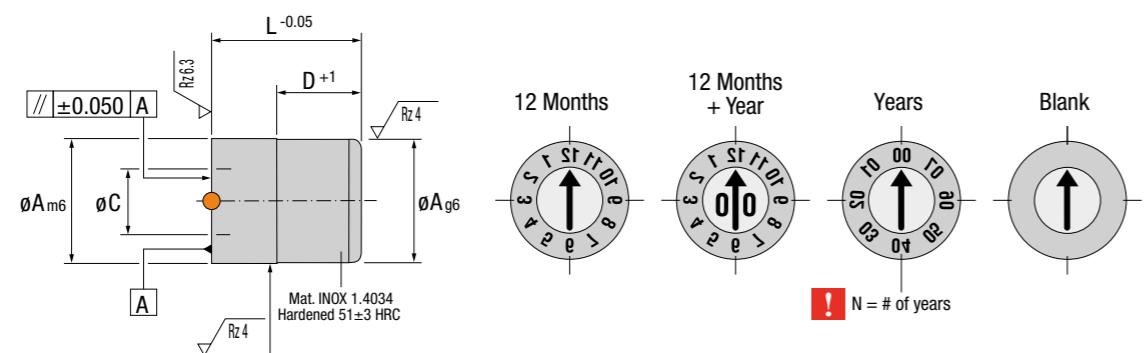
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione
Instruções de Instalação · Mode d'Installation





FA

DATE STAMP
ES Fechador Anual DE Datumsteller
IT Datario Annuale PT Datador Anual FR Corps Dateur



Patented

Max.
150°C

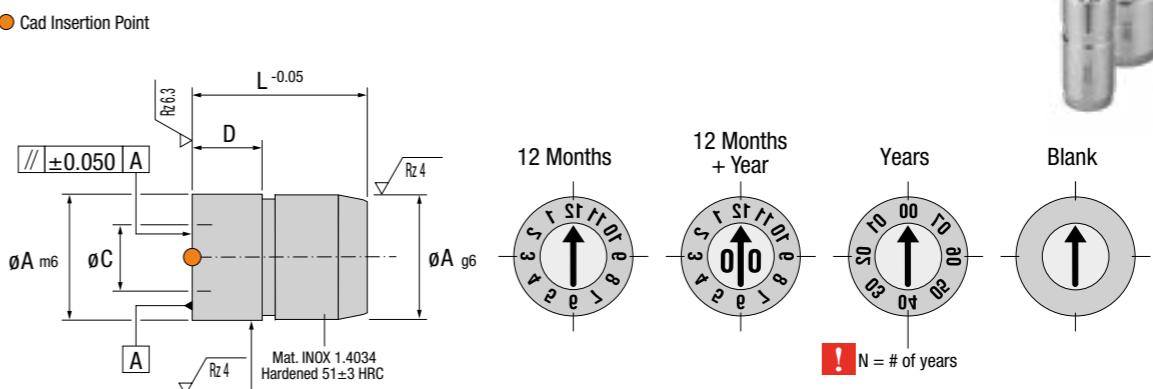
IMPORTANT !
Special engraving available under request.
Grabados especiales bajo demanda.
Andere Gravuren auf Anfrage.
Incisioni speciali su richiesta.
Gravações especiais por encomenda.
Gravure spéciale par commande.

IMPORTANT !
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

12 Months	12 Months+Year	Years	Blank	A	C	D	E	L	N
FA.0422SF	FA.042212...	FA.042204...	FA.042200	4	2.2	6	3.5	12	4
FA.0530SF	FA.053012...	FA.053004...	FA.053000	5	3	6	3.5	12	4
FA.0632SF	FA.063212...	FA.063205...	FA.063200	6	3.2	12	4	20	5
FA.0847SF	FA.084712...	FA.084705...	FA.084700	8	4.7	12	6	20	5
FA.1057SF	FA.105712...	FA.105706...	FA.105700	10	5.7	12	8	20	6
FA.1267SF	FA.126712...	FA.126708...	FA.126700	12	6.7	12	10	20	8
FA.1687SF	FA.168712...	FA.168710...	FA.168700	16	8.7	12	12	20	10
FA.2007SF	FA.200712...	FA.200710...	FA.200700	20	10.7	12	14	20	10



FP

DATE STAMP PLUSES Fechador Anual Plus DE Datumsteller Plus
IT Datario Annuale Plus PT Datador Anual Plus FR Dateur Plus

Patented

Max.
150°C

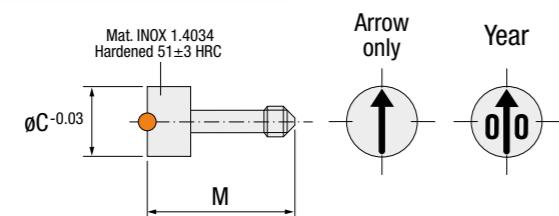
IMPORTANT !
Special engraving available under request.
Grabados especiales bajo demanda.
Andere Gravuren auf Anfrage.
Incisioni speciali su richiesta.
Gravações especiais por encomenda.
Gravure spéciale par commande.

IMPORTANT !
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

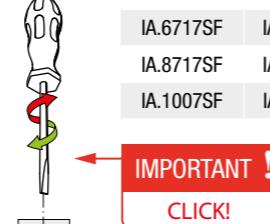
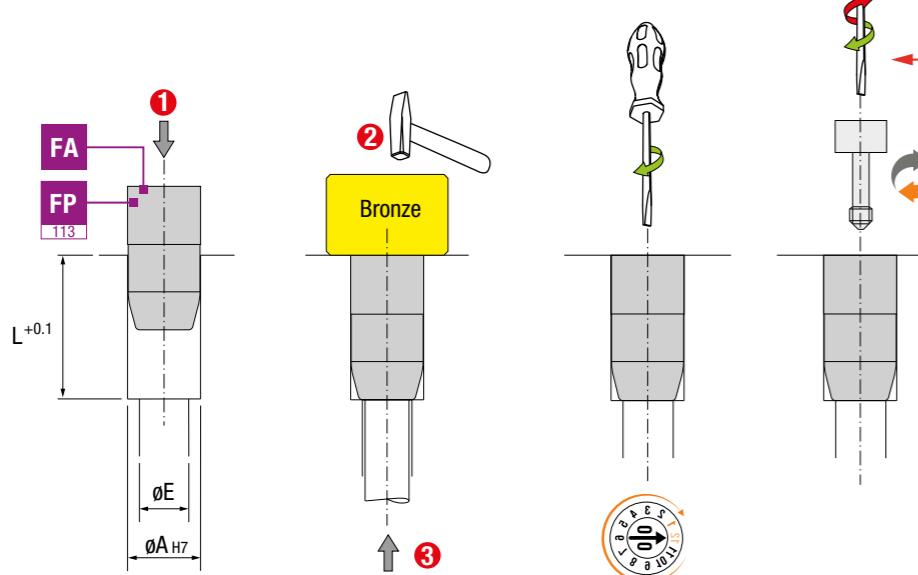


IA

DATE INSERT
ES Inserto Anual DE Einsätze für Datumsteller
IT Inserto Datario PT Indicador Anual FR Insert Dateur



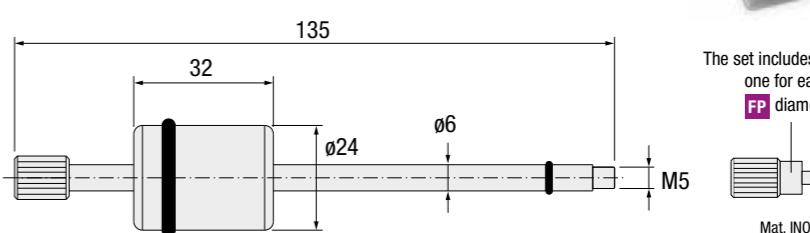
Replacement for FA and FP	Arrow Only	Year	C	M
IA.2275SF	IA.2275..	2.2	7.7	
IA.3075SF	IA.3075..	3	7.7	
IA.3217SF	IA.3217..	3.2	17	
IA.4717SF	IA.4717..	4.7	17	
IA.5717SF	IA.5717..	5.7	17	
IA.6717SF	IA.6717..	6.7	17	
IA.8717SF	IA.8717..	8.7	17	
IA.1007SF	IA.1007..	10.7	17	

Installation GuidelinesConsejos de Instalación · Richtlinien zur Installation · Consigli di Installazione
Instruções de Instalação · Mode d'Installation

IMPORTANT !
CLICK!



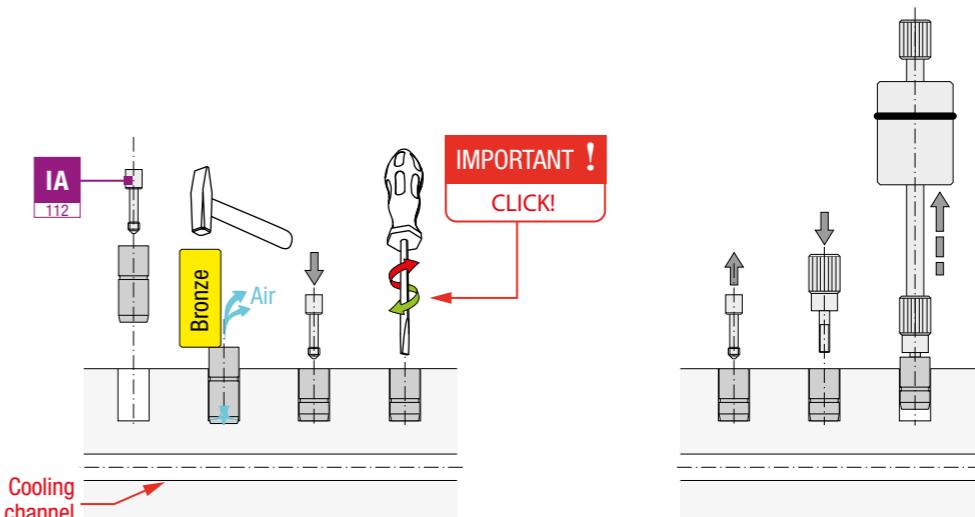
EF

REMOVAL JIGES Extractor Fechador DE Abzieher für Datumsteller
IT Estrattore Datario PT Extrator de Datador FR Extracteur pour Dateur

Ref.	Compatible with
EF.322405-SET	FP.xxxxxx

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

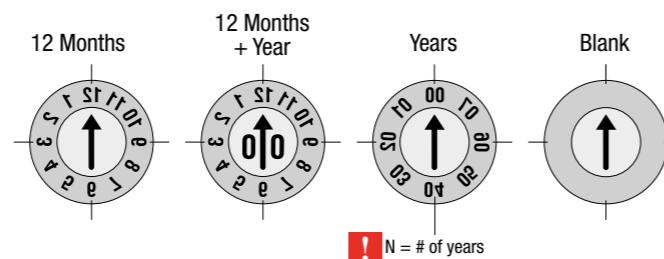
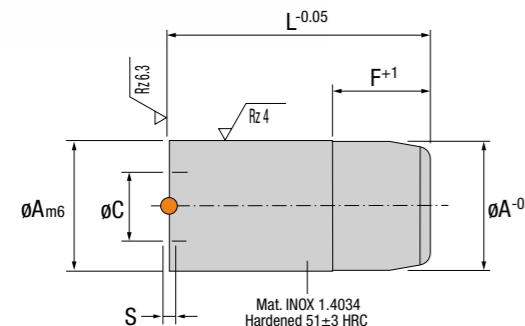


IMPORTANT !
CLICK!

FX



Patented

Max.
100°C**XTRA DATE STAMP**ES Fechador Extra DE Xtra Datumsteller
IT Datario Extra PT Datador Extra FR Dateur Extra

! N = # of years

IMPORTANT !

Special engraving available under request.
Grabados especiales bajo demanda.
Andere Gravuren auf Anfrage.
Incisioni speciali su richiesta.
Gravações especiais por encomenda.
Gravure spéciale par commande.

IMPORTANT !

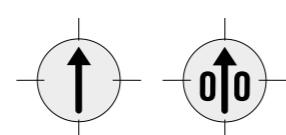
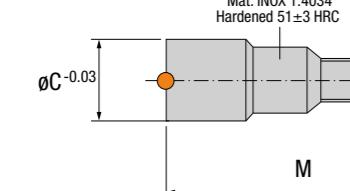
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

12 Months	12 Months+Year	Years	Blank	A	C	E	F	L	N	S
FX.0421SF	FX.042112..	FX.042104..	FX.042100	4	2.1	2	1.6	5	4	0.25
FX.0531SF	FX.053112..	FX.053104..	FX.053100	5	3.1	2.5	2.5	8	4	0.2
FX.0632SF	FX.063212..	FX.063205..	FX.063200	6	3.2	4	6	16	5	0.25
FX.0847SF	FX.084712..	FX.084705..	FX.084700	8	4.7	6	6	16	5	0.25
FX.1057SF	FX.105712..	FX.105706..	FX.105700	10	5.7	8	6	16	6	0.35
FX.1267SF	FX.126712..	FX.126708..	FX.126700	12	6.7	10	6	16	8	0.35

! Max. 100°C

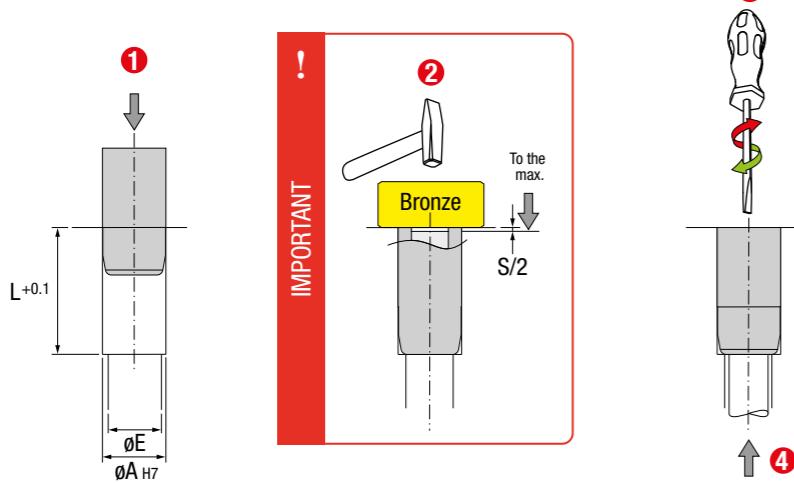


IX

**XTRA INSERT**ES Inserto Extra DE Xtra Einsatz
IT Inserto extra PT Postigo Extra FR Insert Extra

! Cad Insertion Point

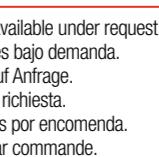
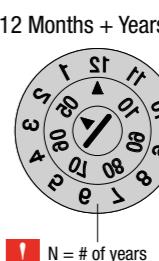
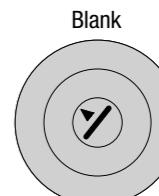
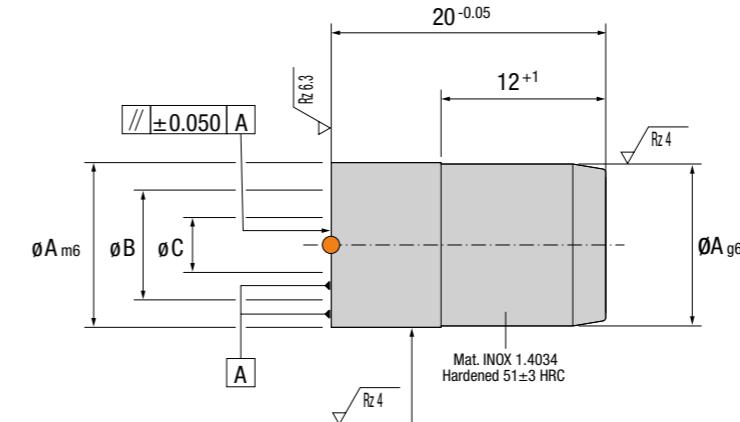
Arrow only	Annual	C	M
IX.2148SF	IX.2148..	2.1	4.8
IX.3178SF	IX.3178..	3.1	7.8
IX.3215SF	IX.3215..	3.2	15.5
IX.4715SF	IX.4715..	4.7	15.5
IX.5715SF	IX.5715..	5.7	15.5
IX.6715SF	IX.6715..	6.7	15.5

Installation GuidelinesConsejos de Instalación · Richtlinien zur Installation · Consigli di Installazione
Instruções de Instalação · Mode d'Installation**IMPORTANT !**

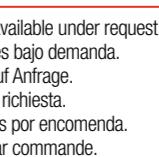
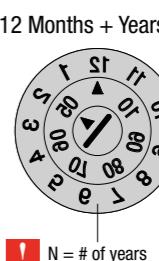
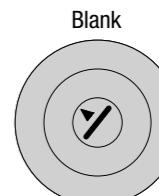
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

DOUBLE DATE STAMPES Fechador Doble DE Zweifach-Datumstempel
IT Datario Doppio PT Datador Duplo FR Dateur Double

! Cad Insertion Point



FD

Patented
Max. 100°C

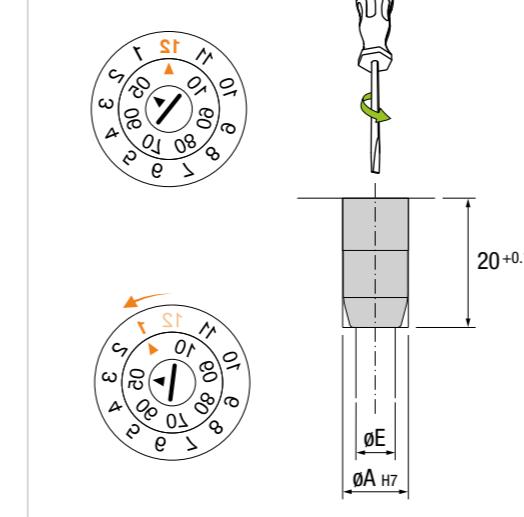
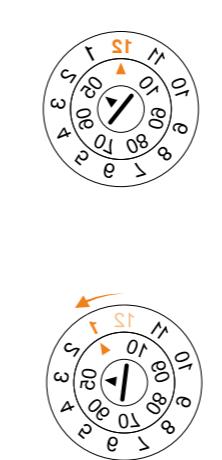
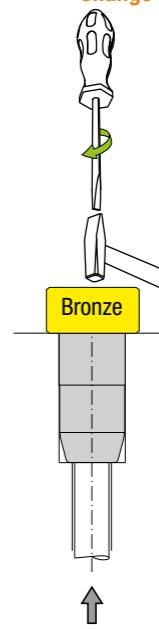
12 Month+Year	Blank	A	B	C	E	N
FD.080512..	FD.080500	8	5.5	3	6	5
FD.120812..	FD.120800	12	8	4	10	6
FD.161012..	FD.161000	16	10.5	5.3	12	10

IMPORTANT !

Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

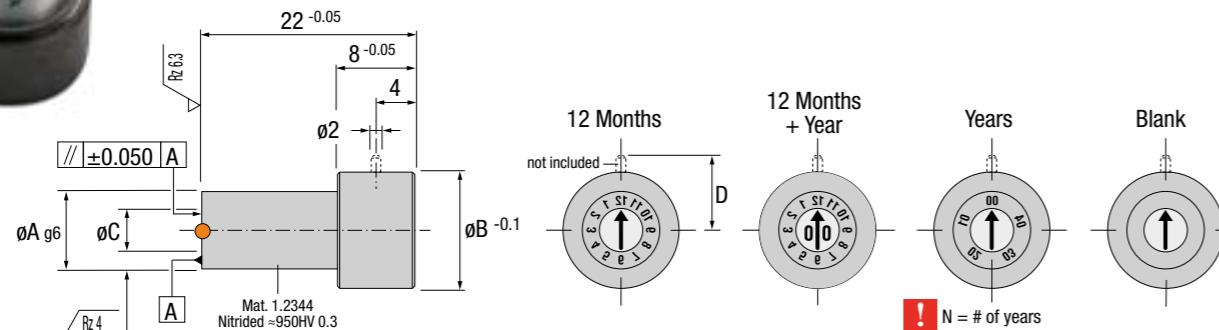
Change Outer Information**Change Inner Information**



FT



Patented



12 Months	12 Month+Year	Years	Blank	A	B	C	D	N
FT.0847SF	FT.084712..	FT.084705..	FT.084700	8	12	4.7	11	5
FT.1267SF	FT.126712..	FT.126708..	FT.126700	12	16	6.7	12	8

IMPORTANT!

Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

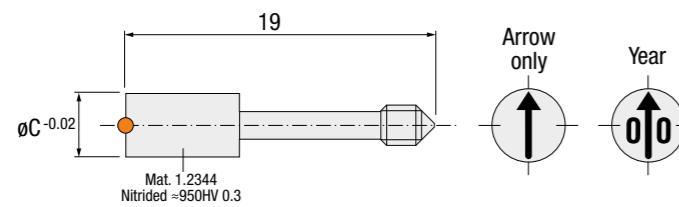
TEMPERATURE DATER

ES Inserto Temperatura DE Einsätze Wärmebeständig

IT Inserto Temperatura PT Indicador Temperatura FR Insert Haute Température



IT



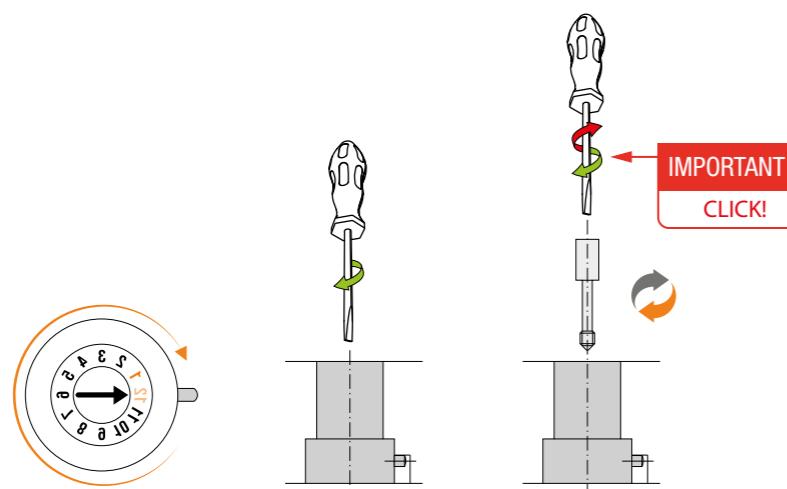
Arrow only	Year	C
IT.4719SF	IT.4719..	4.7
IT.6719SF	IT.6719..	6.7

IMPORTANT!

Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



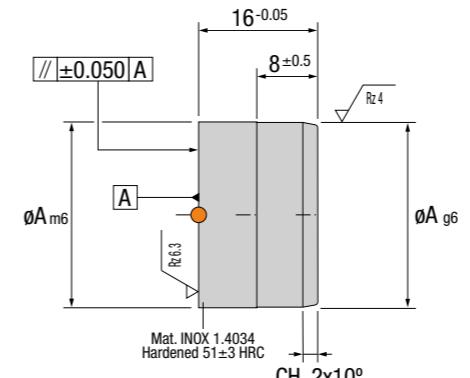
IMPORTANT !

CLICK!

BLOCK BASE

ES Base Monoblock DE Aufnahme Datumsblock
IT Base Monoblocco PT Base Monobloco FR Multi Dateur

Cad Insertion Point



Ref.	A	C	E	#PM
BM.160603	16	6.5	8	3
BM.180604	18	6.5	8	4
BM.220903	22	8.8	10	3
BM.250904	25	8.8	10	4
BM.281103	28	11.5	12	3
BM.321104	32	11.5	12	4

IMPORTANT !

Select separately the 3 or 4 PM needed.
Seleccionar los 3 o 4 PM's requeridos.
3 oder 4 Stück PM mitbestellen.
Specificare i 3 o 4 inserti PM desiderati.
Pedir os 3 ou 4 PM necessários.
Demander les 3 ou 4 inserts PM nécessaires.

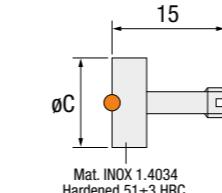


BM

Patented



BLOCK INSERT

ES Postizo Monoblock DE Einsätze für Datumsblöcke
IT Inserto Monoblocco PT Postigo Monobloco FR Inserts Multi Dateur

Ref.	C
PM.0615...	6.5
PM.0915...	8.8
PM.1115...	11.5

IMPORTANT !

Special engraving available under request.
Grabados especiales bajo demanda.
Andere Gravuren auf Anfrage.
Incisioni speciali su richiesta.
Gravações especiais por encomenda.
Gravure spéciale par commande.



