



SUCE IS.....

Since its inception in the 1950s as a small, but ambitious new business, SUCE has transformed itself over the years into a high-quality structured company specializing in the production of tools and dies. Ever-attentive to market developments and new technologies in this very particular sector, SUCE has also made a name for itself in the specialized fields of tools for punching machines, offering superior quality products and services. It is committed to finding innovative solutions to satisfy an increasingly international customer base.

SUCE's technical and competent staff, supported by the latest 2D and 3D design systems, and utilising the most superior materials and surface coatings available, facilitates the provision of equipment and tooling which in turn provides the greatest efficiency and productivity. SUCE's productive versatility is clearly demonstrated quite by the sheer extent of the items created by the business.

In this catalogue you can find standard and special tools for Amada, Trumpf, Euromac, Prima Power, Salvagnini, LVD, Muratec Murata Wiedemann, Durma, Ermaksan, Danobat, Boschert, Tailift, Rainer, Tecnology FPL, Haco.

SUCE is an important reference point in this specialized market area, and has is able to offer the latest solutions for the needs and the expectations of its customers.

SUCE would be delighted to support your company as the preferred specialist in this field.



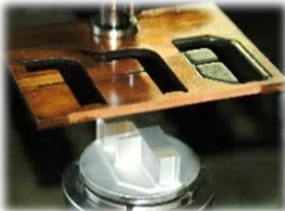
WHY SUCE?



Thanks to our project department, with 3 CAD station, we are able to design both standard and special tools.



The use of double grinding wheel plants allows for a very low roughness coefficient



No shape limitation thanks to EDM technology



The machine tooling dept. includes automatic lines of turning with load bars and milling machines



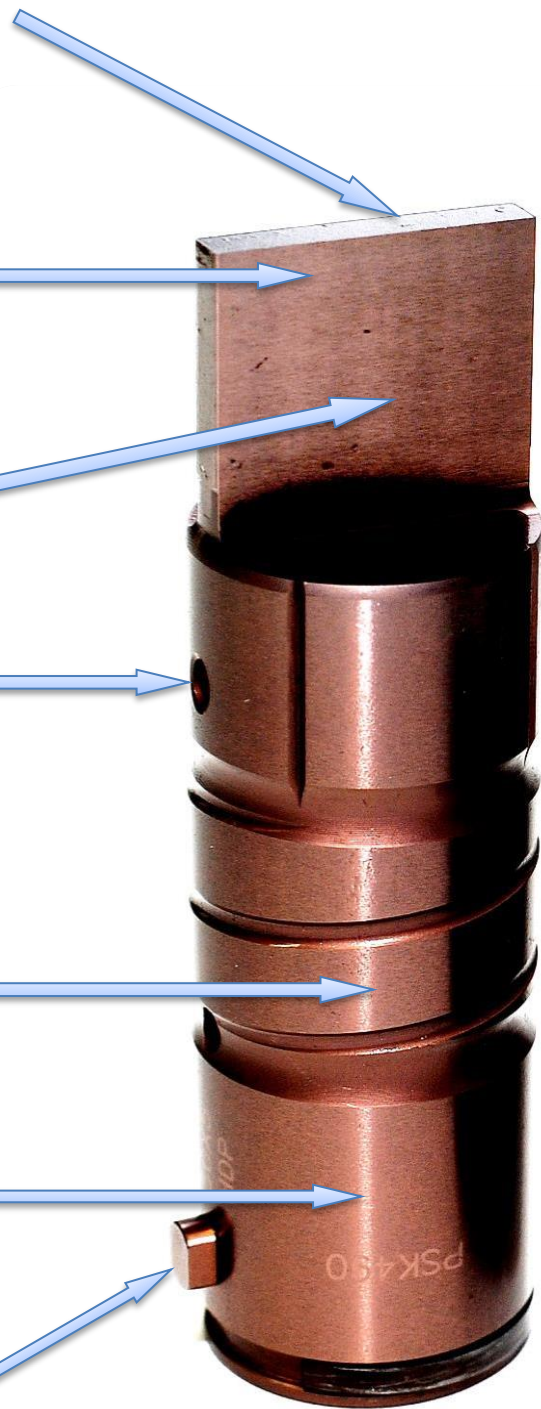
The use of the best steel available on the market by SUCE tools ensures a high standard quality and a long tool life.



10,000 items available on stock divided into 20 different categories



Quality control

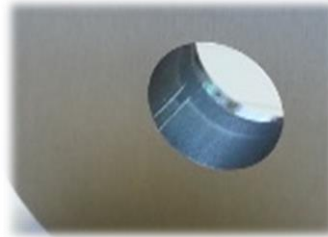




10,000 items available on stock divided into 20 different categories



No shape limitation thanks to Wire EDM technology



Different lock-slug systems available



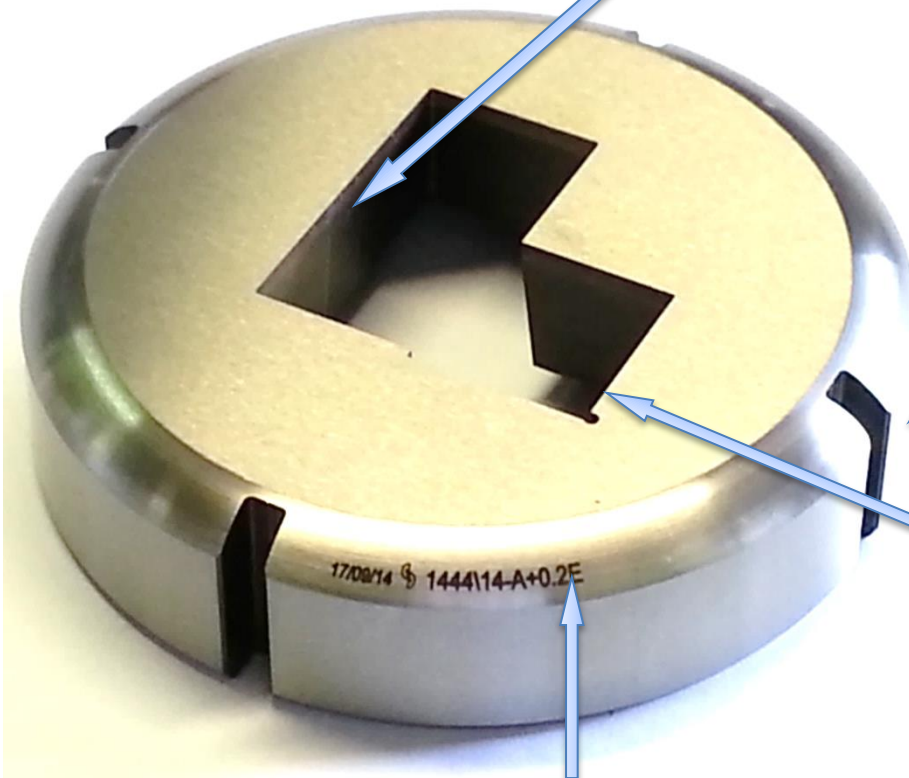
Wire EDM load-unload cell



Tool testing: fault free



Tool testing: fault free



In ware house: ready for delivery

SUCE special id.number

Manufacturing execution system



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Die clearance

Die clearance is the total space between die and punch.

A correct clearance between the punch and the die assures normal wear of the tool and punching without defect such as: burrs on the piece in the case of excessive clearance and premature wearing of the tool and increased punching force in the case clearance being too small.

