

*Solutions for Metalworking*

[www.tcpunzones.com](http://www.tcpunzones.com)



Trumpf® system

**TC PUNZONES Y MATRICES**  
[www.tcpunzones.com](http://www.tcpunzones.com)  
Tlf. +34 934 228 023  
[info@tcpunzones.com](mailto:info@tcpunzones.com)

Trumpf® System

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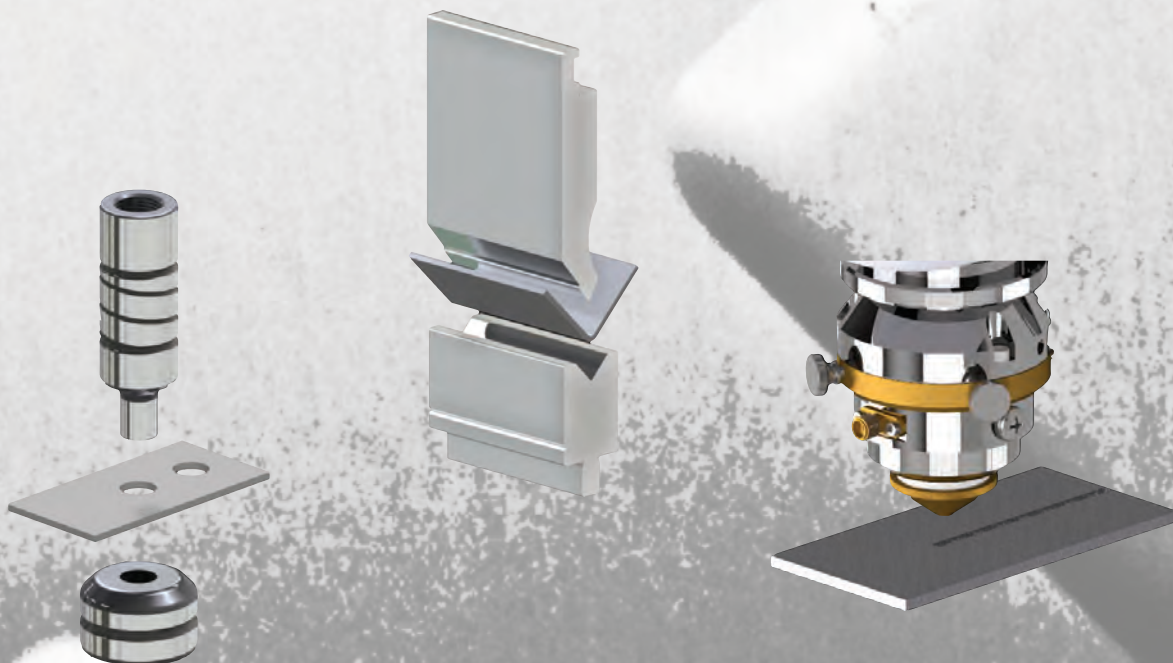
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Porta Punzón  
Punch Holder

Ø6 mm  
Ø10,5 mm



LARGO TOTAL  
TOTAL LENGTH  
L = 74,5mm  
L = 77,5mm



Separador  
Mini  
Mini stripper  
\*GRUPO  
GROUP  
S

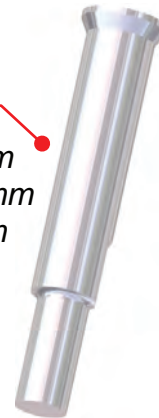
Punzón  
Insertable  
Insertable  
Punch

Ø6 mm  
L = 59,5 mm  
L = 63 mm



Punzón  
Insertable  
Formas y  
Redondos  
Insertable  
Punch  
Shapes &  
Rounds

Ø10,5 mm  
L = 59,5 mm  
L = 63 mm



Pisador  
de Uretano  
Urethane  
Stripper

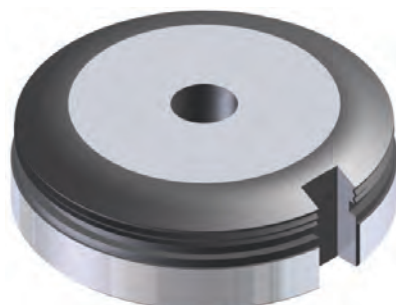


Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
A B C D E F G

Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
H I



Matriz  
Tamaño I  
Size I die



Punzón  
Punch



Pisador  
de Uretano  
Urethane  
Stripper



Separador  
Mini  
Mini stripper  
\*GRUPO  
GROUP  
S



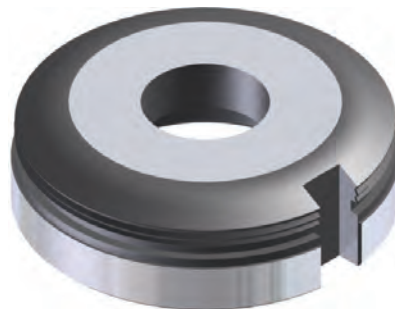
Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
A B C D E F G



Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
H I



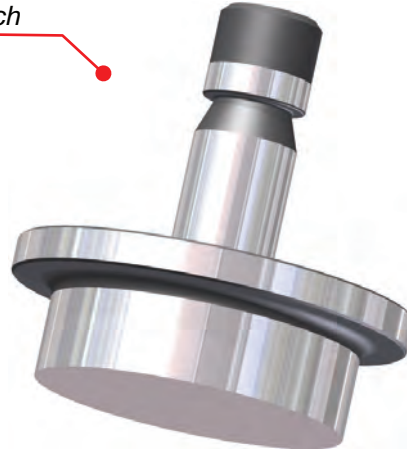
Matriz  
Die



- **Figura máxima inscrita en Ø31mm**
- *Maximum shape inscribed in Ø31mm*
- **Suplementos de matriz de espesor**
- *Die supplement Ring*
- 0,3 - 0,5 mm**



Punzón  
Punch



Pisador  
de Uretano  
Urethane  
Stripper



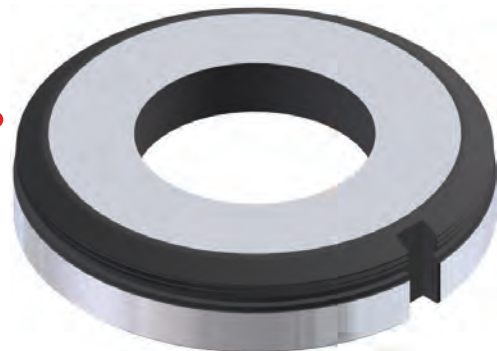
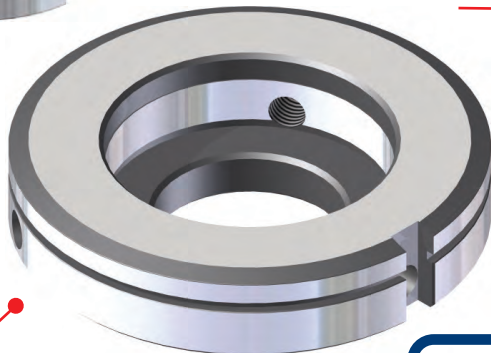
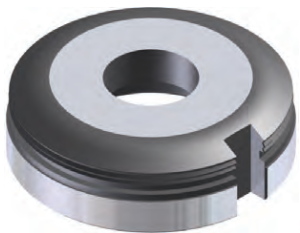
Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
A B C D E F G

Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
H I



Matriz  
Tamaño I  
Die size I

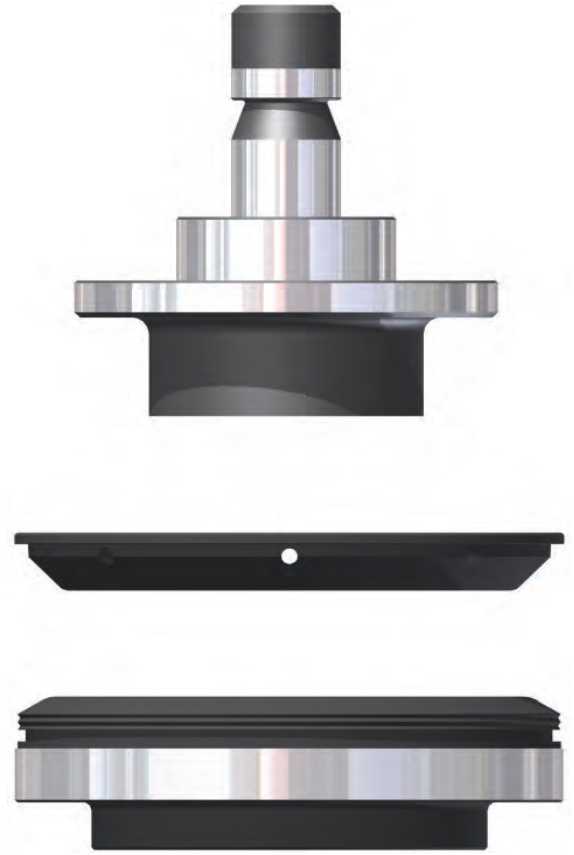
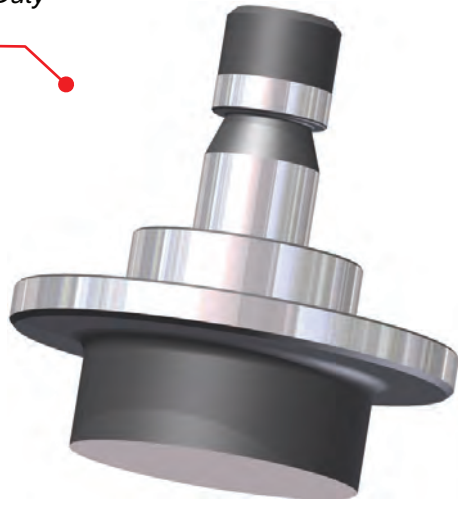
Matriz  
Tamaño II  
Die Size II