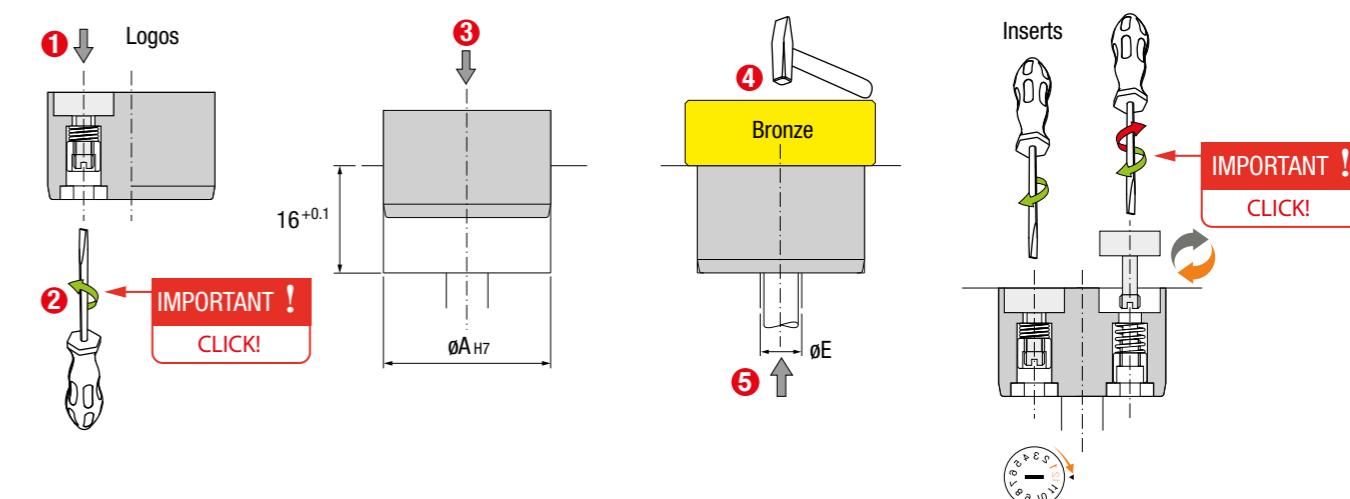
PM

Patented

Logos	Inserts
00	I
01	SF
02	101
03	102
04	103
05	104
06	105
07	106
08	107
09	108
10	109
11	110
	111

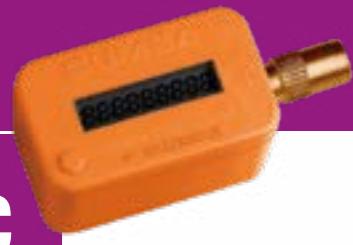
Installation Guidelines

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IMPORTANT !

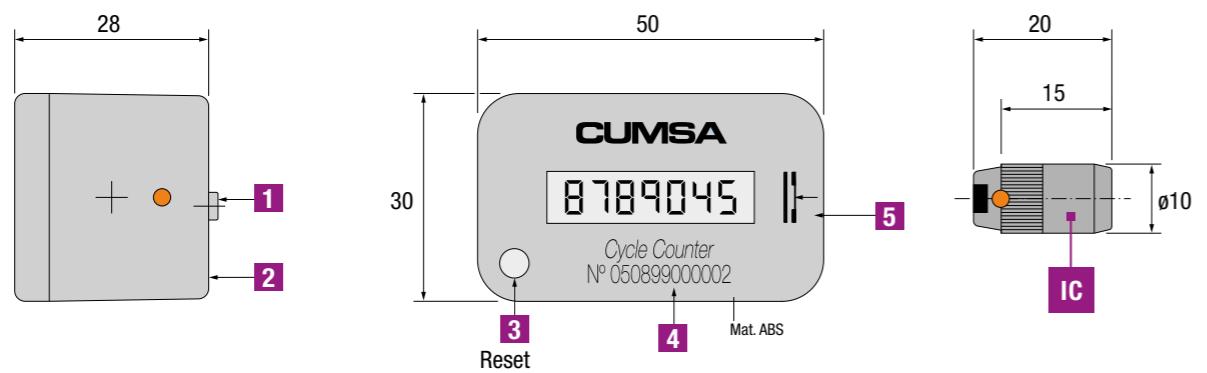
CLICK!



CC

CYCLE COUNTER
 ES Contador Ciclos DE Zählwerk
 IT Conta Cicli PT Contador de Ciclos FR Compteur de Cycle

● Cad Insertion Point



Patented

Max.
60°C

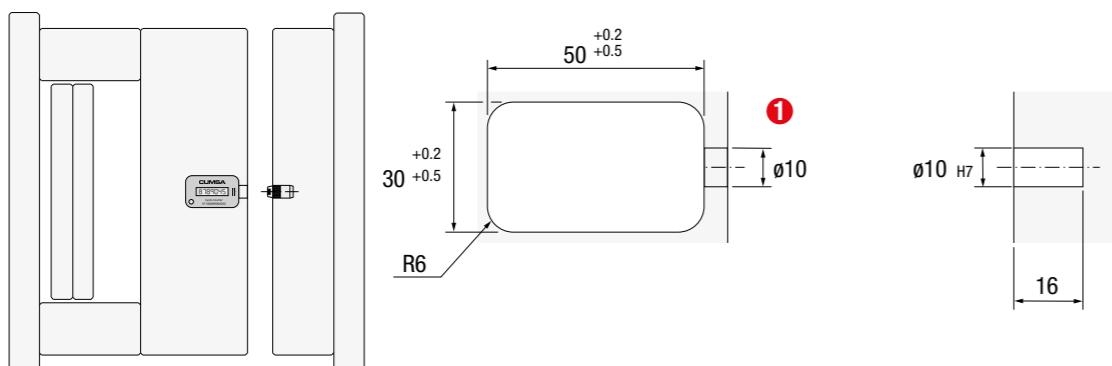
1	2	3	4	5
Security Switch.	Magnetic Fixing.	Total + Partial.	Unique Part Number.	IC Position Indicator.
ES Interruptor de Seguridad.	ES Fijación Magnética.	ES Total + Parcial.	ES Número Único de Identificación.	ES Indicador de Posición IC.
DE Sicherheitskontakt.	DE Magnetbefestigung.	DE Gesamt + Teilmenge.	DE Identifikationsnummer.	DE Positionsanzeiger IC.
IT Interruttore di Sicurezza.	IT Fissaggio Magnetico.	IT Totale + Parziale.	IT Numero Unico di Identificazione.	IT Indicatore di Posizione IC.
PT Interruptor de Segurança.	PT Fixação Magnética.	PT Total + Parcial.	PT Numero Único de Identificação.	PT Indicador de Posição IC.
FR Interrupteur Sécurité.	FR Fixation Magnétique.	FR Total + Partiel.	FR Identification par Numéro Unique.	FR Indicateur Position IC.

Ref.	Cycles / Min	Replaceable Battery
CC.HS5328	Up to 500	ER 14250 ½ AA

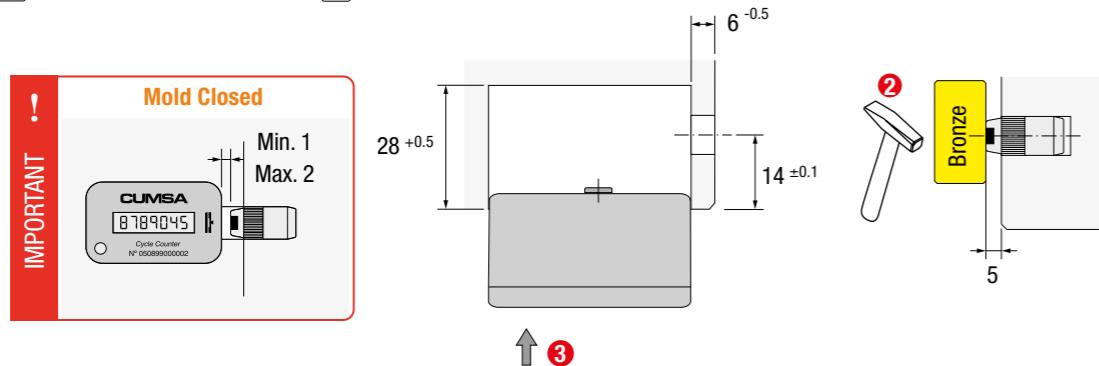
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

Mold Open



Mold Closed



5

VACUUM



VACUUMJET SYSTEM INDEX

ÍNDICE SIETEMA DE VACÍO / INHALTSVERZEICHNIS VACUUMJET-SYSTEM
INDICE SISTEMA VACUUM JET / ÍNDICE SISTEMA DE VÁCUO / INDEX SISTÈME DE VIDE



128/

Double Action Vacuumjet
Unidad de Vacío de Doble Acción
Double Action Vacuumjet system
Vacuumjet Doppia Azione
Vacuumjet Duplo Efeito
Vacuumjet Double Effet



130/

Smart Vacuumjet
Vacuumjet Inteligente
Smart Vacuumjet systems
Smart Vacuumjet
Vacuumjet Inteligente
Vacuumjet Intelligent



140/

Spiral Ejector
Expulsor en Espiral
Spiral Auswerfer
Espulsore con Spirale
Extractor com Espiral
Ejecteur avec Spiral



140/

Non-rotating Head for Ejector Pins
Base Anti-rotación para Expulsores
Verdrehsicherter Kopf
Base Anti-Giro per Espulsori
Cabeça Anti-Rotativa Embasses
Anti-Rotation pour Ejecteurs



132/

Vacuumjet Unit
Unidad de Vacío (Vacuumjet)
Vacuumjet Steuereinheit
Vacuumjet Unidade de Vácuo (Vacuumjet)
Unité de Vide



134/

Vacuumjet +
Unidad de Vacío (Vacuumjet +)
Vacuumjet +
Vacuumjet +
Unidade de Vácuo (Vacuumjet +)
Unité de Vide (Vacuumjet +)



141/

Spiral Sleeve
Tubular en Espiral
Spiral Hüse
Espulsore con Spirale
Tubular com Espiral
Ejecteur Avec spiral



138/

Vacuumjet Valve
Válvula Vacuumjet
Vacuumjet Ventil
Valvola Vacuumjet
Válvula Vacuumjet
Soupape Vacuumjet



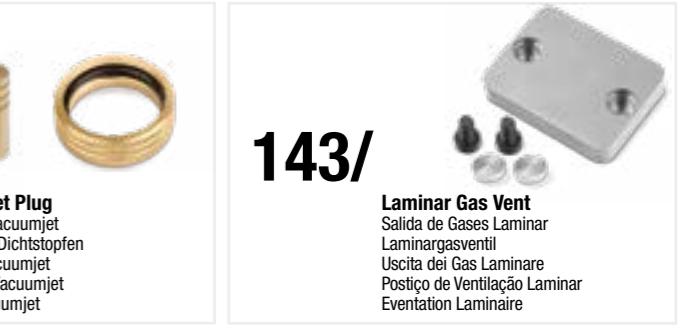
138/

Vacuumjet Valve Tube
Tubo Válvula Vacuumjet
Vacuumjet Ventilrohr
Tubo Valvola Vacuumjet
Tube Válvula Vacuumjet
Tube soupape Vacuumjet



142/

Ejectors
Expulsores
Auswerfer
Espulsori
Extractores
Éjecteurs



142/

Vacuumjet Plug
Casquillo Vacuumjet
Vacuumjet Dichtstopfen
Bussola Vacuumjet
Casquillo Vacuumjet
Bague Vacuumjet



139/

Pneumatic Piston
Pistón Neumático
Pneumatikkolben
Pistone Pneumatico
Pistom Pneumático
Piston Pneumatique



139/

Pneumatic Piston
Pistón Neumático
Pneumatikkolben
Pistone Pneumatico
Pistom Pneumático
Piston Pneumatique



144 /

Connection Tube
Tubo Conexión
Verbindungsrohr
Tubo Connessione
Tubo de Ligação
Tube de Connexion



144/

Vacuumjet Seal
Sello Vacuumjet
Vacuumjet Dichtschnur
Guarnizione Vacuumjet
Vedante Vacuumjet
Joint Vacuumjet

WHAT DOES VACUUM STAND FOR?

To vacuum is to remove the air out of a space, therefore, leaving this space completely empty, creating a negative pressure.

WHY IS IT INTERESTING TO CREATE A VACUUM INSIDE MOLDS?

During the injection process there is an invisible pressure within the cavity, making it difficult to fill, this pressure is the air! The air is cornered, compressed and heated by plastic, and is pushed outside the mold through its clearances, complicating therefore the cavity filling, and creating problems in the process, in the plastic part and slowing down the cycle time.

We need to extract the air from the cavity or at least minimize its influence in the process!

HOW CAN WE EXTRACT THE AIR?

CUMSA has developed a series of products to enable the vacuuming of mold cavities.

Discover these products in this catalogue!

From just 20-30% of vacuum created, improvements in the process can be observed; therefore, it is important to balance the level of vacuum with the time needed, to find the best option to suit your particular needs.

WHAT BENEFITS COULD MY MOLD ACHIEVE WITH THE VACUUM?

In the injected plastic part:

- Superior visual appearance (less sink marks).
- Dimensional stability (less weld lines).
- Uniform color.
- High mechanical resistance due to perfect plastic distribution.

In the process:

- Reduced cycle time.
- Lower injection temperature & pressure.
- Increase in production.

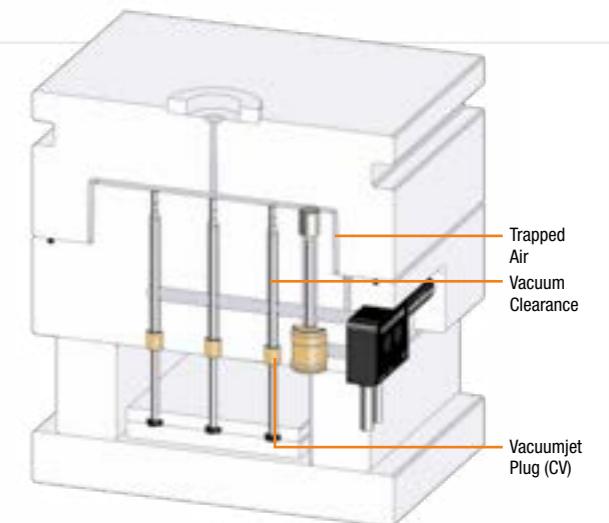
WHAT IS NEEDED TO CREATE THE VACUUM?

- Complete sealing of the mold to achieve optimal vacuum results.
- 1 or 2 electrovalves, depending on the model selected.
- No need of any additional vacuum pump/mechanism.

MOLD CLOSED

With the mold closed, air is trapped inside the cavity. If injection starts, the air will be cornered, heated and compressed by the plastic, producing poor quality plastic parts.

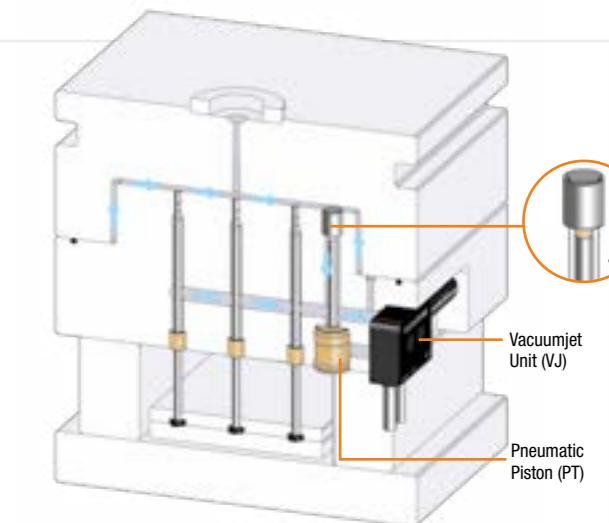
We have to create vacuum!



CREATING THE VACUUM IN THE CAVITY

To optimize the injection process we have to take out the air from the cavity.

There are several methods to accomplish this, but in all of them it is the injected plastic that pushes out the air. With VACUUMJET, when it is activated prior to the injection, a valve is opened and the air is vacuumed, therefore, leaving the cavity in optimal conditions for injection.

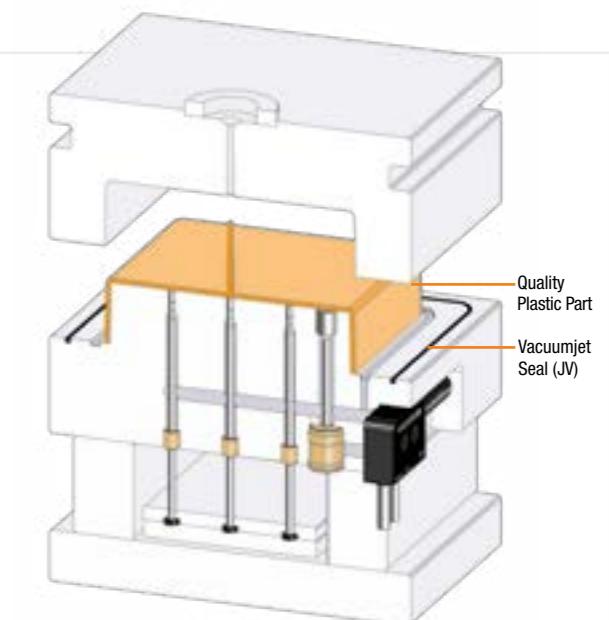


INJECTION STARTS

The VACUUMJET continues sucking the air during all the injection process, to guarantee the maximum ease of the plastics fluidity, therefore reducing the pressure needed.

EJECTION PROCESS

When the injection is finished, the VACUUMJET stops, and as with all molds, the plastic is cooled and the part is ejected...but with the VACUUMJET system, we obtain greater quality plastic part, with at least the same injection time, if not faster, and without altering the optimal injection parameters.



VACUUMJET SYSTEM by CUMSA

WICH PRODUCT IS THE BEST FOR MY MOLD?

DO I NEED TO CONTROL THE VACUUM LEVEL?	YES				NO				DO I NEED TO CONTROL THE VACUUM LEVEL?
	DO I HAVE SPACE FOR A VACUUM VALVE?	YES	NO	YES	NO	YES	NO	YES	
DO I NEED REVERSE BLOWING?	YES	NO	YES	NO	YES	NO	YES	NO	DO I NEED REVERSE BLOWING?
	2	2	2	1	3	2	2	1	
HOW MANY ELECTROVALVES DO I NEED?									HOW MANY ELECTROVALVES DO I NEED?
	SV	VM + VJ	VM + VB	VM + VG	VJ + VB	VJ	VB	VG	

The Vacuumjet + (VG model) can be added to any combination to increase vacuuming power and speed up the vacuum process. For each VG model, a separate compressed air circuit is needed to assure that we always have at least 6 BARS of air pressure.

The use of Spiral Ejector or Spiral Sleeve (VP & VS) is mandatory when not using a valve. However, it is also recommended when using a valve to maintain the vacuum achieved throughout the rest of the process.

DOUBLE ACTION VACUUMJET

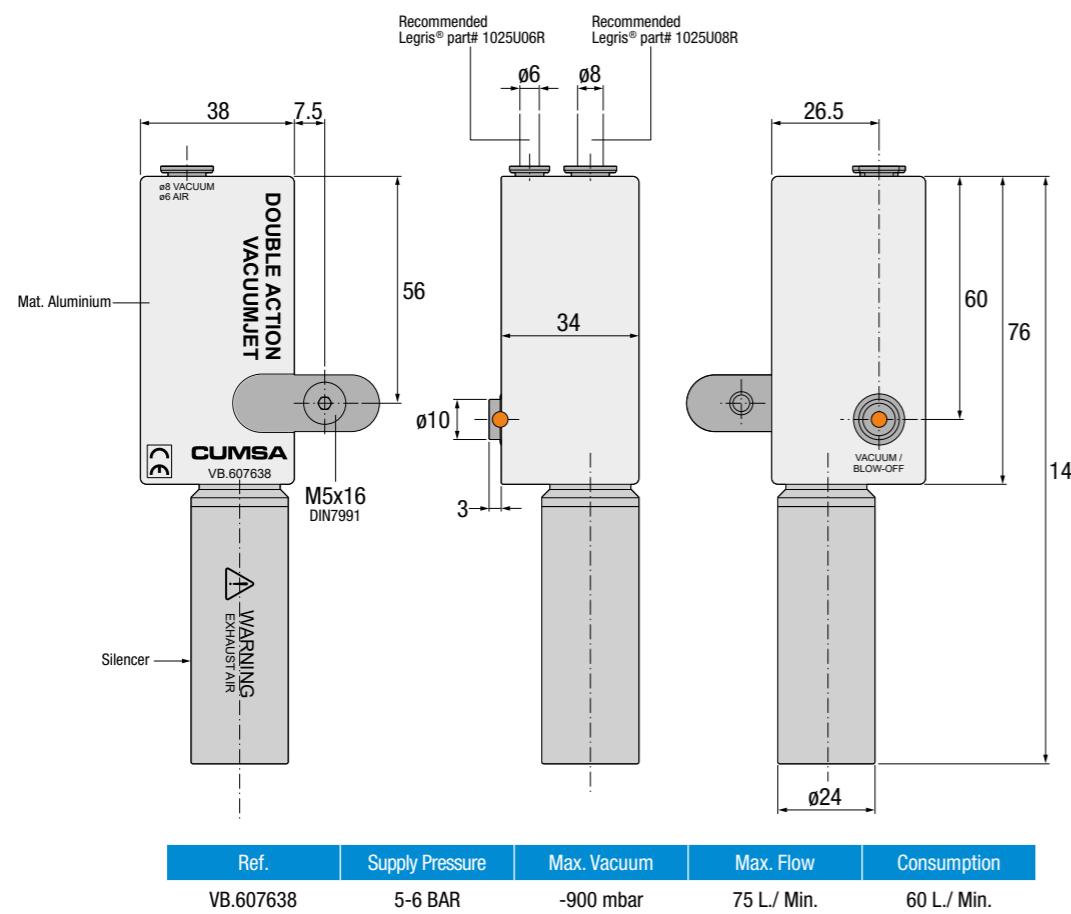
ES Unidad de Vacío de Doble Acción DE Double Action Vacuumjet system
IT Vacuumjet Doppia Azione PT Vacuumjet Duplo Efeito FR Vacuumjet Double Effet

INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

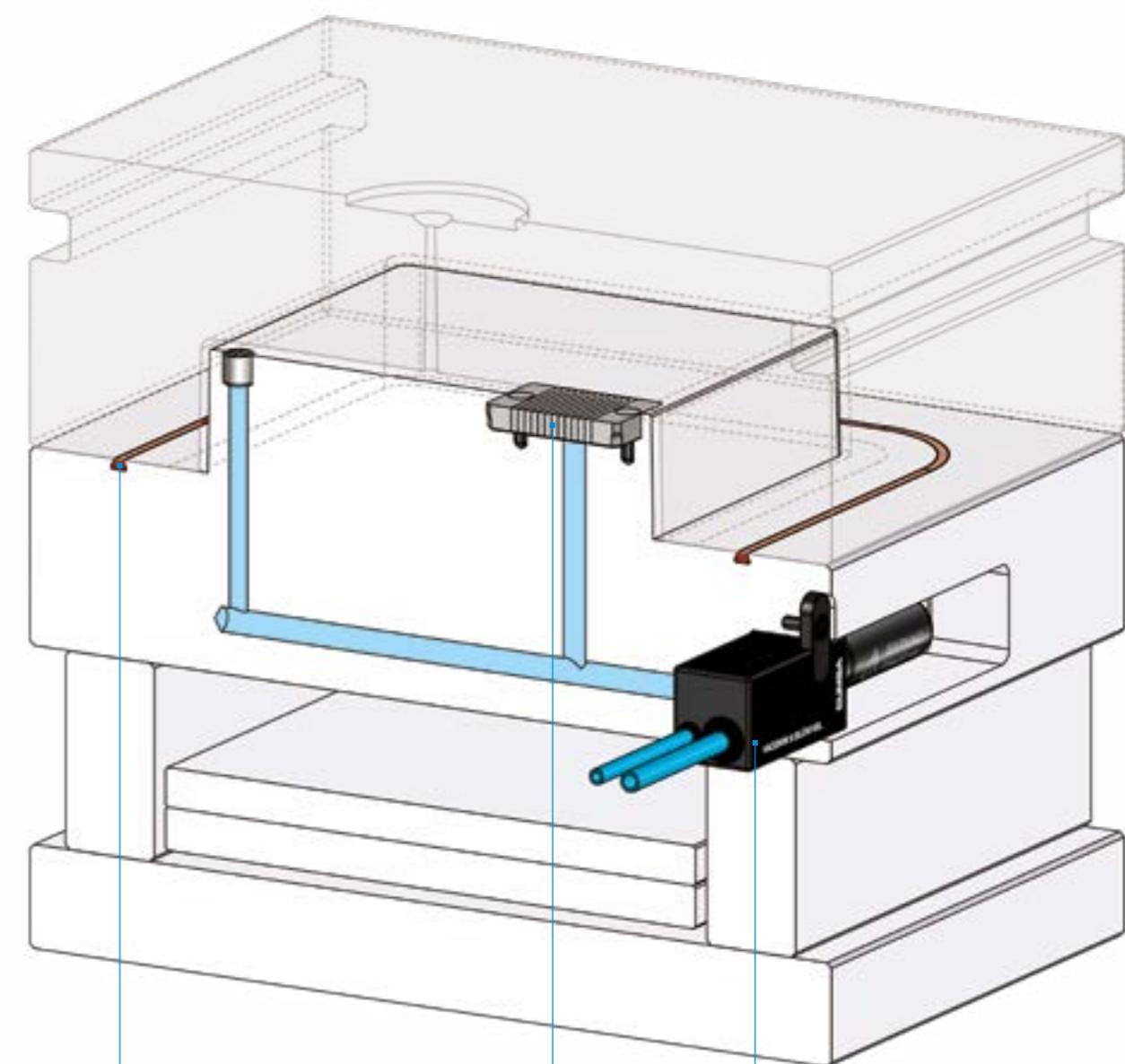
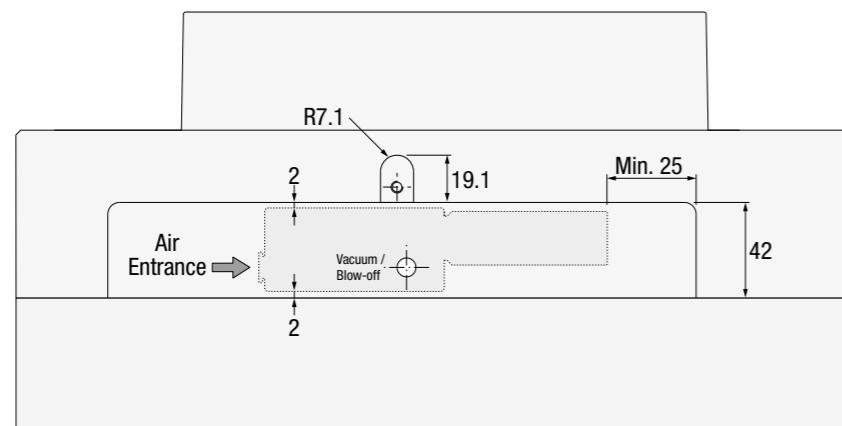
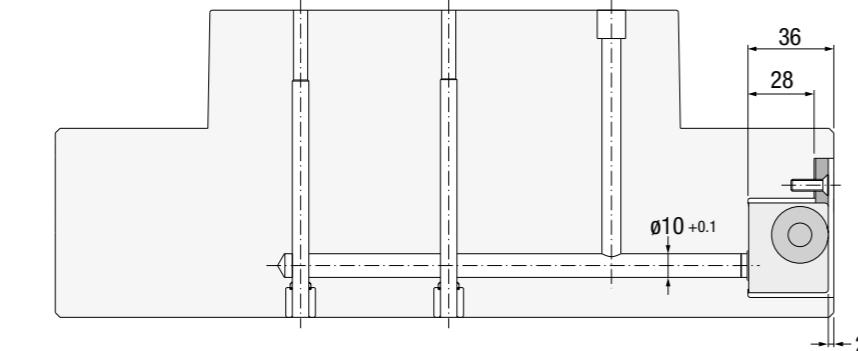
VB

VB



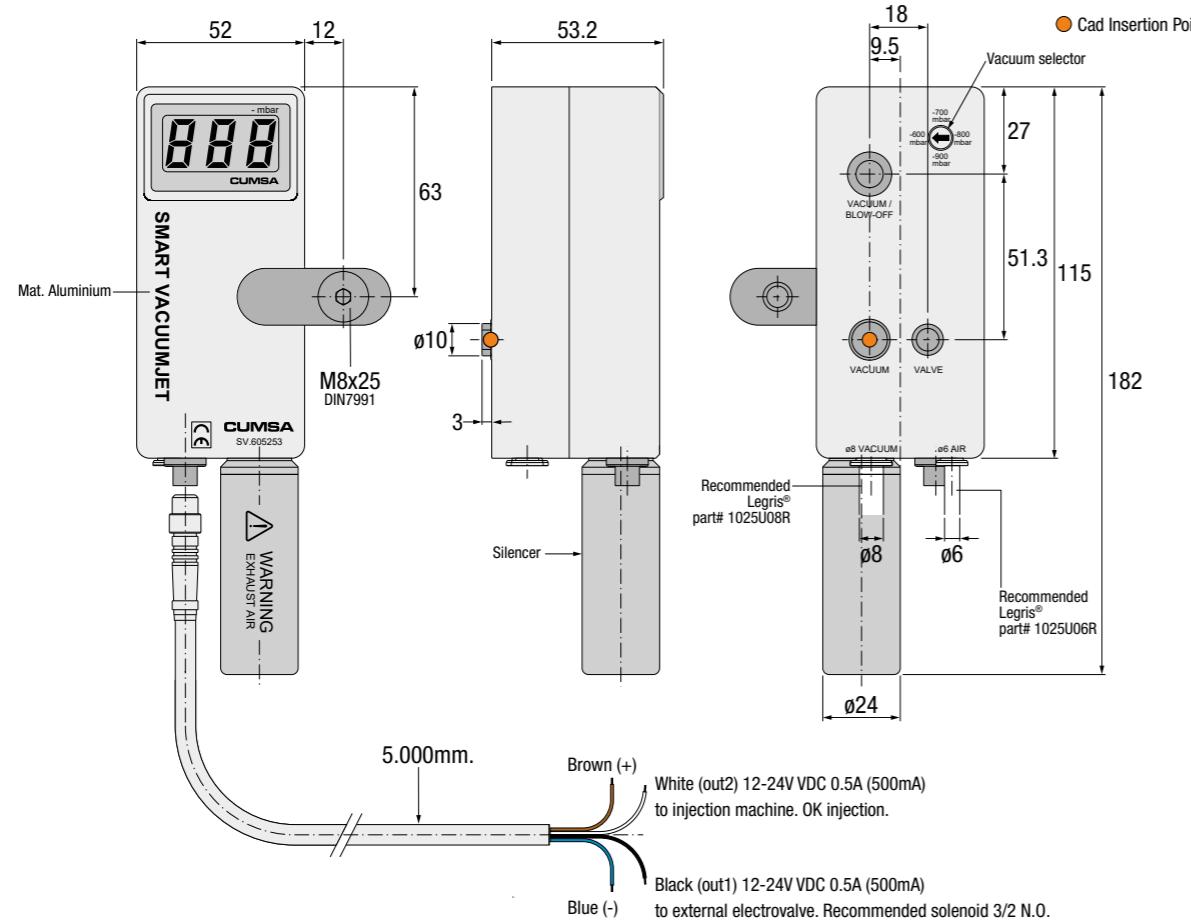
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SMART VACUUMJET

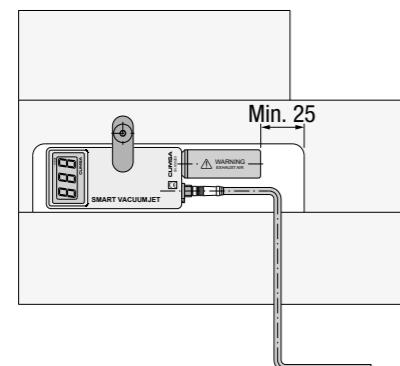
ES Vacuumjet Inteligente DE Smart Vacuumjetsystems
IT Smart Vacuumjet PT Vacuumjet Inteligente FR Vacuumjet



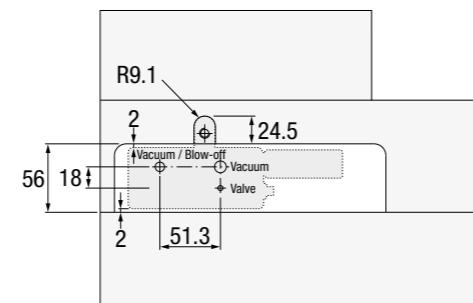
Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
SV.605253	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

Installation Guidelines

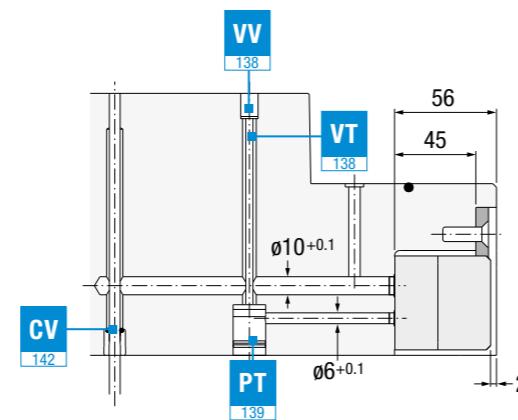
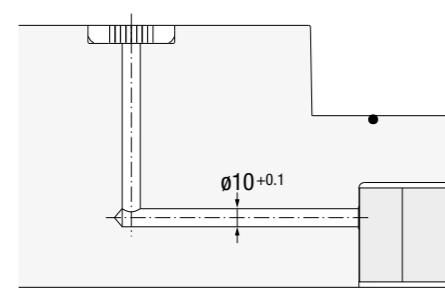
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



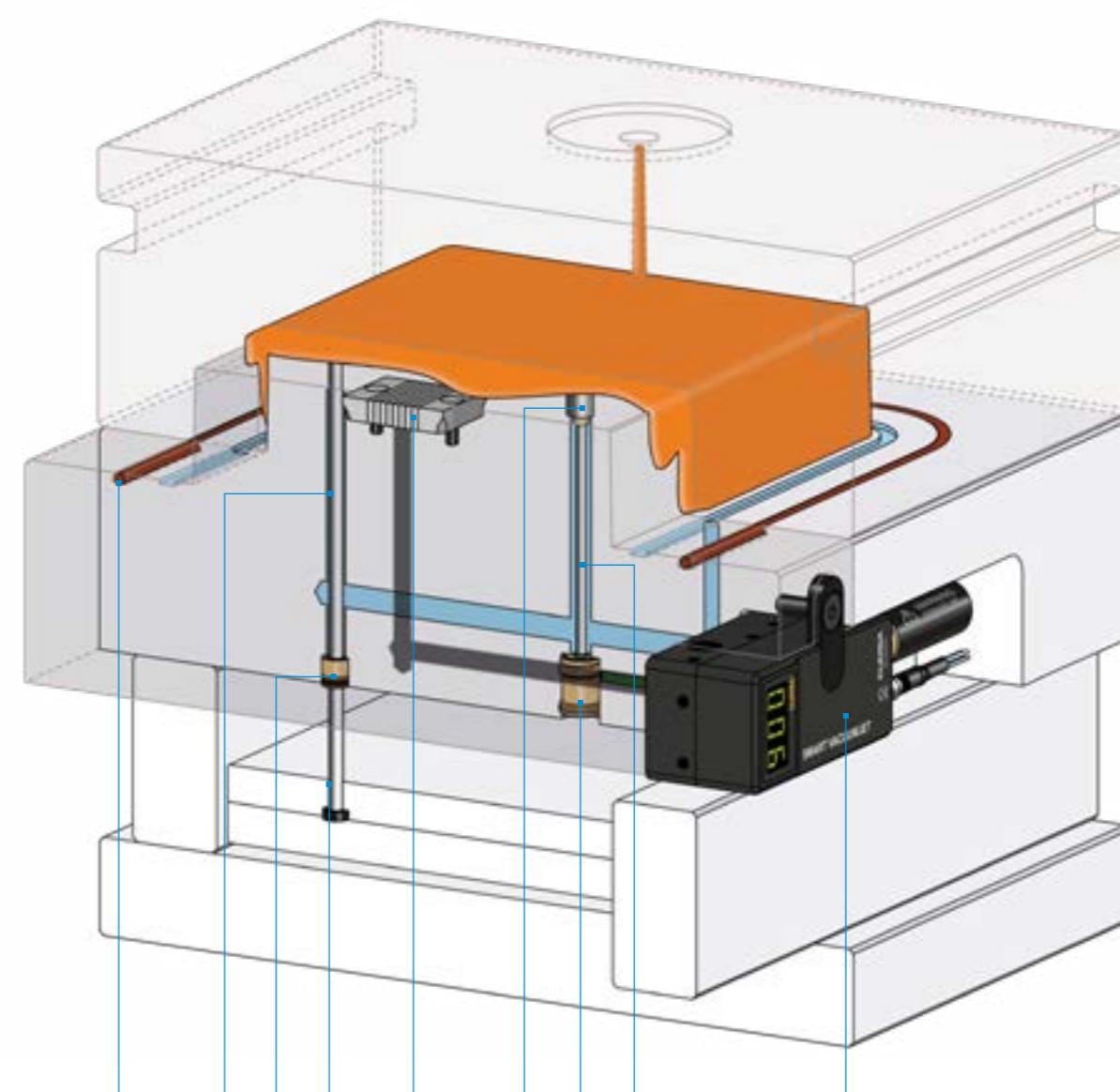
Vacuum / Blow-off Section



Vacuum Section

**INSTALLATION GUIDELINES**

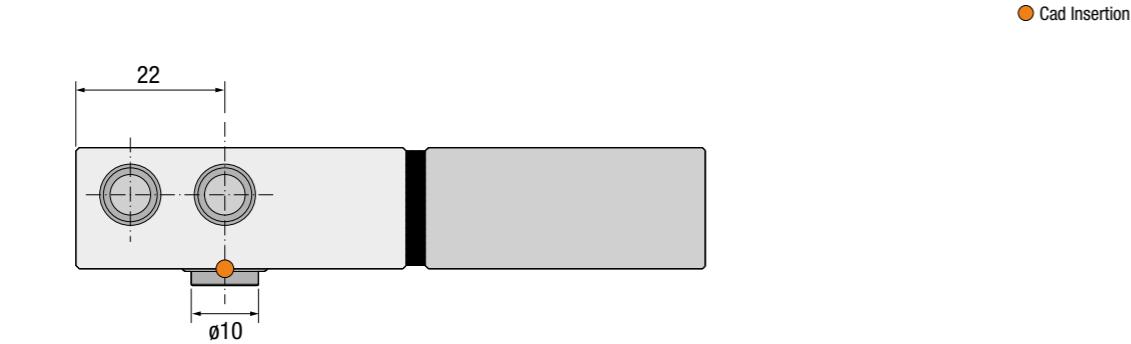
ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation



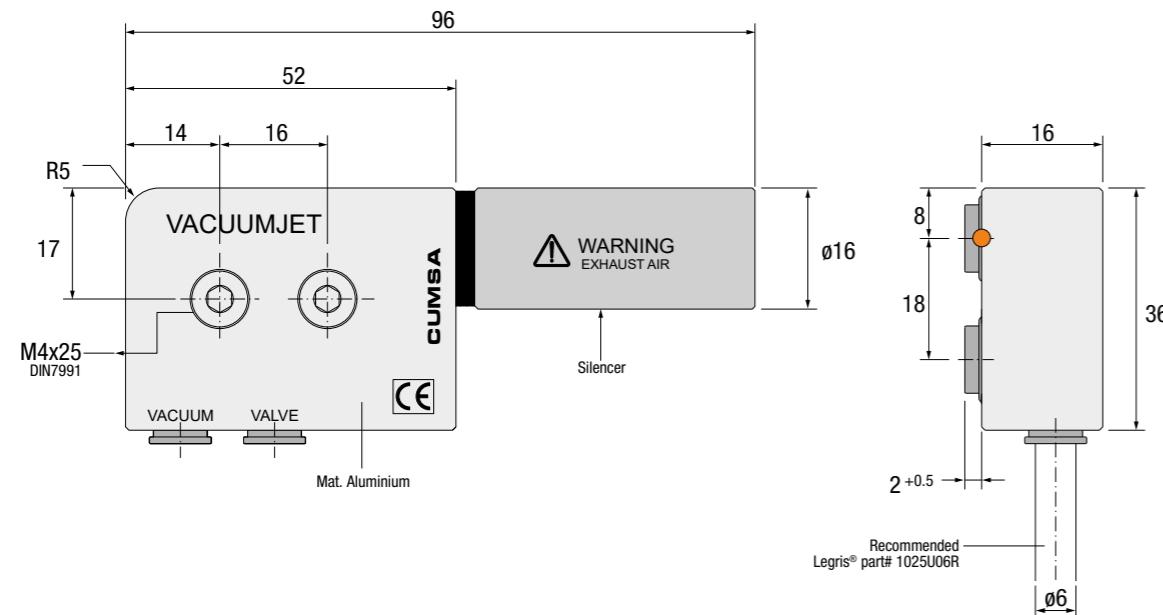
VJ

VACUUMJET UNIT

ES Unidad de Vacío (Vacuumjet) DE Vacuumjet Steuereinheit
 IT Vacuumjet PT Unidade de Vácuo (Vacuumjet) FR Unité de Vide



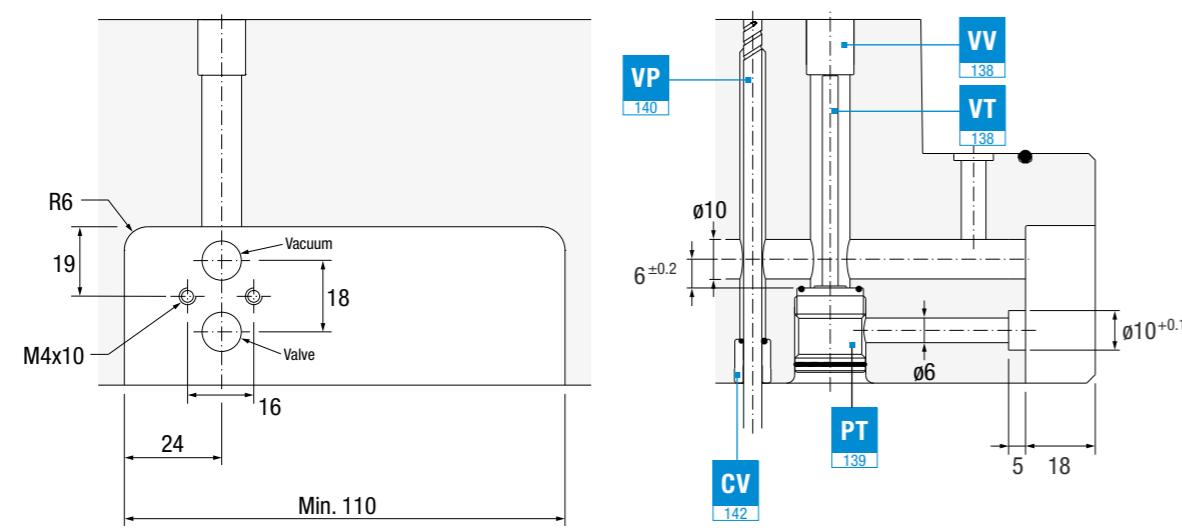
Patented



Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
VJ.600000	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

Installation Guidelines

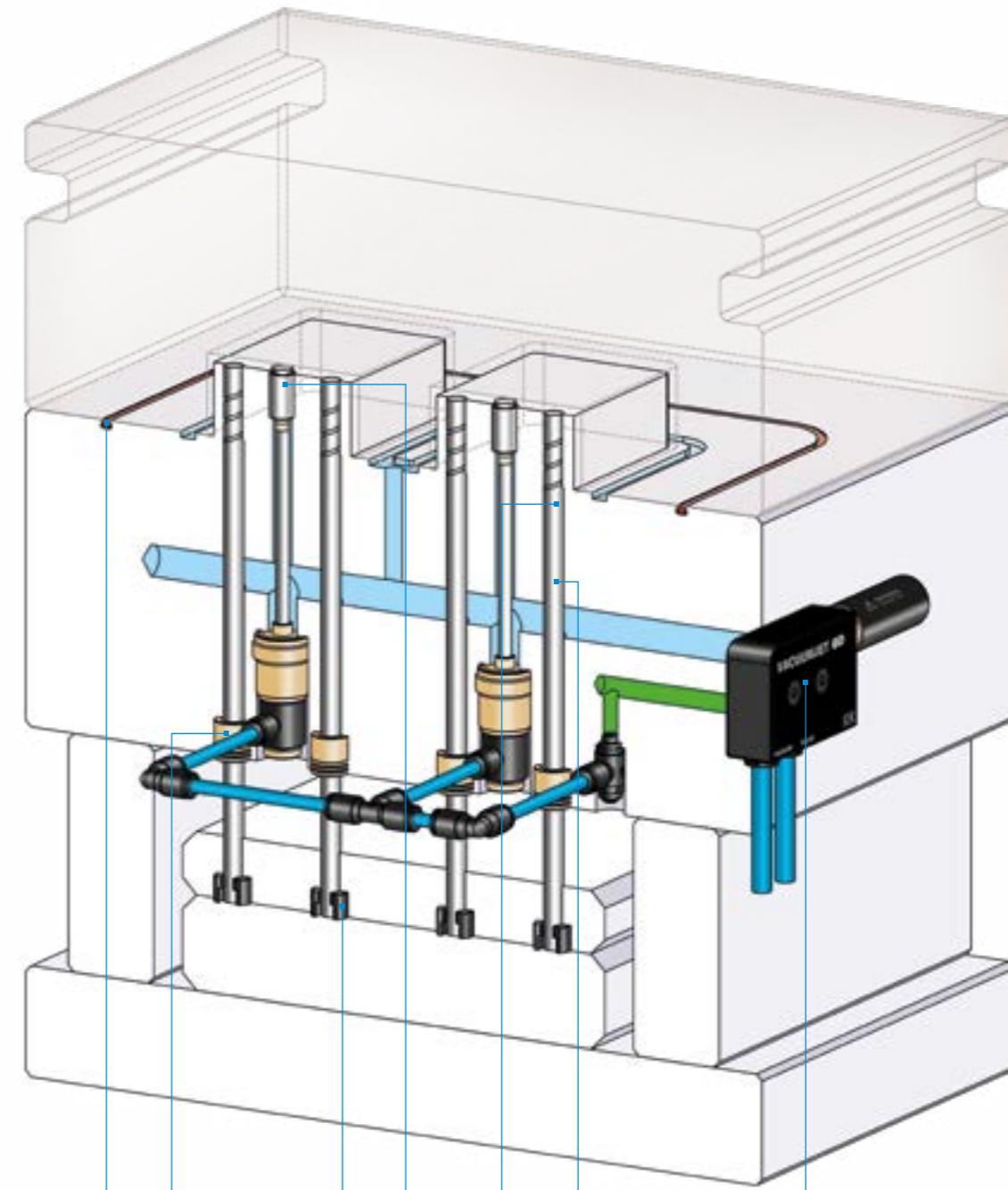
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

**INSTALLATION GUIDELINES**

ES Consejos de Instalación DE Richtlinien zur Installation
 IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

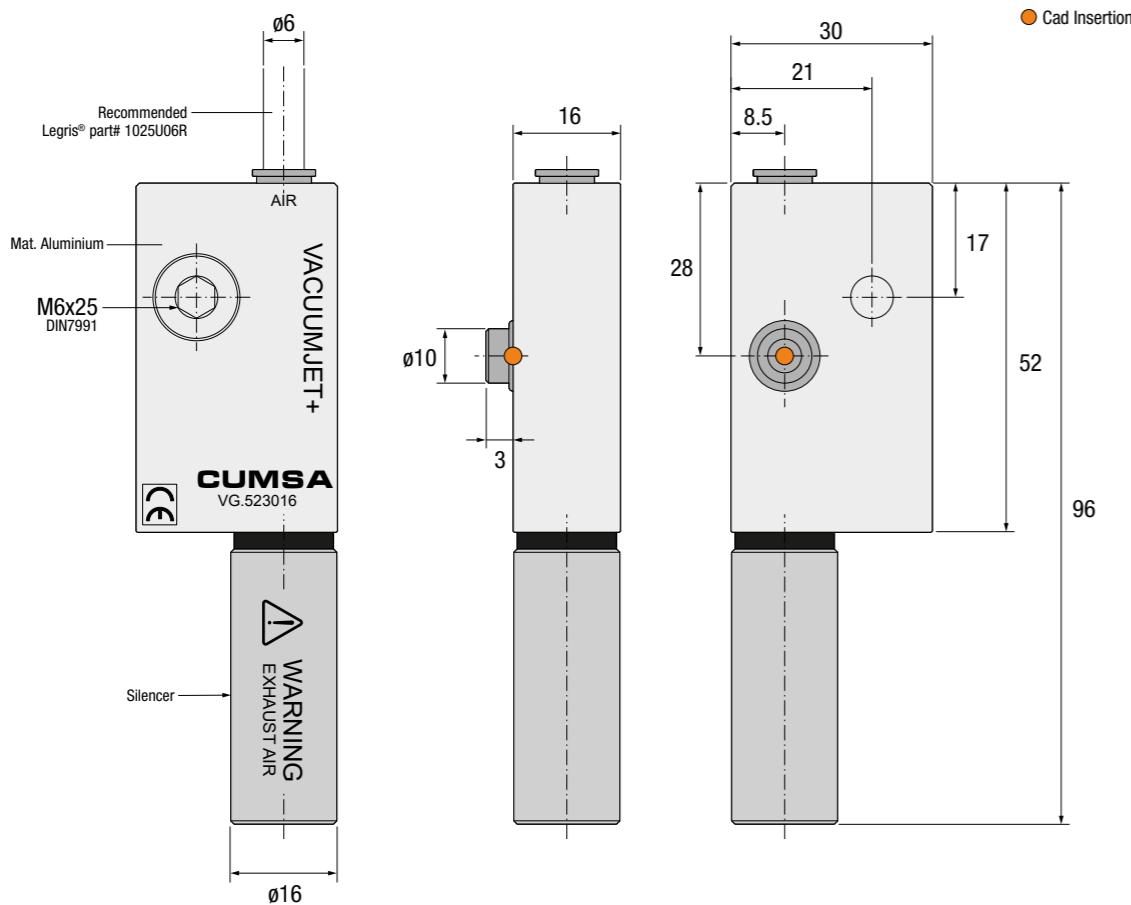


VJ



VACUUMJET +

ES Unidad de Vacío + (Vacuumjet+) DE Vacuumjet +
 IT Vacuumjet + PT Unidade de Vácuo (Vacuumjet+) FR Unité de Vide (Vacuumjet+)