Material				
Thickness mm	Mild steel 16-20%	Stainless steel 18-24%	Aluminium 12-16%	Copper 10-14%
0,5 – 0,6	0,08-0,1	0,1- 0,12	0,06 – 0,08	0,05 – 0,06
0,8	0,14 – 0,16	0,15 – 0,2	0,1 – 0,14	0,08 – 0,1
1	0,16 – 0,2	0,18 – 0,24	0,12 – 0,16	0,1 – 0,14
1,2	0,2 – 0,24	0,24 – 0,3	0,15 – 0,2	0,12 – 0,15
1,5	0,25 – 0,3	0,27 – 0,35	0,18 – 0,24	0,15 – 0,2
2	0,34 – 0,4	0,36 – 0,45	0,24 – 0,3	0,2 – 0,25
2,5	0,45 – 0,5	0,45 – 0,55	0,32 – 0,35	0,25 – 0,3
3	0,5 – 0,6	0,6 – 0,7	0,35 -0,45	0,3 – 0,4
4	0,65 – 0,8	0,7 – 0,95	0,45 – 0,6	0,4 – 0,5
5	0,85 – 1	0,9 – 1,15	0,6 – 0,8	0,55 – 0,65
6	0,95 – 1,2	1,1 – 1,4	0,75 – 0,95	0,7 – 0,85

In case of blanking mild steel and stainless steel clearance is 15% of material thickness.

In case of blanking aluminium and copper clearance is 10% of material thickness.

Dies lock slug

SUCE lock slug dies eliminate slug pulling. This condition manifests where the slug returns to the top of the sheet during the stripping portion of the punching cycle. Because of this the slug comes between the punch and the top of the sheet on the next cycle, causing damage to the piece part and the tooling. How to avoid this problem?

The SUCE NO-SLUG has been designed with a reduction point of the shape below the surface so the slug cannot return once it passes through this point.

System E : 3 cuts with different angles insures the locking of the slug



Lock slug **AS** best option when thickness > 2.5mm

Once the slug is separated from the punch, it is free to fall through the die. Slug pulling is eliminated. This solution isn't suggested with slug exhaust system machines ; AS lock slug design with protrusions is best solution with thickness more than 3mm, minimum cl for AS system is 0.15mm. SUCE Lock slug E and A system is a standard for all Suce dies, AS is on request , reduced land is a standard for thick turret dies rt80x5 rt80x6 rt110x5 rt110x6.



lock slug AS
best opt. th>2.5mm



lock slug E
thick turret B,C,D,E



lock slug A
thick turret A



straight and conic
blank die



reduced land
slitting die



conic
trumpf style



Tools sharpening

Before starting, make sure that punch and die cutting edge are in perfect condition. Accurate maintenance of the tools guarantees a normal wearing and the result of punching will be without residual burr and defects. Regular sharpening of the 0,1 mm punch and 0,2mm die guarantees a constant life time of tooling.

It is preferable that grinding operation is made with tangential grinding machine with adequate cooling in order to avoid tool tempering; after grinding it is necessary to demagnetize the tools with an appropriate demagnetizer. If a urethane ejectors is applied, restore the initial hole depth in such a way that the ejector can be compressed.

Punching force

Before starting ensure that punching force doesn't exceed the capacity of punching machine.

In order to calculate the punching force in kg , use the following formula:

$$\text{perimeter of the shape (mm) x thickness (mm) x 4/5 x shear strength*}$$

*mild steel 40-50 kg/mm2 stainless steel 60-70 kg/mm2 aluminium 20-25 kg/mm2

A sharpening other than the flat one reduces both punching stress and punching noise.

Therefore to ascertain the true punching force, multiply the pressure calculated using the above formula by the **sharpening factor:**

Sharpening height (mm)	Thickness (mm)					
	1-1,5	2	3	4	5	6
1	0,75	0,9	1	1	1	1
1,5*	0,5	0,6	0,7	0,95	1	1
3**	0,5	0,5	0,5	0,6	0,7	0,75

* standard shear height thick turret style

** standard shear height Trumpf style

The shear options

Double valley Cod 3P	Roof top Cod V	Inverted roof top Cod VR	Whisper Cod W	Four ways Cod 4P
Best option when shape is long, but susceptible to breakage	Best option when punching force is high, punching surface 75%	Best option for nibbling but inverted stresses could cause breakage	Recommended only for blanking (turret machine)	Recommended for round and square



Punches are flat, above shear are available upon request ;each type of sharpening reduces noise up to 50%



General rules

In order to optimize the use of tooling we would recommend the following basic guidelines:

- a) the punching surface does not have to be lower than 60% of the used punch surface.
- b) in case of nibbling minimum feed must be 0,5 x thickness , smaller rd punch with thickness 1mm is 4mm , smaller rd punch with thickness 2mm is 6mm , smaller rd punch with thickness 3mm is 8mm.
- c) before exceeding tons capability calculate punching force with formula at page 7
- d) the tool dimension does not have to be lower than the material thickness and the shorter side must be at least 5% of the longest side.
- e) the advantage of the technical improvements of some models of dies punching penetration should be at least 2.5mm
- f) slitting tools must be appropriately sharpened and must have radius on corner (0,5mm).
- g) the use of the steels commonly called High Speed Steel for our punches allows the punching of any steel; however in order to increase considerably the punching effectiveness and reduce cold welds , apply some type of coatings such as TICN, HDP, FNC and use oil lubricant on sheet surface.
- h) be sure that tooling cutting edge are without seizing or cold welding material; if any , remove them with a diamond file.
- i) radius on punch corner is 0,25mm.
- l) delivery time: 2/3 days standard , 5/7 coating tools , some items are available at stock.
- m) ordering specifications: machine type , form , thickness and material , dimensions , desired delivery



Machine group:

A: CN700 , CN900 CN701 , CN901	B: CN 901E , CN902 CS75 , CS75,2	C: CN1200S_A CS15 , CS20 , CS20A , MP25_D	D: TRUMATIC 20 , 20A , 202M	E: SUN400 TRUMATIC 150K , 151K , 152K , 180K , 1802K , 180KD 180LK , 202K , 225K 235K , 300K , 400K
F: TRUMATIC 150W , 180W , 180R 185 , 240 , 240R , 250 , 260R	G: TRUMATIC: 20AW , 202W , 300W , 300LW , 300PW , 300TOP , 400W	H: TRUMATIC 500R , 200R , 190R , 600L	I: TRUMATIC 1000R , 2000R , 2020R , 3000R , 5000R , 6000L , 7000	S: MINIMATIC 100 TRUMATIC 120R , 160R



S H A P E S						
	C=	A=	A= R1=	A= B=	A= B= R1=	
	A=	A=	A= B= R1=	A= C=	A= B=	A= B= C=
						D=
A= B=	A= C=	A= C=	A= B= C=	A= β= C=	A= B= R1=	
				R1=	R2= R3= R4=	
A= B= R1=	A= B= C=	A= B=	A= R1= R2=	A= R1= R2=	A= B= R1=	
β=	D= R1= β=			R3=	R2= R3= R4=	
A= B= R=	A= B= R=	A= B= R1=	A= R1= R2=	A= β= R1=	A= B= R1=	
		R2= R3= R4=	R3=	R2=	R2= R3=	
A= B= C=	A= β= C=	A= B= C=	A= B= C=	A= B= C=	A= B= C=	
D= R1= R2=		D= β=	D=			
A= C= R1=	A= B= C=	A= B= C=	A= B= C=	A= B= C=	A= B= C=	
				D= R1=	D=	

Round : T

Standard shape:

S1 , S2 , S9

Special A:

S1R , S2R , S3 , S4 , S5 , S6 , S7 , S8 , S9

S10 , S11 , S12

D1 , D2 , D3 , D4 , D5 , D6 , D7 , D8

Std D1 angle 15° , 30° R0,5

Std D2 A=B=26.5 , 42

Special B:

C1 , C2 , C3 , C4 , C5 , C6 , C7 , C8

F6 , F7 , F8 , F9 , F10 , F11 , F12 , F13 ,

F15 , F16



Die key:

Machine gr H,I

Round 0°

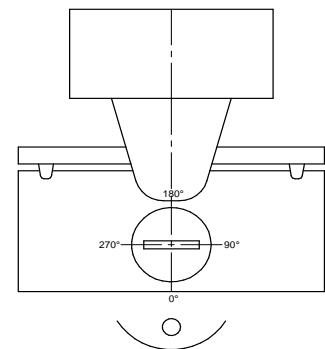
Std shape , Square S1 , S1R 0°

Machine gr A,B,C,D,E,F,G

Round 0°

Standard shape 0-90°

Square S1 , S1R 0-135°



ISODUR

A tough, “long distance runner” with an optimum chemical composition

ESR electro slug remelting : a tried and tested remelting technology developed by Bohler gives the material the homogeneity it needs. A prerequisite for the best performance

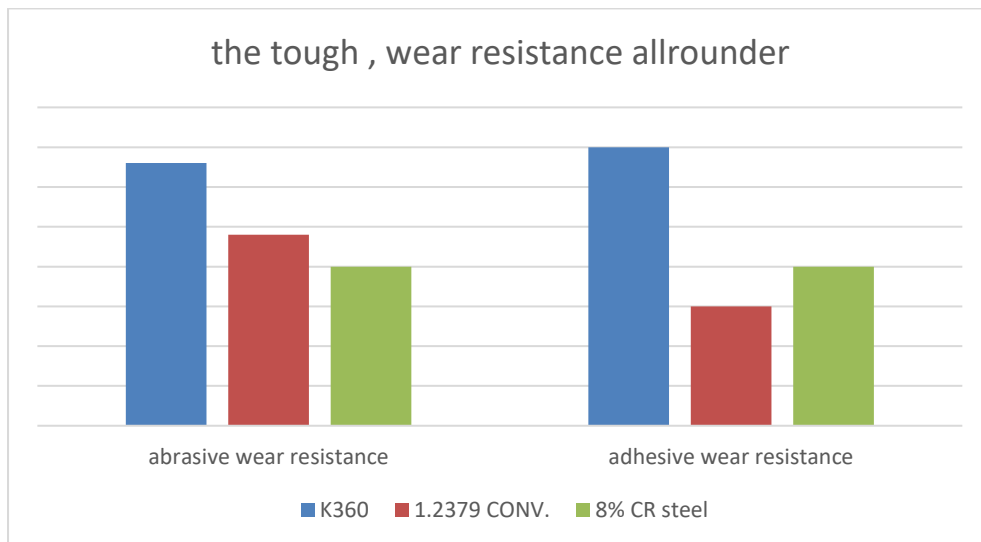
ESR Manufacture improved service life due:

- Least possible inclusion content
- Lower micro and macro segregation
- Good homogeneity and higher degree of purity
- A homogeneous structure throughout the entire cross-section and bar length
- Producing larger bar dimensions at a constant carbide distribution
- Uniform correction of dimensions
- A broad range of application due to a high degree of toughness



K360 Chemical composition:

Carbonium	1,25%
Chromium	8,75%
Molybdenum	2,70%
Vanadium	1,18%



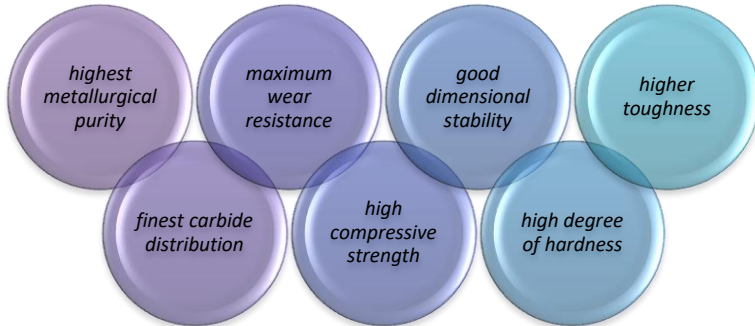
The new **K360 isodur** is a further development of the 8% chromium steels and has been developed to meet the needs of customers now more than ever. High toughness and, a remarkably high compressive strenght, together with good resistance make this steel a real problem solver.

This steel is particularly outstanding when adhesive and abrasive wear resistance are necessary; it allows a considerable increase in performance , your productivity will increase and your costs per part will be reduced



Powder steel metallurgy

Today Suce provides, in addition to the traditional HSS punches, of new variety of tools, Trumpf style and Thick turret style made in powder steel metallurgical.



K490 Chemical composition:

Carbonium	1,40%
Chromium	6,40%
Molybdenum	1,50%
Vanadium	3,70%
Tungsten	3,50%

One of them is **K490**.

Research shows that the **K490 Microclean**, thanks to its chemical composition, is the best steel in the punching market. If you compare it with other powder steels, for example M4 and PM23, you will find that it assures twice the toughness with the same wear resistance.

This new material is characterized by:

- A high adhesive and abrasive wear resistance

More hits between regrind operations increases tool life, wear resistance double than traditional HSS M2

- A high toughness reduces risk of breaking the punch

In the catalogue **POWDER STEEL punches are marked in RED**, available items:



Trumpf Gr0 D6 D10.5	Trumpf Multitool 5 – 10	Trumpf Gr1	Thick turret Smart staz.A Wilson s90	Thick turret Mate ultra style	Thick turret Mate ultra style Wilson s90 style	Trumpf blade Thick turret Slitting blade
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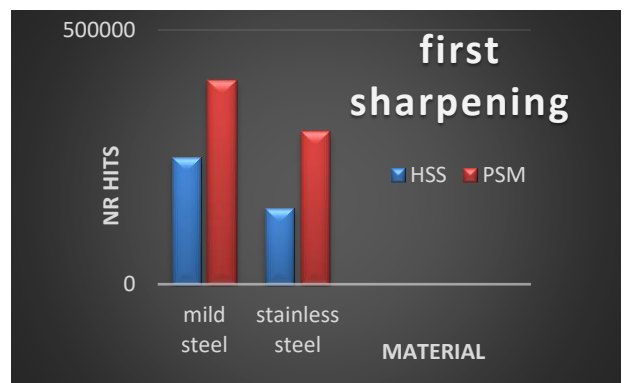
Test result

In order to ensure the best choice of steel for our tools, are carried out periodically punching test with punching machine



200.000 hits
stainless steel
AISI 304
it doesn't need to be sharpened!

Graphic shows nr of hits before first sharpening mild and stainless steel with HSS and PSM tool
Tool tested square 6mm



Add on pag.50



Coating

HDP ACTION

high density plasma

Among other innovations brought by the HDP technology is a very versatile coating which can be widely used for various applications. HDP was developed to find a universal solution for the most traditional machining processes and to guarantee a constant yield and best performance of the tools.



Available with punches:

**Trumpf, Amada,
Finn Power,
Euromac, Lvd,
Rainer, Salvagnini,
Technology,
Wiedemann,
Boschert, Tailift,
Danobat, Durma,
Ermaksan...**

Test result



After 125.000 hits nibbling 1mm stainless steel coating is intact

CHARACTERISTICS:

- **Extraordinary toughness** - this is the strong point of this coating and makes it versatile and particularly suitable for various applications
- **Adhesion to the surface** - the HDP technology makes it possible to obtain maximum adherence of the coating to the surface and makes the "tool/coating" combination become a whole.
- **Microhardness** - the very compact HDP Red layer, with a thickness of only 3 microns, gives a hardness which represents a solid barrier against wear and guarantees a unique performance.
- **Low friction coefficient** - this is another important characteristic, which becomes evident thanks to the glossy layer. The low friction coefficient has been made possible thanks to the HDP technology which makes the application of coatings almost "dropletfree" (residual macro-particles on the surface). If they are not removed, these droplets affect the surface roughness.