Reductora  
Matriz 100/60  
Die adapter 100/60

- **Figura máxima inscrita en Ø77mm**
- *Maximum shape incised in Ø77mm*
- **Suplementos de matriz de espesor**
- *Die supplement Shims*
- 0,3 - 0,5 mm**

Punzón  
Reforzado  
Heavy Duty  
Punch



Separador  
Tamaño II  
Size II Stripper

\*GRUPOS  
GROUPS  
A B C D E F G



Separador  
Tamaño II  
Size II Stripper

\*GRUPOS  
GROUPS  
H I



Matriz  
Reforzada  
Heavy Duty  
Die



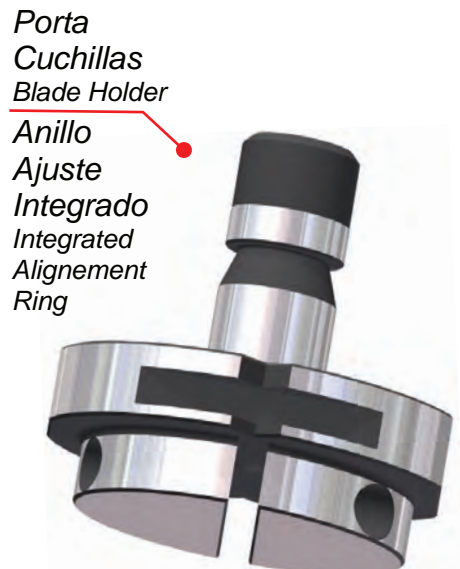
- **Figura máxima inscrita en Ø77mm**

- *Maximum shape inscribed in Ø77mm*

- **Suplementos de matriz de espesor**

- *Die supplement Ring*

**0,3 - 0,5 mm**



30x5 mm  
56x5 mm  
76,2x5 mm

Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
A B C D E F G



Separador  
Tamaño II  
Size II Stripper  
\*GRUPOS  
GROUPS  
H I



Inserto Matriz  
Die Insert



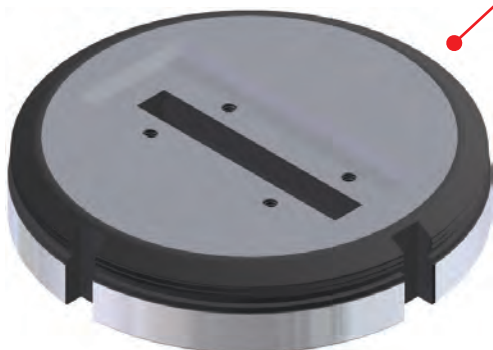
30x5 mm  
56x5 mm

Inserto Matriz  
Die Insert

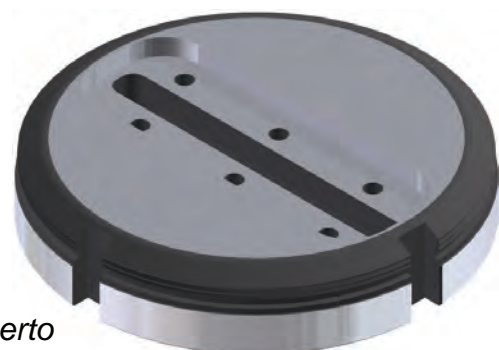


76,2x5 mm

Porta Inserto  
Insert Holder Die

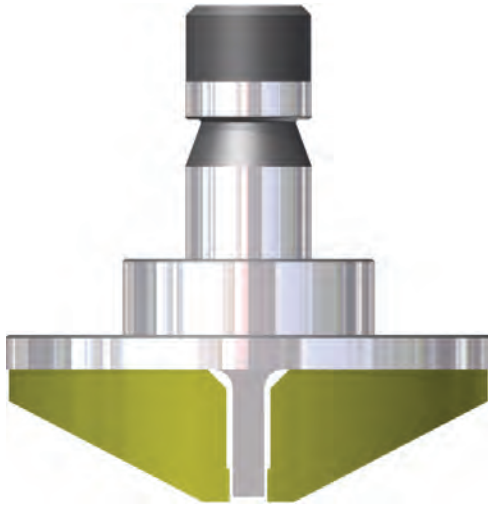


30x5 mm  
56x5 mm



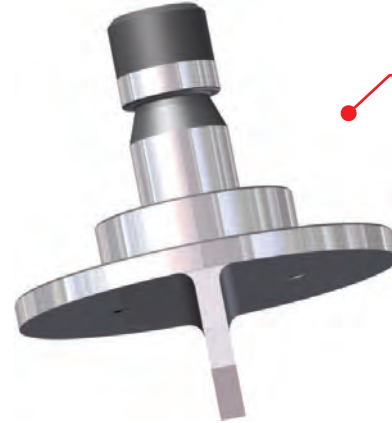
Porta Inserto  
Insert Holder Die

76,2x5 mm



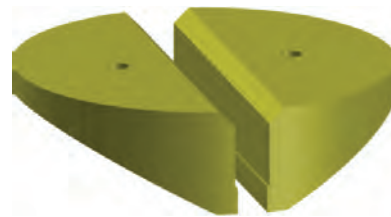
Punzón  
Cortador  
Slitting Punch

76,2x5 mm  
56x5 mm

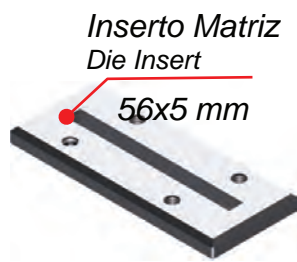


Pisadores  
Poliuretano  
Urethane Self  
Stripper

76,2x5 mm  
56x5 mm



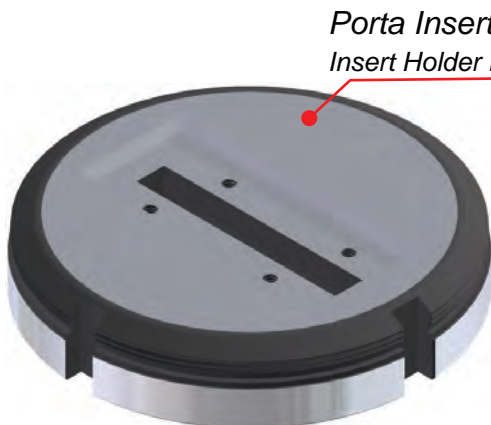
Matriz  
Tamaño II  
Size II Die  
76,2x5 mm  
56x5 mm