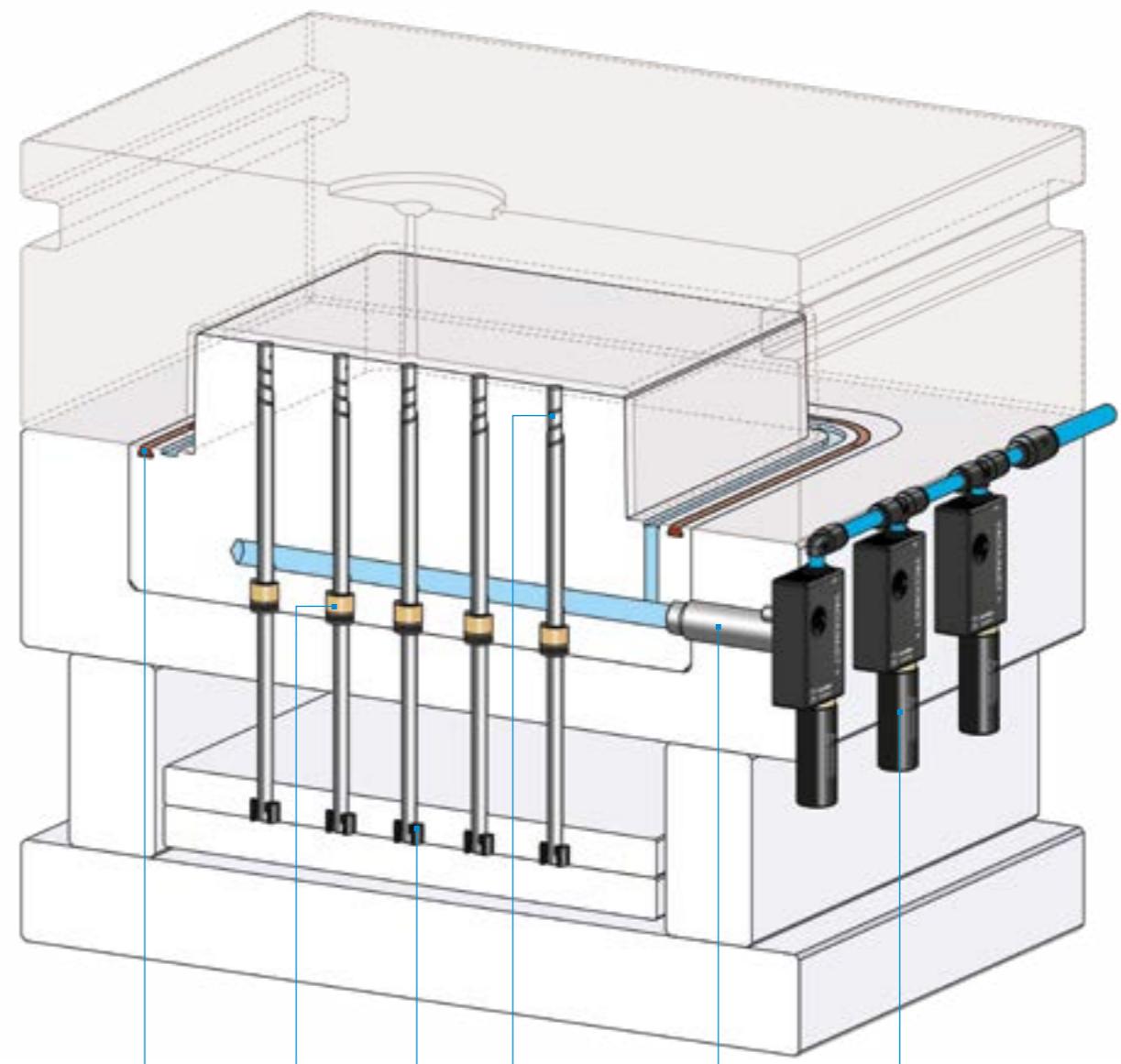
Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
VG.523016	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

IMPORTANT !

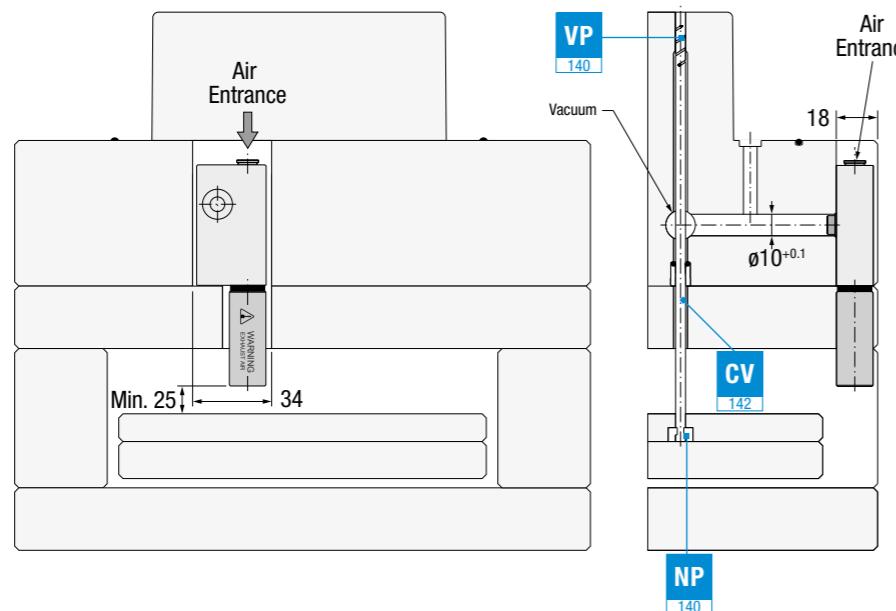
Several units can be connected together in the same Vacuum circuit.
 En un solo circuito de vacío se pueden conectar varias unidades.
 Mehrere Einheiten können zusammen im gleichen Vakuumkreislauf angeschlossen werden.
 In un solo circuito si possono collegare diverse unità.
 Em apenas um circuito de ar podemos ligar várias unidades.
 Avec un seul circuit d'air nous pouvons relier plusieurs unités.

INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
 IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

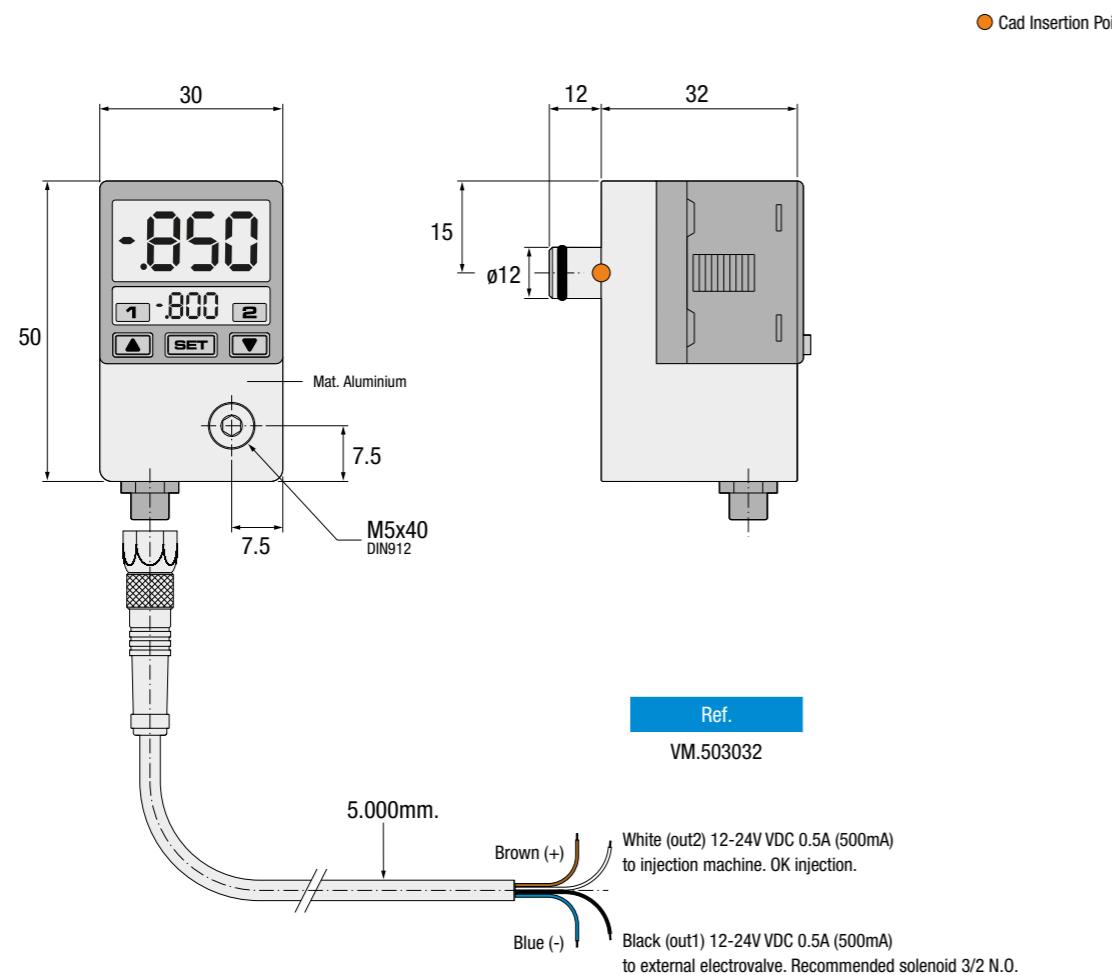
**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



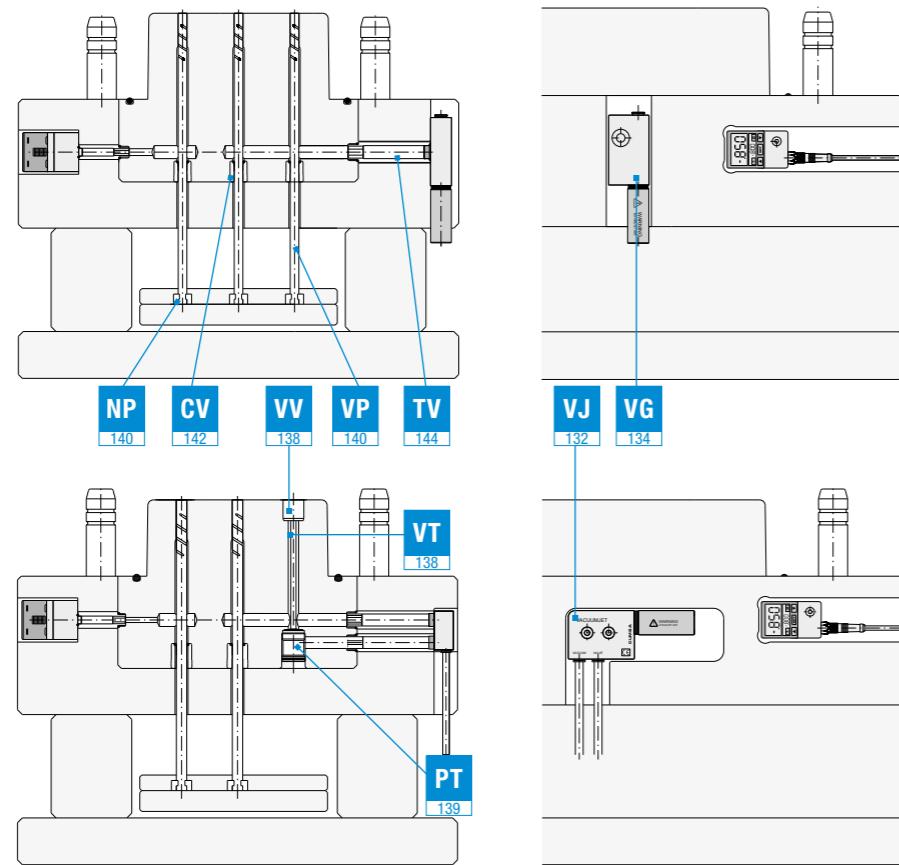
VACUUM CONTROL

ES Controlador Vacuumjet DE Vacuum Regeleinheit
IT Unità di Controllo Vacuum PT Controlador Vacuumjet FR Contrôle Vacuumjet



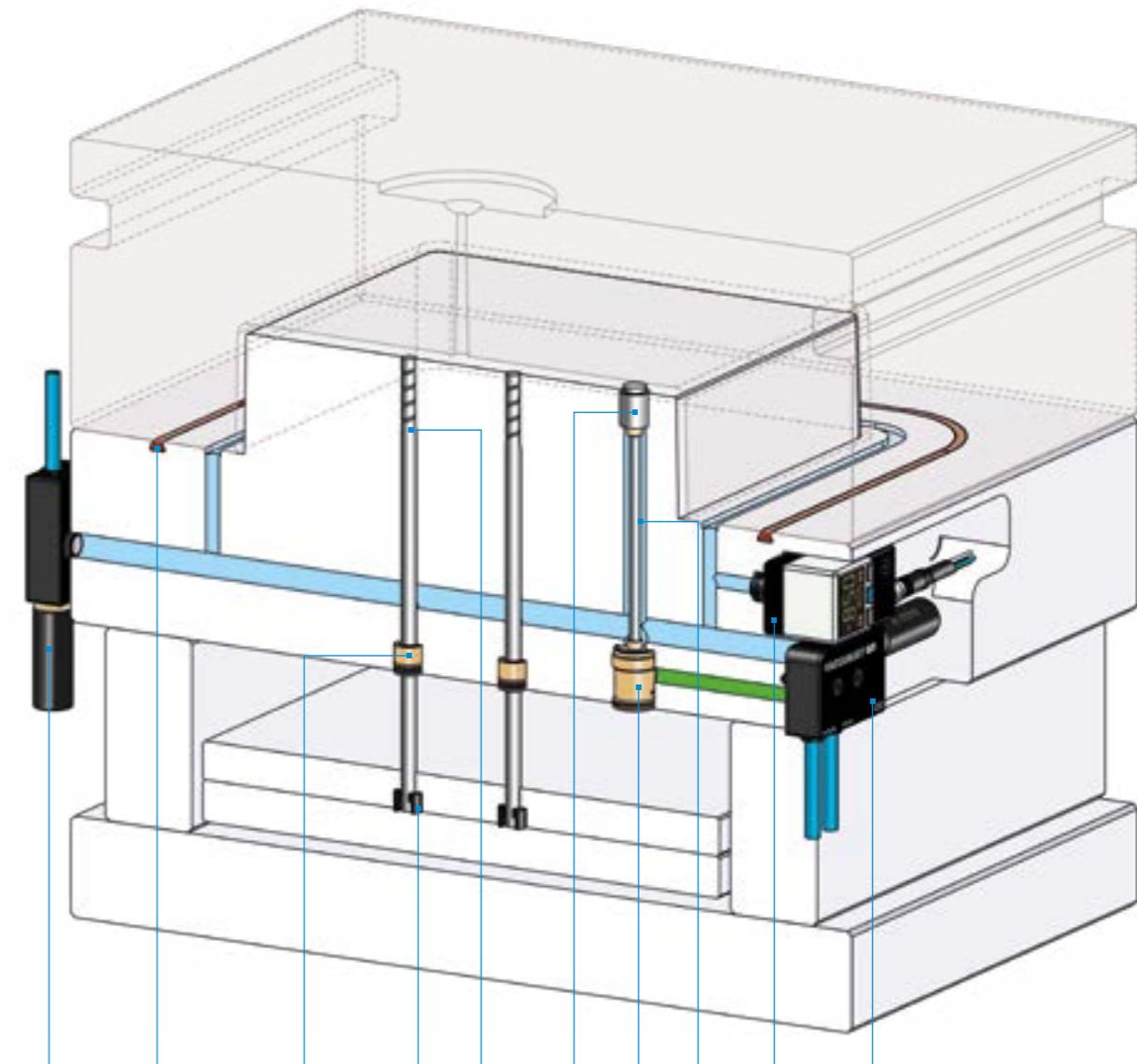
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



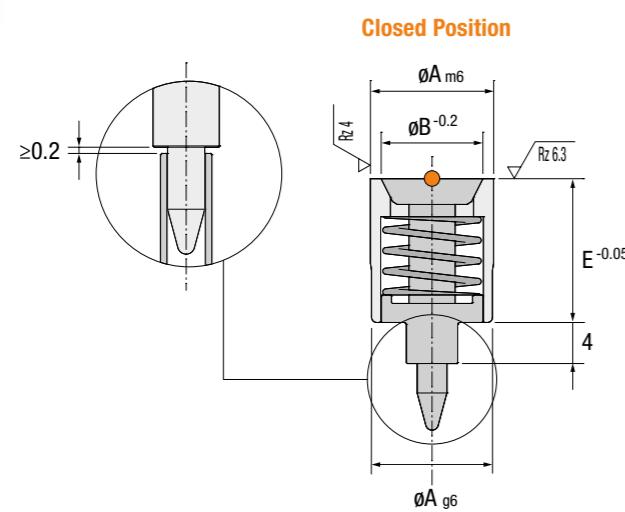
INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation





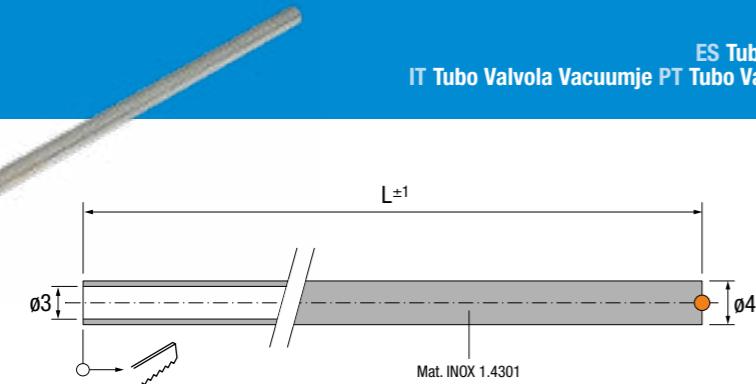
VW



Ref.	A	B	C	D	E
VW.086414	8	6.7	10	6.5	14
VW.121014	12	9.8	10	10	14
VW.161416	16	14	10	10	16

VACUUMJET VALVE TUBE

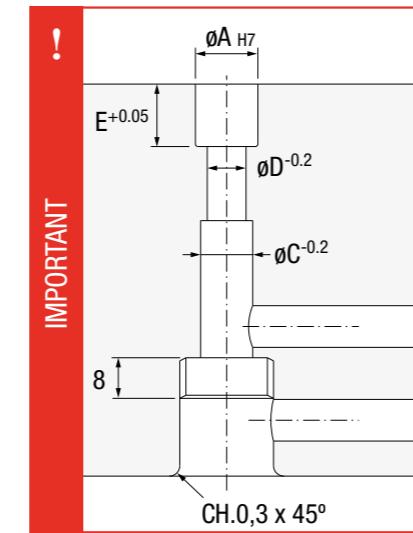
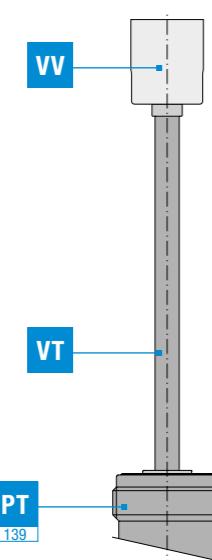
ES Tubo Válvula Vacuumjet DE Vacuumjet Ventilrohr
IT Tubo Valvola Vacuumjet PT Tubo Válvula Vacuumjet FR Tube souape Vacuumjet



Ref.	L
VT.043209	209
VT.043500	500

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation



Patented

VACUUMJET VALVE

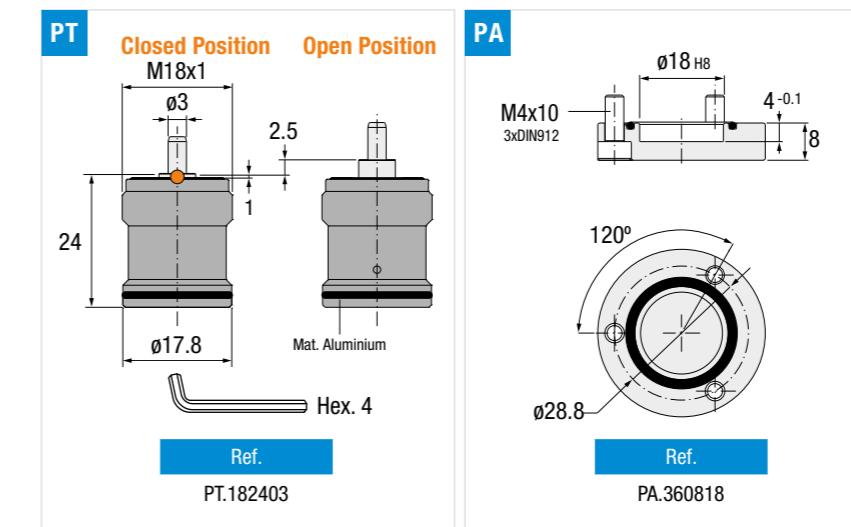
ES Válvula Vacuumjet DE Vacuumjet Ventil
IT Valvola Vacuumjet PT Válvula Vacuumjet FR Souape Vacuumjet

PNEUMATIC PISTON

ES Pistón Neumático DE Pneumatikkolben
IT Pistone Pneumatico PT Piston Pneumático FR Piston Pneumatique

● Cad Insertion Point

● Cad Insertion Point

**IMPORTANT**

PA must be ordered separately.
La referencia PA debe pedirse por separado.
PA bitte separat bestellen.
Il codice PA deve essere ordinato separatamente.
O PA deve ser encomendado em separado.
PA doit être commandée séparément.

