

CUMSA

INNOVATIVE SOLUTIONS
FOR YOUR MOLDS



1 SLIDES



2 UNDERCUTS



3 EJECTION



4 TRACEABILITY



5 VACUUM



6 ACCESSORIES



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 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**, to go one step ahead.

U for **Unity**, because by moving forward together we go further.

M for **Motivation**, which provides us with optimism, positive energy, flexibility and agility.

S for excellent **Service** to our stakeholders.

A for an open and detail-oriented **Attitude**.



SOLUTIONS
MOLDS



WORLDWIDE PRESENCE

Globalization is our DNA

CUMSA has focused since its beginnings in exporting their products worldwide, this gives the chance to grow as a company, discover new problems, and find how to solve them in different ways.

Actually, CUMSA has a distribution network over 45 different countries, and also direct selling from the headquarters to Spain and Germany, and as well as to other countries where non CUMSA official dealer is present.

So every single toolmaker or molder in the world can obtain the benefits that CUMSA products offer.

CUMSA have its own subsidiaries in strategic areas around the world:

EURO
CUMSA

In Marinha Grande area
(Portugal), established in 1998.

CUMSA
— ITALIA —

In Milano area (Italy),
established in 2004.

CUMSA
— 坤盛 中国 —

In Shenzhen (China) and
Hong Kong, established in 2009.

CUMSA
— USA —

In Troy (Michigan-USA),
established in 2012.

But not only CUMSA grows in commercialization, because by the end of 2017, a new production plant was built in Portugal. There, we manufacture hydraulic cylinders specially designed for the mold making industry, and also some components included in this catalogue.

CUMSA
— TECH —

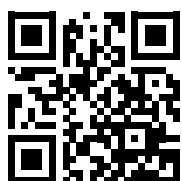
QUALITY

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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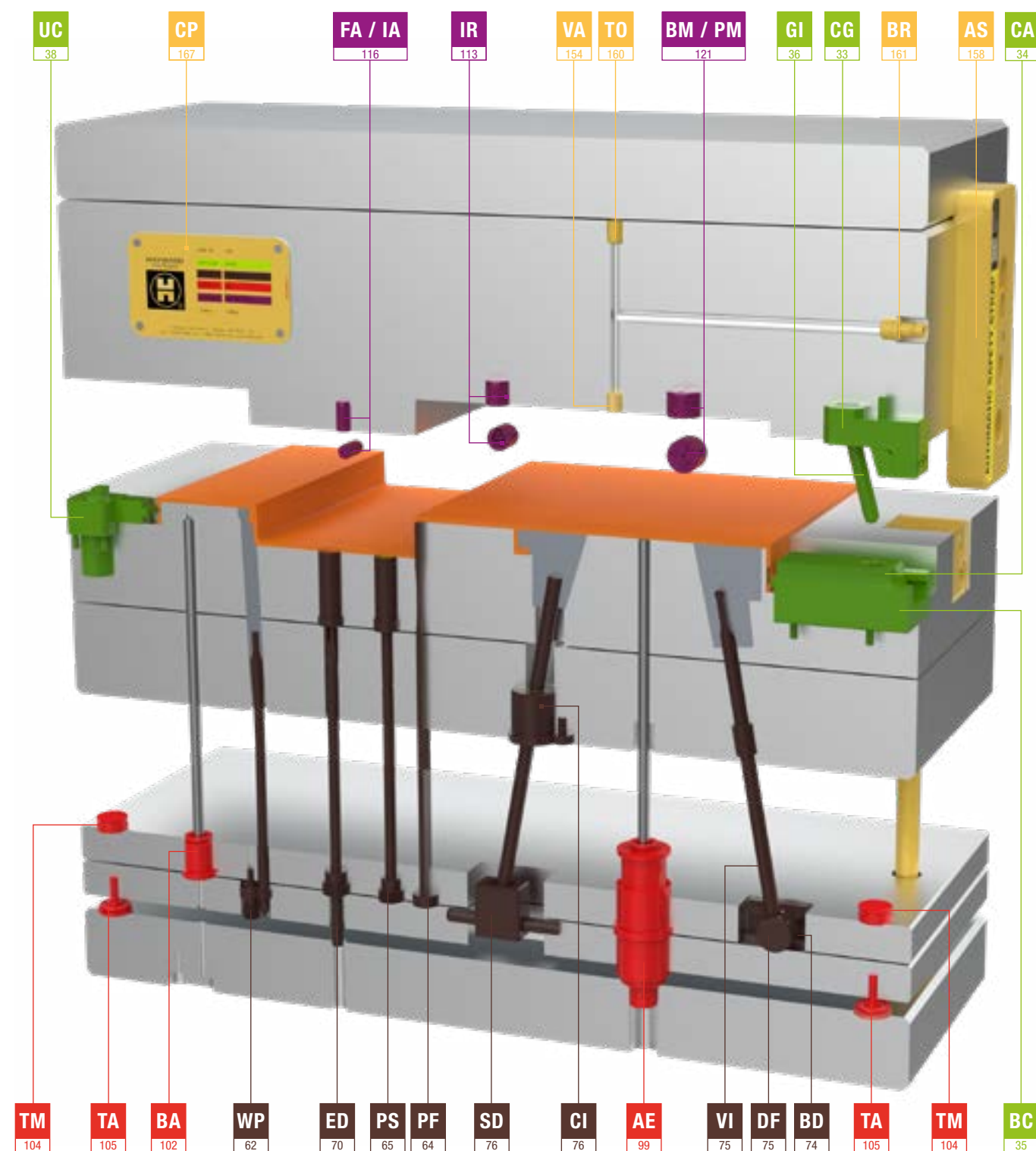
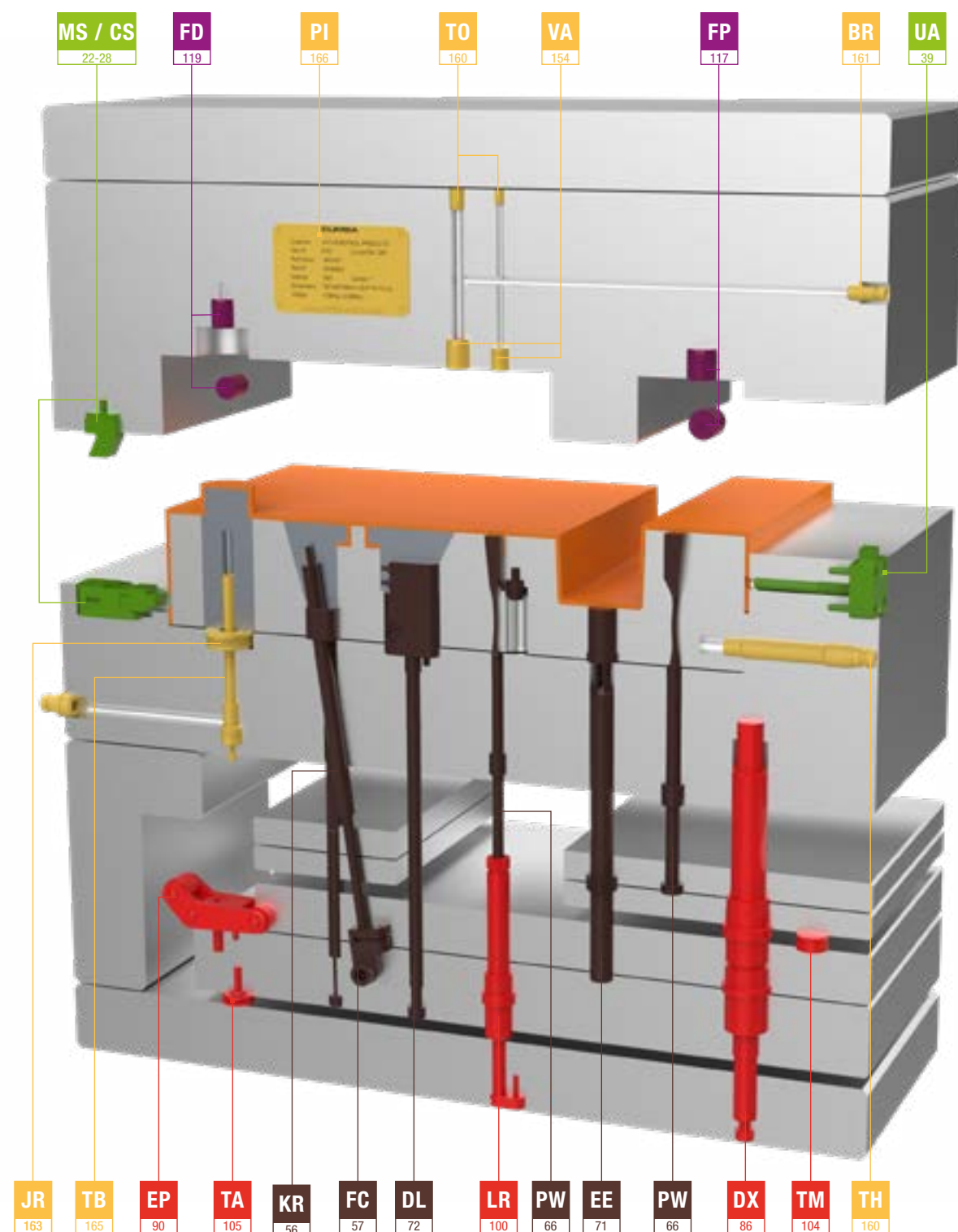
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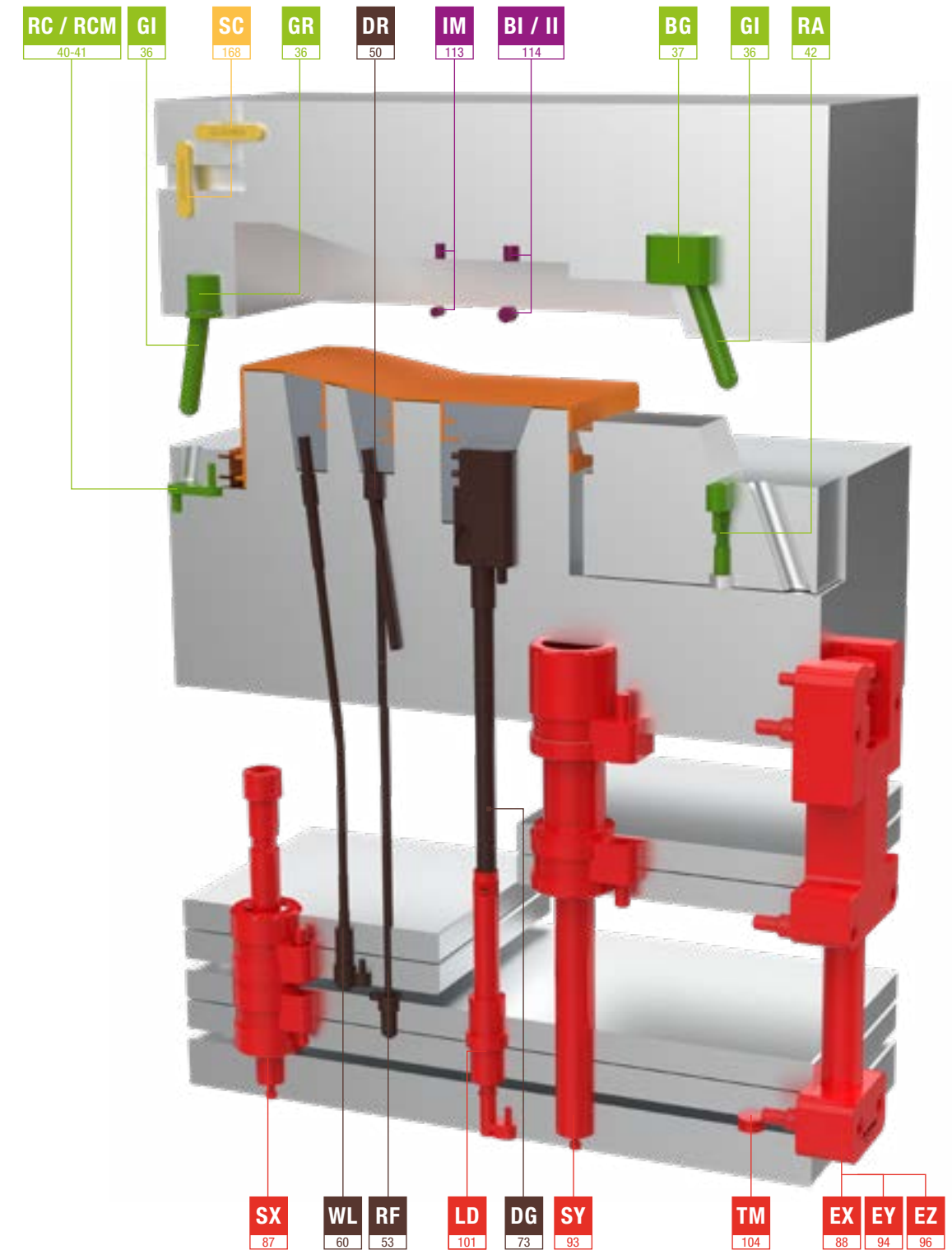
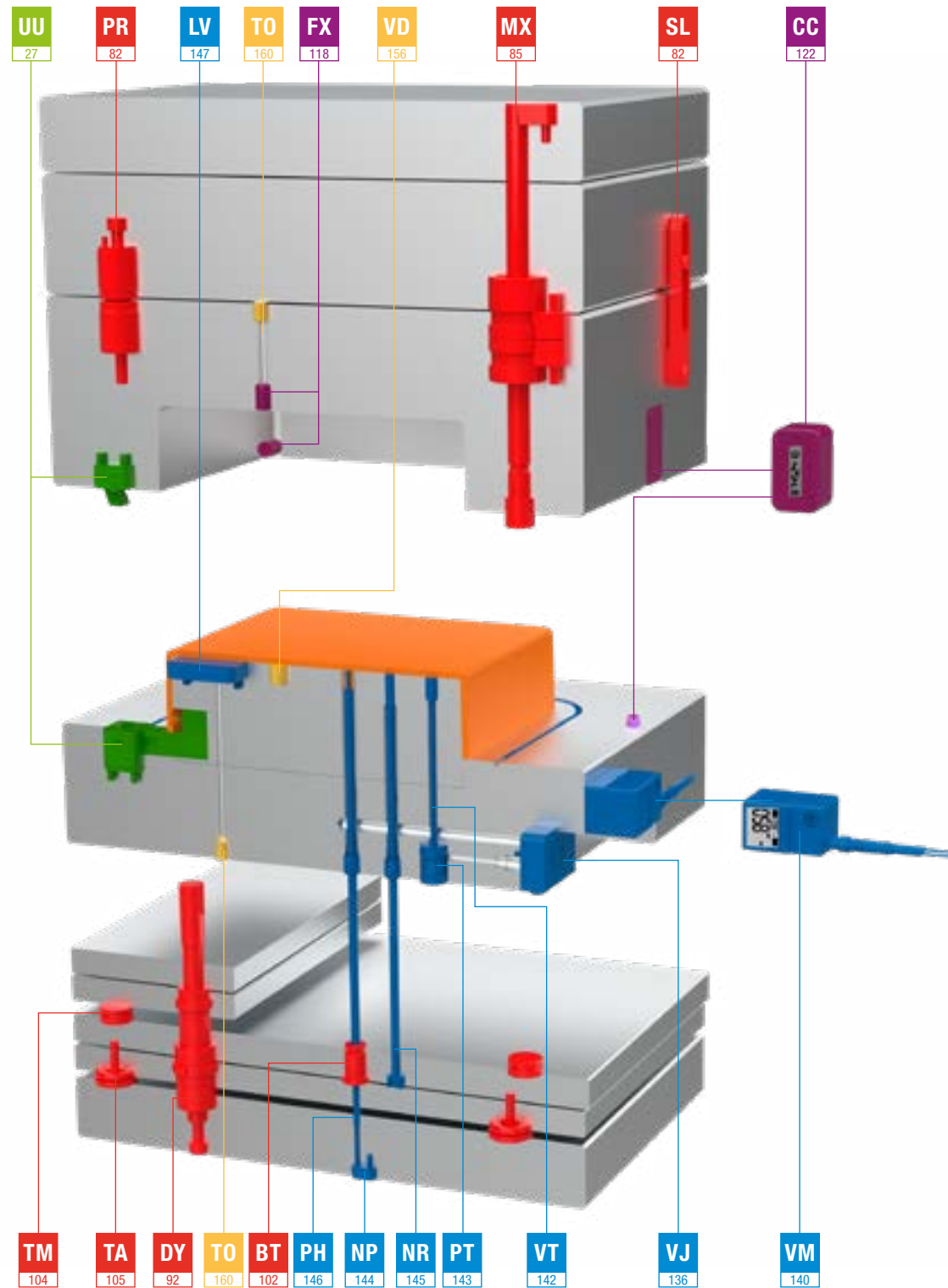
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GRAPHIC INDEX

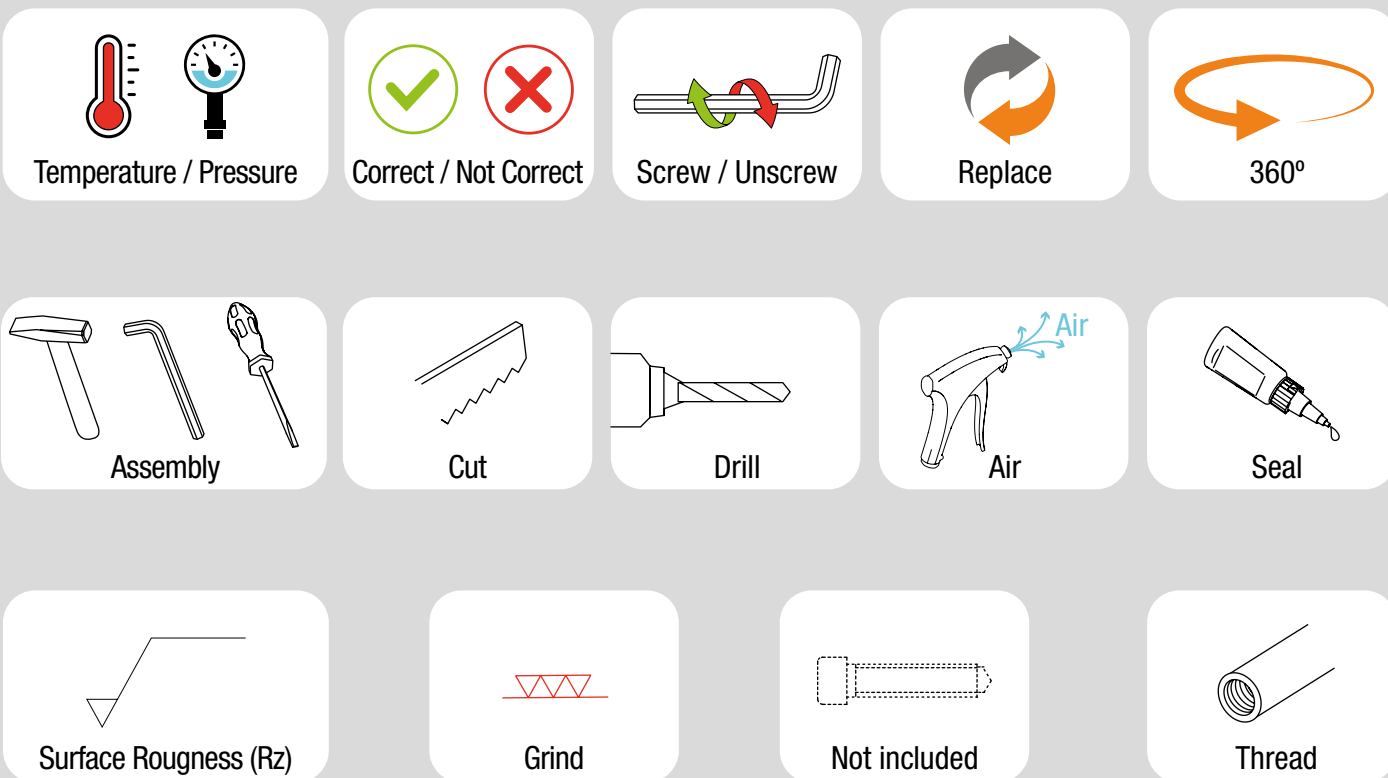


CATALOGUE

GUIDELINES

WEBSITE

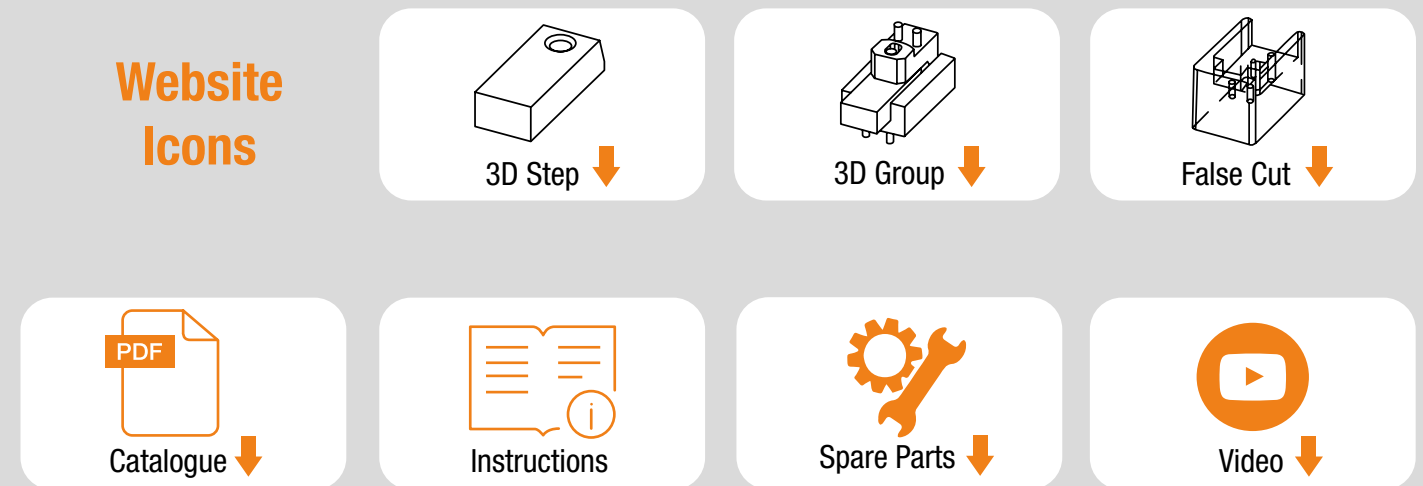
GUIDELINES



Max. Torque:

Metric	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
Torque	3	6	10	25	54	92	145	230	325	460	630	790

Website Icons



Important information:

- All the product information can be found in this catalogue, but the latest and most updated information can be found at cumsa.com
- The catalogue in the website is interactive, this means that you can navigate quickly between the pages / categories, clicking on links (indexes, categories on the bottom of the page, QR's and product indications)



1

SLIDES

SLIDES INDEX

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Mini Corredera
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Mini Coulisseau



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Mini Guia
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Mini Guide



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MC

Mini Slide
Mini Corredera
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Mini Carrello
Mini Corrediça
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25/

MB

Mini Base
Mini Base
Mini Basis
Mini Carrello
Mini Base
Mini Base
Mini Base



26/

SU

Slide Unit
Conjunto de Corredera
Schieber Einheit
Gruppo Carrello
Elemento Móvel
Chariot



27/

UU

Undercut Unit
Corredera para Negativos
Verdeckte Schieber
Carrello per Sottosquadra
Elemento Móvel Interior
Chariot Intérieur



28/

CS

Compact Slide
Corredera Compacta
Kompakt Schieber
Carrello Compatto
Corrediça Compacta
Compact Coulisseau



30/

CR

Cooled Compact Slide
Corredera Compacta Refrigerada
Gekühlter Kompakt Schieber
Carrello Compatto con Refrigerazione
Corrediça Compacta Refrigerado
Compact CoulisseauRéfrigéré



32/

MR

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Refrigeración CR
Kühlungsschlauch für CR
Refrigerazione CR
Refrigeração CR
Refroidissement CR



33/

CG

Heel Unit
Cuña Guía
Keilführungs
Contrasto Guida
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CG

Heel Unit - SET
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Keilführungs-SET
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CA

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Vorabgestimmter Schieber
Carrello Aggiustato
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Basisführung
Base Carrello
Base da Corrediça
Embase Coulisseau



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GR

Angle Pin Housing
Guía Regulable
Schrägstiftbuchse
Bussola Regolabile
Guia Regulável
Guidage de Verrouillage



36/

GI

Angle Pin
Guía Inclínada
Schrägstift
Colonna Inclínada
Guia Inclínada
Doigt de Demouillage



37/

BG

Angle Pin Housing
Base Guia
Schrägstiftbuchse
Base Portacolonna
Porta Guias
Socle de Guidage



38/

UC

Core Cam
Unidad de Punzonado
Kernstifthalter
Unità di Punzonatura
Unidade de Furação
Guide Broche



39/

UA

Compact Coring Unit
Unidad Apriete
Kompakt Kernstifthalter
Unità Compatta di Punzonatura
Unidade de Aperto
Butée de Broche



40/

RC

Slide Retainer
Retensor Corredera
Schiebersicherung
Ritenore Carrello
Retensor de Corrediças
Blocage de Coulisseau



40/

PO

Optional Dowel Pin
Pasador Opcional
Zylinderstift (Optional)
Riferimento Opzionale
Cavilha Opcional
Goupille Optionnel



41/

RCM

Slide Retainer
Retensor Corredera
Schiebersicherung
Ritenore Carrello
Retensor de Corrediças
Blocage de Coulisseau



42/

RA

Automatic Retainer
Retensor Automático
Zuhaltung, Automatisch
Ritenore Automatico
Retensor Automático
Retenue Automatique



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

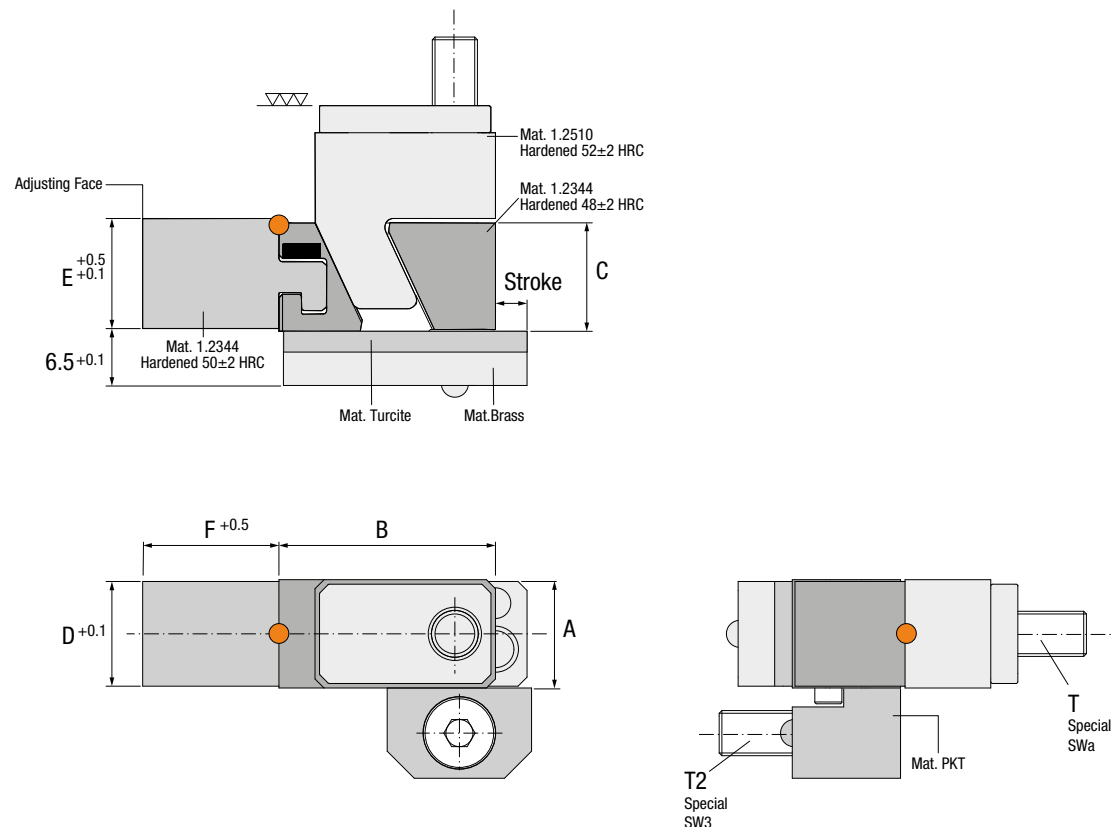
ES Consejos de Instalación **DE** Richtlinien zur Installation
IT Consigli di Installazione **PT** Instruções de Instalação **FR** Mode d'Installation



Max.
150°C

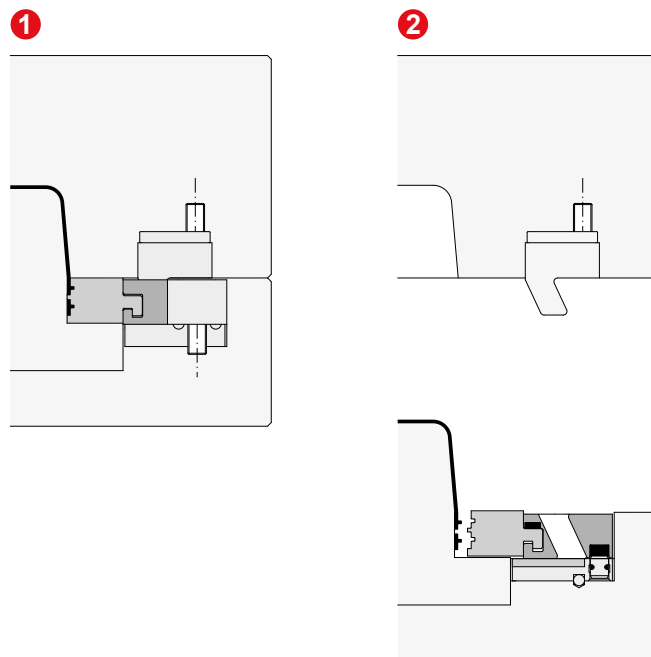
MS

Max.
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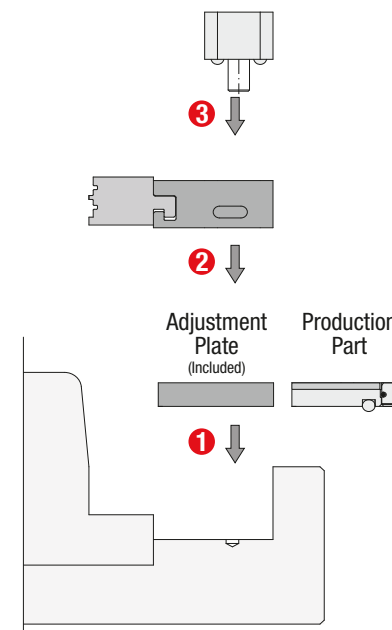


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MS.182006	18	41	16	17.6	16.5	20	16.5	22.5	47	32.5	16	28	4.5	5	6	M6x40	M5x25	12	26	15.5	7	13	4
MS.242608	24	45	20	23.6	20.5	26	16.5	26.5	53	38.5	16	28	4.5	5	8	M6x45	M5x25	17	30	16.5	7	15	4

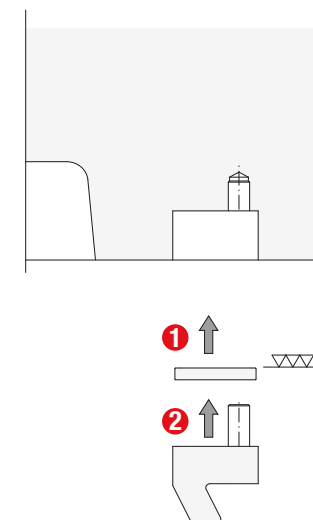
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



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



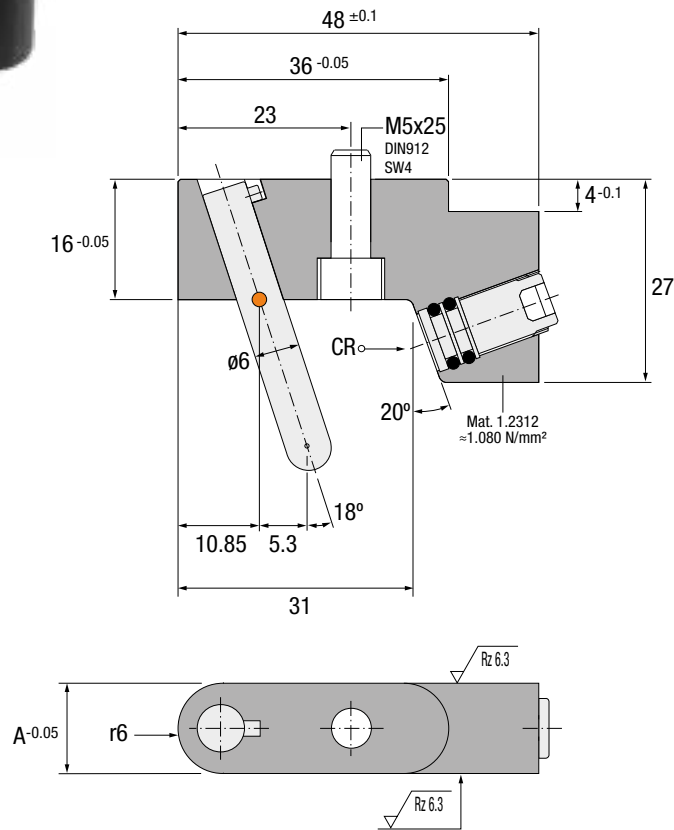
Instalación Placa Cavidad · Einbaumaße DR Führung · Installazione piastra cavità
Instalação da correção no lado da cavidade · Logement dans l'empreinte



▶ PLAY



Patented
 Max.
 150°C



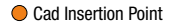
Ref.	A	CR (N)
MG.121648	12	50.000
MG.201648	20	90.000

IMPORTANT !

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

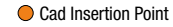
MINI GUIDE

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



MINI BASE

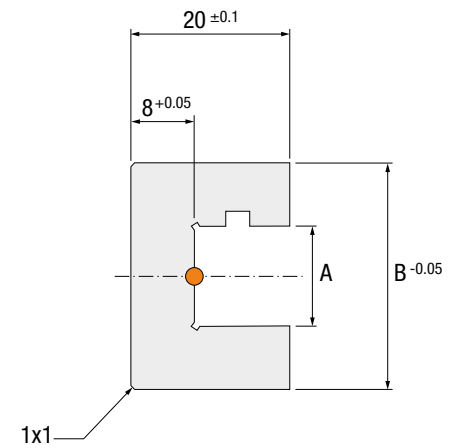
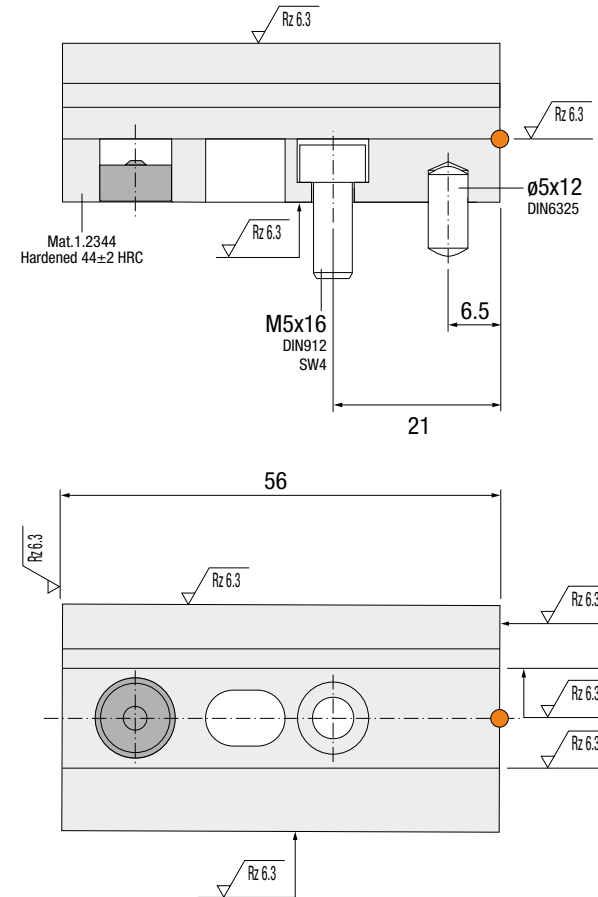
ES Mini Base DE Mini Basis
IT Mini Base PT Mini Base FR Mini Base



MB

Patented
Max.
150°C

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MB.202056	20.5	36



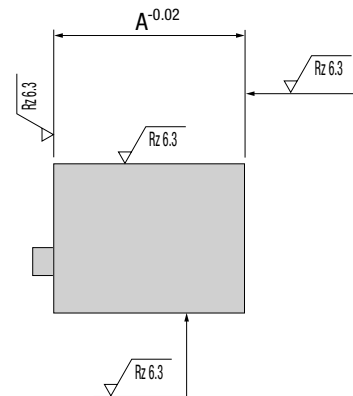
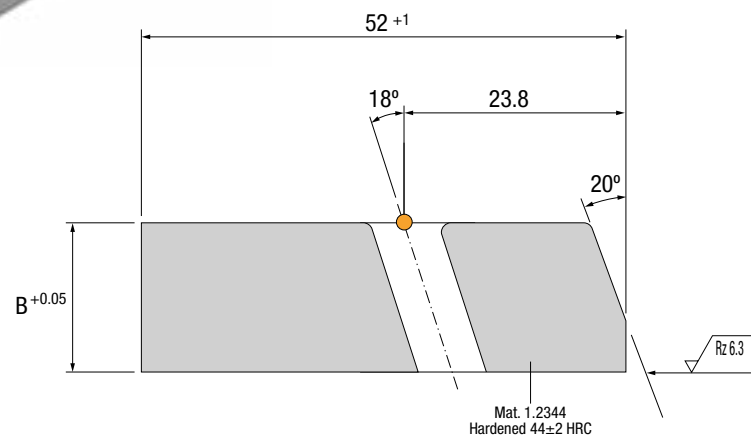
MINI SLIDE

ES Mini Corredera DE Mini Schieber
IT Mini Carrello PT Mini Corrediza FR Mini Coulisseau



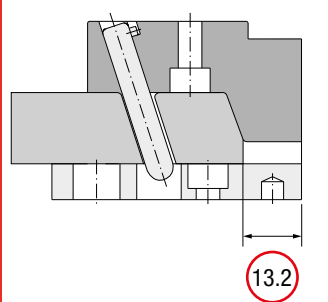
MC

Patented
Max.
150°C



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MC.121652	12.5	16
MC.201252	20.5	12
MC.201652	20.5	16

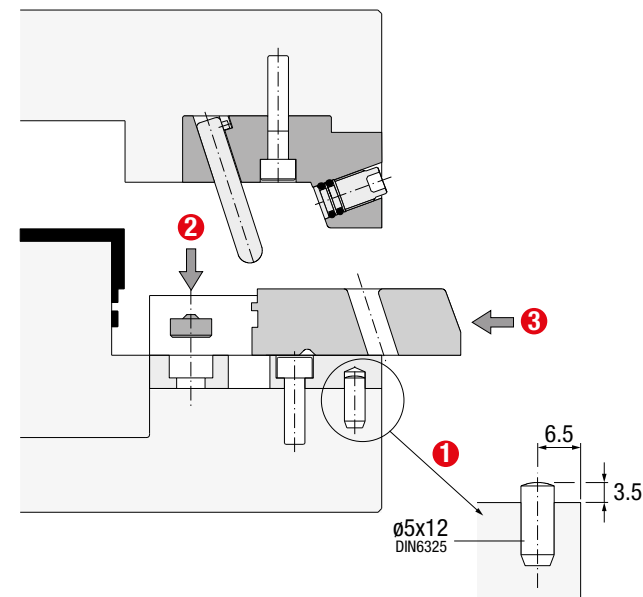
IMPORTANT !



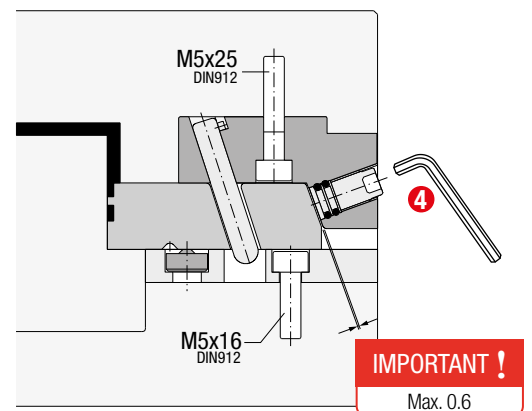
– Installation Guidelines

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Mold Open



Mold Closed



SU

SLIDES



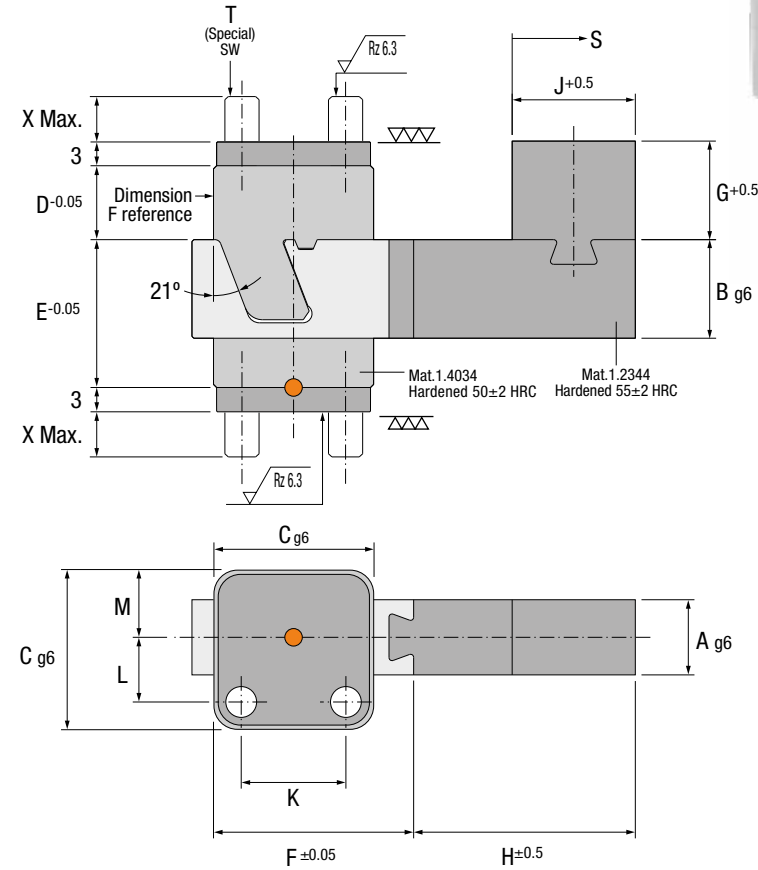
Patented
Max. 150°C



UNDERCUT UNIT

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

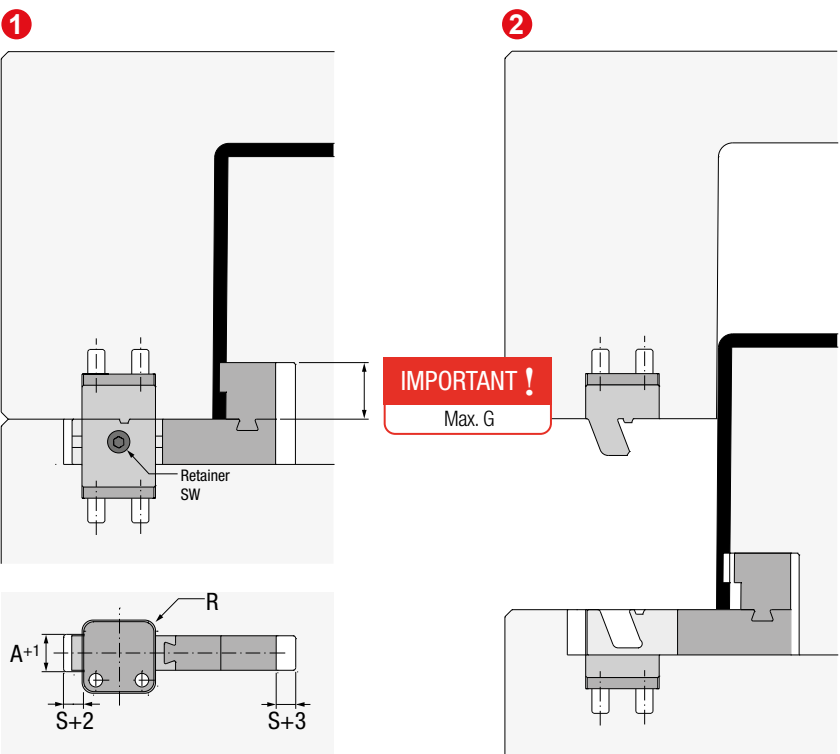
Cad Insertion Point



Ref.	A	B	C	D	E	F	G	H	J	K	L	M	R	S	T	X	SW
UU.081220	8.2	12	20	10	18	24.5	12	32	16	12.5	8.25	8	3.75	3	M4	6.2	2.5
UU.121626	12.2	16	26	12	24	32.5	16	36	20	17	10.5	11	4.5	4	M5	7.2	3
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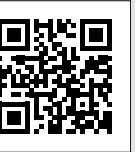
Installation Guidelines

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UU

SLIDES



Patented
Max. 150°C

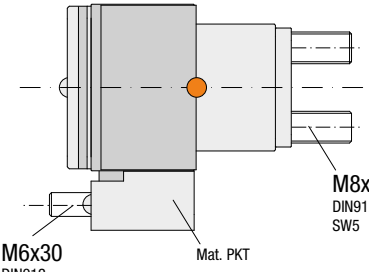
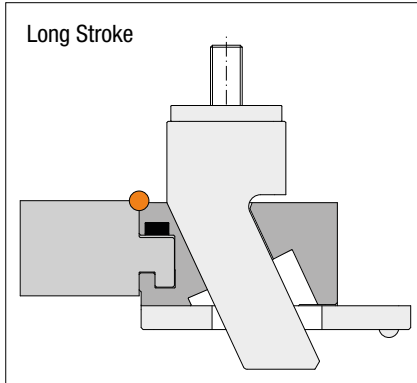
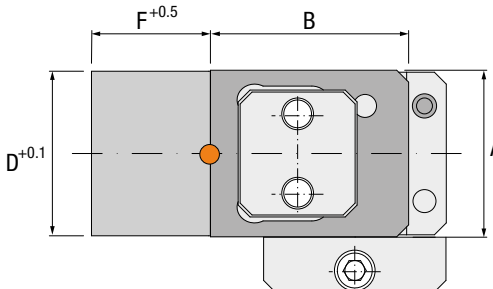
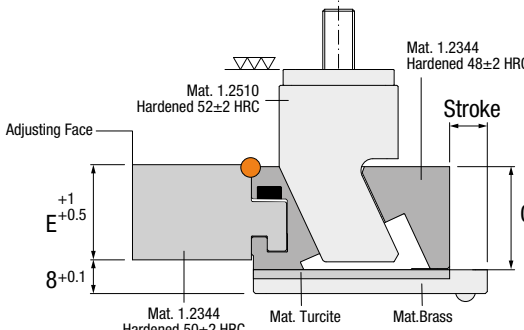


CS

SLIDES



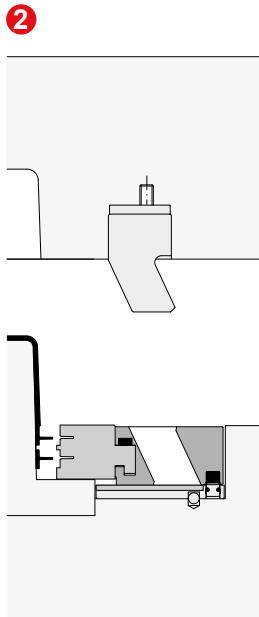
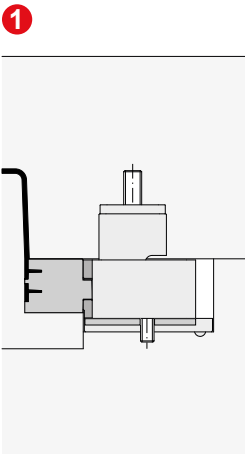
Patented
Max.
150°C



Ref.	A	B	C	D	E	F	H	J	K	P	Q	N	Stroke	T	U	V	W	Z
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CS.423017	42	50	26	41.5	24	30	32.5	68.5	62.5	17	34	12	17	55	32	30	24	20
CS.523511	52	56	32	51.5	30	35	38.5	69	63	-	-	-	11.5	55	38	34	26	20
CS.523519	52	56	32	51.5	30	35	38.5	76	70	20	35	9	19	55	38	34	26	20
CS.624014	62	62	38	61.5	36	40	44.5	77	72	-	-	-	14	60	44	38	28	24
CS.624022	62	62	38	61.5	36	40	44.5	85	81	23	39	11	22	60	44	38	28	24

Installation Guidelines

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

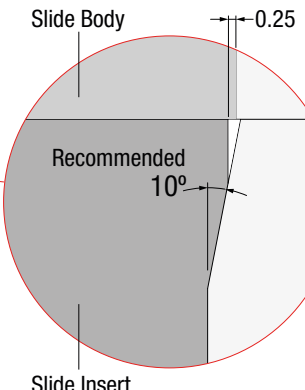
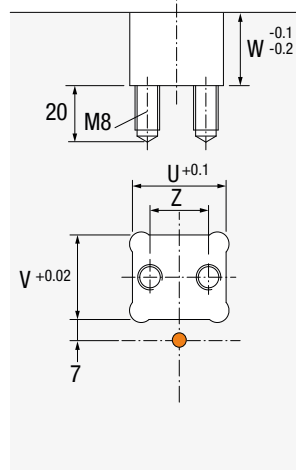
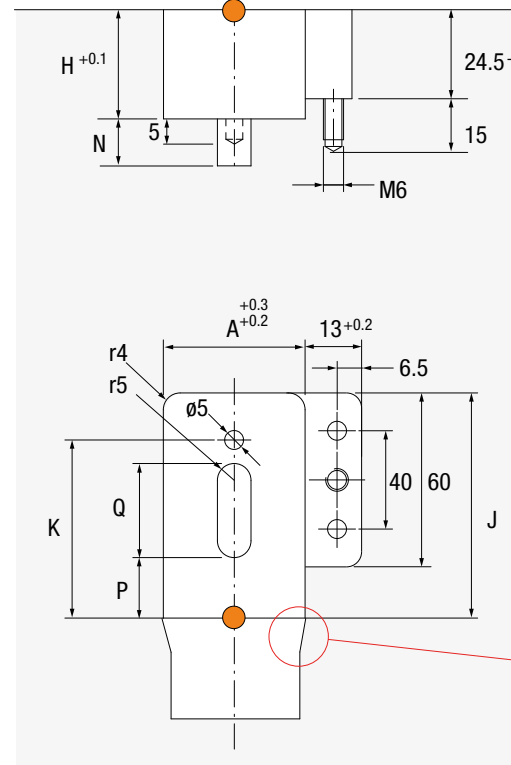


ES Consejos de Instalación **DE** Richtlinien zur Installation
IT Consigli di Installazione **PT** Instruções de Instalação **FR** Mode d'Installation



Core Housing

Alojamiento Placa Punzón · Einbaumaße PB Führung · Sede ne
Punzone · Alojamento Bucha · Logement dans l’empreinte

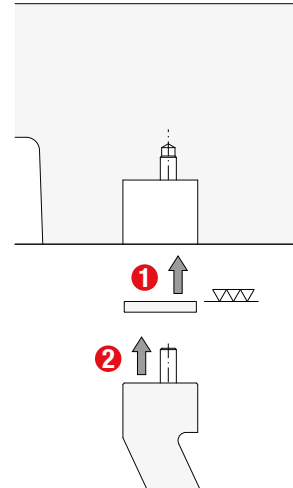
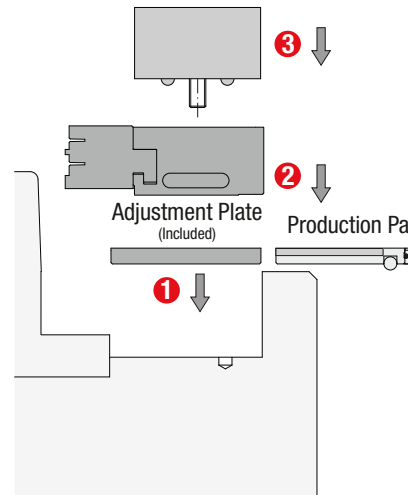


– Cavity Housing

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

– 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 corredica no lado da cavidade · Logement dans l'empreinte

CR

SLIDES

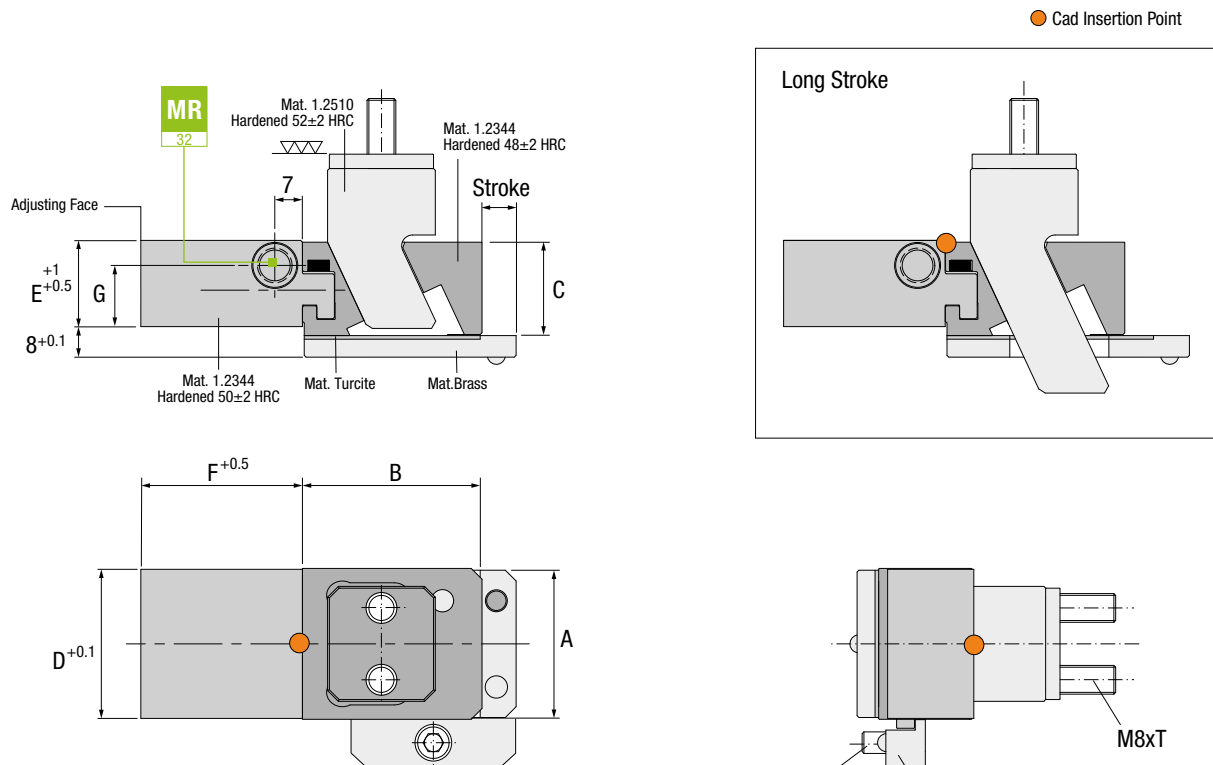


Patented

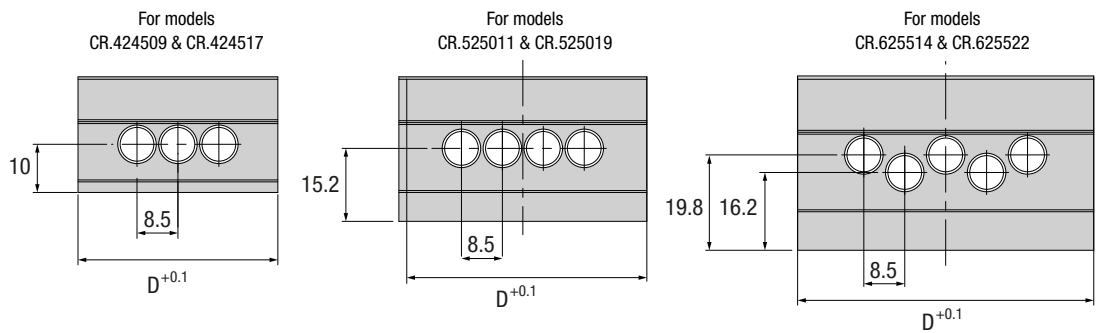


COOLED COMPACT SLIDE

ES Corredera Compacta Refrigerada DE Gekühlter Kompakt Schieber
IT Carrello Compatto con Refrigerazione PT Corrediça Compacta Refrigerado FR Compact CoulisseauRéfrigéré

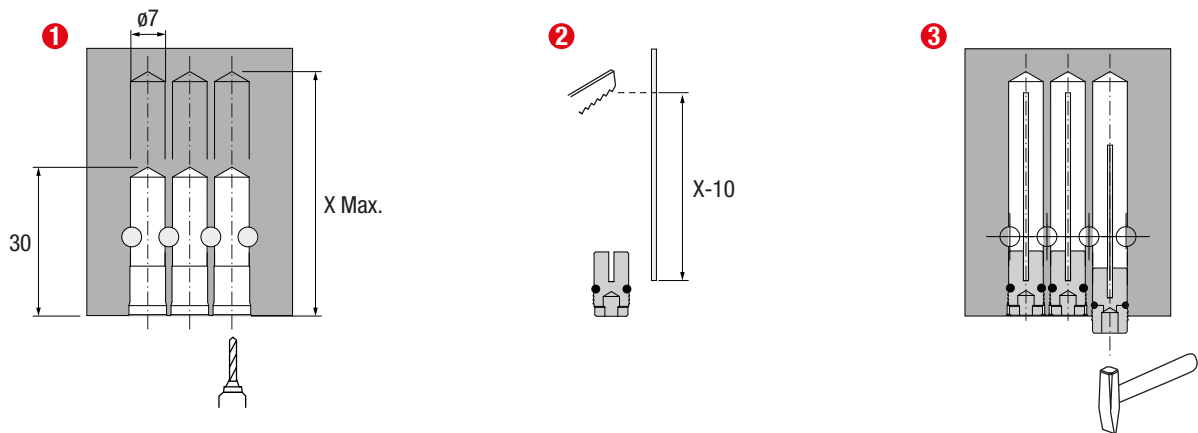


Ref.	A	B	C	D	E	F	G	H	J	K	P	Q	N	Stroke	T	U	V	W	X	Z
CR.424509	42	50	26	41.5	24	45	17	32.5	60	54	-	-	-	9	55	32	30	24	50	20
CR.424517	42	50	26	41.5	24	45	17	32.5	68.5	62.5	17	34	12	17	55	32	30	24	50	20
CR.525011	52	56	32	51.5	30	50	23	38.5	69	63	-	-	-	11.5	55	38	34	26	55	20
CR.525019	52	56	32	51.5	30	50	23	38.5	76	70	20	35	9	19	55	38	34	26	55	20
CR.625514	62	62	38	61.5	36	55	29	44.5	77	72	-	-	-	14	60	44	38	28	60	24
CR.625522	62	62	38	61.5	36	55	29	44.5	85	81	23	39	11	22	60	44	38	28	60	24



Installation Guidelines

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

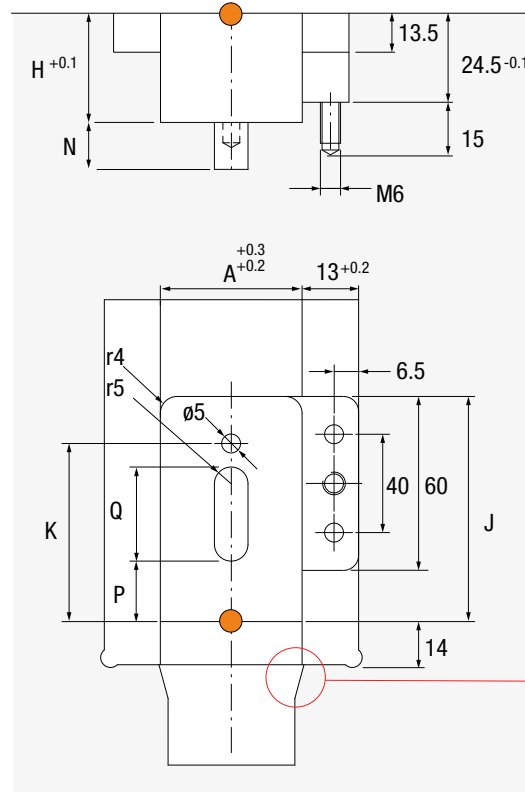


INSTALLATION GUIDELINES

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

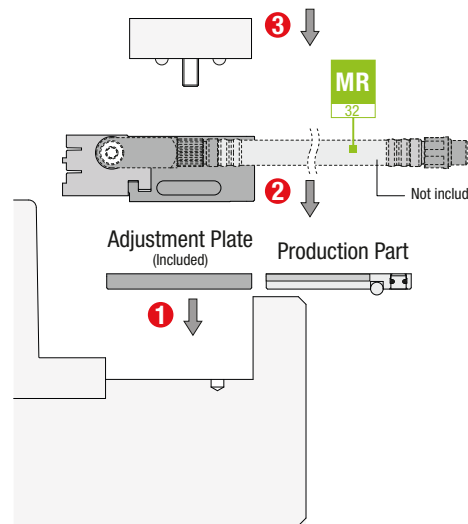
Core Housing

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



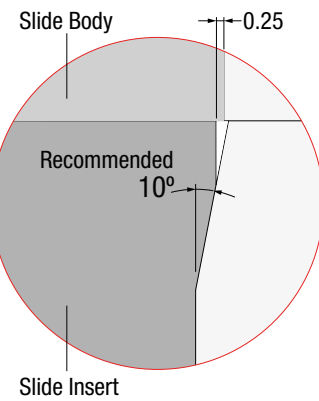
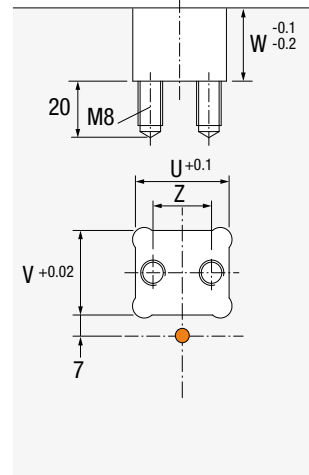
Core Slide Installation

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



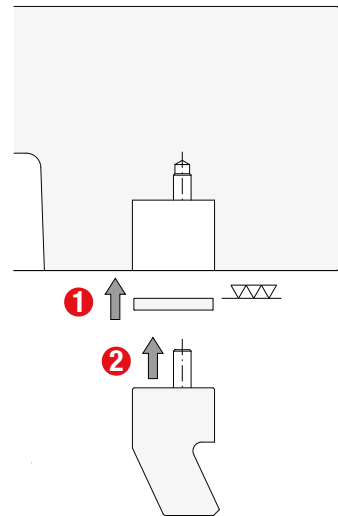
Cavity Housing

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 correção no lado da cavidade · Logement dans l'empreinte



CR

SLIDES



Patented

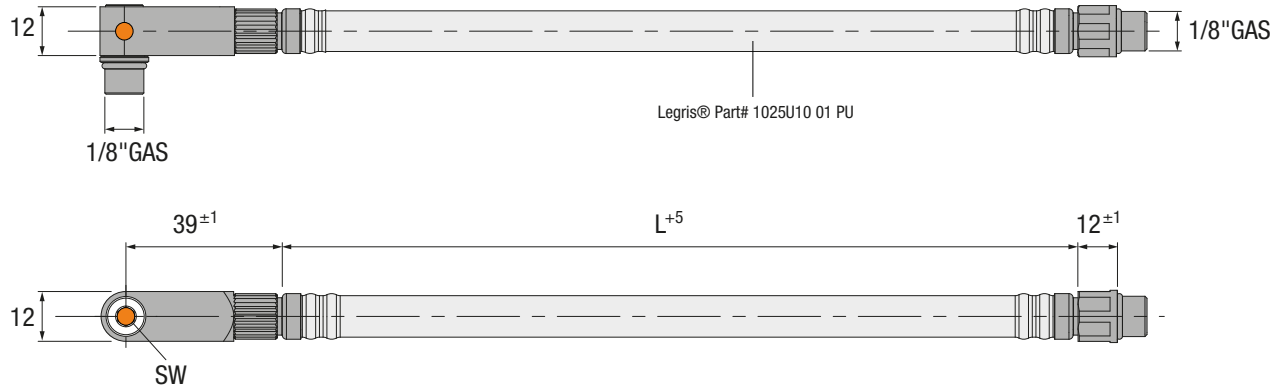


MR

SLIDES



Patented
Max. 70°C

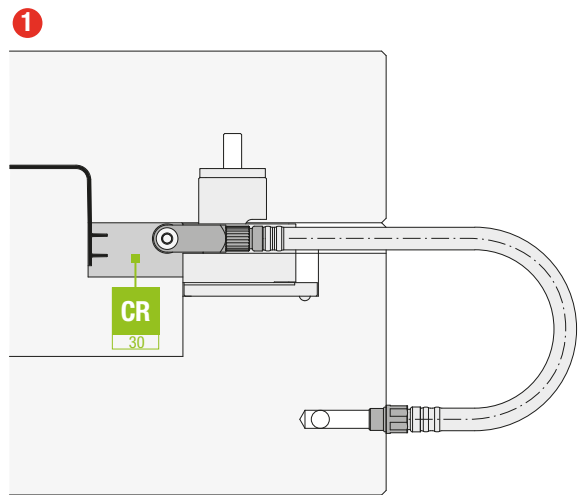


Ref.	L
MR.180500	500
MR.181000	1000

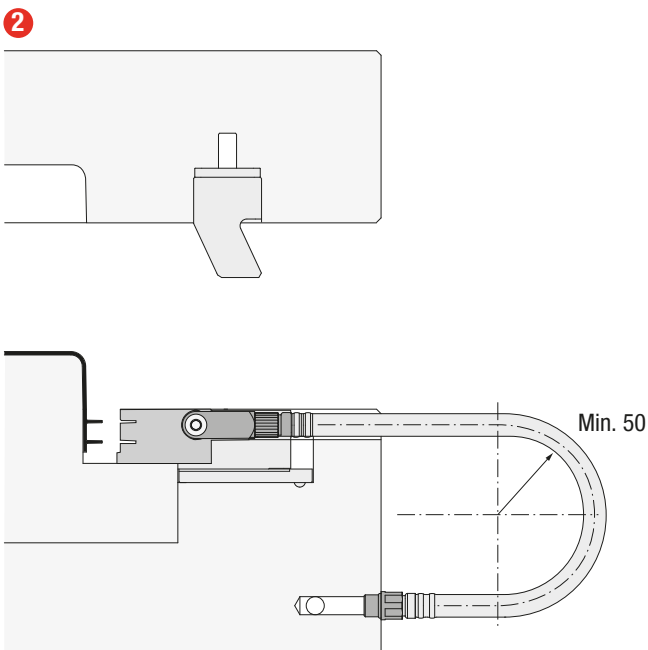
Installation Guidelines

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

Cavity Installation



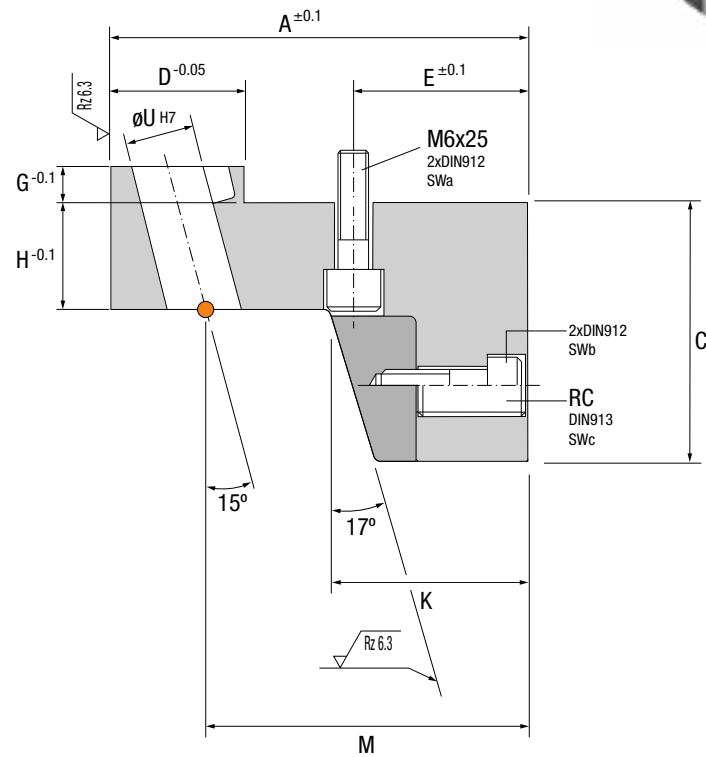
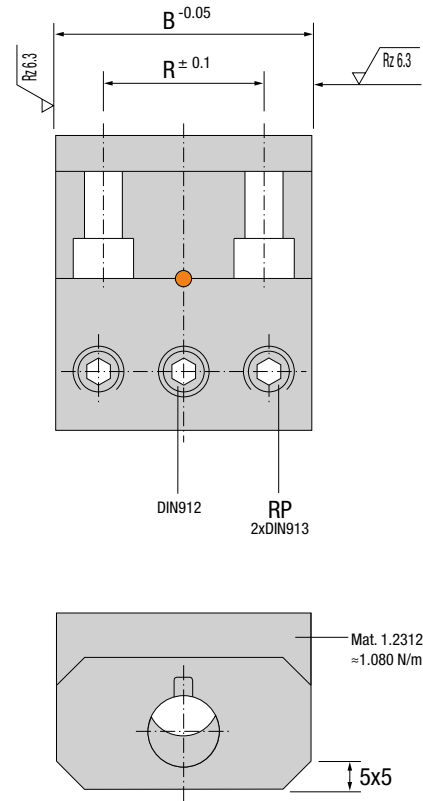
Core Installation



HEEL UNIT

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

● Cad Insertion Point

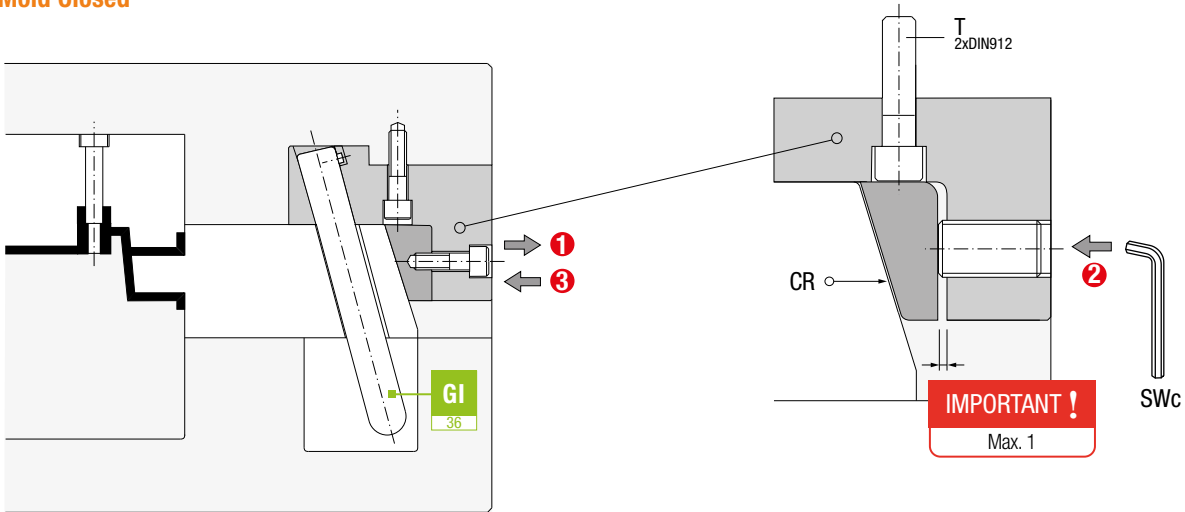


Ref.	A	B	C	D	E	G	H	K	M	R	T	U	RP	CR (N)	SWa	SWb	SWc
CG.603035	60	30	35	25	23	6	17	29	43.7	17	M6x25	10	081015	180.000	5	3	4
CG.604035	60	40	35	25	23	6	17	29	43.7	22	M6x25	10	101015	320.000	5	4	5
CG.754049	75	40	49	30	32	7	20	39	58	22	M8x30	12	101020	320.000	6	5	5
CG.864857	86	48	57	35	36	8	24	44	65	28	M8x35	16	121025	480.000	6	6	6

Installation Guidelines

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

Mold Closed



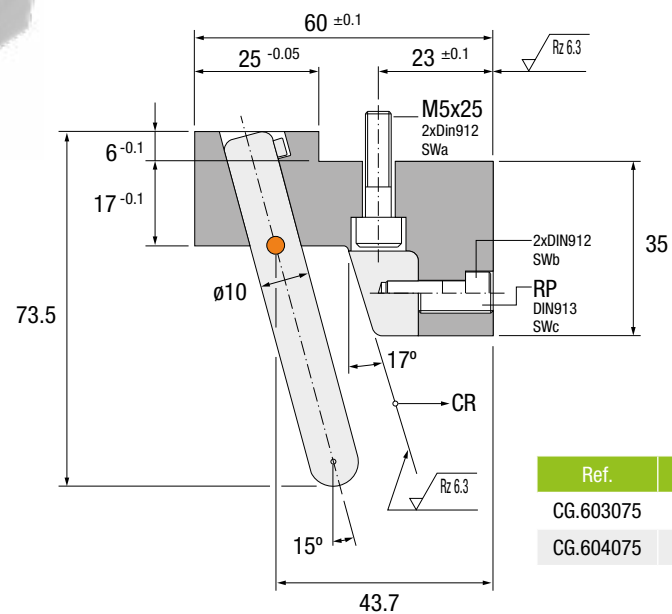
CG

SLIDES

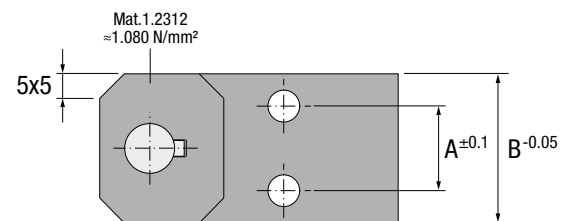


Patented
Max. 150°C

Patented
Max.
150°C



Ref.	A	B	CR (N)	RP	SWa	SWb	SWc	Includes
CG.603075	17	30	180.000	081015	5	3	4	GI.010075
CG.604075	22	40	320.000	101015	5	4	5	GI.010075



IMPORTANT !