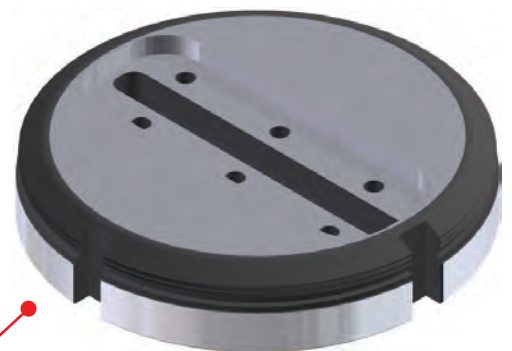
Inserto Matriz  
Die Insert  
56x5 mm



Inserto Matriz  
Die Insert  
76,2x5 mm



Porta Inserto  
Insert Holder Die  
56x5 mm

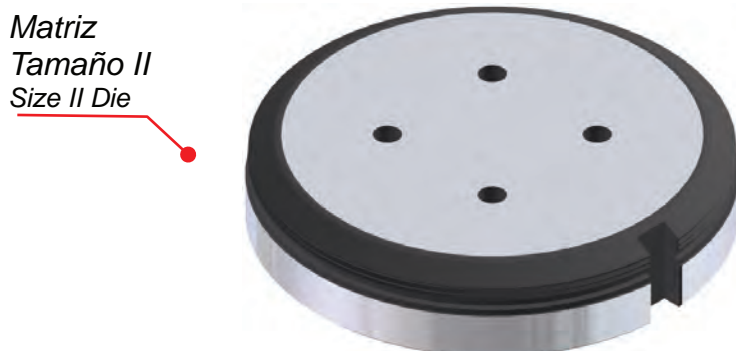
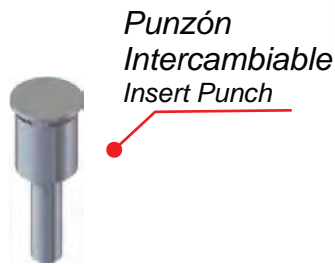
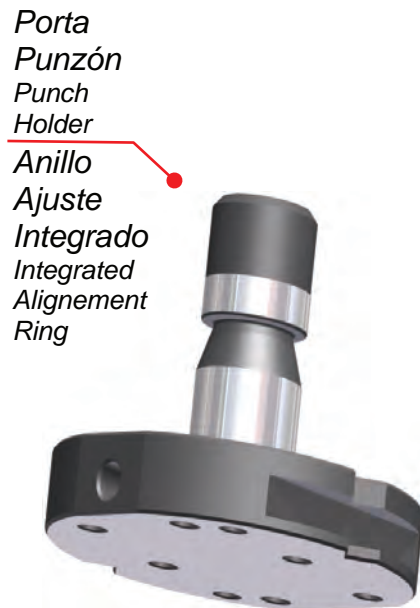
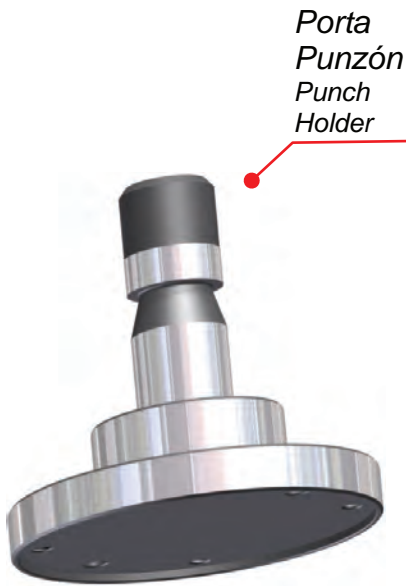


Porta Inserto  
Insert Holder Die  
76,2x5 mm

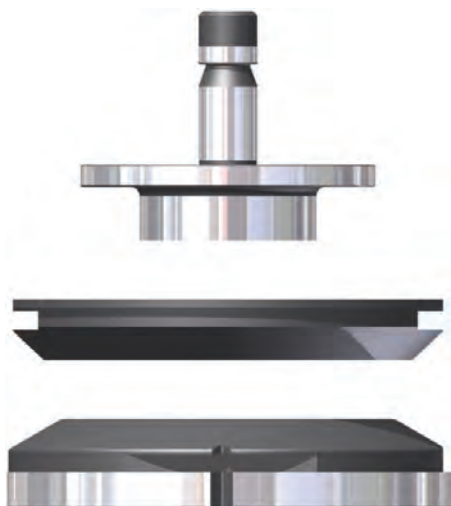


# Tamaño II Múltiples / Size II Clusters

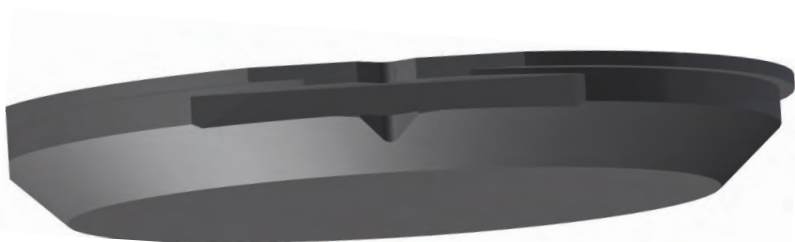
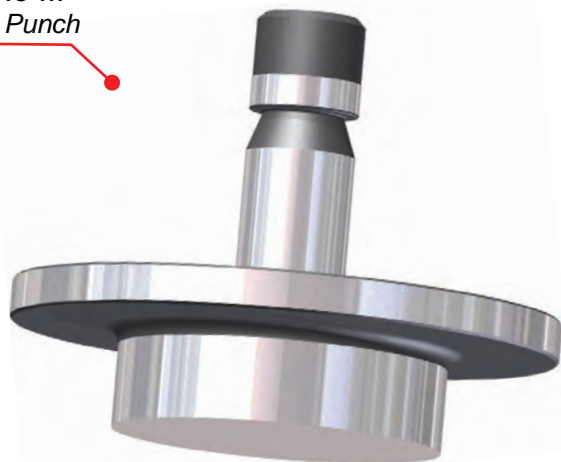
TRUMPF®



Todos los múltiples requieren un estudio previo.  
All clusters needs previus study.

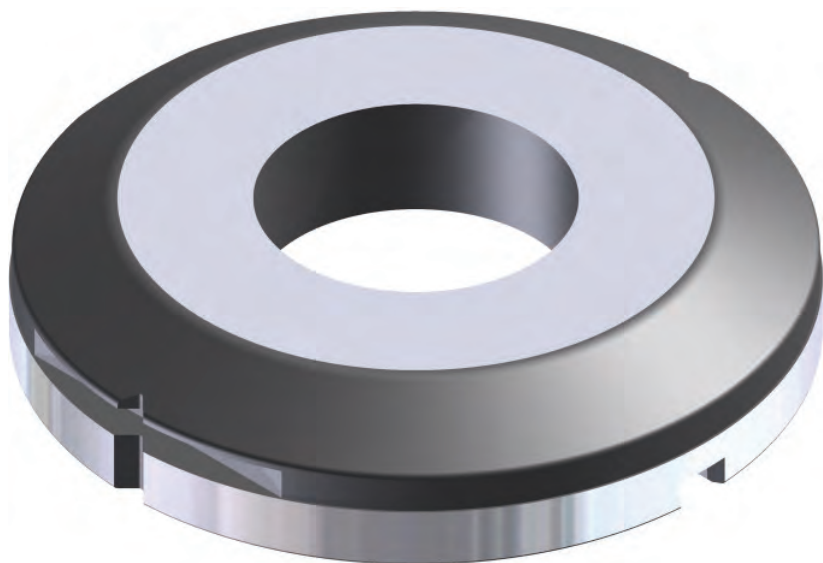


Punzón  
Tamaño III  
Size III Punch



Separador  
Tamaño III  
Size III Stripper

Matriz  
Tamaño III  
Size III Die



- Figura máxima inscrita en Ø100mm  
- Maximum shape inscribed in Ø100mm



Punzón  
Punch  
MT-4

Max.  
Ø16mm



Matriz  
Die  
MT-4



Punzón  
Punch  
MT-3 & 6

Max.  
Ø10,5mm

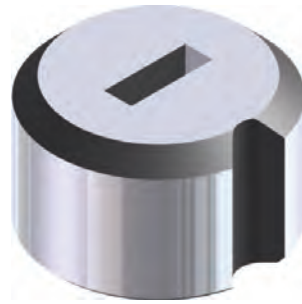


Matriz  
Die  
MT-3 & 6



Punzón  
Punch  
MT-5

Max.  
Ø16mm



Matriz  
Die  
MT-5



Punzón  
Punch  
MT-10

Max.  
Ø10,5mm



Matriz  
Die  
MT-10



Bola  
Expulsora  
Ejector Ball



Punzón  
Punch



Matriz  
Die



Punzón  
Avellanador  
Countersink  
Punch

Hacia  
Abajo  
Down  
Version

Punzón  
Avellanador  
Countersink  
Punch

Hacia  
Arriba  
Up  
Version

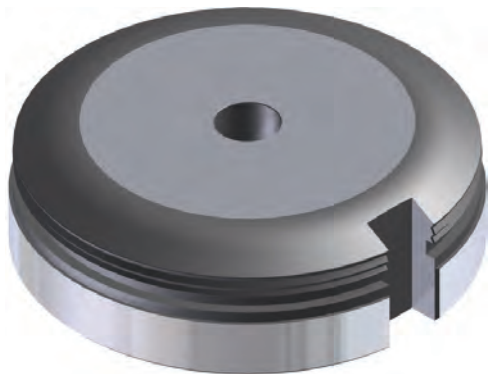


Bola  
Expulsora  
Ejector Ball



Hacia  
Arriba  
Up Version

Matriz  
Avellanador  
Countersink  
Die



Hacia  
Abajo  
Down Version

Matriz  
Avellanador  
Countersink  
Die



Todos los avellanadores requieren un estudio previo.  
All countersink tools needs previus study.