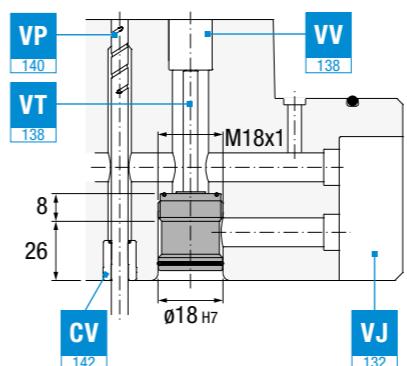
PT+PA

Patented
Max. 150°C

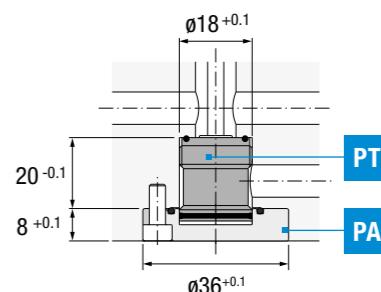
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation

Option PT



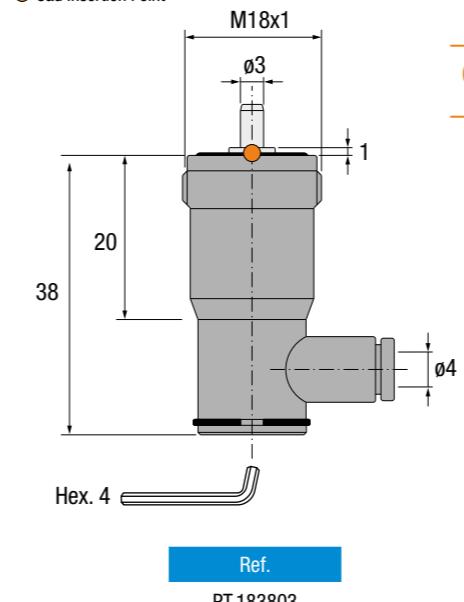
Option PT+PA



PNEUMATIC PISTON

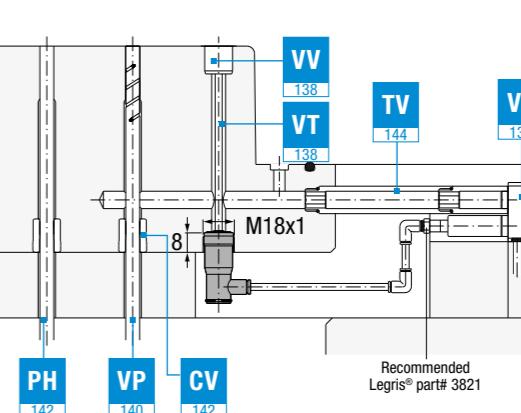
ES Pistón Neumático DE Pneumatikkolben
IT Pistone Pneumatico PT Piston Pneumático FR Piston Pneumatique

● Cad Insertion Point



Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation



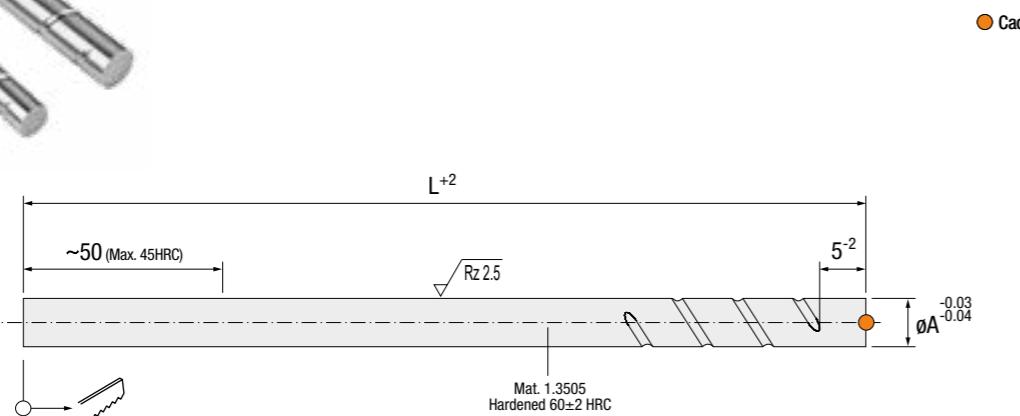
PT

Patented
Max. 80°C

SPIRAL EJECTOR

ES Expulsor en Espiral DE Spiral Auswerfer

IT Espulsore con Spirale PT Extractor com Espiral FR Ejector avec Spiral



VP

Patented

Ref.	A	L	
VP.060527-...	6	150 250 350	
VP.080527-...	8	150 250 350	
VP.100530-...	10	150 250 350	
VP.120530-...	12	150 250 350	

IMPORTANT !

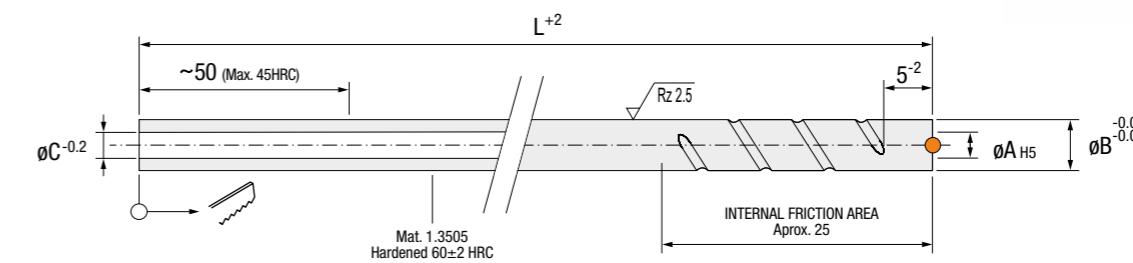
Indicate the desired L dimension after the reference.
Indicar al final de la referencia, la cota L deseada.
Gewünschte Länge L angeben.
Indicare la quota L desiderata alla fine del codice.
Indique o dimensão L desejada depois da referência.
Préciser le début de référence et le compléter par la dimension L souhaitée.

SPIRAL SLEEVE

ES Tubular en Espiral DE Spiral Hülse

IT Espulsore con Spirale PT Tubular com Espiral FR Ejector avec Spiral

● Cad Insertion Point



VS

Patented

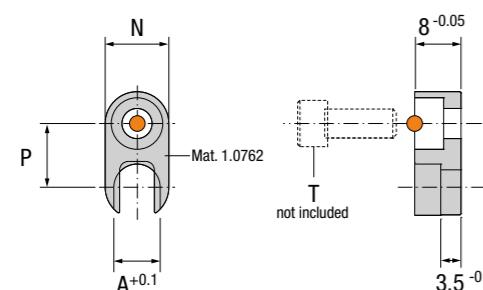
Ref.	A	B	C	L
VS.030060-...	3	6	3.2	150 250 350
VS.050080-...	5	8	5.2	150 250 350
VS.060100-...	6	10	6.2	150 250 350
VS.080120-...	8	12	8.2	150 250 350

NON-ROTATING HEAD FOR EJECTOR PINS

ES Base Anti-Rotación para Explosores DE Verdrehgesicherter Kopf

IT Base Anti-Giro per Espulsori PT Cabeça Anti-Rotativa FR Embases Anti-Rotation pour Éjecteurs

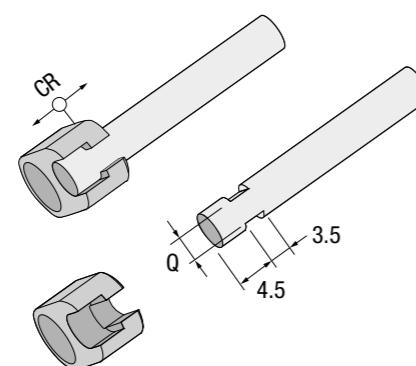
● Cad Insertion Point



NP

Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



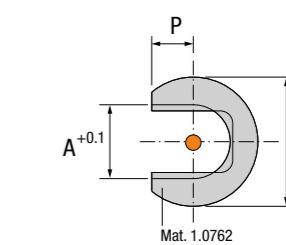
KEYED TUBULAR BASE

ES Base Anti-Rotación para Tubulares DE Hülsenaufnahme Verdreh Gesichert

IT Base anti-Giro per Cannocchiali PT Base Anti-Rotação para Tubulares FR Embases Anti-Rotation pour Tubulaires

● Cad Insertion Point

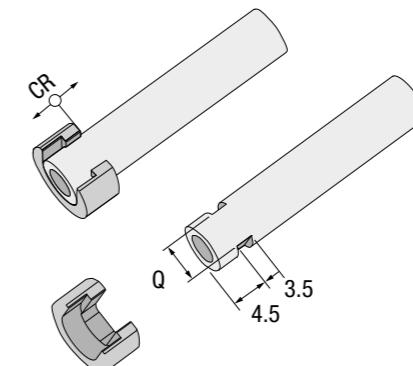
Ref.	A	N	P	Q	T	CR (N)
NR.061208	6.1	12	4	4		8.000
NR.081408	8.1	14	4.5	5.5		11.000
NR.101608	10.1	16	5.5	7.5		13.000
NR.122008	12.1	20	6.5	9.5		16.000



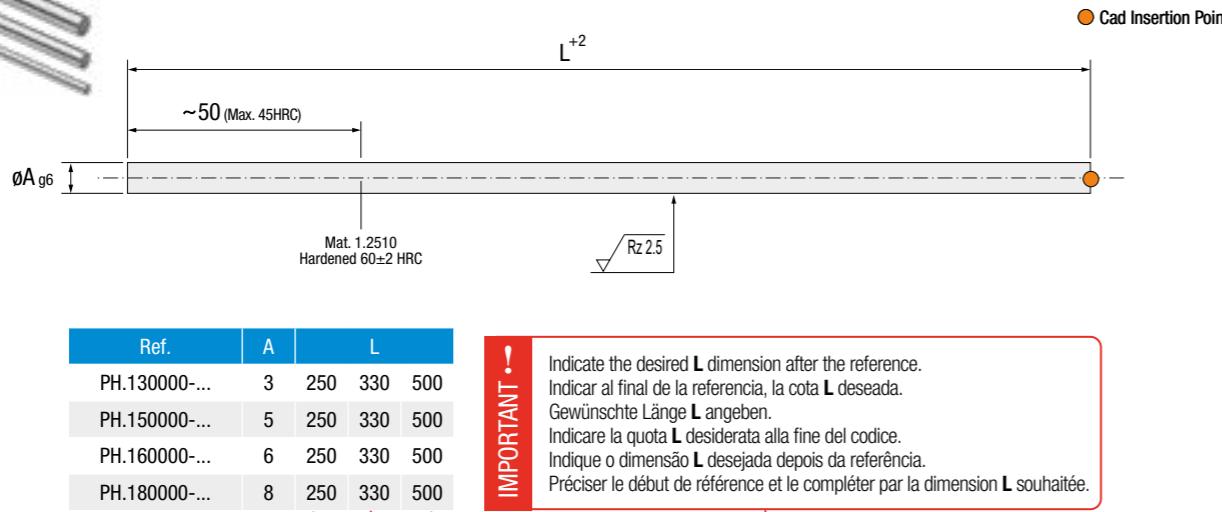
NR

Installation Guidelines

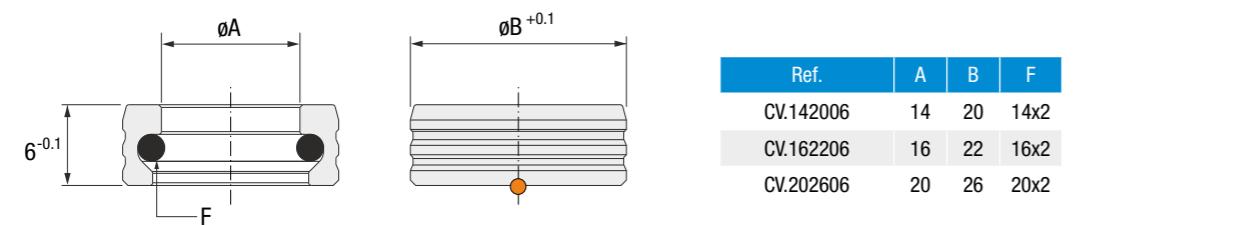
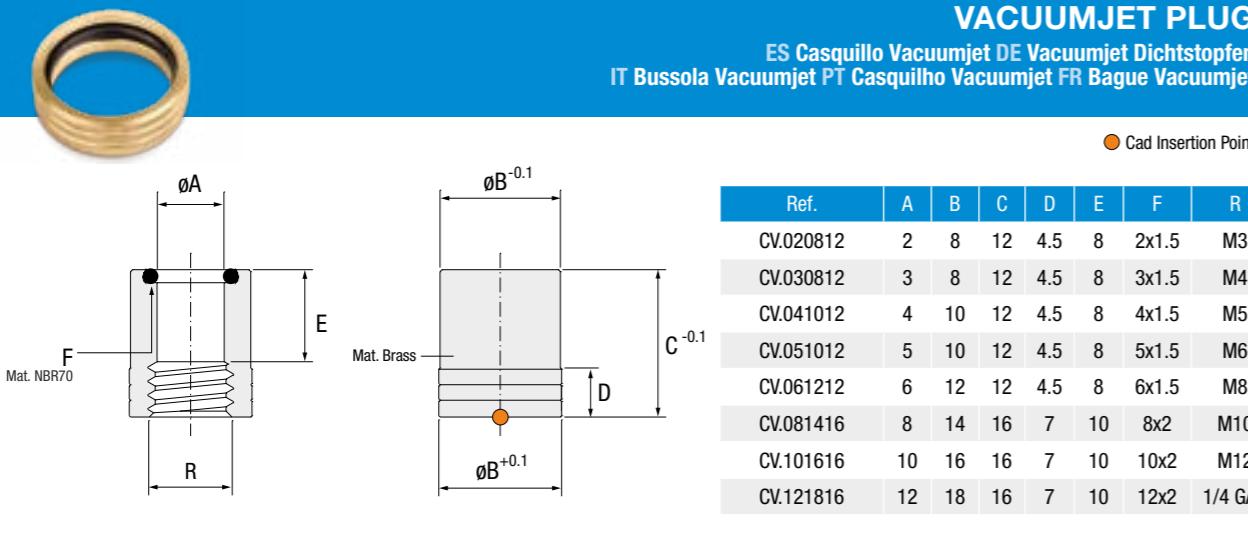
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



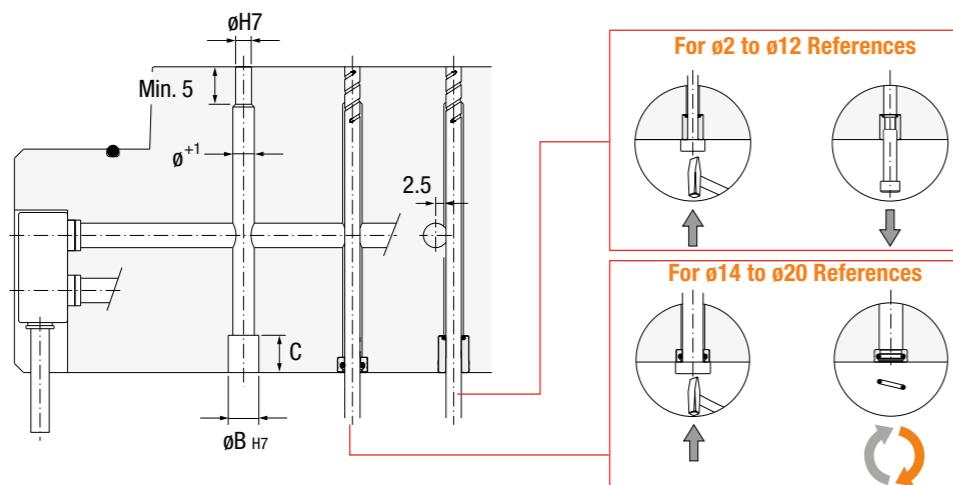
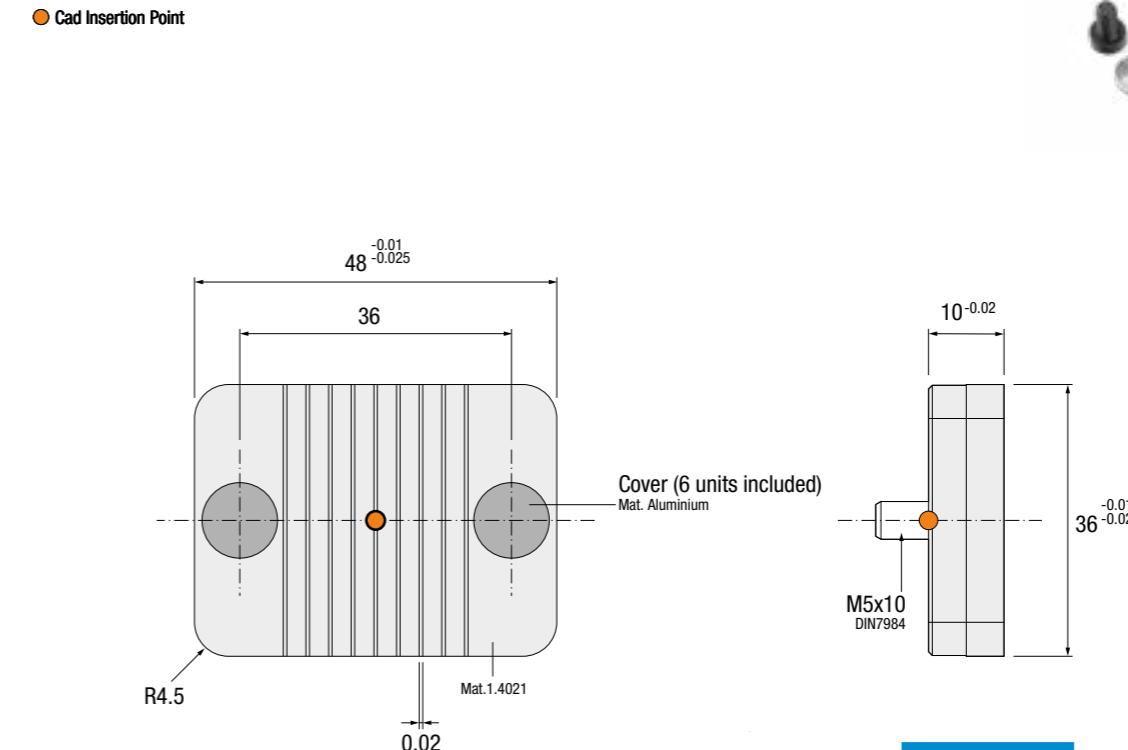
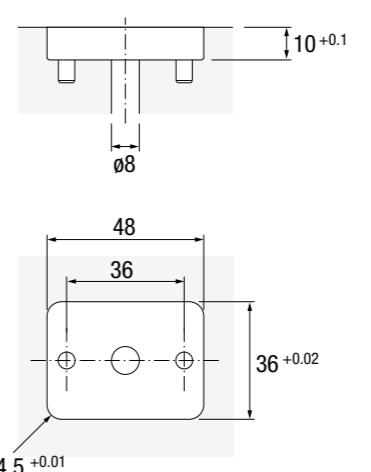
PH

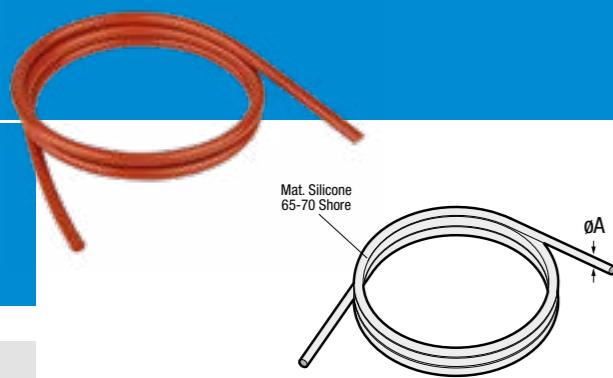


CV

**Installation Guidelines**

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação· Mode d'Installation

**LAMINAR GAS VENT**ES Salida de Gases Laminar DE Laminargasventil
IT Uscita dei Gas Laminare PT Postigo de Ventilação Laminar FR Eventation Lamineire**IMPORTANT**

JV

VACUUMJET SEAL

ES Sello Vacuumjet DE Vacuumjet Dichtschnur
IT Guarnizione Vacuumjet PT Vedante Vacuumjet FR Joint Vacuumjet

● Cad Insertion Point

Ref.	A	B	C	mm
JV.030200	3	2.2	2.7	2.000
JV.050200	5	3.8	4.2	2.000

Installation Guidelines

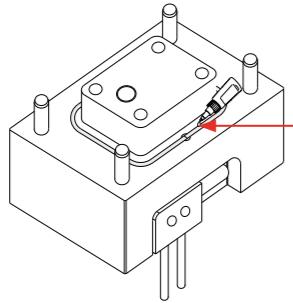
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

Patented

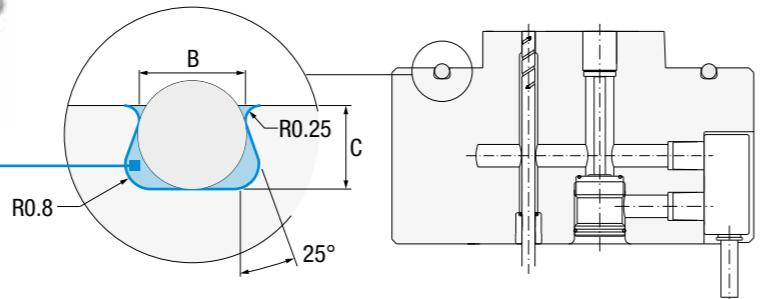
Max.
200°C

IMPORTANT !

Ensure join is sealed using silicon.
Sellare con silicone la entrata de herramienta.
Dichtschnur an den Enden mit Silikon verkleben.
Sigillare con silicone l'entrata dell'utensile.
Vedar a linha de junta.
Coller ensemble les extrémités du joint.

**ST** **SEAL** **TOOL**

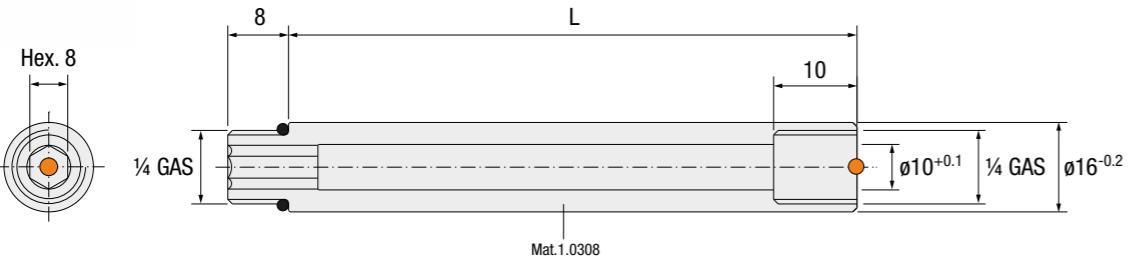
Ref.	Compatible with
ST.030200	JV.030200
ST.050200	JV.050200

**CONNECTION TUBE**

ES Tubo Conexión DE Verbindungsrohr

IT Tubo connessione PT Tubo de Ligação FR Tube de connexion

● Cad Insertion Point

**TV****IMPORTANT !**

Connection to **VJ / VG**
132 / 134

① Min. 12 →

② →

Ref.	B	L
TV.141650	16	50
TV.141675	16	75

A black and white photograph showing a vast, dense pile of metallic washers. The washers are arranged in multiple layers, creating a textured, repetitive pattern. They appear to be made of a reflective metal, with light catching their edges and centers.