- Standard stroke of 11mm.
- Recorrido estándar de 11mm.
- Standard Hub 11mm.
- Corsa carrello 11mm.
- Curso standard 11mm.
- Course standard de mmm.

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

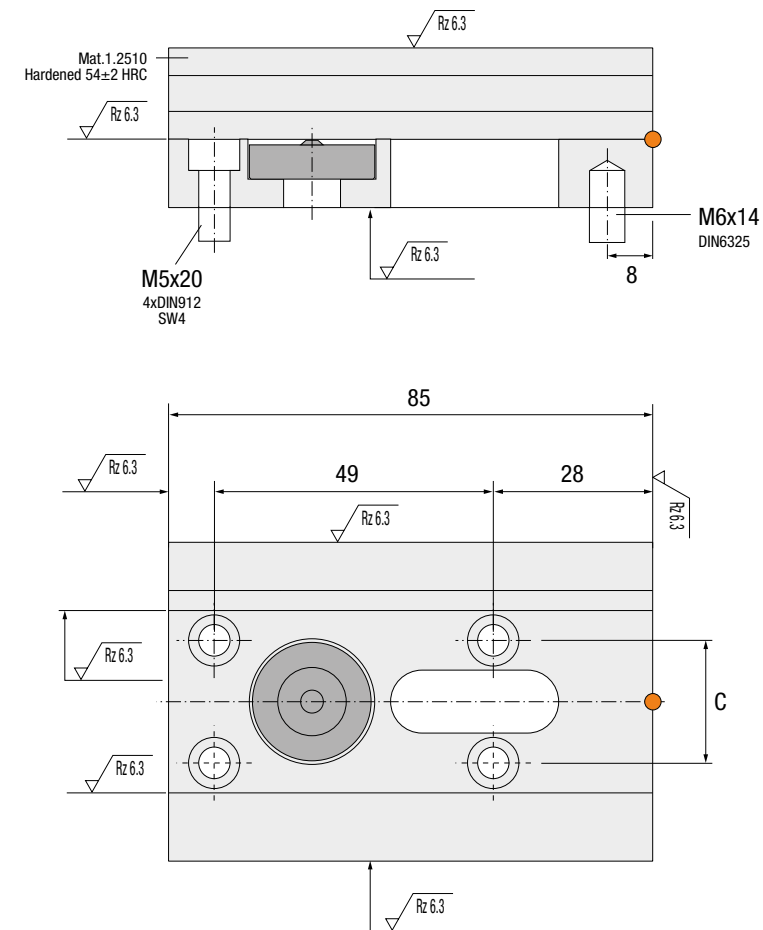
- Cad Insertion Point

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

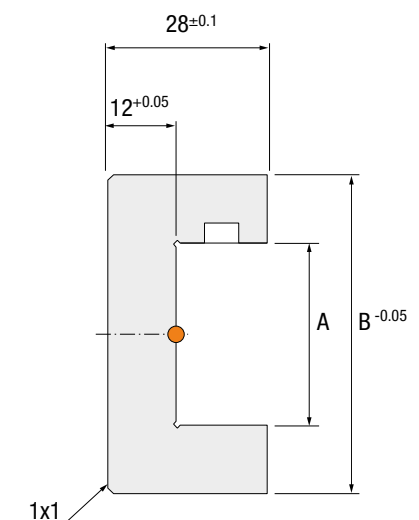
● Cad Insertion Point



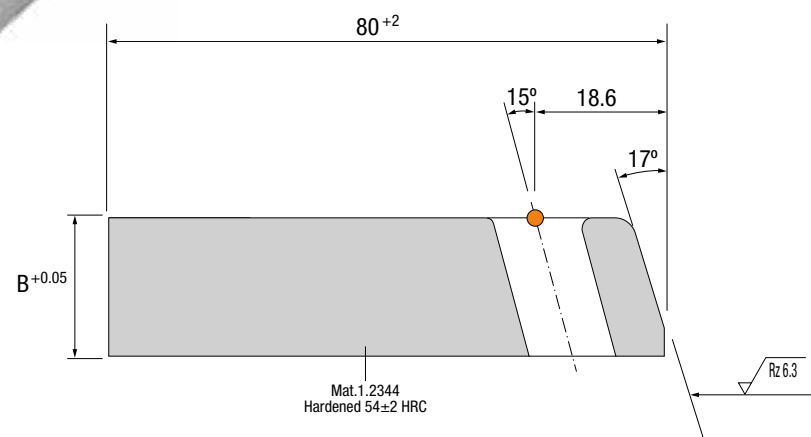
Patented
Max.
150°C



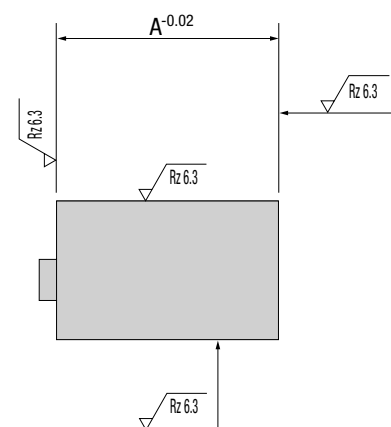
Ref.	A	B	C
BC.322885	32	56	21.5
BC.422885	42	66	26.5



Patented
Max.
150°C

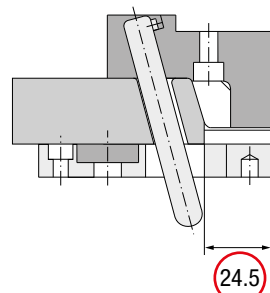


Ref.	A	B
CA.322080	32	20
CA.322480	32	24
CA.422080	42	20
CA.422480	42	24



● Cad Insertion Point

IMPORTANT

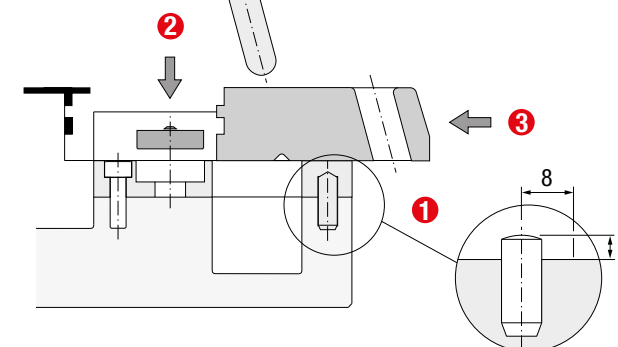


24

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

● Cad Insertion Point

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



Technical drawing of a mechanical assembly. It shows a shaft with a pulley at the top, connected to a belt drive system. The shaft is supported by bearings. A dimension line indicates a distance of 100 units. A red square is located at the bottom right corner of the drawing area.

IMPORTANT !
Max. 1

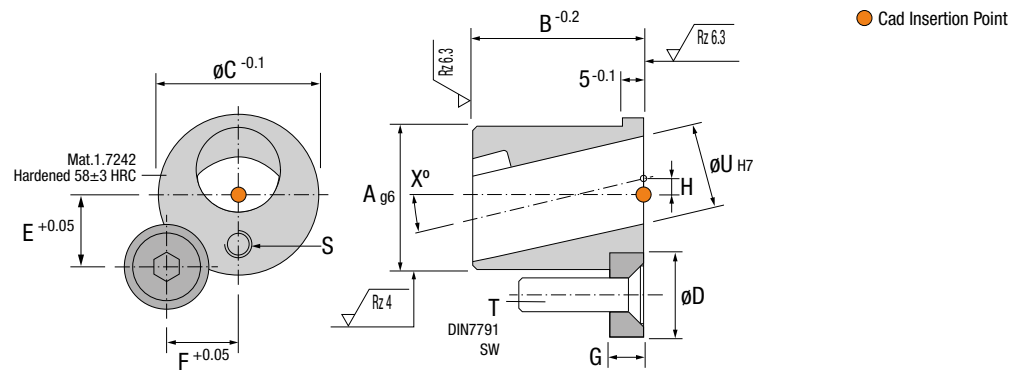


GR

SLIDES



Patented
Max. 150°C



Ref.	A	B	C	D	E	F	G	H	S	T	U	X°	SW
GR.182622-..	18	26	22	12	10.8	7.5	6	3.8	M5x5	M5x16	10	10	3
GR.222826-..	22	28	26	16	11	11	6	4	M6x6	M6x16	12	10	4
GR.283432-..	28	34	32	16	13	13	6	5	M6x6	M6x16	16	10	4
GR.344038-..	34	40	38	20	17	17	8	5.5	M8x6	M8x20	20	10	5
GR.424546-..	42	45	46	20	19.5	19.5	8	6	M8x6	M8x20	24	10	5
GR.465050-..	46	50	50	20	21	21	8	7	M8x6	M8x20	28	10	5

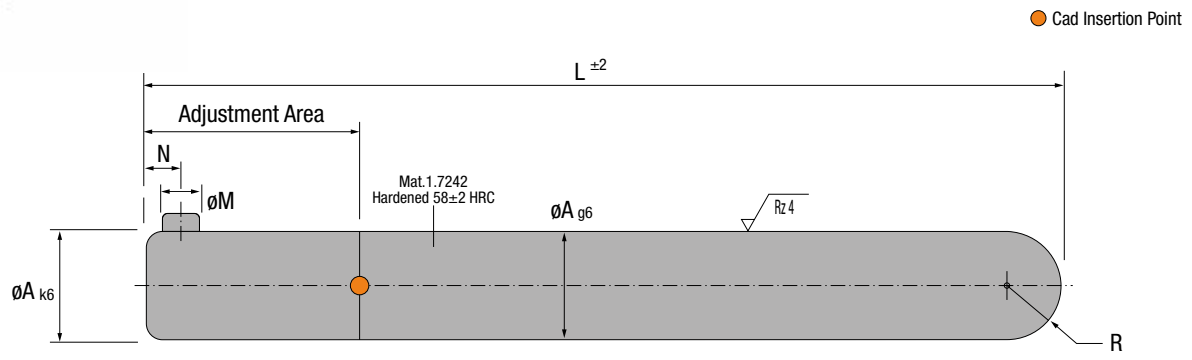
IMPORTANT !
Indicate the desired **X** dimension after the reference.
Indicar al final de la referencia, la cota **X** deseada.
Gewünschte **X** Dimension angeben, nach der Referenznr.
Indicare la quota **X** desiderata alla fine del codice.
Indique o dimensão **X** desejada depois da referência.
Préciser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

GI

SLIDES



Max. 150°C



Ref.	A	Adjustment 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.

ANGLE PIN HOUSING

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

ANGLE PIN HOUSING

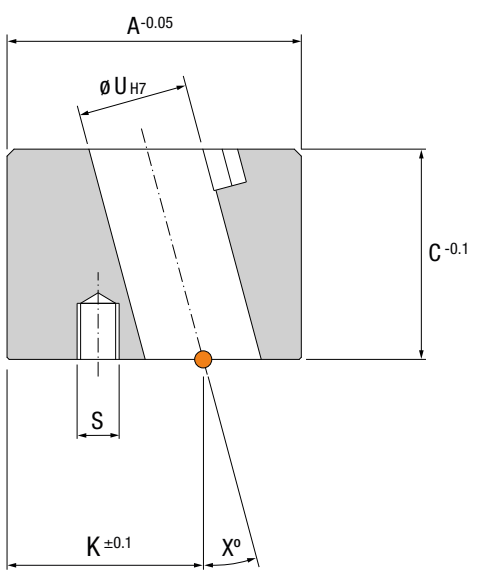
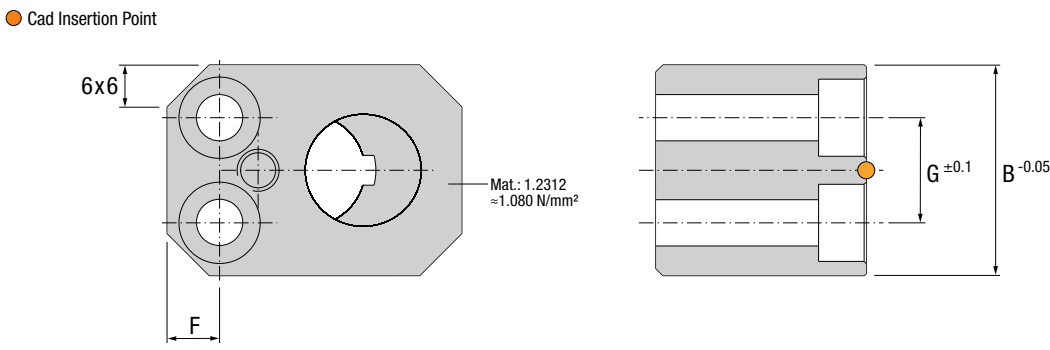
ES Base Guía DE Schägstiftbuchse
IT Base Portacolonna PT Porta Guias FR Socle de Guidage

BG

SLIDES



Patented
Max. 150°C

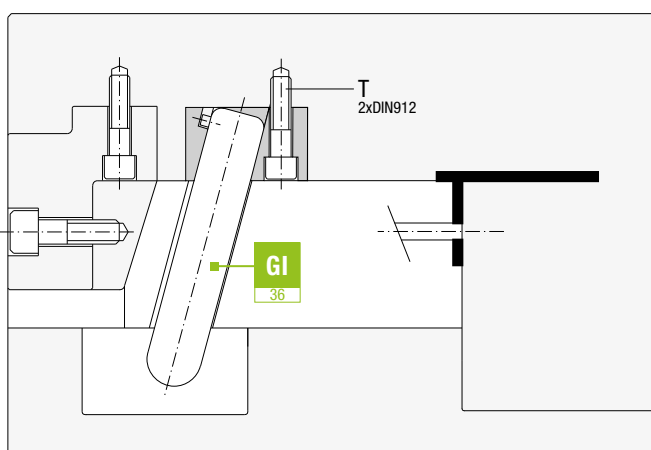


Ref.	A	B	C	F	G	K	S	T	U	X	
BG.423016-..	42	30	30	7.5	15	28	M6	M6x35	16	15	20
BG.504020-..	50	40	36	9	22	34	M8	M8x40	20	15	20
BG.554024-..	55	40	40	9	22	38	M8	M8x45	24	15	20
BG.655028-..	65	50	45	12	26	45	M10	M10x50	28	15	20

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.

Installation Guidelines

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



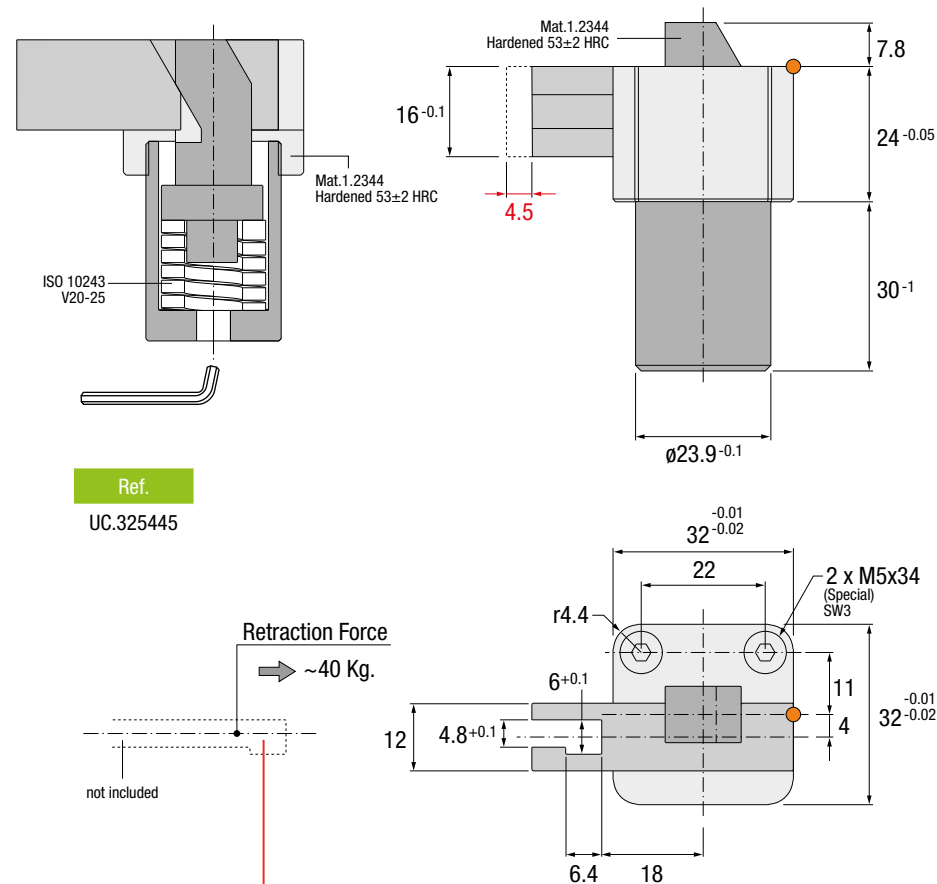


Patented

 Max.
150°C

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

- Cad Insertion Point



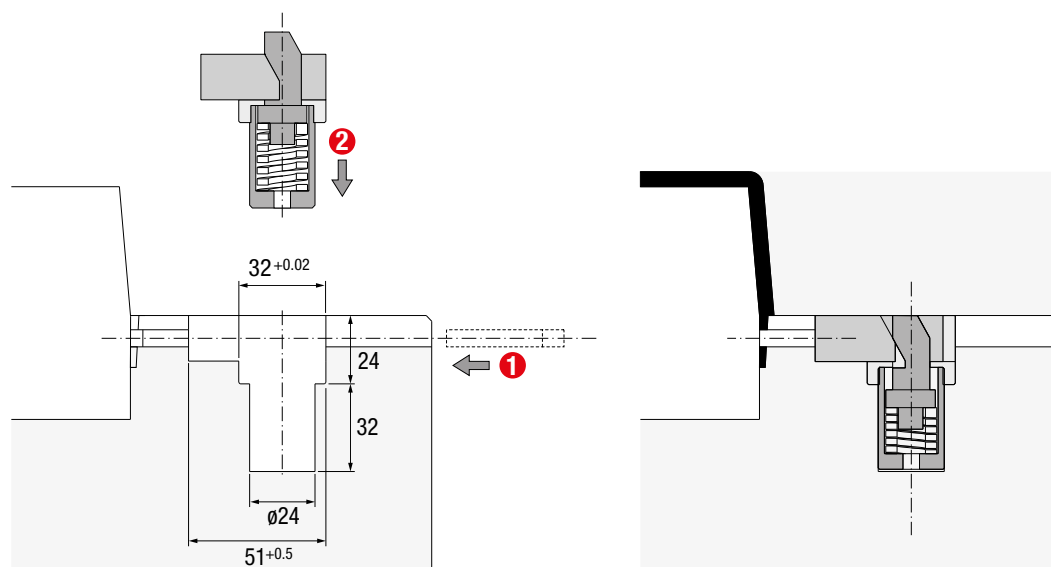
! IMPORTANT

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

IMPORTANT !

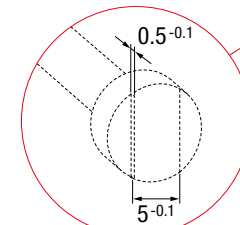
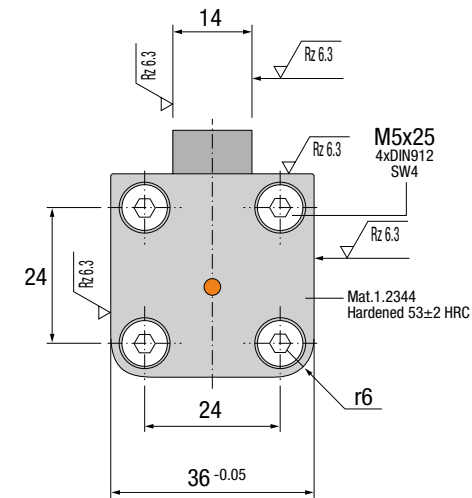
Standard stroke of 4.5mm.
Recorrido estándar de 4.5mm.
Standard Hub 4.5mm.
Corsa del asta 4.5mm.
Curso standard de 4.5mm.
Course standard de 4.5mm.

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



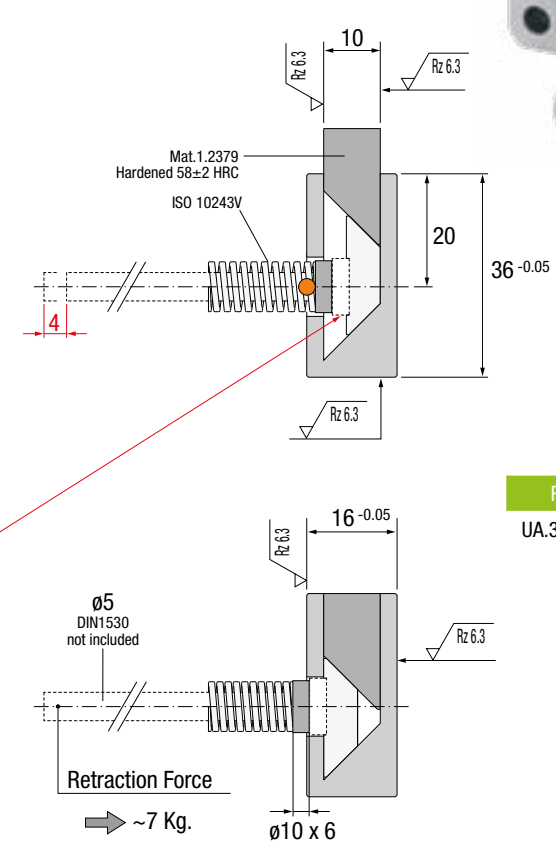
ES Unidad Apriete **DE** Kompakt Kernstifthalter
IT Unità Compatta di Punzonatura **PT** Unidade de Aperto **FR** Butée de Broche

● Cad Insertion Point



IMPORTANT !

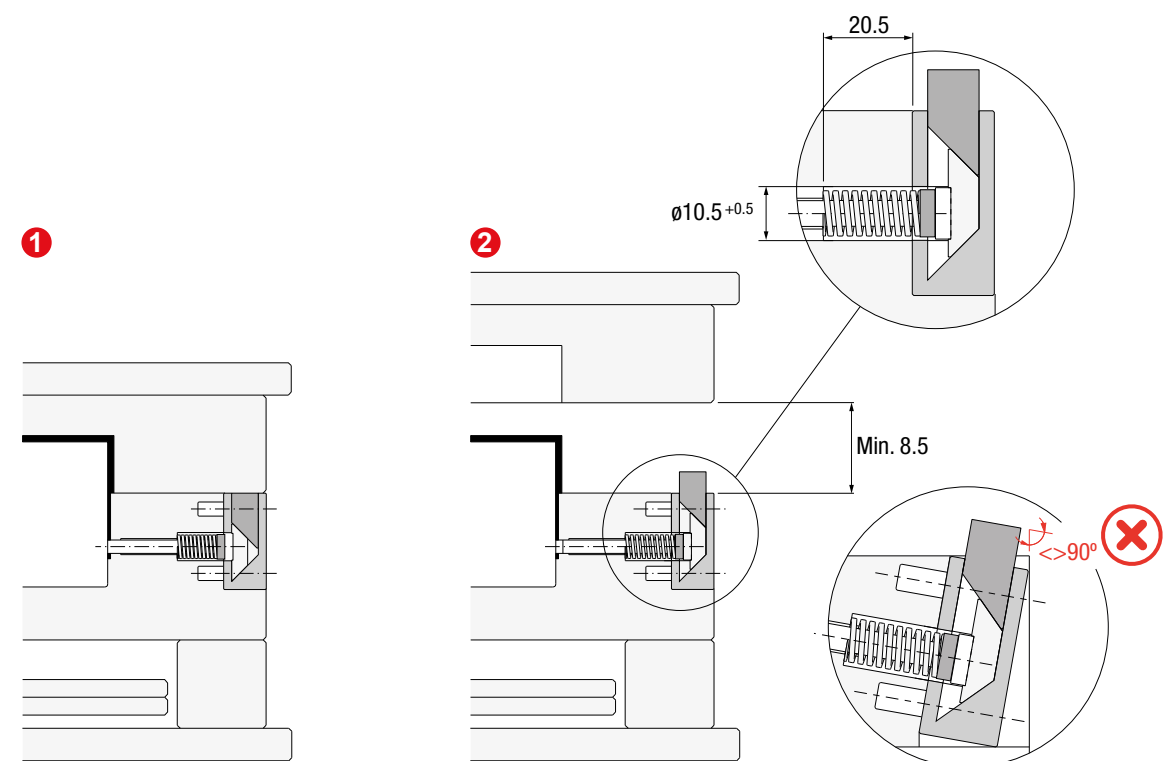
Option for machining keyway.
Posibilidad de mecanizado antigiro.
Möglichkeit zur Herstellung einer Aussparung.
Possibilità di lavorazione antigiro.
Possibilidade de maquinar anti-rotação.
Possibilit   d'indexer la broche.



IMPORTANT !

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

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



Patented
Max.
150°C

Ref.
JA.363616

IMPORTANT !

IMPORTANT •

IMPORTANT •

IMPORTANT :-



 PLAY



▶ PLAY

RC

SLIDES



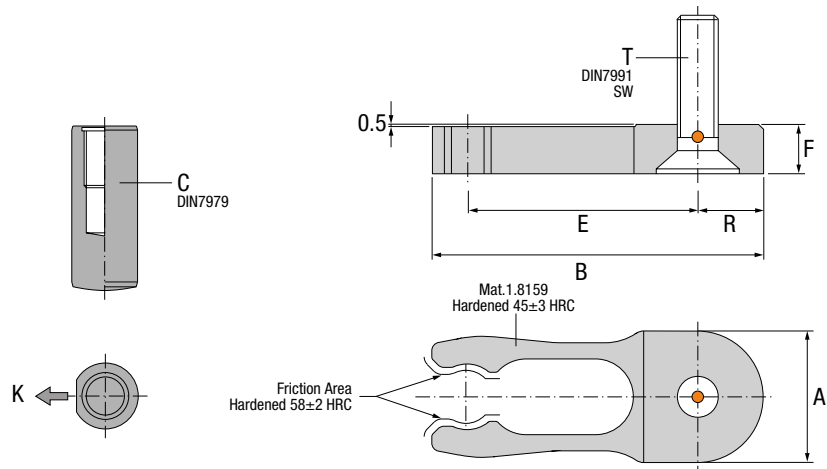
Patented
Max. 150°C



PLAY

SLIDE RETAINER
ES Retensor Corredera DE Schiebersicherung
IT Ritensores Carrello PT Retensor de Corrediças FR Blocage de Coulisseau

Cad Insertion Point



K=Force to release the retainer.
ES K=Fuerza de desenganche del retensor.
DE K=Kraft zum entriegeln.
IT K=Forza di sgancio del ritensores.
PT K=Força necessária para libertar o retensor.
FR K=Force de libération de la retenue.

Ref.	A	B	C	E	F	G	H	K	R	T	SW
RC.123006	12	30	6x20	21	4.7	4	16	5 kg.	6	M5x16	3
RC.164008	16	40	8x20	28	5.7	5	15	7 kg.	8	M6x20	4
RC.205010	20	50	10x24	34	7.7	6	17	14 kg.	10	M8x25	5
RC.246012	24	60	12x32	42	9.7	7	23	21 kg.	12	M10x30	6
RC.328012	32	80	16x40	56	11.7	9	27	28 kg.	16	M12x35	8
RC.328016	32	80	16x40	56	15.7	9	25	38 kg.	16	M12x50	8

P0

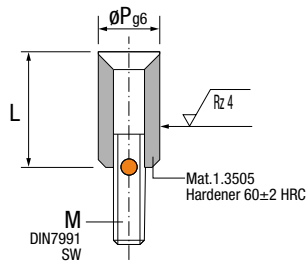
SLIDES



Patented
Max. 150°C

OPTIONAL DOWEL PIN
ES Pasador Opcional DE Zylinderstift (Optional)
IT Riferimento Opzionale PT Cavilha Opcional FR Goupille Optionnel

Cad Insertion Point



Ref.	L	M	N	P	SWa
P0.120320	12	M3x20	7.5	6	2
P0.150425	15	M4x25	10	8	2.5
P0.200530	20	M5x30	13	10	3
P0.250635	25	M6x35	16	12	4
P0.340850	34	M8x50	23	16	5

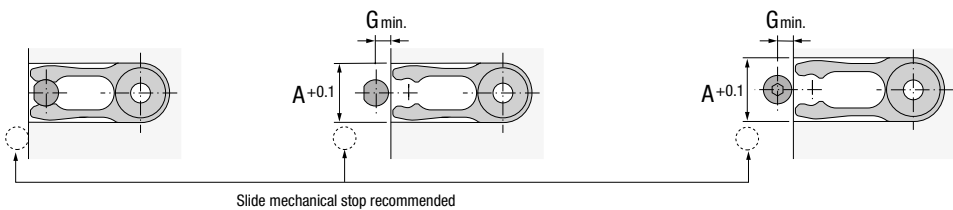
Installation Guidelines

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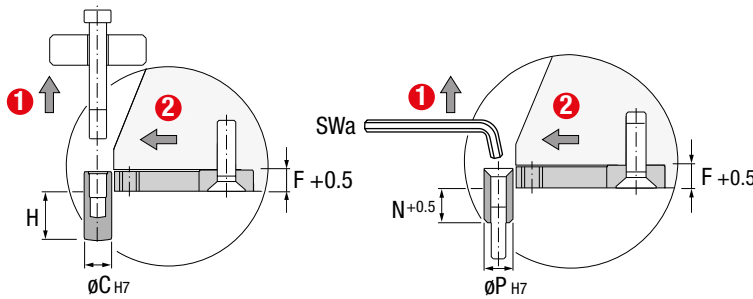
Mold Open

Slide Disassembling

With P0



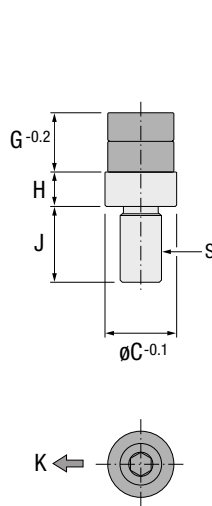
Slide mechanical stop recommended



SLIDE RETAINER

ES Retensor Corredera DE Schiebersicherung
IT Retensores Carrello PT Retensor de Corrediças FR Blocage de Coulisseau

Cad Insertion Point

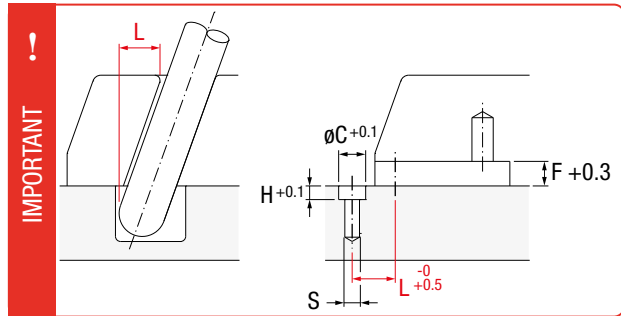


K=Force to release the retainer.
ES K=Fuerza de desenganche del retensor.
DE K=Kraft zum entriegeln.
IT K=Forza di sgancio del ritensores.
PT K=Força necessária para libertar o retensor.
FR K=Force de libération de la retenue.

Ref.	A	B	C	E	F	G	H	J	K	N	R	S	T	U
RCM.163808	16	38	8	25	7.6	7.6	4	10	10 kg.	7	8	M5	M6	9
RCM.204810	20	48	10	32	8.7	8.6	5	11	14 kg.	8	10	M6	M8	12
RCM.245712	24	57	12	37.5	9.6	9.6	6	12	18 kg.	9	12	M8	M10	15

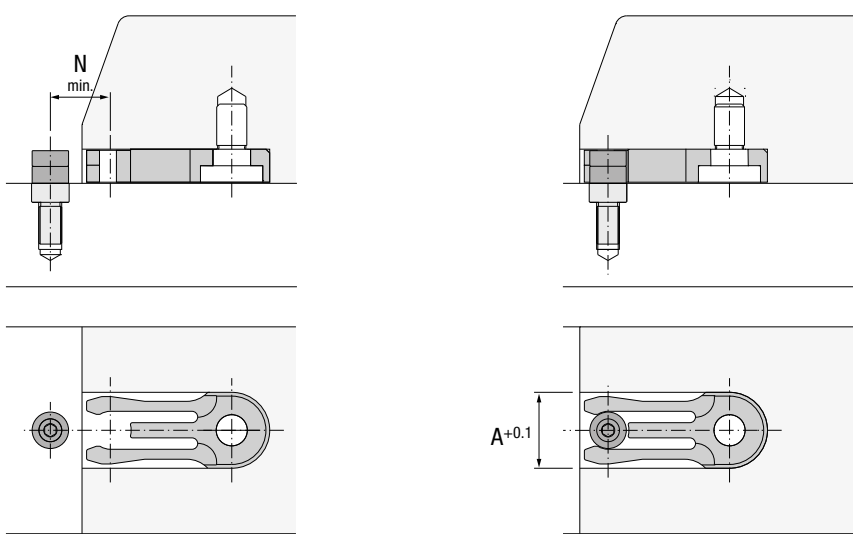
Installation Guidelines

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



Slide Disassembling

Mold Open

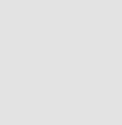


RCM

SLIDES



Patented
Max. 150°C



PLAY

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

ES Retensor Automático DE Zuhaltung Automatisch

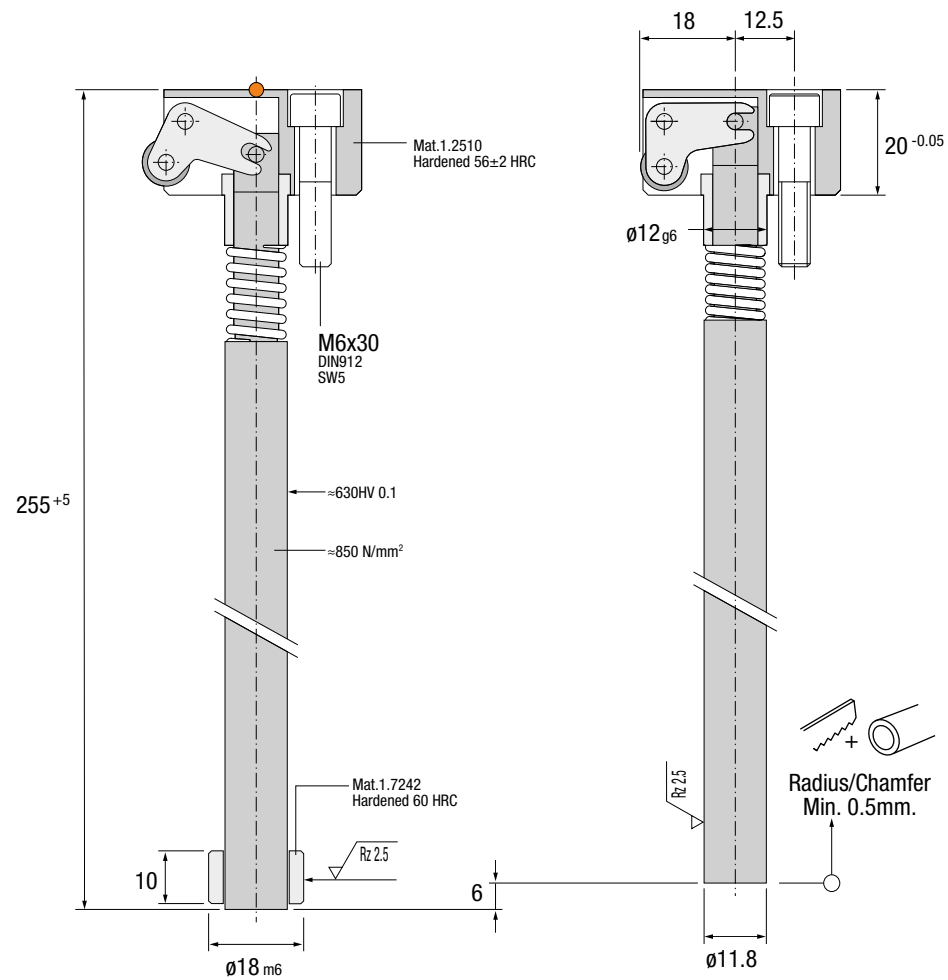
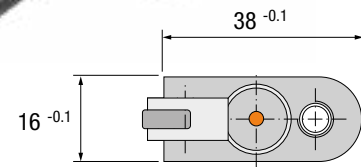
IT Ritenore Automatico PT Retensor Automático FR Retenue Automatique

RA

SLIDES



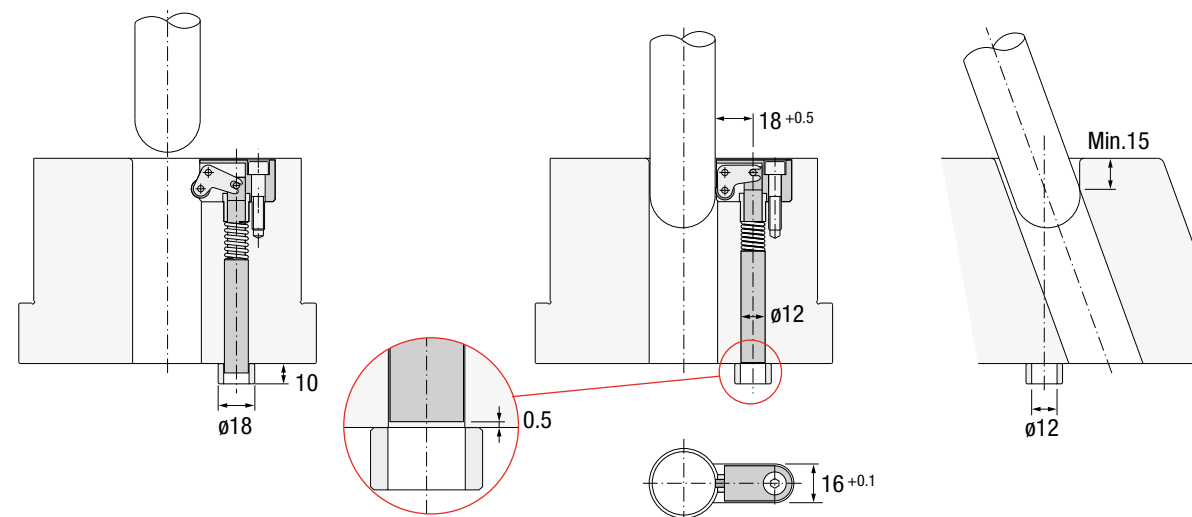
Max.
150°C

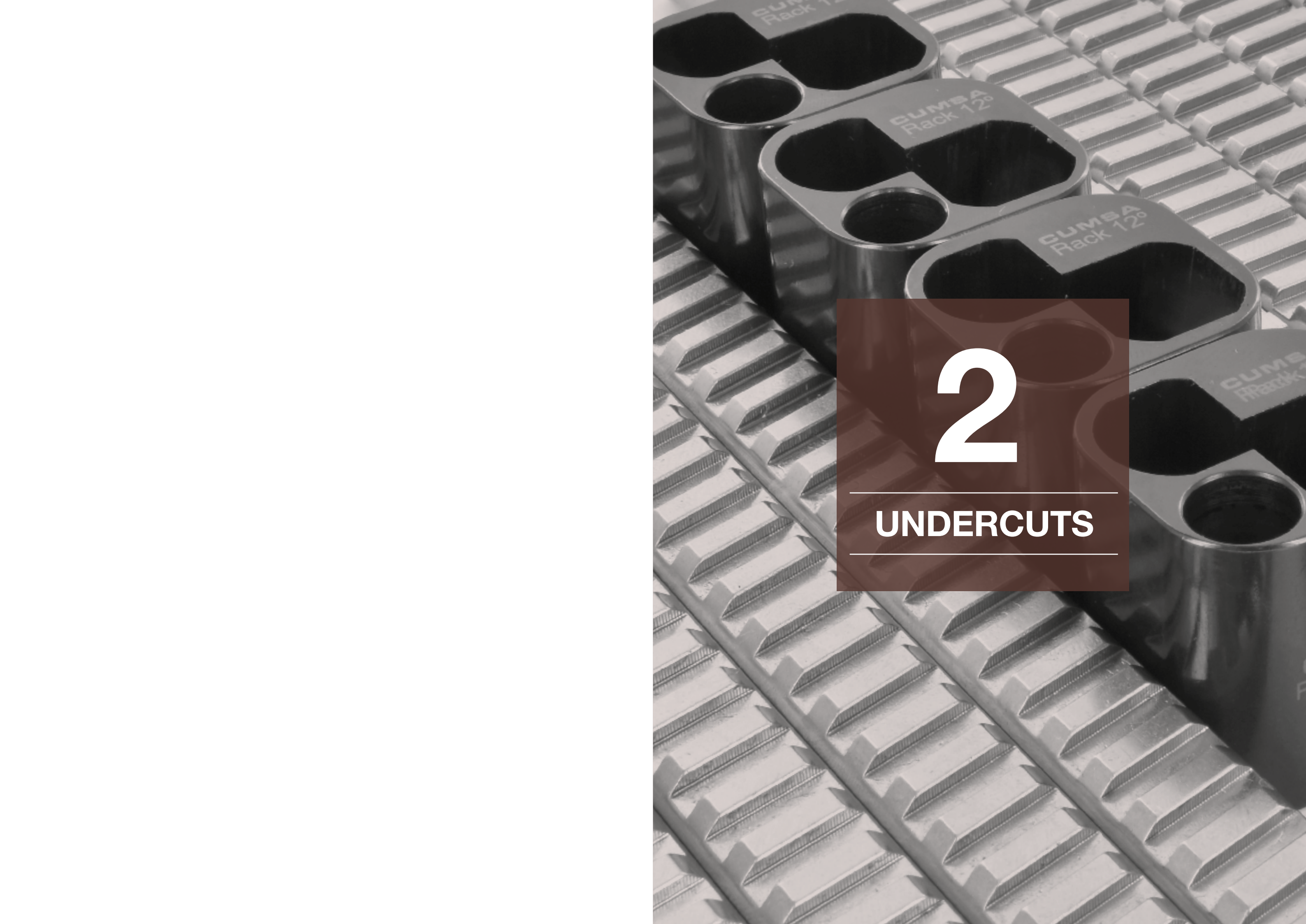


Ref.

RA.163812

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



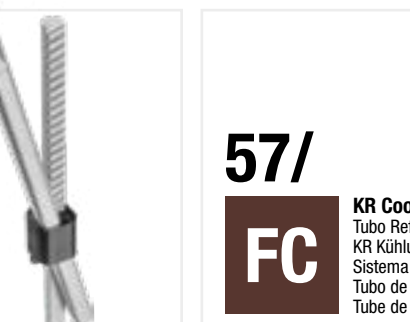
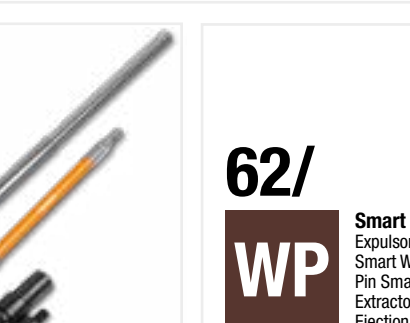


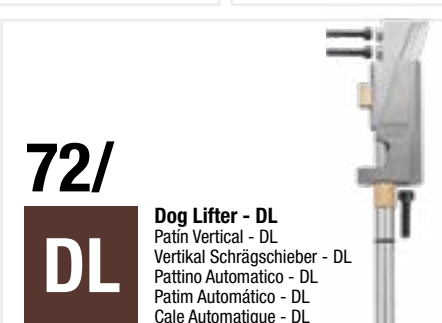
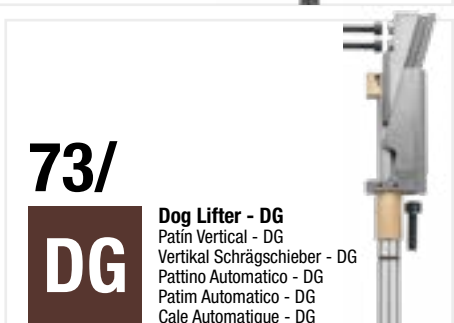
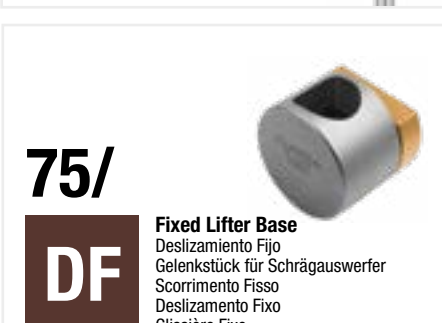
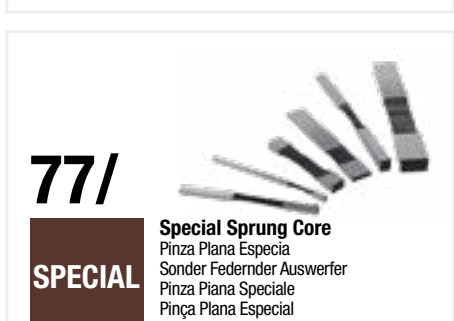
2

UNDERCUTS

UNDERCUTS INDEX

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

50/ DR Double Rack Lifter Doble Cremallera Zweifach Zahnstangen-System Doppia Cremagliera Duplo Rack Double Cremaillere		52/ DK DR Cooling Hose Refrigeración DR Kühlungsschlauch Für DR Refrigerazione DR Refrigeração DR Refroidissement DR	
53/ RF Adjustable Fixing Fijación Regulable Einstellbare Befestigung Fissaggio Regolabile Fixação Regulável Fixation Reglable		54/ XR Xtreme Double Rack Doble Cremallera Xtreme Xtreme Zweifach Zahnstangen-System Doppia cremagliera Xtreme Xtreme Double Rack Double Cremaillere Xtreme	
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58/ MK Connection Hose Tubo Conexión Verbindungsschlauch Tubo Collegamento Tubo de Ligação Tube de Liaison		58/ RD Cooling Distributor Distribuidor Refrigeración Verteilerschlauch Distributore Refrigerazione Distribuidor de Refrigeração Distribution de Refroidissement	
58/ CK 90° Plate Connector Conector Placa a 90° 90° Platten-Verbindungsstück Collegamento Piastra a 90° Conector de Placa a 90° Connexion Dans la Plaque de 90°		60/ WL Smart Worm Lifter Patin Smart Worm Smart Worm Lifter Smart Worm Lifter Balancé Smart Worm Patin Smart Worm	
62/ WP Smart Worm Pin Expulsor Smart Worm Smart Worm Pin Pin Smart Worm Extractor Smart Worm Ejection Smart Worm		66/ PW Sprung Core Pinza Plana Federnder Auswerfer Prolunga Pinza Pinça Plana Éjecteur de Forme	

63/ WF WP Adjustable Fixing Fijación Regulable WP WP Einstellbare Befestigung Fissaggio Regolabile WP Fixação Regulável WP Fixation Reglable WP		64/ PF Flexible Core Pinza Flexible Flexibler Federauswerfer Pinza Flessibile Pinça Flexive Éjecteur Flexible		65/ PS Standard Lifter Patin Standard Schrägschieber Pattino Standard Patin Standard	
66/ PW Sprung Core Pinza Plana Federnder Auswerfer Prolunga Pinza Pinça Plana Éjecteur de Forme		67/ AP Sprung Core Extension Alargo Pinza Verlängerung Fed. Auswerfer Prolunga Pinza Acrésceto da Pinça Rallonge d'Éjecteur		68/ PX Xtra Sprung Core Pinza Extra Xtra Federnder Auswerfer Pinza Plana Extra Pinça Plana Extra Éjecteur de Forme Extra	
69/ CX PX Cutting Jig Útil de Corte para PX PX Anpassungslehre Utenziale per Lavorazione PX Acessório para Corte da PX PX Accessoire d'Ajustement		70/ ED Double Ejector Expulsor Doble Doppelauswerfer Espulsore Doppio Extractor Duplo Éjecteur Double		71/ EE Tulip Ejector Expulsor Elástico Kreuzauswerfer Espulsore Elastico Extractor Elástico Éjecteur Tulipe	
72/ DL Dog Lifter - DL Patin Vertical - DL Vertikal Schrägschieber - DL Pattino Automatico - DL Patin Automático - DL Cale Automatique - DL		73/ DG Dog Lifter - DG Patin Vertical - DG Vertikal Schrägschieber - DG Pattino Automatico - DG Patin Automático - DG Cale Automatique - DG		74/ BD Horizontal and Adaptable Base Base Deslizamiento Führungsplatte für Waagerechte und Schräge Fläche Base di Scorrimento Base de Deslize Embase de Mouvement	
75/ DF Fixed Lifter Base Deslizamiento Fijo Gelenkstück für Schrägauswerfer Scorrimento Fisso Deslizamento Fixo Glissière Fixe		75/ VI Lifter Shaft Varilla Figura Stange für Geteilten Auswerfer Asta per Inserto Figura Haste Balancé Queue d'aronde		76/ SD Undercut Base Unit Soporte Deslizamiento Schrägauswerfer Basisführung Supporto di Scorrimento Suporte Deslize Douille de Guidage	
76/ CI Angled Guide Bush Casquillo Inclinado Schrägbuchse Bussola Inclinata Casquillo Inclinado Cale Escamotable		77/ SPECIAL Special Sprung Core Pinza Plana Especial Sonder Federnder Auswerfer Pinza Plana Speciale Pinça Plana Especial Éjecteur de Forme Special		76/ SD Undercut Base Unit Soporte Deslizamiento Schrägauswerfer Basisführung Supporto di Scorrimento Suporte Deslize Douille de Guidage	

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?



Stroke 100 (XR)

Table with 4 columns for XR models (XRxx100L-24, XRxx100L-28, XRxx100L-32, XRxx100L-36) and 2 columns for stroke values (S, S+). Rows represent different angle ranges from 0 to 60 degrees.

Stroke 125 (DR / KR)

Table with 4 columns for DR/KR models (DR.xx125L-8, DR.xx125L-12, DR.xx125L-16, DR.xx125L-20) and 2 columns for stroke values (S, S+). Rows represent different angle ranges from 0 to 60 degrees.

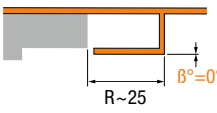
Stroke 100 (DR)
Stroke 200 (KR)
(Multiply S value x2)

Table with 4 columns for DR/KR models (DR.xx100L-8, DR.xx100L-12, DR.xx100L-16, DR.xx100L-20) and 2 columns for stroke values (S, S+). Rows represent different angle ranges from 0 to 60 degrees.

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

Table with 4 columns for DR/KR models (DR.xx100L-8, DR.xx100L-12, DR.xx100L-16, DR.xx100L-20) and 2 columns for stroke values (S, S+). Rows represent different angle ranges from 0 to 60 degrees.

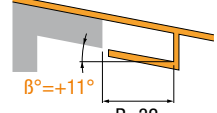
Neutral angles (β°=0°)



S ≥ R

DR.xx100L-16
KR.xx200L-16
DR.xx125L-12
KR.xx125L-12
XR.xx100L-24

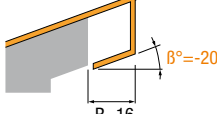
Positive Angles (β°>0°)



S ≥ R

DR.xx100L-20
DR.xx125L-16
KR.xx125L-16
XR.xx100L-24

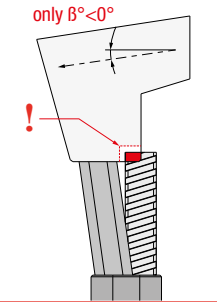
Negative Angles (β°<0°)



S ≥ R

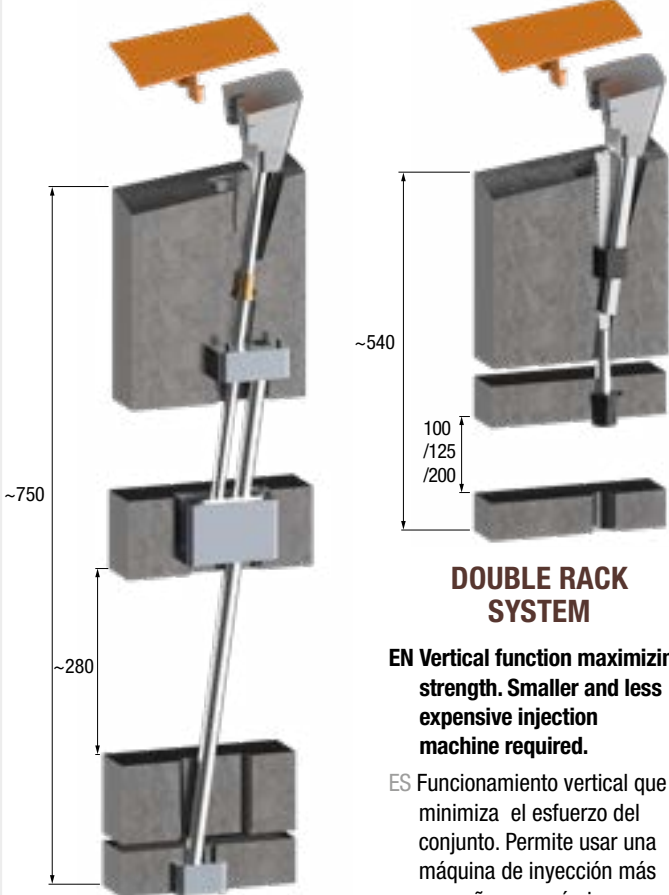
DR.xx100L-12
KR.xx200 L-12
DR.xx125L-8
KR.xx125L-8
XR.xx100L-24

IMPORTANT !



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 günstiger 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 Schrägbohrung in der Formplatte benötigt.

IT Elimina le complicate lavorazioni inclinate ad alta precisione.

PT Elimina a necessidade de furos inclinados com precisão.

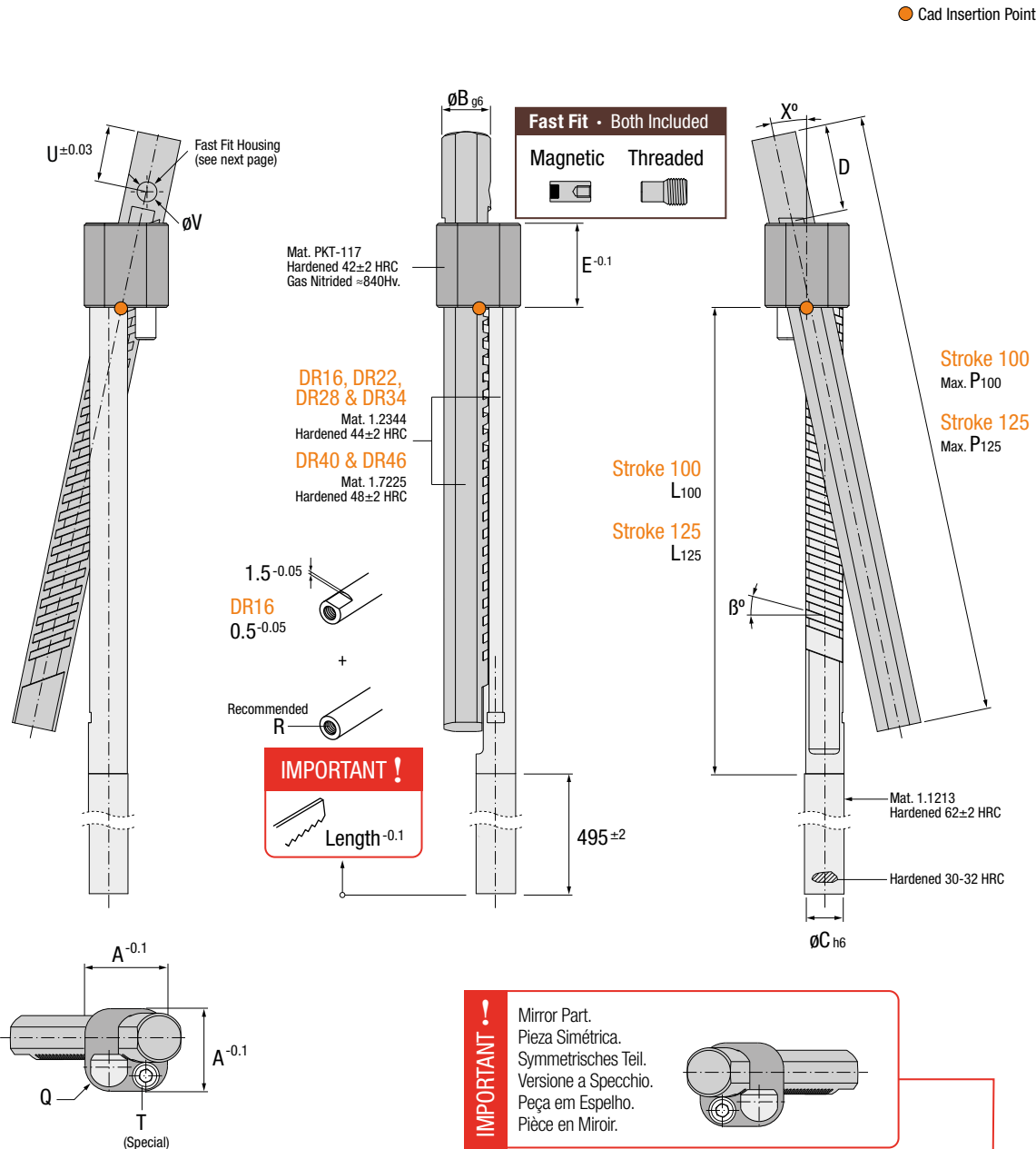
FR Termine les logements inclinés de haute précision.