Structure	MicroHardness (HV 0.05)	Friction coefficient (100 cr6)	Thickness (micron)	Deposition temperature (°C)	Max temperature (max°C)	Colour
Multilayer	3.800	0.25	1-3	480	400	RED

Add on pag.50



Coating

Double coating FNC

The double coating is obtained by overlaying the traditional TiCN with Movic self-lubricating coating.



MOVIC is a self-lubricating and anti-adhesive coating based on MoS₂ (Molybdenum), which is produced by PVD sputtering Magnetron technology.

MOVIC has been developed in the aerospace to find alternatives to traditional oils (eg oil, grease) when their use is not permitted and it has shown excellent tribological features that made it very interesting for a variety of new applications.

Available with punches:

Trumpf, Amada, Finn Power, Euromac, Lvd, Rainer, Salvagnini, Tecnology, Wiedemann, Boschert, Tailift, Danobat, Durma, Ermaksan...

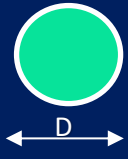




SPECIFICATIONS:

- Self-lubricating single-phase coating based on MoS₂.
- "Soft" coating with very low coefficient of friction (friction coefficient in dry air <0.05).
- Single-layer coating that can be combined with any hard coating.
- Functional Thickness of Coating <0.5 microns.
- Deposition temperature <150 ° C.
- Soft wear residues, lubricants (behavior Fail-safe: no abrasive particles from wear of the coating).
- Excellent running for rough surfaces. (Coating becomes smoother during the running in.)
- Positive transfer of lubricant film on the side in contact.
- can be easily re-covered without removal. If necessary the removal is easily achievable.

Structure	Micro-Hardness (HV 0.05)	Friction Coefficient (100 cr6)	Thickness (micron)	Deposition temperature (°C)	Max temperature (max°C)	Colour
Single layer	–	<0.1	1	<150	-	GREY

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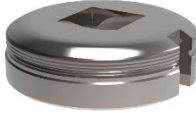



ROUND	PUNCH 0	PUNCH	DIE	STRIPPER				
								
	max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0	GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool	GR1 max thickness 10mm mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape Keys 0-135° square *to specify	Punch size +1mm				
SIZE	ISODUR Punch Ø mm *	€	HDP	FNC	Die Ø mm	€	Stripper Ø mm	€
0	Ø6 mis 1,5 - 6,0 L59.5 TRA6PST006T L63 TRA6PSTL06T PSM L59.5 TRA6PST004T L63 TRA6PSTL04T				1,5-32,0 HWS TRA1MAT001T ISODUR TRA1MAT006T		1,5-78,0 GROUP MACHINE E-F-G TRAEPLT0T H-I TRAEPLT500T H-I TRAEPLT500T7 (punch Ø 1-3mm)	
	Ø10.5 mis 1,5 - 6,0 L59,5 TRA105PST006T L63 TRA105PSTL06T Ø10.5 mis 6,1 - 10,5 L59,5 TRA105PST006T L63 TRA105PSTL06T PSM L59.5 TRA105PST004T L63 TRA105PSTL04T							
1	1,5 - 30,0 L74 TRA1PUT006T L77.5 TRA1PUTL06T PSM L74 TRA1PUT004T L77.5 TRA1PUTL04T							
2	30,1-40,0 L74 TRB2PUT006T L77.5 TRB2PUTL06T				32,1-77,8 HWS TRE1MAT001T ISODUR TRE1MAT006T			
	40,1-51,0 L74 TRC1PUT006T L77.5 TRC1PUTL06T							
	51,1-60,0 L74 TRD1PUT006T L77.5 TRD1PUTL06T							
	60,1-76,2 L74 TRE1PUT006T L77,5 TRE1PUTL06T							

* Punch 0 HSS

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons		REINFORCED DUTY DIE ISODUR Recommended when punching force >15 tons	
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SQUARE	PUNCH 0	PUNCH	DIE	STRIPPER				
								
	max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0	GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool	GR1 max thickness 10mm mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape + €9 Keys 0-135° square + €9 *to specify	Punch size +1mm				
SIZE	ISODUR Punch L mm *	€	HDP	FNC	Die L mm	€	Stripper L mm	€
0	1,0 – 4,2 L59.5 TRA6PST006S L63 TRA6PSTL06S PSM L59.5 TRA6PST004S L63 TRA6PSTL04S							
	4,21 – 7,4 L59,5 TRA105PST006S L63 TRA105PSTL06S PSM L59.5 TRA105PST004S L63 TRA105PSTL04S				1,5-20,0 HWS TRA1MAT001Q ISODUR TRA1MAT006Q		1,5-78,0 GROUP MACHINE E-F-G TRAEPLT0S H-I TRAEPLT500S	
1	1,5 – 20,0 L74 TRA1PUT006S L77.5 TRA1PUTL06S PSM L74 TRA1PUT004S L77.5 TRA1PUTL04S							
2	20,1-28,0 L74 TRB2PUT006S L77.5 TRB2PUTL06S				20,1-77,8			
	28,1-35,0 L74 TRC1PUT006S L77.5 TRC1PUTL06S				HWS TRE1MAT001Q ISODUR TRE1MAT006Q			
	35,1-42,0 L74 TRD1PUT006S L77.5 TRD1PUTL06S							
	42,1-53,8 L74 TRE1PUT006S L77,5 TRE1PUTL06S							

* Punch 0 HSS

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons Recommended radius on corner 1m		REINFORCED DIE ISODUR GR1 TRA1MATP01S – GR2 TRC1MATR01S Recommended when punching force >15 tons Recommended radius on corner 1mm	
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RECTANGLE	PUNCH 0	PUNCH	DIE	STRIPPER				
 OBROUND 	 max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0	 GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool	 GR1 max thickness 10mm Mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape + €9 Keys 0-135° square + €9 *to specify	 Punch size +1mm				
SIZE	ISODUR Punch L mm *	€	HDP	FNC	Die L mm	€	Stripper L mm	€
0	1,0 – 5,9 L59.5 TRA6PST006A L63 TRA6PSTL06A PSM L59.5 TRA6PST004A L63 TRA6PSTL04A				1,5-32,0 HWS TRA1MAT001S ISODUR TRA1MAT006S		1,5-78,0 GROUP MACHINE E-F-G TRAEPLT0S H-I TRAEPLT500S	
	5,91 – 10,4 L59,5 TRA105PST006A L63 TRA105PSTL06A PSM L59.5 TRA105PST004A L63 TRA105PSTL04A							
1	1,5 – 30,5 L74 TRA1PUT006A L77.5 TRA1PUTL06A PSM L74 TRA1PUT004A L77.5 TRA1PUTL04A				32,1-77,8 HWS TRE1MAT001S ISODUR TRE1MAT006S			
	30,6-40,0 L74 TRB2PUT006A L77.5 TRB2PUTL06A 40,1-50,8 L74 TRC1PUT006A L77.5 TRC1PUTL06A 50,9-60,0 L74 TRD1PUT006A L77.5 TRD1PUTL06A 60,1-76,2 L74 TRE1PUT006A L77.5 TRE1PUTL06A							

* Punch 0 HSS

<p>HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons Recommended radius on corner 1m</p>		<p>REINFORCED DIE ISODUR GR1 TRA1MATP01S – GR2 TRC1MATR01S Recommended when punching force >15 tons Recommended radius on corner 1mm</p>	
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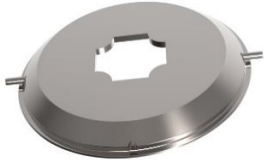