6

ACCESSORIES

ACCESSORIES INDEX

ÍNDICE ACCESORIOS / INHALTSVERZEICHNIS ZUBEHÖR
INDICE ACCESSORI / ÍNDICE ACESSÓRIOS / INDEX ACCESSOIRES



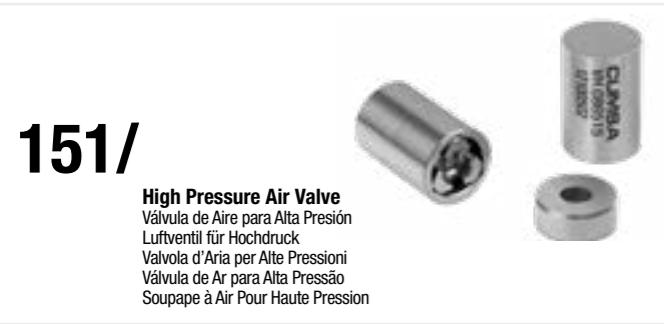
150/

Air Valve
Válvula Aire
Luftventil
Valvola Aria
Válvula de Ar
Soupape à Air



150/

Filter Valve
Filtro Válvula
Filterventil
Filtro Valvola
Válvula Filtro
Soupape à Filtre



151/

High Pressure Air Valve
Válvula de Aire para Alta Presión
Luftventil für Hochdruck
Valvola d'Aria per Alte Pressioni
Válvula de Ar para Alta Pressão
Soupape à Air Pour Haute Pression



152/

Double Valve
Válvula Doble
Ventil, Doppelt Wirkend
Valvola Doppia
Válvula Dupla
Double Valve



153/

Sprue Adjuster
Desvio Colada
Angussweiche
Deviazione Colata
Desvio Jito
Régleurs de Carotte



154/

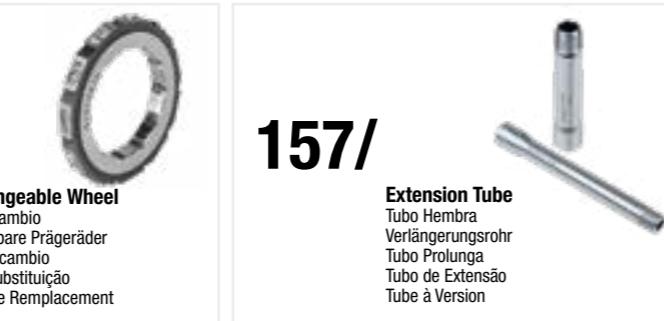
Automatic Safety Strap
Correa de Seguridad Automática
Automatische Sicherheitsverriegelung
Staffa di Sicurezza Automatica
Trinco de Segurança Automática
Bride de Sécurité Automatique

NEW



156/

Marking Unit
Unidad de Marcado
Prägestempel
Unita di Marcatura
Unidade de Marcação
Unité de marquage



156/

Interchangeable Wheel
Rueda Recambio
Austauschbare Prägeräder
Ruota di Ricambio
Roda de Substituição
Rondelle de Remplacement



157/

Water Plug for Insert Faces
Tapón Obturador
Verschlussstopfen
Tappo Otturatore
Tampão para Zonas Moldantes
Bouchon Obturateur



158/

Water Connector
Boquilla Refrigeración
Anschlussstück
Bussola Refrigerazione
Record
Raccord de Refroidissement



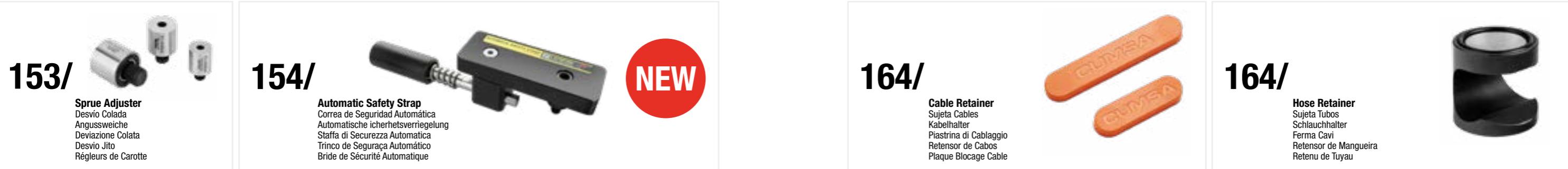
159

Seal Bearing
Junta Rotativa
Dichtring
Alimentatore Rotativa
Junta Rotativa
Fontaine Rotative



160/

Seal Bearing
Junta Rotativa
Dichtscheibe
Guarnizione Rotativa
Junta Rotativa
Joint Rotatif



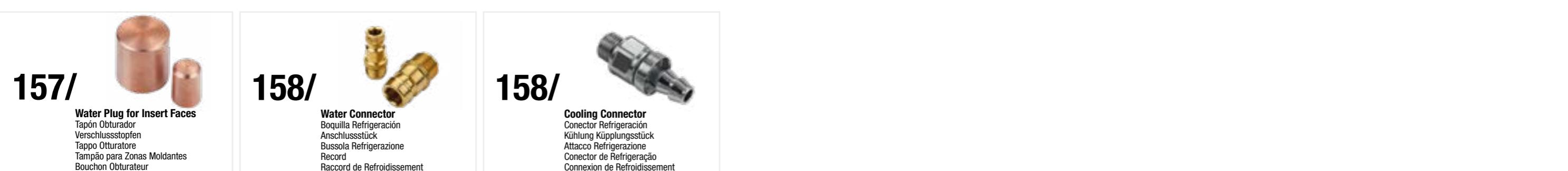
161/

Brass Pipe
Tubo Laminado
Messingrohr
Tubo Laminato
Tubo Laminado
Tube Standard



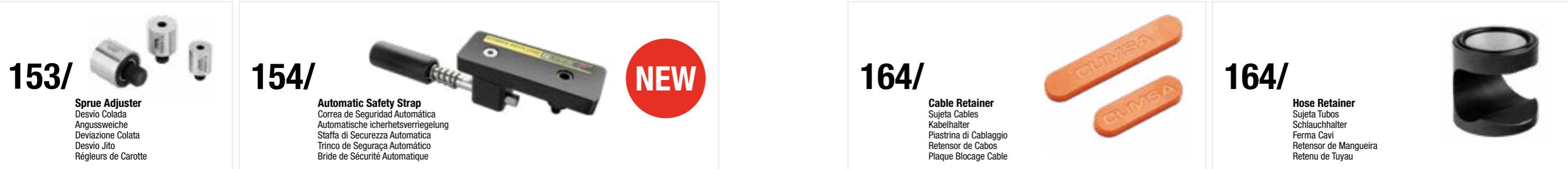
162/

Identification Plate
Placa Identificación
Typenschild
Piastra Identificazione
Placa de Identificação
Plaque d'Identification



163/

Full Color Plate
Placa a Color
Farbige Platten
Piastra a Colori
Placa a Cores
Plaq. Selon Couleur



164/

Hose Retainer
Sujeta Tubos
Schlauchhalter
Ferma Cavi
Retensor de Mangueira
Retenu de tuyau

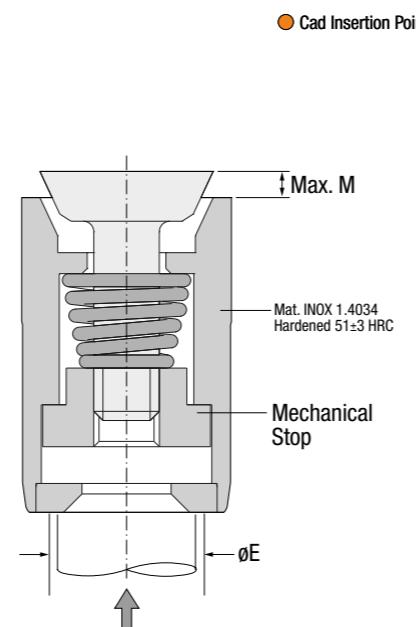
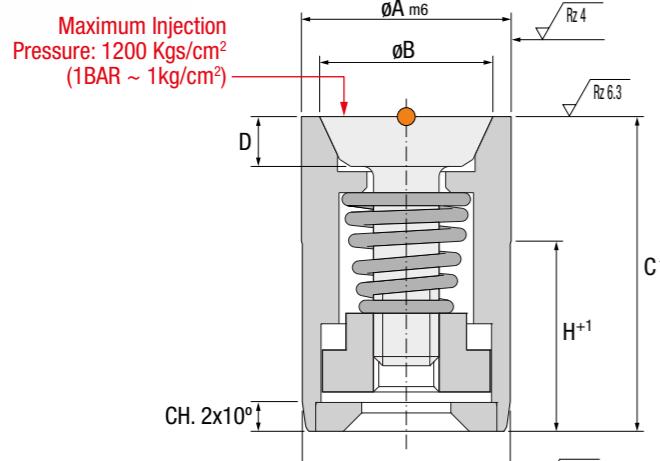


VA



AIR VALVE

ES Válvula Aire DE Luftventil
IT Valvola Aria PT Válvula de Ar FR Soupape à Air



Ref.	A	B	C	D	E	H	M
VA.050412	5	3.4	12	2.1	4	7	2.5
VA.065212	6	5.2	12	1.8	4	7	0.95
VA.086512	8	6.6	12	1.9	4	7	0.95
VA.100812	10	8.2	12	2.7	8	7	0.95
VA.121012	12	9.7	12	2.7	10	7	0.95
VA.161320	16	12.6	20	4	12	12	1.55
VA.201720	20	16.9	20	4	16	12	1.55

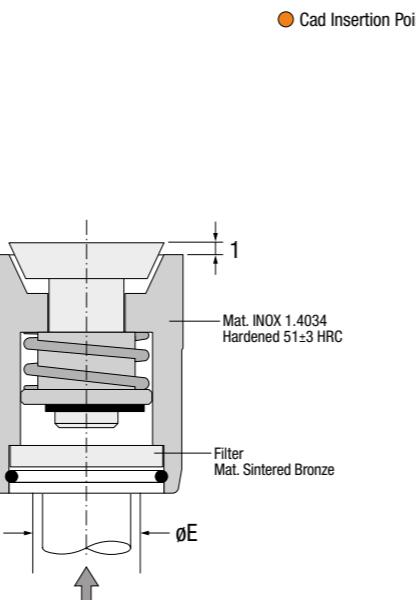
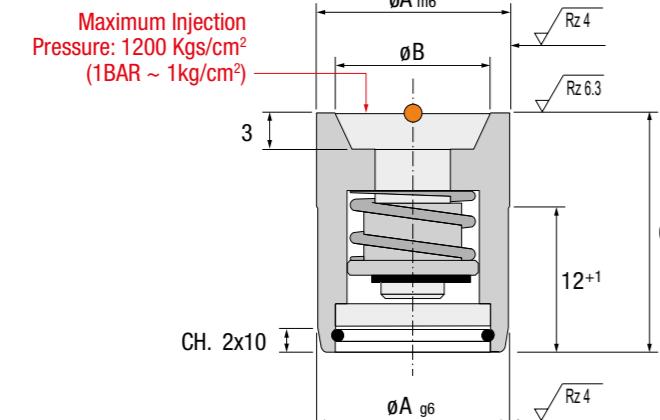
IMPORTANT ! Reference VA.050412, do not include mechanical stop.
La referencia VA.050412, no incluye tope mecánico.
Referenz VA.050412 ohne mechanischen Anschlag.
L'articolo VA.050412 non include freno meccanico.
A referencia VA.050412 não tem batente mecânico.
La référence VA.050412 n'inclut pas la butée mécanique.

FV



FILTER VALVE

ES Filtro Válvula DE Filterventil
IT Filtro Valvola PT Válvula Filtro FR Soupape à Filtre



Ref.	A	B	C	E
FV.161320	16	13	20	14
FV.201720	20	17	20	18

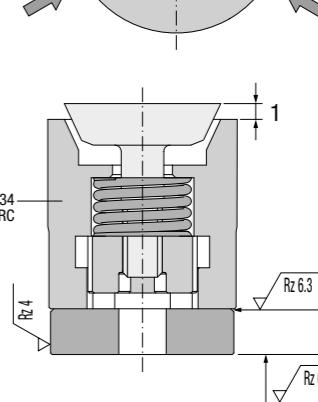
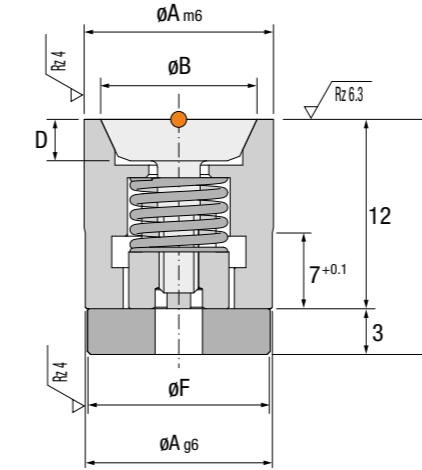
Max. 150°C
Min. 3 BARS

HIGH PRESSURE AIR VALVE

ES Válvula de Aire para Alta Presión DE Luftventil für Hochdruck
IT Valvola d'Aria per Alte Pressioni PT Válvula de Ar para Alta Pressão FR Soupape à Air Pour Haute Pression

Cad Insertion Point

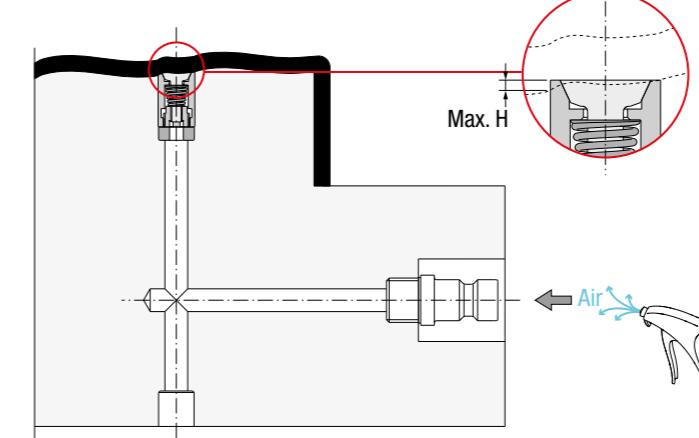
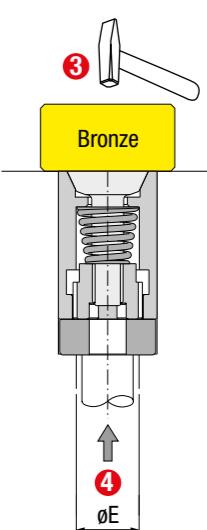
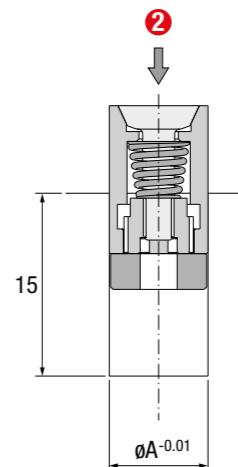
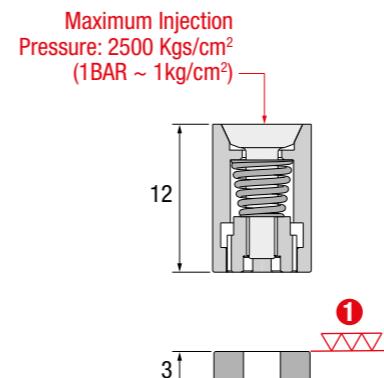
IMPORTANT ! Triple air entrance to ensure balanced opening.
Triple entrada de aire para asegurar una apertura equilibrada.
Dreifacher Lufteinlaß um ein ausgewogene Öffnung sicherzustellen.
L'ingresso dell'aria è triplo per assicurare un'apertura equilibrata.
Triplo entra de ar para uma abertura equilibrada.
Triple entrée d'air pour une ouverture équilibrée.



Ref.	A	B	D	E	F	H
VH.065215	6	5.4	1.9	4	5.8	0.25
VH.086515	8	6.7	2	5	7.8	0.75
VH.121015	12	9.7	2.7	5	11.8	1

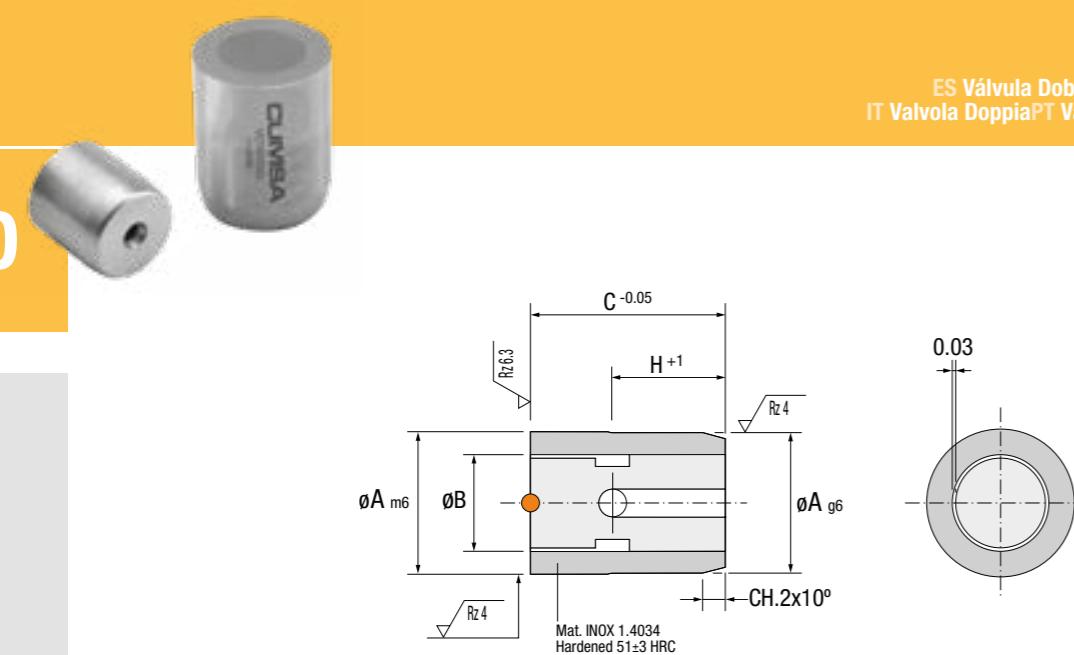
Installation Guidelines

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IMPORTANT ! Maximum machining allowed.
Medida máxima de mecanizado.
Maximale Bearbeitung erlaubt.
Quota massima di lavorazione.
Medida máxima a maquinar.
Valeur maximum d'usinage.

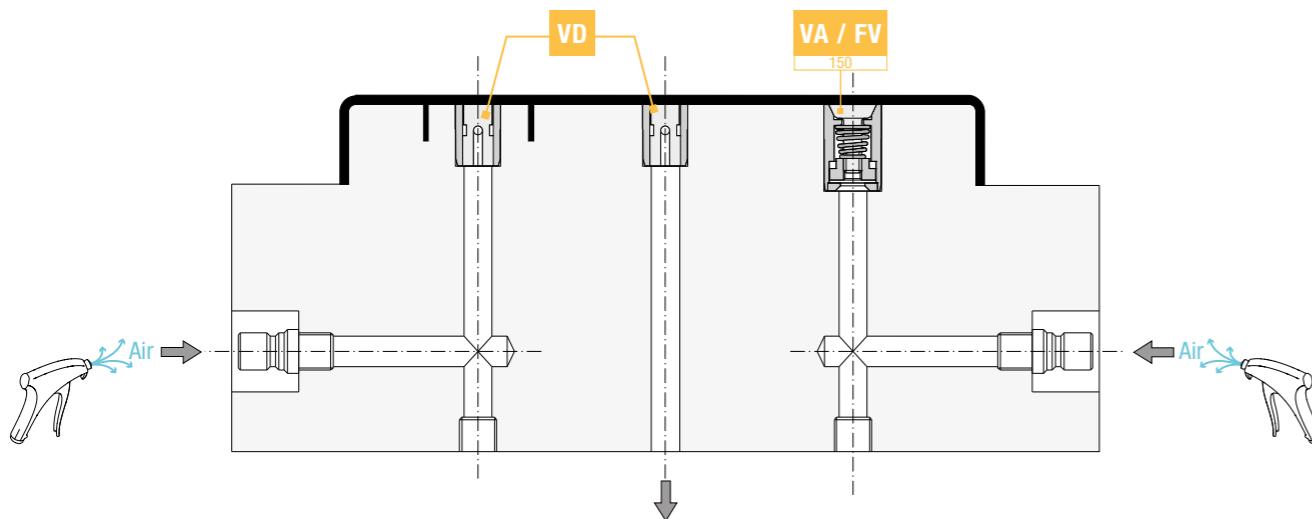
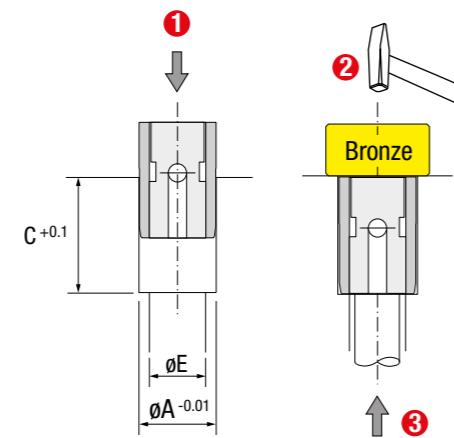
VD



Ref.	A	B	C	E	H
VD.080512	8	5	12	4	7
VD.100612	10	6	12	5	7
VD.120812	12	8	12	7	7
VD.161020	16	10	20	9	12

Installation Guidelines

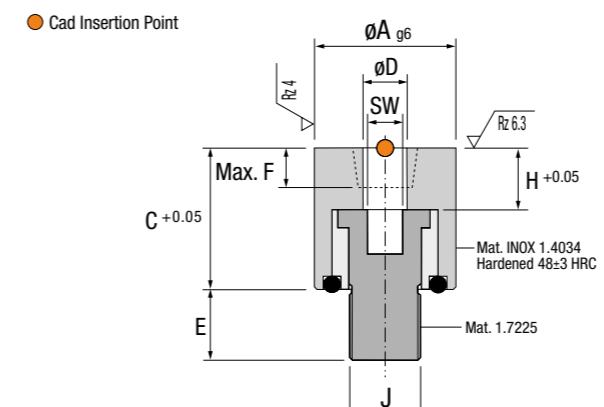
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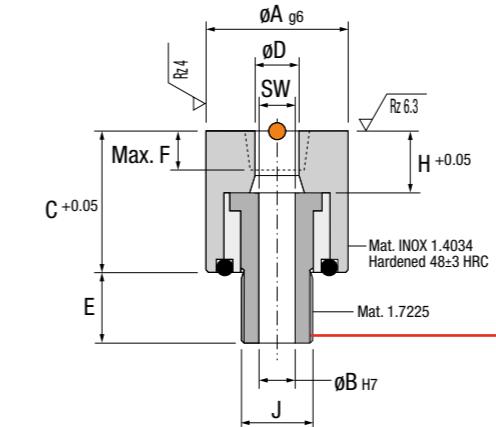
DOUBLE VALVE

SPRUE ADJUSTER

ES Desvío Colada DE Angussweiche
IT Deviazione Colata PT Desvio Jito FR Réglage de Carotte



Ref.	A	C	D	E	F	H	J	SW
SA.120014	12	14	4.1	6	3	7	M6	3
SA.160016	16	16	5.1	8	5	8.5	M8	4
SA.200018	20	18	6.1	10	6	11	M10	5
SA.240022	24	22	9.5	12	10	14.5	M14	8

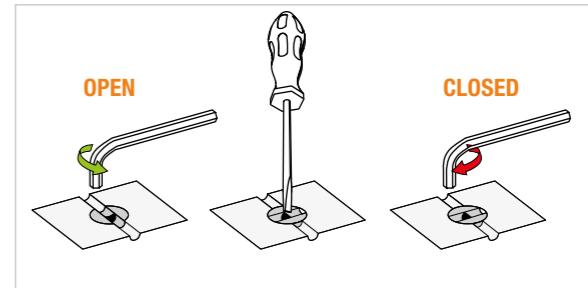
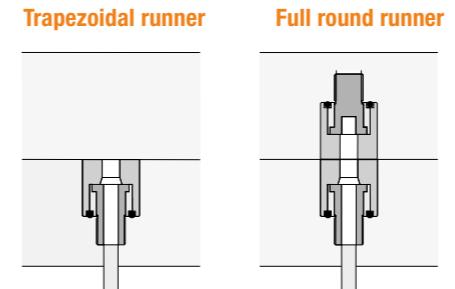


Ref.	A	B	C	D	E	F	H	J	SW
SA.120314	12	3	14	4.1	6	3	7	M6	3
SA.160416	16	4	16	5.1	8	5	8.5	M8	4
SA.200518	20	5	18	6.1	10	6	11	M10	5
SA.240822	24	8	22	9.5	12	10	14.5	M14	8

IMPORTANT !
With ejector bore.
Con alojamiento para expulsor.
Mit Auswerferbohrung.
Con alloggiamento per espulsore.
Com alojamento para extrator.
Avec placement pour l'éjecteur.