DR

UNDERCUTS



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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	SWa
DR.16100L-x	-	8	12	16	-	16	9	8	20	20	142	178	-	-	4	M5	M5	10	6		DR.16100L-x-S	-	3
DR.22100L-x	DR.22125L-x	8	12	16		22	12	12	30	22	148	202	202	261	6.5	M6	M6	17	8		DR.22100L-x-S	DR.22125L-x-S	4
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	5
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	5
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	6
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	8

HOW TO ORDER

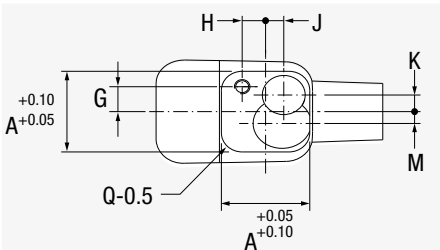
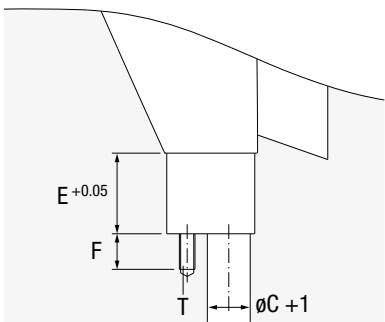
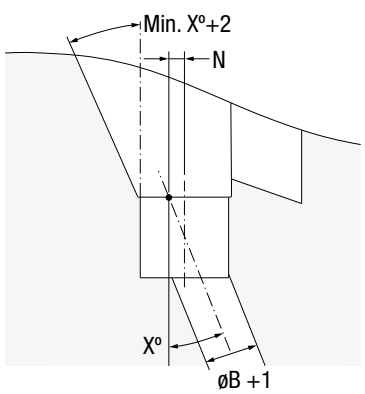
Check page 48-49 for Min / Max β values											
$\beta^\circ < 0$ & $\beta^\circ = 0$						$\beta^\circ > 0$					
A	Stroke	X°	β			A	Stroke	X°	β		
DR 28	100L	- 12	-10	Standard		DR 28	100L	- 12	+10		
DR 28	100L	- 12	-S -10	Symmetrical		DR 28	100L	- 12	-S +10		

● Cad Insertion Point

INSTALLATION GUIDELINES

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

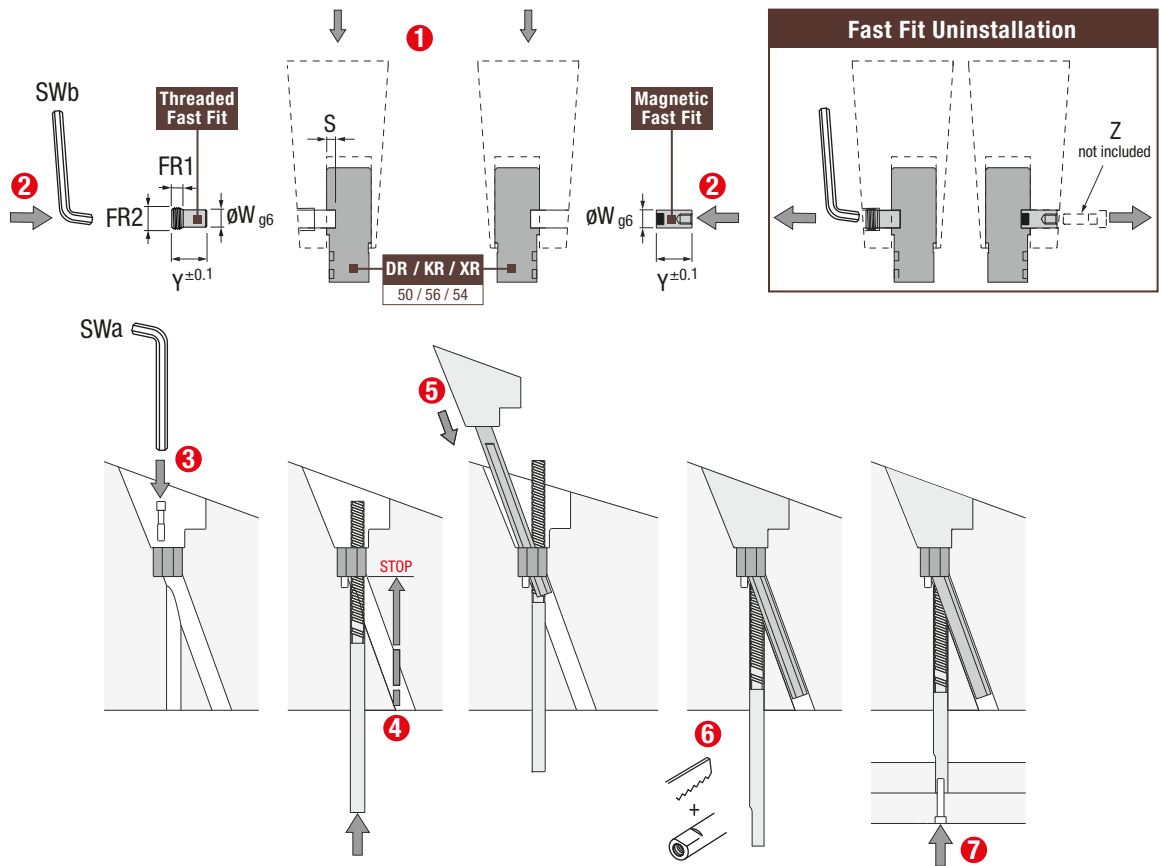
Core Housing
Alojamiento Placa Punzón
Einbaumaße DR Führung
Sede nel Punzone
Alojamento Bucha
Logement dans l'empreinte



Stroke 100	Stroke 125	Stroke 200	F	FR1	FR2	G	H	J	K	M	N	S	T	W	Y	Z	SWb
DR.16100L..	-	-	10	4.9	M8x1	4.6	4.6	3	2.35	3	2.8	2.5	M5	6	9	M4	4
DR.22100L..	DR.22125L.. / KR.22125L..	-	13	5.3	M10x1	5.6	5.6	4.2	3.7	4.2	3.5	2.5	M6	8	12	M4	5
DR.28100L..	DR.28125L.. / KR.28125L..	-	16	5.3	M10x1	7.5	7.5	5	5.4	4.8	4.8	2.5	M8	8	13.5	M4	5
DR.34100L..	DR.34125L.. / KR.34125L..	-	16	5.3	M10x1	10.5	8	7	7	5	6	4	M8	8	16	M4	5
DR.40100L..	DR.40125L.. / KR.40125L..	-	20	8.5	M12x1	11	11	7	8	7	7	4	M10	10	20	M6	6
DR.46100L..	DR.46125L.. / KR.46125L..	-	25	8.5	M12x1	13	13	8	8	9	9	5	M12	10	24	M6	6
-	-	KR.58200L..	28	8.5	M16x1.5	15.5	15.5	10	12.2	11.2	10	5	M14	12	30	M6	8
-	-	KR.76200L..	36	14	M16x1.5	21	21	13	15.2	15.2	12	6	M18	12	36	M6	8

Installation

Instalación · Montage · Montaggio · Instalação · Montage



DR

UNDERCUTS



Patented



PLAY

XR

UNDERCUTS



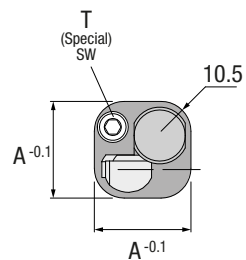
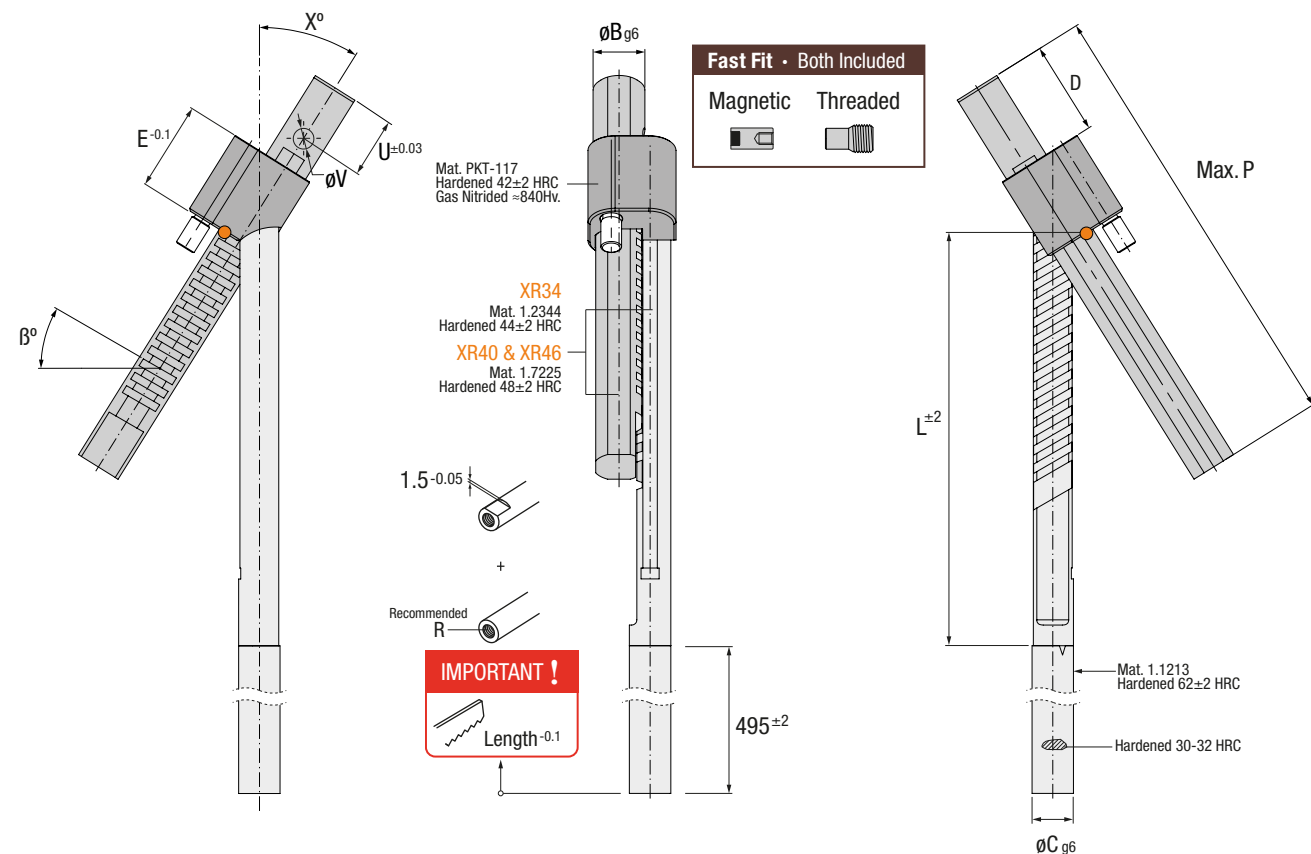
Patented
Max. 150°C



XTREME DOUBLE RACK

ES Doble Cremallera Xtreme DE Extremier Double Rack
IT Doppia cremagliera Xtreme PT Xtreme Double Rack FR Double Cremaillere Xtreme

● Cad Insertion Point



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

Stroke 100	X°	A	B	C	D	E	L	P	R	T	U	V	Stroke 100-S	SWa
XR34100L-x	24 28 32 36	34	20	16	36	34	159	225	M8	M8	23	8	XR34100L-x-S	5
XR40100L-x	24 28 32 36	40	22	20	36	40	170	240	M10	M10	20	10	XR40100L-x-S	6
XR46100L-x	24 28 32 36	46	24	24	42	46	174	255	M10	M12	26	10	XR46100L-x-S	8

! HOW TO ORDER

Check page 48-49 for Min / Max β values

β° < 0 & β° = 0 β° > 0

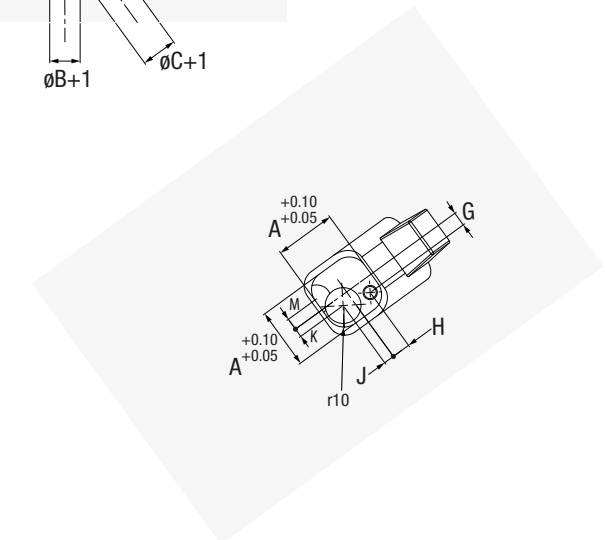
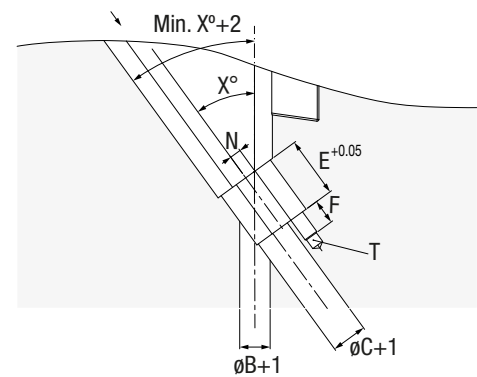
XR 34 100L - 28 -10 — Standard — XR 34 100L - 28 +10

XR 34 100L - 28 -S -10 — Symmetrical — XR 34 100L - 28 -S +10

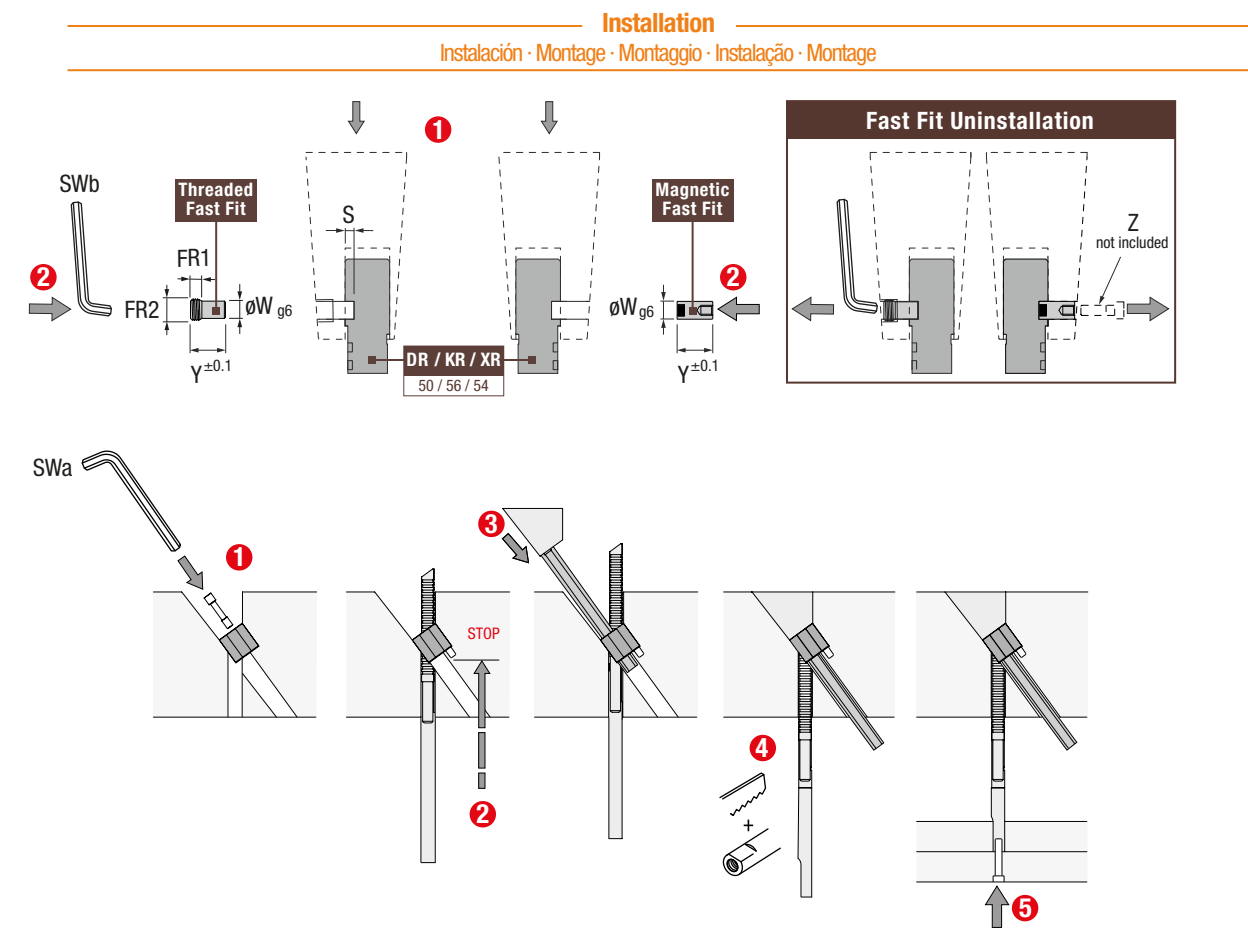
INSTALLATION GUIDELINES

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Core Housing
Alojamiento Placa Punzón
Einbaumaße DR Führung
Sede nel Punzone
Alojamento Bucha
Logement dans l'empreinte



Stroke 100	F	FR1	FR2	G	H	J	K	M	N	S	T	W	Y	Z	SWb
XR34100L-	16	5.3	M10x1	8	10.5	6	5	7	6	4	M8	8	16	M4	5
XR40100L-	20	8.5	M12x1	11	11	7	7	8	7	4	M10	10	20	M6	6
XR46100L-	25	8.5	M12x1	13	13	9	9	8	8	5	M12	10	24	M6	8



XR

UNDERCUTS



Patented
Max. 150°C



KR

UNDERCUTS

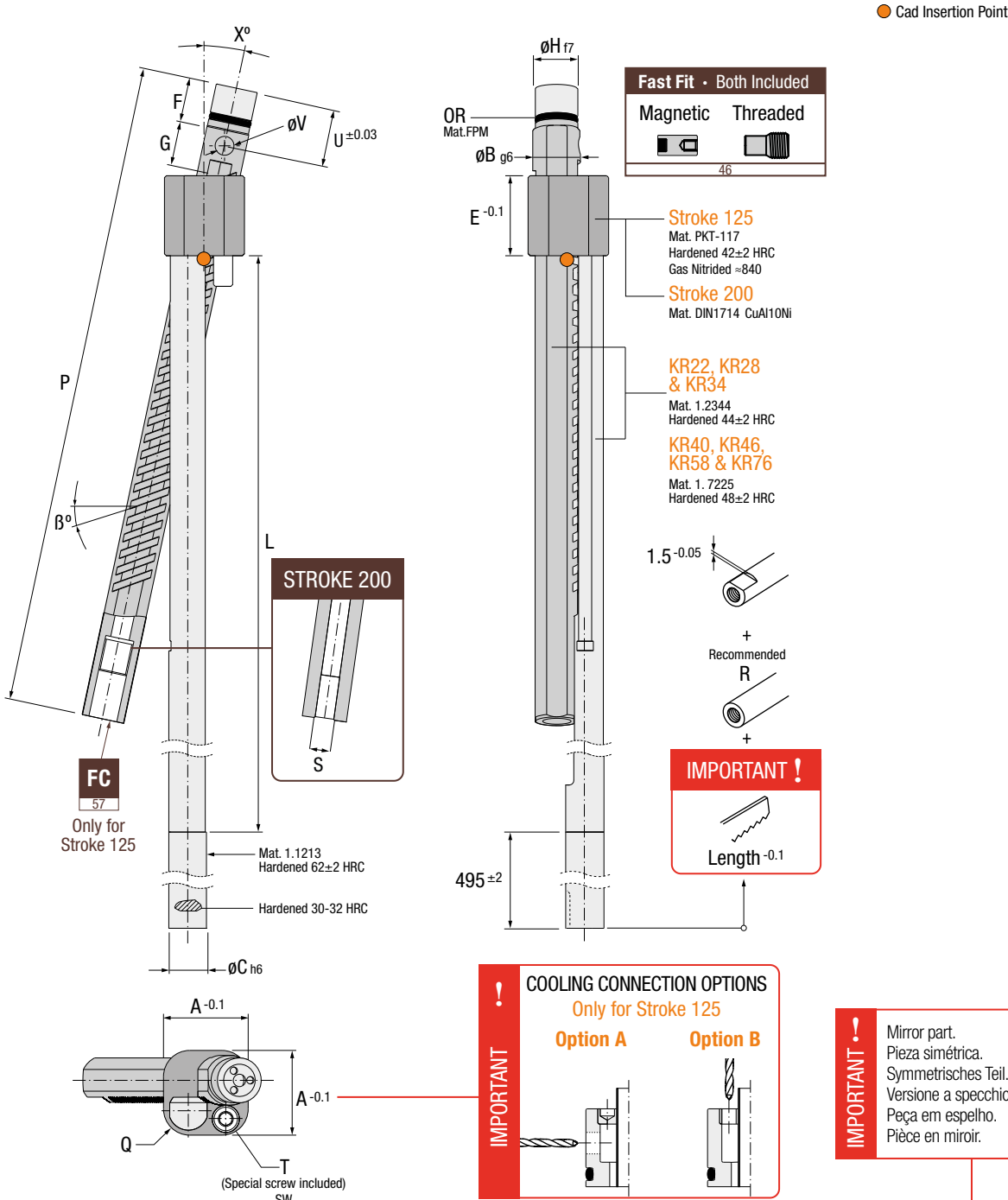


Patented



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



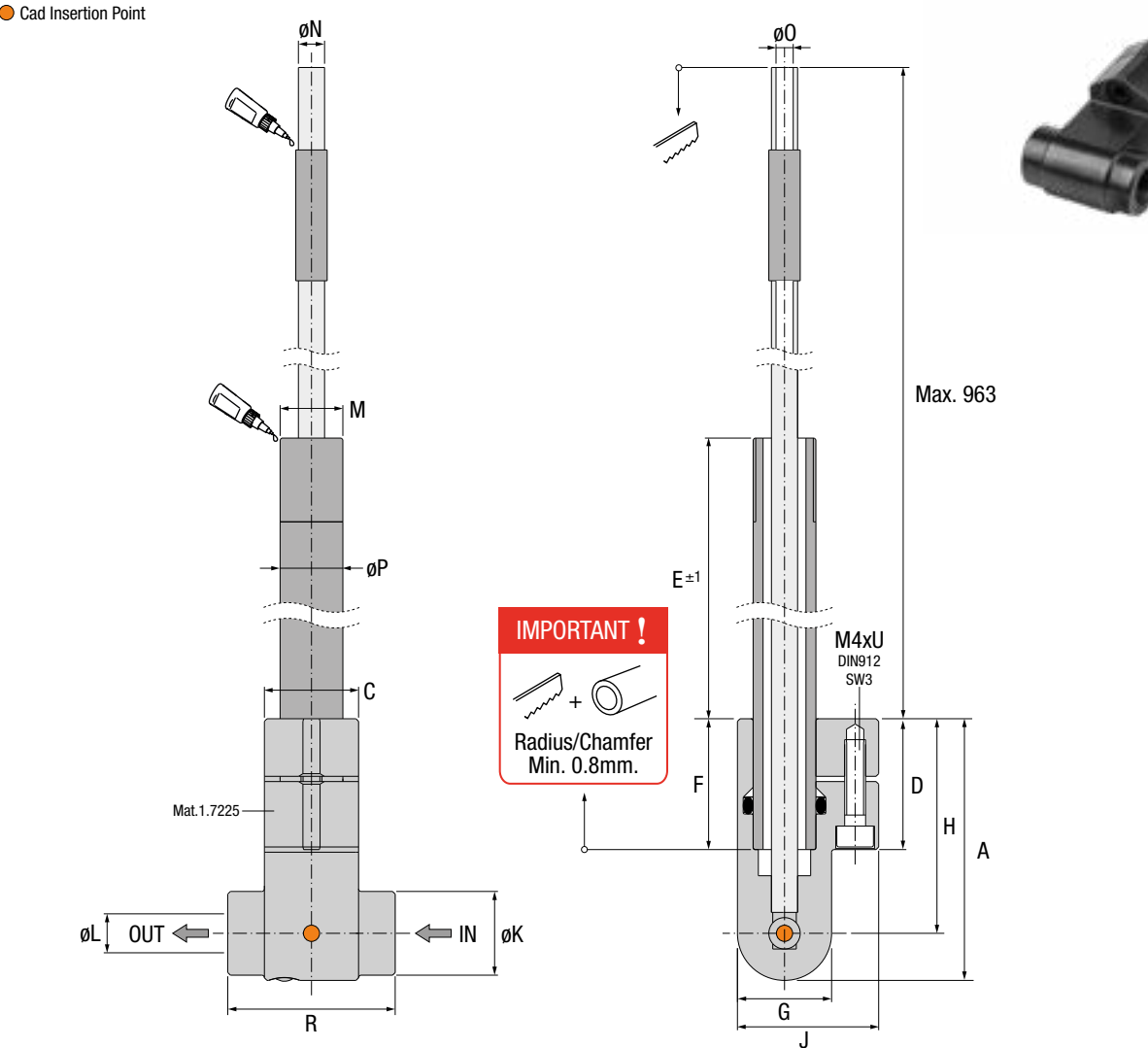
	Ref.	X°				A	B	C	E	F	G	H	L	P	Q	R	S	T	U	V	OR	Mirror Ref. -S	SW
Stroke 125	KR.22125L-x	8	12	16	20	22	12	12	22	16	20	10.8	282	260	6.5	M6	-	M6	23	8	8x1.25	KR.22125L-x-S	4
	KR.28125L-x	8	12	16	20	28	16	14	28	16	20	13.8	294.5	272	8.5	M8	-	M8	23	8	11x1.3	KR.28125L-x-S	5
	KR.34125L-x	8	12	16	20	34	20	16	34	18	20	17.8	311.5	275	10.5	M8	-	M8	25	8	14x1.78	KR.34125L-x-S	5
	KR.40125L-x	8	12	16	20	40	22	20	40	20	25	19.8	342	350	10.5	M10	-	M10	28	10	16x2	KR.40125L-x-S	6
	KR.46125L-x	8	12	16	20	46	24	24	46	22	25	21.8	361	350	10.5	M12	-	M12	30	10	18x2	KR.46125L-x-S	8
Stroke 200	KR.58200L-x	8	12	16	-	58	30	30	66	25	55	26	362	430	13.5	M20	1/4"Gas	M14	60	12	21x2.5	KR.58200L-x-S	12
	KR.76200L-x	8	12	16	-	76	40	40	80	30	60	34	392	470	17	M24	3/8"Gas	M18	70	12	28x3	KR.76200L-x-S	14

HOW TO ORDER

Check page 48-49 for Min / Max β values											
β° < 0 & β° = 0						β° > 0					
A	Stroke	X°	β					A	Stroke	X°	β
KR 28	125L	- 12	-10	Standard				KR 28	125L	- 12	+10
KR 28	125L	- 12	-S -10	Symmetrical				KR 28	125L	- 12	-S +10
A	Stroke	X°	β					A	Stroke	X°	β

KR COOLING HOSE

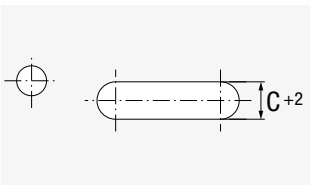
ES Tubo Refrigeración KR DE KR Kühlungsschlauch
IT Sistema Refrigerazione KR PT Tubo de Refrigeração KR FR Tube de Rrefroidissement KR



Ref.	A	C	D	E	F	G	H	J	K	L	M	N	O	P	R	U	Compatible With
FC.220500	40	15	18	483.5	16.5	18	31	27	16	1/8" GAS	M8x1	3.5	3	8	32	10	KR.22125L
FC.280500	50	18	25	475	25	18	41	27	16	1/8" GAS	M10x1	4.5	4	10	32	16	KR.28125L
FC.340500	50	18	25	475	25	18	41	27	16	1/8" GAS	M12x1	5	4.5	12	32	16	KR.34125L
FC.400500	54	20	25	475	25	20	44	30	18	1/4" GAS	M14x1	7	6.5	14	40	16	KR.40125L / KR.46125L

Installation Guidelines

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



IMPORTANT

Ref.	Q					
	β≤0°	0°<β≤10°	10°<β≤20°	20°<β≤25°	25°<β≤30°	30°<β≤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	-	-	-

FC

UNDERCUTS



MK

UNDERCUTS



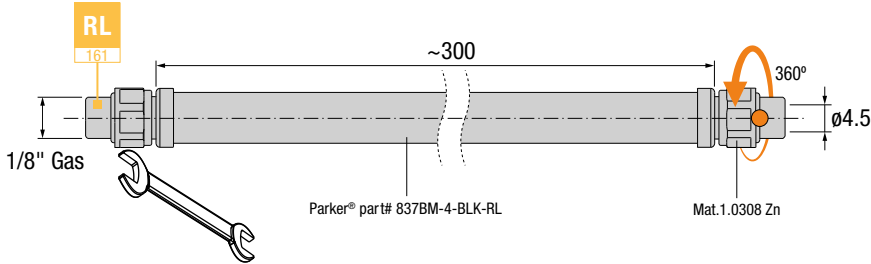
Max.
80°C



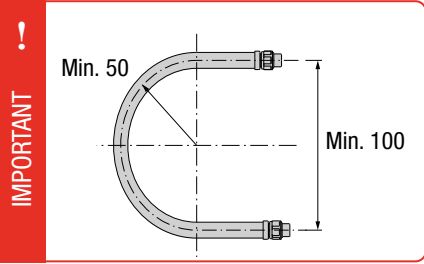
CONNECTION HOSE

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

● Cad Insertion Point



Ref.
MK.120300



RD

UNDERCUTS

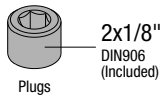
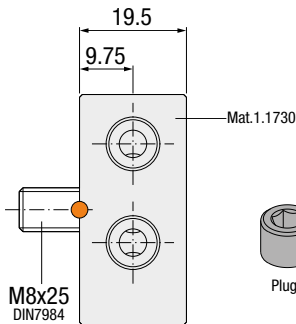
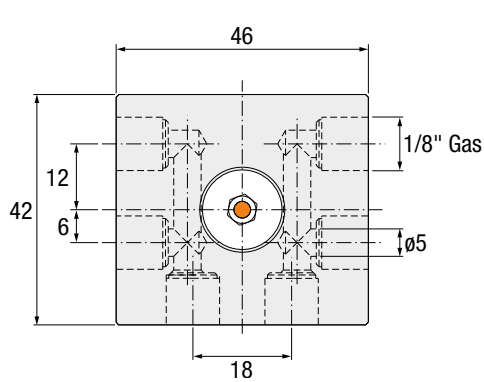


Max.
80°C



COOLING DISTRIBUTOR

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



Ref.
RD.182012

CK

UNDERCUTS

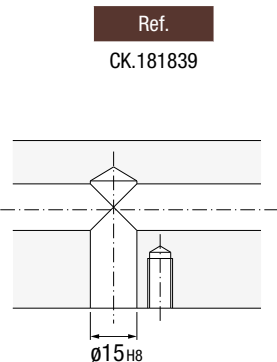
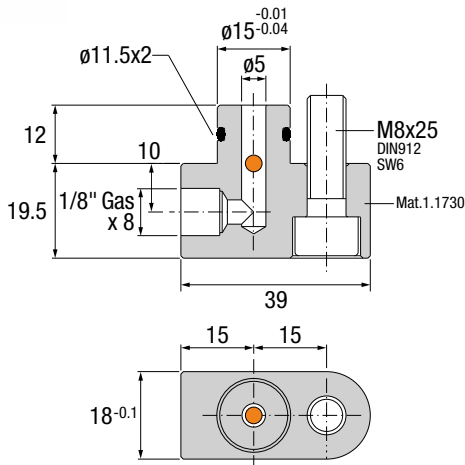


Max.
80°C



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°

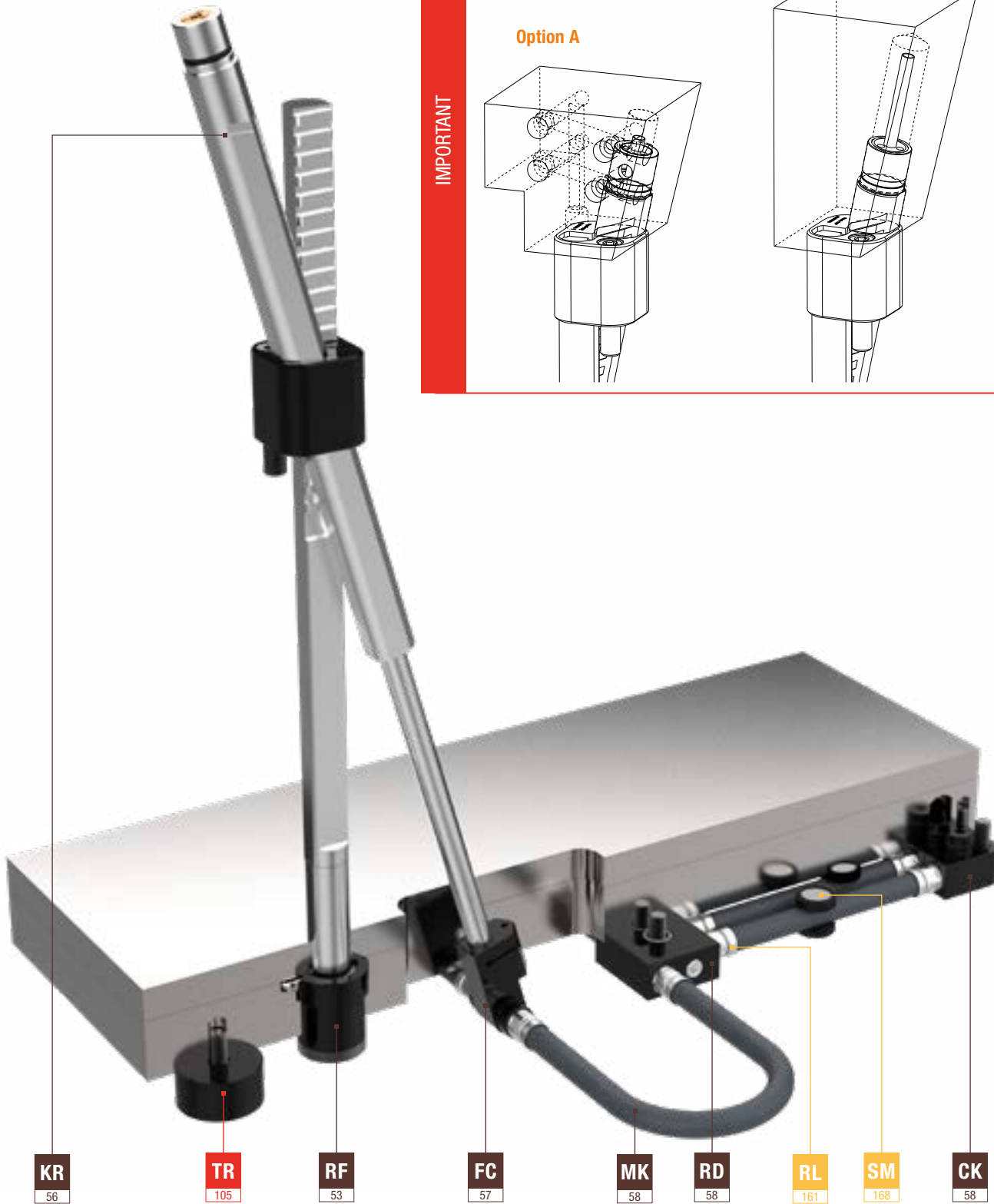
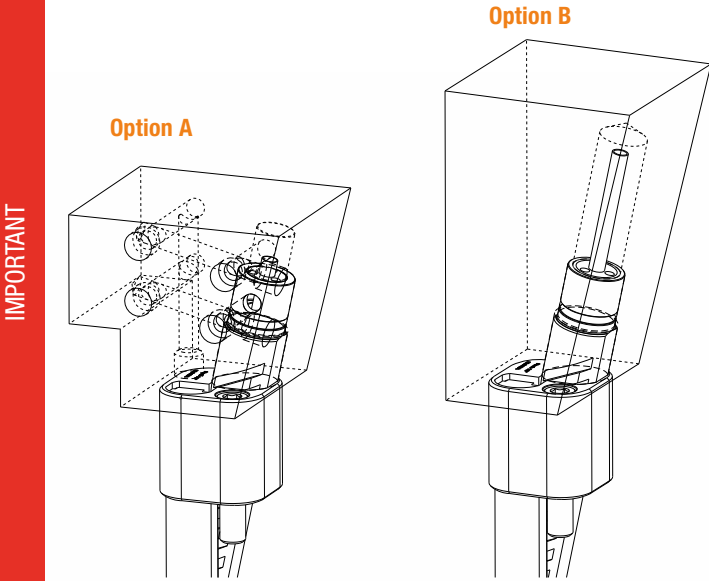


Ref.
CK.181839

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

UNDERCUTS



Patented
Max. 120°C



WL

UNDERCUTS



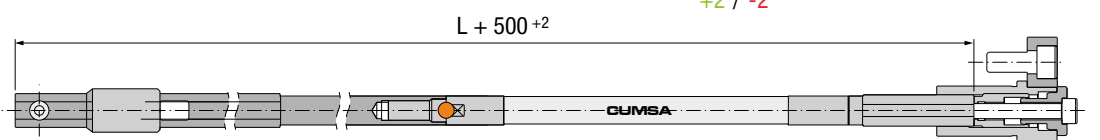
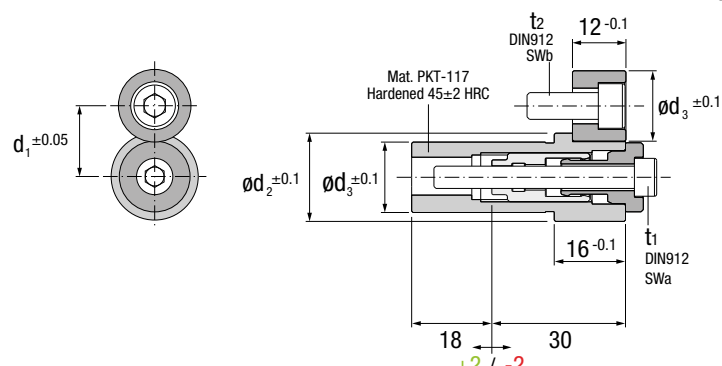
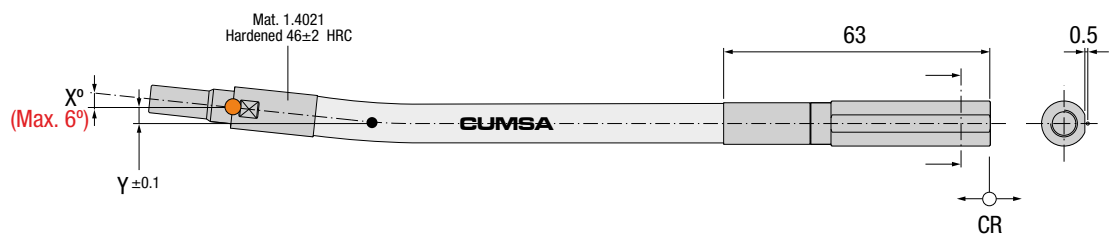
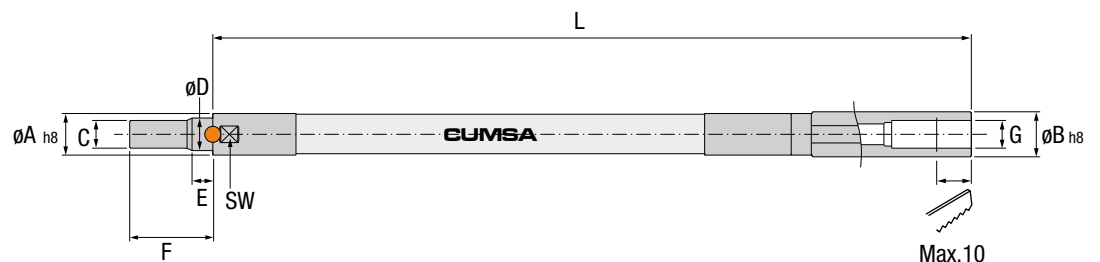
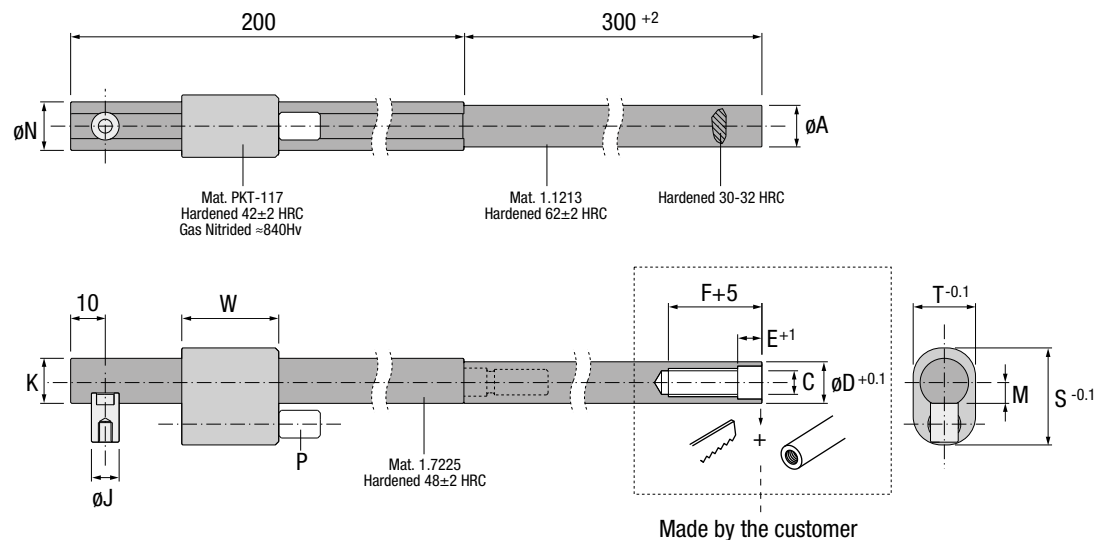
Patented
Max. 120°C



SMART WORM LIFTER

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

● Cad Insertion Point

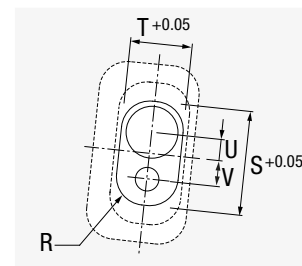
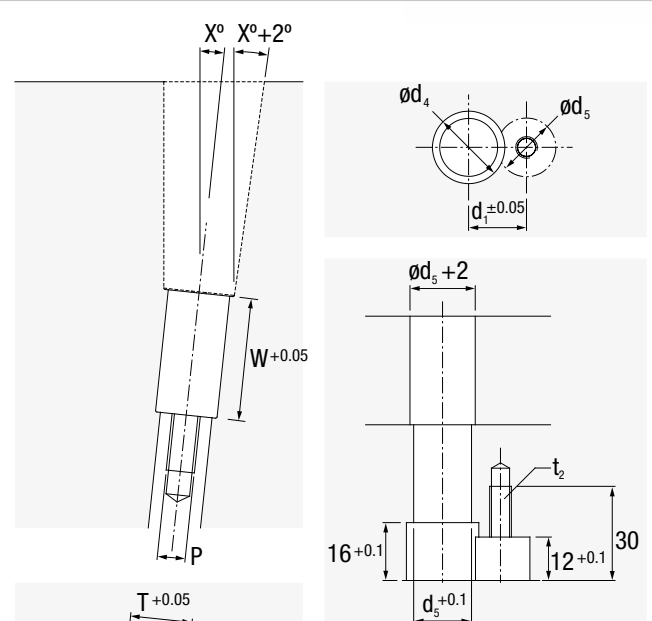
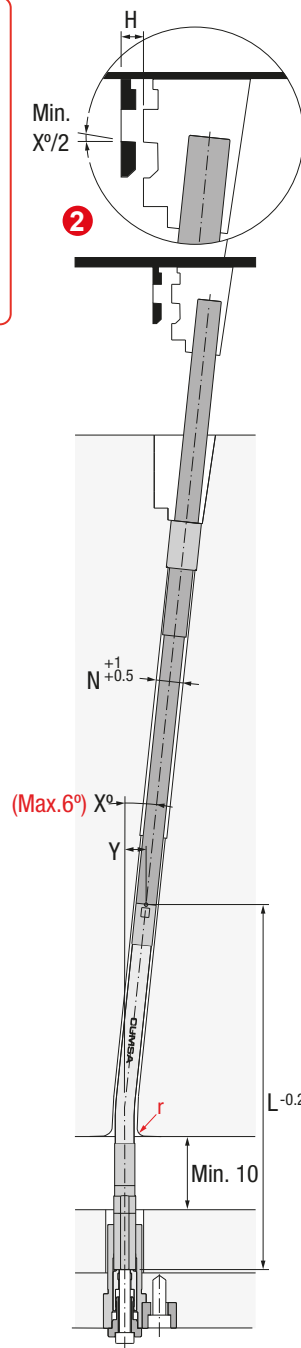
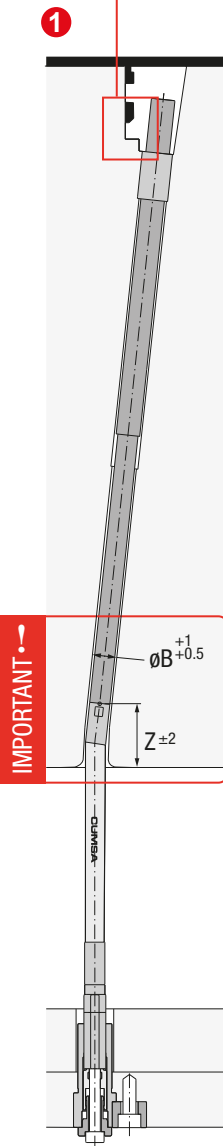


Ref.	A	B	C	D	d ₁	d ₂	d ₃	E	F	G	J	K	L	M	N	P	S	SW	T	t ₁	W	d ₄	d ₅	R	t ₂	U	V	Z	CR(N)	Stroke	SWa	SWb
WL080100	8	9	M5	5.5	16	19.8	15.8	3.5	18	M5	6	9.5	205	4.5	10	M6	22	7	13	M5x45	26	20	16	6	M6	4.5	5.5	40	1.500	100	5	4
WL080125	8	9	M5	5.5	16	19.8	15.8	3.5	18	M5	6	9.5	240	4.5	10	M6	22	7	13	M5x45	26	20	16	6	M6	4.5	5.5	50	1.500	125	5	4
WL120100	12	13	M8	9.4	19.5	23.8	19.8	6	24	M6	8	13	205	6.2	14	M8	28	11	18	M6x45	28	24	20	8	M8	4	8	40	2.500	100	6	5
WL120125	12	13	M8	9.4	19.5	23.8	19.8	6	24	M6	8	13	240	6.2	14	M8	28	11	18	M6x45	28	24	20	8	M8	4	8	50	2.500	125	6	5

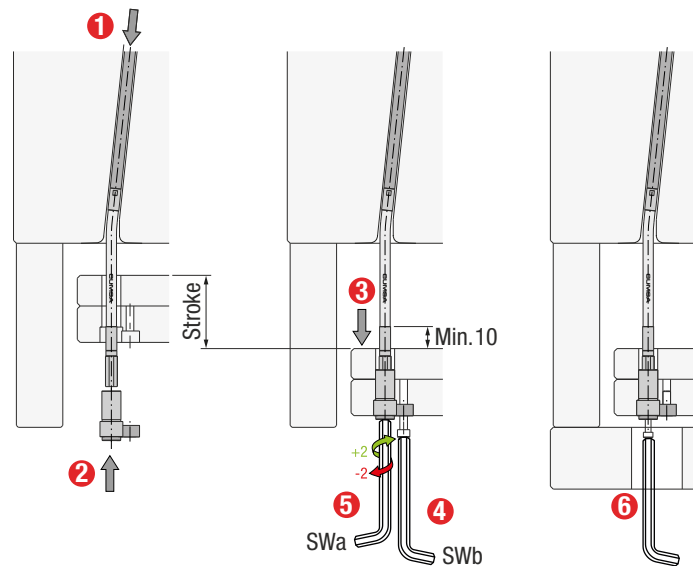
INSTALLATION GUIDELINES

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



	WL...x100		WL...x125	
X°	H	Y	H	Y
1°	1.74	0.60	2.18	0.60
2°	3.49	1.20	4.36	1.20
3°	5.24	1.80	6.55	1.80
4°	6.99	2.40	8.74	2.40
5°	8.75	3.00	10.90	3.00
Max 6°	10.50	3.50	13.10	3.50



WP

UNDERCUTS



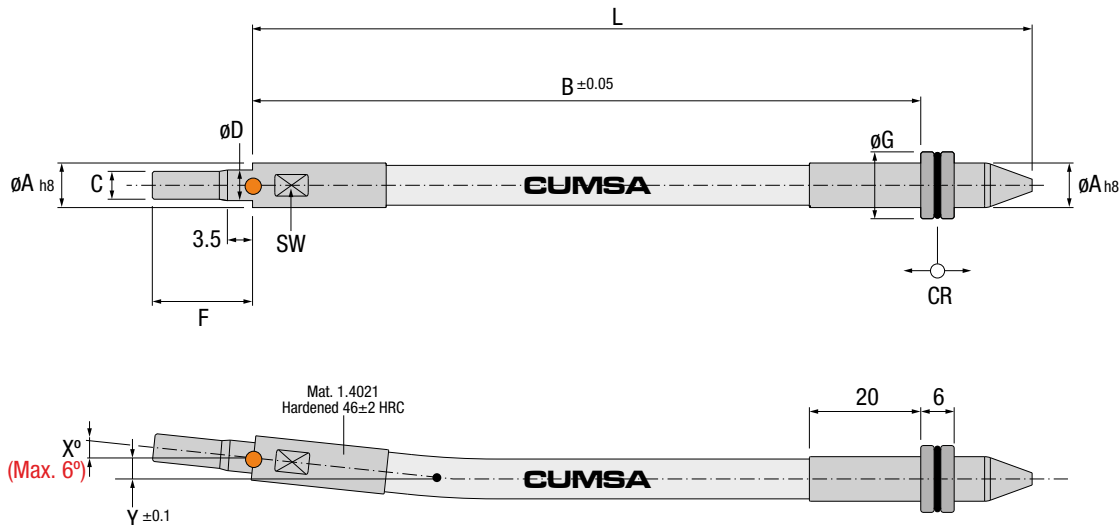
Patented
Max. 120°C



SMART WORM PIN

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

● Cad Insertion Point

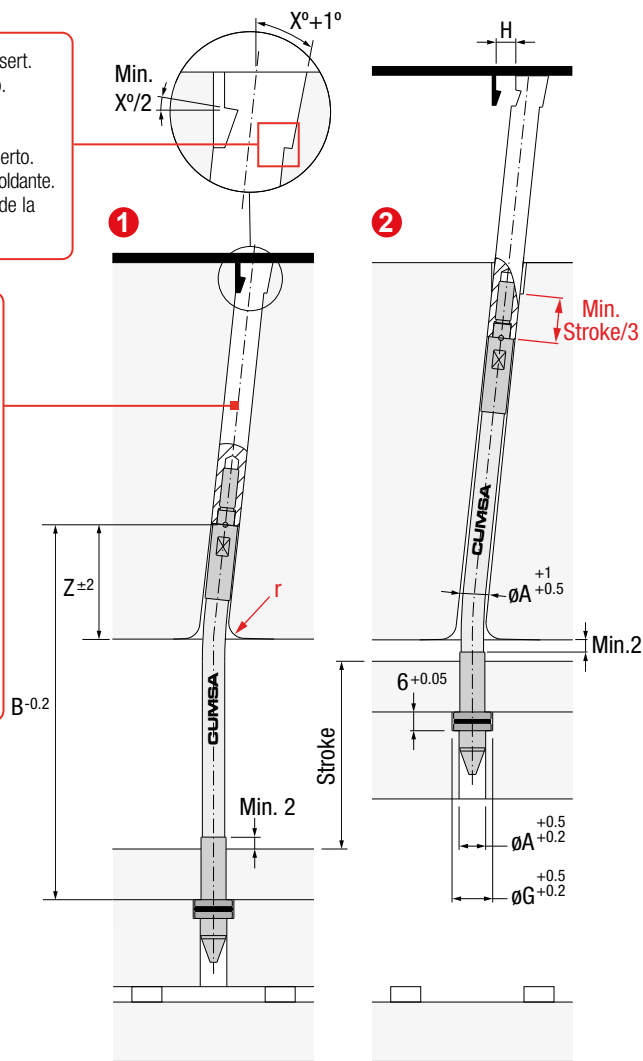
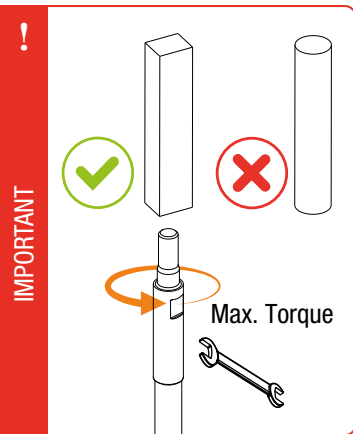


Ref.	A	B	C	D	F	G	L	Z	CR (N)	Max. Stroke	Max. Torque
WP.060030	6	90	M4	4.5	12	10	108	30	1.000	30	8N/m
WP.060060	6	120	M4	4.5	12	10	138	35	1.000	60	8N/m
WP.080030	8	90	M5	5.5	18	12	110	30	1.500	30	12N/m
WP.080060	8	120	M5	5.5	18	12	140	35	1.500	60	12N/m

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.

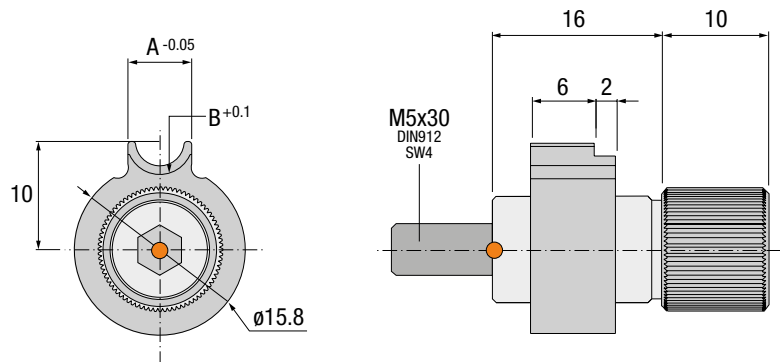


X°	Y	WP.xx0030	WP.xx0060
1°	0.60	0.52	1.04
2°	1.20	1.05	2.09
3°	1.80	1.57	3.14
4°	2.40	2.10	4.19
5°	3.00	2.63	5.25
Max. 6°	3.50	3.15	6.31

WP ADJUSTABLE FIXING

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

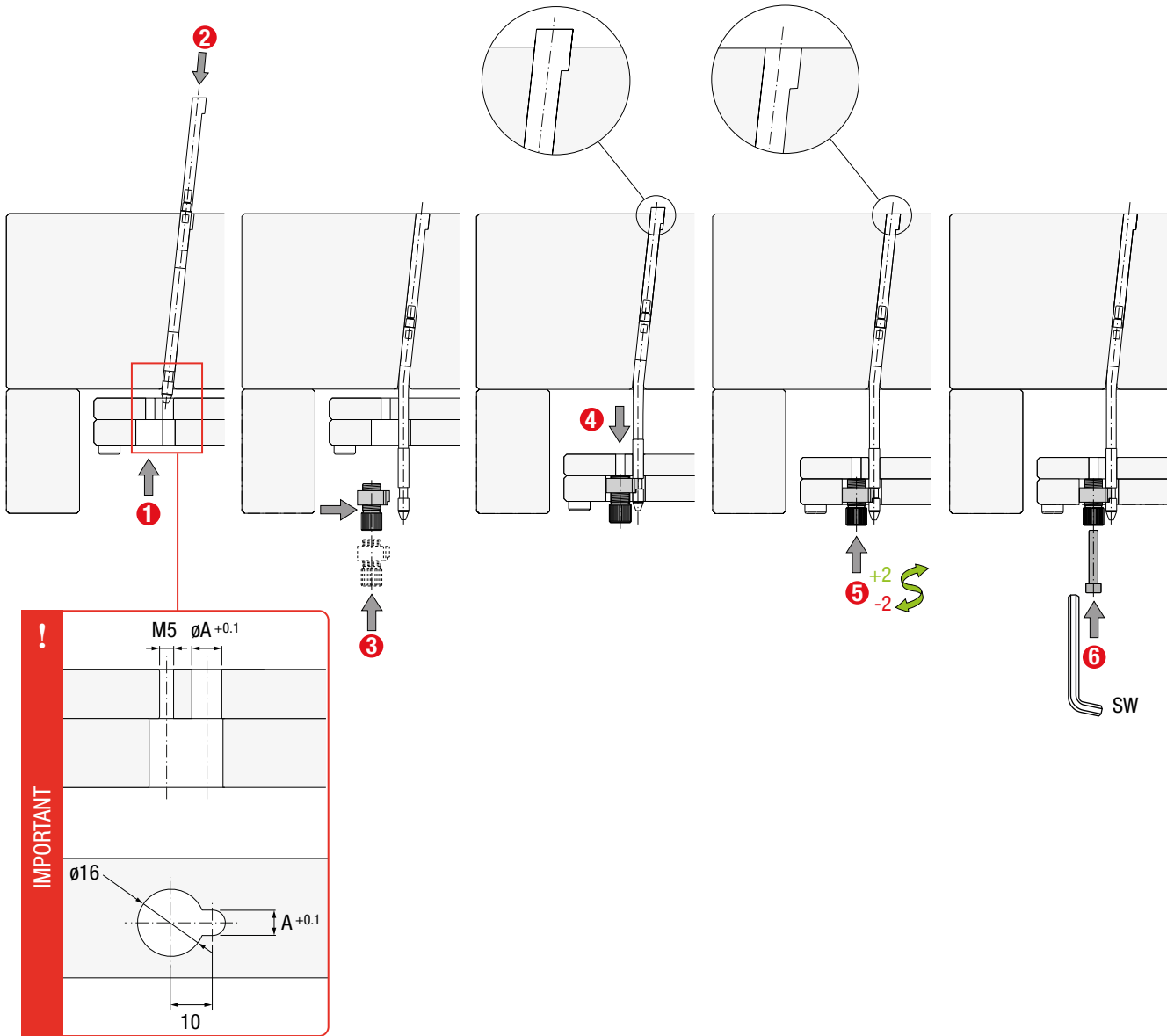
● Cad Insertion Point



Ref.	A	B	SW	Compatible With
WF.061608	6	3.1	5	WP.060xxx
WF.081608	8	4.1	7	WP.080xxx

Installation Guidelines

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



WF

UNDERCUTS



Max. 120°C

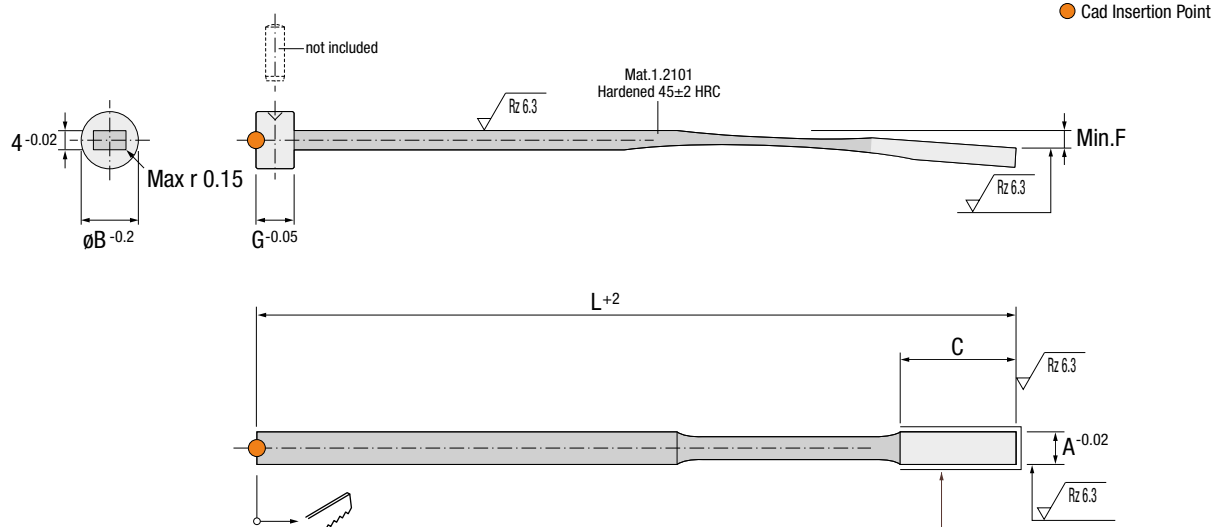


PF

UNDERCUTS



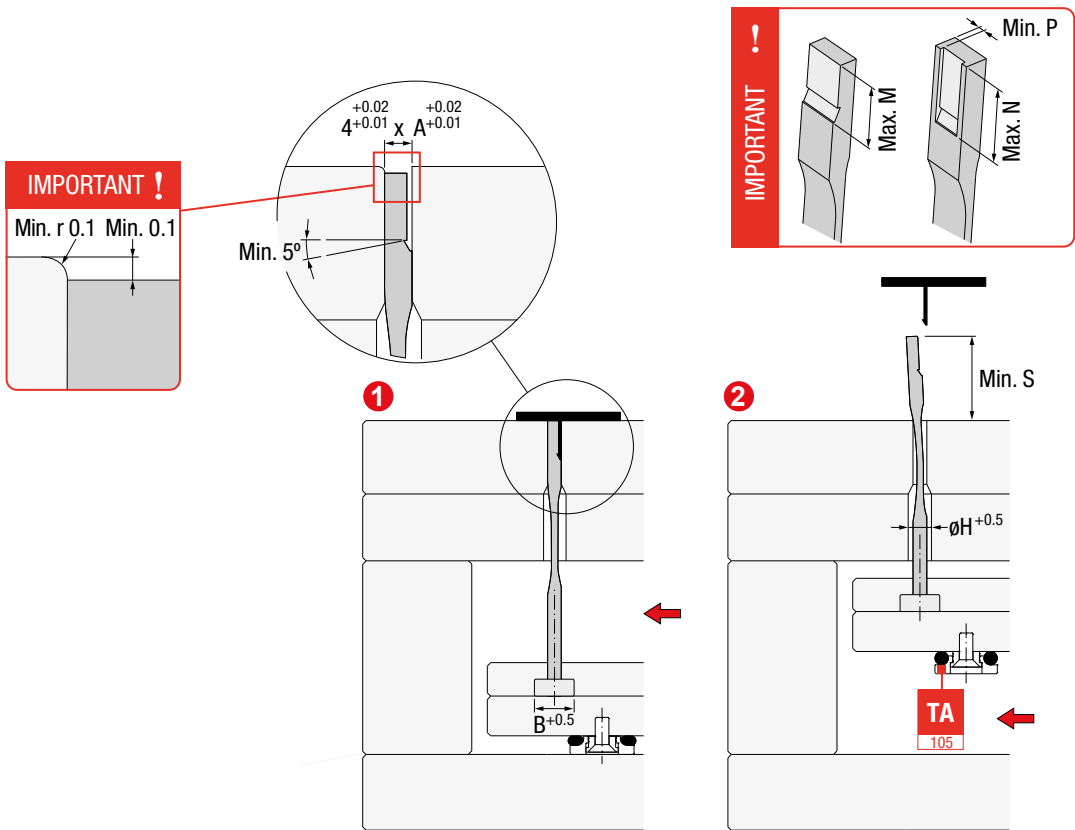
Patented



Ref.	A	B	C	F	G	H	L	M	N	P	S	Balinit C®	Hardened
PF.044150	4	8	24	2.5	6	6	150	12	14	0.8	30	•	52±2 HRC
PF.0441WB	4	8	24	2.5	6	6	150	12	14	0.8	30	-	56±2 HRC
PF.054150	5	8	24	2.5	6	6.5	150	12	14	0.8	30	•	52±2 HRC
PF.0541WB	5	8	24	2.5	6	6.5	150	12	14	0.8	30	-	56±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

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

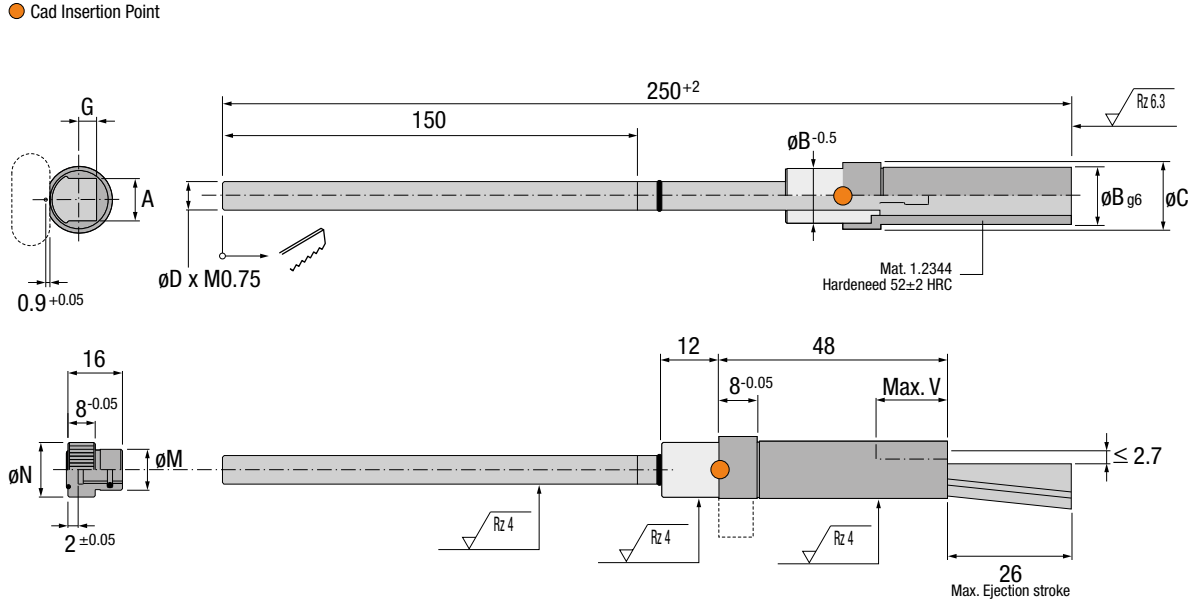


FLEXIBLE CORE

ES Pinza Flexible DE Flexibler Federauswerfer
IT Pinza Flessibile PT Pinça Flexível FR Ejecteur Flexible

STANDARD LIFTER

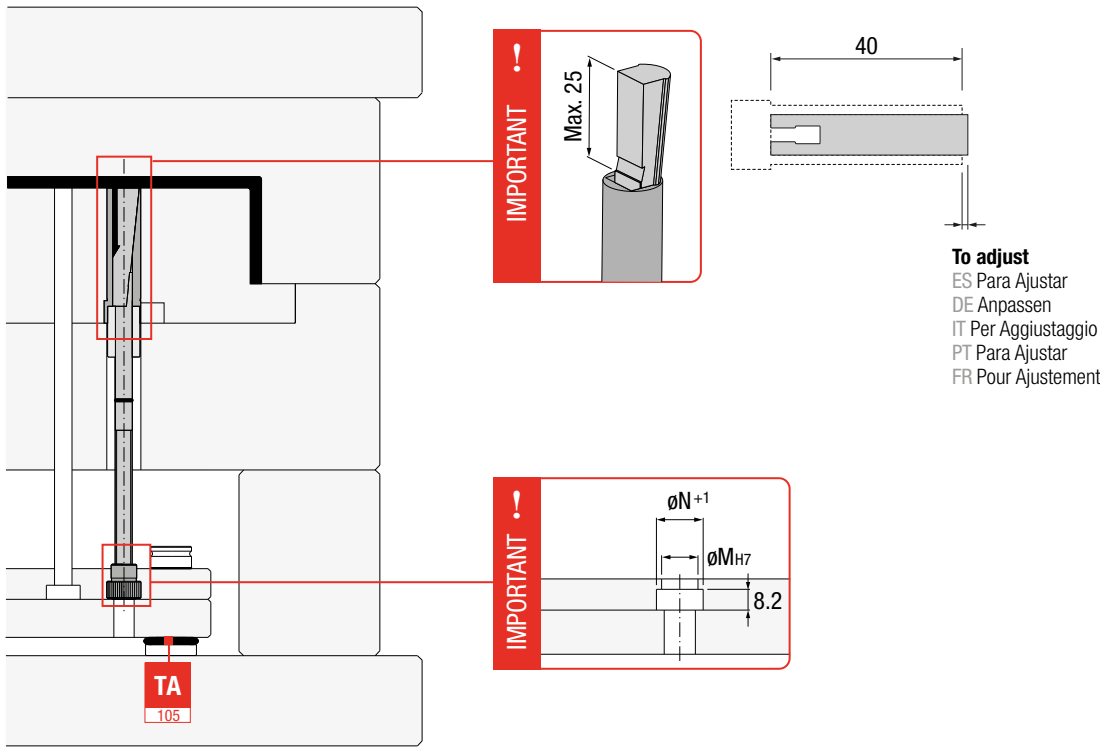
ES Patin Standard DE Schrägschieber
IT Pattino Standard PT Patim Standard FR Patin Standard