*Punzón  
Ventilación  
Louver Punch  
L=32*

*Punzón  
Ventilación  
Louver Punch  
Sin Fin  
Continuous*



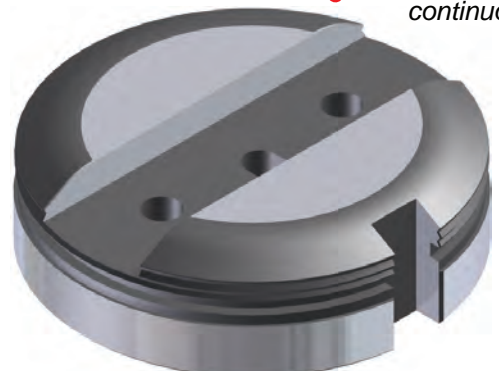
*Inserto  
Ventilación  
Louver Insert  
L=32*

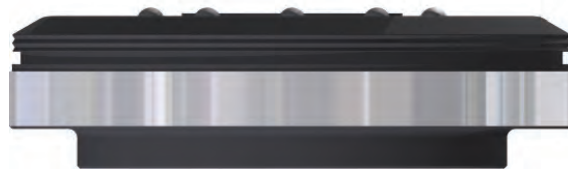
*Inserto  
Ventilación  
Louver Insert  
Sin Fin  
Continuous*

*Matriz  
Porta Insertos  
Insert Holder Die  
L=32*



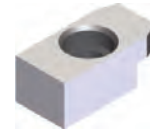
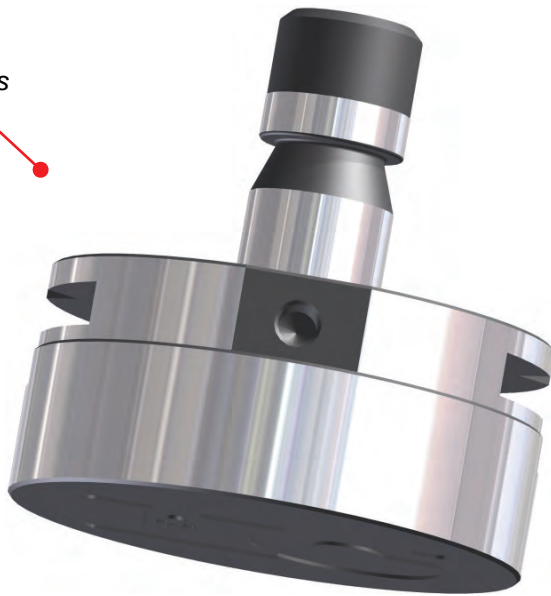
*Matriz  
Porta Insertos  
Insert Holder Die  
Sin Fin  
continuous*





*Punzón  
Embutidor  
Logos  
Logo Emboss  
Punch*

*Anillo de  
Ajuste  
Integrado  
Integrated  
Alignment  
Ring*

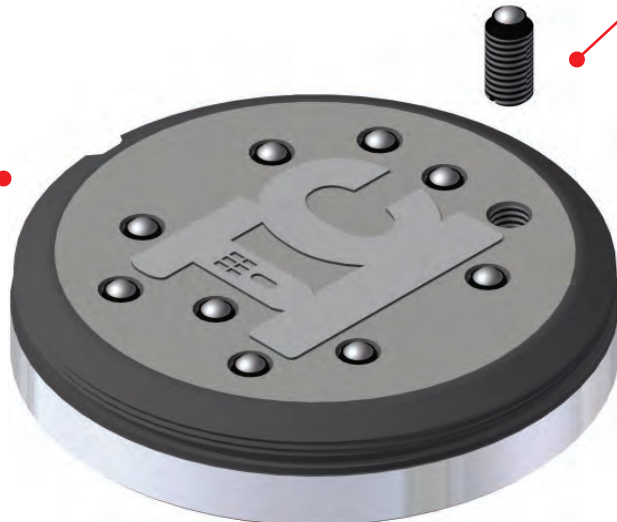


*Chaveta  
Anillo de  
Ajuste  
Key of  
Alignemet  
Ring*

*Matriz  
Embutidor  
Logos  
Logo Emboss  
Die*

*Reforzada  
Reinforced*

*Bola  
Expulsora  
Ejector Ball*





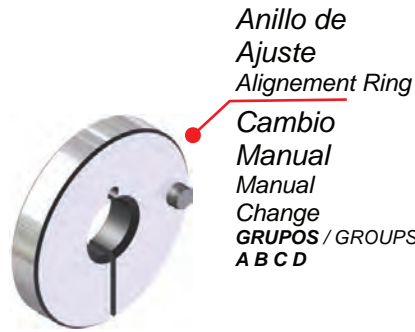
- Todos los embutidores requieren un estudio previo.
- All form tools needs previous study.
- Figuras embutidas estándar ver pág. 22-23.
- Standard forms look at page 22-23.
- La imagen mostrada es un ejemplo de embutidor.
- The image show is an example of form tool.



**Roller Nervio**  
*Rib Roller*  
**Roller Incisor**  
*Incisor Roller*  
**Roller Reborde**  
*Offset Roller*  
**Roller Escritura**  
*Marking Roller*



-Todos los embutidores requieren un estudio previo.  
-All form tools needs previous study.  
-La imagen mostrada es un ejemplo de embutidor.  
-The image show is an example of form tool.



Anillo de Ajuste Alignment Ring  
Cambio Manual Manual Change GRUPOS / GROUPS A B C D



Anillo de Ajuste Alignment Ring  
Mini Mini GRUPO S GROUP S



Anillo de Ajuste Alignment Ring  
Máquinas Automáticas Automatic Machines GRUPOS / GROUPS E F G H I



Anillo de Ajuste Alignment Ring Size 0 & I  
Cambio Manual Manual Change GRUPOS / GROUPS A B C D



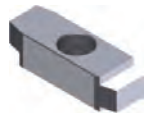
Anillo de Ajuste Alignment Ring Size 0 & I  
Mini Mini GRUPO S GROUP S



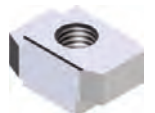
Anillo de Ajuste Alignment Ring Size 0 & I  
Máquinas Automáticas Automatic Machines GRUPOS / GROUPS E F G H I



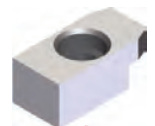
Anillo de Ajuste Alignment Ring  
Punzón Reforzado Reinforced Punch GRUPOS / GROUPS E F G H I



Chaveta Anillo de Ajuste Alignment Ring Key

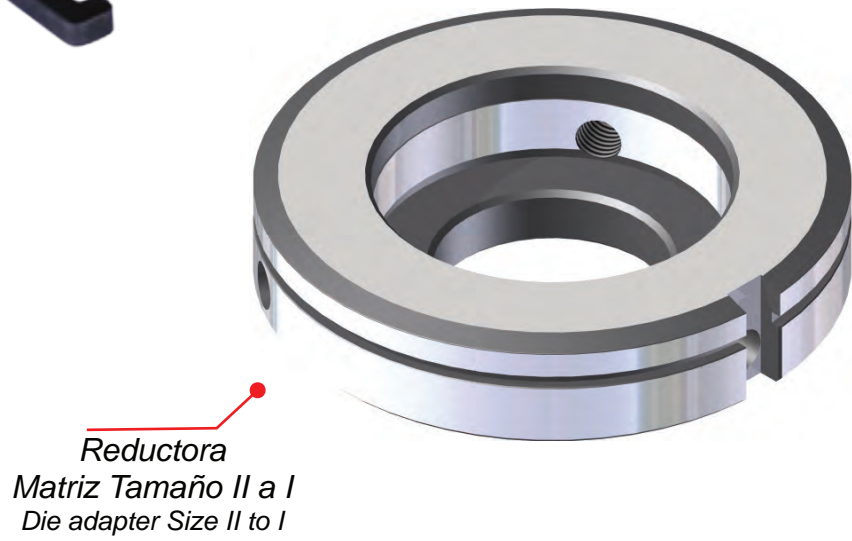


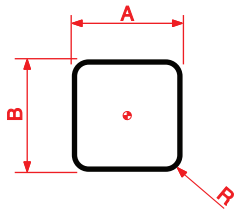
Chaveta Anillo de Ajuste Punzón Reforzado Alignment Ring Key Reinforced Punch



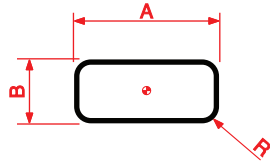
Chaveta Anillo de Ajuste Mini Alignment Ring Key Mini