SPECIAL A	PUNCH 0	PUNCH	DIE	STRIPPER				
								
	max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0	GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool	GR1 max thickness 10mm mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape Keys 0-135° square *to specify	Punch size +1mm				
SIZE	ISODUR Punch L mm *	€	HDP	FNC	Die L mm	€	Stripper L mm	€
0	1,5 – 10,4 L59,5 TRA105PST006D L63 TRA105PSTL06D PSM L59.5 TRA105PST004D L63 TRA105PSTL04D							
1	1,5 – 30,5 L74 TRA1PUT006D L77.5 TRA1PUTL06D PSM L74 TRA1PUT004D L77.5 TRA1PUTL04D				1,5-32,0 HWS TRA1MAT001D ISODUR TRA1MAT006D		1,5-78,0 GROUP MACHINE E-F-G TRAEPLT0D H-I TRAEPLT500D	
2	30,6-40,0 L74 TRB2PUT006D L77.5 TRB2PUTL06D 40,1-50,8 L74 TRC1PUT006D L77.5 TRC1PUTL06D 50,9-60,0 L74 TRD1PUT006D L77.5 TRD1PUTL06D 60,1-76,2 L74 TRE1PUT006D L77,5 TRE1PUTL06D				32,1-77,8 HWS TRE1MAT001D ISODUR TRE1MAT006D			

* Punch 0 HSS

<p>HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons Recommended radius on corner 1m</p>		<p>REINFORCED DIE ISODUR GR1 TRA1MATP01S – GR2 TRC1MATR01S Recommended when punching force >15 tons Recommended radius on corner 1mm</p>	
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SPECIAL B	PUNCH 0	PUNCH	DIE	STRIPPER				
								
	max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0	GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool	GR1 max thickness 10mm mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape Keys 0-135° square *to specify	Punch size +1mm				
SIZE	ISODUR Punch L mm *	€	HDP	FNC	Die L mm	€	Stripper L mm	€
0	1,5 – 10,4 L59,5 TRA105PST006C L63 TRA105PSTL06C							
	PSM L59.5 TRA105PST004C L63 TRA105PSTL04C							
1	1,5 – 30,5 L74 TRA1PUT006C L77.5 TRA1PUTL06C				1,5-32,0 HWS TRA1MAT001D		1,5-78,0 GROUP MACHINE	
	PSM L74 TRA1PUT004C L77.5 TRA1PUTL04C				ISODUR TRA1MAT006D		E-F-G TRAEPLT0D H-I TRAEPLT500D	
2	30,6-40,0 L74 TRB2PUT006C L77.5 TRB2PUTL06C							
	40,1-50,8 L74 TRC1PUT006C L77.5 TRC1PUTL06C				32,1-77,8			
	50,9-60,0 L74 TRD1PUT006C L77.5 TRD1PUTL06C				HWS TRE1MAT001D			
	60,1-76,2 L74 TRE1PUT006C L77,5 TRE1PUTL06C				ISODUR TRE1MAT006D			

* Punch 0 HSS

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons Recommended radius on corner 1m		REINFORCED DIE ISODUR GR1 TRA1MATP01S – GR2 TRC1MATR01S Recommended when punching force >15 tons Recommended radius on corner 1mm	
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SPECIAL CUSTOMIZED 	PUNCH 0	PUNCH	DIE	STRIPPER				
		 <p>max punching cap.50kN D6 max thickness 2mm mat.40kg/mm2 D6 max thickness 1.5mm mat.60kg/mm2 D10.5 max thickness 4mm mat.40kg/mm2 D10.5 max thickness 2mm mat.60kg/mm2 Punch grinding life 3mm h59,5 Punch grinding life 6.5mm h63,0</p>	 <p>GR1 max thickness 10mm Mat 60kg/mm2 GR1 punching force 20KN GR2 max thickness 12mm Mat.60kg/mm2 GR2 punching force 30KN* Punch grinding life 3mm h74 Punch grinding life 6.5mm h77,5 *20kN Whisper tool</p>	 <p>GR1 max thickness 10mm Mat.60kg/mm2 ,Max 250kN GR2 max thickness 12mm mat.60kg/mm2 , Max 180kN Die grinding life 1mm Key 0° round , standard Machine without rotation*: Keys 0-90° standard shape Keys 0-135° square *to specify</p>	 <p>Punch size +1mm</p>			
SIZE	ISODUR Punch L mm *	€	HDP	FNC	Die L mm	€	Stripper L mm	€
0	1,5 – 10,4 L59,5 TRA105PST006F L63 TRA105PSTL06F				1,5-32,0 HWS TRA1MAT001D ISODUR TRA1MAT006D		1,5-78,0 GROUP MACHINE E-F-G TRAEPLT0D H-I TRAEPLT500D	
	PSM L59.5 TRA105PST004F L63 TRA105PSTL04F							
1	1,5 – 30,5 L74 TRA1PUT006F L77.5 TRA1PUTL06F				32,1-77,8 HWS TRE1MAT001D ISODUR TRE1MAT006D			
	PSM L74 TRA1PUT004F L77.5 TRA1PUTL04F							
2	30,6-40,0 L74 TRB2PUT006F L77.5 TRB2PUTL06F							
	40,1-50,8 L74 TRC1PUT006F L77.5 TRC1PUTL06F							
	50,9-60,0 L74 TRD1PUT006F L77.5 TRD1PUTL06F							
	60,1-76,2 L74 TRE1PUT006F L77,5 TRE1PUTL06F							

* Punch 0 HSS

<p>HEAVY DUTY PUNCH WITH COLLAR Ø 40mm Recommended when punching force >20 tons Recommended radius on corner 1m</p>		<p>REINFORCED DIE ISODUR GR1 TRA1MATP01S – GR2 TRC1MATR01S Recommended when punching force >15 tons Recommended radius on corner 1mm</p>	
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STRIPPER Stripper size = punch size +1mm	 <p>0-39mm mach GR.S</p>		 <p>0-77mm HACO OMES style</p>		
	ROUND	ITEM	€	ITEM	€
	STANDARD	TRABPLTMT		TRAEPLOMT	
	SPECIAL A-B	TRABPLTMD		TRAEPLOMD	
STRIPPER PIN	 <p>NSP060003016</p>				

URETHAN STRIPPER 82SHORE Max thickness 4mm	 <p>0-30.5mm</p>		 <p>30.6-40mm</p>		 <p>40.1-51mm</p>		 <p>51.1-70mm</p>		
	ROUND	ITEM	€	ITEM	€	ITEM	€	ITEM	€
	STANDAR	TRA1PLPOT		TRB2PLPOT		TRC1PLPOT		TRE1PLPOT	
	SPECIAL A-B	TRA1PLPOD		TRB2PLPOD		TRC1PLPOD		TRE1PLPOD	

Add on pag.50



MULTITOOL

MT3 MT4 MT6

MODEL TC500R,TC200R,TC190R,TC600L
 MAX THICKNESS 3.2mm (60Kg/mm2)
 PUNCHING FORCE 55KN
 PUNCH GRINDING LIFE 0,2mm DIE 1mm

MT5 , MT10

MODEL TC2000R,TC2020R,TC5000R,TC6000L
 MAX THICKNESS 4.5mm (40kg/mm2)
 MAX THICKNESS 3mm (60kg/mm2)
 MT5 MAX PUNCHING FORCE 87KN
 MT10 MAX PUNCHING FORCE 57KN
 PUNCH GRINDING LIFE 0,2mm DIE 1mm



MT3 MT6
10.5mm

MT4
16mm

MT5
16mm

MT10
10.5mm

	ITEM	€	ITEM	€	ITEM	€	ITEM	€
HSS PUNCH ROUND	TRAOPUM606T		TRAOPUM406T		TRAOPUM506T		TRAOPUM1006T	
ISODUR DIE ROUND	TRAOMAM601T		TRAOMAM401T		TRAOMAM501T		TRAOMAM1001T	
HSS PUNCH STANDARD SHAPE	TRAOPUM606S		TRAOPUM406S		TRAOPUM506S		TRAOPUM1006S	
ISODUR DIE STANDARD SHAPE	TRAOMAM601S		TRAOMAM401S		TRAOMAM501S		TRAOMAM1001S	
PSM PUNCH ROUND					TRAOPUM504T		TRAOPUM1004T	
PSM DIE ROUND					TRAOMAM504T		TRAOMAM1004T	
PSM PUNCH STANDARD SHAPE					TRAOPUM504S		TRAOPUM1004S	
PSM DIE STANDARD SHAPE					TRAOMAM504S		TRAOMAM1004S	
COATING HDP								
COATING FNC								