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

Installation Guidelines

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



PS

UNDERCUTS



Patented



PW

UNDERCUTS

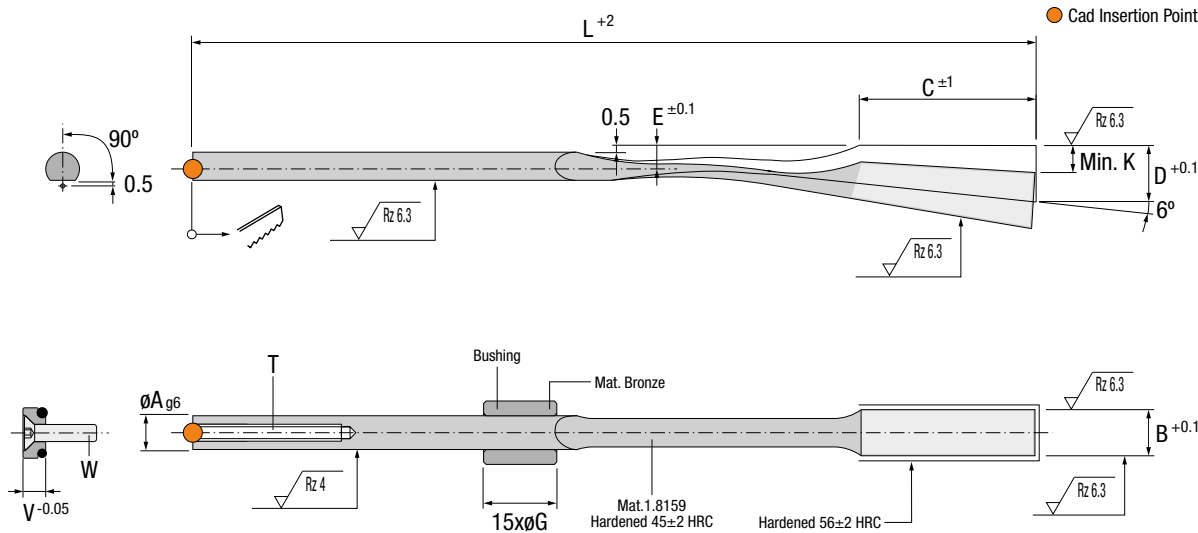


Patented
Max. 150°C



SPRUNG CORE

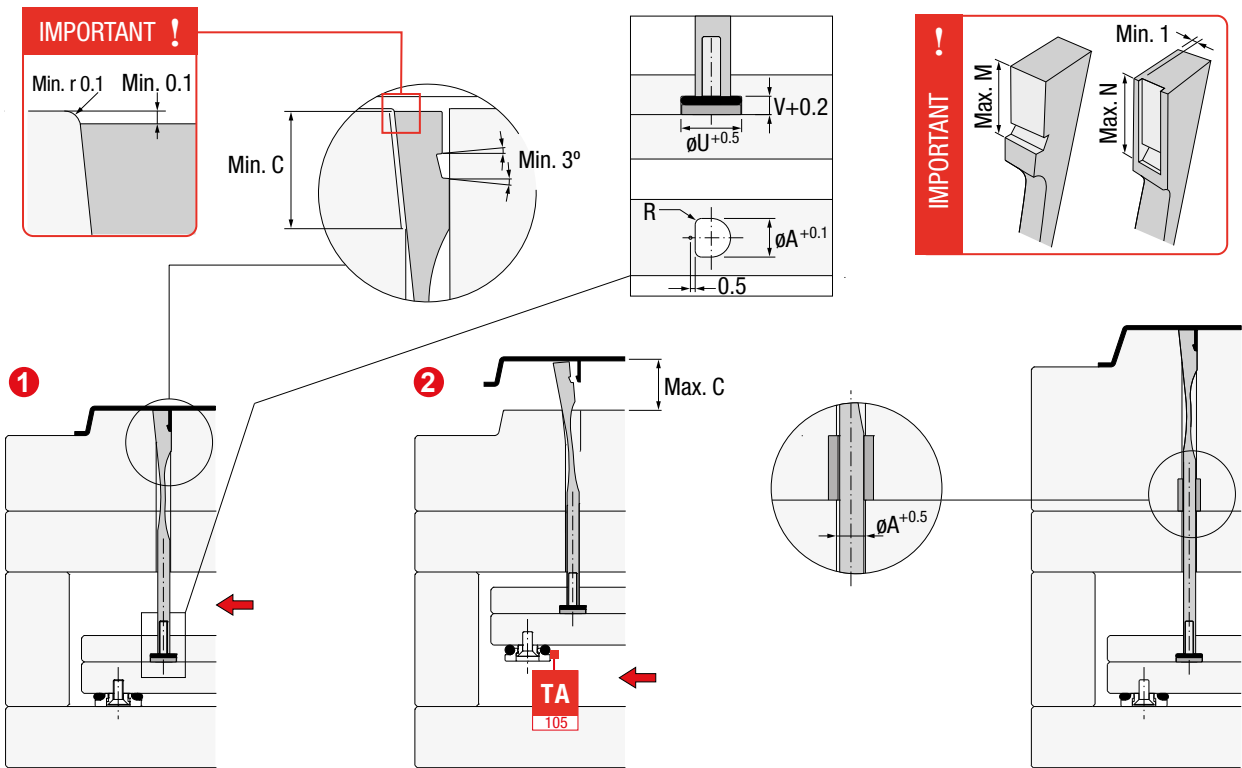
ES Pinza Plana DE Flexibler Federauswerfer
IT Pinza Piana PT Pinça Plana FR Ejecteur de Forme



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)	•

Installation Guidelines

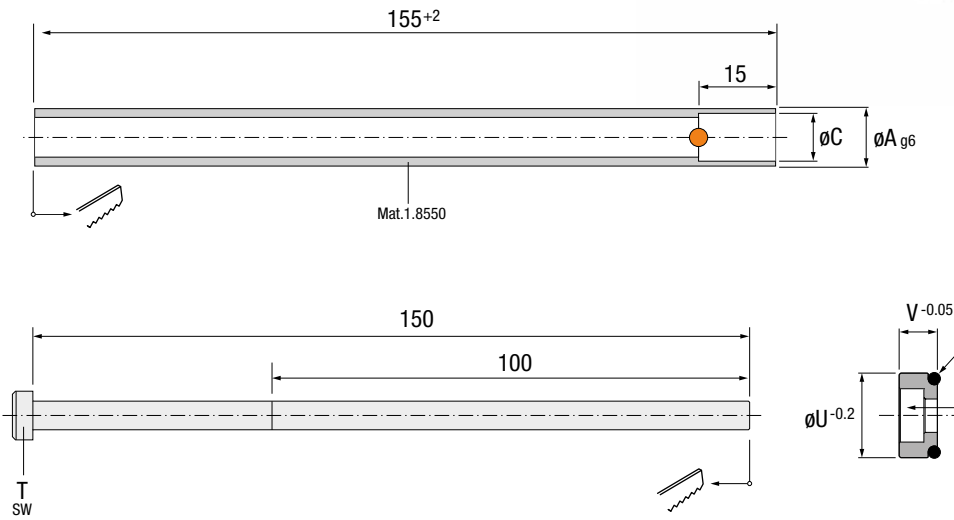
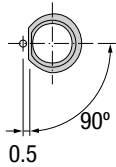
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SPRUNG CORE EXTENSION

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

● Cad Insertion Point



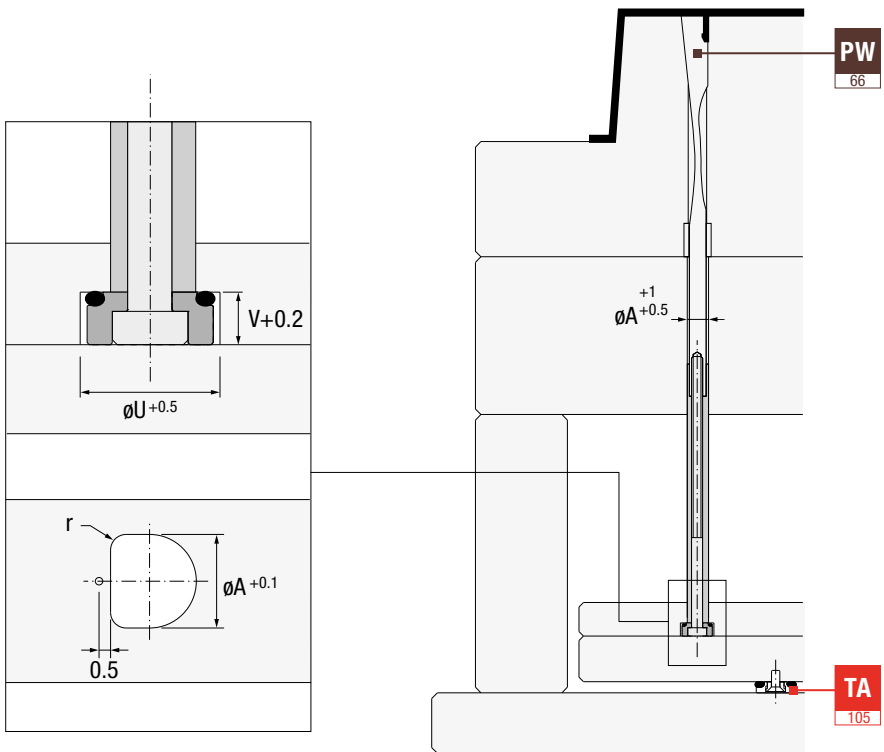
Ref.	A	C	R	S	T	U	V	SW
AP.080615	8	6	1.25	9.5x2	M4 (DIN7991)	14	5	2.5
AP.100815	10	8	2	11.5x2	M5 (DIN7984)	16	6	3
AP.121015	12	10	2.5	14.5x2.5	M6 (DIN7984)	20	8	4

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

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



AP

UNDERCUTS



Patented
Max. 150°C

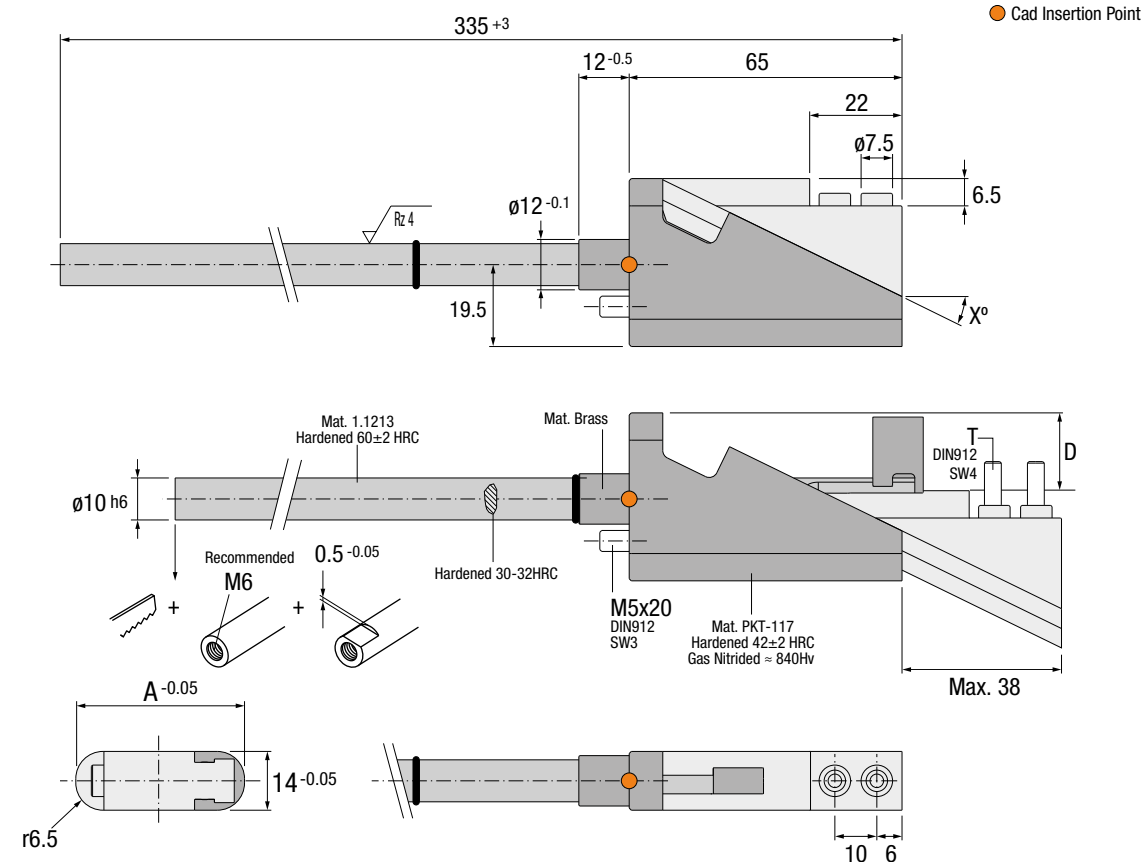


DL

UNDERCUTS



Patented
 Max.
 150°C



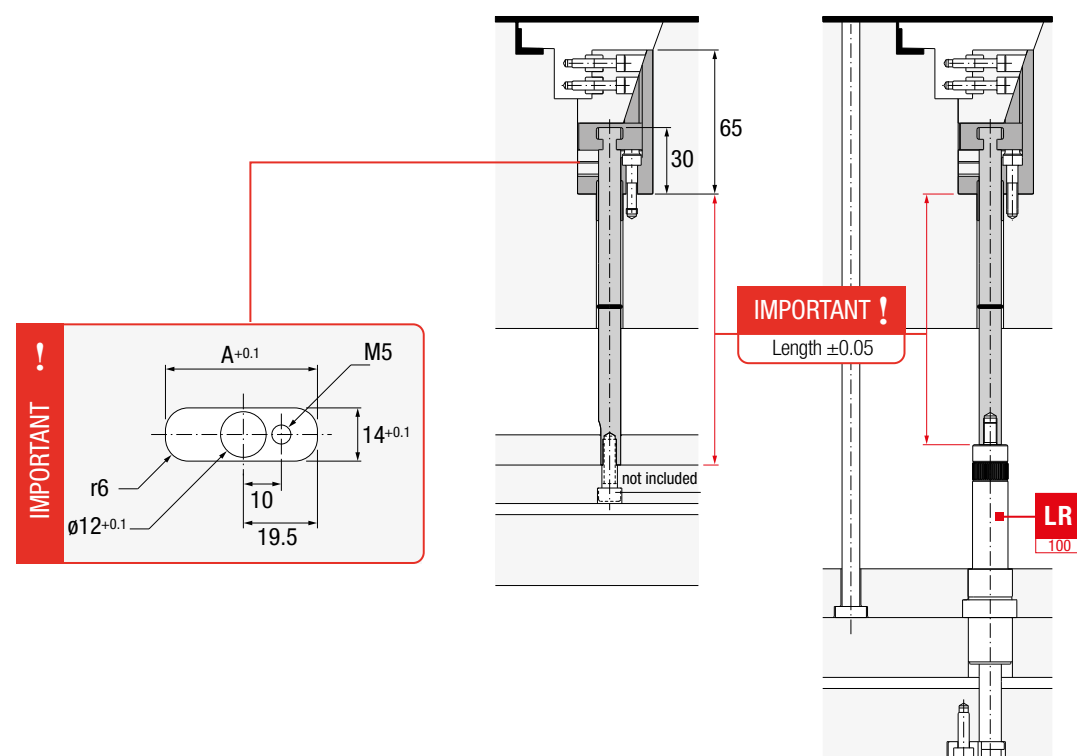
Ref.	A	D	T	X
DL.143465	34	12	M4x20	18
DL.144065	40	18	M4x25	26
DL.144665	46	22	M4x30	31

IMPORTANT !

Special angles available upon request, please contact: technical@cumsa.com
 Ángulos especiales disponibles bajo demanda, por favor, contactar: technical@cumsa.com
 Sonderwinkeln 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

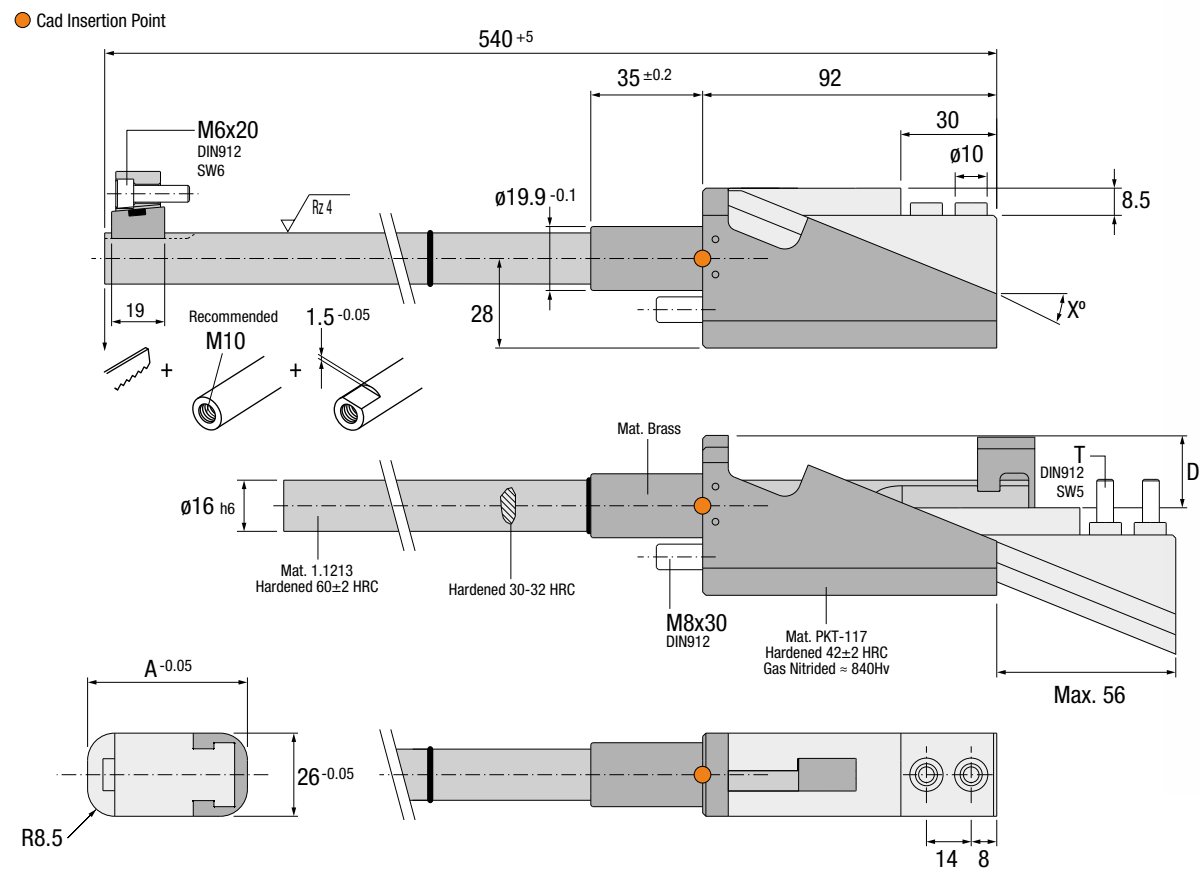
Installation Guidelines

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



DOG LIFTER - DG

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



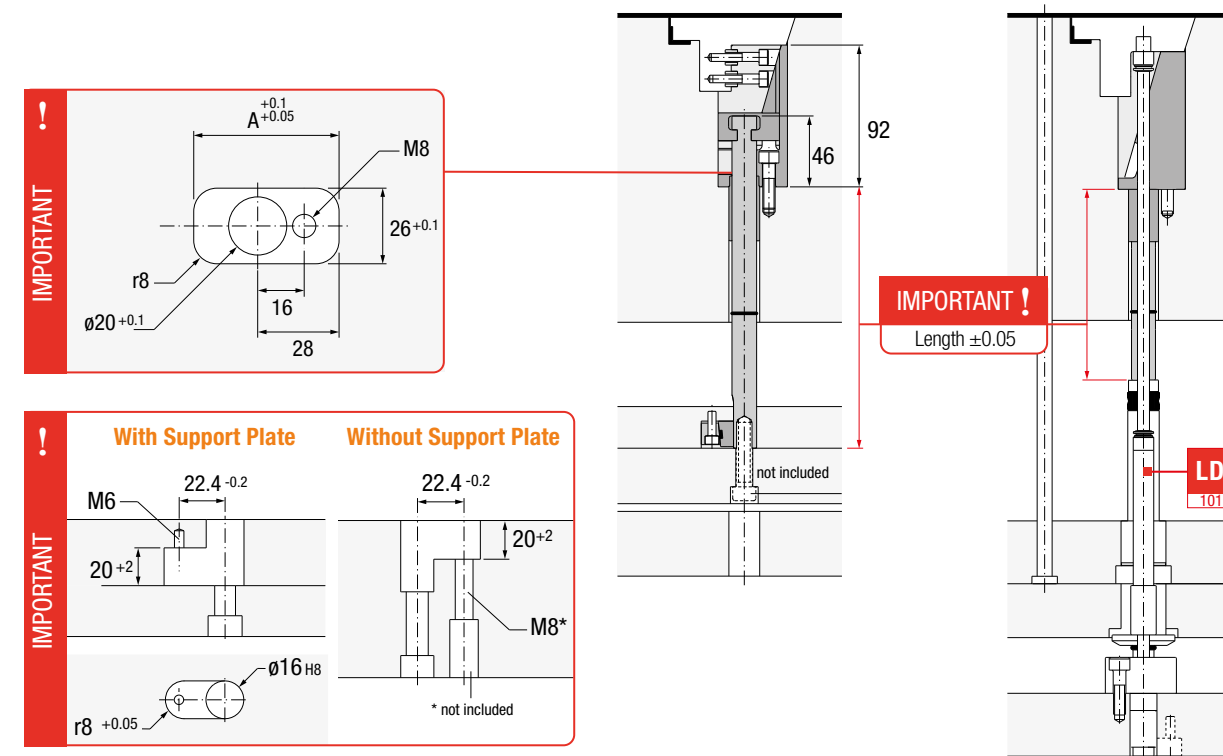
IMPORTANT !

Special angles available upon request, please contact: technical@cumsa.com
 Ángulos especiales disponibles bajo demanda, por favor, contactar: technical@cumsa.com
 Sonderwinkeln 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

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

Installation Guidelines

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





BD

UNDERCUTS



Max. 150°C

HORIZONTAL AND ADAPTABLE BASE

Horizontal Undercuts

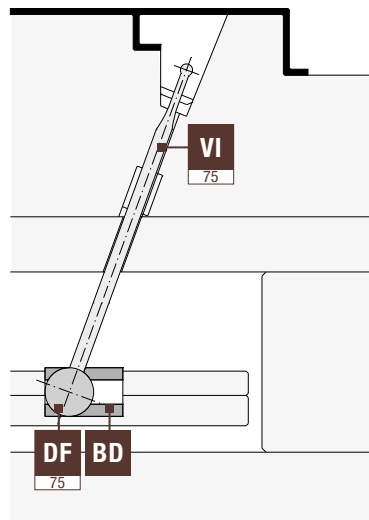
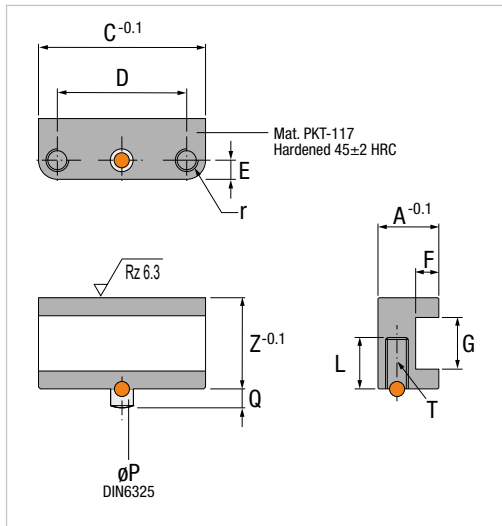


Table with 13 columns: Ref., A, C, D, E, F, G, L, P, Q, R, T, Z. Rows include BD.122036, BD.142266, BD.162440, BD.203260, BD.253872, BD.314890.

Angled Undercuts

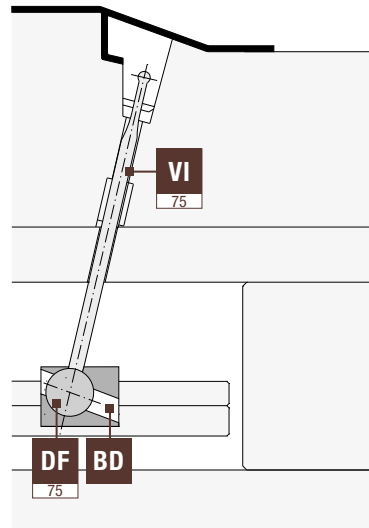
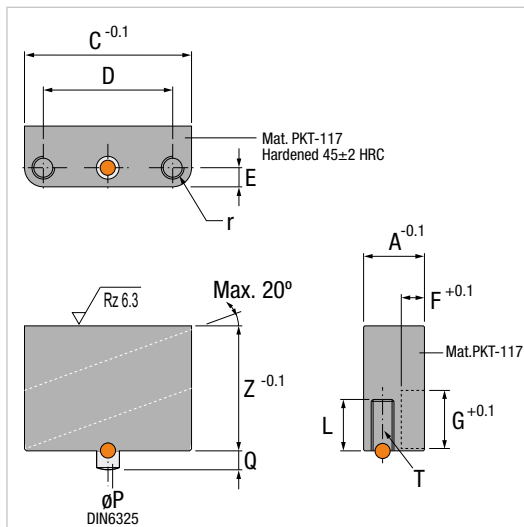
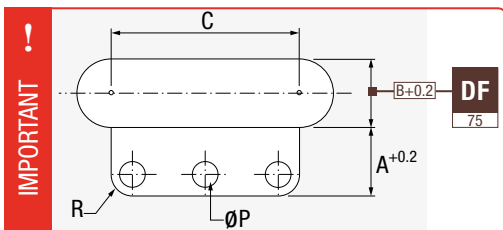


Table with 13 columns: Ref., A, C, D, E, F, G, L, P, Q, R, T, Z. Rows include BD.122836, BD.143866, BD.163240, BD.204060, BD.254672, BD.315890.



FIXED LIFTER BASE

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



DF

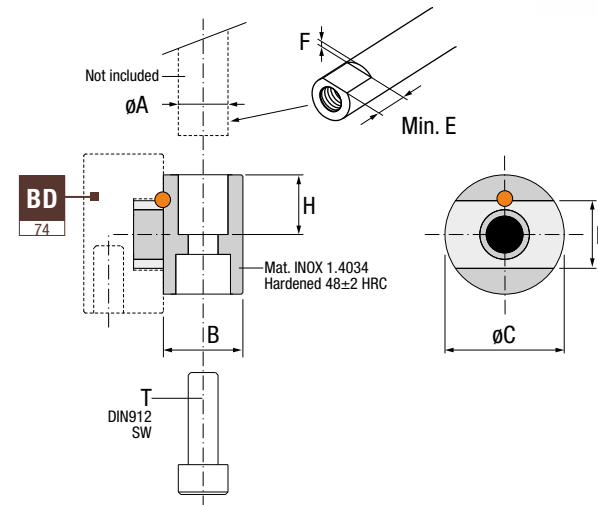
UNDERCUTS



Max. 150°C

Cad Insertion Point

Table with 11 columns: Ref., A, B, C, D, E, F, H, T, SW. Rows include DF.061220, DF.081220, DF.101624, DF.121624, DF.162032, DF.202538, DF.253148.

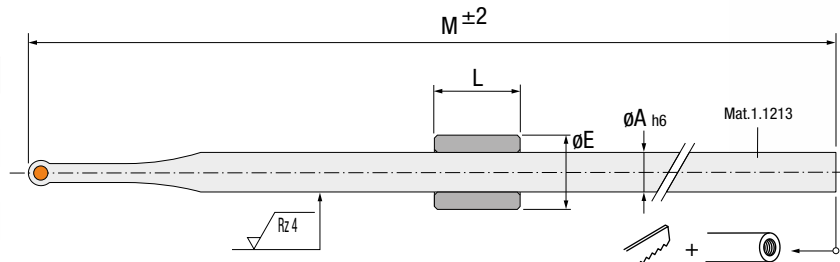


LIFTER SHAFT

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

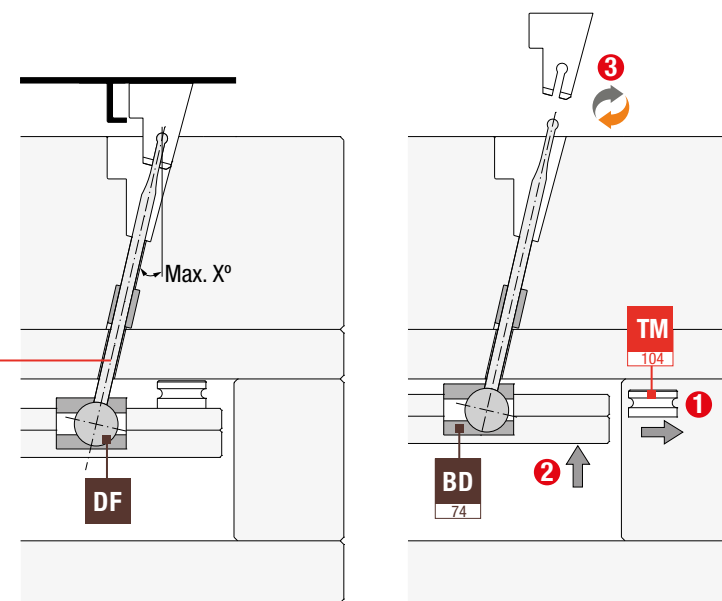
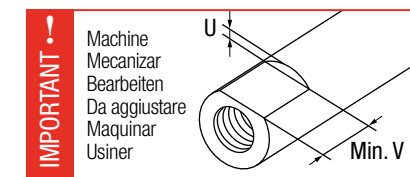
Cad Insertion Point

Table with 8 columns: Ref., A, E, L, M, U, V, X. Rows include VI.064200, VI.085200, VI.106200, VI.127200.



Installation Guidelines

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



UNDERCUTS



Patented Max. 150°C



PLAY

SD

UNDERCUTS



Max. 150°C

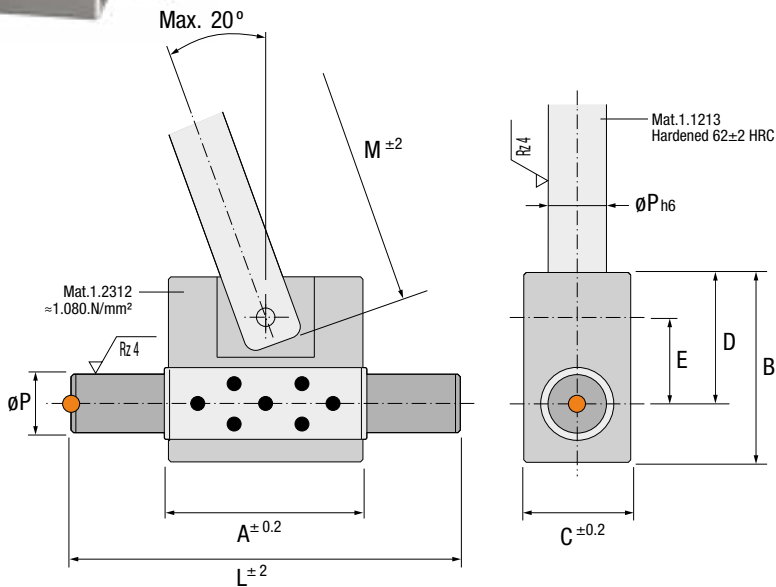


PLAY

UNDERCUT BASE UNIT

ES Soporte Deslizamiento DE Schrägauswerfer Basisführung
IT Supporto di Scorrimento PT Suporte Deslize FR Douille de Guidage

Cad Insertion Point



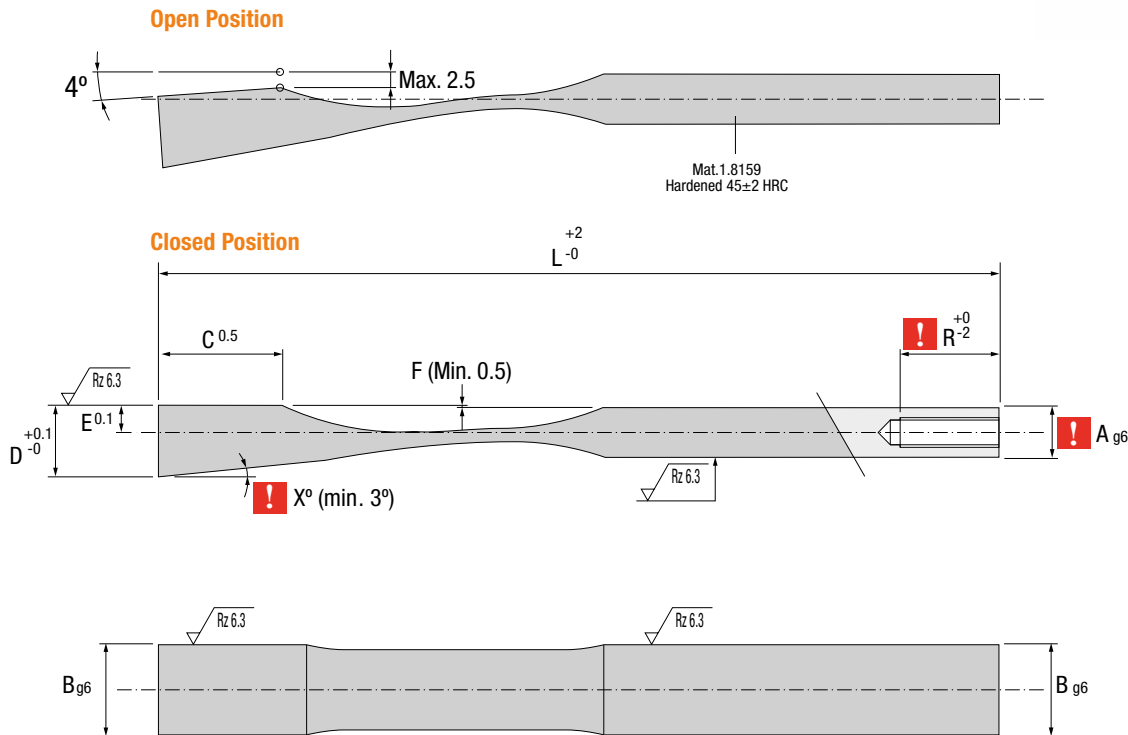
Ref.	A	B	C	D	E	L	M	P
SD.3220GR	32	37	20	27	18	80	180	10
SD.3824GR	38	40	24	28	19	80	210	12
SD.4528GR	45	44	28	30	21	100	250	16

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.

SPECIAL SPRUNG CORE

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



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 Ommande?

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.

CI

UNDERCUTS



Max. 150°C

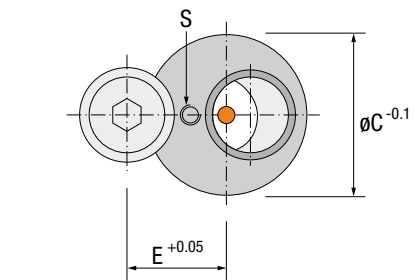


PLAY

ANGLED GUIDE BUSH

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

Cad Insertion Point

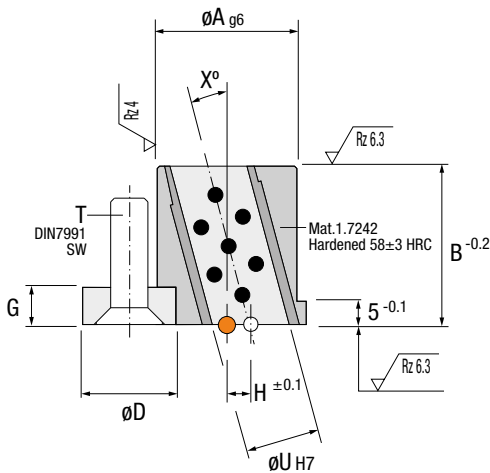


Ref.	A	B	C	D	E	G	H	S	T	U	X	SW
CI.3034GR-5	30	34	34	16	20	6	0	M4x6	M6x16	10	5	4
CI.3438GR-5	34	38	38	20	24	8	0	M6x6	M8x20	12	5	5
CI.4040GR-5	40	40	44	20	27	8	0	M6x6	M8x20	16	5	5
CI.3034GR-10	30	34	34	16	20	6	7	M6x6	M6x16	10	10	-
CI.3438GR-10	34	38	38	20	24	8	8.5	M8x6	M8x20	12	10	-
CI.4040GR-10	40	40	44	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	-

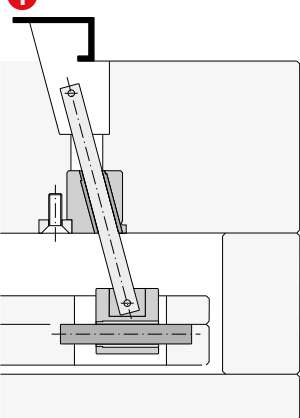
Installation Guidelines

Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione

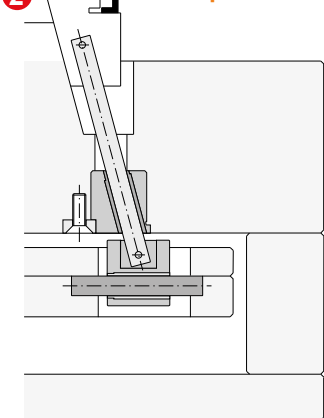
Instruções de Instalação · Mode d'Installation



1 Mold Closed



2 Mold Open



SPECIAL

UNDERCUTS



Patented

Max. 150°C



3

EJECTION

EJECTION INDEX

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

82/

PR

Plate Retainer
Retensor Placas
Platten Verriegelung
Ritensore Piastra
Retensor de Placa
Tire Plaques



82/

SL

Stroke Limiter
Limitador de Recorrido
Hubbegrenzer
Limitatore Apertura
Limitador de Curso
Limiteur de Course



83/

RM

Modular Retainer
Retensor Modular
Mitnehmer Modular
Ritensore Modulare
Retensor Modular
Retenue Modulée



84/

GS

Latch Lock
Gatillo Simple
Klinkenzug
Gancia Sgancia
Gatilho Simples
Crochet Ouverture Gradué



85/

MX

Internal Latch Lock
Gatillo Interno
Interner Klinkenzug
Gancia Sgancia Interno
Gatilho Interno
Tire Plaque Interne



86/

DX

Superior Double Ejector
Doble Expulsión Superior
Zweistufenauswerfer DX
Doppia Espulsione Superiore
Dupla Extracção Superior
Double Ejection Supérieur



87/

SX

Superior Plate Separator
Separador Placas Superior
Superior Zweistufenauswerfer
Separatore Piastra Superiore
Separador de Chapas Superior
Séparateur de Plaques



88/

EX

External Superior Plate Separator
Separador Placas Superiores Externa
Externe Obere Plattentrennung
Separatore Piastra Superiori Esterno
Separador Chapas Superior Externo
Séparateur Plaque Supérieure Externe



90/

EP

Plate Accelerator
Elevador Placas
Auswerferplatten-Beschleuniger
Acceleratore Piastra Espulsione
Acelerador de Chapa
Accélérateur Batterie d'Éjection



91/

DE

Double Ejection
Doble Expulsión
Zweistufenauswerfer
Doppia Espulsione
Dupla Extracção
Double Ejection



92/

DY

Rear Double Ejector
Doble Expulsión Inferior
Zweistufenauswerfer DY
Doppia Espulsione Inferiore
Dupla Extracção Inferior
Double Ejection inférieure



93/

SY

Compact Double Ejection
Doble Expulsión Compacta
Kompakter Zweistufenauswerfer
Doppia Espulsione Compatta
Dupla Extracção Compacta
Double Ejection Compact



94/

EY

External Double Ejection
Doble Expulsión Externa
Externer Zweistufenauswerfer
Doppia Espulsione Esterna
Dupla Extracção Externa
Double Ejection Externe



96/

EZ

External Synchronized Plates
Sincronizador de Placas Externo
Externe Plattensynchronisation
Sincronizzatore di Piastre Esterno
Sincronizador Chapas Externo
Synchronisation Mouvement Plaques



98/

EW

EX-EY-EZ Rod Extension
Alargo EX-EY-EZ
EX-EY-EZ Verlängerungsstange
Estensione EX-EY-EZ
Extensor para EX-EY-EZ
Extension pour EX-EY-EZ



98/

EB

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 Externe pour EX-EY-EZ



99/

AE

Accelerated Ejector
Acelerador Expulsión
Vorschub-Auswerfer
Acceleratore di Espulsione
Acelerador de Extracção
Accélérateur d'Éjection



100/

LR

Threaded Limiter
Limitador con Rosca
Auswerfer Begrenzer mit Gewindeaufnahme
Limitatore Filettato
Limitador com Rosca
Limiteur avec Vis



100/

AL

Threaded Limiter Adapter
Adaptador para Limitador Roscado
Gewindeadapter
Adattatore per Limitatore Filettato
Adaptador para Limitador Roscado
Adaptateur pour Limiteur avec Vis



101/

LD

Dog Lifter Limiter
Limitador Patín
Hubbegrenzer
Limitatore Pattino
Limitador Patim Automático
Limiteur



102/

BA
BE
BT

Ejector Base
Base Expulsora
Aufnahme für Auswerfer
Base Espulsore
Base de Extractores
Embases d'Éjection



103/

VE

Headless Ejector Pin
Varilla Expulsora
Auswerfer ohne Kopf
Asta Espulsore
Extractor Sem Cabeça
Ejecteur sans Tête



103/

TE

Headless Ejector Sleeve
Tubular Expulsión
Auswerferhülsen ohne Kopf
Espulsore Tubolare
Extractor Tubular sem Cabeça
Tubulaire sans Tête



104/

DP

Ejector Foot
Distanciador Placa
Anschlagscheibe
Distanziale Piastra
Botão de Encosto
Repos de Batterie



104/

TM

Safety Stopper
Tope Magnético
Abstandhalter, magnetisch
Blocco Magnetico
Bloco Magnético
Butée Magnétique



105/

TR

Ejector Plate Spacer
Distanciador Placa
Auswerferplatte Abstandhalter
Distanziale Piastra
Espaceador de Chapas
Entretoise de Passage



105/

TA

Shock Absorber
Tope Amortiguador
Dämpfungsscheibe
Blocco Ammortizzante
Batente Amortecedor
Repos de Batterie avec Amortissement



PR

EJECTION



Max. 150°C



PLAY

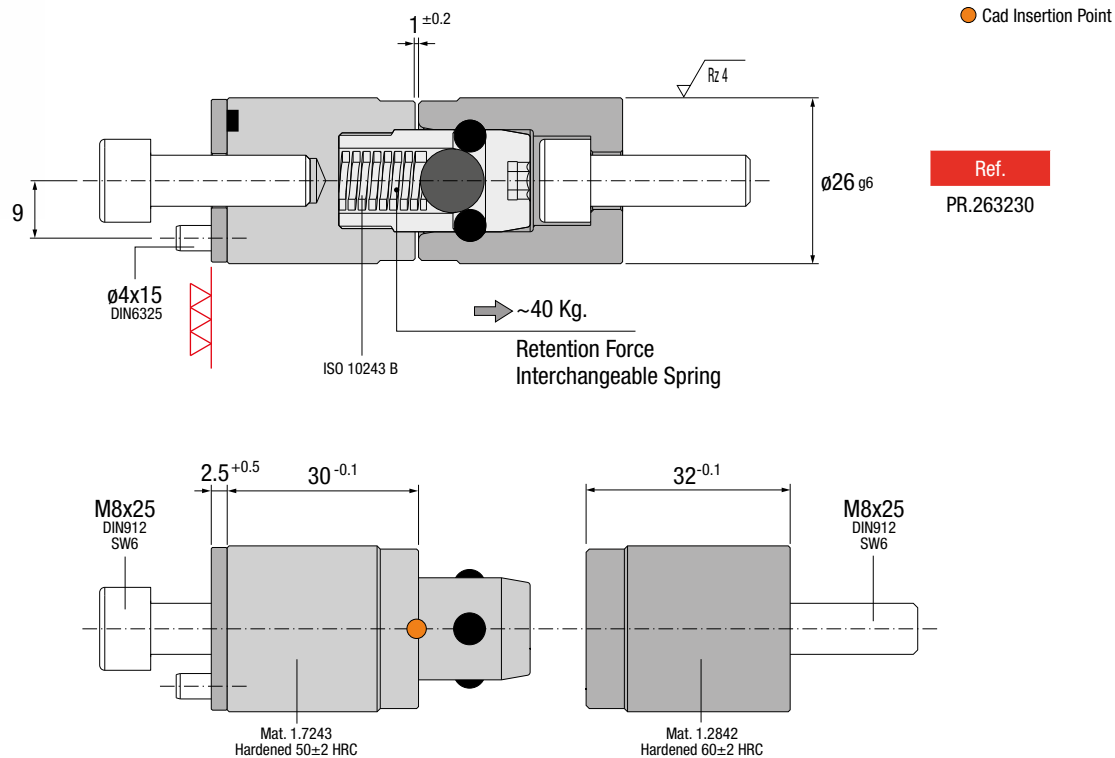


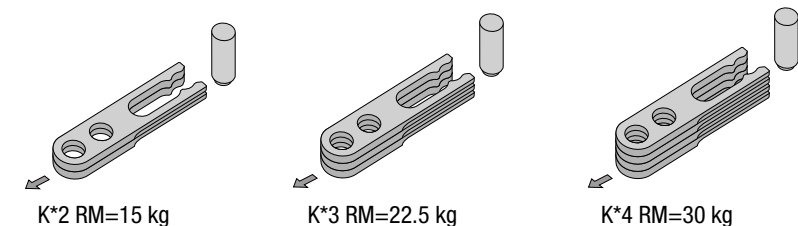
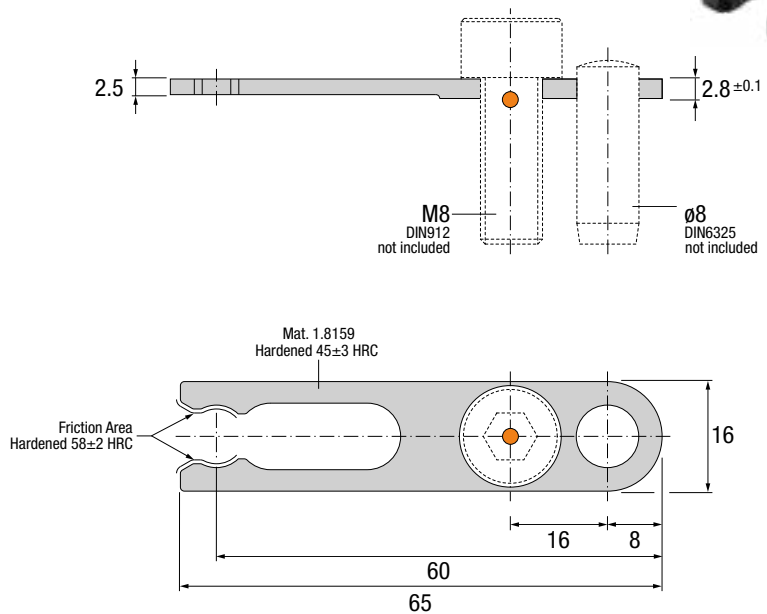
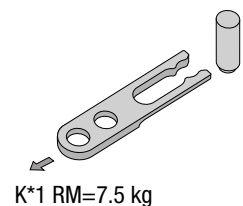
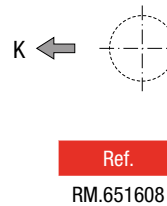
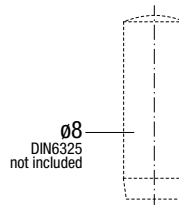
PLATE RETAINER

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

MODULAR RETAINER

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

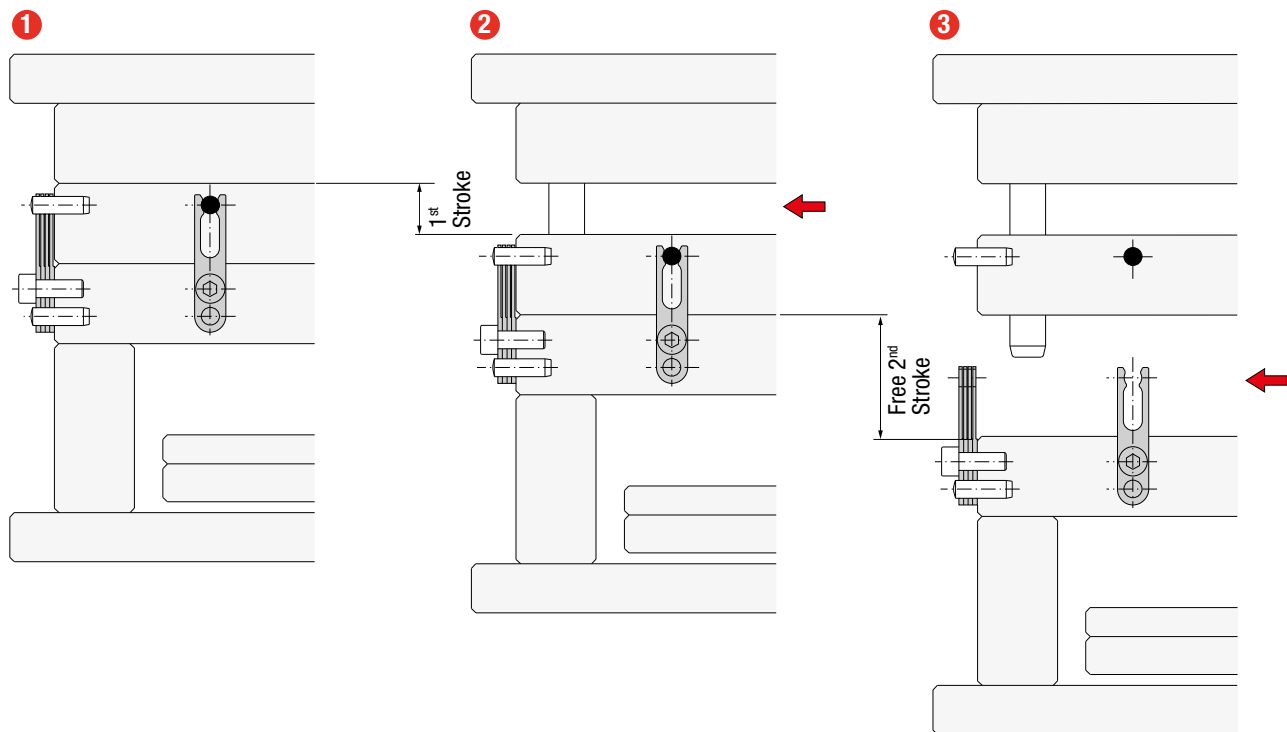
Cad Insertion Point



IMPORTANT !
K=Approximate resistance value that can be obtained by grouping clips.
K=Valor aproximado de resistencia que se puede obtener agrupando clips.
K=Zirka Widerstand beim Einbau entsprechend obiger Darstellung.
K=Valore approssimativo di resistenza che si può ottenere raggruppando più ritenori.
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

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

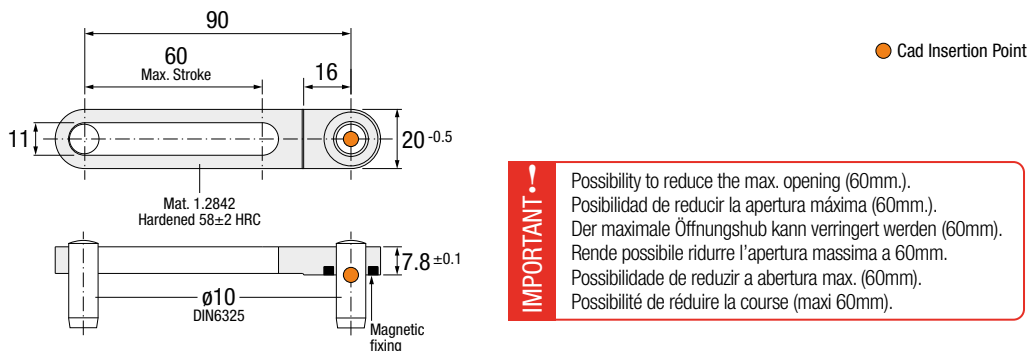


SL

EJECTION



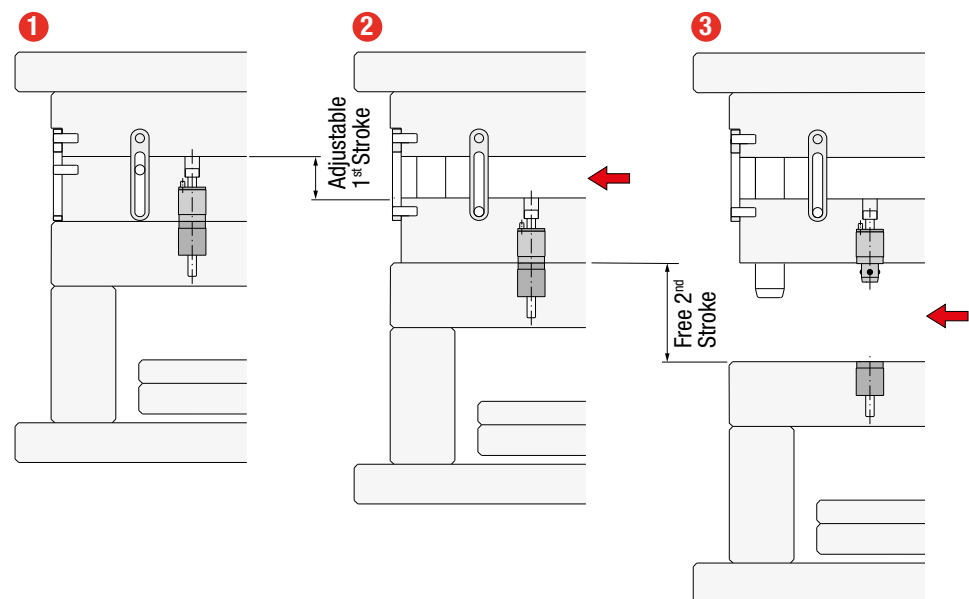
Max. 150°C



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.
Possibilidade 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



RM

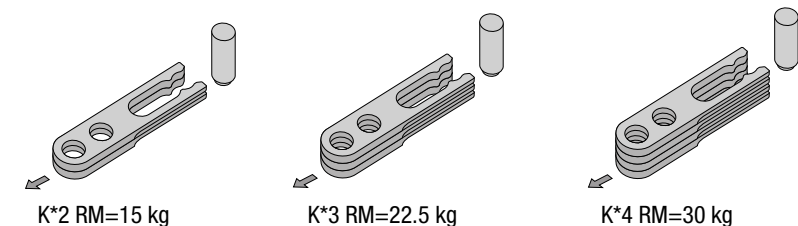
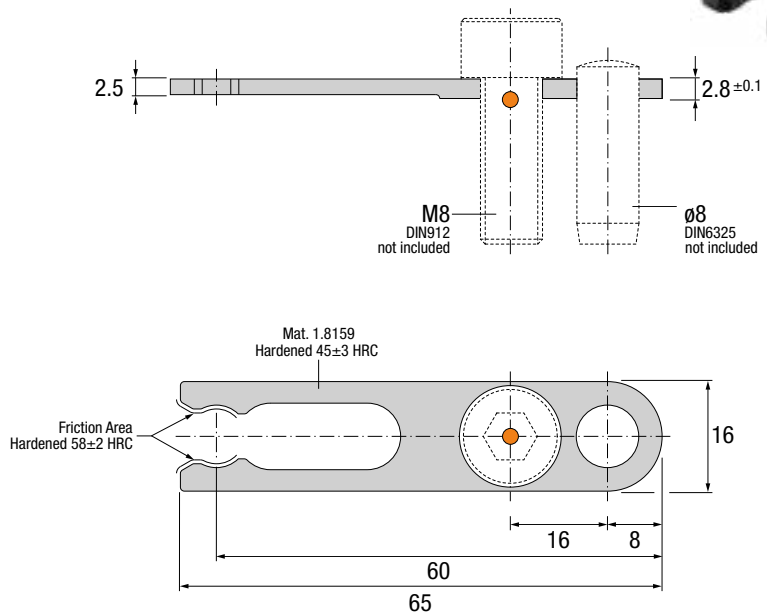
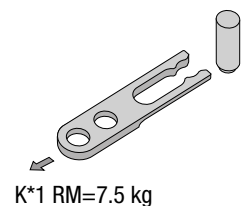
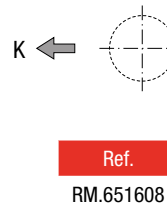
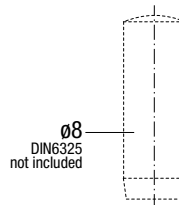
EJECTION



Patented
Max. 150°C



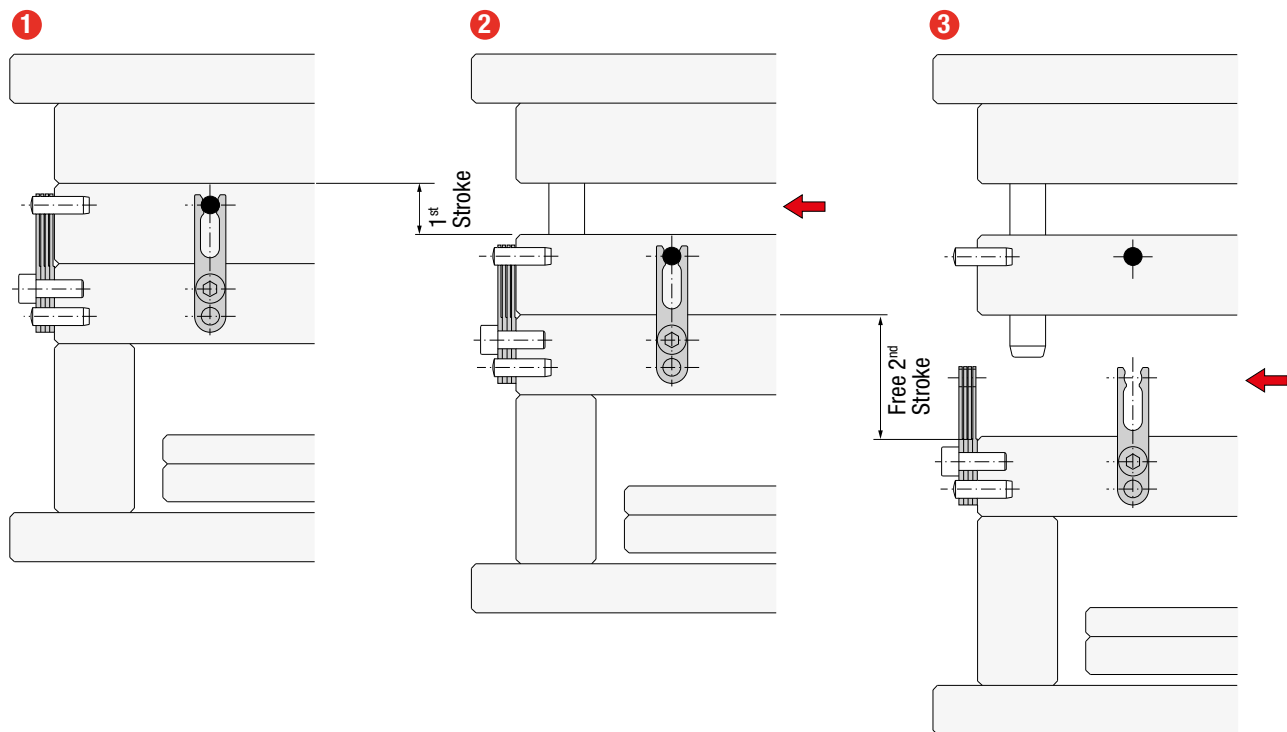
Cad Insertion Point



IMPORTANT !
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K=Valor aproximado de resistencia que se puede obtener agrupando clips.
K=Zirka Widerstand beim Einbau entsprechend obiger Darstellung.
K=Valore approssimativo di resistenza che si può ottenere raggruppando più ritenori.
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

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



DX

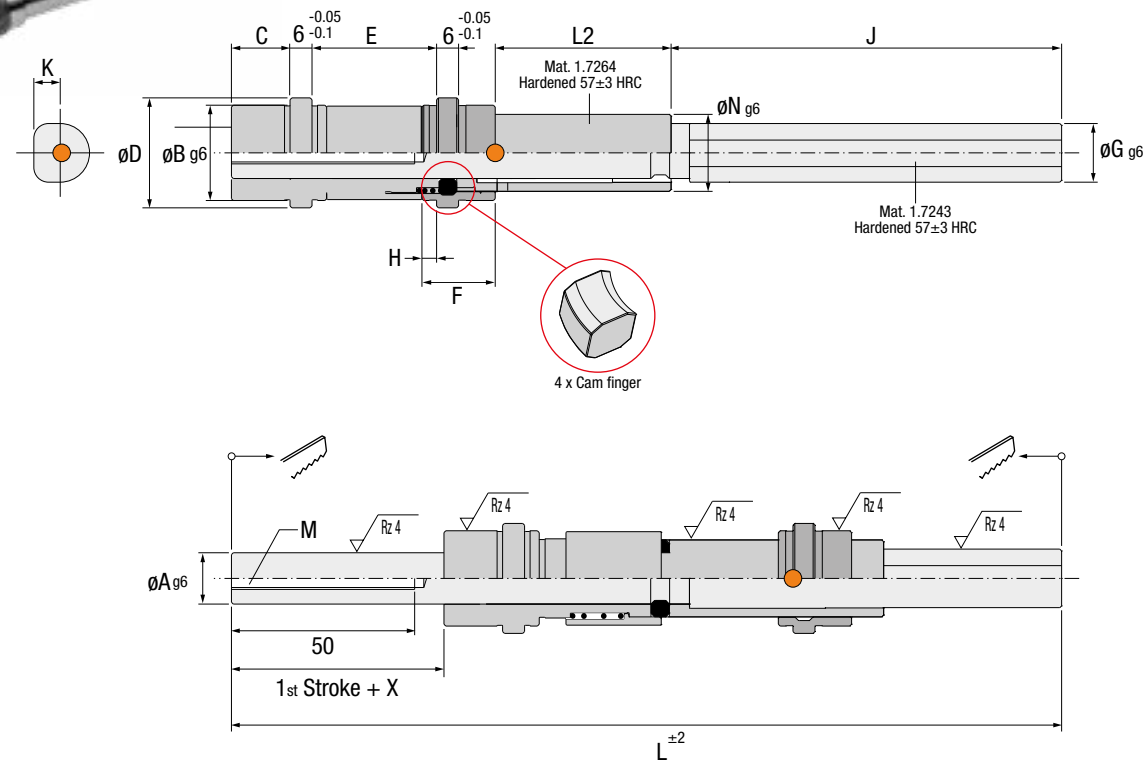
EJECTION



Patented
Max. 150°C



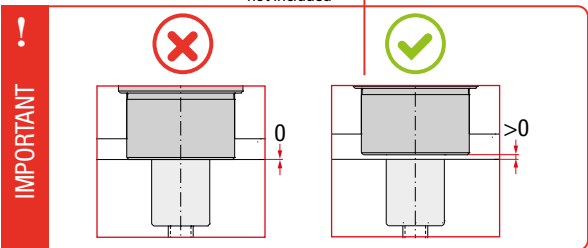
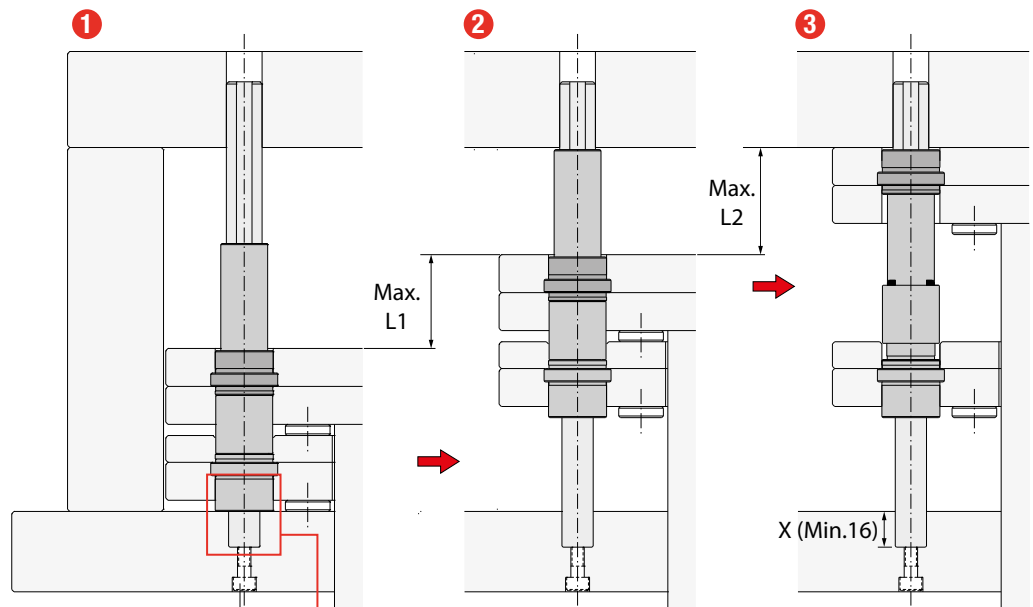
PLAY



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

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

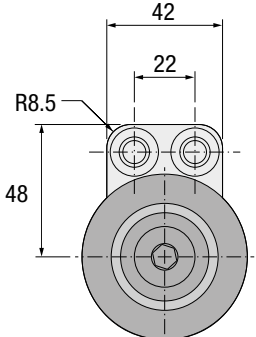


SUPERIOR PLATE SEPARATOR

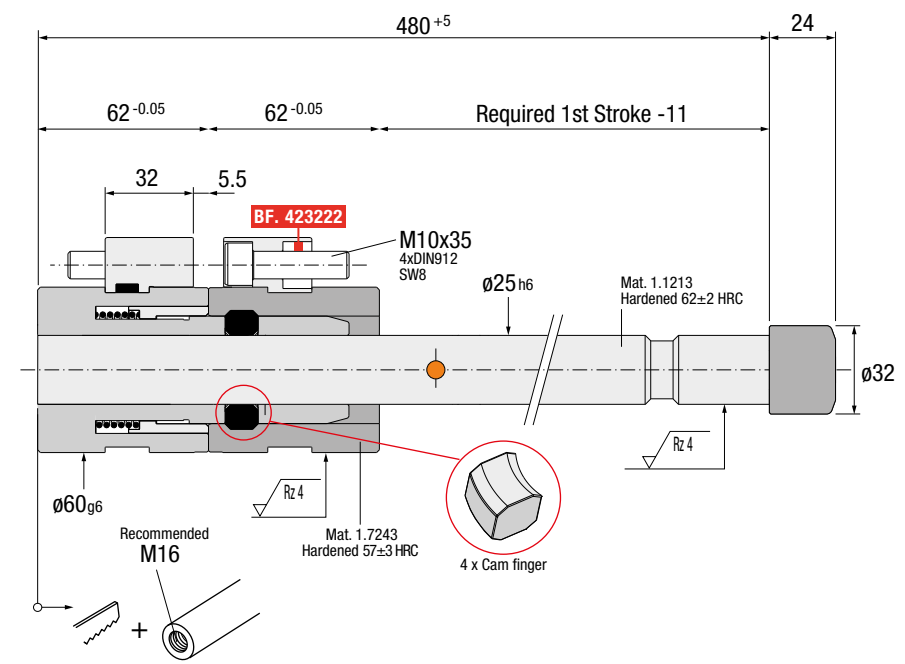
ES Separador Placas Superior DE Superior Zweistufenauswerfer
IT Separatore Piastra Superiore PT Separador de Chapas Superior FR Séparateur de Plaques