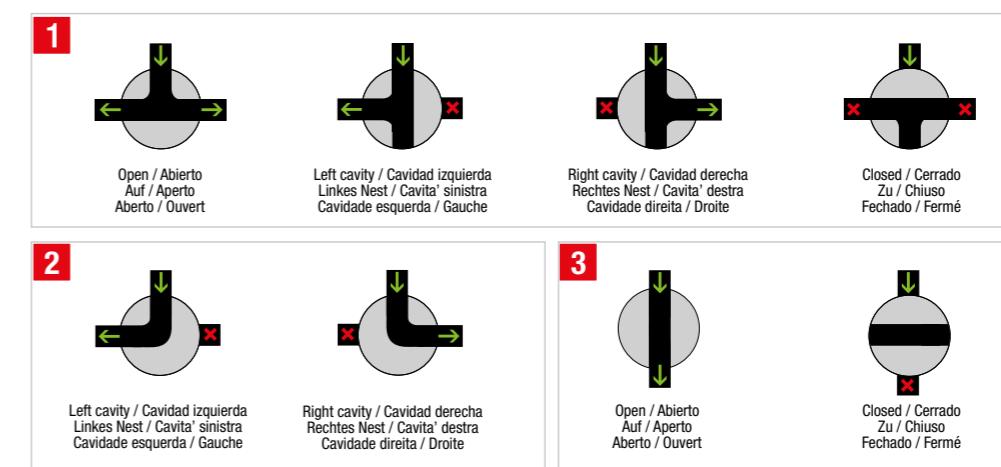
Installation Guidelines

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Possible configurations

Posibles Aplicaciones · Einsatzmöglichkeiten · Possibili Applicazioni · Possíveis Aplicações · Possibilités d'Application



Patented
Max. 100°C

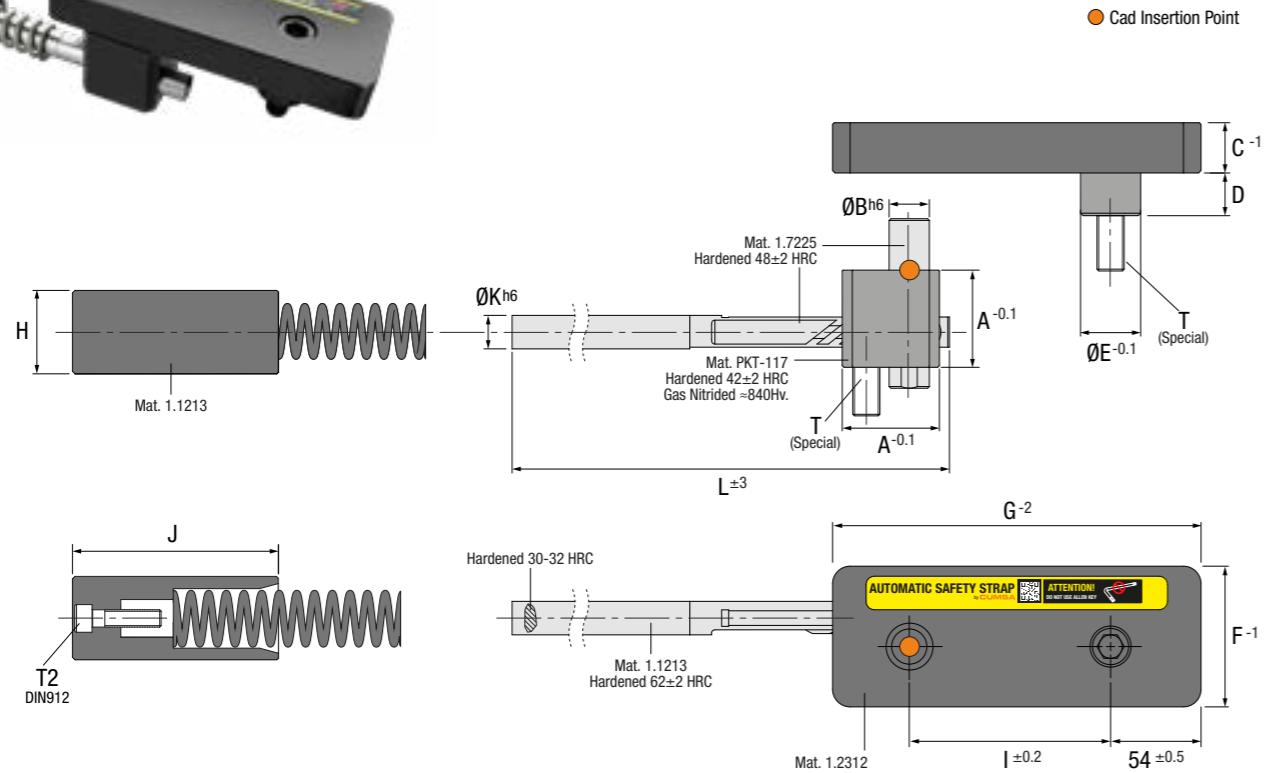
AS

ACCESSORIES



AUTOMATIC SAFETY STRAP

ES Brida de Seguridad Automática DE Automatische Sicherheitsverriegelung
IT Staffa di Sicurezza Automatica PT Trinco de Segurança Automática FR Bride de sécurité automatique

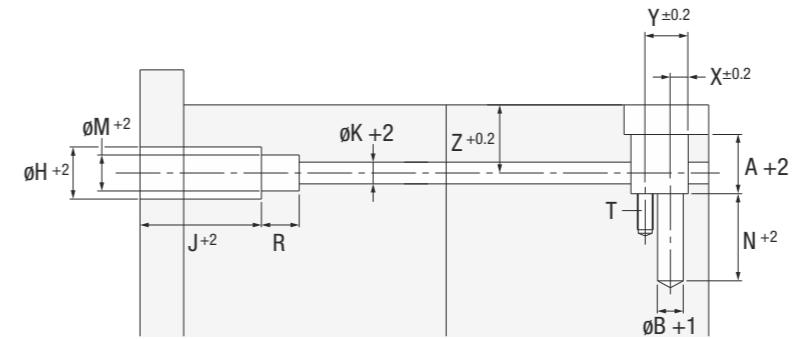


INSTALLATION GUIDELINES

ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

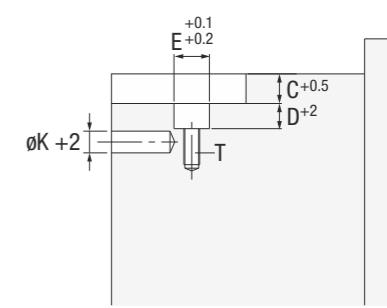
Core Housing

Alojamiento Placa Punzón · Einbaumaße PB Führung · Sede nel Punzone · Alojamento Bucha · Logement dans l'empreinte



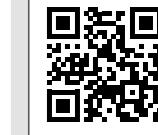
Cavity Housing

Alojamiento Placa Cavidad · Einbaumaße DR Führung · Sede pista cavità · Alojamento na Cavidade · Logement dans l'empreinte

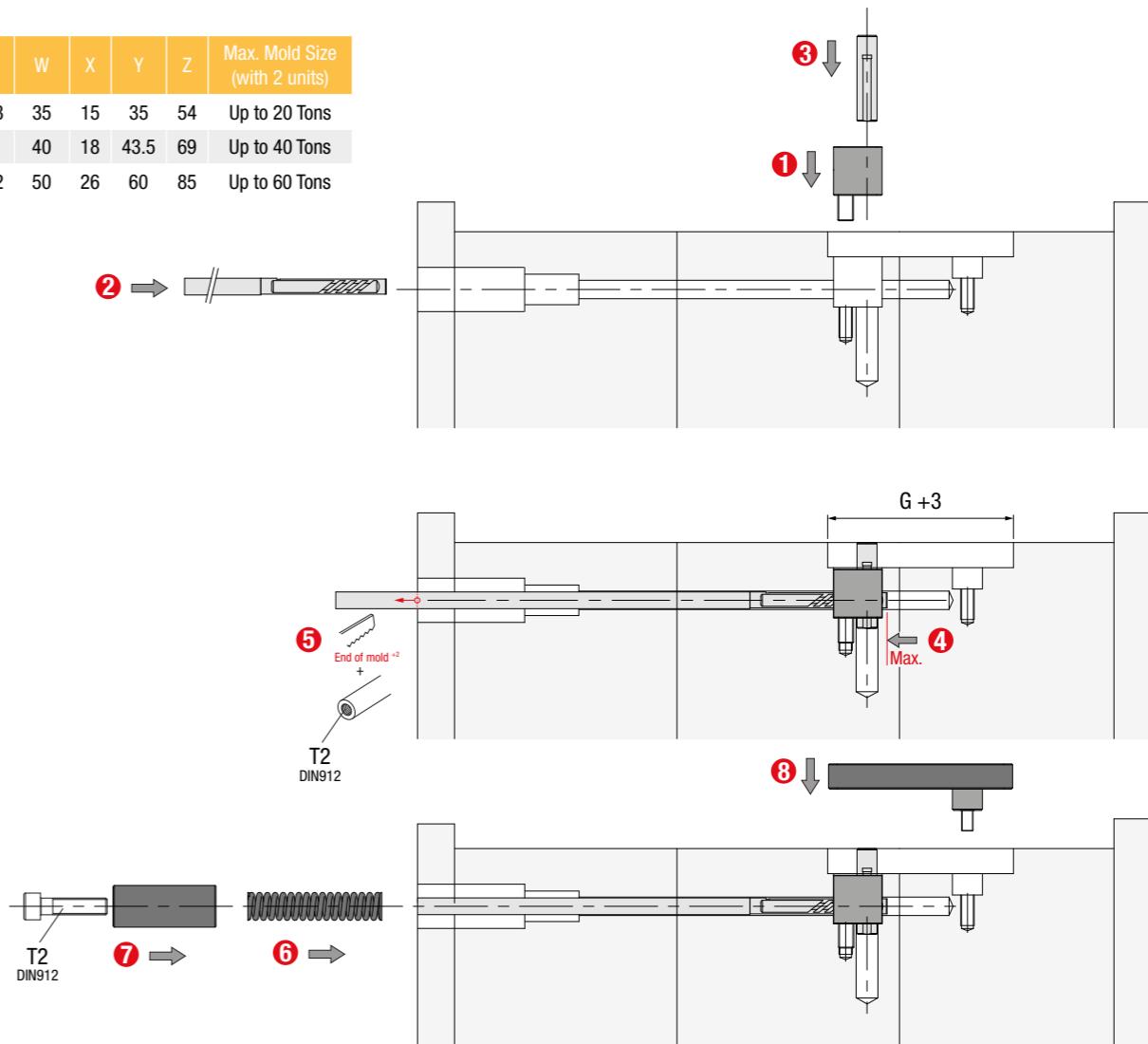
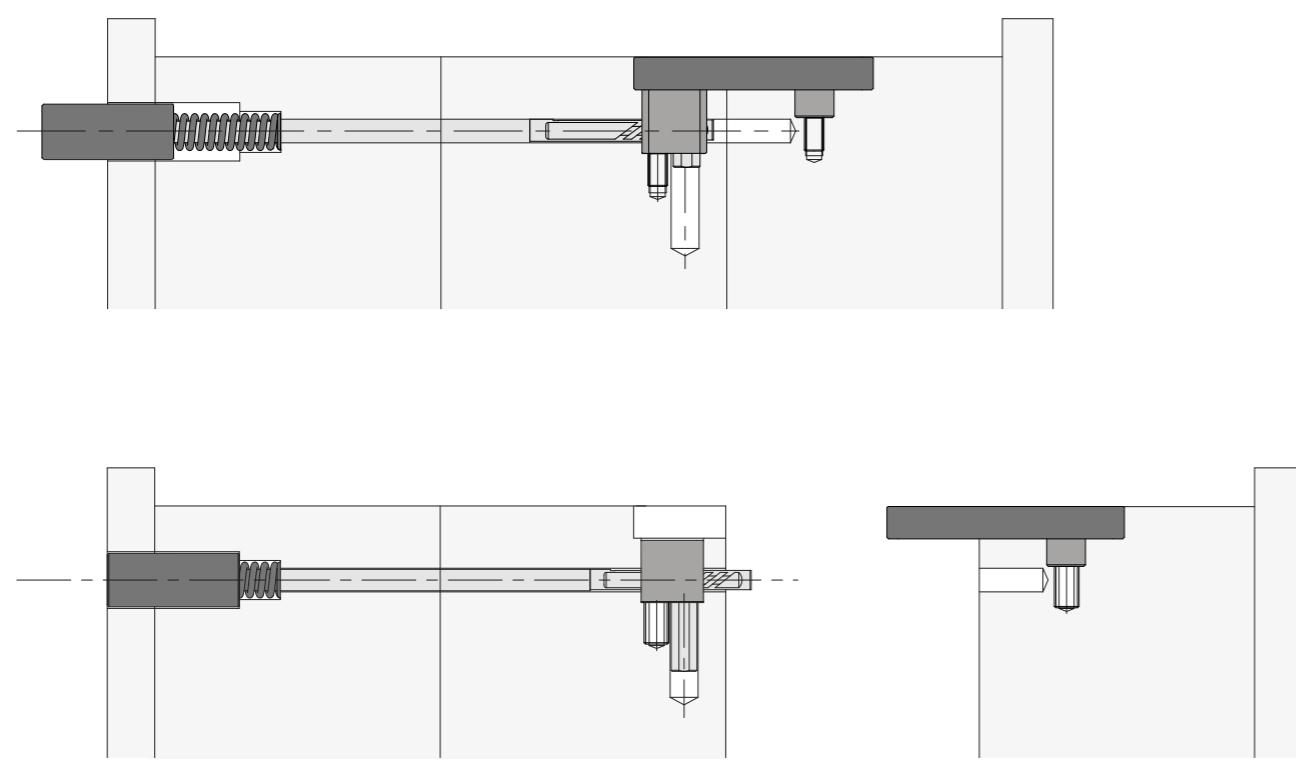


AS

ACCESSORIES



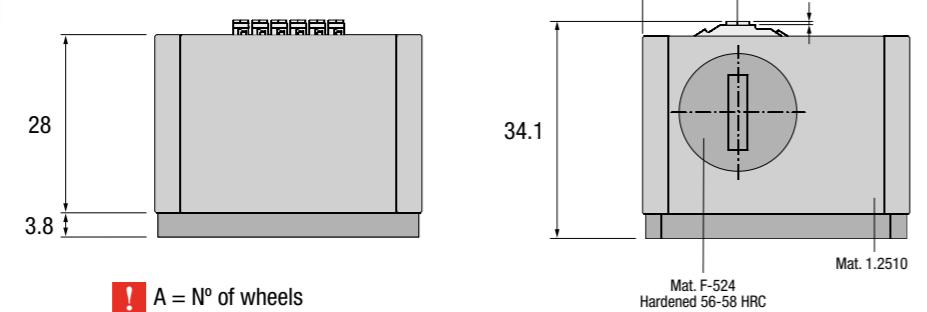
Ref.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	T2	U	V	W	X	Y	Z	Max. Mold Size (with 2 units)
AS.462024	46	20	24	21	26	68	190	39	100	100	16	619	24	30	42.8	20.8	18	12.3	M12x60	M8x50	31.8	12.3	35	15	35	54	Up to 20 Tons
AS.582430	58	24	30	25	36	84	220	45	120	110	20	644	30	54	53	24	22	17	M16x70	M10x50	40	17	40	18	43.5	69	Up to 40 Tons
AS.764040	76	40	40	32	42	100	260	48	152	120	24	674	32	60	68	40	16	18	M16x90	M10x50	56	25.2	50	26	60	85	Up to 60 Tons



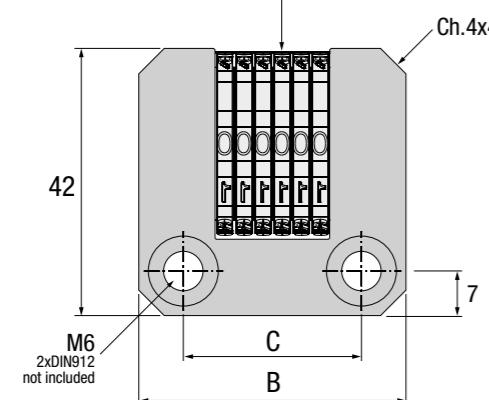


UM

MARKING UNIT
ES Unidad de Marcado DE Prägestempel
IT Unità di Marcatura PT Unidade de Marcação FR Unité de Marquage

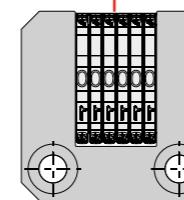


! A = N° of wheels

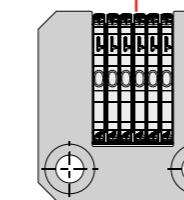


Ref.	A	B	C
UM.043642	UM.0436RV	4	36 22
UM.064242	UM.0642RV	6	42 28

IMPORTANT !



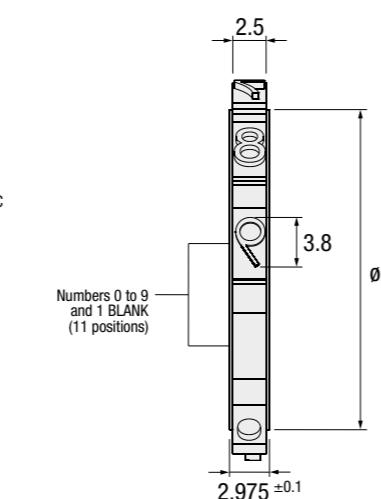
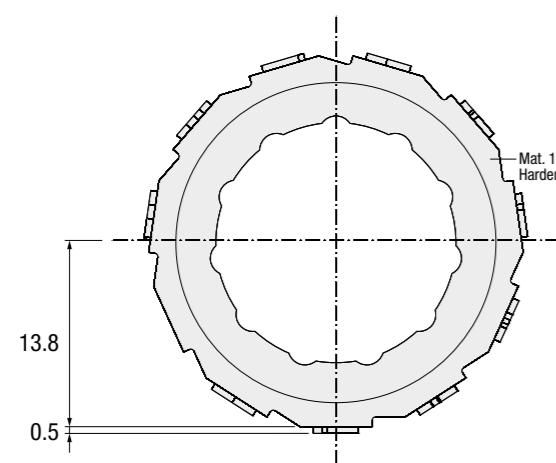
Normal Position



Reverse Position

Patented

INTERCHANGEABLE WHEEL

ES Rueda Recambio DE Austauschbare Prägeräder
IT Ruota di Ricambio PT Roda de Substituição FR Rondelle de RemplacementRef.
RR.180311

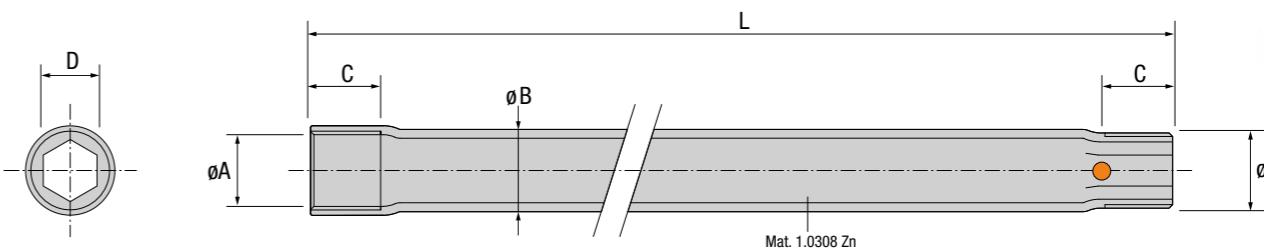
RR

Patented

EXTENSION TUBE

ES Tubo Hembra DE Verlängerungsrohr
IT Tubo Prolunga PT Tubo de Extensão FR Tube à Version

● Cad Insertion Point



IMPORTANT !

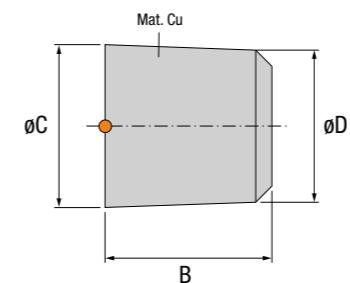
Indicate the desired **L** dimension after the reference.
Indicar la cota **L** necesaria después de la referencia.
Gewünschte Länge **L** angeben.
Indicare la quota **L** desiderata dopo il codice.
Indique a dimensão **L** desejada depois da referência.
Indiquer longueur (**L**) désirée après référence.

Ref.	A	B	C	D	R	L
TH.181005...	1/8"	10	9.5	5	1/8"	50 75 100 125 -
TH.141408...	1/4"	14	11.5	8	1/4"	50 75 100 125 150

WATER PLUG FOR INSERT FACES

ES Tapón Obturador DE Verschlussstopfen
IT Tappo Otturatore PT Tampa para Zonas Moldantes FR Bouchon Obturateur

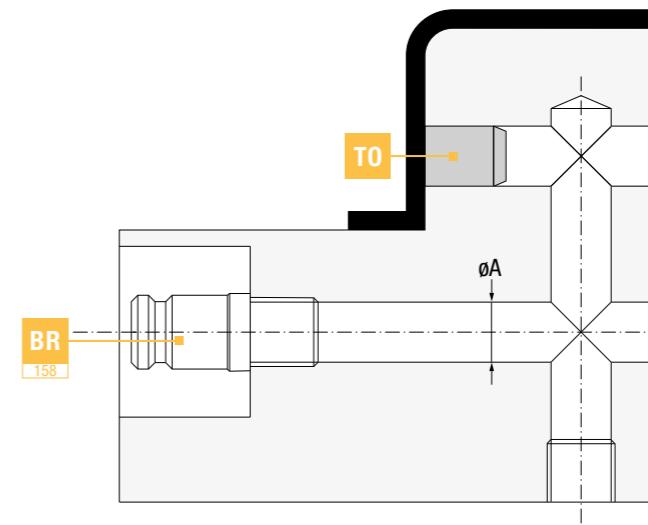
● Cad Insertion Point



Ref.	A	B	C	D
T0.061063	6	10	6.3	5.9
T0.081284	8	12	8.4	7.9
T0.101410	10	14	10.5	9.9
T0.151615	15	16	15.5	14.9

Installation Guidelines

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TH



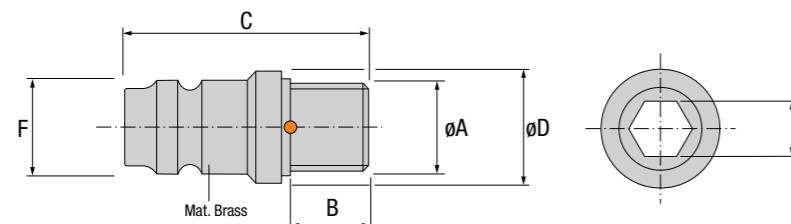
TO

BR



WATER CONNECTOR

ES Boquilla Refrigeración DE Anschlussstück
IT Bussola Refrigerazione PT Record FR Raccord de Refroidissement

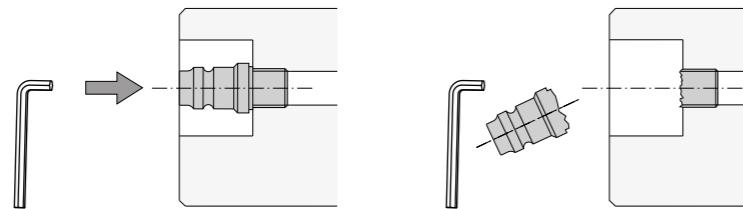


Ref.	A	B	C	D	E	F
BR.10E0C5	G M10	7	24	11	5	9
BR.18E0C5	G 1/8"	7	24	11	5	9
BR.14E0C5	G 1/4"	9	26	15	5	9
BR.14E0C8	G 1/4"	9	26	15	8	13.5
BR.38E0C8	G 3/8"	9	26	15	8	13.5

European System

Installation Guidelines

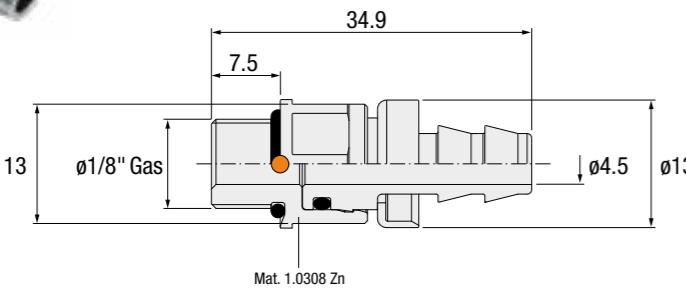
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COOLING CONNECTOR

ES Conector Refrigeración DE Kühlung Küpplingsstück

IT Attacco Refrigerazione PT Conector de Refrigeração FR Connexion de Refroidissement

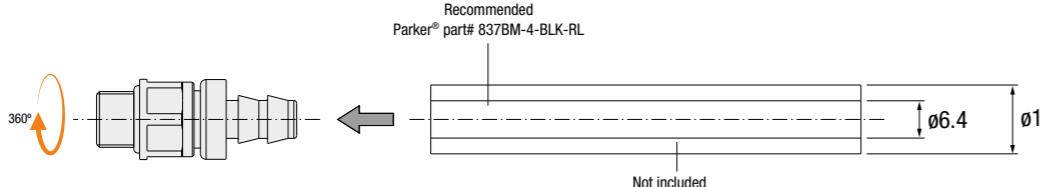


RL

Max. 80°C

Installation Guidelines

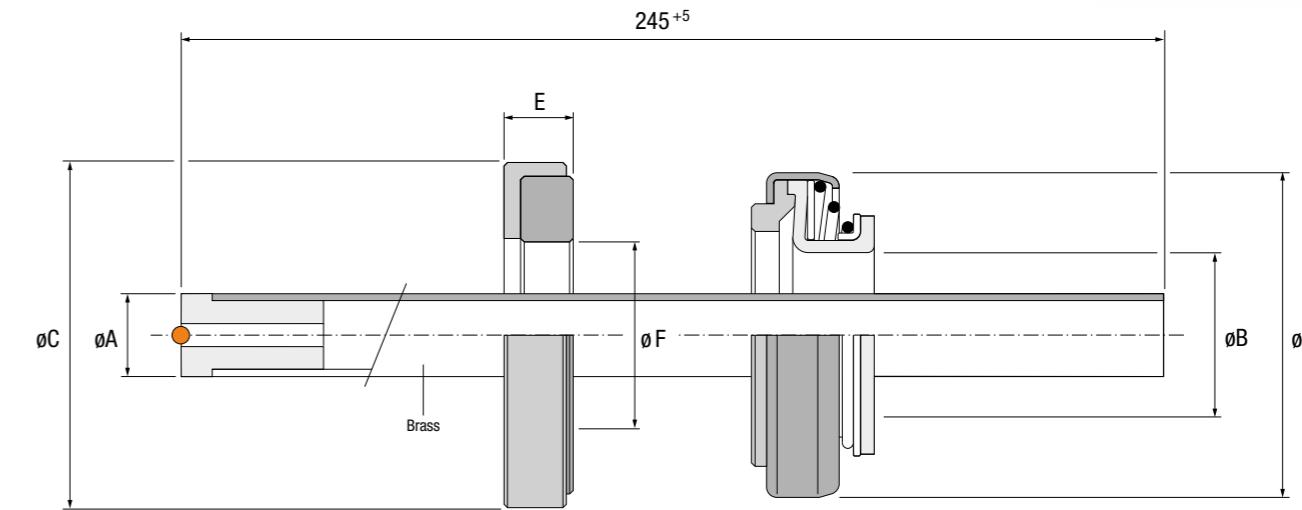
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SEAL BEARING

ES Junta Rotativa DE Dichtring
IT Alimentatore Rotativa PT Junta Rotativa FR Fontaine Rotative

● Cad Insertion Point



JR

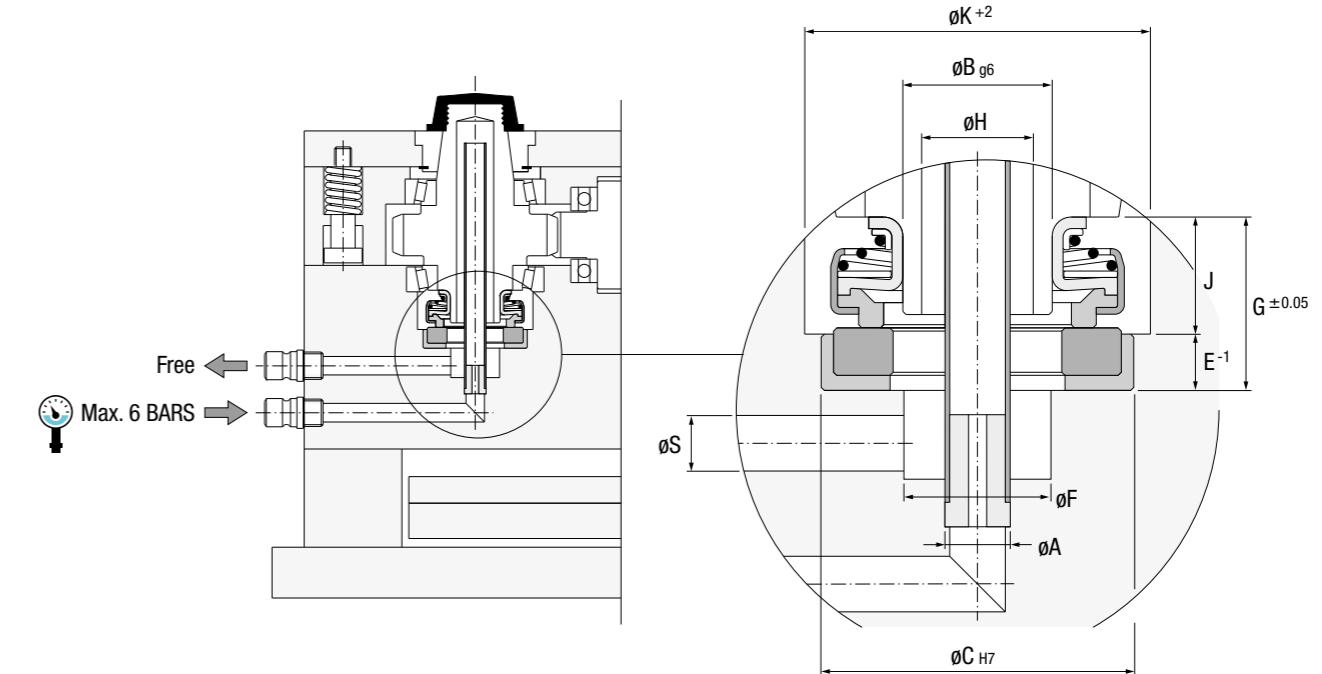
Max. 80°C

IMPORTANT !