A	B	C	D	E	
CN 700	CN 901E	CN 1200S	TRUMATIC	SUMINAT 400	
CN 900	CN 902	CN 1200A	20	TRUMATIC	TRUMATIC
CN 701	CS 75	CS 15	20A	150K	202K
CN 901	CS 75.2	CS 20	202M	151K	225K
		CS 20A		152K	235K
		MP 25		180K	300K
		MP 25D		180.2K	300LK
				180KD	300PK
				180LK	400K
				180.2LK	
F	G	H	I	S	
TRUMATIC	TRUMATIC	TRUMATIC	TRUMATIC	MINIMATIC	
150W	20AW	190R	1000R	100	
152W	202W	200R	2000R	TRUMATIC	
180W	300W	500R	2010R	120R	
180.2W	300LW	600L	2020R	160R	
180R	300PW		3000-3000R		
180LW	300TOP		3000-6000R		
180.2LW	400W		5000R		
ELX/SWIF			6000R		
T 185					
240					
240R					
250					
260R					

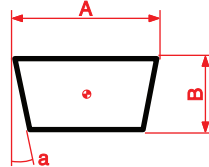




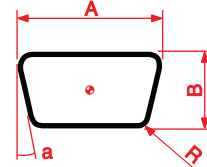
B1



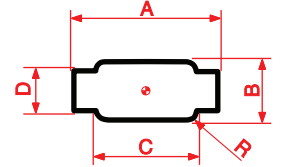
B2



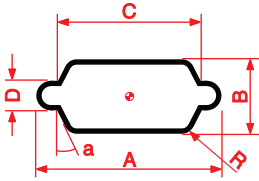
B3



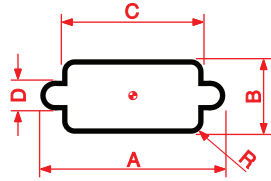
B4



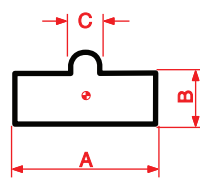
B5



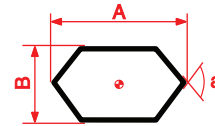
B6



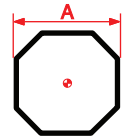
B7



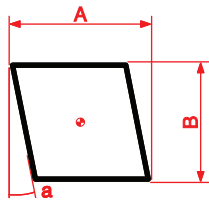
B8



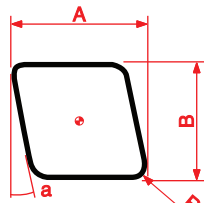
B9



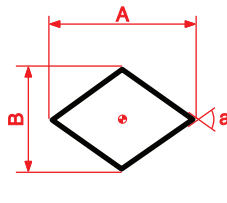
B10



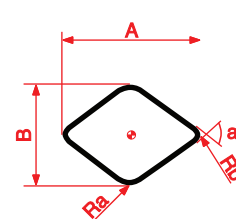
B11



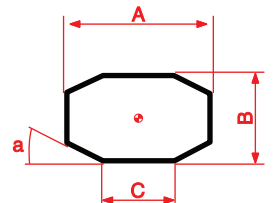
B12



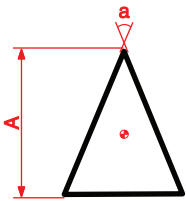
B13



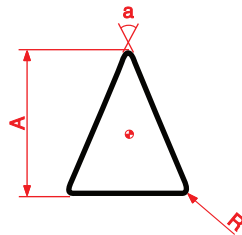
B14



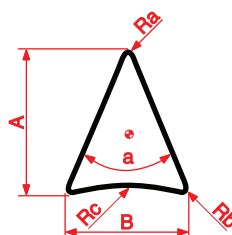
B15



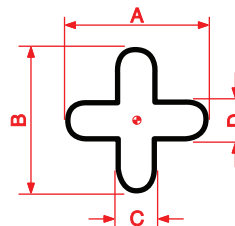
B16



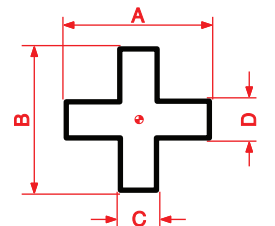
B17



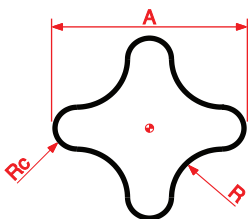
B18



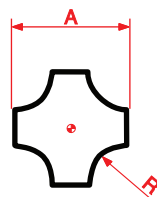
B19



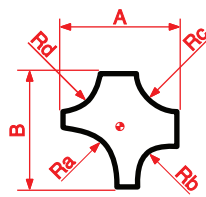
B20



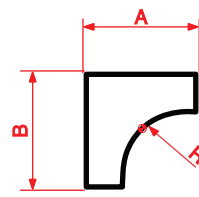
B21



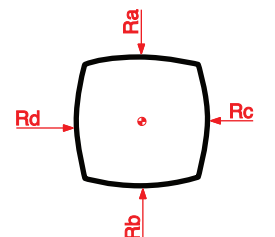
B22



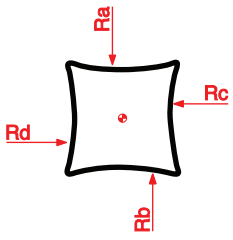
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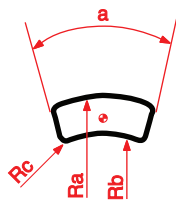
B24



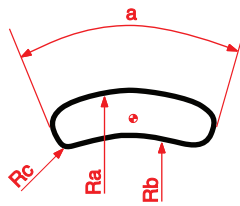
B25



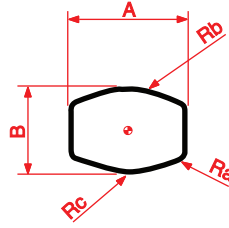
B26



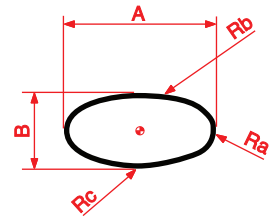
B27



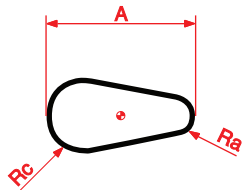
B28



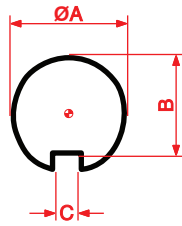
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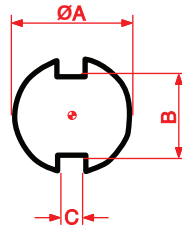
B30



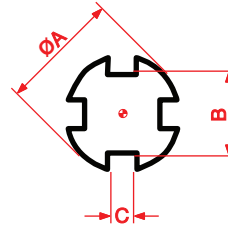
B31



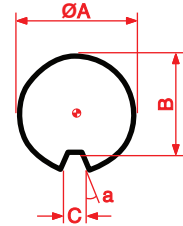
B32



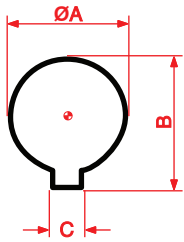
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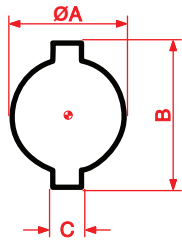
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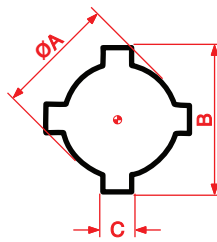
B35