Cad Insertion Point

Cad Insertion Point



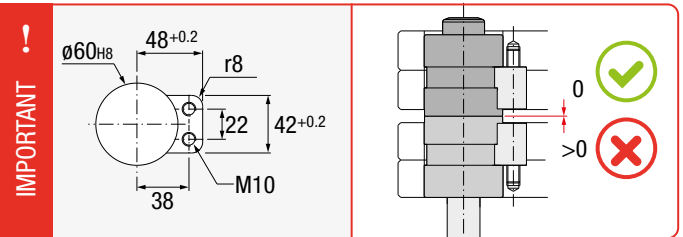
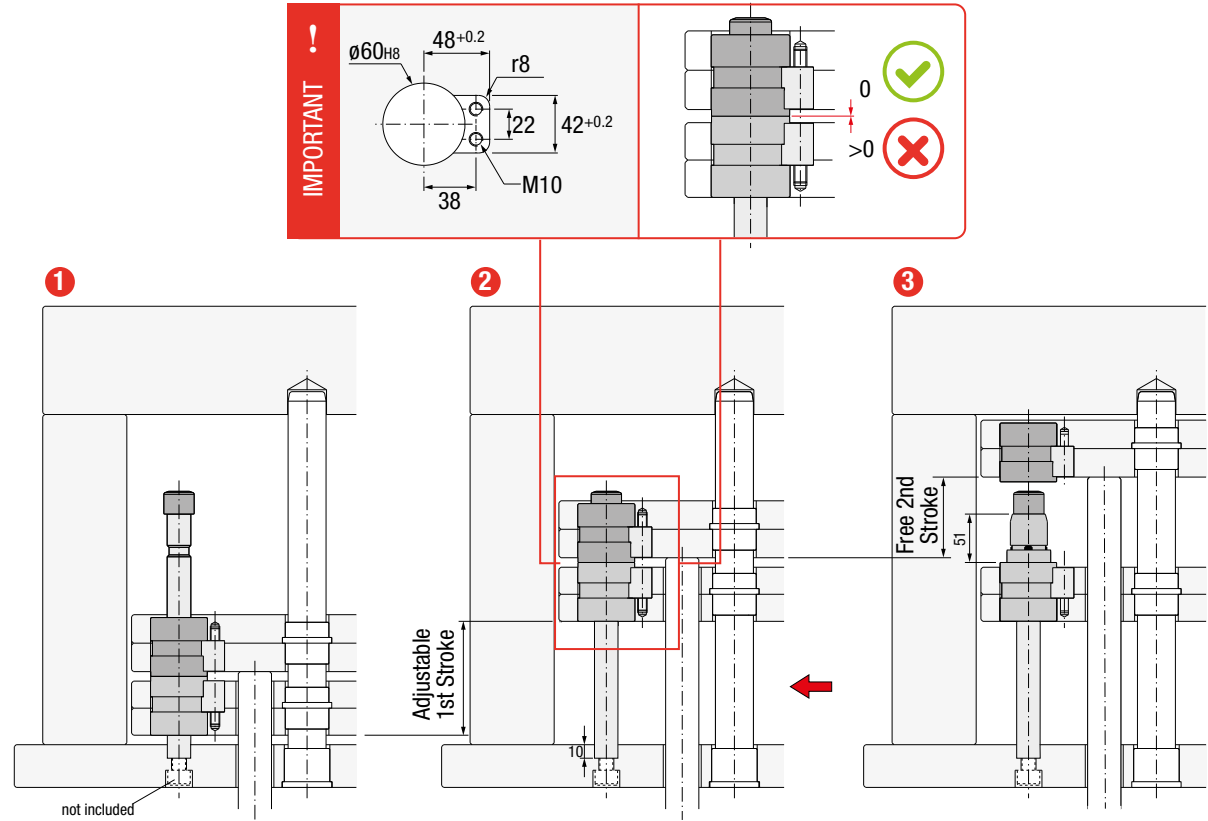
Ref.
SX.256062



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

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SX

EJECTION



Patented
Max. 150°C



PLAY



EX

EJECTION

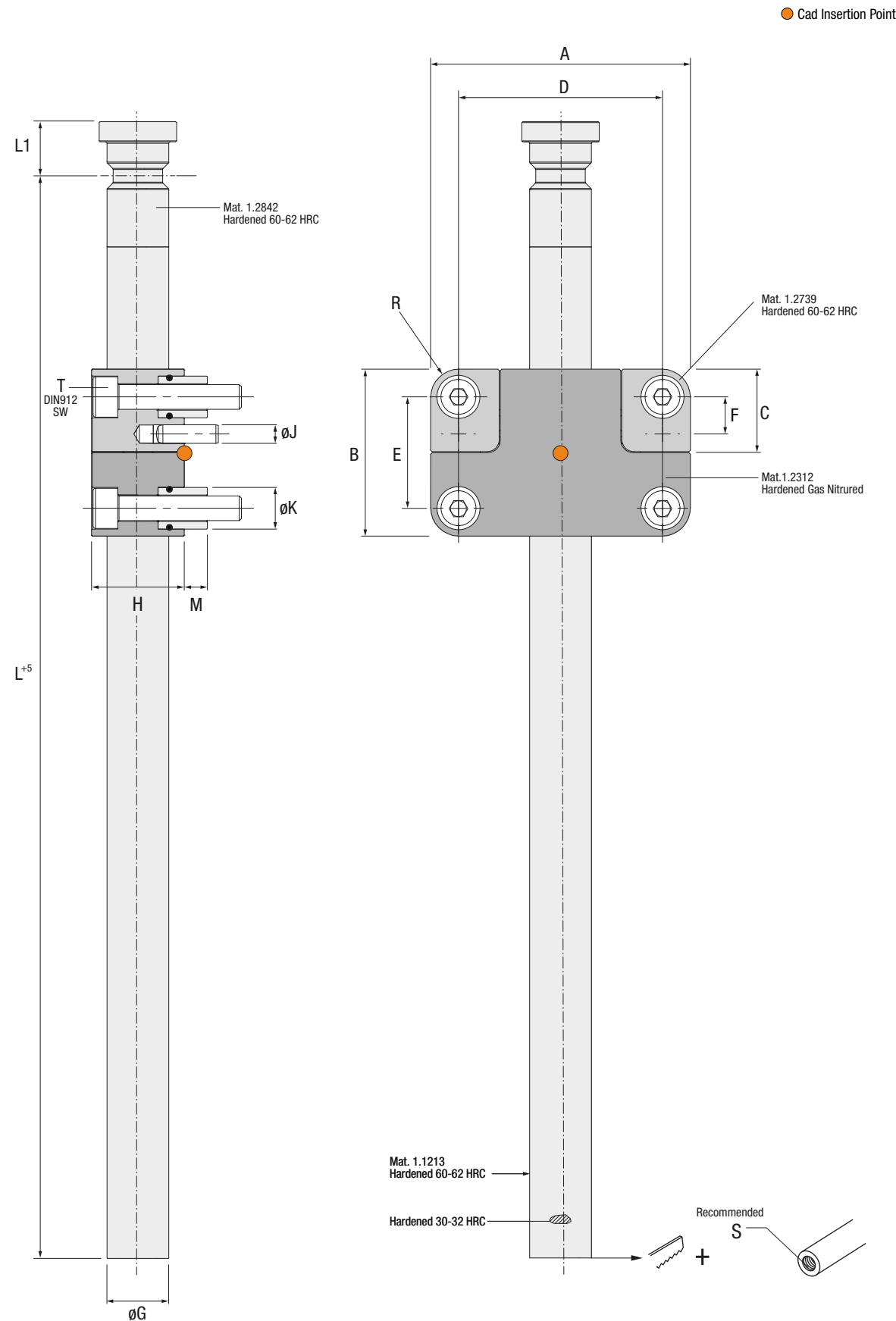


Max.
150°C



EXTERNAL SUPERIOR PLATE SEPARATOR

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



Ref.	A	B	C	D	E	F	G	H	J	K	L	L1	M	R	S	T	Min. Stroke	Max. Stroke	RF (N)	SW
EX.140600	62	40	20	48	26	9	14	22	Ø4x14 (DIN6325)	10.5	348	13	5.5	7.2	M8	M6x30	4	250	4.000	5
EX.200800	84	54	27	66	36	12	20	30	Ø6x20 (DIN7979)	13.5	348	17.5	7.5	9.2	M12	M8x40	5	250	9.000	6
EX.321200	126	84	42	102	60	20	32	46	Ø10x30 (DIN7979)	18.5	530	27	11.5	12.5	M16	M12x65	8	375	20.000	10
EX.501600	174	120	60	140	86	26	50	64	Ø12x40 (DIN7979)	25	530	40	15.5	17	M24	M16x90	10	375	40.000	14

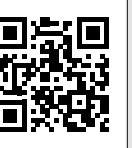
INSTALLATION GUIDELINES

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



EX

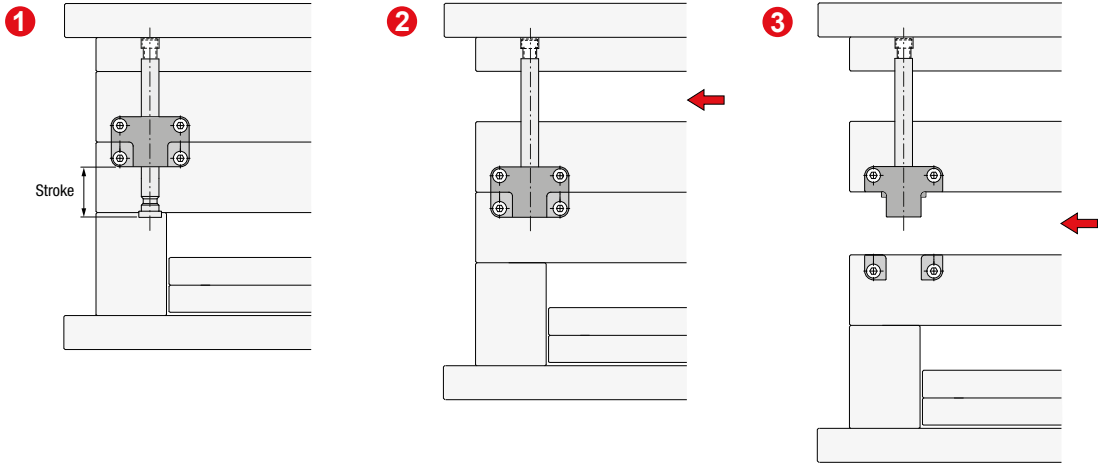
EJECTION



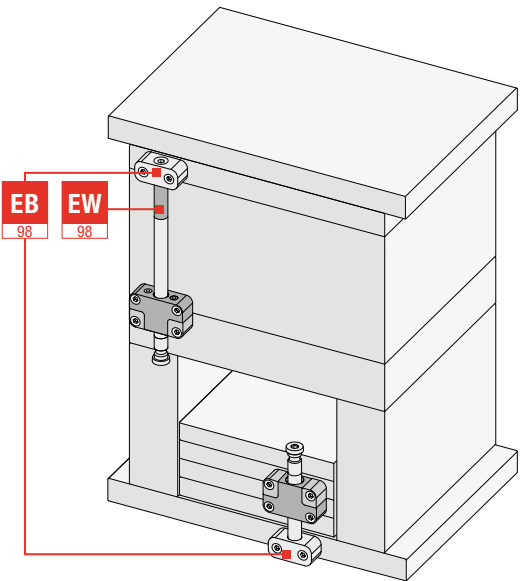
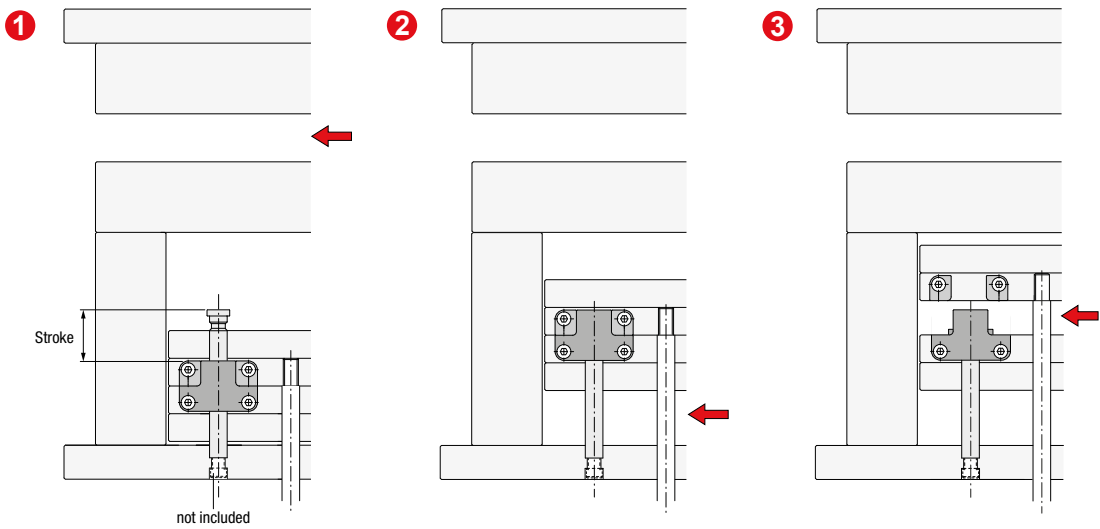
Max.
150°C



THREE PLATE MOLD APPLICATION



DOUBLE EJECTION APPLICATION



DY

EJECTION

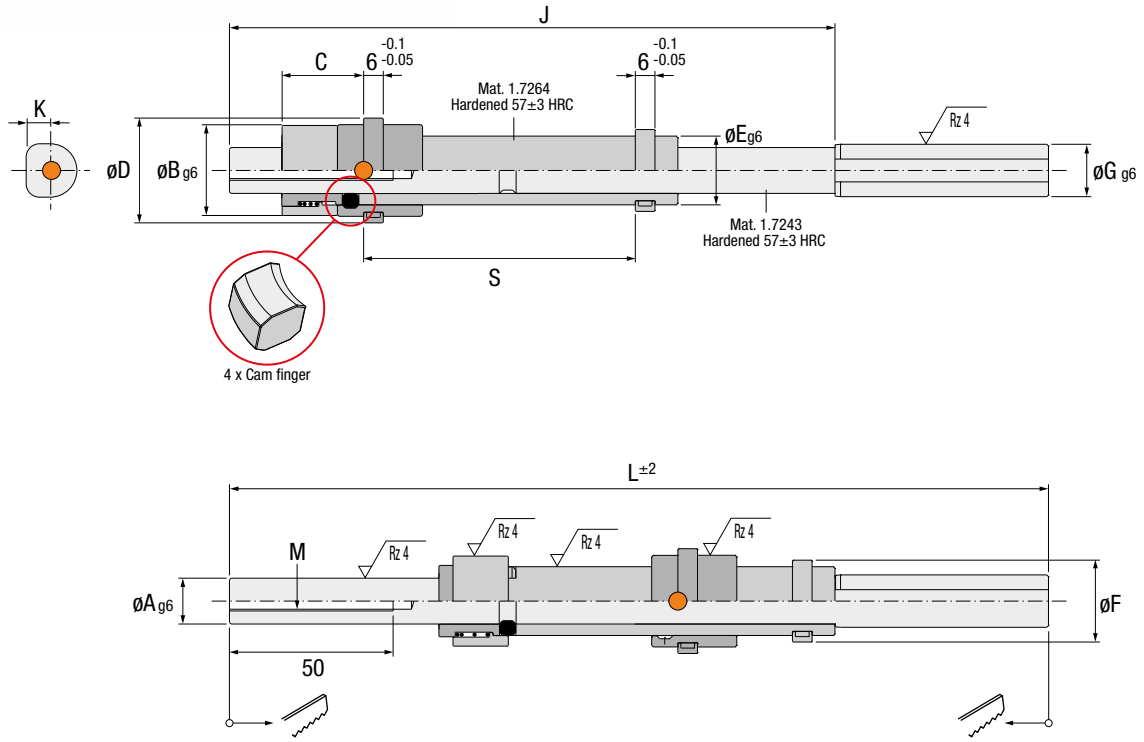


Patented
Max. 150°C

REAR DOUBLE EJECTOR

ES Doble Expulsión Inferior DE Zweistufenauswerfer DY
IT Doppia Espulsione Inferiore PT Dupla extracção inferior FR Double Ejection inférieure

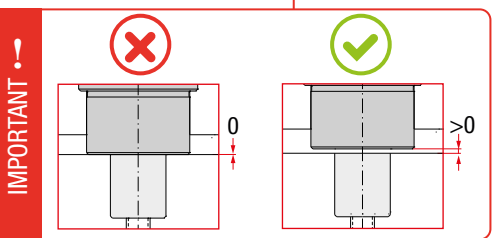
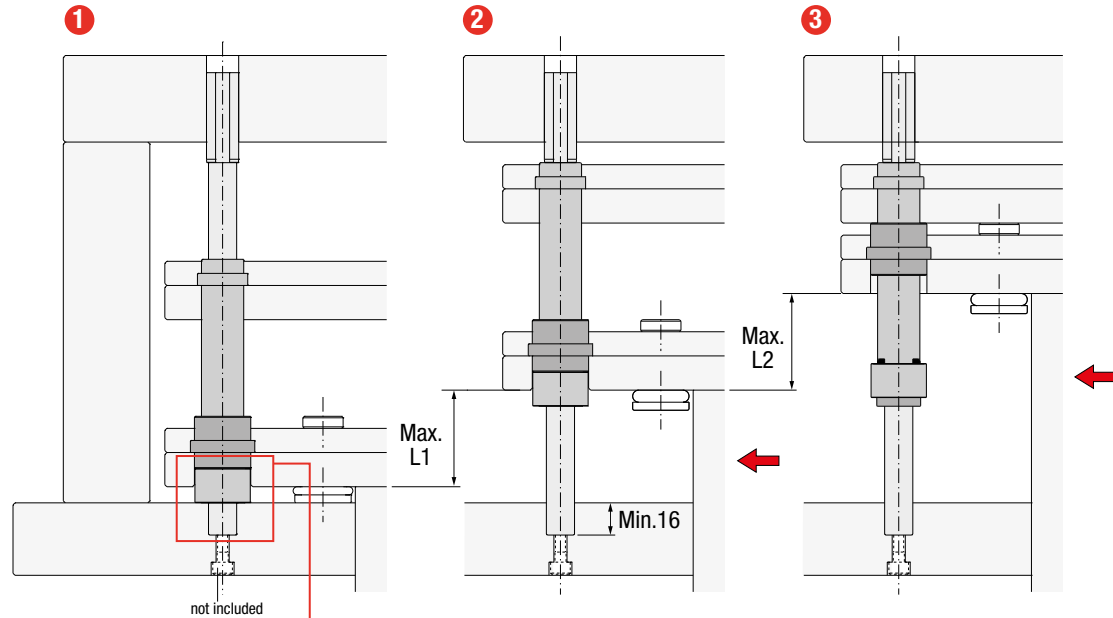
Cad Insertion Point



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	49	83
DY.163230	16	32	30	36	24	28	18	252	8	337	M8	60	89	123

Installation Guidelines

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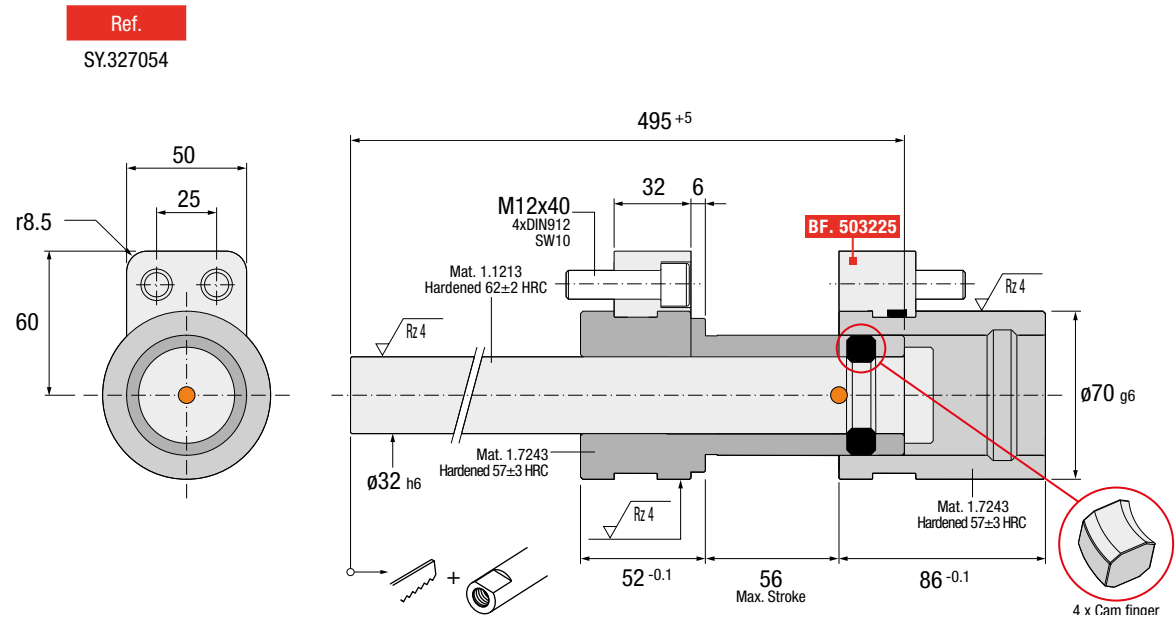


IMPORTANT

COMPACT DOUBLE EJECTION

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

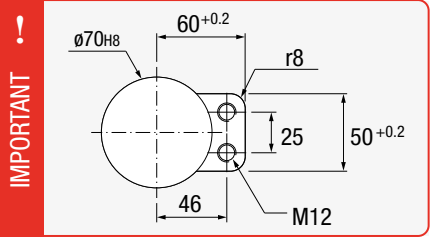
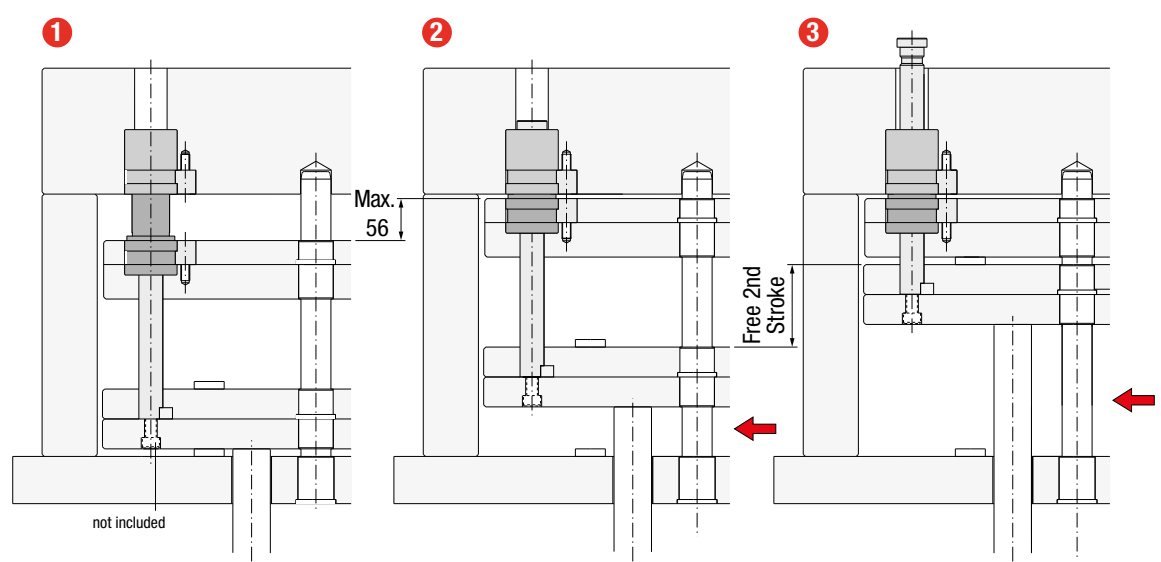
Cad Insertion Point



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 ordinare 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



IMPORTANT



PLAY

SY

EJECTION



Patented
Max. 150°C

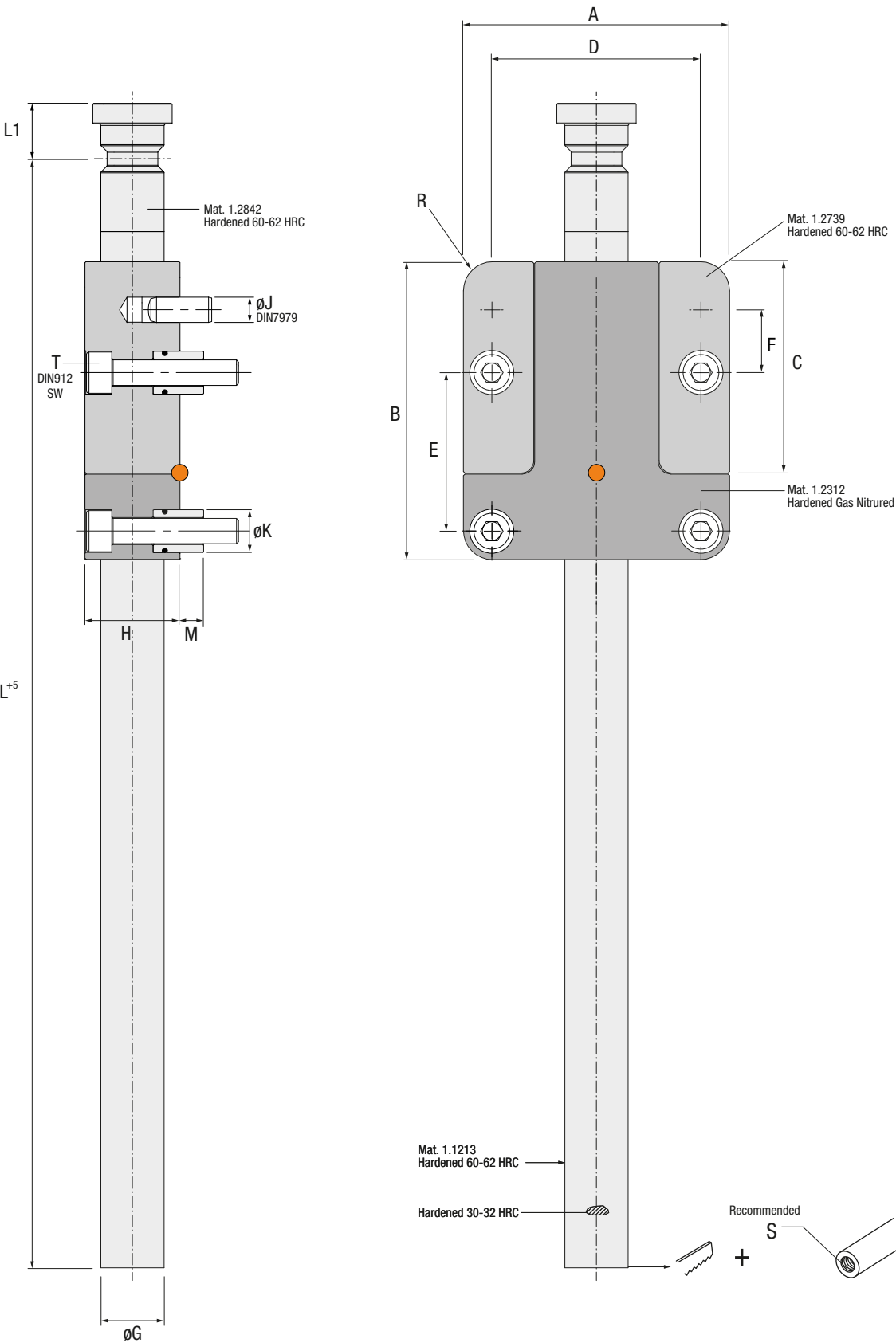


Max. 150°C



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

Cad Insertion Point

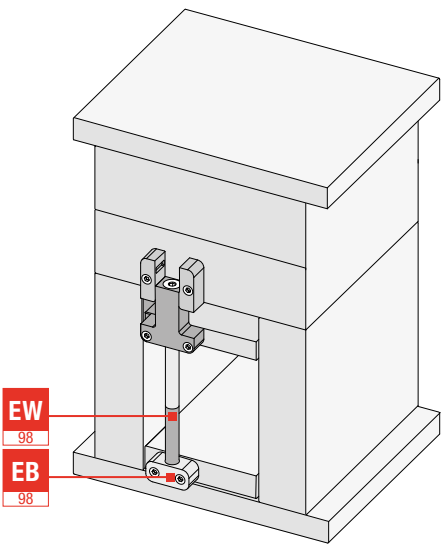
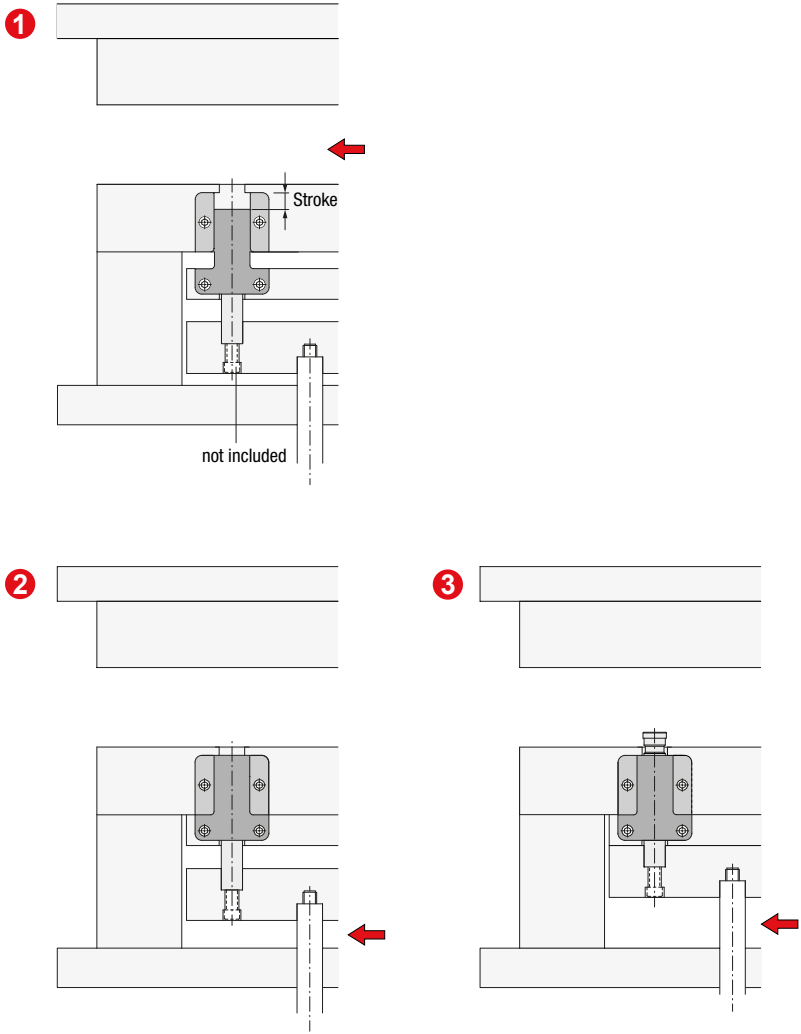


Ref.	A	B	C	D	E	F	G	H	J	K	L	L1	M	R	S	T	Min. Stroke	Max. Stroke	RF (N)	SW
EY.140600	62	70	50	48	38	18	14	22	ø6x20	10.5	348	13	5.5	7.2	M8	M6x30	6	30	4.000	5
EY.200800	84	94	67	66	50	26	20	30	ø8x20	13.5	348	17.5	7.5	9.2	M12	M8x40	8	40	9.000	6
EY.321200	126	144	102	102	82	38	32	46	ø10x30	18.5	530	27	11.5	12.5	M16	M12x65	14	60	20.000	10
EY.501600	174	200	140	140	113	53	50	64	ø12x40	25	530	40	15.5	17	M24	M16x90	20	80	40.000	14

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



Max. 150°C



EW
98
EB
98



EZ

EJECTION



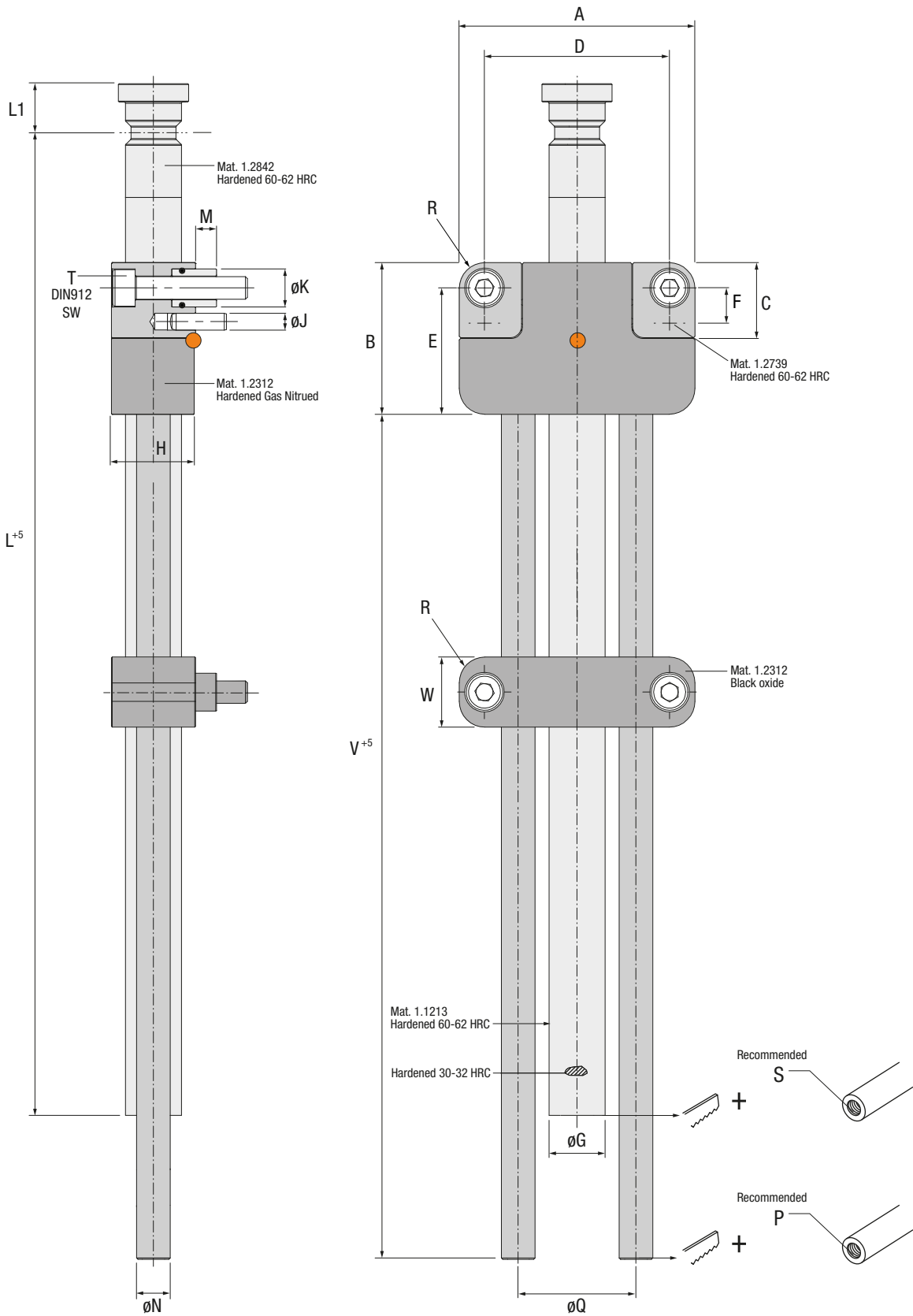
Max. 150°C



EXTERNAL SYNCHRONIZED PLATES

ES Sincronizador de Placas Externo DE Externe Plattensynchronisation
IT Sincronizzatore di Piastre Esterno PT Sincronizador Chapas Externo Externa FR Synchronisation Mouvement Plaques

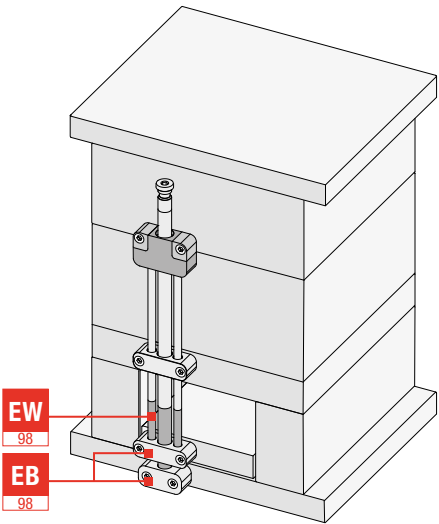
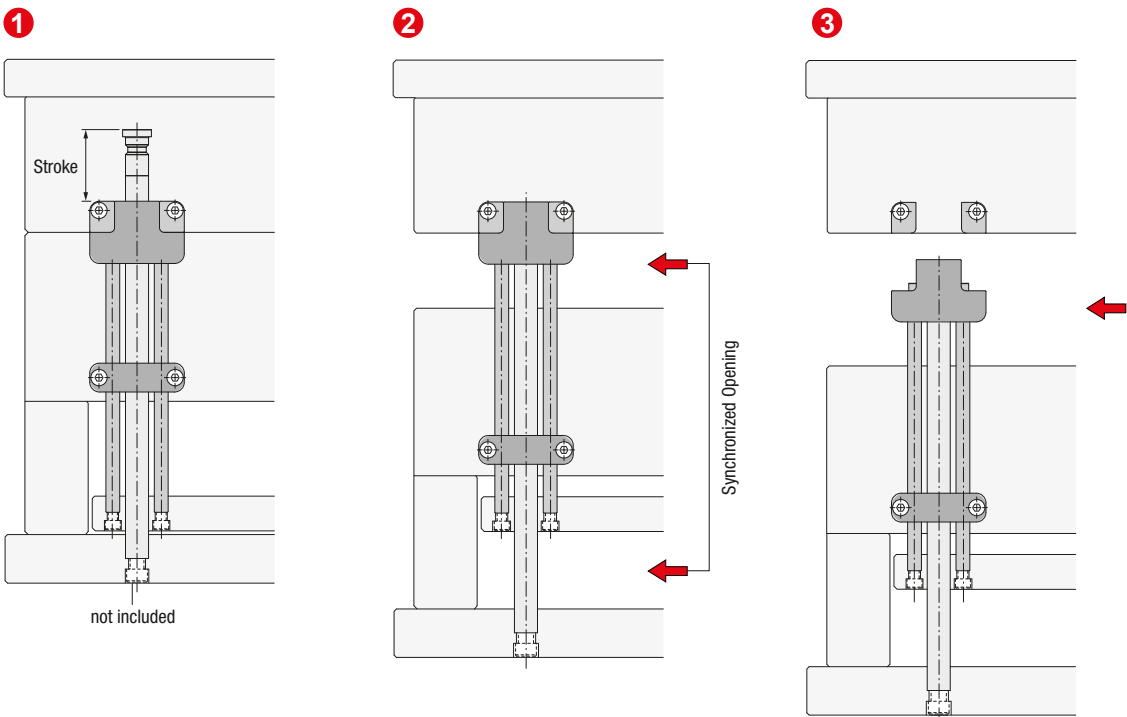
● Cad Insertion Point



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)	SW
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	5
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	6
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	10
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	14

INSTALLATION GUIDELINES

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



EW 98
EB 98

EZ

EJECTION



Max. 150°C



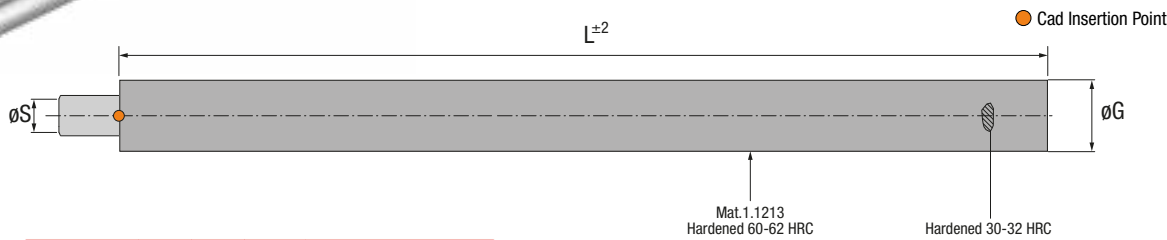
EW

EJECTION



Max. 150°C

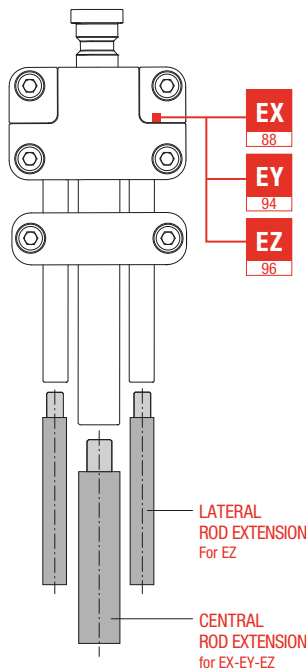
EX-EY-EZ ROD EXTENSION
ES Alargo EX-EY-EZ DE EX-EY-EZ Verlängerungsstange
IT Estensione EX-EY-EZ PT Extensor para EX-EY-EZ FR Extension pour EX-EY-EZ



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 extension latérales pour chacune EZ.



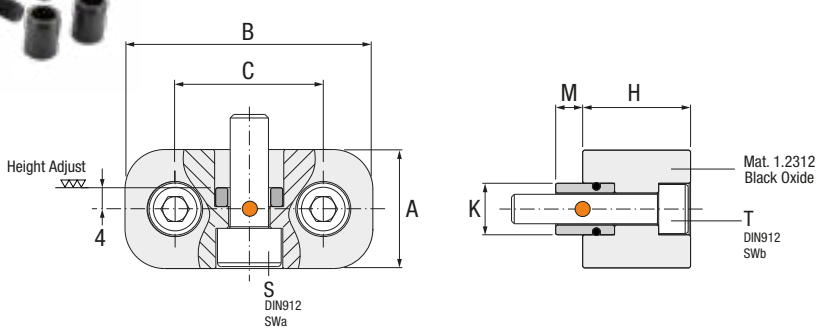
EB

EJECTION



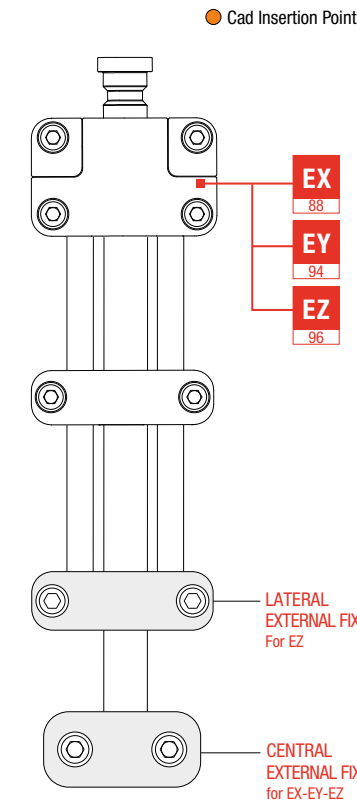
Max. 150°C

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	S	SWa	SWb	T
EB.140020	24	50	30	10.5	22	5.5	M8x25	5	6	M6x30
EB.200025	34	60	38	13.5	30	7.5	M12x35	6	10	M8x40
EB.320042	50	86	52	18.5	46	11.5	M16x45	10	14	M12x65
EB.500060	66	100	64	25	64	15.5	M24x60	14	19	M16x90

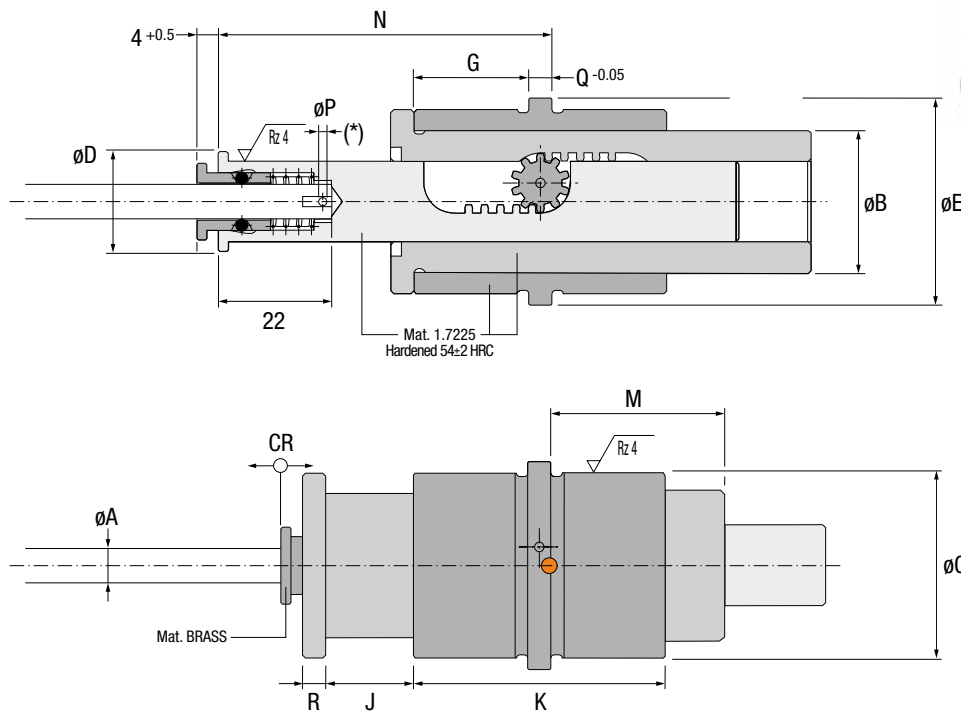
LATERAL EXTERNAL FIXING										
Ref.	A	B	C	K	H	M	S	SWa	SWb	T
EB.140824	20	62	48	10.5	22	5.5	M5x20	5	4	M6x30
EB.201234	25	84	66	13.5	30	7.5	M8x25	6	6	M8x40
EB.322050	42	126	102	18.5	46	11.5	M12x50	10	10	M12x65
EB.502566	60	174	140	25	64	15.5	M16x60	14	14	M16x90



ACCELERATED EJECTOR

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

Cad Insertion Point

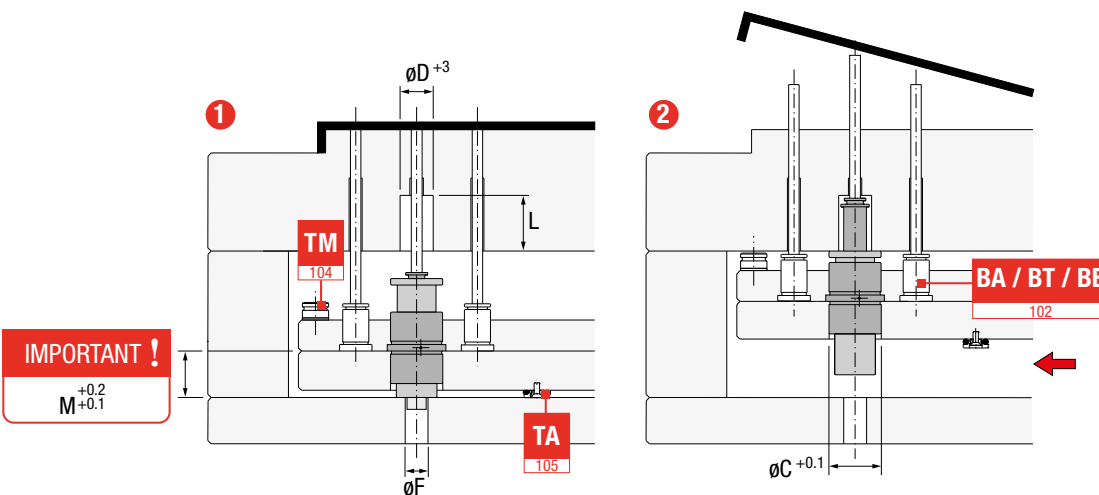


Ref.	A	B	C	D	E	F	G	J	K	L	M	N	P	Q	R	CR (N)
AE.031620	3	16	20	12.5	22	13	14	8	32	22	17	37	-	4	3	1.800
AE.041620	4	16	20	12.5	22	13	14	8	32	22	17	37	-	4	3	1.800
AE.052430	5	24	30	16	34	16	20	15	44	36	27	57	2	4	3	2.800
AE.062430	6	24	30	16	34	16	20	15	44	36	27	57	2	4	3	3.800
AE.082430	8	24	30	17	34	17	20	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 antgiro para los expulsores con forma. (excepto AE.031620 & AE.041620)
(*) Verdrehsicherung 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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AE

EJECTION



Patented
Max. 150°C

LR

EJECTION



Patented

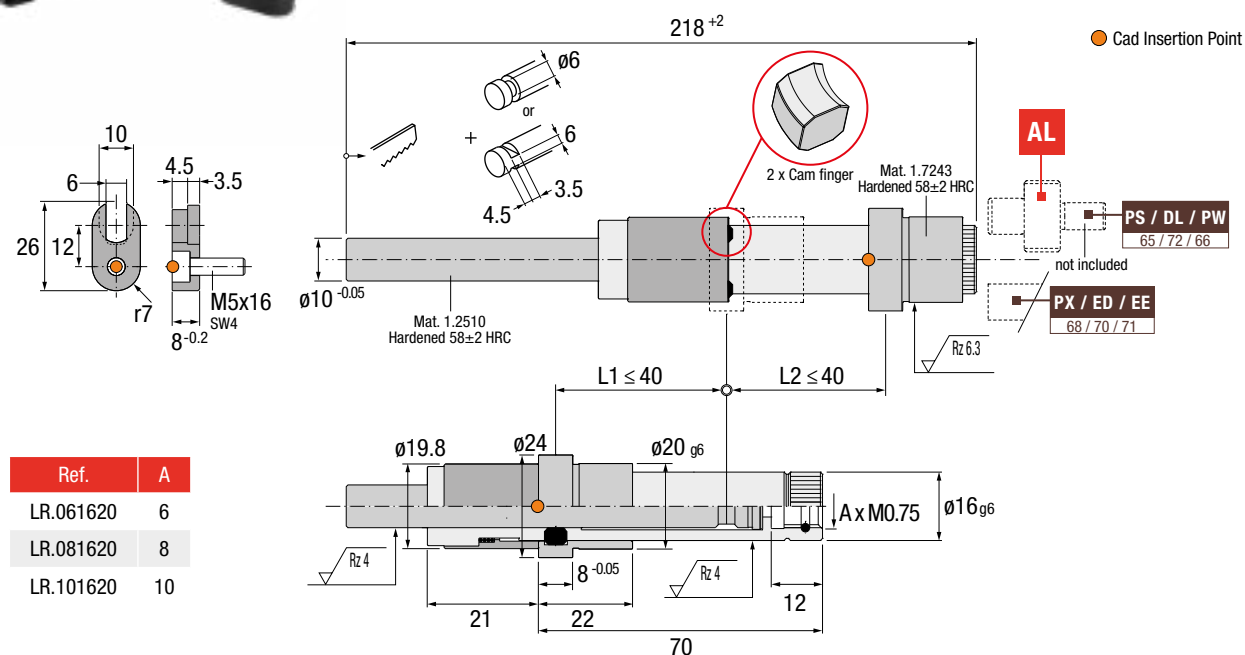


Max.
150°C

Ref.	A
LR.061620	6
LR.081620	8
LR.101620	10

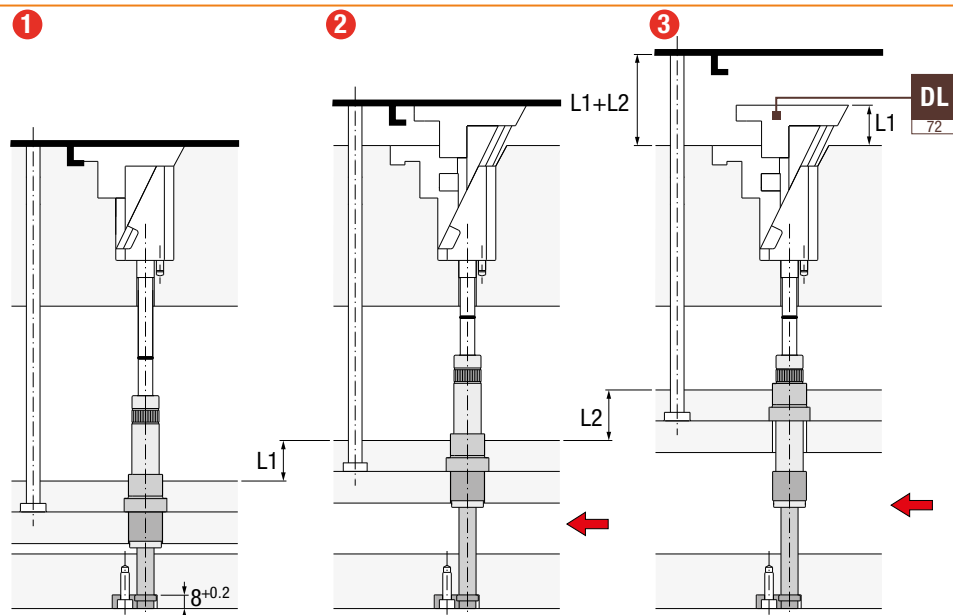
THREADED LIMITER

ES Limitador con Rosca **DE** Auswerfer - Begrenzer mit Gewindeaufnahme
IT Limitatore Filettato **PT** Limitador com Rosca **FR** Limiteur avec Vis



- Installation Guidelines

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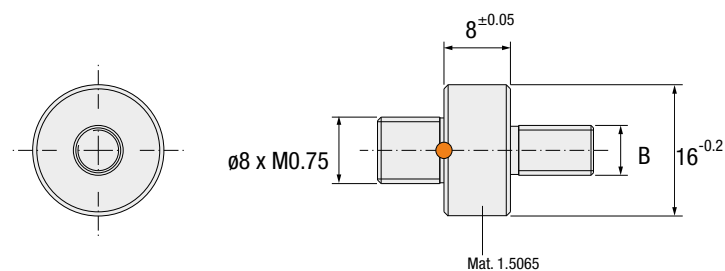


AL

EJECTION



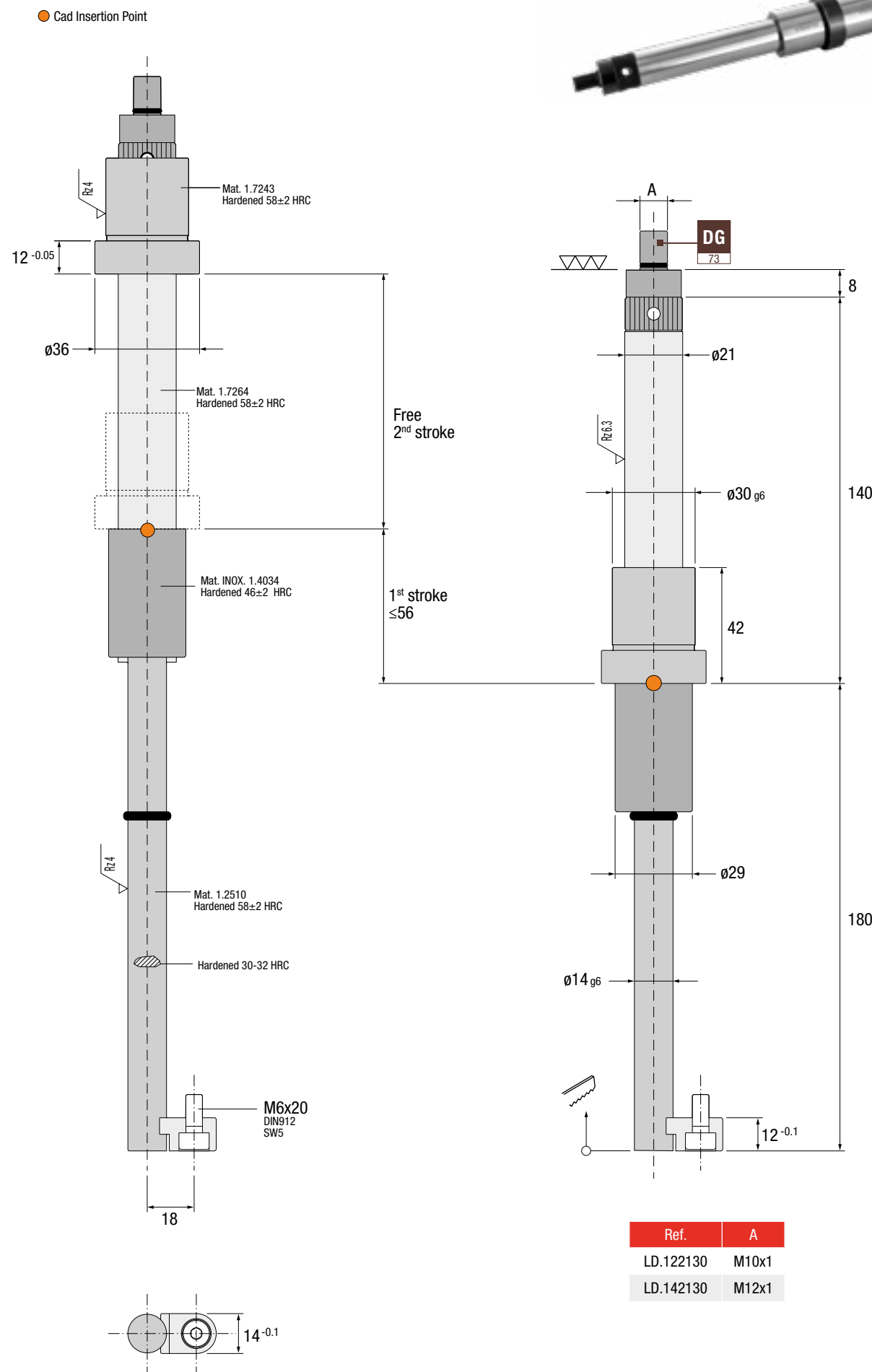
Max.
150°C



Ref.	B	Compatible With
AL.0800M4	M4x10	LR.081620
AL.0800M5	M5x10	LR.081620
AL.0800M6	M6x10	LR.081620
AL.0800M8	M8x10	LR.081620

DOG LIFTER LIMITER

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



LD

EJECTION



Patented



Max.
150°C

Ref.	A
LD.122130	M10x1
LD.142130	M12x1

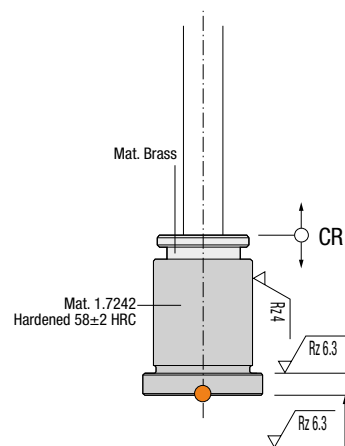
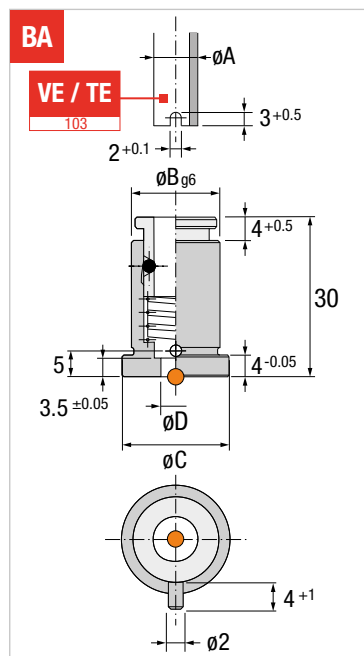
 PLAY

BA-BE-BT

EJECTION

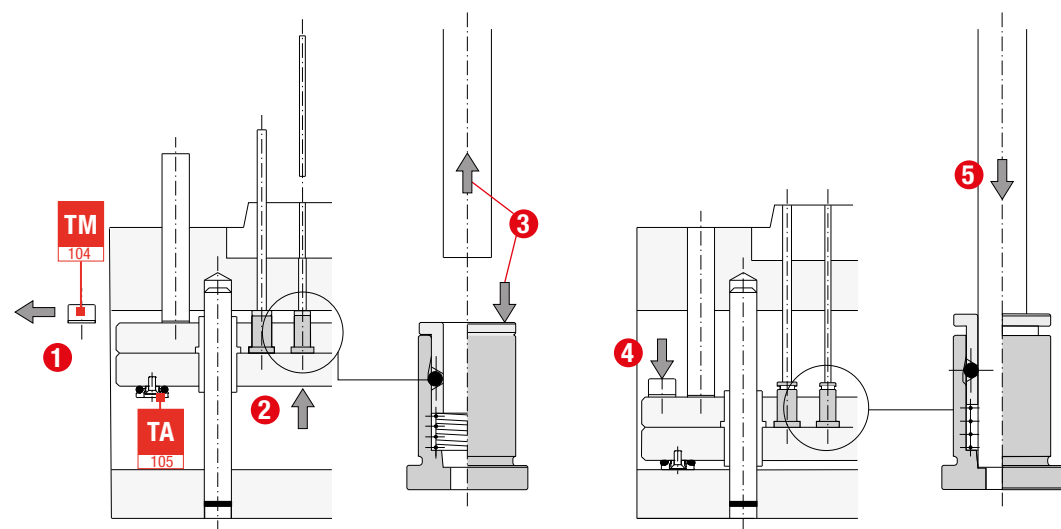


Patented



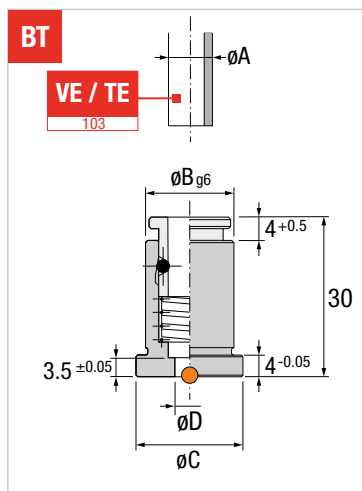
- Installation Guidelines

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EJECTOR BASE

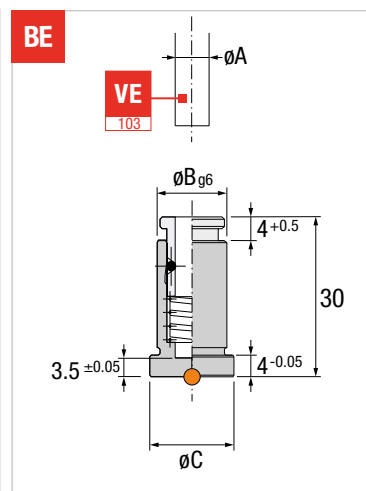
ES Base Expulsora DE Aufnahme für Auswerfer
IT Base Espulsore PT Base de Extractores FR Embases d'Éjection



Ref.	A	B	C	D	CR (N)
BA.061418	6	14	18	3.5	≥ 3.800
BA.081620	8	16	20	5.5	≥ 4.700
BA.101822	10	18	22	7	≥ 6.400
BA.122024	12	20	24	9	≥ 7.600

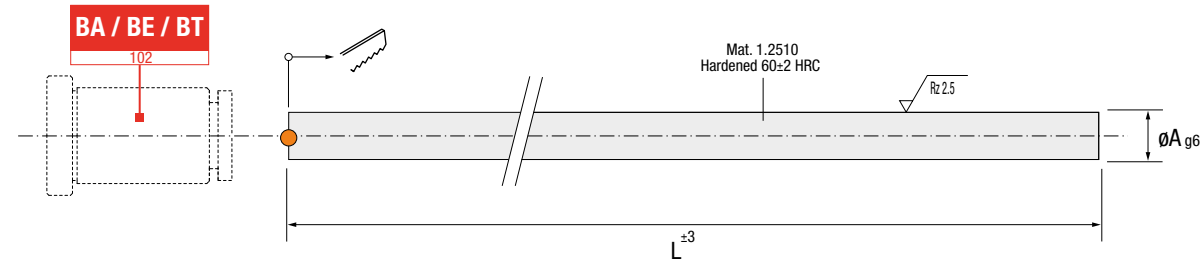
Ref.	A	B	C	D	CR (N)
BT.061418	6	14	18	4.2	≥ 3.800
BT.081620	8	16	20	6.2	≥ 4.700
BT.101822	10	18	22	7	≥ 6.400
BT.122024	12	20	24	9	≥ 7.600

Ref.	A	B	C	CR (N)
BE.031115	3	11	15	≥ 1.800
BE.041216	4	12	16	≥ 1.800
BE.051317	5	13	17	≥ 2.800



HEADLESS EJECTOR PIN

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



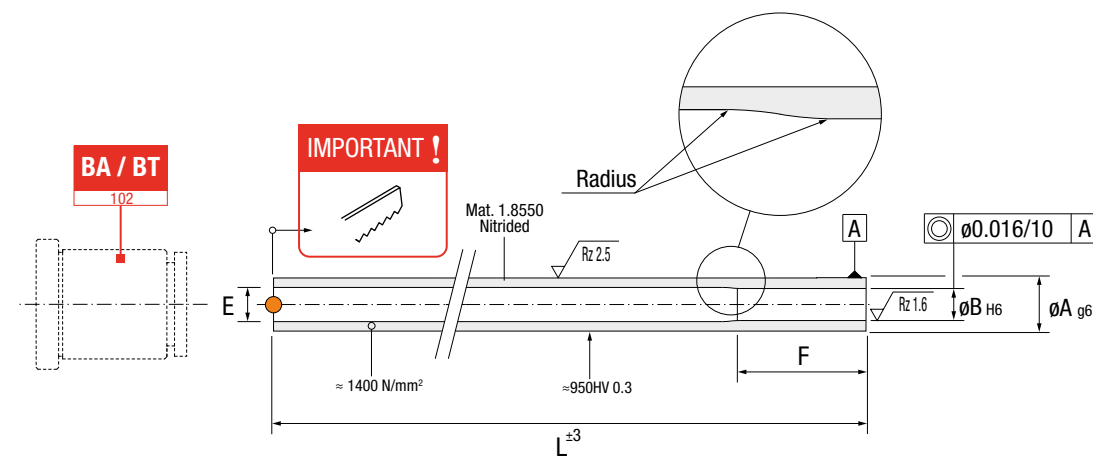
IMPORTANT!

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	1000
VE.100...	10	600	800	

HEADLESS EJECTOR SLEEVE

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



IMPORTANT!

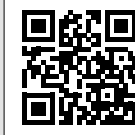
Indicate the desired **L** dimension after the reference.
Indicar la cota **L** necesaria después de la referencia.
Gewünschte Länge **L** angeben.
Indicare la quota **L** desiderata dopo il codice.
Indique a dimensão **L** desejada depois da referência.
Indiquer longueur (**L**) désirée après référence.

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



VE

EJECTION

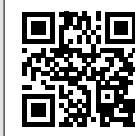


Patented



TE

EJECTION



Patented



DP

EJECTION

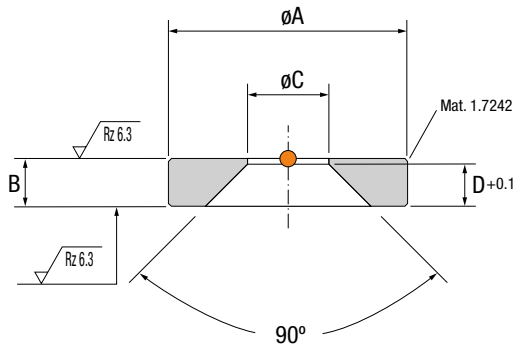


Max.
150°C



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

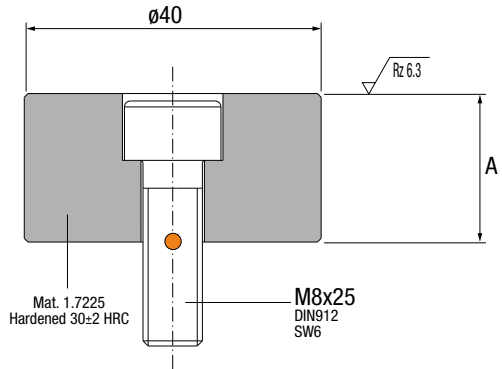
Cad Insertion Point



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

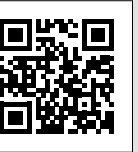
Cad Insertion Point



Ref.	A
TR.204008	20
TR.404008	40

TR

EJECTION



Max.
150°C



TM

EJECTION

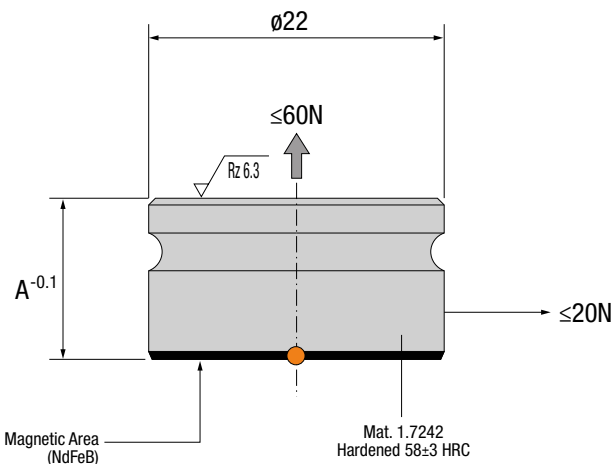


Max.
80°C



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

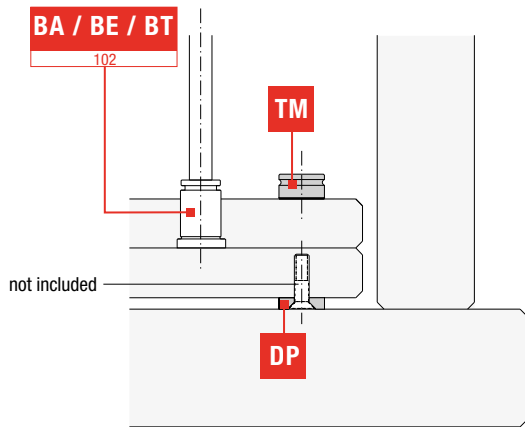
Cad Insertion Point



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

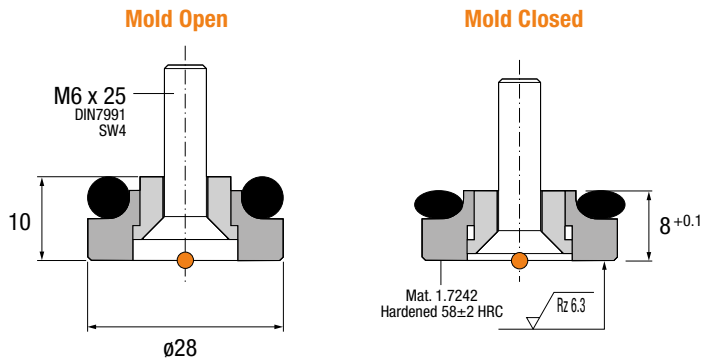
Installation Guidelines

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 Batente Amortecedor FR Repos de Batterie avec Amortissement

Cad Insertion Point

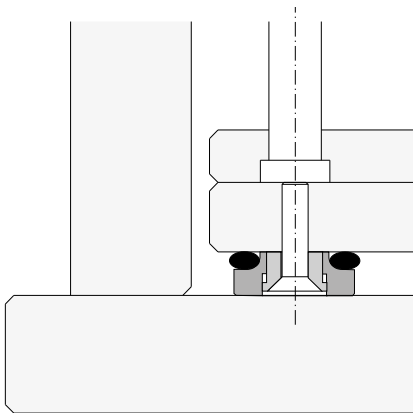


Ref.
TA.280806

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.