Every seal must have a separate exit, do not connect in-line. Do not dry-run the parts.
Cada junta debe tener una salida diferente, no conectar en linea. No trabajar a seco.
Nicht in Reihe verbinden, jedes Teil benötigt einen separaten Ausgang. Die JR Dichtung nicht trocken laufen lassen.
Ogni figura deve avere un proprio foro di refrigerazione, non bisogna collegare i fori in linea. Non usare a secco.
Cada junta deve ter uma saída individual, não ligar em série. Não utilizar a seco.
Chaque circuit doit être indépendant et non raccordé en série. Ne pas utiliser à sec.

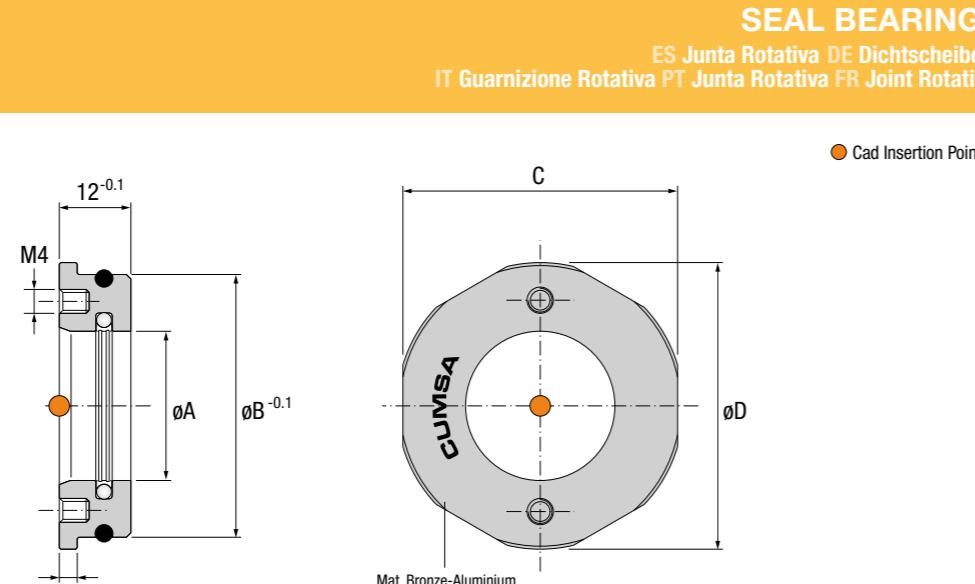
Installation Guidelines

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SB



Patented

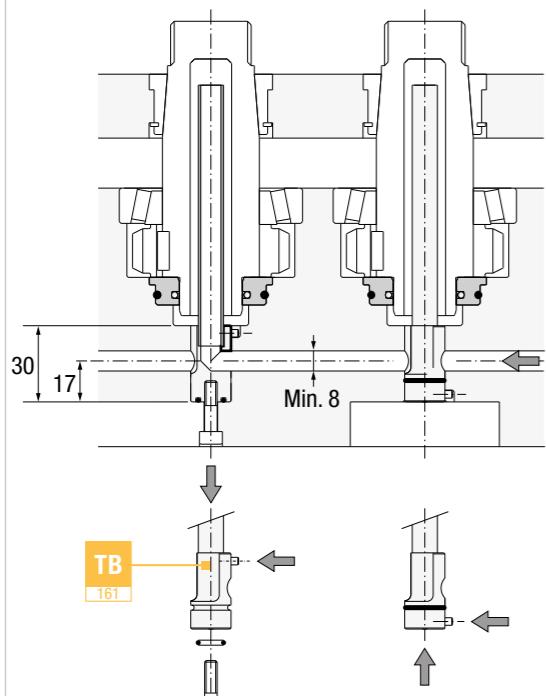
Max.
80°C

Ref.	A	B	C	D	E
SB.143234	14	32	34	36	18
SB.183638	18	36	38	40	22
SB.254446	25	44	46	48	30
SB.325254	32	52	54	56	36

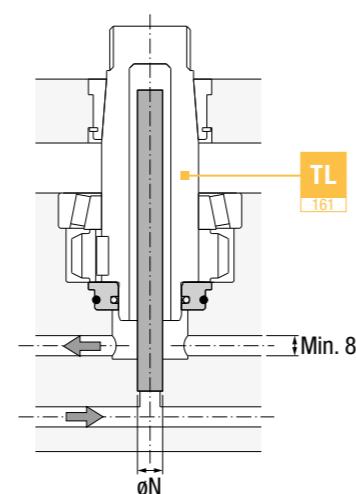
Installation Guidelines

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Option 1: Single Channel



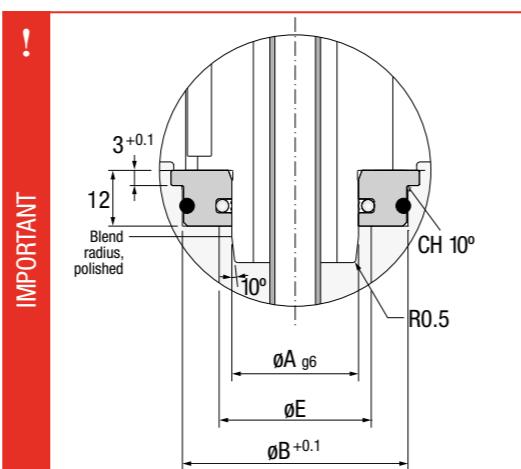
Option 2: Double Channel



IMPORTANT !

Use only grease or oil without solid additives.
Usar solamente aceites o grasas sin aditivos sólidos.
Verwenden Sie nur Fett oder Öl ohne Beimischung von Feststoffen.
Usare esclusivamente olii o grassi senza additivi solidi.
Usar apenas lubrificantes sem aditivos sólidos.
Seulement utiliser avec huile ou graisse sans additifs solide.

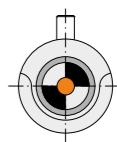
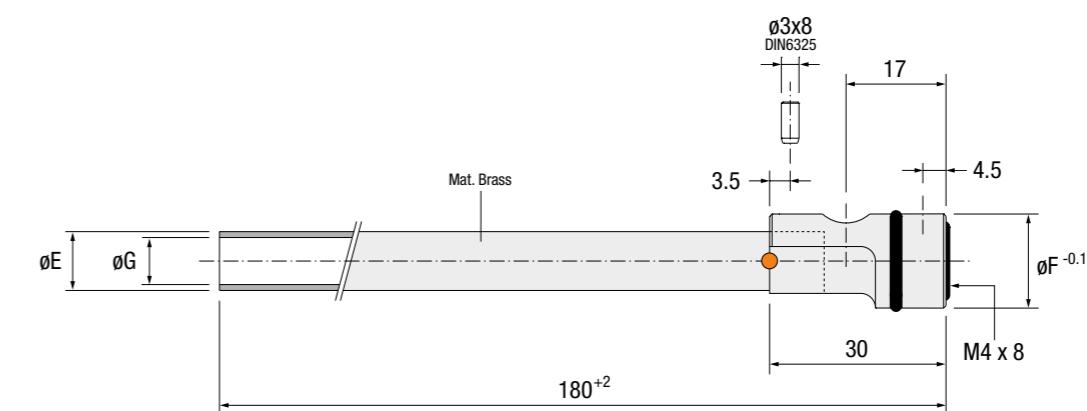
IMPORTANT



SEAL BEARING TUBE

ES Tubo Junta Rotativa DE Dichtscheibenrohr
IT Tubo Alimentatore Rotativo PT Tubo Junta Rotativa FR Tube Joint Rotatif

Cad Insertion Point



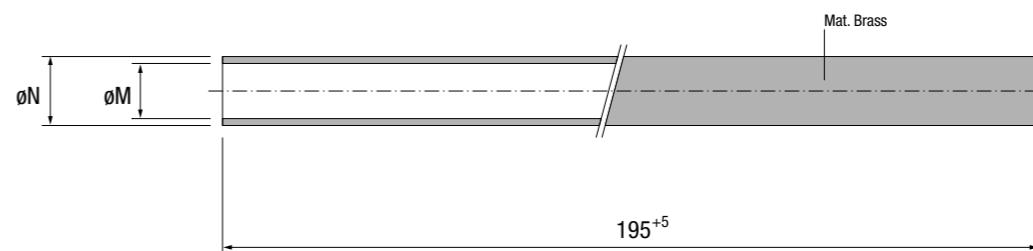
TB

Patented

Ref.	E	F	G
TB.061230	6	12	4
TB.081430	8	14	6
TB.101630	10	16	8
TB.122030	12	20	10

BRASS PIPE

ES Tubo Laminado DE Messingrohr
IT Tubo Laminato PT Tubo Laminado FR Tube Standard



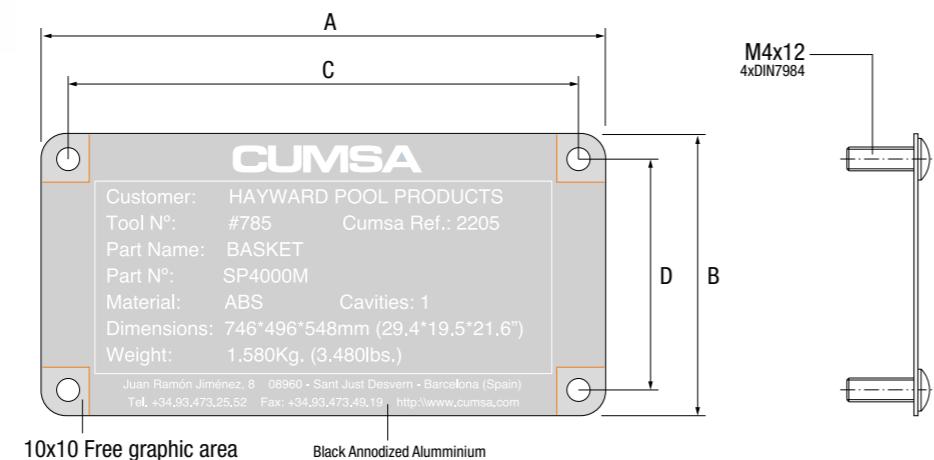
TL

Ref.	M	N
TL.040620	4	6
TL.060820	6	8
TL.081020	8	10
TL.101220	10	12



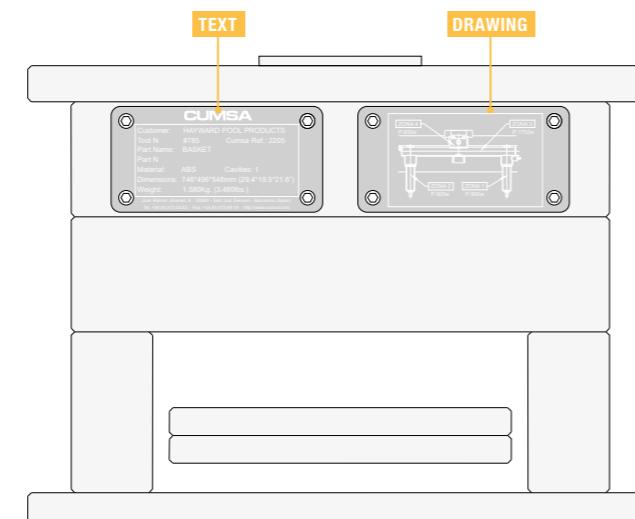
PI

Laser Marking



Cad Insertion Point

Ref.	Drawing	A	B	C	D
PI.068345	PI.068345-DW	68	34	59	25
PI.090455	PI.090455-DW	90	45	81	36
PI.120605	PI.120605-DW	120	60	111	51
PI.160805	PI.160805-DW	160	80	151	71



How to order this part?

Cómo realizar un pedido? · Bestellvorgang · Come realizzare un ordine? · Como realizar um pedido? · Comment effectuer une commande?

- 1** DESIGN. The DXF/PDF file containing the required design must be sent by email.

ES DISEÑO. Nos envían por e-mail un archivo en formato DXF/PDF que contenga el diseño a grabar.

DE AUSSEHEN. Text oder Zeichnung im DXF/PDF-Format per e-Mail.

IT DISEGNO. Inviateci via e-mail un archivio in formato DXF/PDF che contengail disegno da incidere.

PT DESENHO. Enviar por e-mail um arquivo em formato DXF/PDF que contenha o desenho a gravar.

FR CONCEPTION : Envoyer par e-mail un fichier au format DXF/PDF contenant la conception de la plaque à graver.

- 2** DELIVERY: Unless otherwise advised, the model "TEXT" plates will be finished in 48 hours and the model "DRAWING" in 72 hours, both cases upon customer order confirmation.

ES REALIZACION: Salvo indicación contraria, las placas del modelo "TEXT" (Texto) estarán finalizadas en 48 horas y las del modelo "DRAWING" (Dibujo) en 72 horas, en ambos casos después de la confirmación del pedido por parte del cliente.

DE LIEFERUNG: Wenn es keine vorgeschriebenen Termine gibt, die Ausführung als "TEXT" ist fertig zur Auslieferung nach 48 Std., die Ausführung als "DRAWING" (Zeichnung) nach 72 Std, jeweils nach erteilter Auftragsbestätigung.

IT REALIZZAZIONE: salvo indicazione contraria, le placchette del modello TEXT saranno terminate in 48 ore e quelle del modello DRAWING in 72 ore, in entrambi i casi solo dopo la conferma dell'ordine da parte del cliente.

PT PRAZO DE ENTREGA: Salvo indicação contrária, as placas de modelo "TEXT" serão entregues num prazo máximo de 48h e as de modelo "DRAWING" em 72 horas, em ambos os casos, depois da confirmação de encomenda por parte do cliente.

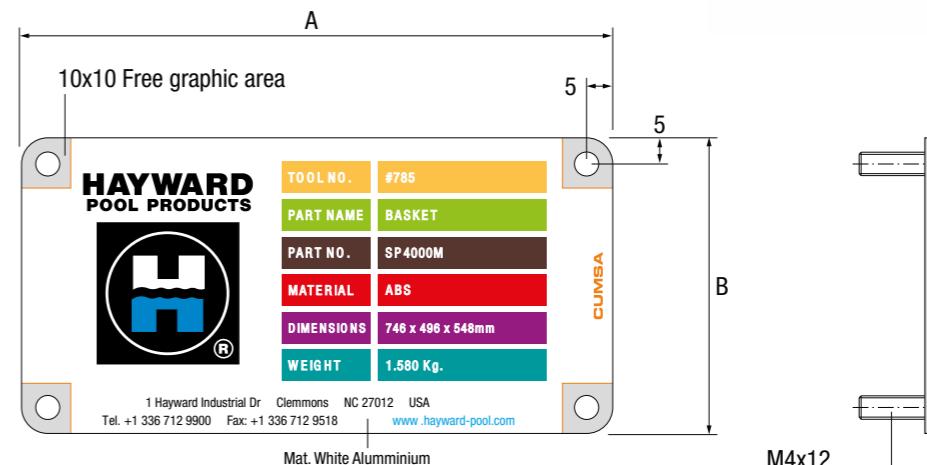
FR RÉALISATION : Sauf indication contraire, les plaques du modèle « TEXT » (Texte) seront réalisées dans les 48 heures et celles du modèle « DRAWING » (Dessin) dans les 72 heures, dans les deux cas, il faudra la validation de la commande par le client.

FULL COLOR PLATE

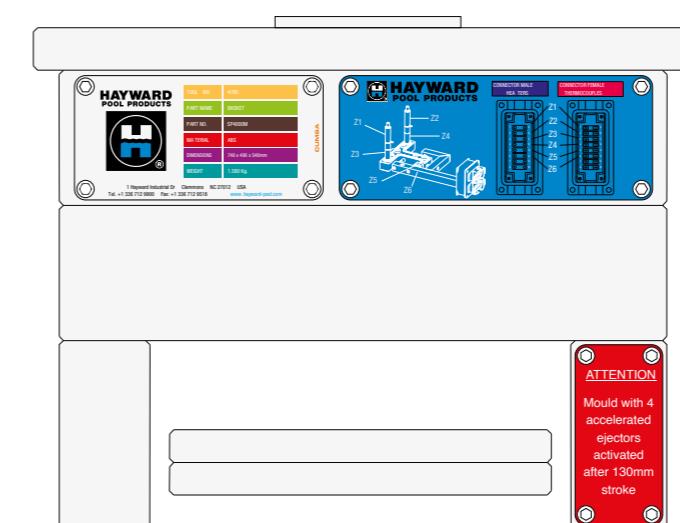
ES Placas a Color DE Farbige Platten

IT Piastra a Colori PT Placa Totalmente a Cores FR Plaquettes Selon Couleur

Cad Insertion Point



CP



Ref.	Max. A	Max. B
CP.050070	70	50
CP.060100	100	60
CP.070120	120	70
CP.080160	160	80
CP.100200	200	100
CP.140200	200	140
CP.200200	200	200
CP.200285	285	200
CP.280370	370	280

How to order this part?

Cómo realizar un pedido? · Bestellvorgang · Come realizzare un ordine? · Como realizar um pedido? · Comment effectuer une commande?

- 1** Send a PDF file with the desired design.

ES Envíen un archivo PDF con el diseño requerido.

DE Senden Sie uns eine PDF mit Ihrem Wunschkod.

IT Inviare il file PDF con il disegno desiderato.

PT Envie um PDF com a imagem pretendida.

FR Envoyez un PDF avec votre image.

- 2** Unless otherwise advised, the plaque will be finished in 48-72 hours, after customer order confirmation.

ES Salvo indicación contraria, las placas estarán disponibles en 48-72 horas después de la confirmación del cliente.

DE Soweit nichts anderes angegeben ist, werden die Platten innerhalb von 48-72 Stunden nach Auftragsbestätigung gefertigt.

IT Salvo avvisi contrari, la produzione dura 48-72h dalla conferma d'ordine del cliente.

PT As placas estarão prontas em 48-72 apôs confirmação, salvo indicação em contrário.

FR Les plaquettes seront prêtes en 48-72h après confirmation, sauf indication contraire.

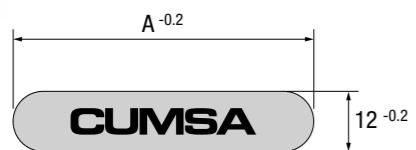
IMPORTANT !

The PDF file, must contain the plate in a 1:1 scale. Do not draw the holes and the rounded angles in your design. El archivo PDF debe tener la placa en escala 1:1. No dibujen los agujeros ni las esquinas redondas en su fichero. Bitte die Zeichnung in PDF und soll auf 1:1 skaliert sein. Zeichnen Sie bitte keine Bohrungen und keine runden Ecken. Il file PDF deve contenere la placca in scala 1:1. Non disegnare i fori e gli angoli arrotondati. A imagem em PDF deverá vir a escala de 1:1. Não desenhe os furos nem os cantos redondos. L'image en pdf doit être à l'échelle 1:1. Ne pas dessiner les passages de vis, ni les rayons.

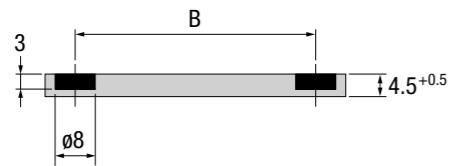


SC

CABLE RETAINER
 ES Sujeta Cables DE Kabelhalter
 IT Piastrina di Cablaggio PT Retensor de Cabos FR Plaque Blocage Cable



Ref.	A	B	Material	Max. Temp.
SC.401245	40	28	Nylon	80°C
SC.401245H	40	28	PA+30% Glass Fiber	150°C
SC.601245	60	48	Nylon	80°C
SC.601245H	60	48	PA+30% Glass Fiber	150°C

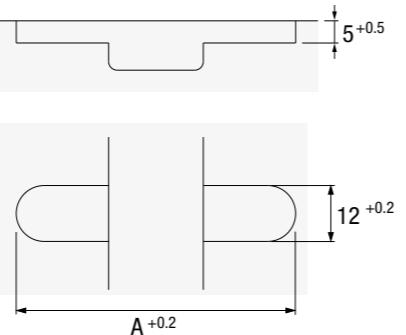
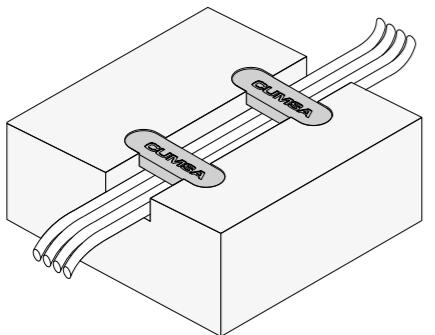


IMPORTANT !

Supplied in bags of 10 units.
 Suministrado en bolsas de 10 uds.
 Verpackungseinheit 10 Stück.
 Vendute in confezioni da 10 pezzi.
 Fornecidos em sacos de 10 unidades.
 Emballé en sac de 10 unités.

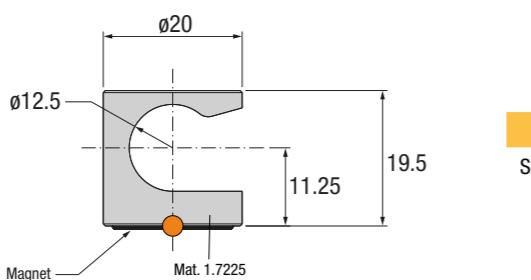
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation

**HOSE RETAINER**

ES Sujeta Tubos DE Schlauchhalter
 IT Ferma Cavi PT Retensor de Mangueira FR Retenu de tuyau

● Cad Insertion Point



Ref.
 SM.122020

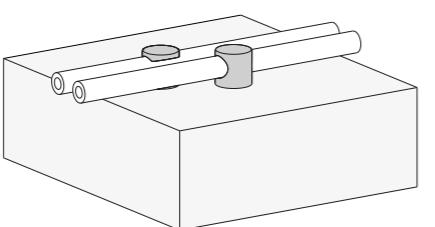
SM



Max.
 80°C

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