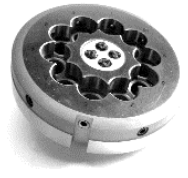
DIE HOLDER

MT4

MT5

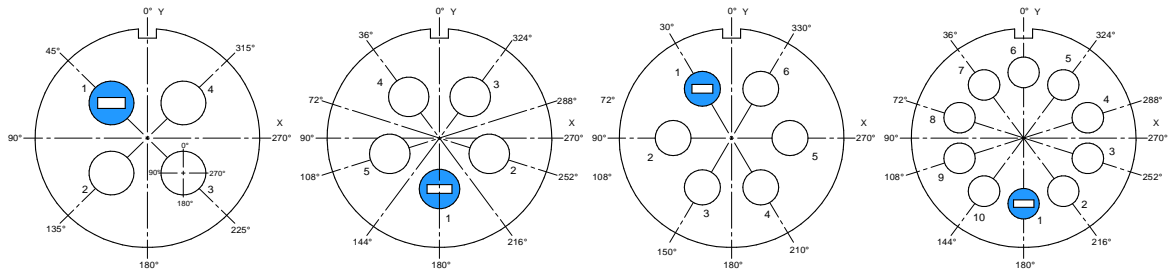
MT6

MT10



ITEM	€	ITEM	€	ITEM	€	ITEM	€
TRAOPMMT4		TRAOPMMT5		TRAOPMMT6		TRAOPMMT10	

Activated tool position 1



REVOTOOL BOSCHERT 6 , 7 - 8 POSITION

SIZE TOOLING :
 6_POS PUNCH D20 H71 , DIE D30 H20
 size max in Ø 20mm

7 AND 8_POS PUNCH D16 H71 , DIE D25 H15
 size max in Ø 16mm



REVO 7-8



REVO 6




















	ITEM	ISODUR PUNCH	€	ISODUR DIE	€	ISODUR PUNCH	€	ISODUR DIE	€
ROUND	TRAOPUM806T			TRAOMAM801T		BOAOPUM606T		BOAOMAM606T	
STANDARD	TRAOPUM806S			TRAOMAM801S		BOAOPUM606S		BOAOMAM606S	
SPECIAL A	TRAOPUM806C			TRAOMAM801D		BOAOPUM606C		BOAOMAM606D	
SPECIAL B	TRAOPUM806D			TRAOMAM801D		BOAOPUM606D		BOAOMAM606D	
SPECIAL CUSTOMIZED	TRAOPUM806F			TRAOMAM801D		BOAOPUM606F		BOAOMAM606D	

Add on pag.50



SLITTING TOOL Max. thickness 3mm Radius on corner 0.5mm		BLADE HOLDER 30x5 56x5 76.2x5 TO COMPLETE WITH ALIGNMENT RING TRAFAATR				ALIGNMENT RING 40mm				BLADE HOLDER 30x5 56x5 76.2x5 WITH INTEGRATED ALIGN.RING						
BLADE HOLDER 	  															
	ITEM		€		ITEM		€		ITEM		€					
	TRCEPPL5690				TRAFAATR				TR56/76PL							
	30X5				56X5				76.2X5							
BLADE 	  															
	30X5				56X5				76.2X5							
	HSS		€		PSM		€		HSS		€		PSM		€	
	RECT TRAP MICROJ	TR30LRE06 TR30LTP06 TR30LMJ06			TR30LRE02 TR30LTP02 TR30LMJ02				TR56LRE06 TR56LTP06 TR56LMJ06			TR56LRE02 TR56LTP02 TR56LMJ02			TR76LRE06 TR76LTP06 TR76LMJ06	
BLADE HDP COATING 	  															
	30X5				56X5				76.2X5							
	HSS + HDP		€		PSM + HDP		€		HSS + HDP		€		PSM + HDP		€	
	RECT TRAP MICROJ	TR30LRE06H TR30LTP06H TR30LMJ06H			TR30LRE02H TR30LTP02H TR30LMJ02H				TR56LRE06H TR56LTP06H TR56LMJ06H			TR56LRE02H TR56LTP02H TR56LMJ02H			TR76LRE06H TR76LTP06H TR76LMJ06H	
BLADE FNC COATING 	  															
	30X5				56X5				76.2X5							
	HSS + FNC		€		PSM + FNC		€		HSS + FNC		€		PSM + FNC		€	
	RECT TRAP MICROJ	TR30LRE06F TR30LTP06F TR30LMJ06F			TR30LRE02F TR30LTP02F TR30LMJ02F				TR56LRE06F TR56LTP06F TR56LMJ06F			TR56LRE02F TR56LTP02F TR56LMJ02F			TR76LRE06F TR76LTP06F TR76LMJ06F	



SLITTING TOOL Max. thickness 3mm Radius on corner 0.5mm	30x5	56x5	76.2x5					
DIE HOLDER (with shims) 								
DIE HOLDER WITH BRUSHES (with shims) 								
DIE SHIMS 1 SET INCLUDES 0.2 0.3 0.5mm 								
RECTANGLE HSS DIE INSERT ENTIRE MAX THICKNESS 2mm 								
RECTANGLE PAIR HSS DIE INSERT MAX THICKNESS 3mm 								
MICRO HSS DIE INSERT ENTIRE MAX THICKNESS 2mm 								
	ITEM TRCEMAIN90	€	ITEM TRCEMAIN90	€	ITEM TRCFMAIN76TT	€		
			ITEM TRCEMAINSP56	€	ITEM TRCEMAINSP56	€	ITEM TRCFMAIN76TT	€
			ITEM TRCEIM30900	€	ITEM TRCEIM569006	€	ITEM TRCFIM76TT06	€
			ITEM TRCEIM56P206	€	ITEM TRCFIM76P206	€		
			ITEM TRCEIM309MI6	€	ITEM TRCEIM569MI6	€	ITEM TRCFIM76TMI06	€

Add on pag.50



SLITTING TOOL CLOSE TO DEFORMATION Minimum distance to emboss: min 35mm H5 , min 22 H2 URETHAN STRIPPER	56X5	76.2x5		
PUNCH ASSEMBLY 				
	ITEM TRD1PA56X5	€	ITEM TRE1PA76.2X5	€
PUNCH 				
	ITEM TRD1PU56X5	€	ITEM TRE1PU76.2X5	€
PAIR OF URETHAN STRIPPER 				
	ITEM TRD1PLPO56X5	€	ITEM TRE1PLPO76.2X5	€
PAIR OF SCREW 				
	ITEM TRDEVI76.2X5	€	ITEM TRDEVI76.2X5	€
ALIGNMENT RING SIZE2 				
	ITEM TRCFAATP	€	ITEM TRCFAATP	€
COATING HDP			COATING FNC	



FITTING	MACH. GR E,F,G,H,I	MACH. GR A,B,C,D BOSCHERT EUROMAC HACO	MACH. GR S
ALIGNMENT RING SIZE 1 			
	ITEM TRABAATI €	ITEM TRABAATITE €	ITEM TRABAATM €
ALIGNMENT RING SIZE 2 			
	ITEM TRCFAATP €	ITEM TRCFAATPTE €	ITEM TRC1AATM €
ALIGNMENT RING HD 40mm 			
	ITEM TRAFATR €	ITEM TRAFATR €	
ALIGNMENT KEY 	 Alignment ring 1,2 Mach.gr E,F,G,H,I	 Alignment ring 1,2Mach.gr A,B,C,D	 Alignment ring 1,2 Mach.gr S  Alignment ring HD Mach.gr E,F,G,H,I
	ITEM TRAFACHTO €	ITEM NSP02MR08016 €	ITEM TRACHACHTM € ITEM TRAFACHTR €
DIE ADAPTOR ALL MODELS SIZE 1/2 			
	Die adaptor 1/2 ITEM TRBPMT0 €	Die adaptor with brush 1/2 ITEM TRBPMT0SP €	Die holder ITEM TRCEPMT0 €