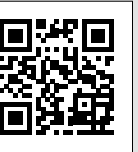
Installation Guidelines

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



TA

EJECTION



Max.
150°C





4

TRACEABILITY

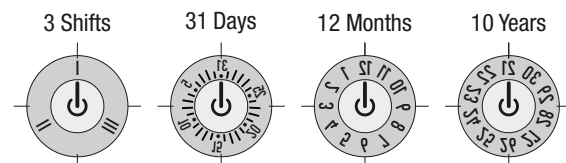
TRACEABILITY INDEX

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

110/ FR Remote Date Stamp Fechador Remoto Ferngesteuerter Datumsteller Datario Remoto Remote Date Stamp Dateur à Reglage Exterieur 	110/ CF 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 	117/ FP Date Stamp Plus Fechador Anual Plus Datumsteller Plus Datario Annuale Plus Datador Anual Plus Dateur Plus 	117/ EF Removal Jig Extractor Fechador Abzieher für Datumsteller Estrattore Datario Extrator de Datador Extracteur pour Dateur 		
110/ MN Remote Comand Mando Remoto Fernbedienbar Comando Remoto Comando Remoto Commande à Distance 	112/ TK Turning Key Llave de Giro Montageschlüssel Chiave der Aggiornamento Chave de Rotação Clé de Changement d'Information 	112/ CT Shaft Cutting Jig Util 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 	118/ FX Xtra Date Stamp Fechador Extra Xtra Datumsteller Datario Extra Datador Extra Dateur Extra 	118/ IX Xtra Insert Inserto Extra Xtra Einsatz Inserto Extra Postiço Extra Insert Extra 	119/ FD Double Date Stamp Fechador Doble Zweifach-Datumstempel Datario Doppio Datador Duplo Dateur Double 
113/ IR Recycling Insert Inserto Reciclaje Recyclingeinsätze Inserti di Riciclaggio Indicadores de Reciclagem Pion de Recyclage 	113/ IM Mark Insert Inserto Marca Einsätze für Symbole Inserto Simbolo Postiço de Marcas Insert de Marquage 	120/ FT Temperature Dater Fechador Temperatura Datumsteller, wärmebeständig Datario Temperatura Datador Temperatura Dateur Haute Température 	120/ IT Temperature Insert Inserto Temperatura Einsätze, wärmebeständig Inserto Temperatura Indicador Temperatura Insert Haute Température 		
114/ BI +II Interchangeable Insert Inserto Intercambiable Einsatz, austauschbar Inserto Intercambiabile Postiço Intermutável Ensemble Interchangeable 	114/ IG Turning Insert Inserto Giratorio Einsätze Drehbar Inserto Girante Postiço Giratório Insert Tournant 	115/ FU +IU Unit Date Stamp Fechador Unitario Datumstellereinheit Datario Unitario Datador Unitário Kit Mini Dateur 	121/ BM Block Base Base Monobloque Aufnahme Datumsblock Base Monoblocco Base Monobloco Multi Dateur 	121/ PM Block Insert Postiço Monobloque Einsätze für Datumsblöcke Inserto Monoblocco Postiço Monobloco Inserts Multi Dateur 	122/ CC Cycle Counter Contador Ciclos Zählwerk Conta Cicli Contador de Ciclos Compteur de Cycle 
116/ FA Date Stamp Fechador Anual Datumsteller Datario Annuale Datador Anual Corps Dateur 	116/ IA Date Insert Inserto Anual Einsätze für Datumsteller Inserto Datario Indicador Anual Insert Dateur 				



ES Fechador Remoto DE Ferngesteuerter Datumssteller
IT Datario Remoto PT Datador Remoto FR Dateur à Reglage Extérieur



	3 Shifts	31 Days	12 Months	10 Years	A
Raised lettering 0.005 ± 0.001 	FR.08HR03	FR.08HR31	FR.08HR12	FR.08HR10--	8
	FR.12HR03	FR.12HR31	FR.12HR12	FR.12HR10--	12
Recessed lettering 0.1 $+ 0.05$ 	FR.08LR03	FR.08LR31	FR.08LR12	FR.08LR10--	8
	FR.12LR03	FR.12LR31	FR.12LR12	FR.12LR10--	12

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.

ES

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

Technical drawing of a mechanical assembly, showing a side view and a corner detail.

Side View Dimensions:

- Overall length: $L \pm 5$
- Tube length: $M \pm 10$
- Tube outer diameter: $\varnothing 6.2$
- Tube inner diameter: $\varnothing 3.2$
- Labels: FLEXIBLE SHAFT, TUBE

Corner Detail Dimensions:

- Corner radius: R
- Outer diameter: $\varnothing 6$
- Width: $W \pm 2$
- Height: $100 +10$
- Label: CORNER

Reference Table:

Ref.
CF.060600
CF.061200

*Special for

Ref.	L	M	R	S	T	U	W
CF.060600	600	500	25	30	40	45	40
CF.061200	1200	1100	40	50	60	60	60

*Special for extensions

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

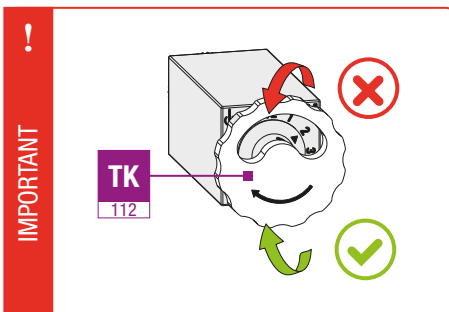
Technical drawing of the watch case with dimensions:

- Case diameter: 20 ± 0.1
- Case thickness: 6
- Crown diameter: $\varnothing 8 \pm 0.1$
- Crown height: 20 ± 0.1

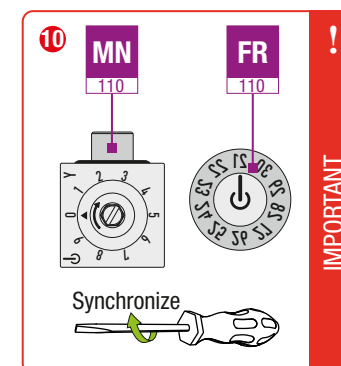
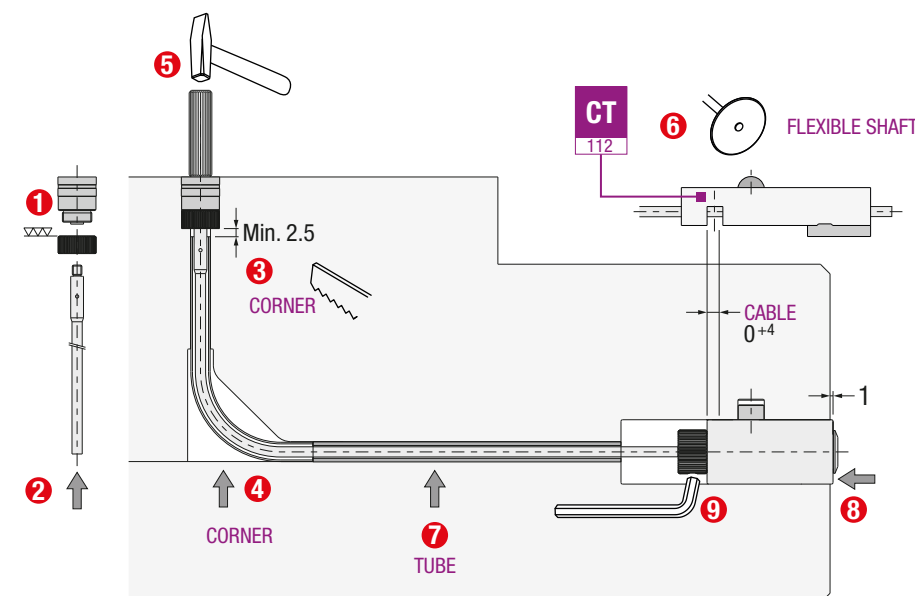
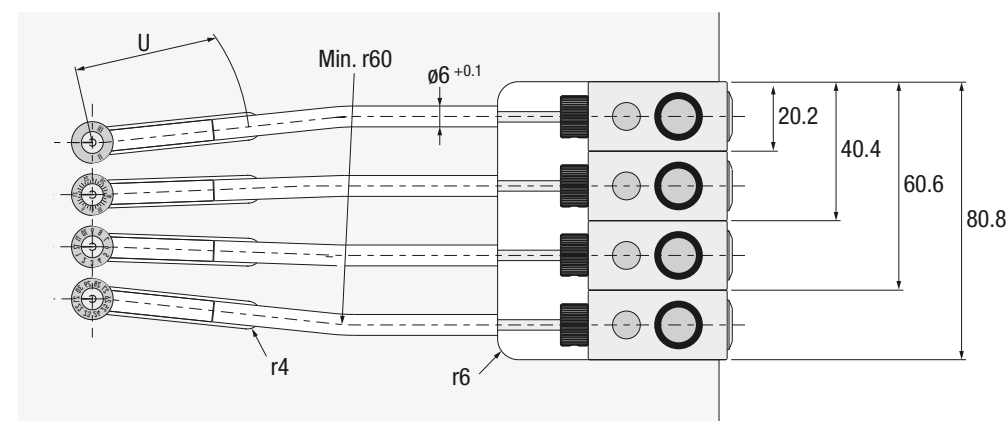
Four dial options are shown:

- 3 Shifts (I, II, III)
- 31 Days (1-31)
- 12 Months (1-12)
- 10 Years (1-10)

Ref.	# of Positions
MN.202003	3 (Shifts)
MN.202010	10 (Years)
MN.202012	12 (Months)
MN.202031	31 (Days)



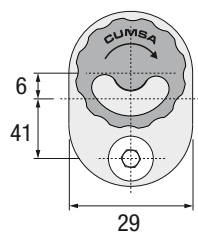
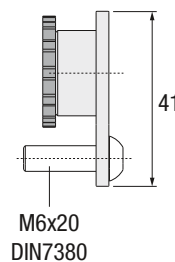
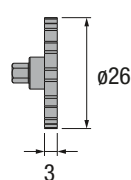
ES Consejos de Instalación **DE** Richtlinien zur Installation
IT Consigli di Installazione **PT** Instruções de Instalação **FR** Mode d'Installation

[illegible]

 PLAY

TK

TRACEABILITY

TURNING KEY
SUPPORTTURNING
KEY

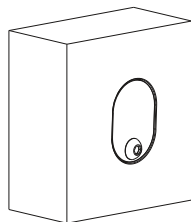
● Cad Insertion Point

Ref.

TK.412903

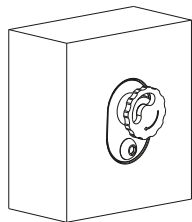
Warehouse and transport position

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



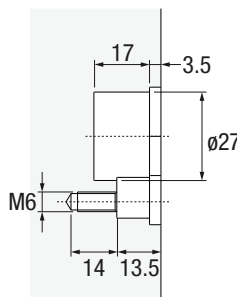
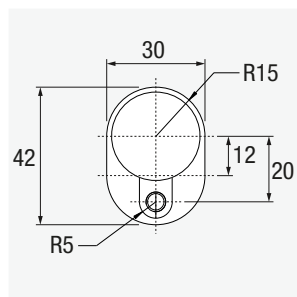
Molding position

Posición en producción
Werkzeugpositionfixierung
Posizione di stampaggio
Posição de molde em injeção
Position lors de la production



Installation Guidelines

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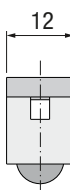
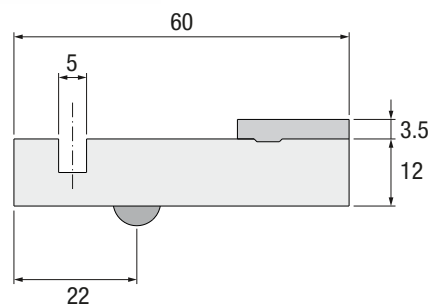


SHAFT CUTTING JIG

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

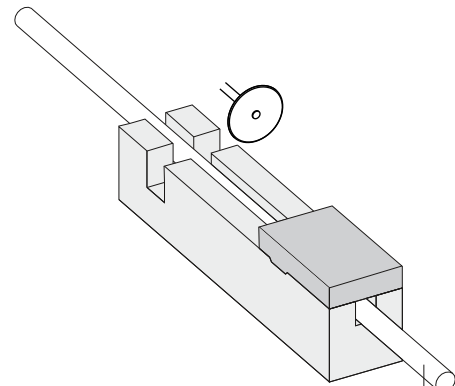
CT

TRACEABILITY



Ref.

CT.601212

FLEXIBLE
SHAFT

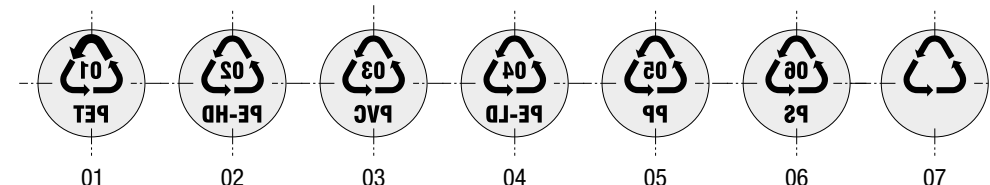
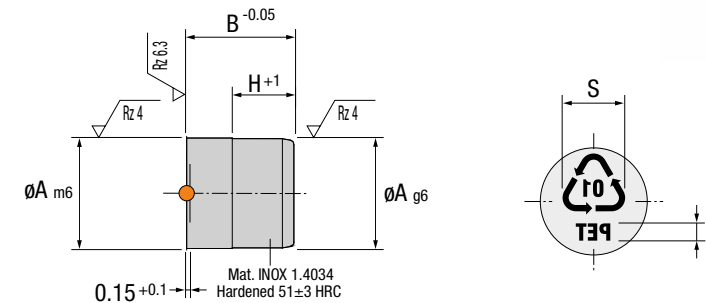
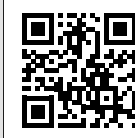
RECYCLING INSERT

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



IR

TRACEABILITY



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

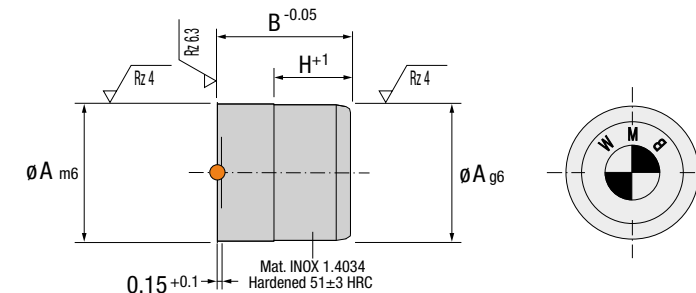
IMPORTANT !

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

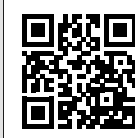
ES Inserto Marca DE Einsätze für Symbole
IT Inserto Simbolo PT Posição de Marcas FR Insert de Marquage

● Cad Insertion Point



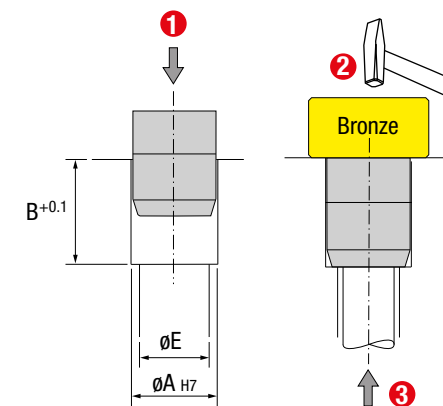
IM

TRACEABILITY



Installation Guidelines

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



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.

BI+II

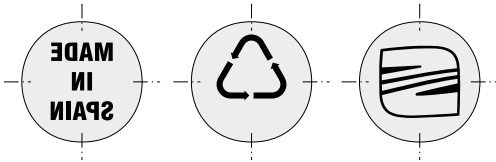
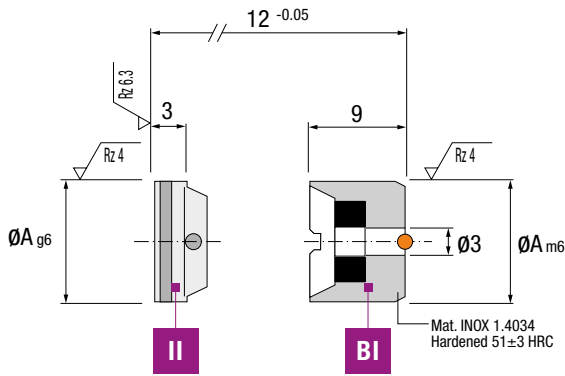
TRACEABILITY



Max. 80°C

INTERCHANGEABLE INSERT
ES Inserto Intercambiable DE Einsätze Austauschbar
IT Inserto Intercambiabile PT Postiço Intermutável FR Ensemble Interchangeable

Cad Insertion Point



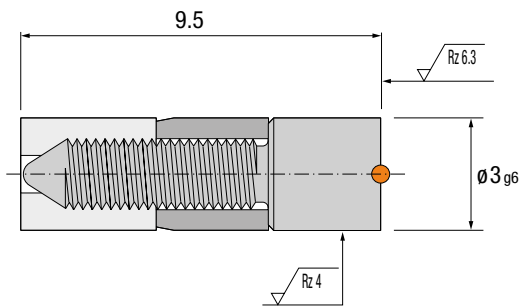
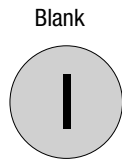
Ref.	A	E	Ref.	Blank Ref.
BI.101209	10	6	II.101203	II.101203-BLANK
BI.121209	12	8	II.121203	II.121203-BLANK
BI.161209	16	10	II.161203	II.161203-BLANK

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.

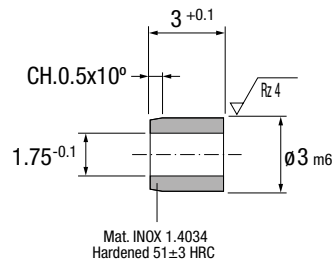
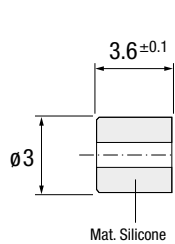
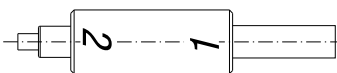
UNIT DATE STAMP
ES Fechador Unitario DE Datumstellereinheit
IT Datario Unitario PT Datador Unitário FR Kit Mini Dateur

Cad Insertion Point

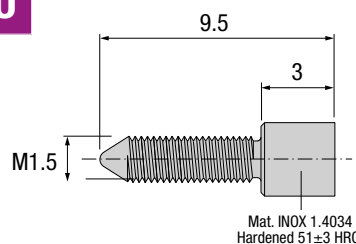
FU



Supplied also with **UM** / Entregado también con el **UM** / **UM** im Lieferumfang enthalten
Fornito con il particolare **UM** / Também fornecido como **UM** / Fournis avec unité de montage **UM**



IU



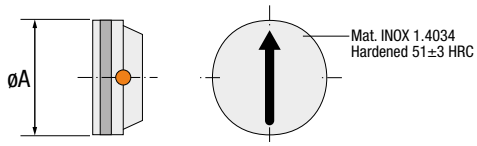
Only replacements / Sólo recambios / Nur Ersatz
Solo ricambi / Apenas substituições / Insert seulement

12 Months	12 Months+Year	Blank
FU.0310SF	FU.031012-..	FU.031000
IU.0310SF	IU.031095-..	IU.031000

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.

TURNING INSERT

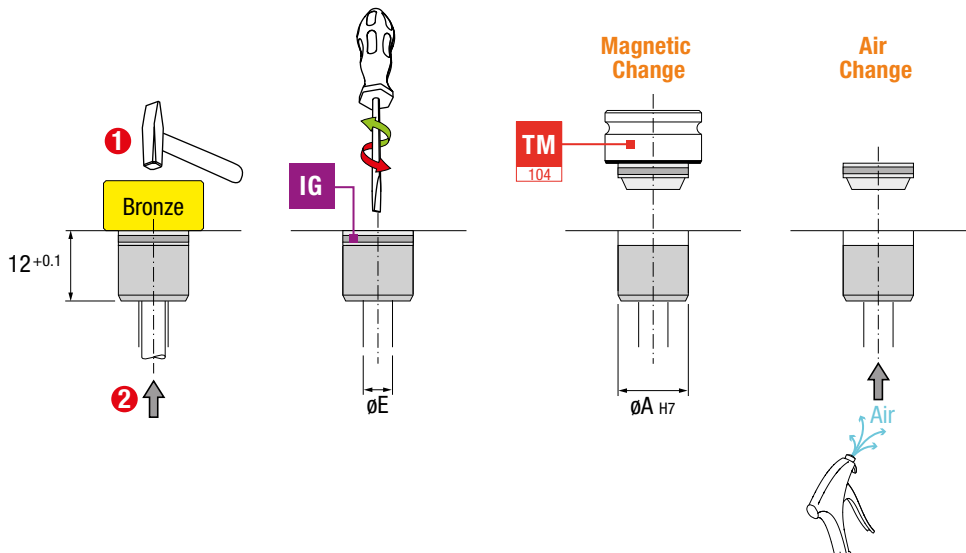
ES Inserto Giratorio DE Einsätze Drehbar
IT Inserto Girante PT Postiço Giratório FR Insert Tournant



Ref.	A
IG.101203	10
IG.121203	12
IG.161203	16

Installation Guidelines

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IG

TRACEABILITY



Max. 80°C

FU+IU

TRACEABILITY



Patented

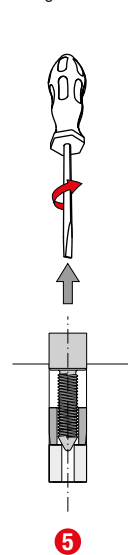
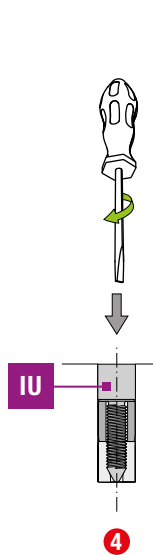
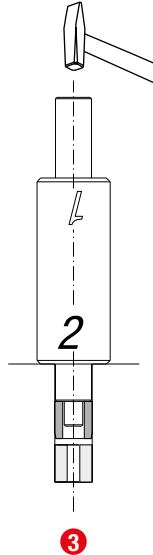
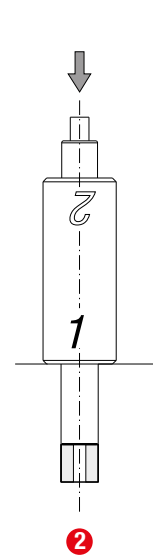
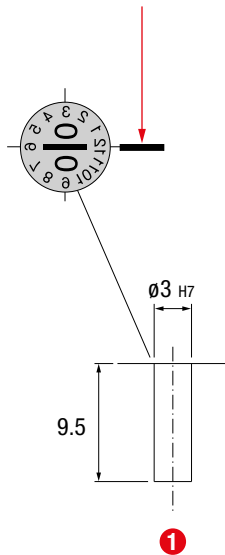
Max. 150°C

Installation Guidelines

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

Engrave on the mould.

ES Grabar en el molde.
DE Gravur an der Form.
IT Incidere sullo stampo.
PT Gravar no molde.
FR Gravure sur le moule.



Year change.

ES Cambio de año.
DE Jahreswechsel.
IT Cambio dell'anno.
PT Mudança de ano.
FR Changement de l'année.

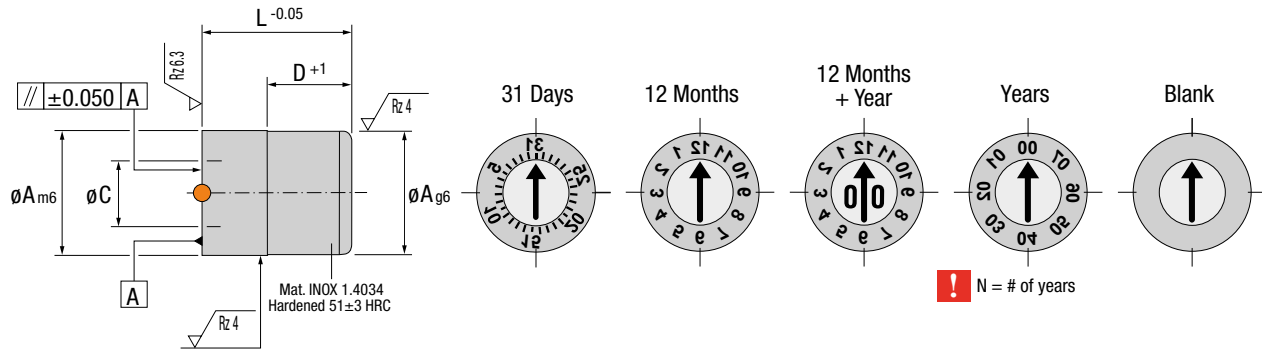


FA

DATE STAMP

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

● Cad Insertion Point



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.

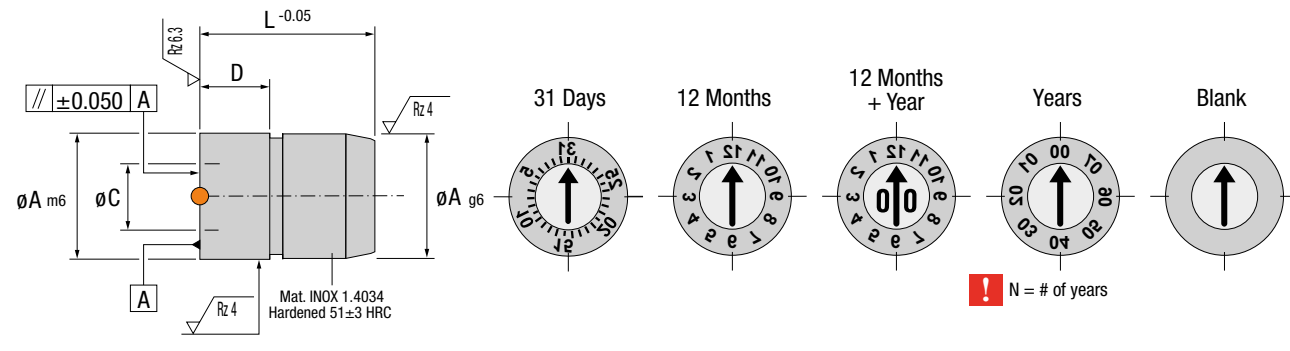
IMPORTANT !
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence.

31 Days	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.063231	FA.0632SF	FA.063212-..	FA.063205-..	FA.063200	6	3.2	12	4	20	5
FA.084731	FA.0847SF	FA.084712-..	FA.084705-..	FA.084700	8	4.7	12	6	20	5
FA.105731	FA.1057SF	FA.105712-..	FA.105706-..	FA.105700	10	5.7	12	8	20	6
FA.126731	FA.1267SF	FA.126712-..	FA.126708-..	FA.126700	12	6.7	12	10	20	8
FA.168731	FA.1687SF	FA.168712-..	FA.168710-..	FA.168700	16	8.7	12	12	20	10
FA.200731	FA.2007SF	FA.200712-..	FA.200710-..	FA.200700	20	10.7	12	14	20	10

DATE STAMP PLUS

ES Fechador Anual Plus DE Datumsteller Plus
IT Datario Annuale Plus PT Datador Anual Plus FR Dateur Plus

● Cad Insertion Point



31 Days	12 Months	12 Months+ Year	Years	Blank	A	C	D	L	N
-	FP.0422SF	FP.042212-..	FP.042204-..	FP.042200	4	2.2	5.5	12	4
-	FP.0530SF	FP.053012-..	FP.053004-..	FP.053000	5	3	5.5	12	4
FP.063231	FP.0632SF	FP.063212-..	FP.063205-..	FP.063200	6	3.2	8	20	5
FP.084731	FP.0847SF	FP.084712-..	FP.084705-..	FP.084700	8	4.7	8	20	5
FP.105731	FP.1057SF	FP.105712-..	FP.105706-..	FP.105700	10	5.7	8	20	6
FP.126731	FP.1267SF	FP.126712-..	FP.126708-..	FP.126700	12	6.7	8	20	8
FP.168731	FP.1687SF	FP.168712-..	FP.168710-..	FP.168700	16	8.7	8	20	10
FP.200731	FP.2007SF	FP.200712-..	FP.200710-..	FP.200700	20	10.7	8	20	10

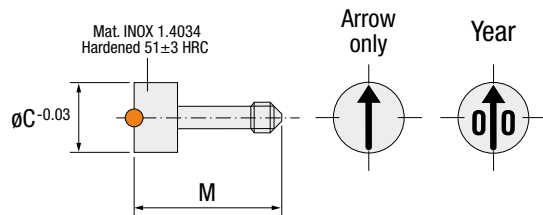
IMPORTANT !
Special engraving available under request.
Grabados especiales bajo demanda.
Andere Gravuren auf Anfrage.
Incisioni speciali su richiesta.
Gravações especiais por encomenda.
Gravure spéciale par commande.

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

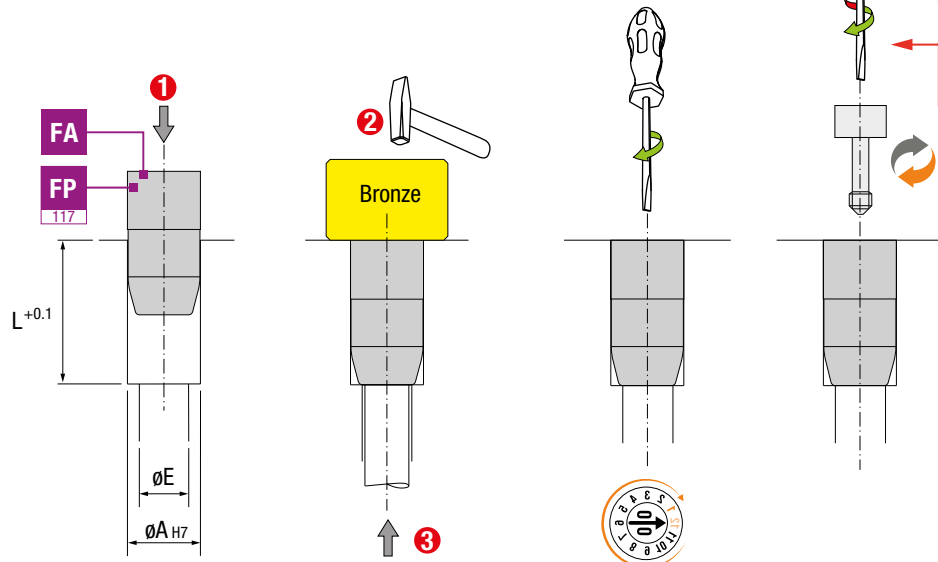


Installation Guidelines

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

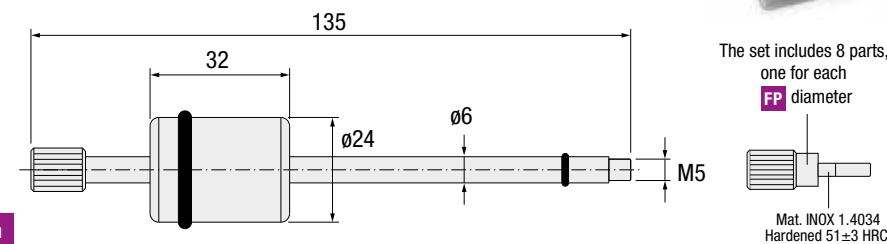
Replacement for FA and FP			
Arrow Only	Year	C	M
IA.2275SF	IA.2275..	2.2	8.1
IA.3075SF	IA.3075..	3	8.1
IA.3217SF	IA.3217..	3.2	17
IA.4717SF	IA.4717..	4.7	17
IA.5717SF	IA.5717..	5.7	17
IA.6717SF	IA.6717..	6.7	17
IA.8717SF	IA.8717..	8.7	17
IA.1007SF	IA.1007..	10.7	17

IMPORTANT !
CLICK!



REMOVAL JIG

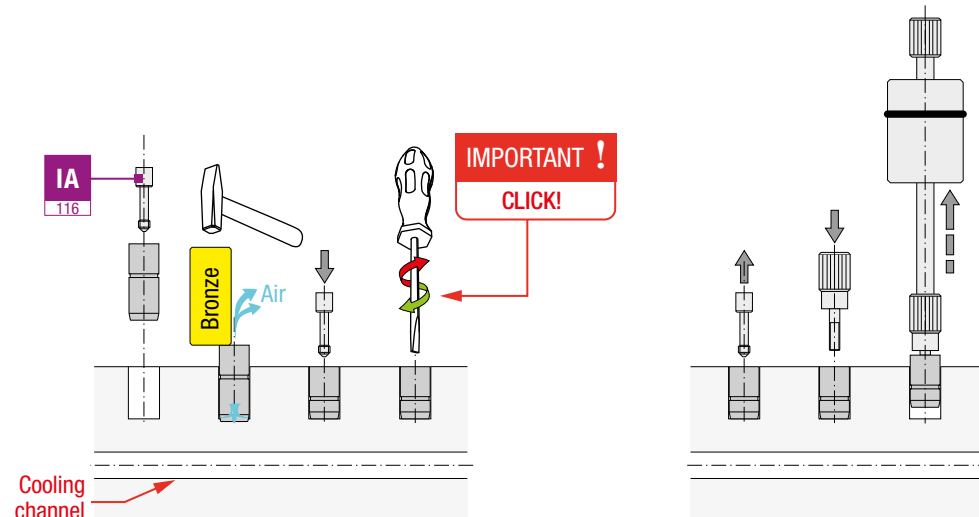
ES Extractor Fechador DE Abzieher für Datumsteller
IT Estrattore Datario PT Extrator de Datador FR Extracteur pour Dateur



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



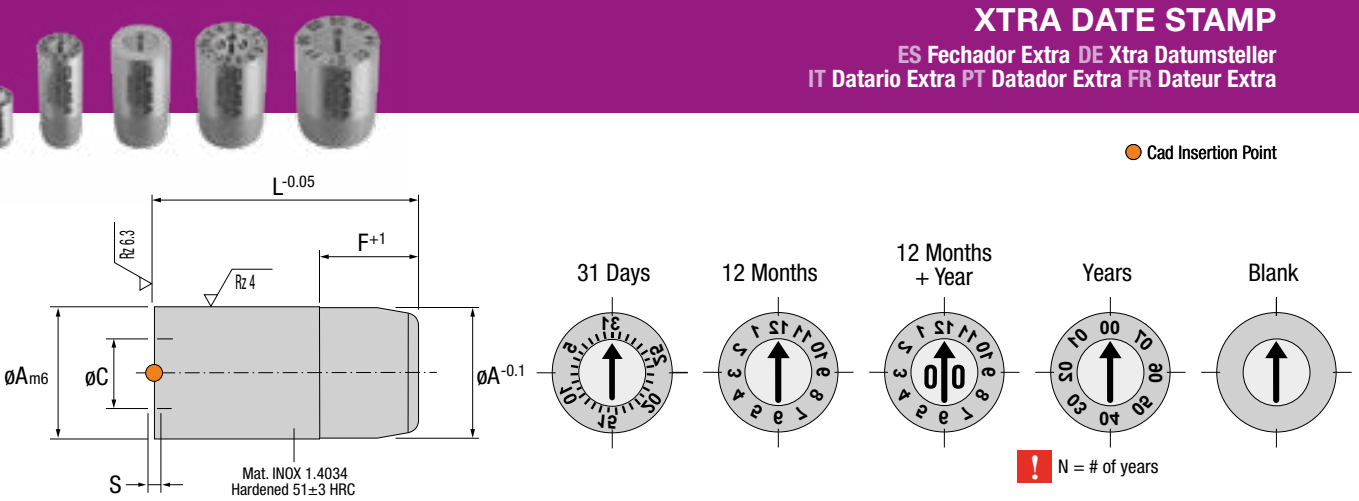
FX

TRACEABILITY



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.

31 Days	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.063231	FX.0632SF	FX.063212-..	FX.063205-..	FX.063200	6	3.2	4	6	16	5	0.25
FX.084731	FX.0847SF	FX.084712-..	FX.084705-..	FX.084700	8	4.7	6	6	16	5	0.25
FX.105731	FX.1057SF	FX.105712-..	FX.105706-..	FX.105700	10	5.7	8	6	16	6	0.35
FX.126731	FX.1267SF	FX.126712-..	FX.126708-..	FX.126700	12	6.7	10	6	16	8	0.35

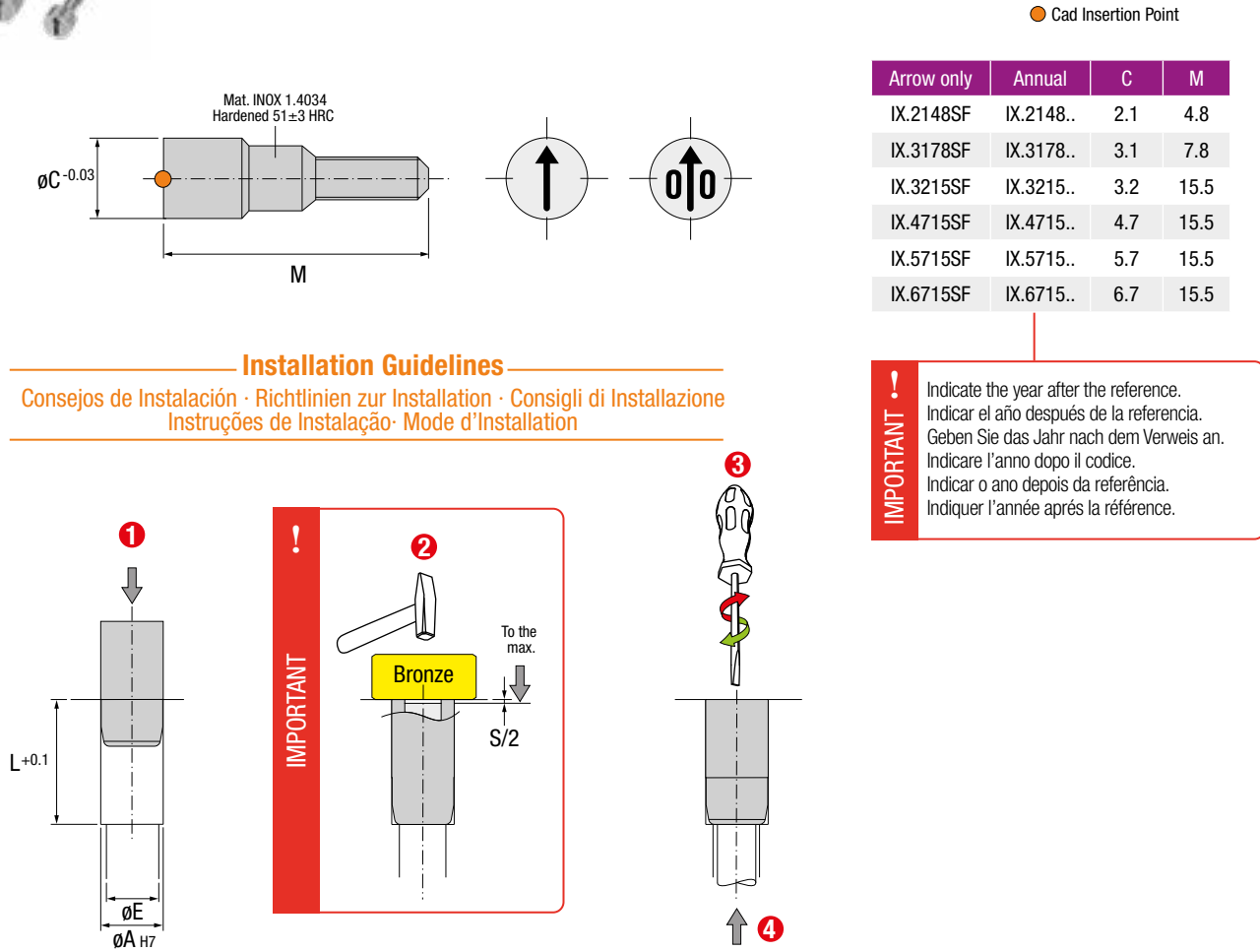
IX

TRACEABILITY



Patented

Max. 150°C

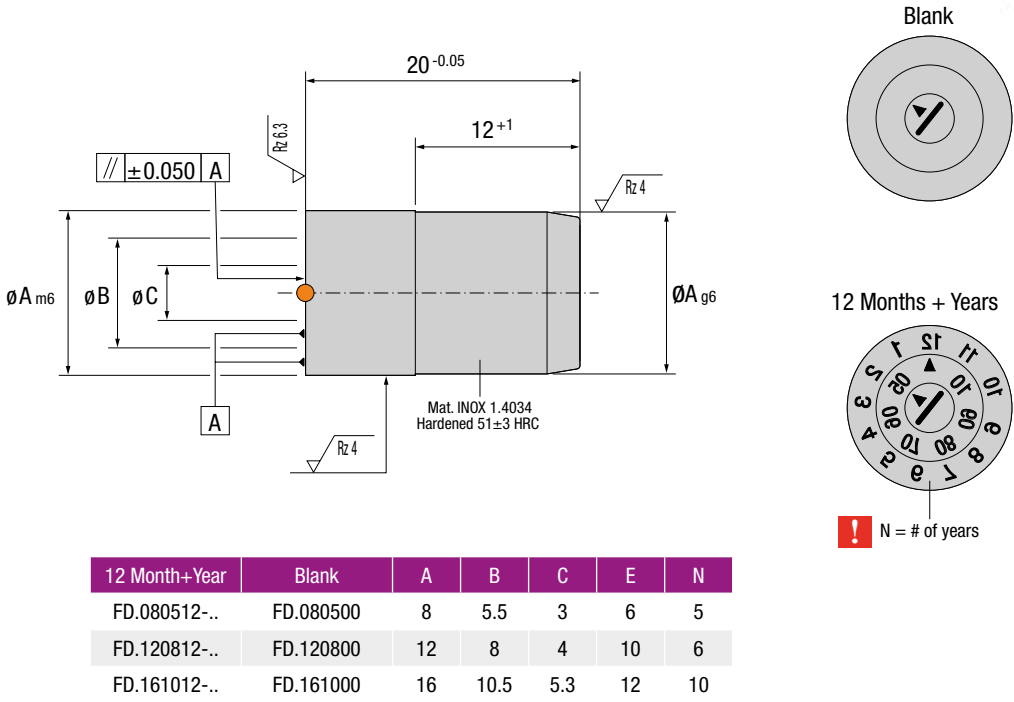


XTRA DATE STAMP

ES Fechador Extra DE Xtra Datumsteller
IT Datario Extra PT Datador Extra FR Dateur Extra

DOUBLE DATE STAMP

ES Fechador Doble DE Zweifach-Datumstempel
IT Datario Doppio PT Datador Duplo FR Dateur Double

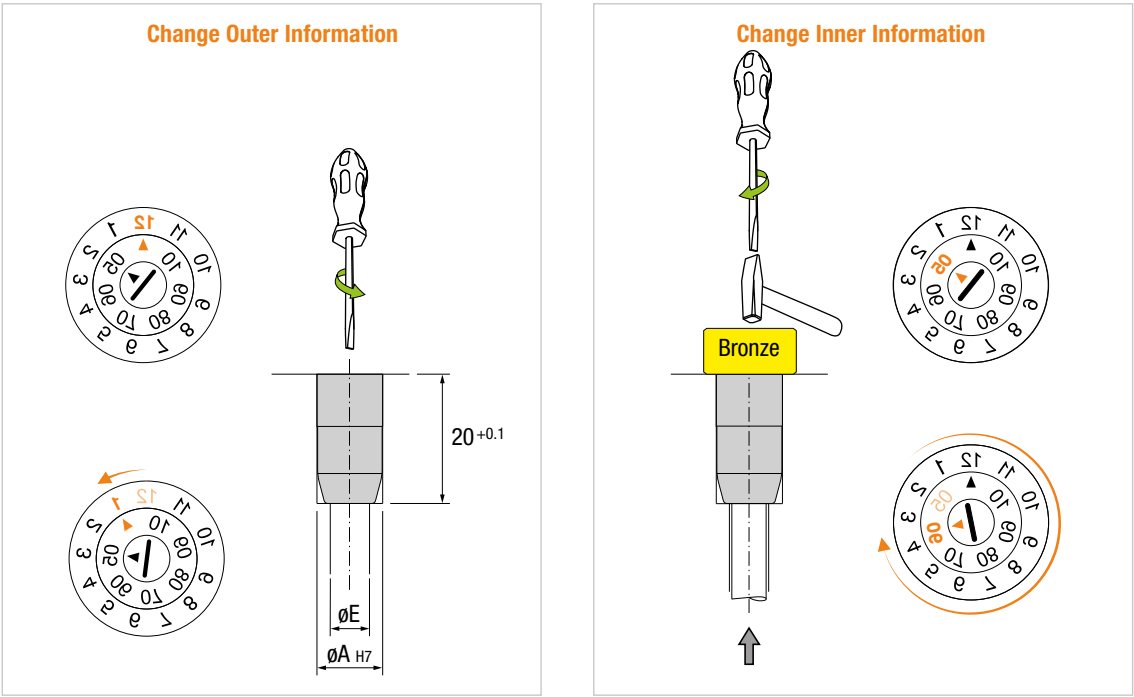


IMPORTANT ! Indicate the year after the reference. Indicar el año después de la referencia. Geben Sie das Jahr nach dem Verweis an. Indicare l'anno dopo il codice. Indicar o ano depois da referência. Indiquer l'année après la référence.

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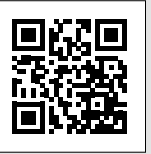
Installation Guidelines

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



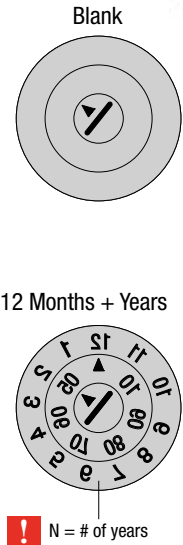
FD

TRACEABILITY



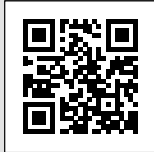
Patented

Max. 150°C



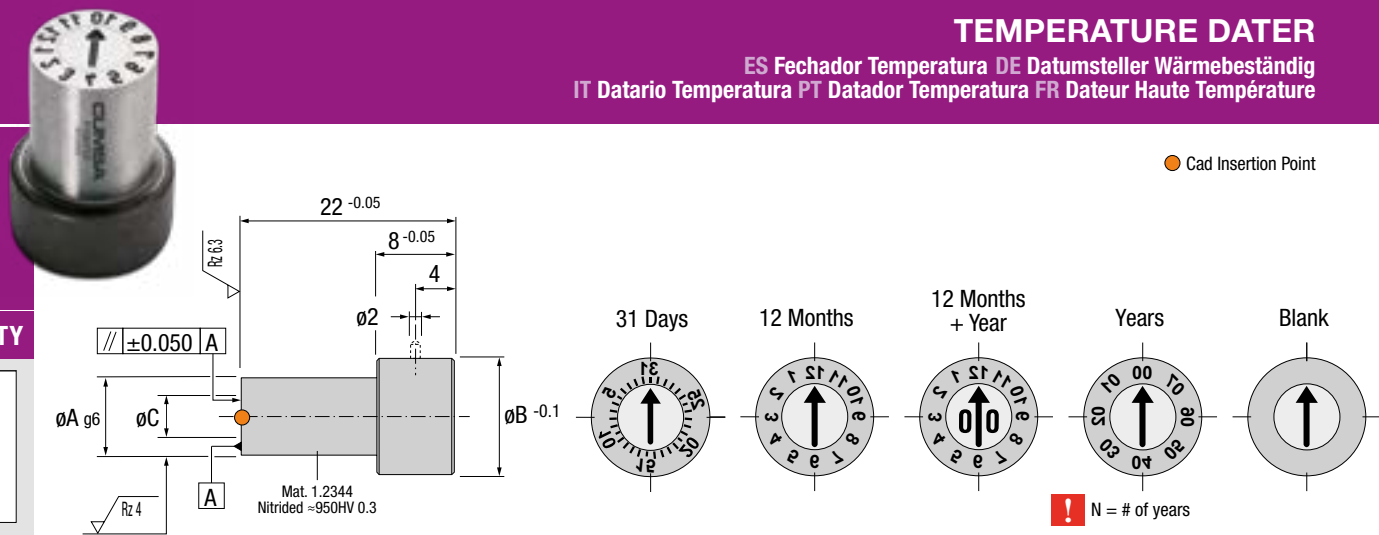
FT

TRACEABILITY



Patented

Max. 450°C



31 Days	12 Months	12 Month+Year	Years	Blank	A	B	C	D	N
FT.084731	FT.0847SF	FT.084712-..	FT.084705-..	FT.084700	8	12	4.7	11	5
FT.126731	FT.1267SF	FT.126712-..	FT.126708-..	FT.126700	12	16	6.7	12	8

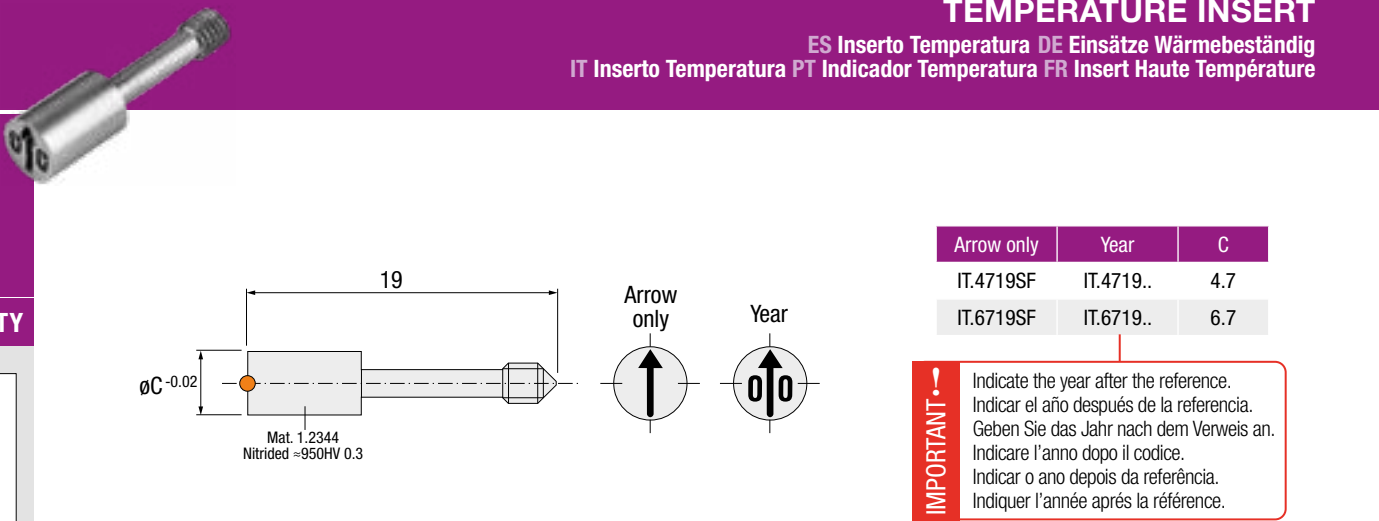
IMPORTANT !
Indicate the year after the reference.
Indicar el año después de la referencia.
Geben Sie das Jahr nach dem Verweis an.
Indicare l'anno dopo il codice.
Indicar o ano depois da referência.
Indiquer l'année après la référence du produit.

IT

TRACEABILITY



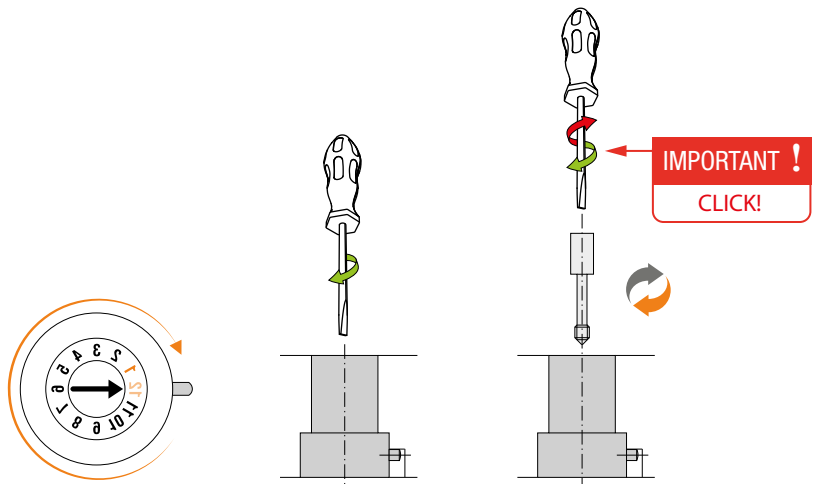
Max. 450°C



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

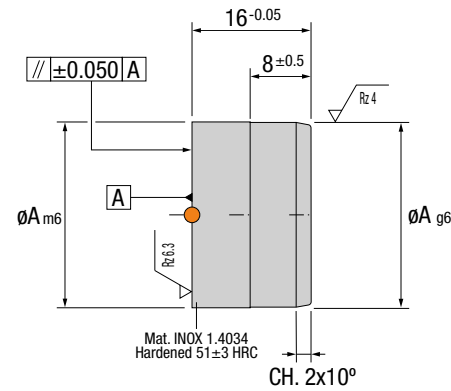
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



BLOCK BASE

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

Cad Insertion Point

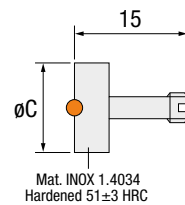


Ref.	A	C	E	#PM
BM.160603	16	6.5	8	3
BM.180604	18	6.5	8	4
BM.220903	22	8.8	10	3
BM.250904	25	8.8	10	4
BM.281103	28	11.5	12	3
BM.321104	32	11.5	12	4

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.

BLOCK INSERT

ES Postizo Monobloque DE Einsätze für Datumsblöcke
IT Inserto Monoblocco PT Postiço Monobloco FR Inserts Multi Dateur



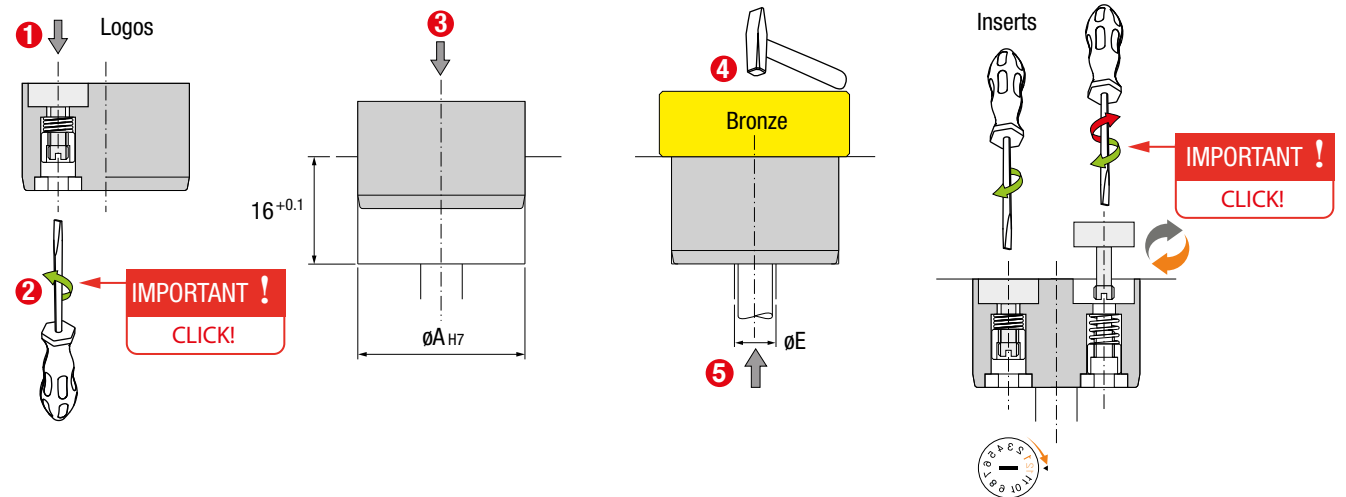
Ref.	C
PM.0615-...	6.5
PM.0915-...	8.8
PM.1115-...	11.5

IMPORTANT !
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Gravações especiais por encomenda.
Gravure spéciale par commande.

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

Installation Guidelines

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



BM

TRACEABILITY



Patented

Max. 150°C



PLAY

PM

TRACEABILITY



Patented

Max. 150°C

CC

TRACEABILITY



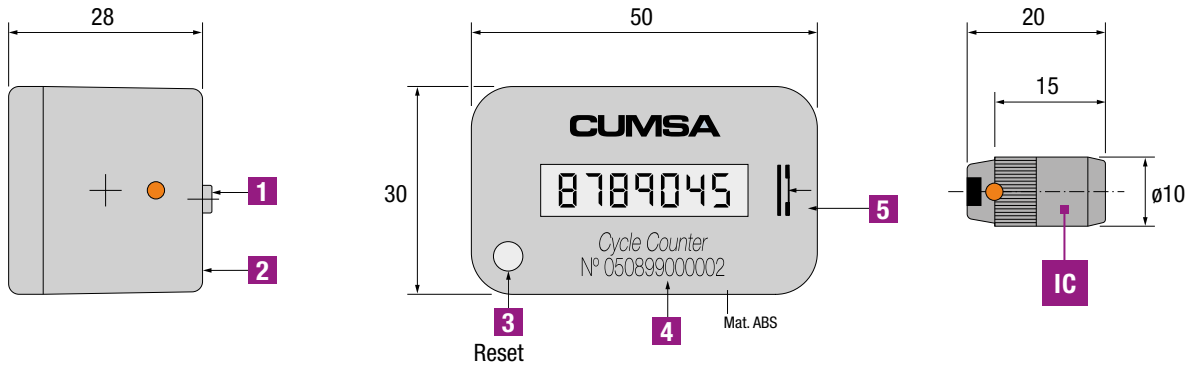
Patented

Max. 60°C



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

Cad Insertion Point

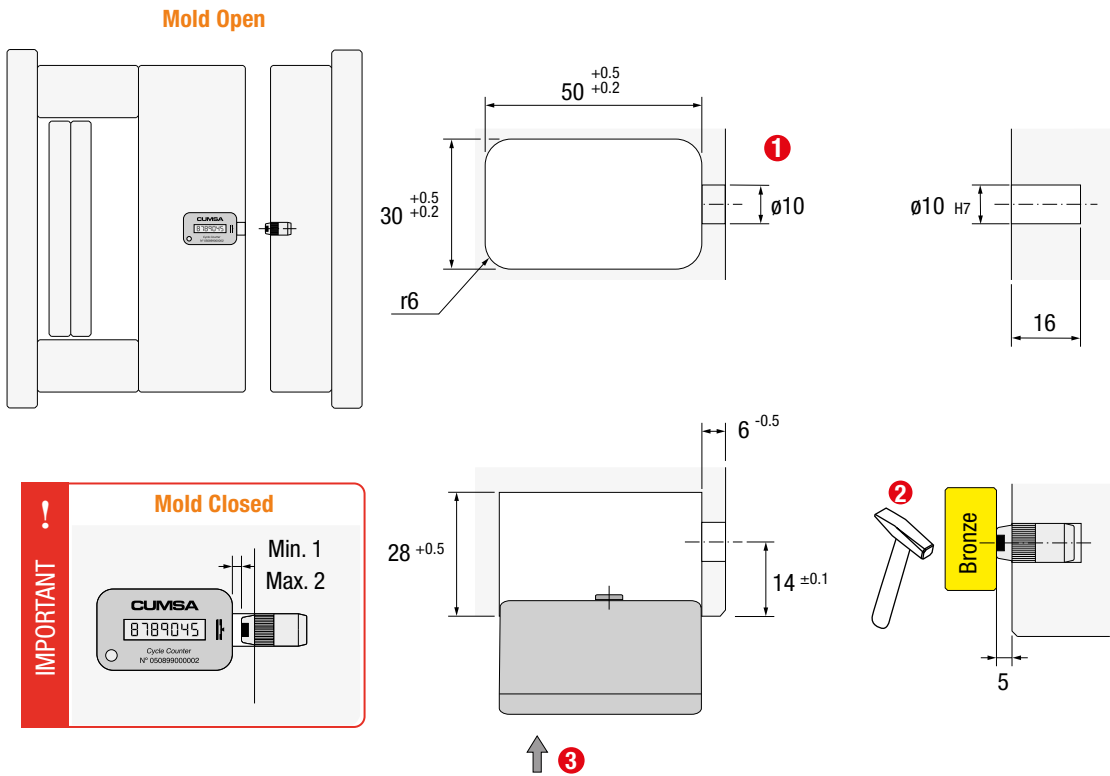


- | | | | | |
|---|---|---|---|--|
| 1
Security Switch.
ES Interruptor de Seguridad.
DE Sicherheitskontakt.
IT Interruttore di Sicurezza.
PT Interruptor de Segurança.
FR Interrupteur Sécurité. | 2
Magnetic Fixing.
ES Fijación Magnética.
DE Magnetbefestigung.
IT Fissaggio Magnetico.
PT Fixação Magnética.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





5

VACUUM

VACUUMJET SYSTEM INDEX

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

132/

VB

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



134/

SV

Smart Vacuumjet
Vacuumjet Intelligente
Smart Vacuumjetsystems
Smart Vacuumjet
Vacuumjet Intelligente
Vacuumjet Intelligent



136/

VJ

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



138/

VG

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



140/

VM

Vacuum Control
Controlador Vacuumjet
Vacuum Regeleinheit
Unità di controllo Vacuum
Controlador Vacuumjet
Contrôle Vacuumje



142/

VV

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



142/

VT

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



143/

PT
+PA

Pneumatic Piston
Pistón Neumático
Pneumatikkolben
Pistone Pneumatico
Pistom Pneumático
Piston Pneumatique



143/

PT

Pneumatic Piston
Pistón Neumático
Pneumatikkolben
Pistone Pneumatico
Pistom Pneumático
Piston Pneumatique



144/

VP

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



144/

NP

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



145/

VS

Spiral Sleeve
Tubular en Espiral
Spiral Hülse
Espulsore con Spirale
Tubular com Espiral
Éjecteur Avec spirale



145/

NR

Keyed Tubular Base
Base Anti-Rotación para Tubulares
Hülseaufnahme Verdreh Gesichert
Base Anti-giro per Cannocchiali
Base Anti-rotação para Tubulares
Embosses Anti-Rotation pour Tubulaires



146/

PH

Ejectors
Expulsores
Auswerfer
Espulsori
Extractores
Éjecteurs



146/

CV

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



147/

LV

Laminar Gas Vent
Salida de Gases Laminar
Laminargasventil
Uscita dei Gas Laminare
Postiço de Ventilação Laminar
Eventation Laminare



148 /

TV

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



148/

JV

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.

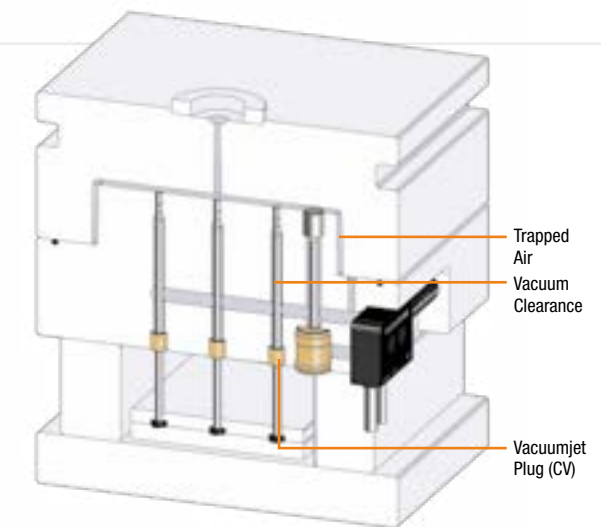
WHAT IS NEEDED TO CREATE THE VACUUM?

- 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!

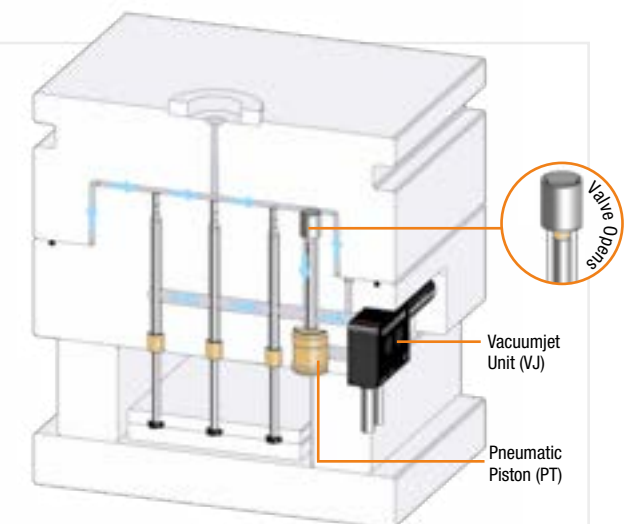


CREATING THE VACUUM IN THE CAVITY

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.

→ Air Flow

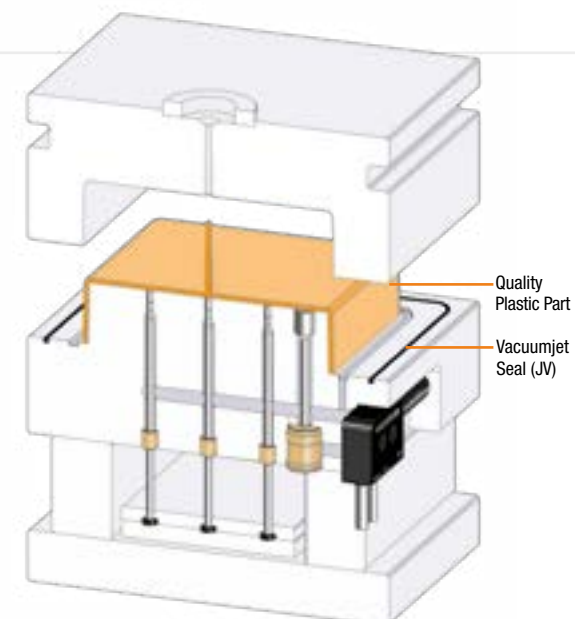


INJECTION STARTS

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			
DO I HAVE SPACE FOR A VACUUM VALVE?	YES		NO	
DO I NEED REVERSE BLOWING?	YES	NO	YES	NO
HOW MANY ELECTROVALVES DO I NEED?	2  SV	2  VM + VJ	2  VM + VB	1  VM + 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.