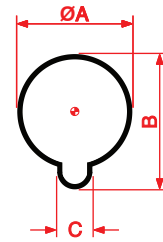
B36



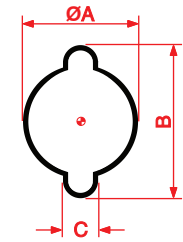
B37



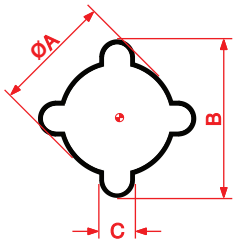
B38



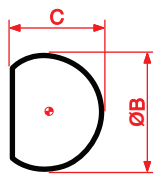
B39



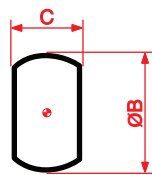
B40



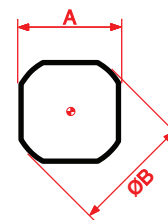
B41



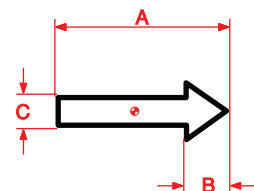
B42



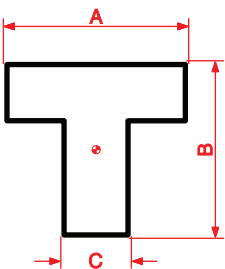
B43



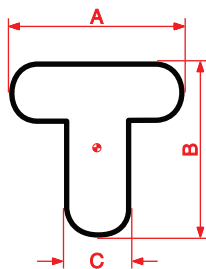
B44



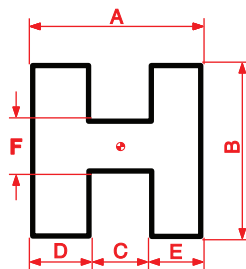
B45



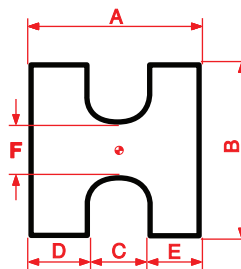
B46



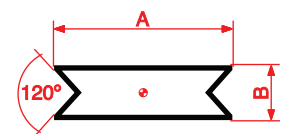
B47



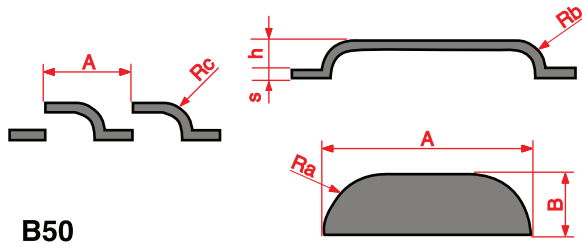
B48



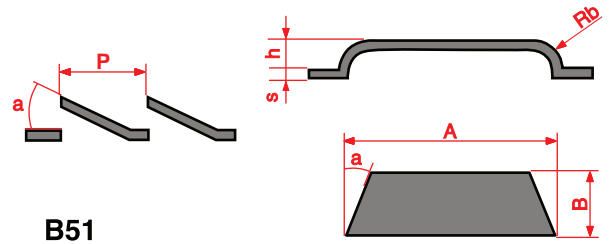
B49



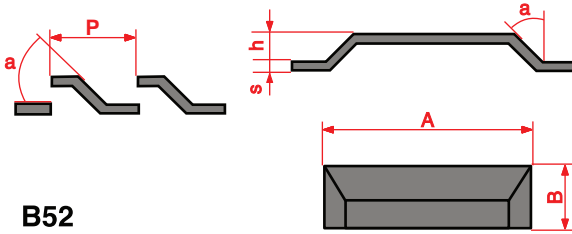
B49-A



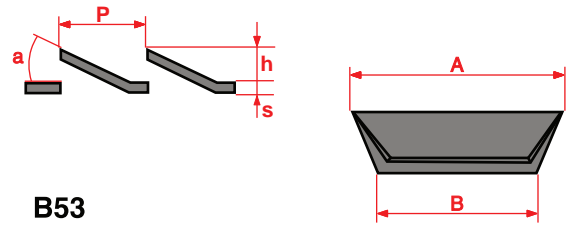
B50



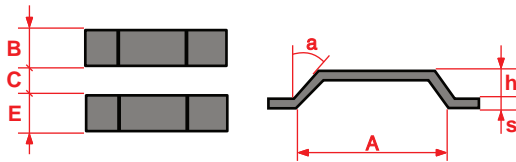
B51



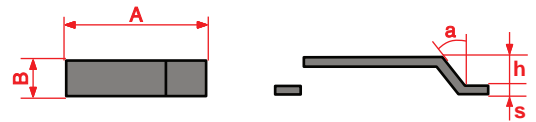
B52



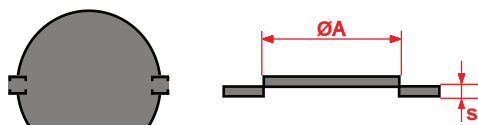
B53



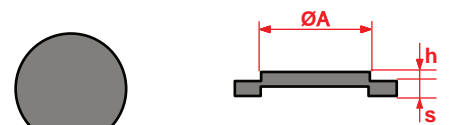
B54



B55

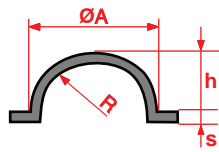
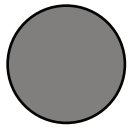


B56\*

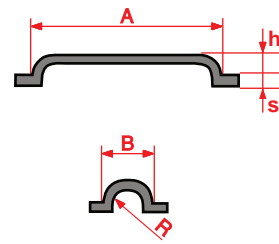


B57

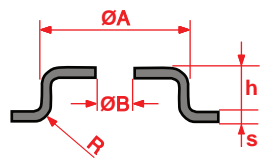
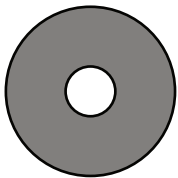
\*Simple o Doble  
\*Single or double



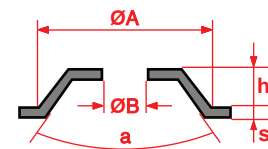
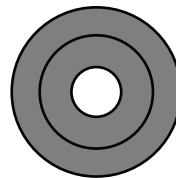
B58



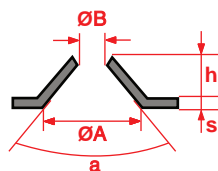
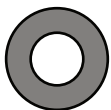
B59



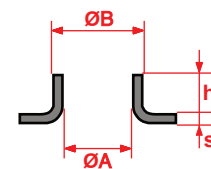
B60



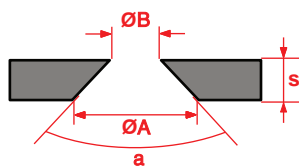
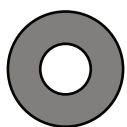
B61



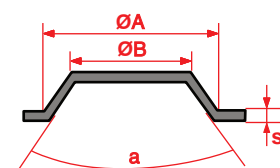
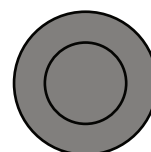
B62