FITTING

PUNCH CHUCK



ITEM	€	ITEM	€	ITEM	€
D6 SIZE 0A TRA6PPT0T		D10.5 SIZE 0B TRA105PPT0T		SCREW M14 MGR14MBX135	

TOOL CARTRIDGE



ITEM	€
TRAACP	

DIE SHIMS

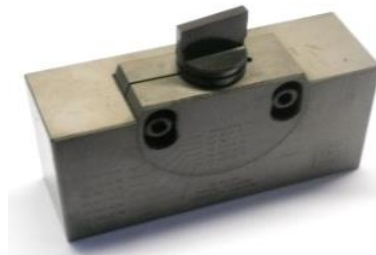


Gr.1 – 60mm		Gr.2 – 100mm	
ITEM	€	ITEM	€
0,3mm TRABSPMA03		0,3mm TRCESPMA03	
0,5mm TRABSPMA05		0,5mm TRCESPMA05	
1mm TRABSPMA1		1mm TRCESPMA1	



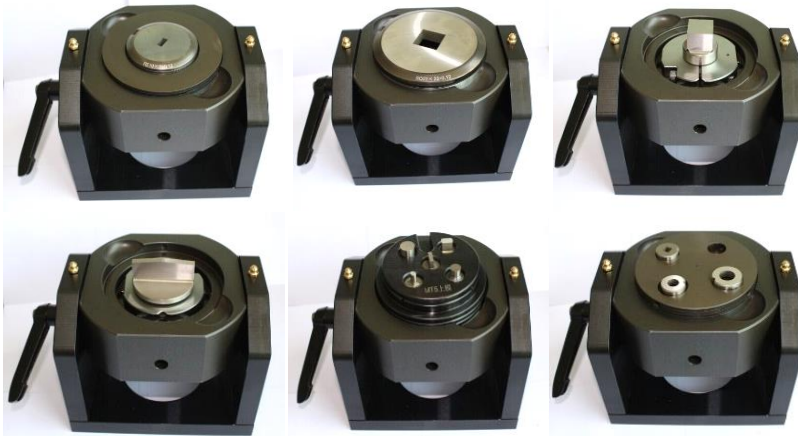
FITTING

PUNCH REGRIND VICE EQUIPMENT
FLAT , WHISPER AND DOUBLE
WHISPER



ITEM	€
TRAFFPU	

FIXTURE REGRIND TOOLING
DIE 1 , DIE 2
PUNCH FLAT , WHISPER , DOUBLE
WHISPER
MULTITOOL PUNCH AND DIE



ITEM	€
TRSETAFFPM	

SET STANDARD AND SPECIAL
PUNCH WITH ALIGNMENT RING
ANGLE:
0.45.90.135.180.225.270.315.360



ITEM	€
TRAAP	



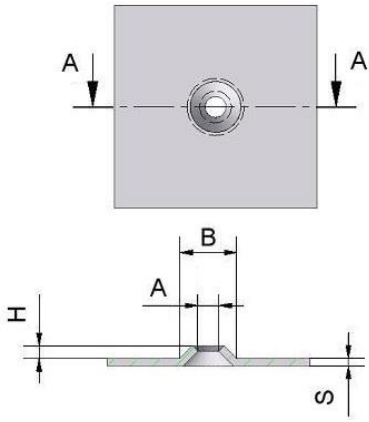
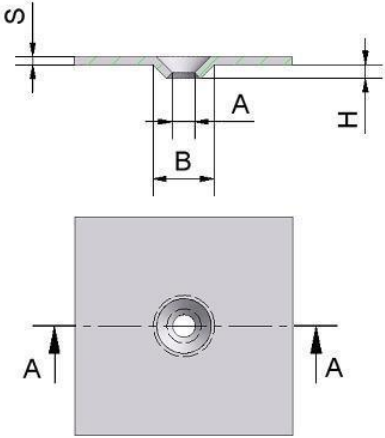
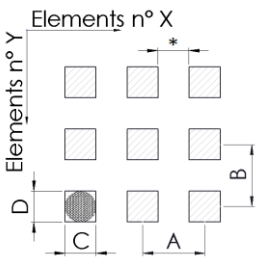
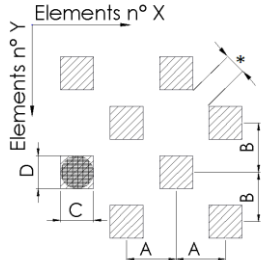
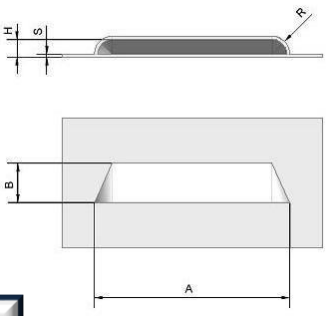
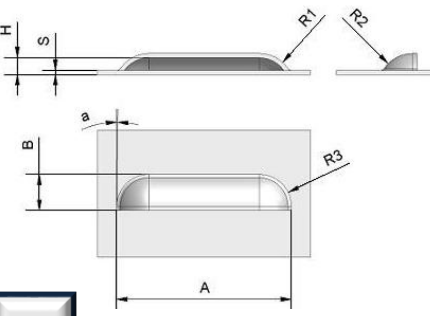
FORMING TOOL REQUEST GUIDE



SKETCH	OPTION 2	TOOL INFORMATION
<p>1a</p>	<p>1b</p>	<p>COUNTERSINK UP FORM AFTER PRE-PIERCE THICKNESS: _____ MATERIAL : _____ A: ____ H: ____ D: ____</p> <p>OPTION 2 A: ____ H: ____ B: ____</p> <p>PREPIERCE DIMENSION: $(D_{MAX}-D_{MIN}) * 0.7$ H MAX 85% OF THICKNESS</p>
<p>2a</p>	<p>2b</p>	<p>EMBOSS ROUND THICKNESS: _____ MATERIAL : _____</p> <p>UP D: ____ H: ____ A: ____ R: ____ DISTANCE BETWEEN EMBOSES: ____</p> <p>OPTION 2 DOWN D: ____ H: ____ A: ____ R: ____ S: ____ DISTANCE BETWEEN EMBOSES: ____</p> <p>SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p> <p>The presence of many forms within close proximity to one another results in distortion of the sheet. The height of the form is limited by the material's capacity for elongation. For this reason it may be necessary to make changes to the original specifications.</p>
<p>3a</p>	<p>3b</p>	<p>EMBOSS SHAPE THICKNESS: _____ MATERIAL : _____</p> <p>UP B: ____ C: ____ H: ____ A: ____ R: ____ DISTANCE BETWEEN EMBOSES: ____</p> <p>OPTION 2 DOWN UP B: ____ C: ____ H: ____ A: ____ R: ____ DISTANCE BETWEEN EMBOSES: ____</p> <p>SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p> <p>The presence of many forms within close proximity to one another results in distortion of the sheet. The height of the form is limited by the material's capacity for elongation. For this reason it may be necessary to make changes to the original specifications.</p>