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

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.

VB

VACUUM

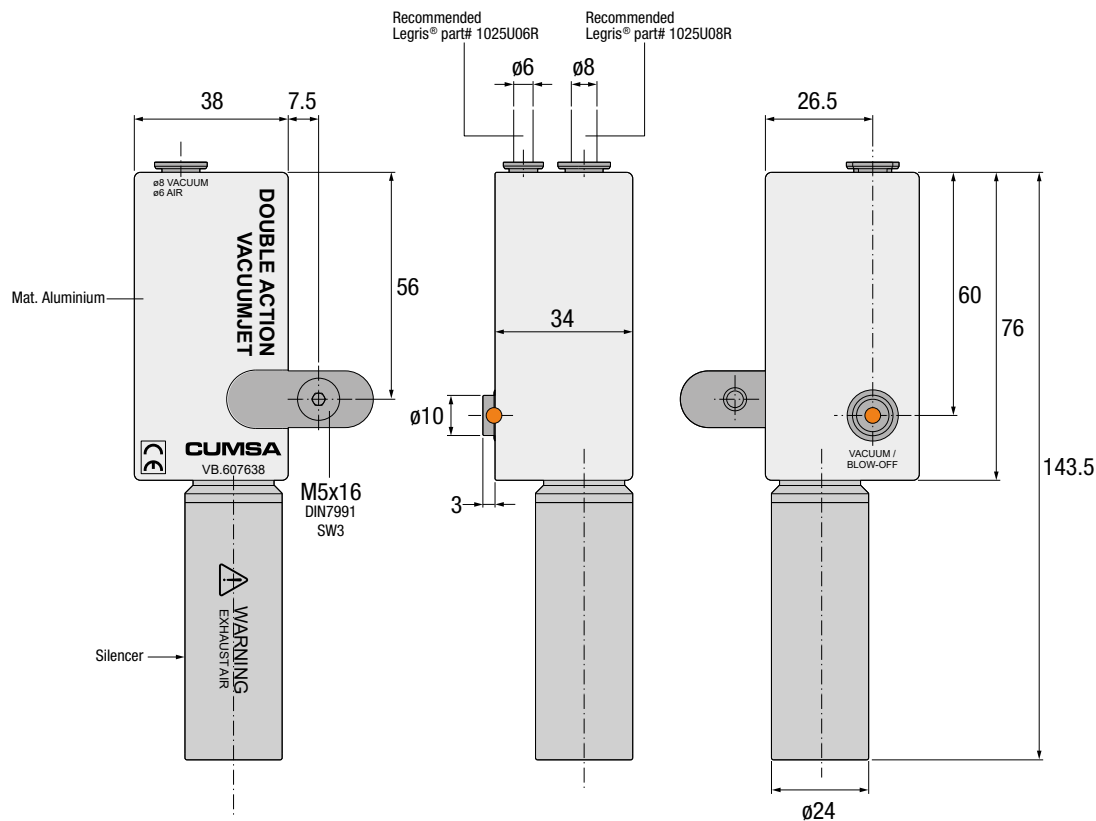


Patented
Max. 80°C



DOUBLE ACTION VACUUMJET
ES Unidad de Vacío de Doble Acción DE Double Action Vacuumjetsystem
IT Vacuumjet Doppia Azione PT Vacuumjet Duplo Efeito FR Vacuumjet Double Effet

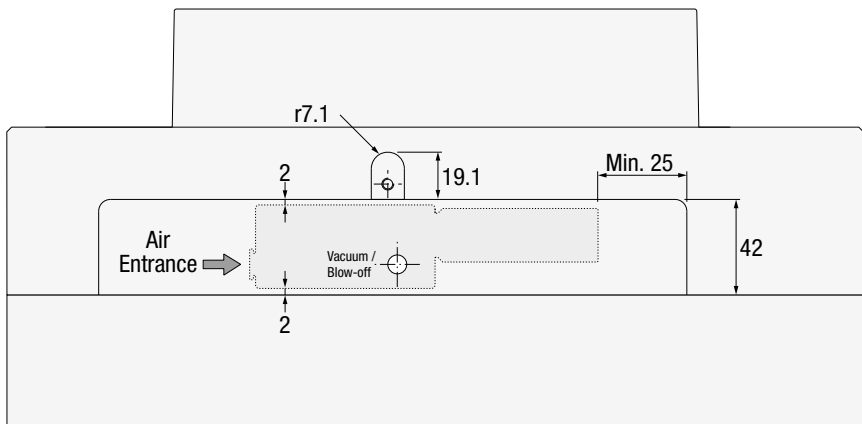
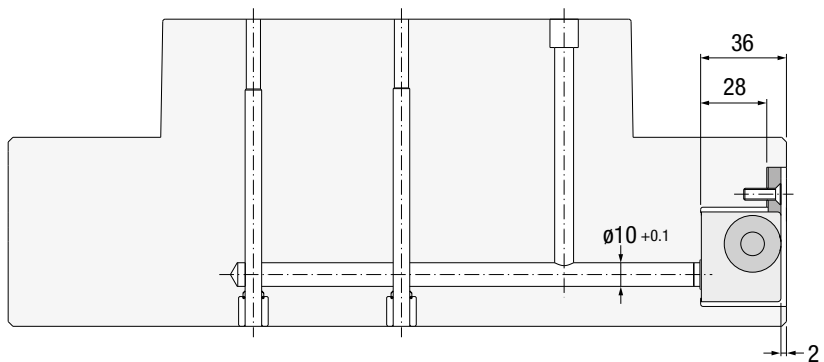
Cad Insertion Point



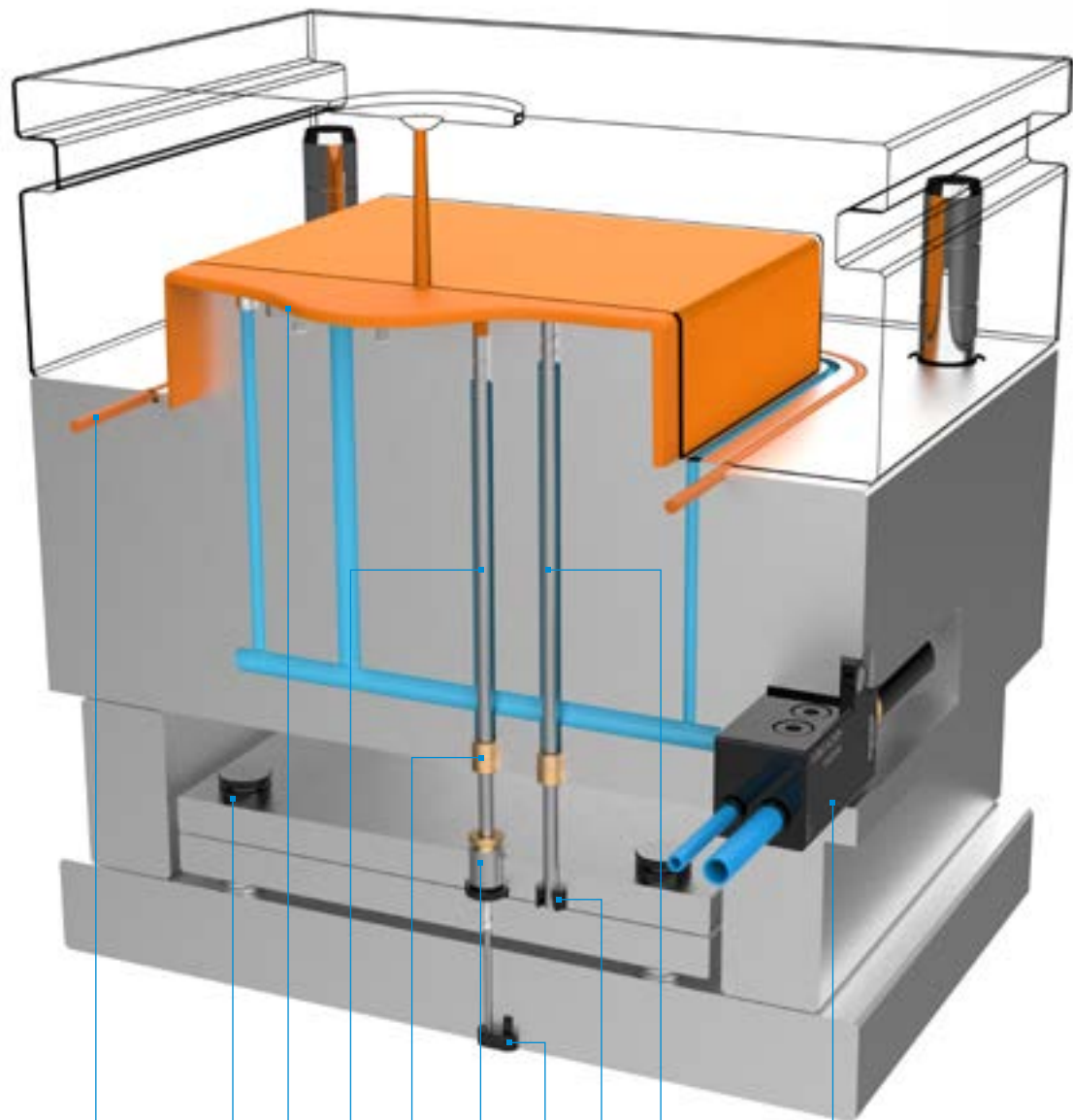
Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
VB.607638	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

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

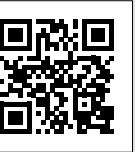


JV	TM	LV	VS	CV	BT	NP	NR	VP	VB
148	104	147	145	146	102	144	145	132	130



VB

VACUUM



Patented
Max. 80°C

Vacuum
Blow-off



SV

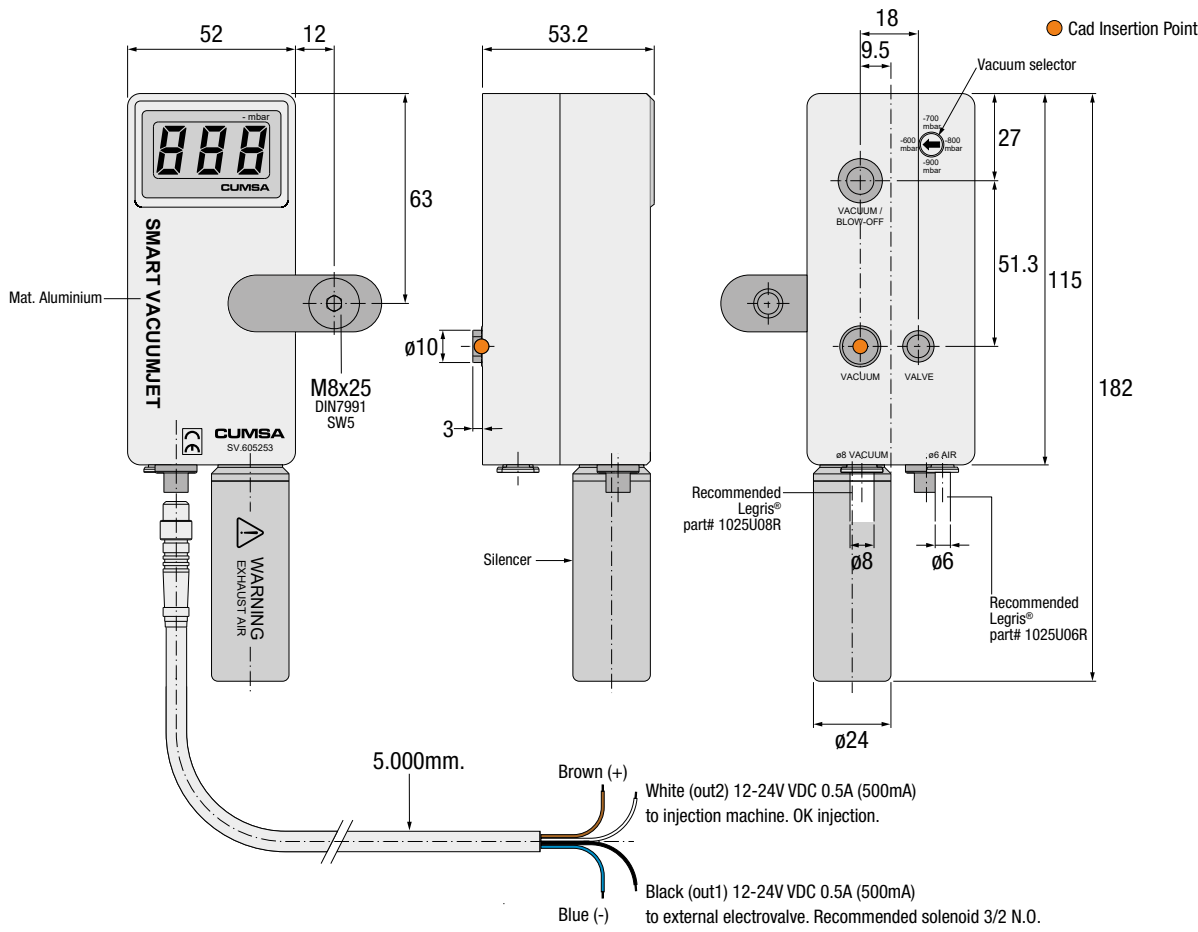
VACUUM



Patented
Max. 80°C

SMART VACUUMJET

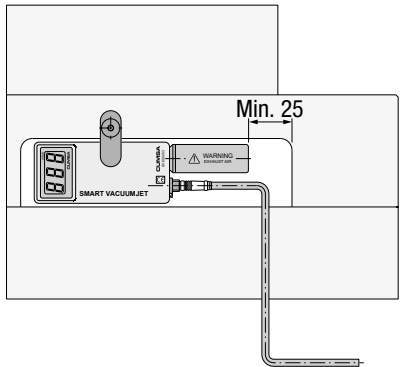
ES Vacuumjet Inteligente DE Smart Vacuumjetsystems
IT Smart Vacuumjet PT Vacuumjet Inteligente FR Vacuumjet



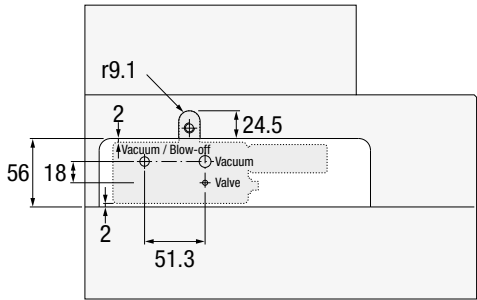
Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
SV.605253	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

Installation Guidelines

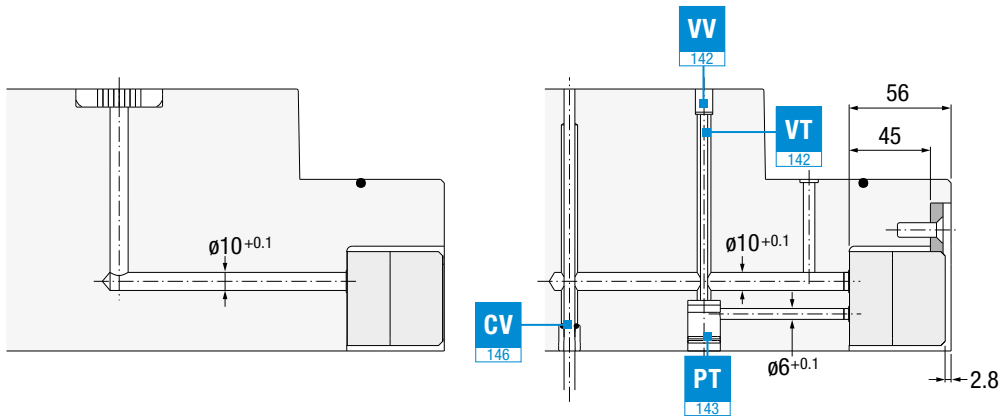
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



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

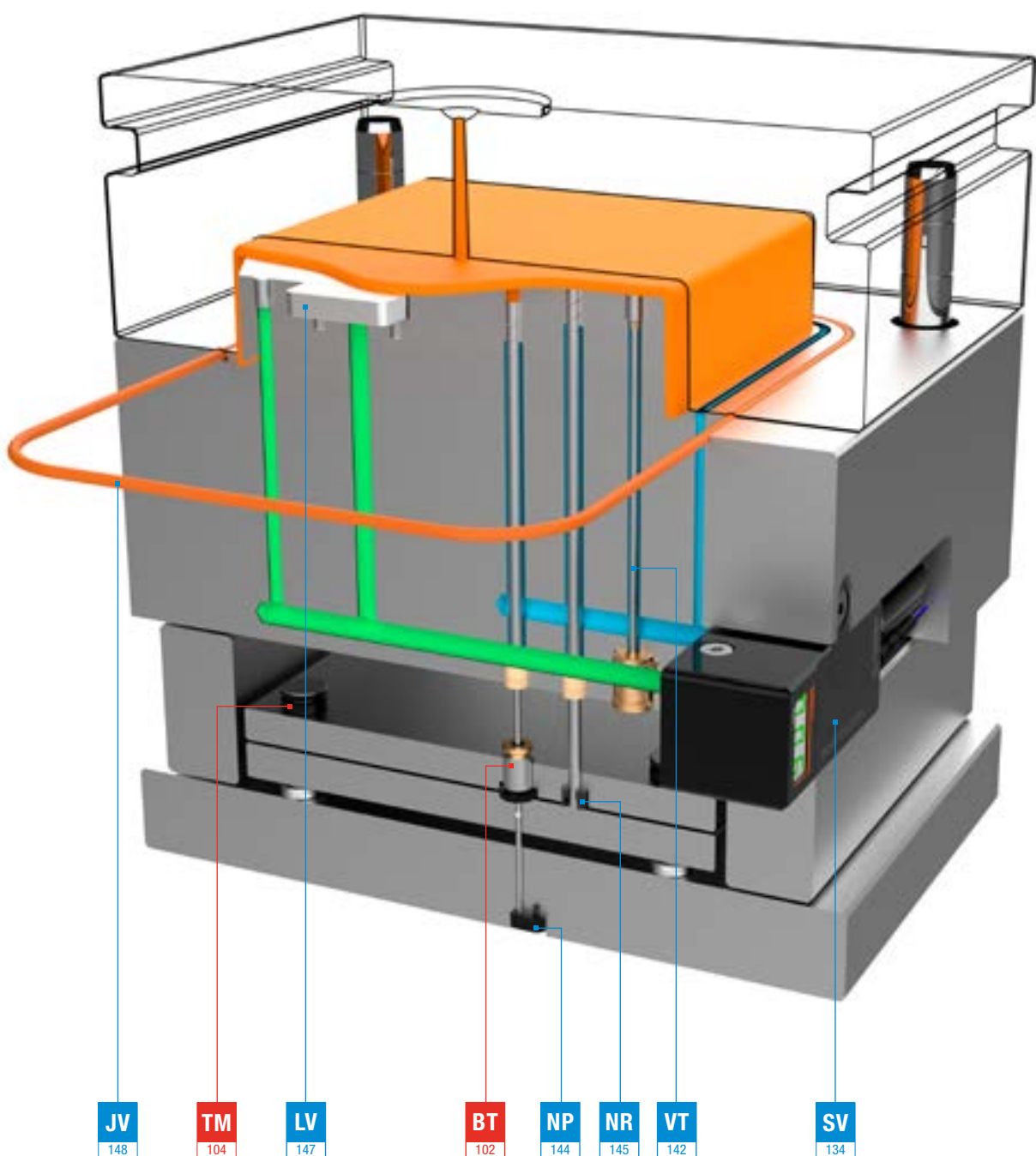


SV

VACUUM



Patented
Max. 80°C



PLAY



PLAY

VJ

VACUUM



Patented

Max. 80°C

VACUUMJET UNIT

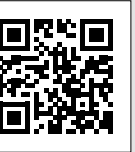
ES Unidad de Vacío (Vacuumjet) DE Vacuumjet Steuereinheit
IT Vacuumjet PT Unidade de Vácuo (Vacuumjet) FR Unité de Vide

● Cad Insertion Point



VJ

VACUUM

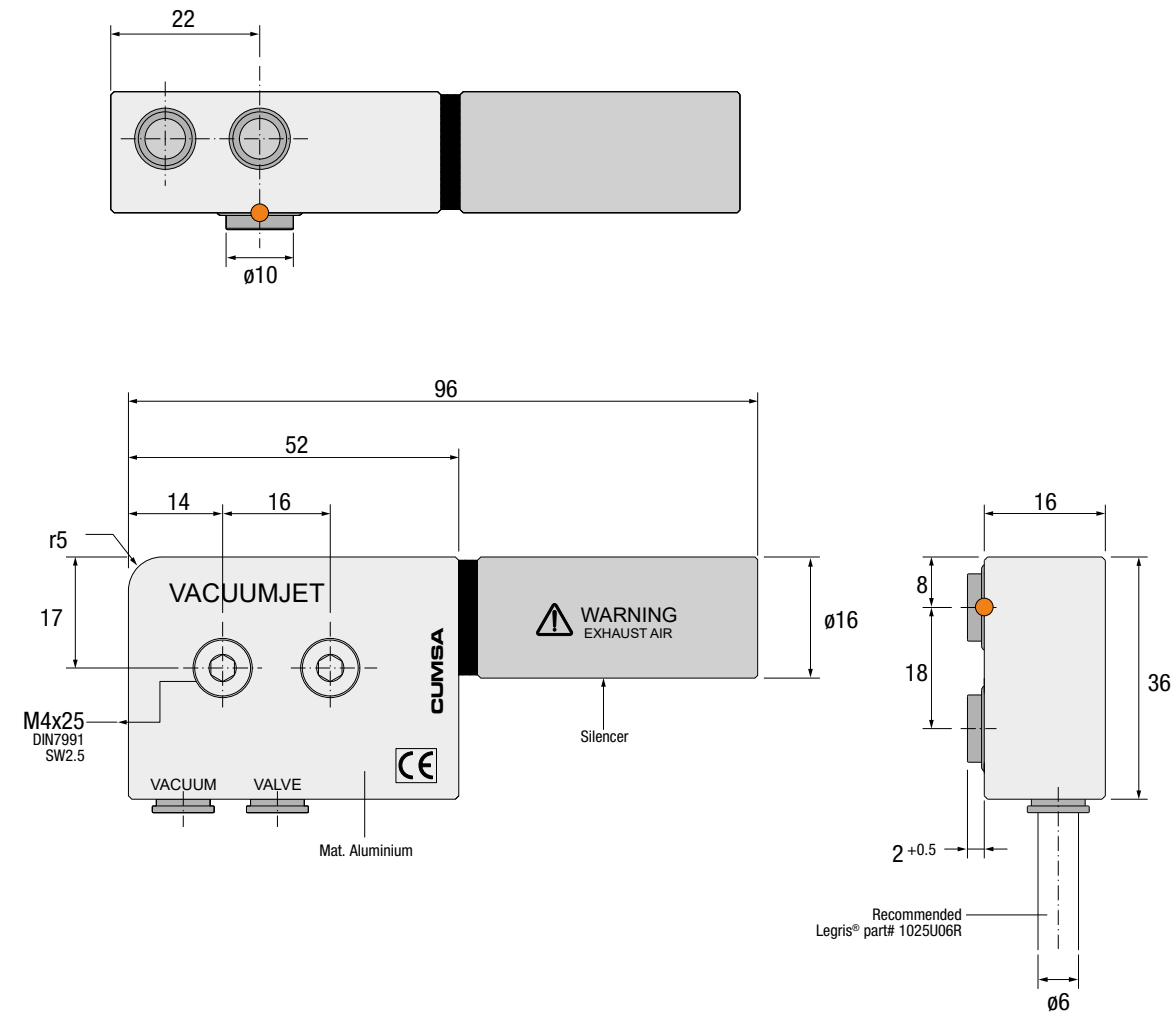


Patented

Max. 80°C

Vacuum

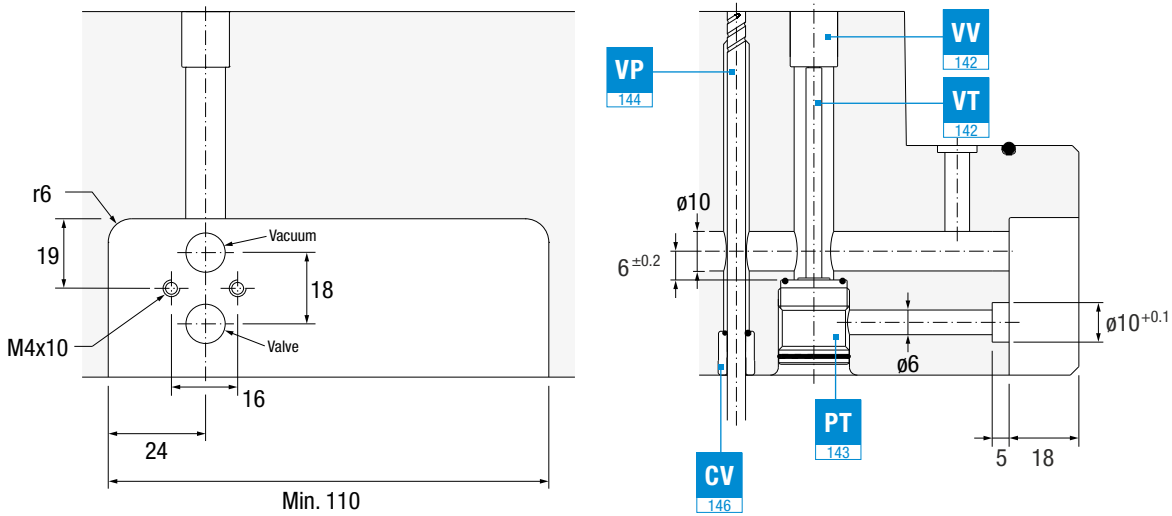
Compressed air



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

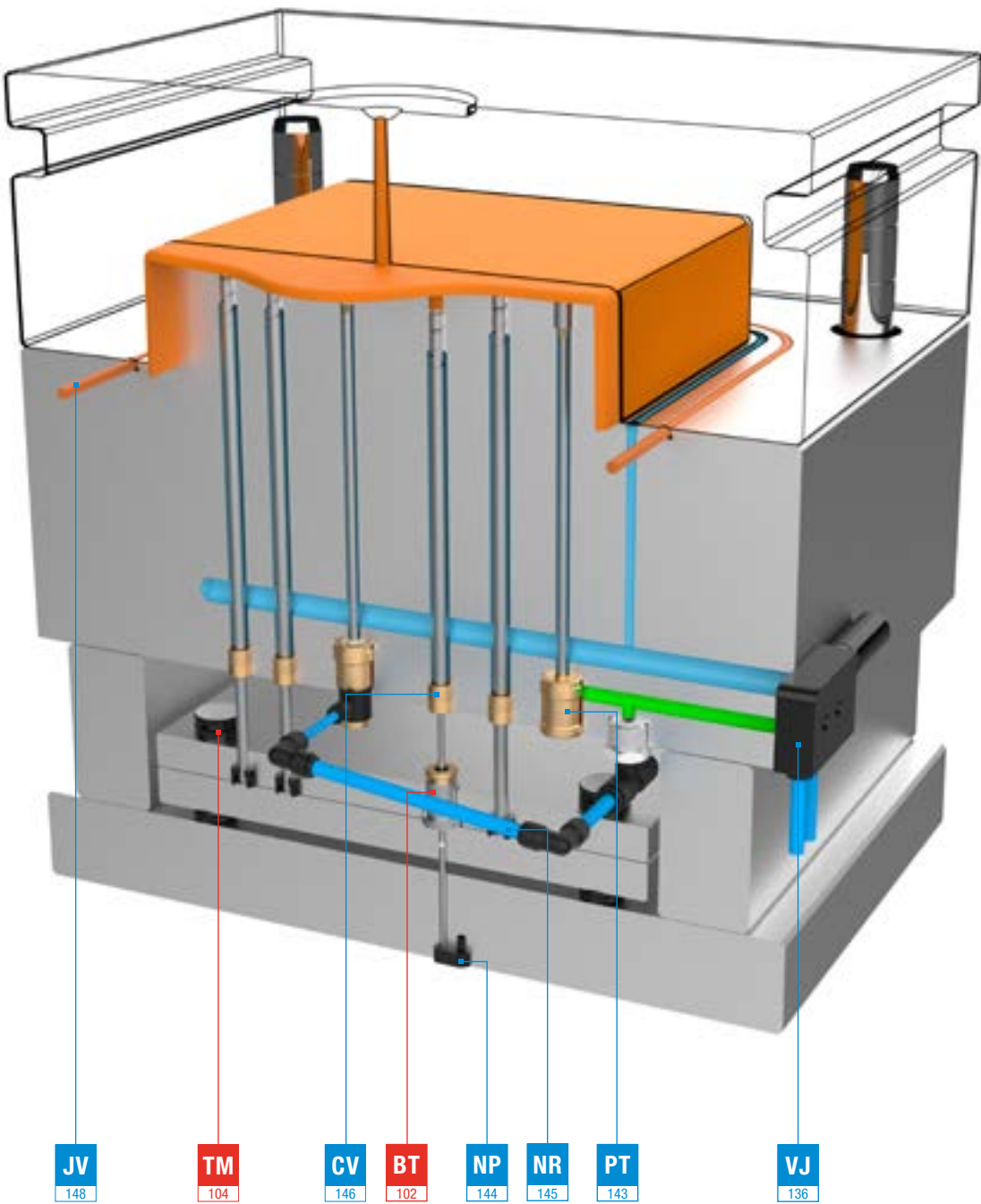
Installation Guidelines

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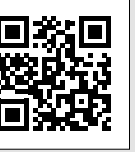


INSTALLATION GUIDELINES

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



PLAY



PLAY

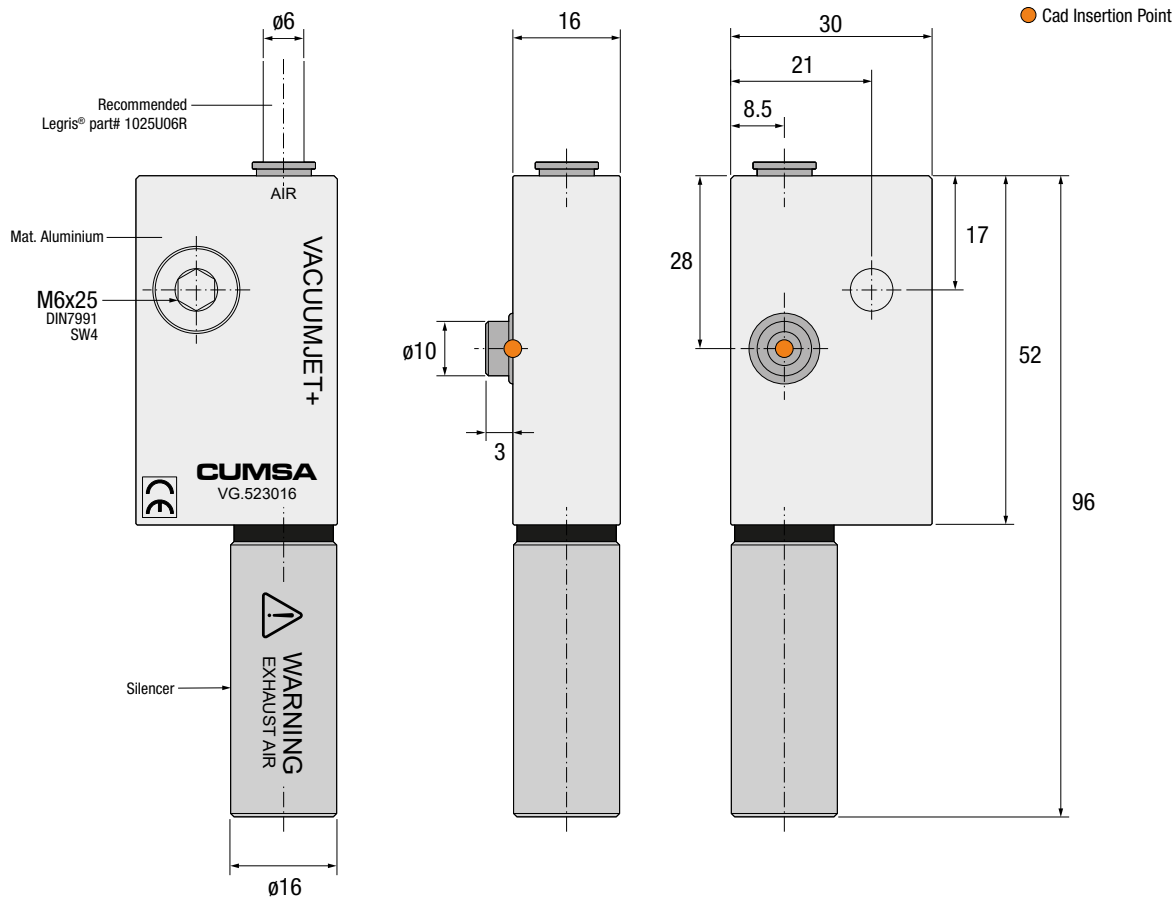
VG

VACUUM



Patented

Max. 80°C

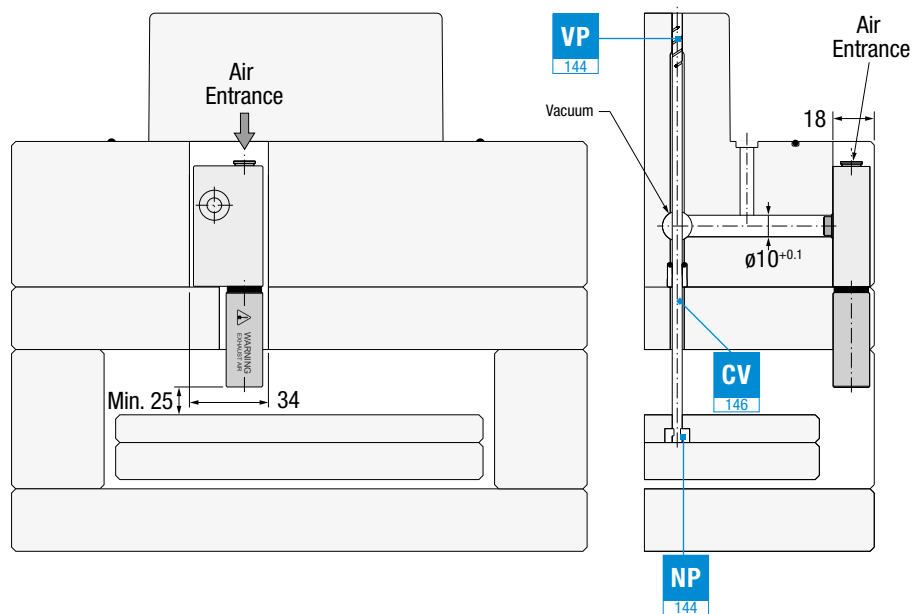


Ref.	Supply Pressure	Max. Vacuum	Max. Flow	Consumption
VG.523016	5-6 BAR	-900 mbar	75 L./ Min.	60 L./ Min.

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 varias unidades.
Avec un seul circuit d'air nous pouvons relier plusieurs unités.

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



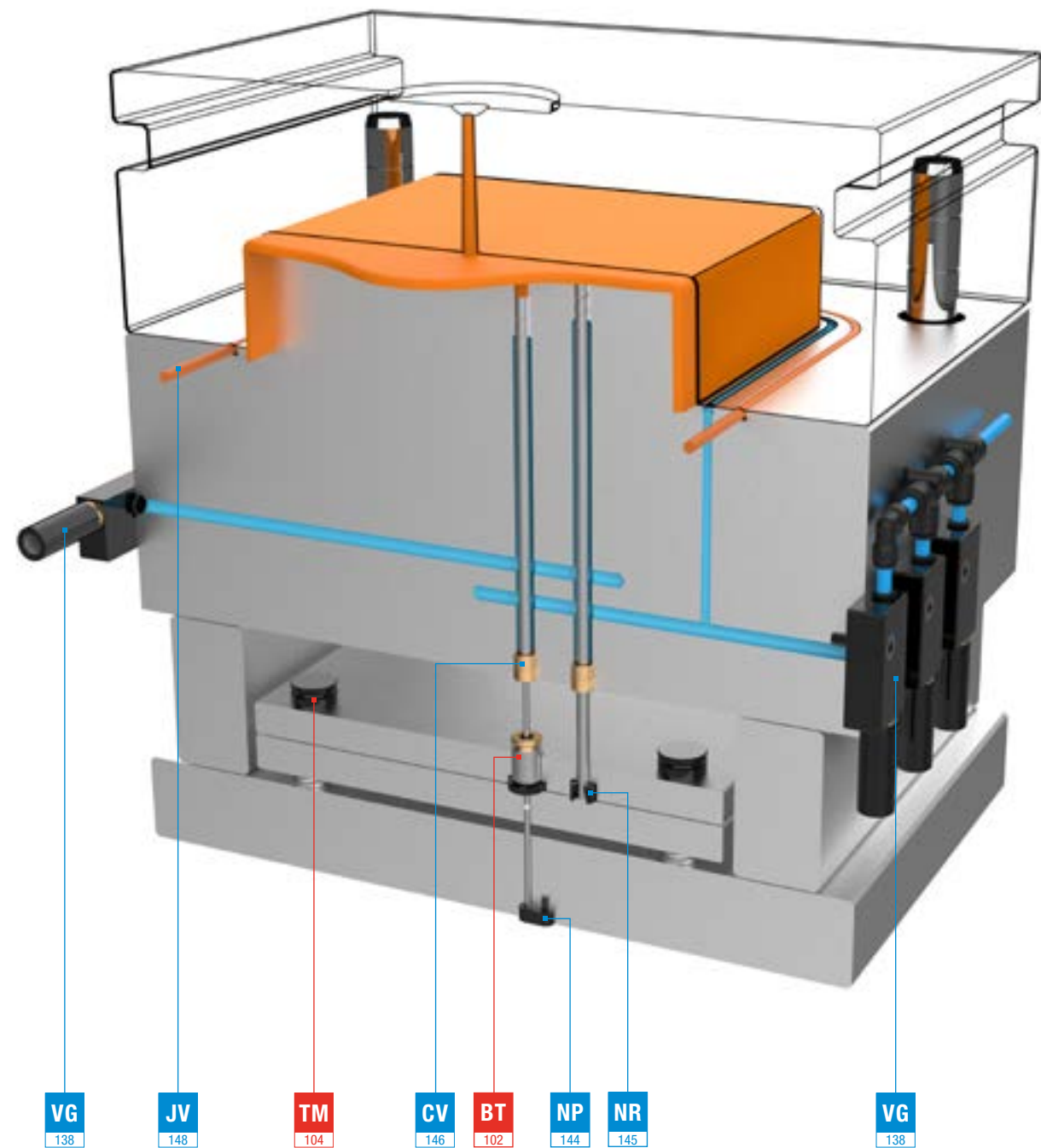
VG

VACUUM



Patented

Max. 80°C



PLAY



PLAY



Patented

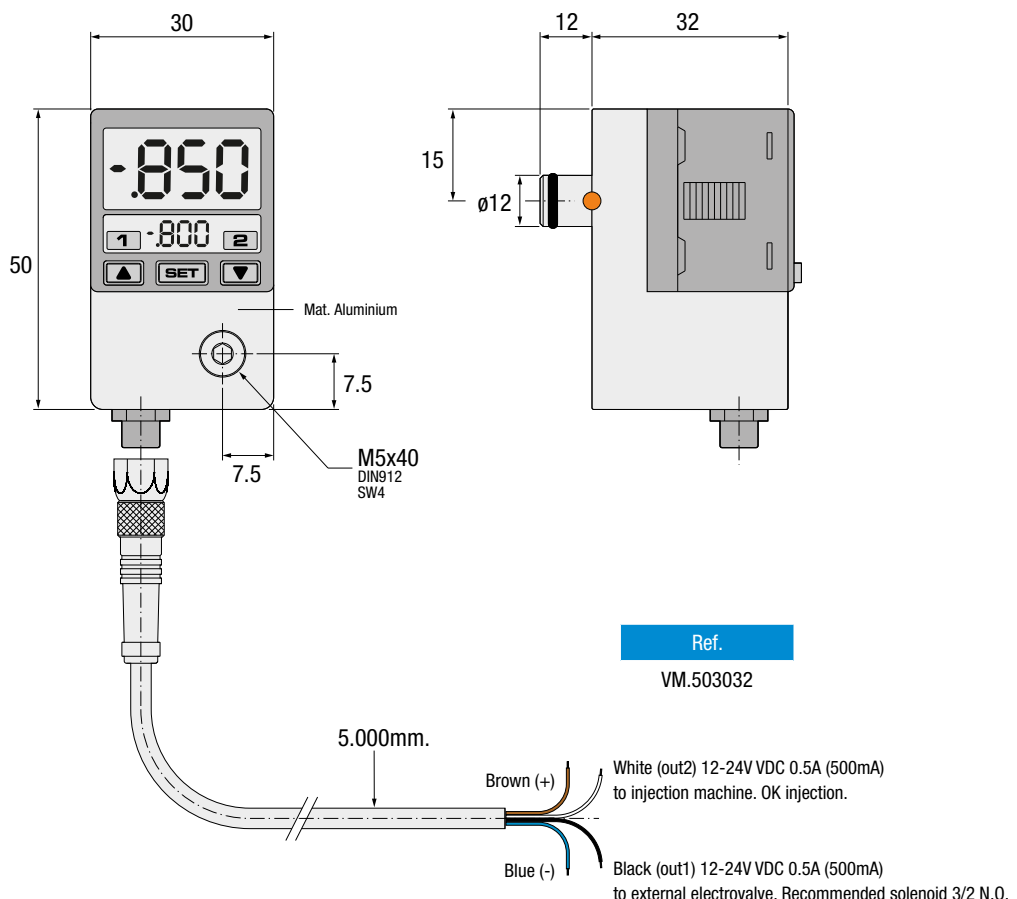
Max. 80°C



VACUUM CONTROL

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

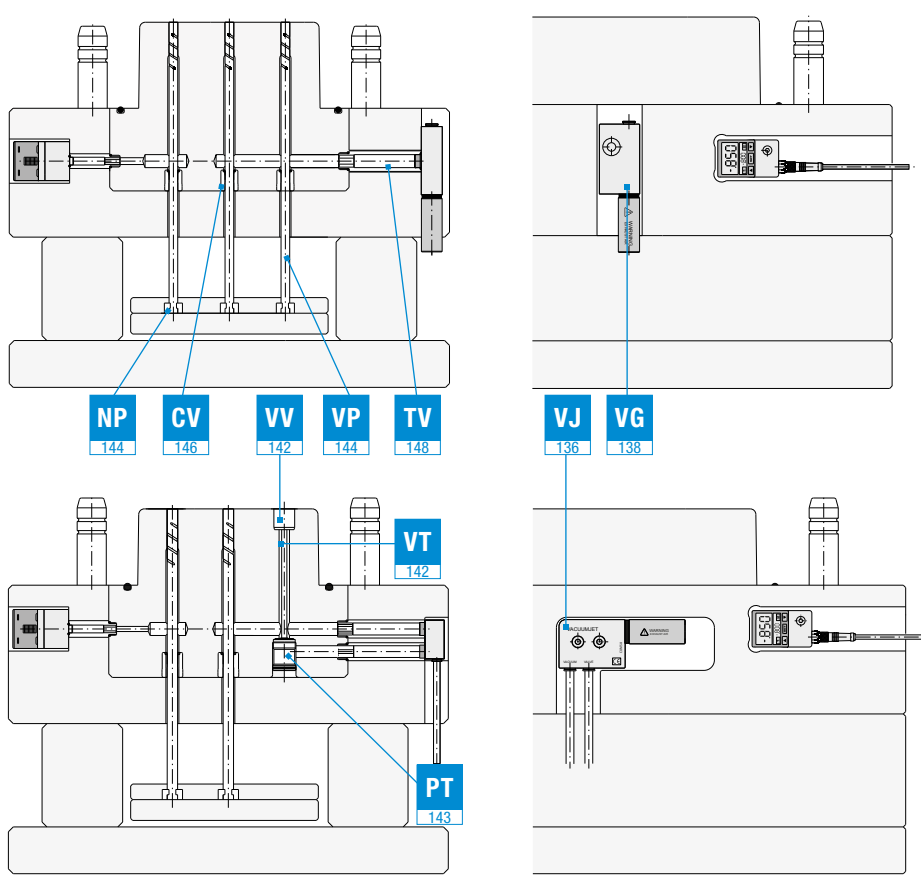
● Cad Insertion Point



Ref.
VM.503032

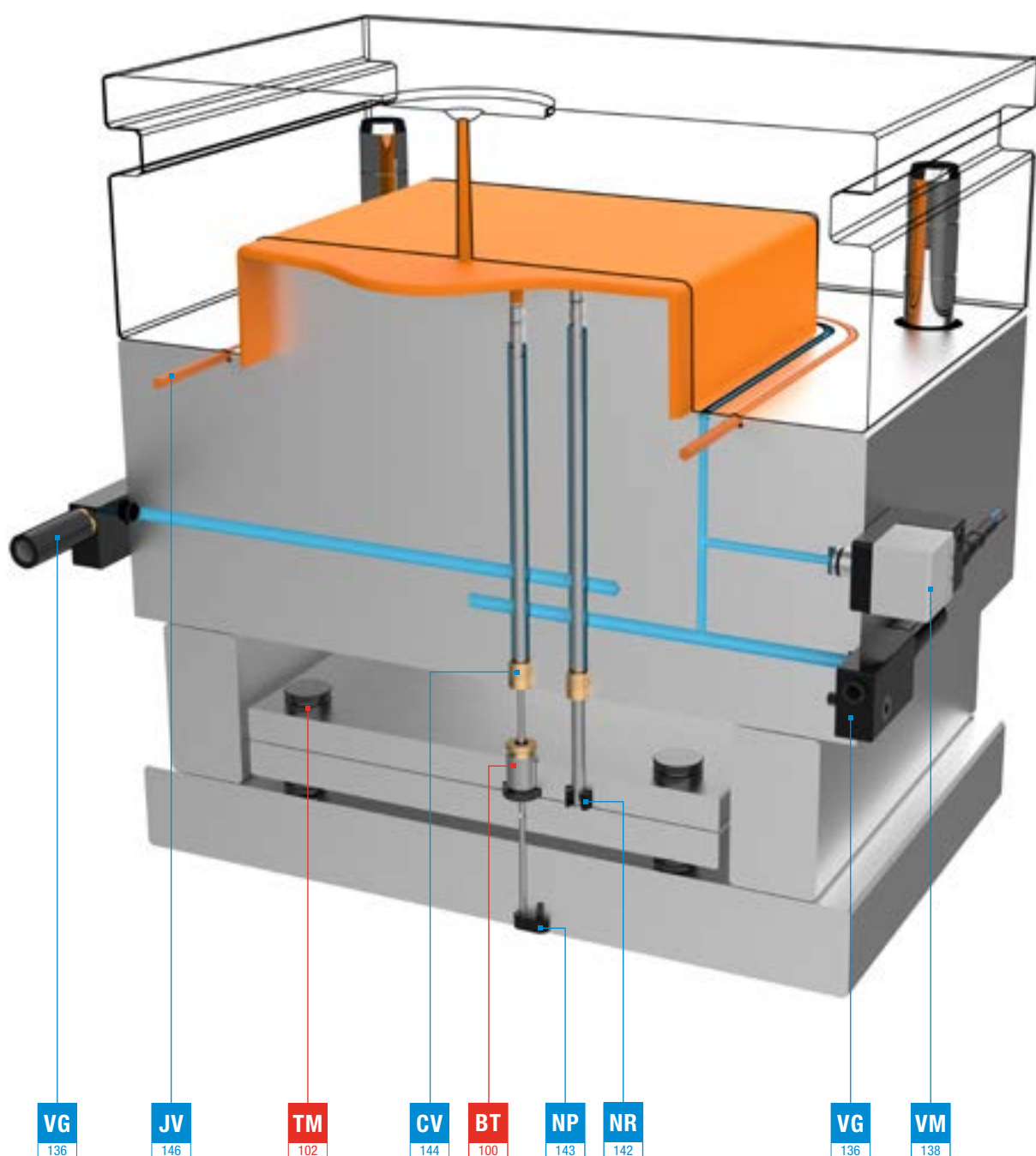
Installation Guidelines

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INSTALLATION GUIDELINES

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



Patented

Max. 80°C

Vacuum

Compressed air



VV

VACUUM



Patented
Max. 150°C

VT

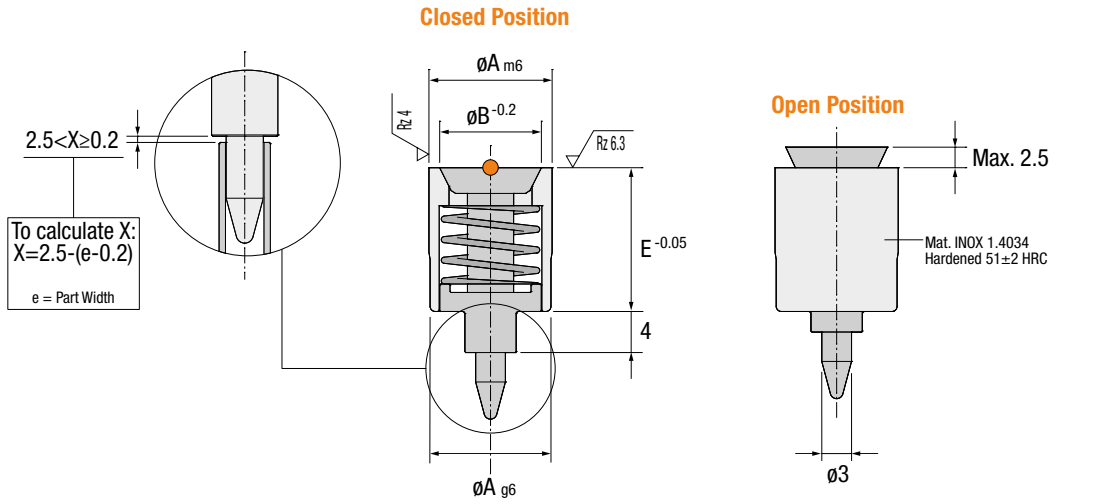
VACUUM



Patented
Max. 150°C

VACUUMJET VALVE

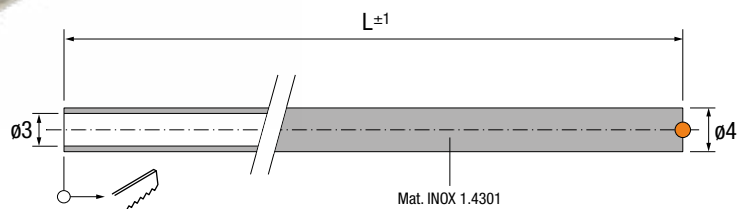
ES Válvula Vacuumjet DE Vacuumjet Ventil
IT Valvola Vacuumjet PT Válvula Vacuumjet FR Soupape Vacuumjet



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

VACUUMJET VALVE TUBE

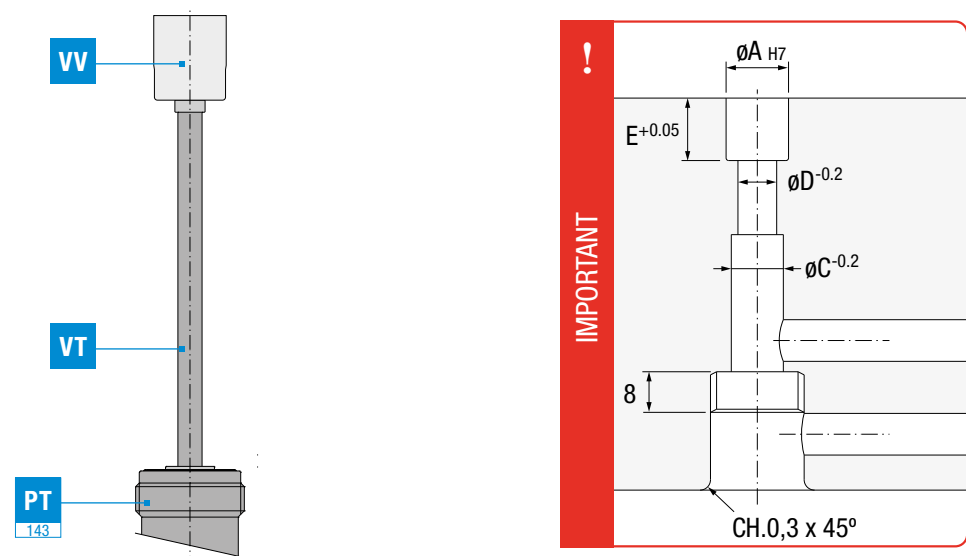
ES Tubo Válvula Vacuumjet DE Vacuumjet Ventilrohr
IT Tubo Valvola Vacuumje PT Tubo Válvula Vacuumjet FR Tube soupape Vacuumjet



Ref.	L
VT.043209	209
VT.043500	500

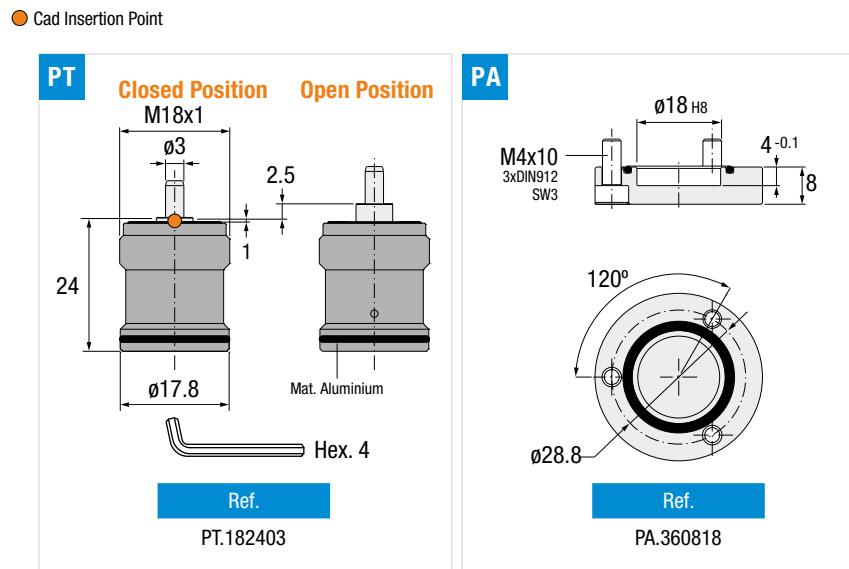
Installation Guidelines

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



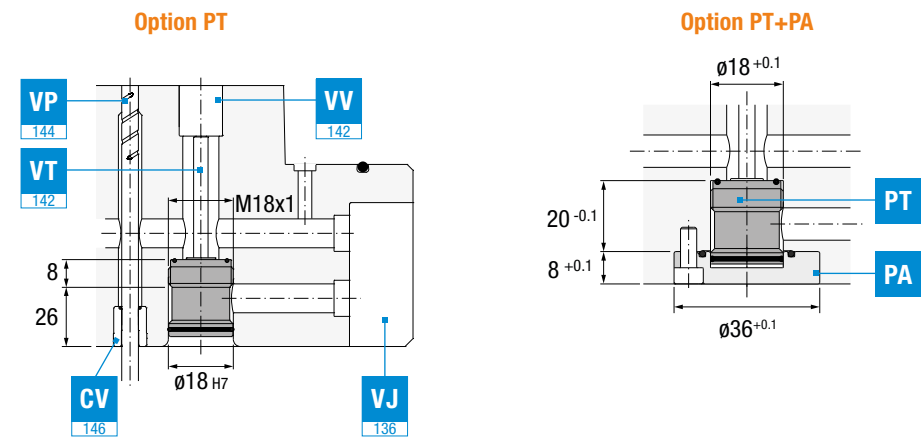
PNEUMATIC PISTON

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



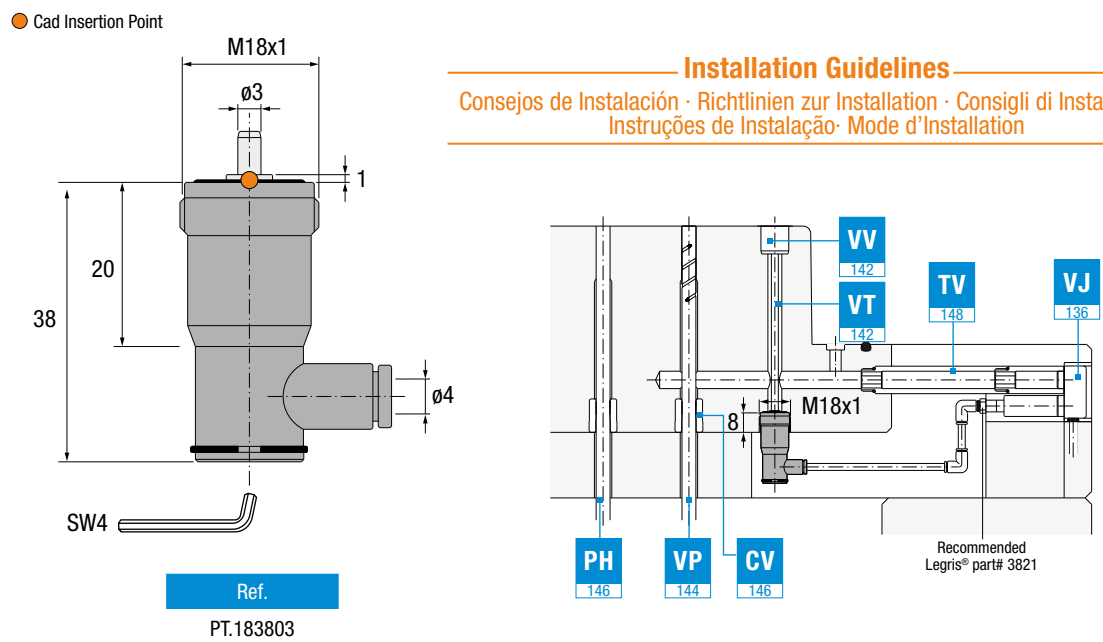
Installation Guidelines

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



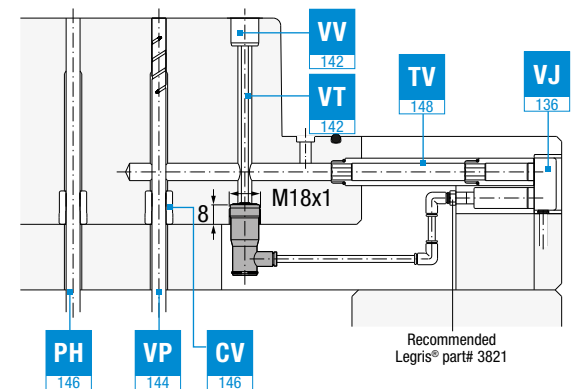
PNEUMATIC PISTON

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



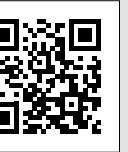
Installation Guidelines

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



PT+PA

VACUUM



Patented
Max. 150°C

PT

VACUUM



Patented
Max. 80°C

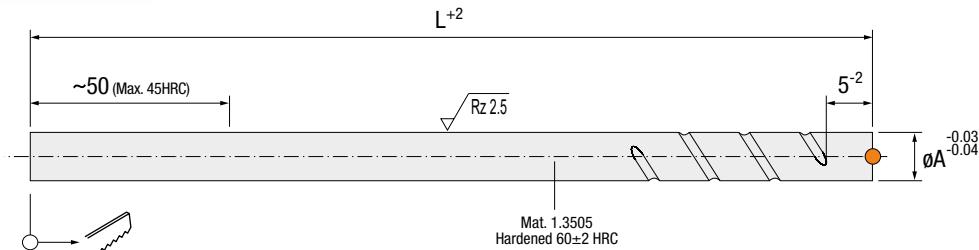
VP

VACUUM



Patented

Max. 150°C



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 EJECTOR

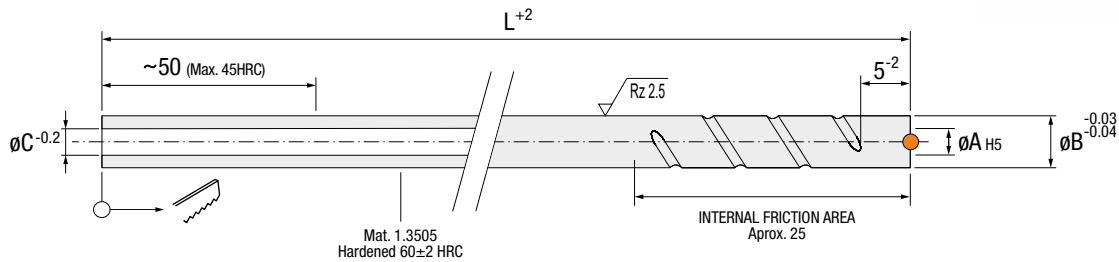
ES Expulsor en Espiral DE Spiral Auswerfer
IT Espulsore con Spirale PT Extractor com Espiral FR Ejecteur avec Spiral

Cad Insertion Point

SPIRAL SLEEVE

ES Tubular en Espiral DE Spiral Hülse
IT Espulsore con Spirale PT Tubular com Espiral FR Ejecteur avec Spiral

Cad Insertion Point



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.

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

VS

VACUUM



Patented

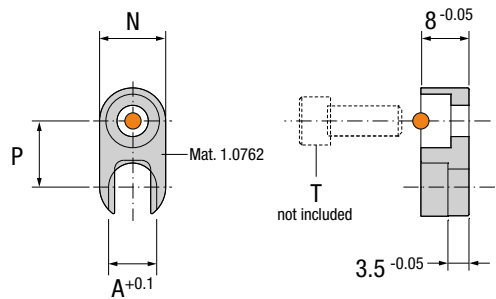
Max. 150°C

NP

VACUUM



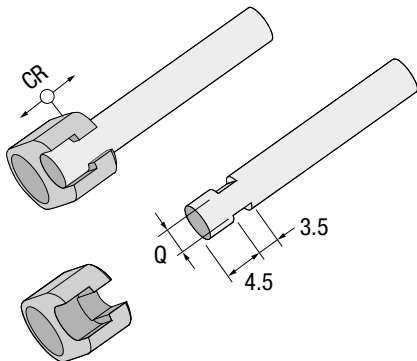
Max. 150°C



Ref.	A	N	P	Q	T	CR(N)
NP.030908	3.2	9	8	2	M4	4.000
NP.050908	5.2	9	8	3.5	M4	8.000
NP.061108	6.2	11	11	4	M5	9.000
NP.081108	8.1	11	11	5.5	M5	12.000

Installation Guidelines

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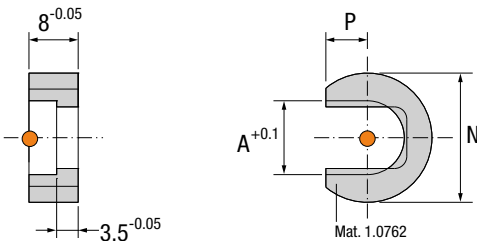


KEYED TUBULAR BASE

ES Base Anti-Rotación para Tubulares DE Hülsenaufnahme Verdreh Gesichert
IT Base anti-Giro per Cannocchiali PT Base Anti-Rotação para Tubulares FR Embasses Anti-Rotation pour Tubulaires

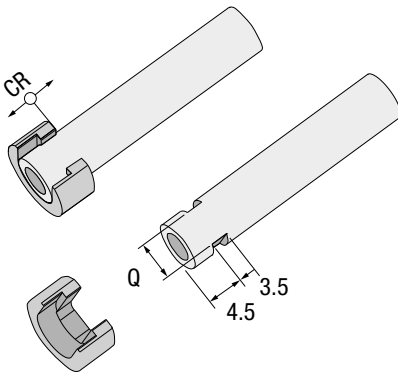
Cad Insertion Point

Ref.	A	N	P	Q	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



Installation Guidelines

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NR

VACUUM



Max. 150°C

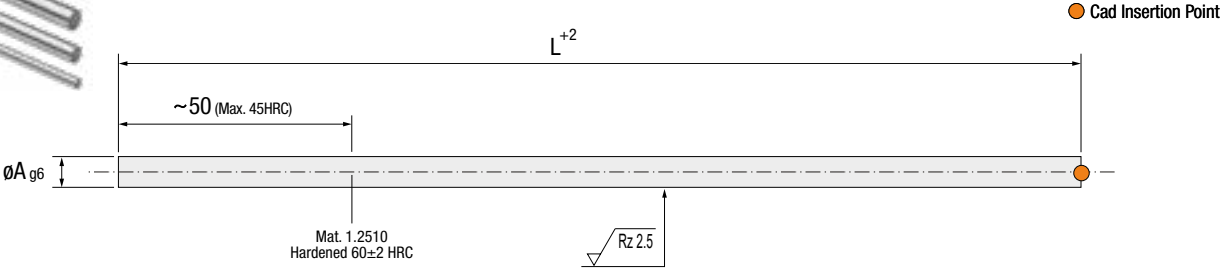
PH

VACUUM



Max. 150°C

EJECTORS
ES Expulsores DE Auswerfer
IT Espulsori PT Extractores FR Ejecteurs

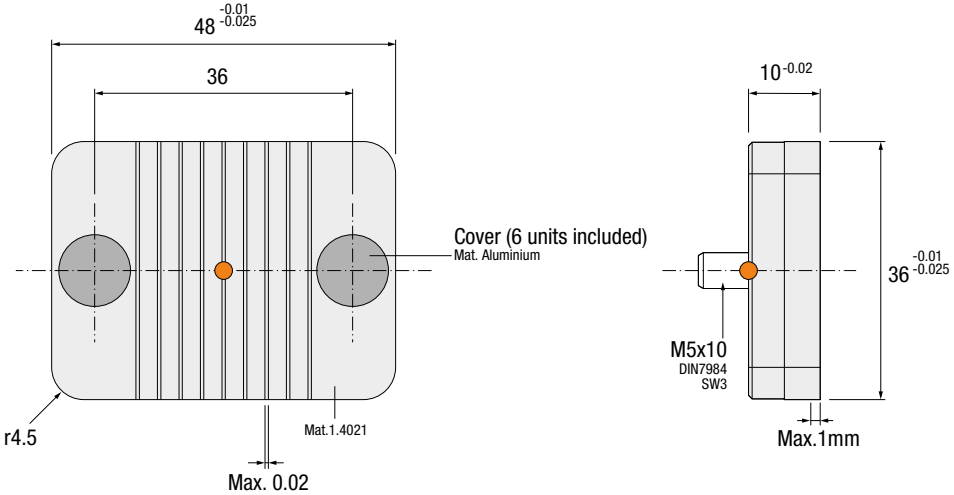


Ref.	A	L
PH.130000-...	3	250 330 500
PH.150000-...	5	250 330 500
PH.160000-...	6	250 330 500
PH.180000-...	8	250 330 500

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.