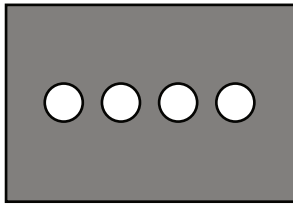
B63



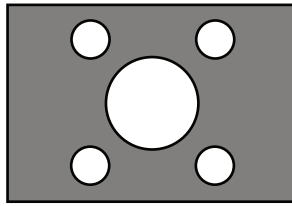
B64



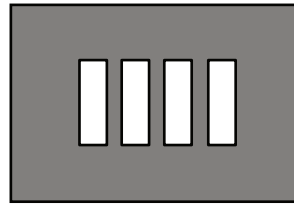
B65



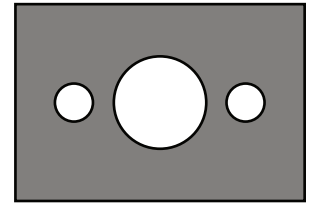
B100



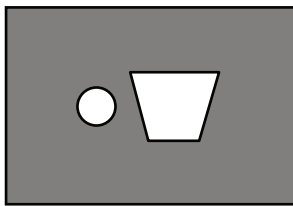
B101



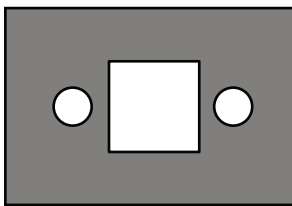
B102



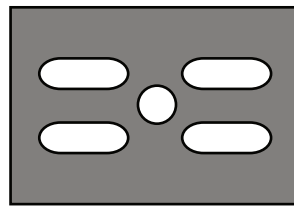
B103



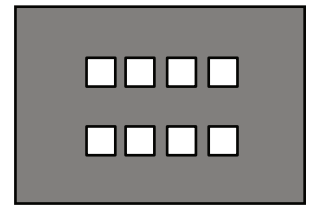
B104



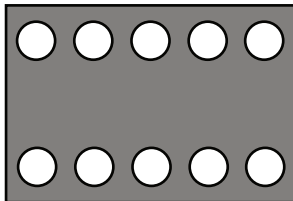
B105



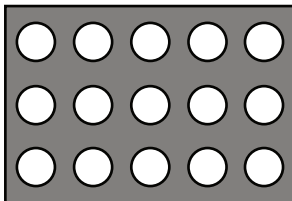
B106



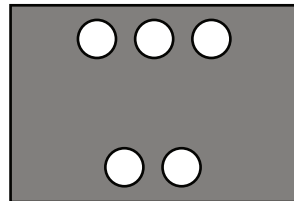
B107



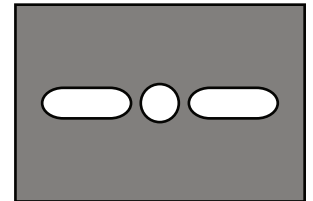
B108



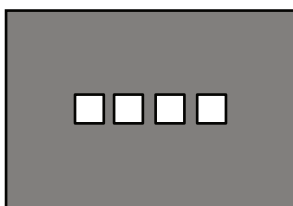
B109



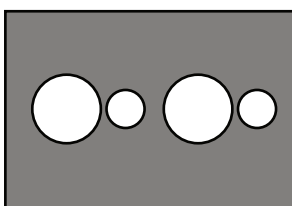
B110



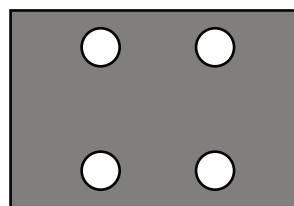
B111



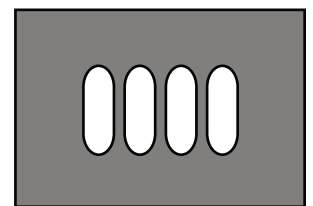
B112



B113

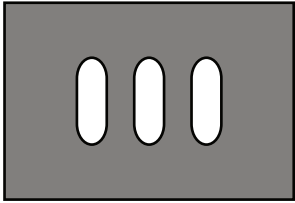


B114

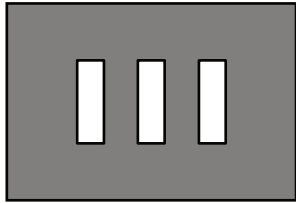


B115

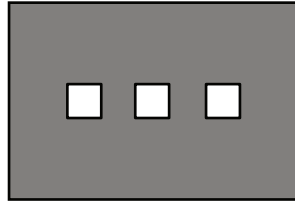




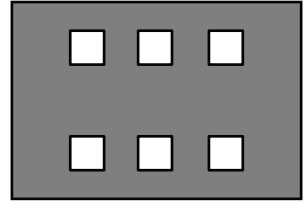
B116



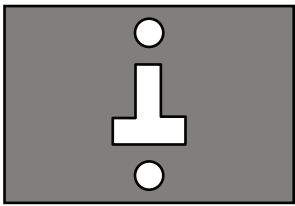
B117



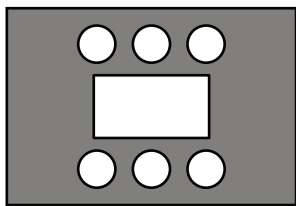
B118



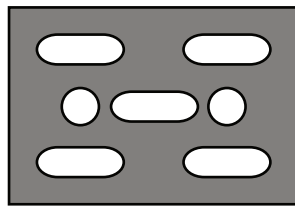
B119



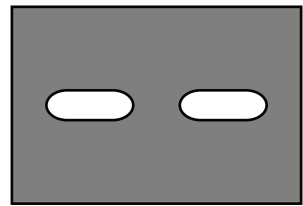
B120



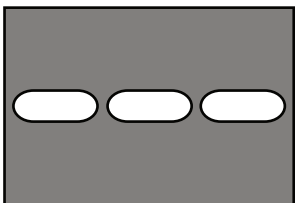
B121



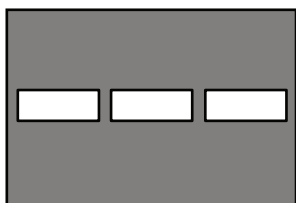
B122



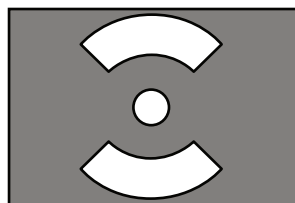
B123



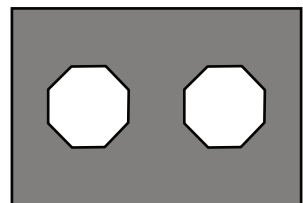
B124



B125



B126



B127

**TOLERANCIAS (mm) entre PUNZÓN y MATRIZ**

CLEARANCE (mm) between PUNCH & DIE

Espesores en mm. Thickness in mm	Hierro / Fe Mild Steel		Ac. Inox Stainless Steel		Aluminio Aluminium		Cobre / Latón Copper / Brass	
	Tolerancia Clearance	R	Tolerancia Clearance	R	Tolerancia Clearance	R	Tolerancia Clearance	R
0,5 - 0,6	0,08 - 0,10	0,10	0,10 - 0,12	0,12	0,06 - 0,08	0,08	0,05 - 0,06	0,06
0,8	0,14 - 0,15	0,15	0,15 - 0,20	0,20	0,10 - 0,14	0,10	0,08 - 0,10	0,08
1,0	0,16 - 0,20	0,20	0,18 - 0,24	0,24	0,12 - 0,16	0,14	0,10 - 0,14	0,12
1,2	0,20 - 0,24	0,24	0,25 - 0,30	0,26	0,15 - 0,20	0,16	0,12 - 0,15	0,14
1,5	0,25 - 0,30	0,30	0,27 - 0,35	0,34	0,18 - 0,24	0,22	0,15 - 0,20	0,18
2,0	0,34 - 0,40	0,40	0,36 - 0,45	0,45	0,24 - 0,30	0,26	0,20 - 0,25	0,24
2,5	0,45 - 0,50	0,50	0,46 - 0,55	0,55	0,32 - 0,35	0,35	0,25 - 0,30	0,28
3,0	0,50 - 0,60	0,60	0,60 - 0,70	0,65	0,35 - 0,45	0,40	0,30 - 0,40	0,36
4,0	0,65 - 0,80	0,80	0,70 - 0,95	0,90	0,45 - 0,60	0,55	0,40 - 0,50	0,48
5,0	0,85 - 1,00	1,00	0,90 - 1,15	1,10	0,60 - 0,80	0,70	0,55 - 0,65	0,60
6,0	0,95 - 1,20	1,20	1,10 - 1,40	1,35	0,75 - 0,95	0,85	0,70 - 0,85	0,72

R Recomendable  
Recommended

**RESISTENCIA AL CORTE  
TENSILE STRENGTH**

Kg x mm<sup>2</sup>

Hierro Fe Mild Steel	Hierro Fe Mild Steel	Acero Inox. Stainless Steel	Aluminio Aluminium	Cobre Copper	Latón Brass
40 (0,1 % C)	50 (0,2 % C)	70	20	32	40

**FÓRMULA PARA EL CÁLCULO DE TONELAJE (T)**  
TONNAGE CALCULATION FORMULA (T)

$$\frac{P \cdot n \cdot t \cdot R_c}{1000}$$

**P = Perímetro (mm)**  
Perimeter (mm)

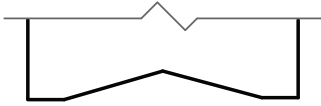
**n = Número de punzones**  
Number of punches

**t = Espesor de chapa (mm)**  
Sheet Thickness (mm)

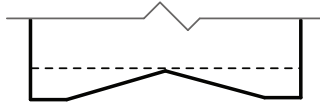
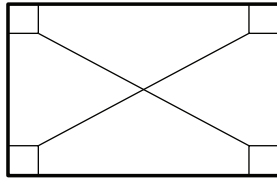
**Rc = Resistencia al Corte (Kgxmm<sup>2</sup>)**  
Tensile strength (Kgxmm<sup>2</sup>)

## Rectificado de Punzón

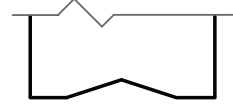
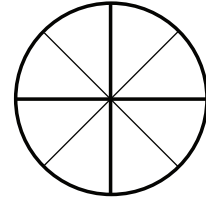
**A**



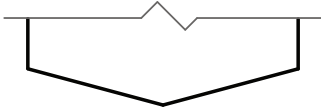
**B**



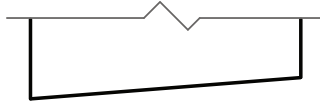
**C**



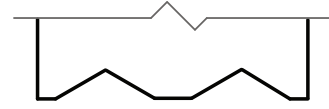
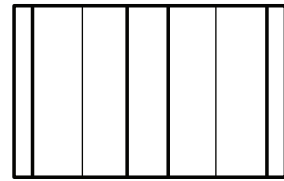
**D**