LAMINAR GAS VENT
ES Salida de Gases Laminar DE Laminargasventil
IT Uscita dei Gas Laminare PT Postiço de Ventilação Laminar FR Eventation Laminaire

Cad Insertion Point



LV

VACUUM



Max. 150°C

CV

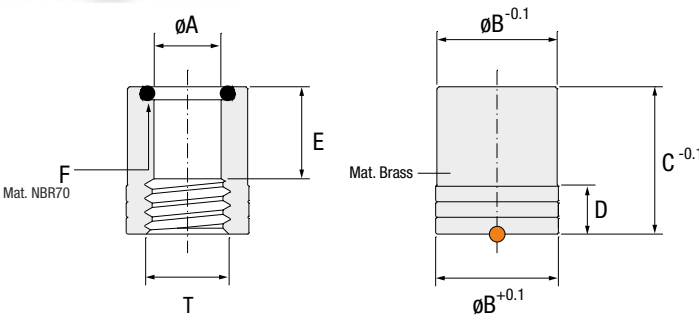
VACUUM



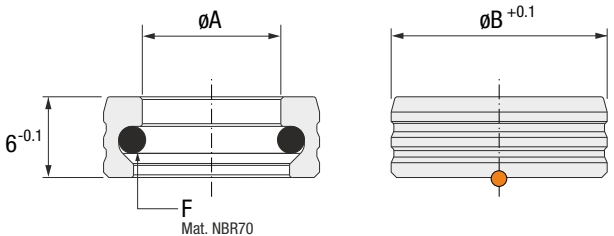
Max. 80°C

VACUUMJET PLUG
ES Casquillo Vacuumjet DE Vacuumjet Dichtstopfen
IT Bussola Vacuumjet PT Casquilho Vacuumjet FR Bague Vacuumjet

Cad Insertion Point



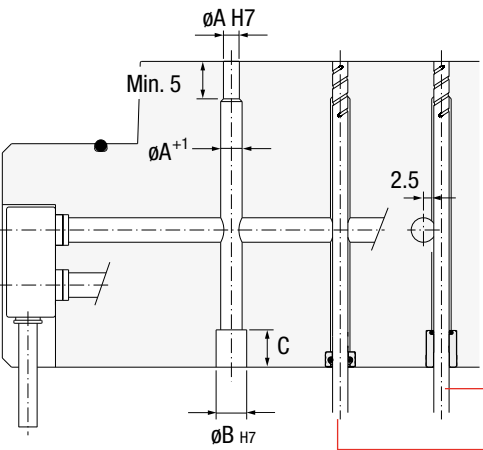
Ref.	A	B	C	D	E	F	T
CV.020812	2	8	12	4.5	8	2x1.5	M3
CV.030812	3	8	12	4.5	8	3x1.5	M4
CV.041012	4	10	12	4.5	8	4x1.5	M5
CV.051012	5	10	12	4.5	8	5x1.5	M6
CV.061212	6	12	12	4.5	8	6x1.5	M8
CV.081416	8	14	16	7	10	8x2	M10
CV.101616	10	16	16	7	10	10x2	M12
CV.121816	12	18	16	7	10	12x2	1/4 GAS



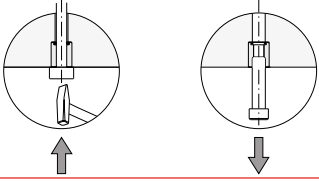
Ref.	A	B	F
CV.142006	14	20	14x2
CV.162206	16	22	16x2
CV.202606	20	26	20x2

Installation Guidelines

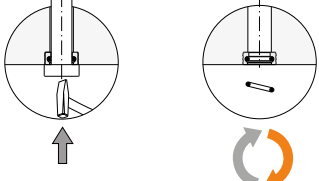
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



For ø2 to ø12 References

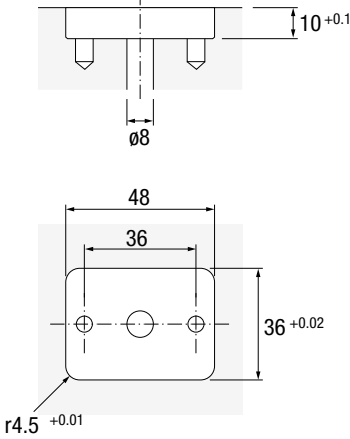


For ø14 to ø20 References

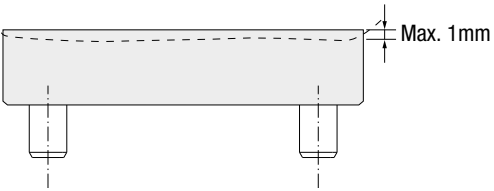


Installation Guidelines

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



IMPORTANT !



The LV can only be machined by using EDM.
El LV sólo se puede mecanizar usando electroerosión.
Das LV kann nur mit Hilfe von EDM bearbeitet werden.
L'LV può essere lavorato solo tramite elettroerosione.
Para maquinar o LV, utilizar apenas EDM (erosão).
Le LV ne peut être usiné qu'en utilisant l'électroérosion.

VACUUM

Patented

Max. 200°C

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

SEAL TOOL

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

Installation Guidelines

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

IMPORTANT !

Ensure join is sealed using silicon.
 Sellar con silicona la entrada 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.

VACUUM

Max. 150°C

CONNECTION TUBE
 ES Tubo Conexión DE Verbindungsrohr
 IT Tubo connessione PT Tubo de Ligação FR Tube de connexion

● Cad Insertion Point

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

IMPORTANT !

Connection to **VJ / VG**
 136 / 138

1 Min. 12

2



6

ACCESSORIES

ACCESSORIES INDEX

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

154/
VA



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

154/
FV



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

155/
VH



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

156/
VD



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

157/
SA



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

158/
AS



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

160/
TH



Extension Tube
Tubo Hembra
Verlängerungsrohr
Tubo Prolunga
Tubo de Extensão
Tube à Version

160/
TO



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

161/
BR



Water Connector
Boquilla Refrigeración
Anschlussstück
Bussola Refrigerazione
Record
Raccord de Refroidissement

161/
RL



Cooling Connector
Conector Refrigeración
Kühlung Kupplungsstück
Attacco Refrigerazione
Conector de Refrigeração
Connexion de Refroidissement

162/
EC



Sprue Bushing Hardened
Casquillo de expulsión de colada templado
Gehärtete Angussbuchse
Boccola di espulsione temprata per canale di colata
Casquilho canal temperado
Douille canal trempé

163/
JR



Seal Bearing
Junta Rotativa
Dichtring
Alimentatore Rotativa
Junta Rotativa
Fontaine Rotative

164/
SB



Seal Bearing
Junta Rotativa
Dichtscheibe
Guarnizione Rotativa
Junta Rotativa
Joint Rotatif

165/
TB



Seal Bearing Tube
Tubo Junta Rotativa
Dichtscheibenrohr
Tubo Alimentatore
Rotativo Tubo Alimentatore Rotativo
Tube Joint Rotatif

165/
TL



Brass Pipe
Tubo Laminado
Messingrohr
Tubo Laminato
Tubo Laminado
Tube Standard

166/
PI



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

167/
CP



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

168/
SC



Cable Retainer
Sujeta Cables
Kabelhalter
Piastrina di Cablaggio
Retensor de Cabos
Plaque Blocage Cable

168/
SM



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

169/
RR



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

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UM



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

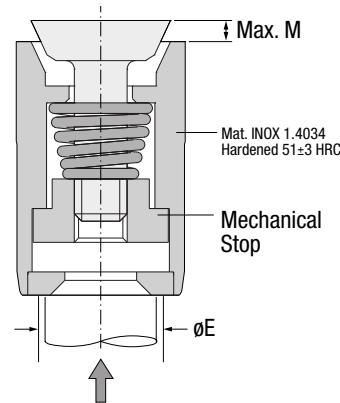
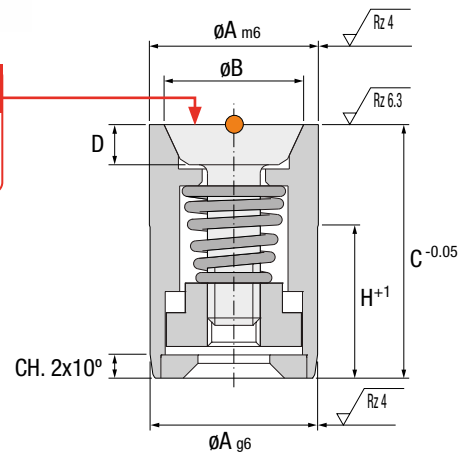
VA

AIR VALVE

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

● Cad Insertion Point

IMPORTANT !
Maximum Injection
Pressure: 1200 Kgs/cm²
(1BAR ~ 1kg/cm2)



Ref.	A	B	C	D	E	H	M
VA.030312	3	2.6	12	2	2	7	0.7
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	6	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

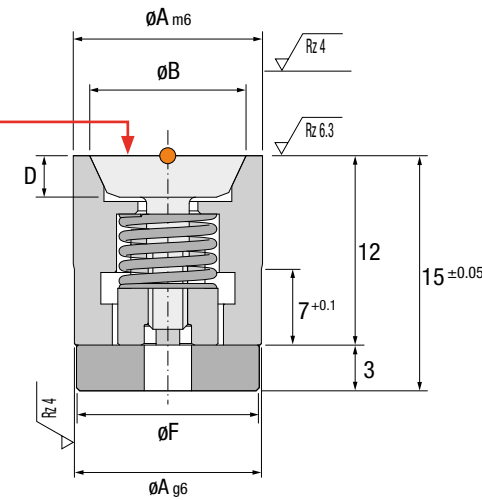
IMPORTANT !
Reference VA.030312 and VA.050412, do not include mechanical stop.
La referencia VA.030312 y VA.050412, no incluye tope mecánico.
Referenz VA.030312 und VA.050412 ohne mechanischen Anschlag.
L'articolo VA.030312 e VA.050412 non include freno meccanico.
A referencia VA.030312 e VA.050412 não tem batente mecânico.
La référence VA.030312 et VA.050412 n'inclut pas la butée mécanique.

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 !
Maximum Injection
Pressure: 2500 Kgs/cm²
(1BAR ~ 1kg/cm2)

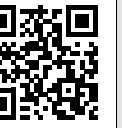


Ref.	A	B	D	E	F	H
VH.065215	6	5.4	1.9	4	5.8	0.25
VH.086515	8	6.7	2	5	7.8	0.75
VH.121015	12	9.7	2.7	5	11.8	1

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

VH

ACCESSORIES



Max.
150°C

Min.
2 BARS
Max.
10 BARS

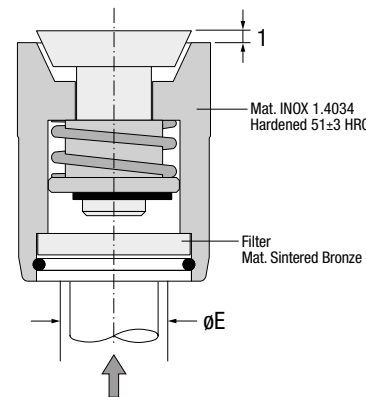
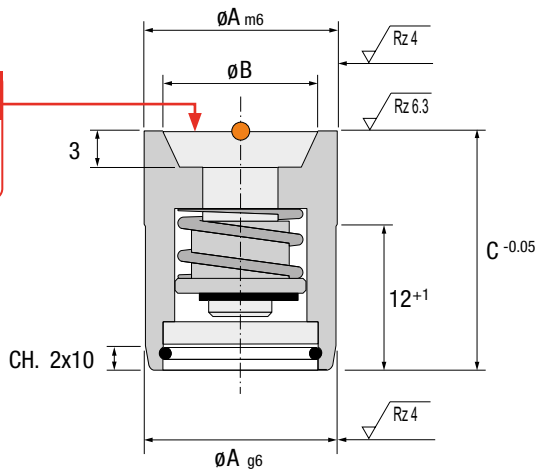
FV

FILTER VALVE

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

● Cad Insertion Point

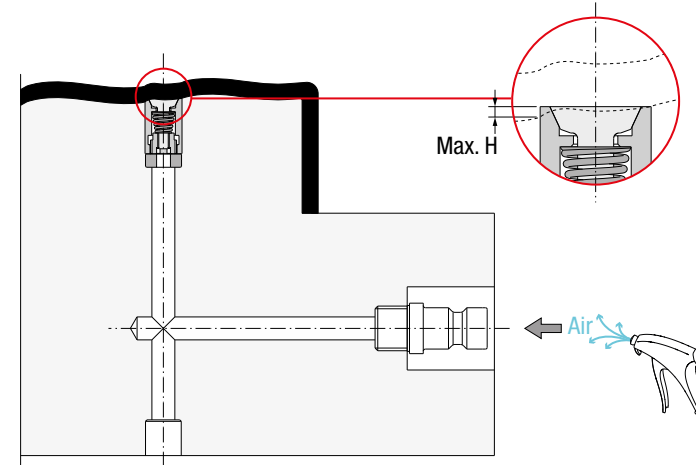
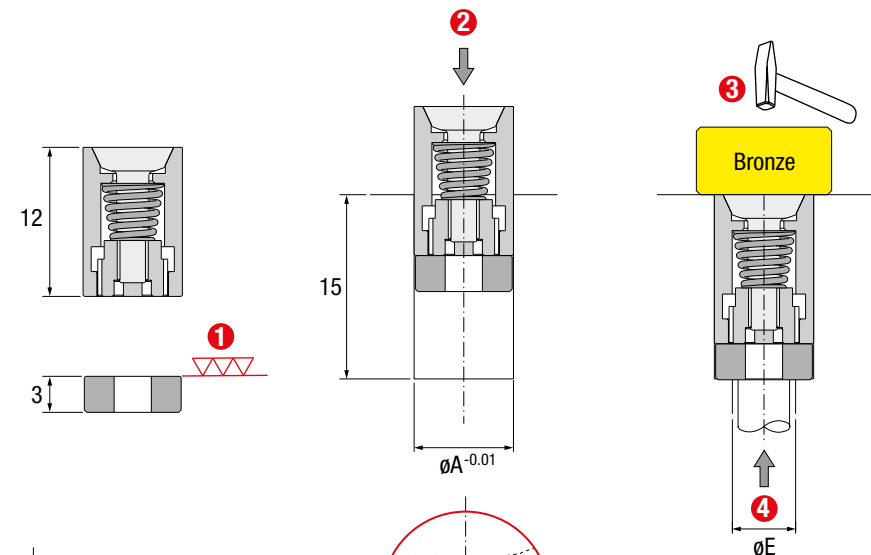
IMPORTANT !
Maximum Injection
Pressure: 1200 Kgs/cm²
(1BAR ~ 1kg/cm2)



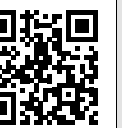
Ref.	A	B	C	E
FV.161320	16	13	20	14
FV.201720	20	17	20	18

Installation Guidelines

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



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

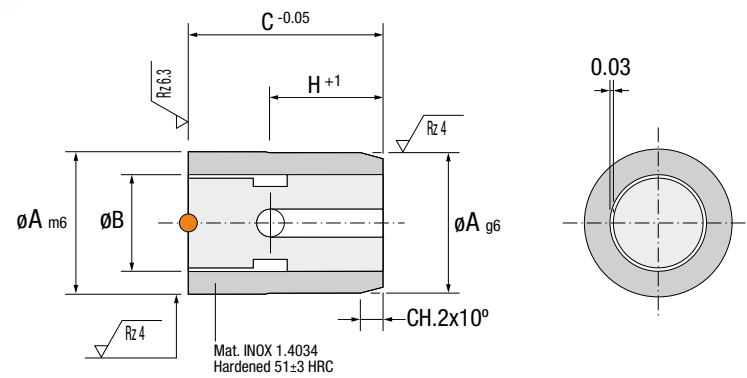


PLAY

VD

DOUBLE VALVE
ES Válvula Doble DE Ventil, doppelt wirkend
IT Valvola Doppia PT Válvula Dupla FR Double Valve

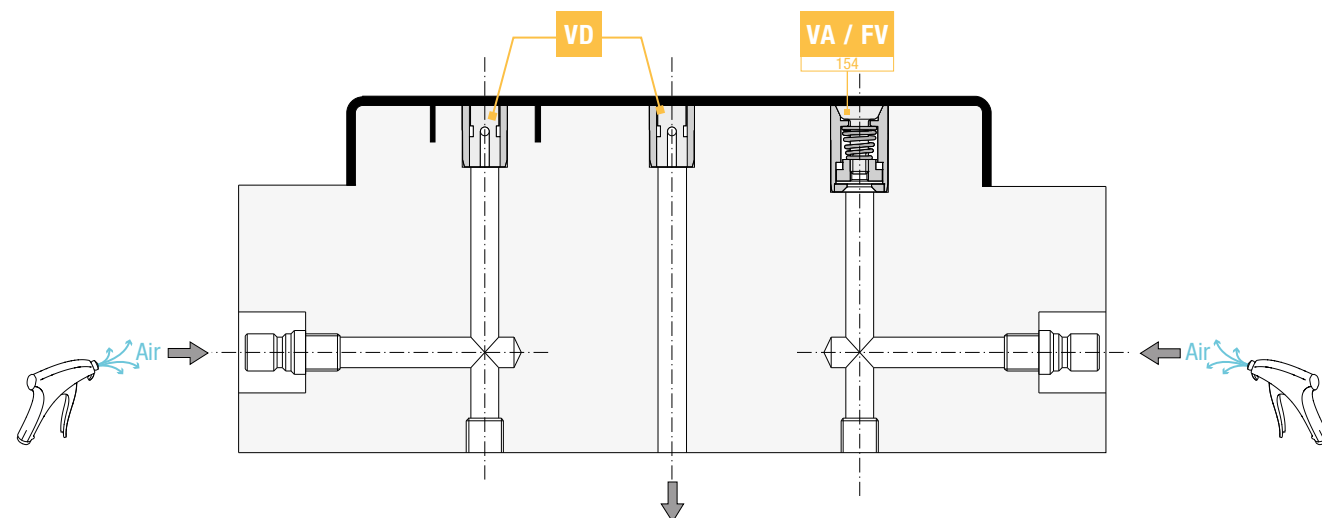
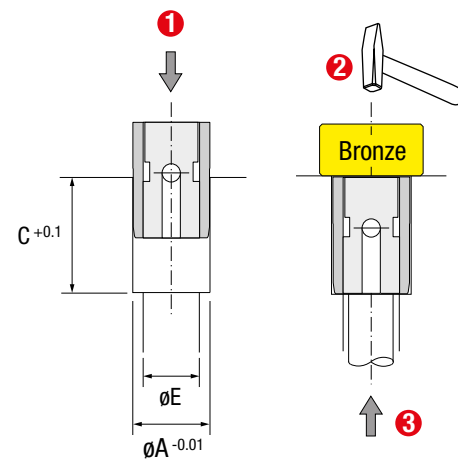
● Cad Insertion Point



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

Installation Guidelines

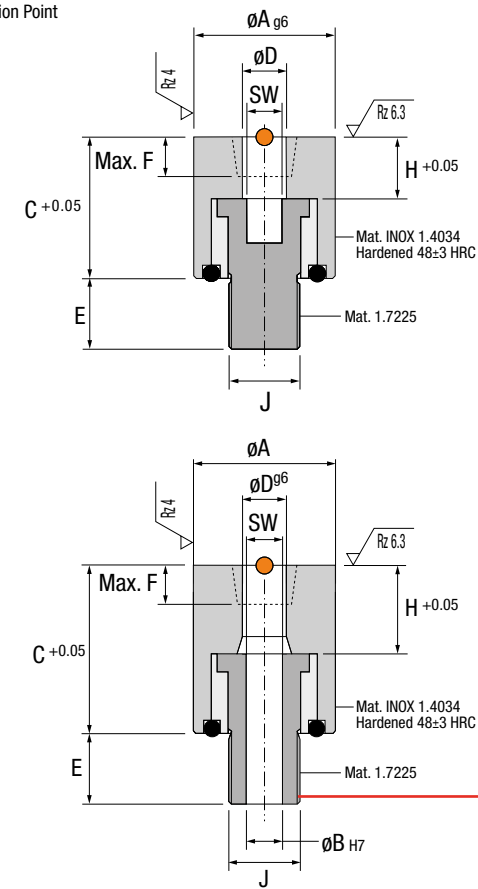
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



SPRUE ADJUSTER

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

● Cad Insertion Point



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

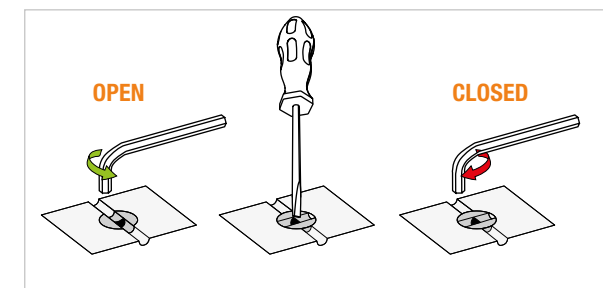
IMPORTANT !
With ejector bore.
Con alojamiento para expulsor.
Mit Auswerferbohrung.
Con alloggiamento per espulsore.
Com alojamento para extractor.
Avec placement pour l'éjecteur.

Installation Guidelines

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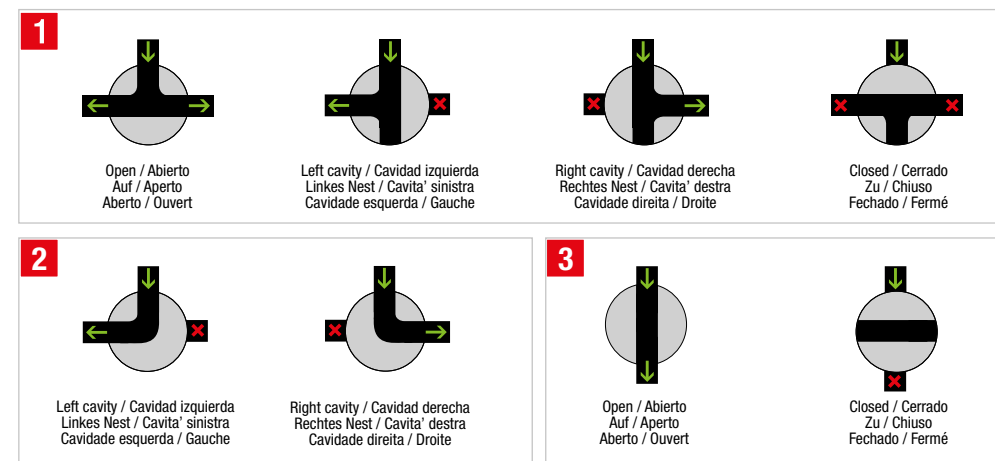
Trapezoidal runner

Full round runner



Possible configurations

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



SA

ACCESSORIES



Patented

Max. 100°C

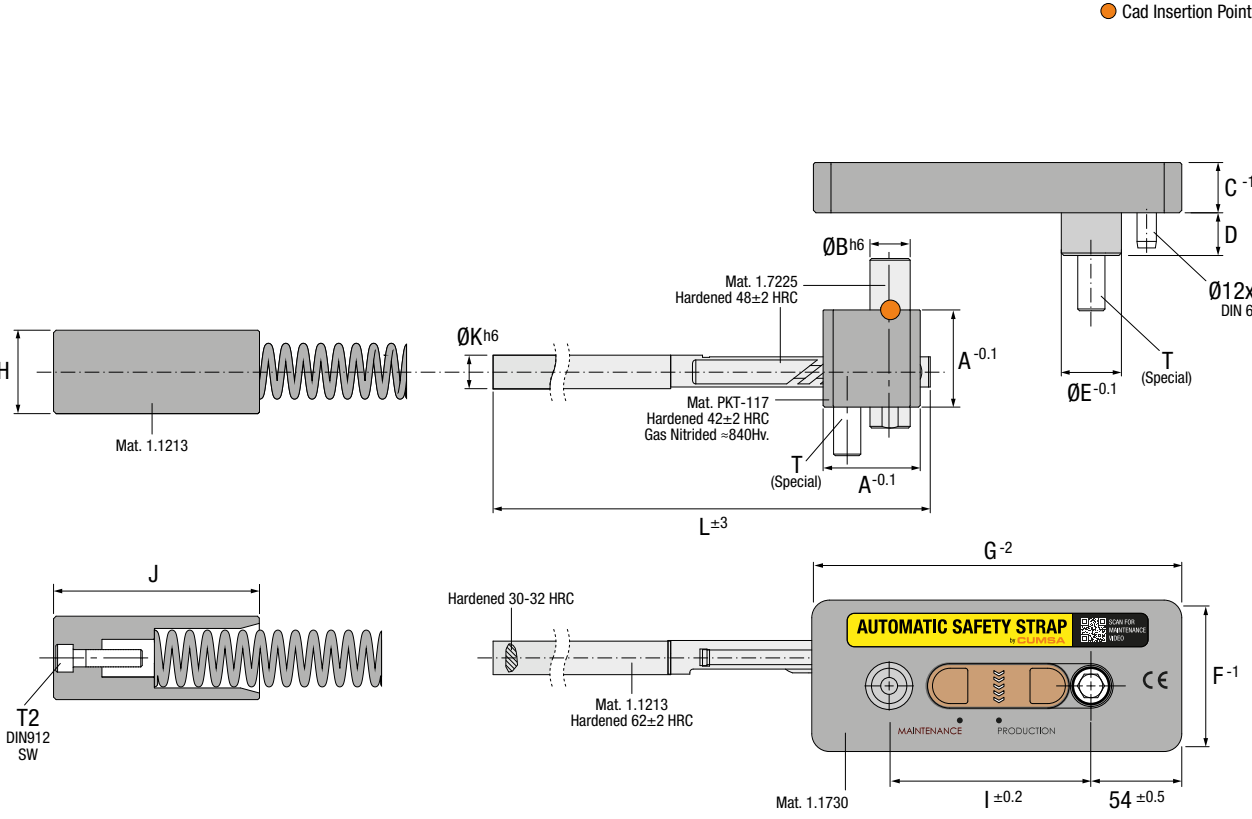
AS

ACCESSORIES



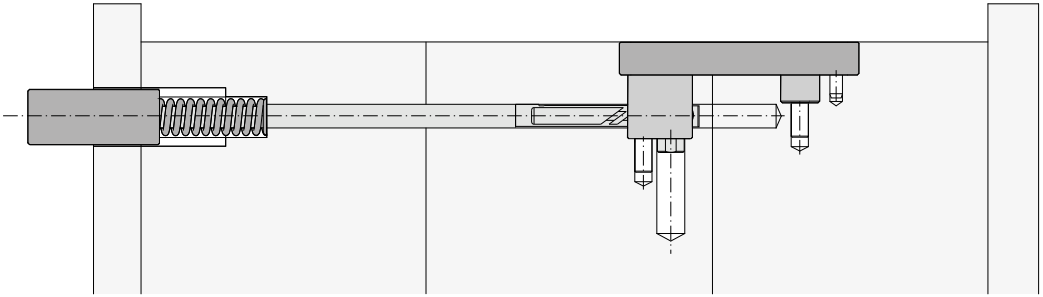
Max. 150°C

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

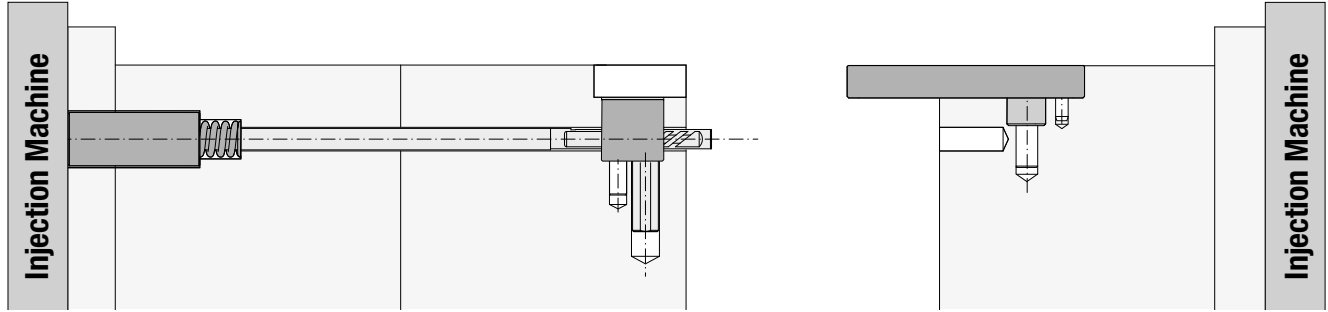


Ref.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	T2	U	V	W	X	Y	Z	SW	Max. Mold Size
AS.462024	46	20	25	21	26	70	190	39	100	100	16	619	24	30	43.8	20.8	18	12.3	M12x60	M8x50	31.8	12.3	35	15	35	55	10	10Tons
AS.582430	58	24	30	25	36	90	220	45	120	110	20	644	30	54	56	24	36	17	M16x70	M10x50	40	17	40	18	43.5	69	14	20Tons
AS.764040	76	40	40	32	42	100	260	48	152	120	24	674	32	60	68	40	34	18	M16x90	M10x50	56	25.2	50	26	60	85	14	30Tons

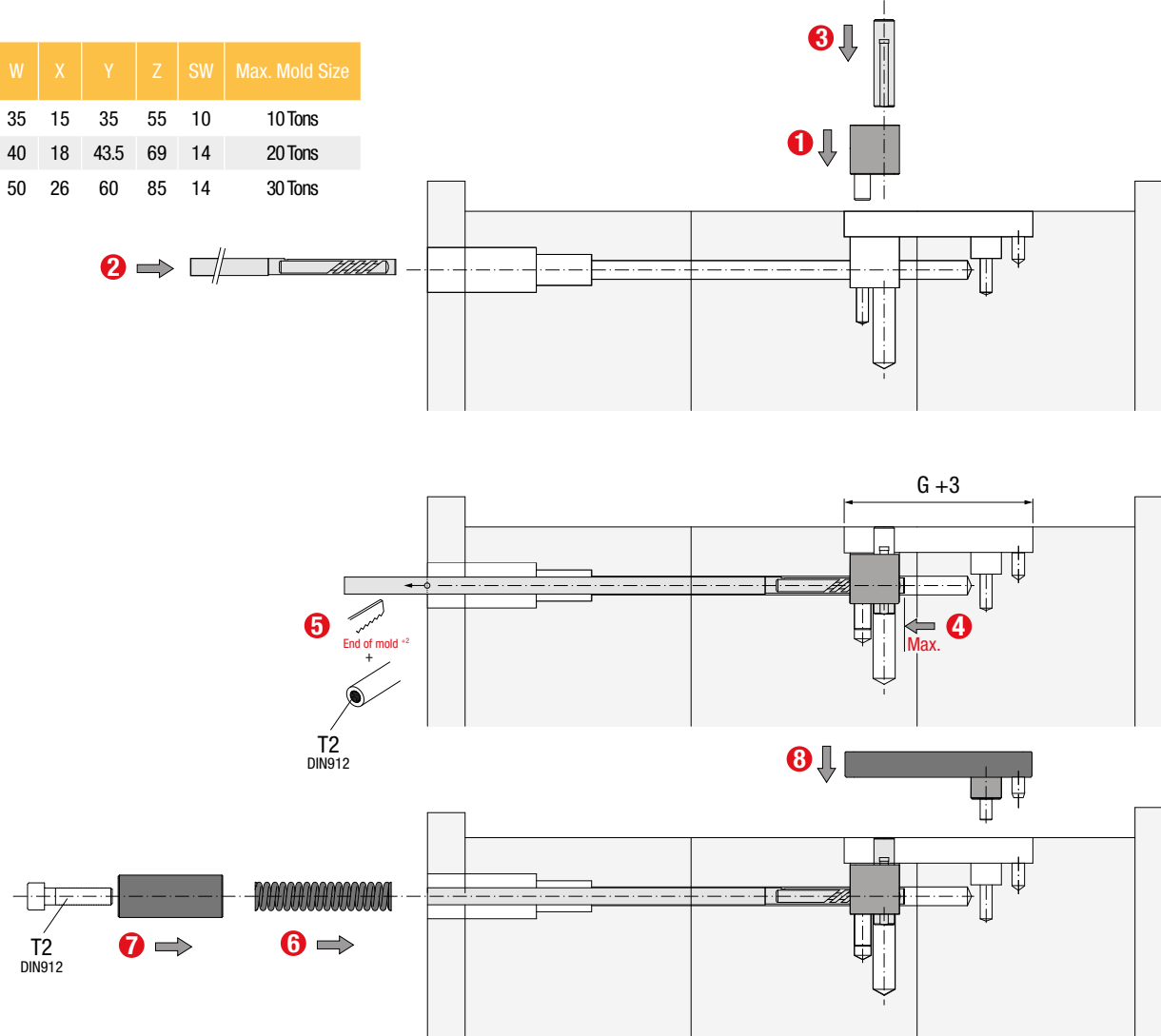
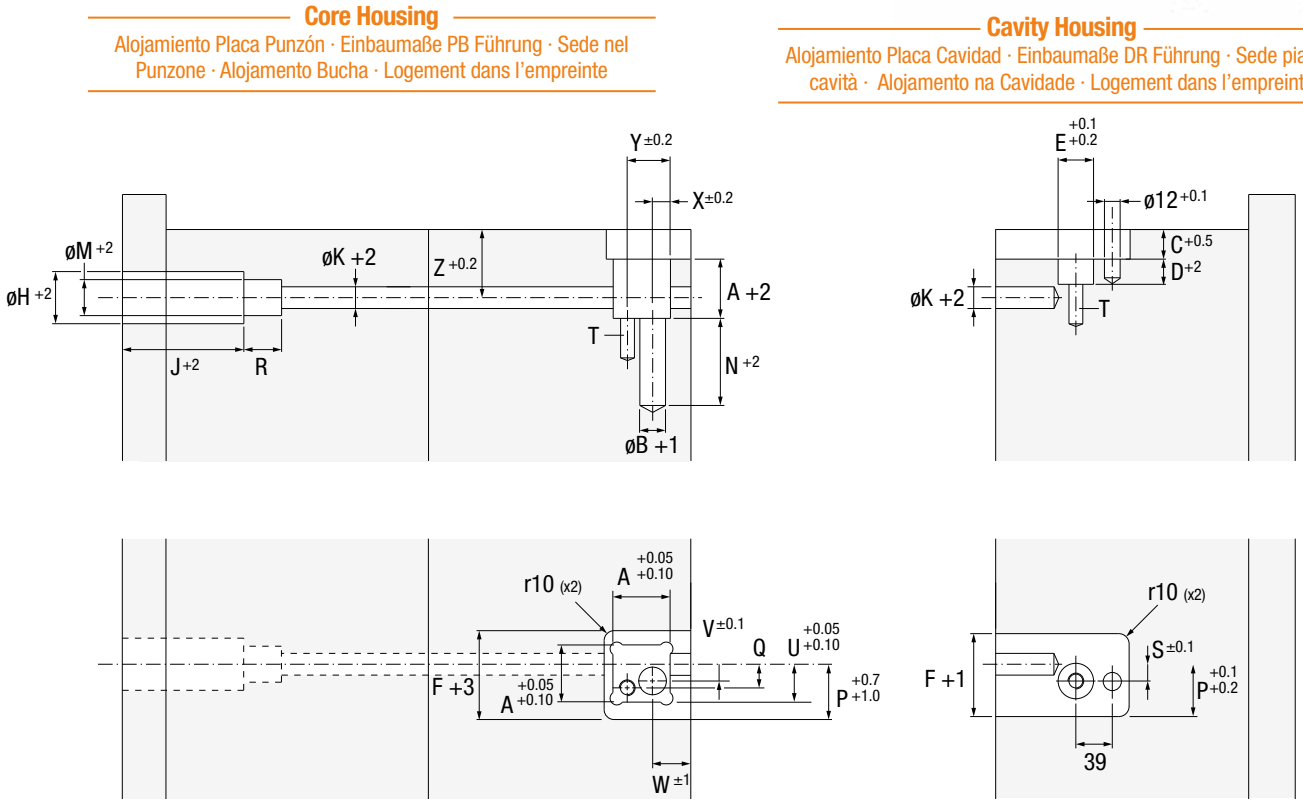
WAREHOUSE



PRODUCTION

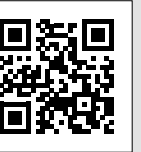


INSTALLATION GUIDELINES
ES Consejos de Instalación DE Richtlinien zur Installation
IT Consigli di Installazione PT Instruções de Instalação FR Mode d'Installation

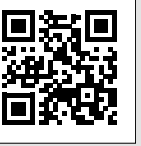


AS

ACCESSORIES



Max. 150°C



PLAY



PLAY

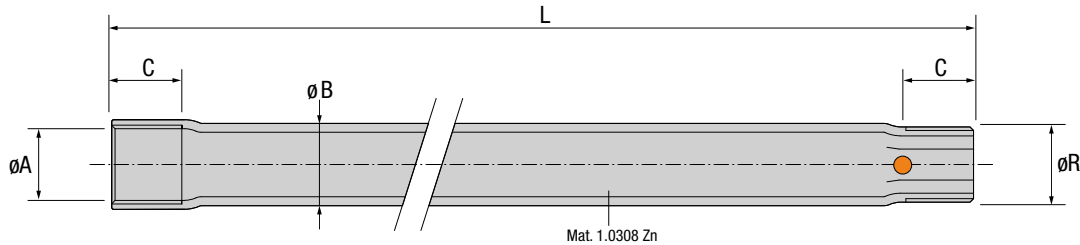
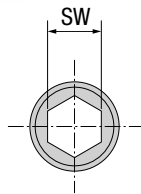
TH

ACCESSORIES



Max. 150°C

Cad Insertion Point



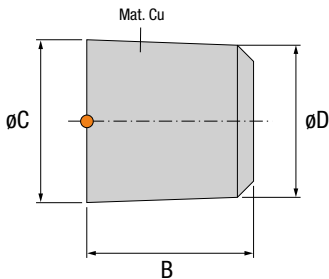
IMPORTANT !
Indicate the desired **L** dimension after the reference.
Indicar la cota **L** necesaria después de la referencia.
Gewünschte Länge **L** angeben.
Indicare la quota **L** desiderata dopo il codice.
Indique a dimensão **L** desejada depois da referência.
Indiquer longueur (**L**) désirée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

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

WATER PLUG FOR INSERT FACES

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

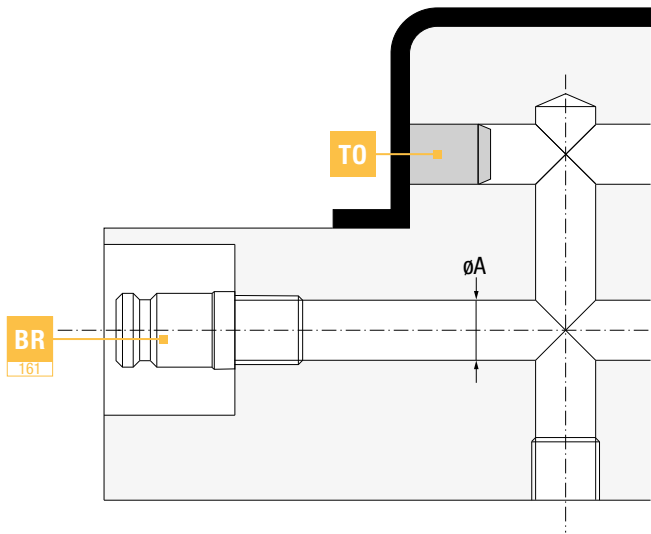
Cad Insertion Point



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

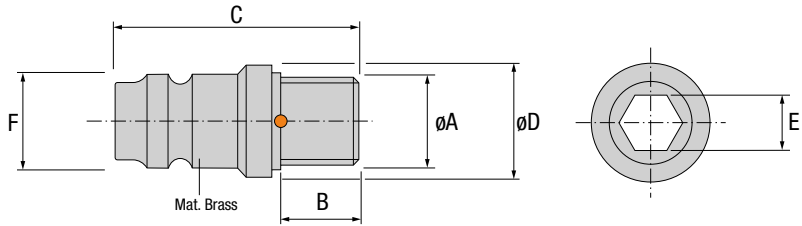
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



WATER CONNECTOR

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

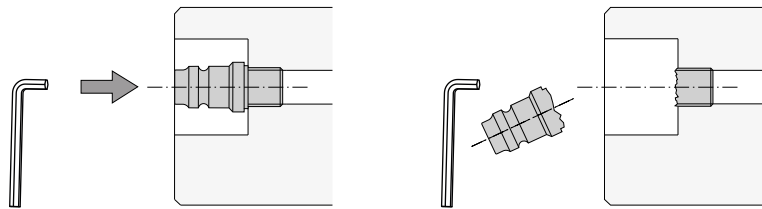
Cad Insertion Point



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

Installation Guidelines

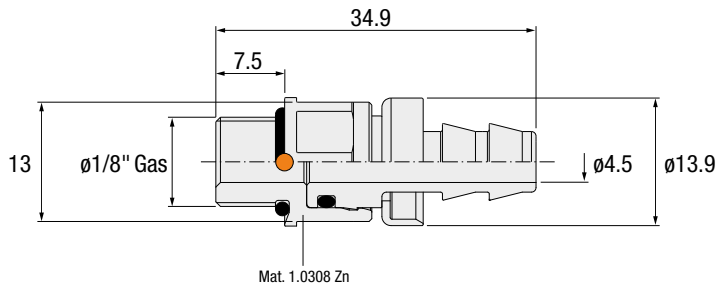
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



COOLING CONNECTOR

ES Conector Refrigeración DE Kühlung Kuppelungsstück
IT Attacco Refrigerazione PT Conector de Refrigeração FR Connexion de Refroidissement

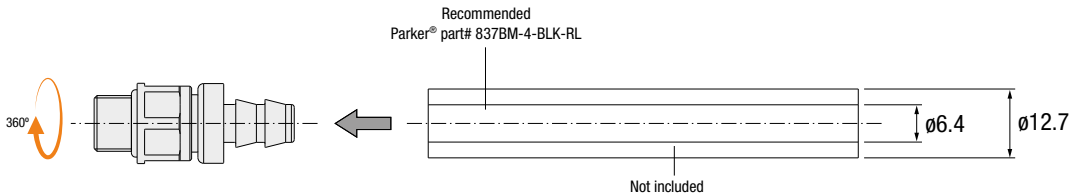
Cad Insertion Point



Ref.
RL.181235

Installation Guidelines

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



BR

ACCESSORIES



European System

Max. 150°C

T0

ACCESSORIES



Max. 150°C

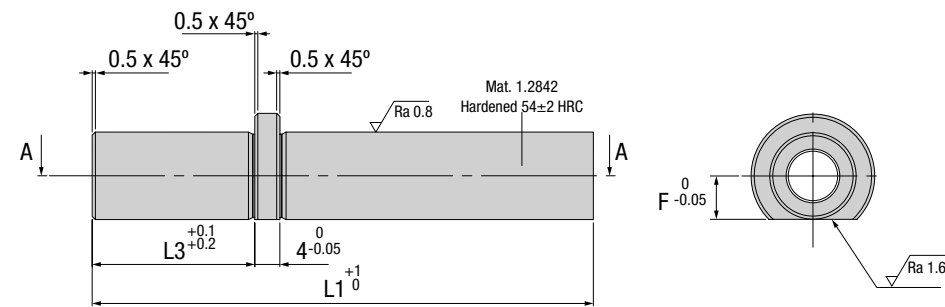
RL

ACCESSORIES

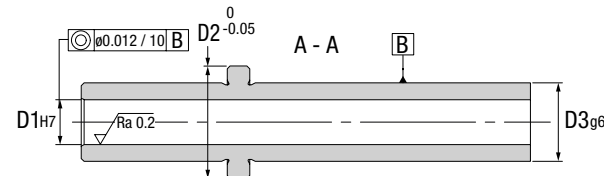


Max. 80°C

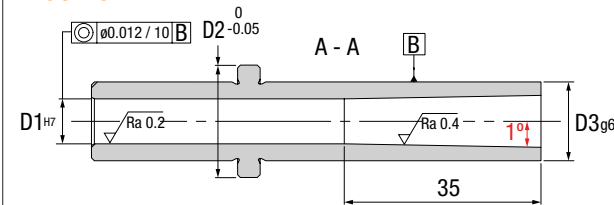
SERIE 51110



STANDARD



CONICAL

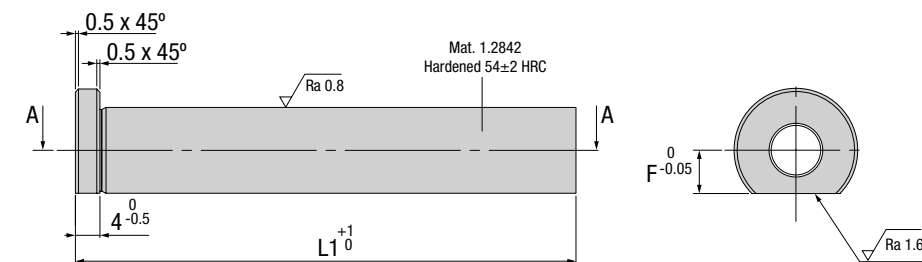


STANDARD	CONICAL	D2	F	L3	D3	L1	D1
S51110-20-12-60-6	CS51110-20-12-60-6	16	6	20	12	60	6
S51110-26-14-xxx-8	CS51110-26-14-xxx-8	20	7	26	14	80	100
S51110-26-16-xxx-10	CS51110-26-16-xxx-10	22	8	26	16	80	100
S51110-50-14-120-8	CS51110-50-14-120-8	20	7	50	14	120	8
S51110-50-16-120-10	CS51110-50-16-120-10	22	8	50	16	120	10

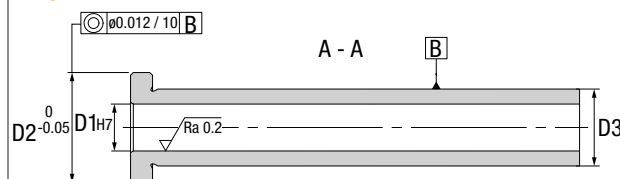
IMPORTANT

Replace the **xxx** in the reference with the L1 dimension.
Sustituir la **xxx** de la referencia por la cota L1.
Ersetzen Sie bei der Referenz das **xxx** durch die gewünschte L1 Dimension.
Sostituire la **xxx** del codice con la dimensione L1.
Substituir o **xxx** da referencia pela cota L1.
Remplacez la valeur **xxx** par la valeur L1.

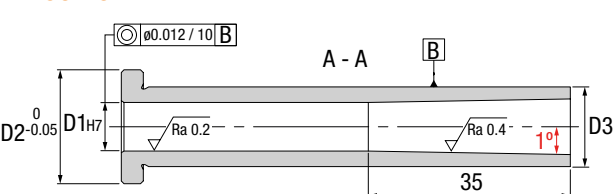
SERIE 51011



STANDARD



CONICAL

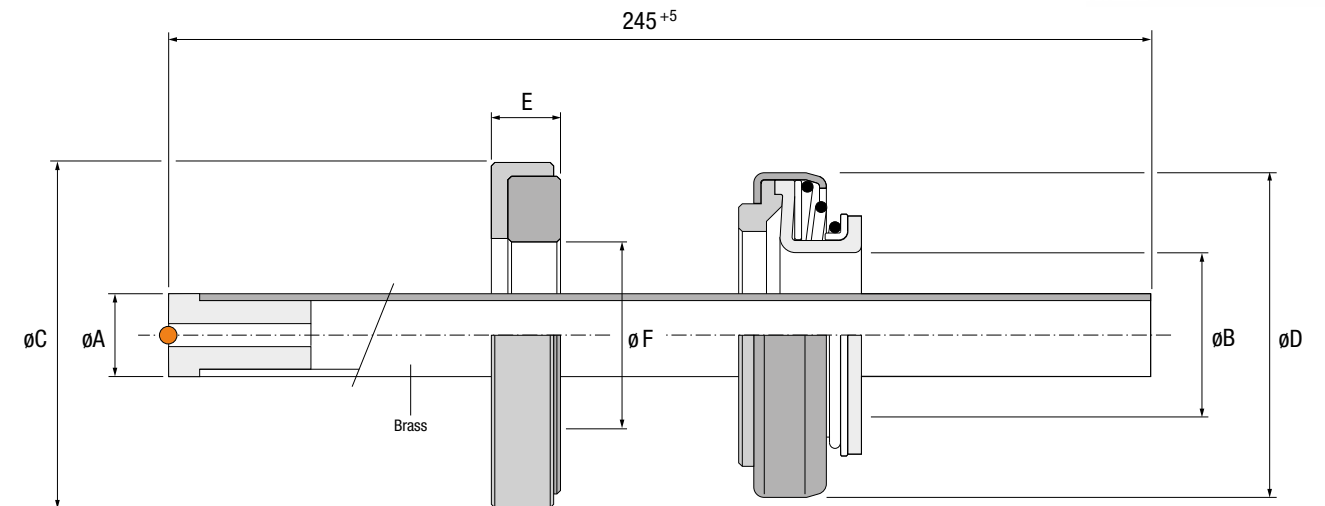


STANDARD	CONICAL	D2	F	D3	L1	D1
S51011-10-80-6	CS51011-10-80-6	16	5	10	80	6
S51011-12-80-8	CS51011-12-80-8	18	6	12	80	8
S51011-14-xxx-8	CS51011-14-xxx-8	20	7	14	80	100
S51011-16-xxx-10	CS51011-16-xxx-10	22	8	16	80	100

IMPORTANT

Replace the **xxx** in the reference with the L1 dimension.
Sustituir la **xxx** de la referencia por la cota L1.
Ersetzen Sie bei der Referenz das **xxx** durch die gewünschte L1 Dimension.
Sostituire la **xxx** del codice con la dimensione L1.
Substituir o **xxx** da referencia pela cota L1.
Remplacez la valeur **xxx** par la valeur L1.

● Cad Insertion Point



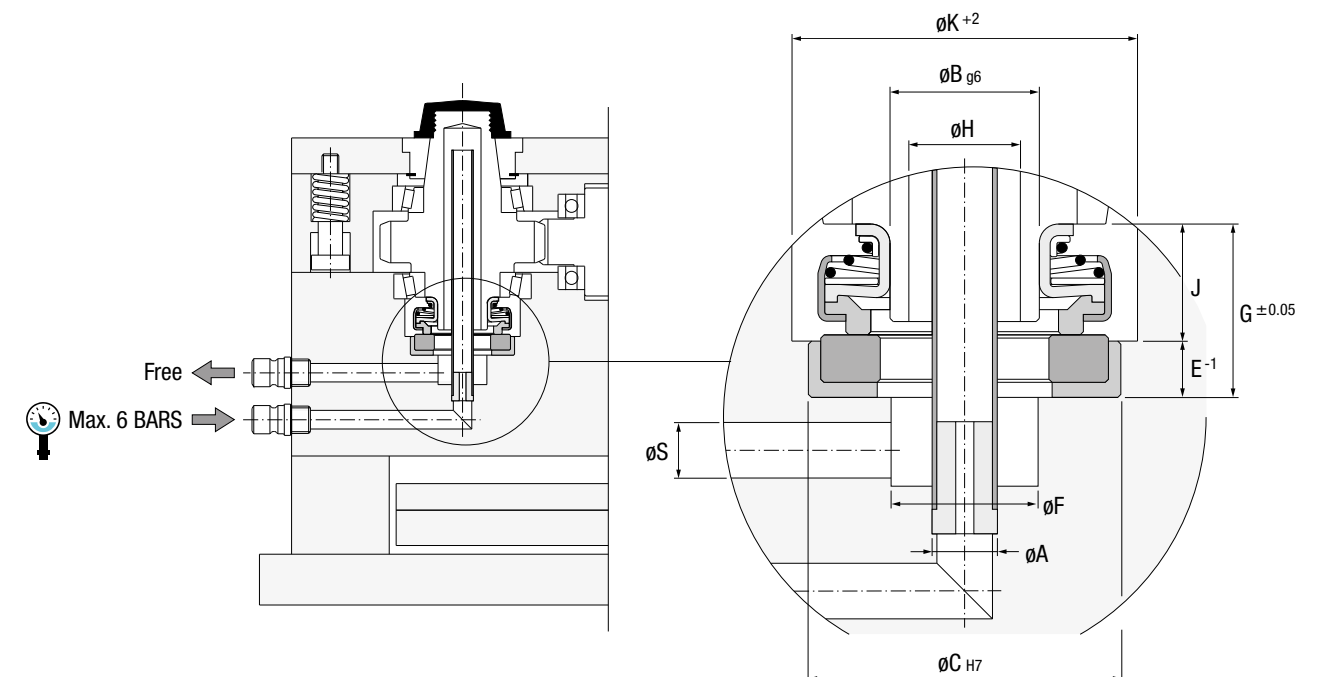
Ref.	A	B	C	D	E	F	G	H	J	K	S
JR.061226	6	12	26	24	8	13	21	8.5	13	26	5
JR.081529	8	15	29.5	32	8	17	21	10.5	13	35	7
JR.101942	10	19	42	39	8	21	21	14	13	41	9
JR.122245	12	22	45	42	10	26	23	17	13	45	11
JR.162550	16	25	50	47	10	27	24	22	14	50	15

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 línea. No trabajar en 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

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

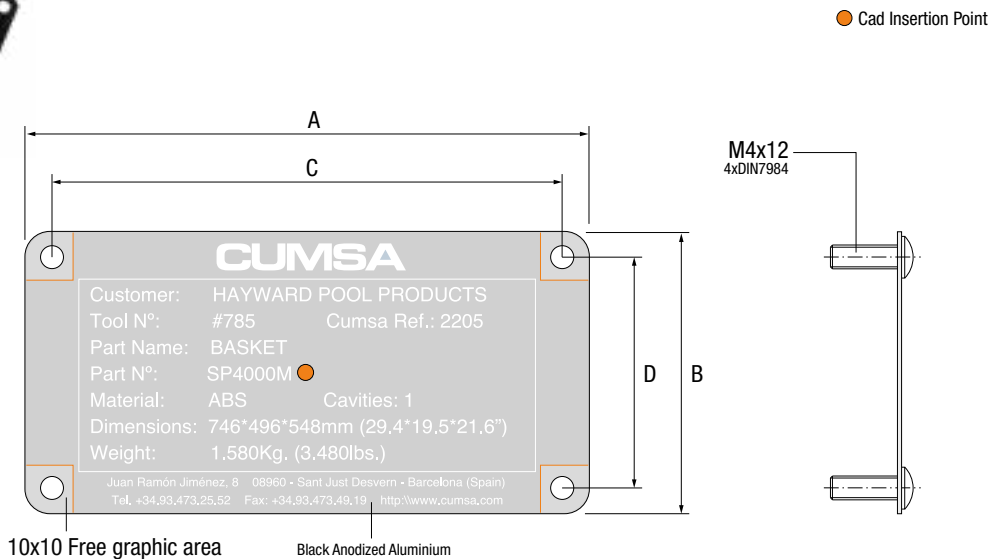




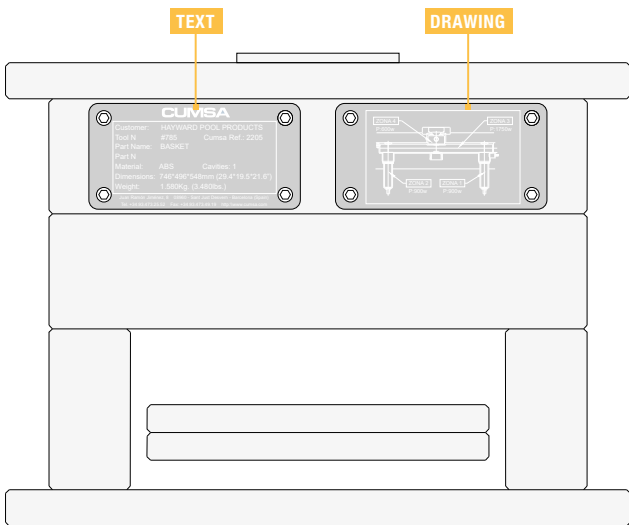
Laser Marking
Max. 200°C

IDENTIFICATION PLATE

ES Placa Identificación DE Typenschild
IT Piastra Identificazione PT Placa de Identificação FR Plaque d'Identification



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?

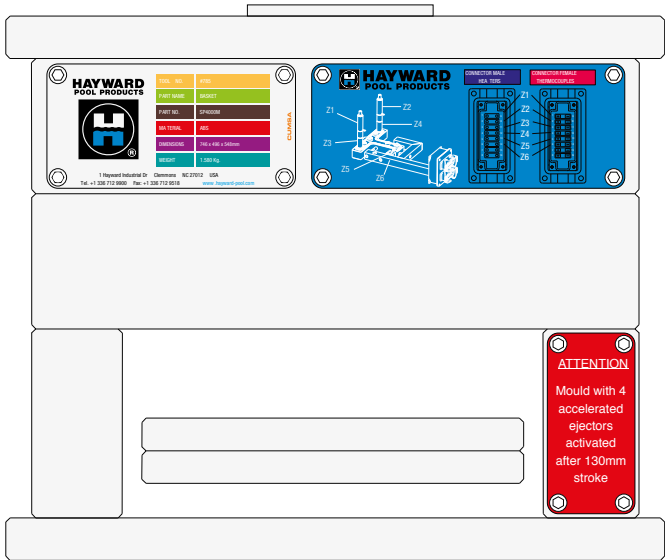
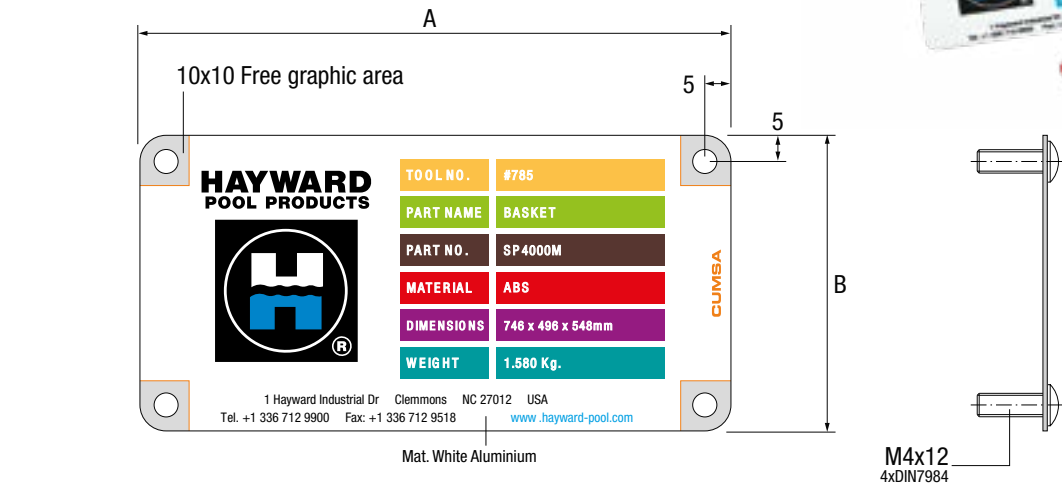
Cómo realizar un pedido? · Bestellvorgang · Come realizzare un ordine? · Como realizar um pedido? · Comment effectuer une commande?

- DESIGN.** The DXF and PDF vectorized file containing the required design must be sent by email.
ES DISEÑO. Nos envían por e-mail un archivo en formato DXF y PDF vectorizado que contenga el diseño a grabar.
DE ENTWURF. Die vektorisierte DXF und PDF-Datei, die das gewünschte Design enthält, muss per E-Mail gesendet werden.
IT DISEGNO. Inviateci via e-mail un archivo in formato DXF e PDF vettoriale che contengail disegno da incidere.
PT DESENHO. Enviar por e-mail um arquivo em formato DXF e PDF vectorizado que contenha o desenho a gravar.
FR CONCEPTION. Envoyer par e-mail un fichier au format DXF et PDF vectorisé contenant la conception de la plaque à graver.

- 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



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?

- Send a PDF file with the following properties:**
 - Send desired design at 1:1 Scale.
 - Provide drawing inside of a rectangle with the correct plate dimensions.
 - Do not draw the screw holes neither the rounded corners.
 - 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 após confirmação, salvo indicação em contrário.
FR Les plaquettes seront prêtes en 48-72h après confirmation, sauf indication contraire.
- ES Enviar un archivo PDF con las características:**
- El diseño deseado y escala 1:1
 - Delimitado por un rectángulo con la medida de la placa.
 - Sin cantos redondeados ni agujeros.
- DE Senden Sie eine PDF-Datei mit den folgenden Merkmalen an uns:**
- Der gewünschte Entwurf im Maßstab 1:1.
 - Stellen Sie uns eine Zeichnung innerhalb eines Rechtecks mit den korrekten Plattenabmessungen zur Verfügung.
 - Zeichnen Sie weder die Schraubenlöcher noch die abgerundeten Ecken ein.
- IT Inviare un file PDF con queste caratteristiche:**
- Il disegno desiderato e la scala 1:1
 - Delimitato da un rettangolo con le dimensioni della piastra
 - Senza bordi arrotondati o fori.
- PT Enviar ficheiro PDF com as seguintes características:**
- O desenho pretendido na escala de 1:1
 - Delimitado por um retângulo com a medida da chapa.
 - Sem cantos em raio nem furos.
- FR Envoyez le fichier PDF avec les caractéristiques suivantes:**
- Plan à l'échelle 1 :1
 - Sous forme de rectangle avec les dimensions réelles de la plaque.
 - Sans rayons , ni passage de vis.



Max. 100°C

SC

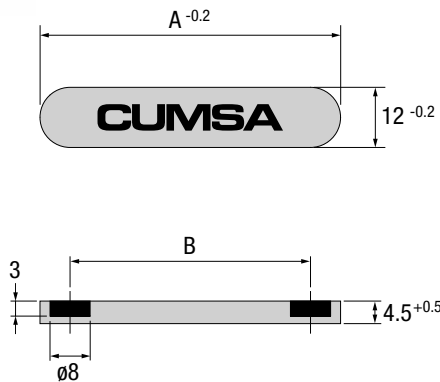
ACCESSORIES



Max. 150°C

CABLE RETAINER

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

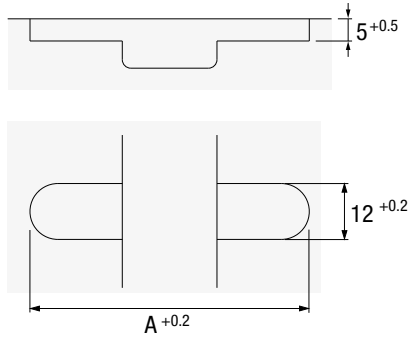
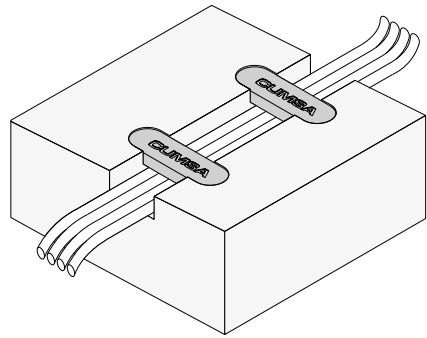


Ref.	A	B	Material	Max. Temp.
SC.401245	40	28	Nylon	80°C
SC.401245H	40	28	PA+30% Glass Fiber	150°C
SC.601245	60	48	Nylon	80°C
SC.601245H	60	48	PA+30% Glass Fiber	150°C

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

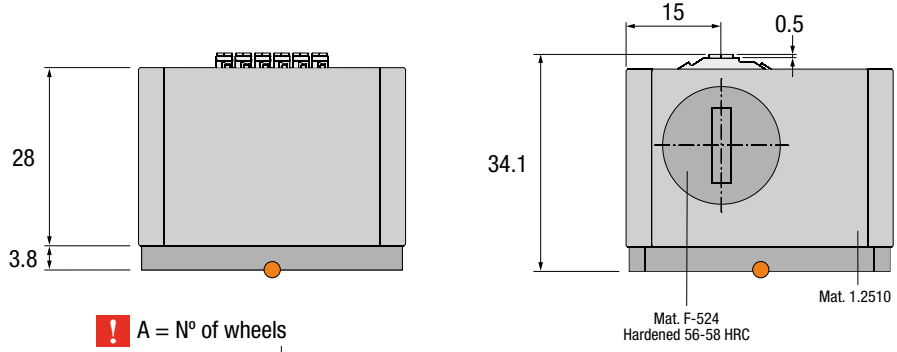
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



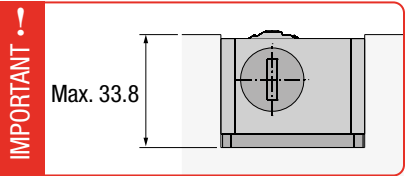
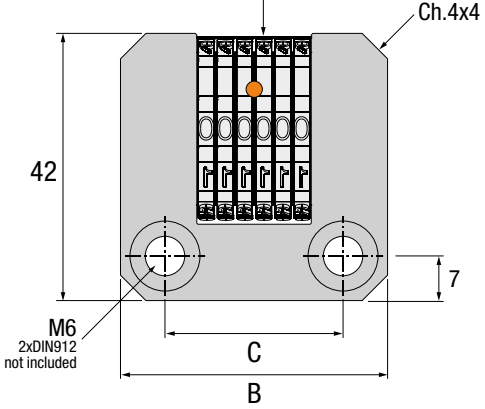
MARKING UNIT

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

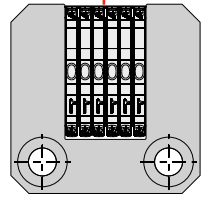
● Cad Insertion Point



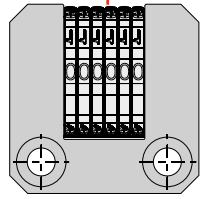
! A = N° of wheels



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



Normal Position



Reverse Position

UM

ACCESSORIES



Patented
Max. 150°C

SM

ACCESSORIES

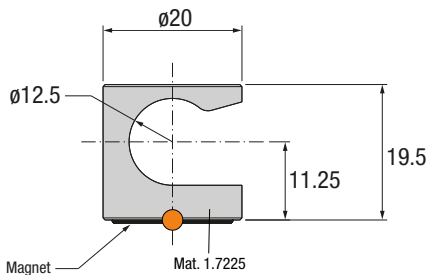


Max. 80°C

HOSE RETAINER

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

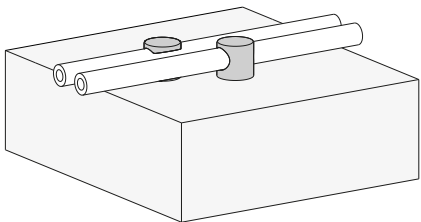
● Cad Insertion Point



Ref.
SM.122020

Installation Guidelines

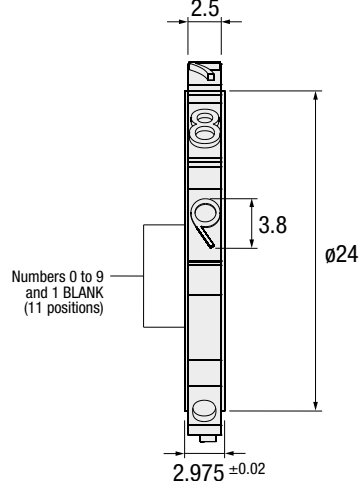
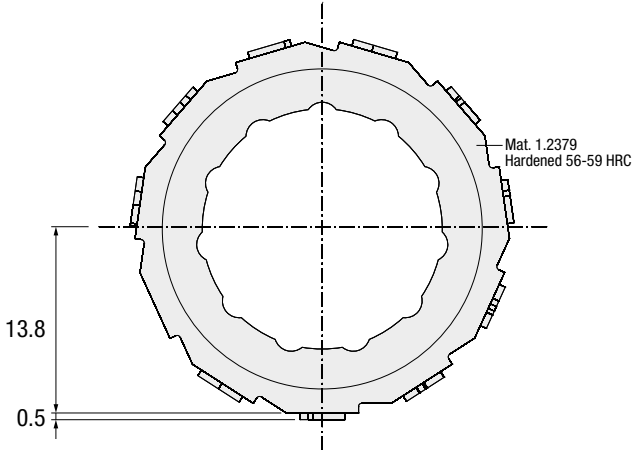
Consejos de Instalación · Richtlinien zur Installation · Consigli di Installazione · Instruções de Instalação · Mode d'Installation



INTERCHANGEABLE WHEEL

ES Rueda Recambio DE Austauschbare Prägeräder
IT Ruota di Ricambio PT Roda de Substituição FR Rondelle de Remplacement

Ref.
RR.180311



RR

ACCESSORIES



Patented
Max. 150°C

Notas / Anmerkungen / Appunti / Notas / Notes

This image shows a blank sheet of white paper with horizontal orange lines. The lines are evenly spaced and run across the width of the page, providing a guide for writing or drawing. There are no other markings, text, or illustrations on the page.

INNOVATING FOR YOUR MOLDS