**E**

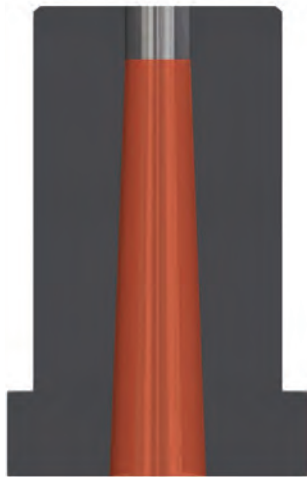


**F**



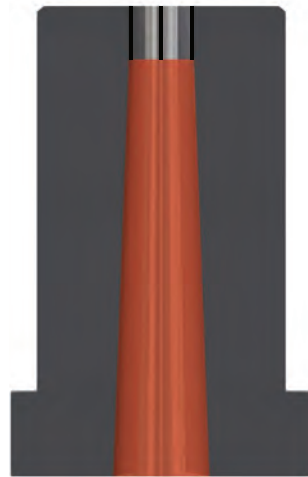
## Tipo de Matriz

**RR**

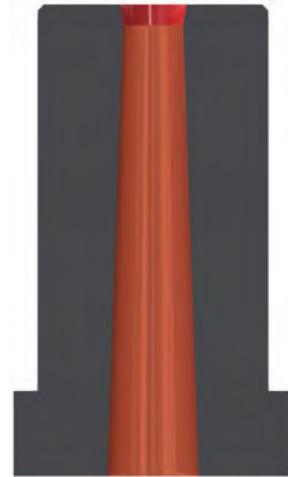


Matriz Estándar

**R2C**



Matriz de Retención por Filamentos



Matriz de Retención por Dos Conos



### **DUR-TiN**

- COLOR / *COLOUR*: Amarillo oro / *Yellow gold*
- APLICACIONES / *APPLICATIONS*: General / General
- PROPIEDADES / *PROPERTIES*: Reduce el desgaste por abrasión y adhesión.  
*Reduces wear by abrasion and adhesion.*

### **DUR-ALUM**

- COLOR / *COLOUR*: Gris negro / *Black grey*
- APLICACIONES / *APPLICATIONS*: Aluminios, latón y derivados / *Aluminium, brass and derivative*
- PROPIEDADES / *PROPERTIES*: Reduce el desgaste por adhesión.  
*Reduces wear by adhesion.*  
Bajo coeficiente de fricción.  
*Low coefficient of friction.*  
Buenas propiedades de deslizamiento.  
*Good slip properties.*

### **DUR-INOX**

- COLOR / *COLOUR*: Gris violeta / *Purple grey*
- APLICACIONES / *APPLICATIONS*: Fe, galvanizados, Ac. inoxidables / *Fe, Fe. galvanized and stainless steel*
- PROPIEDADES / *PROPERTIES*: Relación optimizada entre dureza y tensión residual compresiva.  
*Optimized ratio between hardness and compressive residual stress.*  
Desgaste uniforme.  
*Uniform wear.*  
Buenas propiedades de deslizamiento.  
*Good slip properties.*

### **DUR-EXTREM**

- COLOR / *COLOUR*: Gris azulado / *Bluish grey*
- APLICACIONES / *APPLICATIONS*: General; recomendado para Ac. Inoxidable.  
*General; recommended to stainless steel.*
- PROPIEDADES / *PROPERTIES*: Resistencia al desgaste muy elevada y excelente dureza en caliente.  
*Very high wear resistance and excellent hot hardness.*  
Muy buena estabilidad al choque térmico.  
*Very good stability to thermal shock.*  
Velocidad de corte notablemente más altas.  
*Higher cutting speed.*

### **DUR-EXTREM PLUS**

- COLOR / *COLOUR*: Cromo / *Chrome*
- APLICACIONES / *APPLICATIONS*: General; especialmente indicado para Ac. Inoxidable.  
*General; especially suitable to stainless steel.*
- PROPIEDADES / *PROPERTIES*: La mayor dureza superficial.  
*The higher surface hardness.*  
Menor tendencia al calor.  
*Less heat tendency.*  
Mayor protección especialmente en los bordes contra el inicio y propagación de grietas.  
*Increased protection especially in the edges against the beginning and propagation of cracks.*  
Puede prolongar la vida útil del punzón hasta un 100%  
*Can prolong punch life up to 100%.*

## **AFILADO DE LOS PUNZONES**

Como norma general, no se debería permitir que los punzones llegasen a necesitar un afilado mayor de 0,10 mm. Y sería óptimo rectificar en pasadas suaves (Z) de entre 0,01 y 0,02 mm. Estos parámetros indicarían un correcto mantenimiento de los punzones.

Para punzones con recubrimientos especiales: DUR-TiN, DUR-ALUM, DUR-INOX, DUR-EXTREM y DUR-EXTREM PLUS emplear los mismos indicadores; y dependiendo de la máquina que se utilice, rectificar con las más altas revoluciones de muela posibles y con avances entre 2.500 y 4.000 mm/min.

Una vez hecho el afilado del punzón, comprobar que la zona perimetral del corte ha quedado completamente limpia y no presenta gripado por adhesión de partículas del material punzonado, en caso de estas, limpiar esa zona con papel de lija fino hasta dejarla pulida.

## **SHARPENED OF PUNCHES**

As general norm, it's not recommended sharpening punches more than 0,10mm. The correct form to sharp is doing it with smooth feeds (z) about 0,01 and 0,02mm. It will be the correct maintenance of the punches.

For punches with special coatings: DUR-TiN, DUR-ALUM, DUR-INOX, DUR-EXTREM and DUR-EXTREM PLUS, use the same indicators; using the highest revolutions of the grinding wheel for shapening, with feed rates between 2.500 and 4.000 mm/min.

Once realised the sharpened of the punch, verify that the peripheral zone of the cut is completely clean and if it's necessary polish the surface with a lightly stone.

*Important: to avoid the heating of the pieces during the sharpening, always use a suitable coolant.*

## **AFILADO DE MATRICES**

Manteniendo las matrices en corte vivo, alargará la vida de los punzones, pues éstos no tendrán que embutir la chapa antes de ser cortada, se evitarán rebabas, ruido excesivo y se dejará una calidad correcta en el corte.

Sirven los mismos parámetros de muela, avances y pasadas tanto en el punzón como en la matriz; y antes de dar por bueno el afilado de la matriz, comprobar que en la parte interior del perímetro de corte, no han quedado restos de partículas de chapa adheridas, que vayan a friccionar con el puzón al iniciar de nuevo el trabajo.

Evitar el calentamiento de las piezas, usando siempre un refrigerante adecuado o taladrinas.

La energía producida por la fricción de la muela con los aceros, hará que estos hayan quedado ligeramente imantados; desmagnetizar las herramientas antes de iniciar el trabajo.

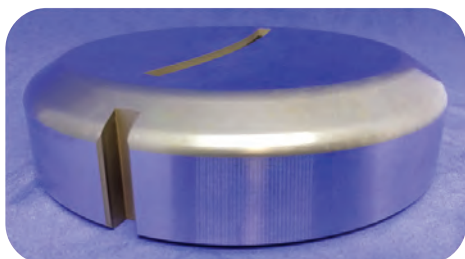
## **SHARPENED OF DIES**

The correct maintenance of the dies will extend the life of punches, because these will not emboss the sheet before being cut, it will avoid burrs and excessive noise, and it give a correct quality of the cut.

For sharpening dies used the same procedures that with punches, feed rates and griding wheel, verify that the cut zone is completely clean of burrs and if it is necessary polish it to assure the correct work of the punch.

To avoid the heating of the pieces, always use a suitable coolant.

Demagnetize the resharpened tools before to start works.



## Servicio y Reparación

El servicio de reparación y ajuste de TC consiste en la comprobación, reparación, ajuste o modificación de cualquier componente fijo, móvil y/o accesorios de todo tipo de grupos de punzonado, matricería e incluso componentes de máquina sin importar marca y modelo.

### Comprobación

Revisión de todos los elementos, comprobación de los mismos (medidas, chavetas, tornillo, etc.)

### Reparación

Sustitución de cualquier elemento que interfiera en el buen funcionamiento del grupo, tanto por desgaste como por rotura.

### Ajuste

Ajustamos los grupos para su correcto funcionamiento modificando alturas, recorridos, etc.

### Modificación

Estudiamos la posibilidad de modificaciones y cambios en grupos de punzonado y matricería, realizando elementos nuevos y/o modificando los ya existentes.

## Service & Repair

Tc's adjustment and repair consist of checking, repairing, adjusting, or modifying any fixed and mobile component and / or accessories of all types of punch groups, dies and even machine components of all brands.

### Verification

Review all elements, checking them ( measurements, keys, screws, ...).

### Repair

Replacement of any element that interferes with the proper fuction of group for breakage and / or attrition.

### Adjustement

We adjust the groups for their correct operation by modifying heights, courses, ...

### Modification

We study the possibility of modifications and changes of punch groups and tooling, making new elements and / or modifying existing ones.





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