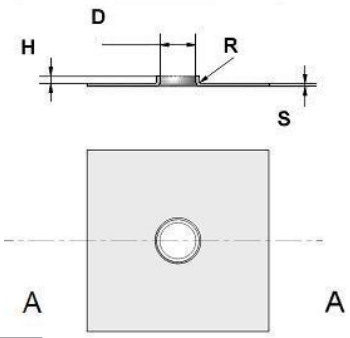
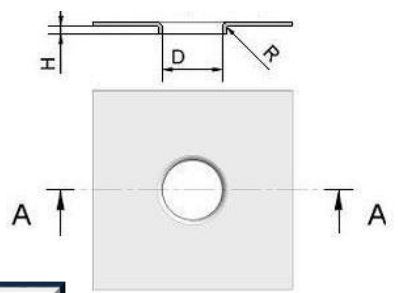
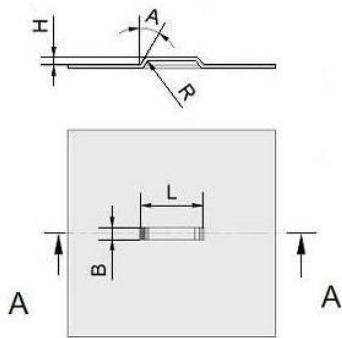
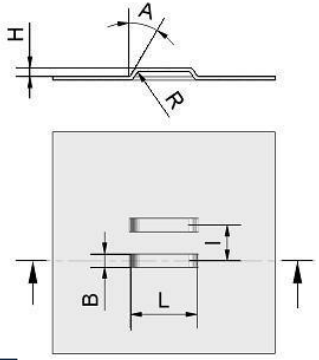
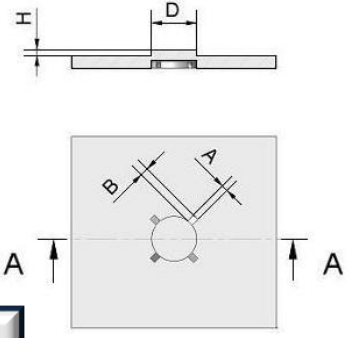
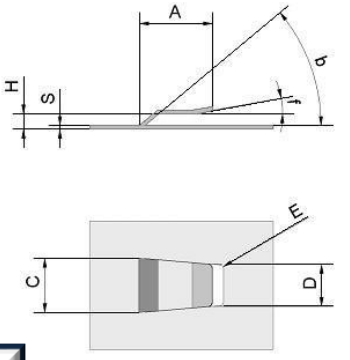


FORMING TOOL REQUEST GUIDE

SKETCH	OPTION 2	TOOL INFORMATION
 <p>4a</p>	 <p>4b</p>	<p>EMBOSS COUNTERSINK UP FORM AFTER PRE-PIERCE THICKNESS: _____ MATERIAL : _____ A: _____ B: _____ H: _____ S: _____</p> <p>OPTION 2 DOWN FORM A: _____ B: _____ H: _____ S: _____</p> <p>SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p>
 <p>5a</p>	 <p>5b</p>	<p>CLUSTER THICKNESS: _____ MATERIAL _____ RD <input type="checkbox"/> SQUARE <input type="checkbox"/> RECT. <input type="checkbox"/> OBR. <input type="checkbox"/> HEX <input type="checkbox"/> PATTERN 1 A: _____ B: _____ C: _____ Dø: _____ N ELEMENTS X: _____ Y: _____</p> <p>PATTERN 2 A: _____ B: _____ C: _____ Dø: _____</p> <p>*minimum distance between holes 2.5 x thickness We STRONGLY recommend that you avoid punching holes more than once , USE A SINGLE TOOL for the final holes if the total number of holes to be punched is not a multiple of the number of punches in the cluster. Re-punching a previously punched hole dramatically reduces tool lifespan.</p>
<p>TRUMPF DESIGN</p>  <p>6a</p>	<p>THICK TURRET DESIGN</p>  <p>6b</p>	<p>LOUVER THICKNESS: _____ MATERIAL : _____ TRUMPF DESIGN 60X12 A:60 B:12 H:5.5 S:0.8 – 2.5 SPACING X 18mm Y 70mm</p> <p>OPTION 2 CUSTOMIZED DESIGN: THICK TURRET STANDARD SIZE 75X15 – 85X15 – 50X10 H5 A: _____ B: _____ H: _____ S: _____ Radius not strictly required</p> <p>SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p>



FORMING TOOL REQUEST GUIDE

SKETCH	OPTION 2	TOOL INFORMATION
 <p>7a</p>	 <p>7b</p>	<p>EXTRUSION THICKNESS: _____ MATERIAL : _____ D: _____ H: _____ R: _____ S: _____ OPTION 2 DOWN FORM D: _____ H: _____ R: _____ H MAX 2.5 TIMES THICKNESS SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p>
 <p>8a</p>	 <p>8b</p>	<p>BRIDGE THICKNESS: _____ MATERIAL : _____ B: _____ L: _____ H: _____ A: _____ R: _____ OPTION 2 DOUBLE BRIDGE B: _____ L: _____ H: _____ A: _____ R: _____ I: _____ SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p>
 <p>9</p>		<p>SHEAR BUTTON , KNOCK OUT THICKNESS: _____ MATERIAL : _____ D: _____ H: _____ A: _____ B: _____ A,B not strictly required SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE</p>
 <p>10</p>		<p>LANCE THICKNESS: _____ MATERIAL : _____ C: _____ D: _____ E: _____ A: _____ H: _____ S: _____ f: _____ b: _____ SEND A SKETCH IF OTHER FORM WITHIN 50MM OR CLOSE TO SHEET EDGE.</p>

Add on pag.50



MARKING AND COUNTERSINK

COUNTERSINK DATA

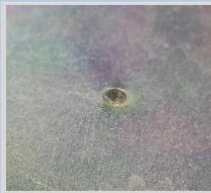
DIN EN ISO 10642 (hexagon socket)

Screw	Upper Ø	Thickness
M3	d7.1	1-3mm
M4	d9.4	1.5-3mm
M5	d11.7	1.5-4mm
M6	d14	2-4mm
M8	d18.5	2-4mm

COUNTERSINK DATA

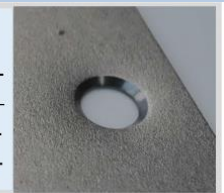
DIN EN ISO 2009 and 7046-1

Screw	Upper Ø	Thickness
M2.5	D5.9	1-3mm
M3	D6.7	1-3mm
M4	D8.8	1.5-3mm
M5	d10.6	1.5-4mm
M6	d12.7	2-4mm
M8	d16.7	2-4mm



CUSTOMER INFORMATIONS

Name: _____ Telephone n.: _____
 Machine model: _____ Fax: _____
 Material: _____ Email: _____
 Material thickness: _____ Address: _____



MARKING TOOL

⇒ Replaceable punch

Ø 10,5 Punch

Angles: 60°, 90°, 120° (specify the angle in the box below)

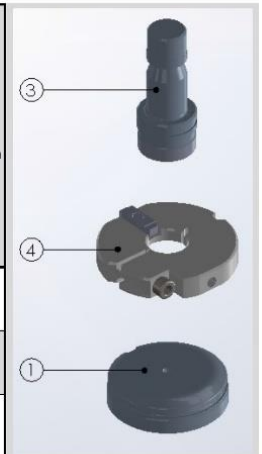
5	SCREW
3	PUNCH HOLDER
2	MARKING PUNCH 1 - 4.5mm
4	MARKING PUNCH 4.5 - 8mm
1	DIE

COUNTERSINK AFTER PREPIERCE TOOL

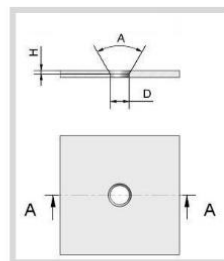
⇒ Solid die

⇒ Also available with punch holder and replaceable insert

3	PUNCH
4	ALIGNMENT RING
1	DIE



Notes and personal drafts. Please specify here the distance of any close deformation.



CUSTOM DIMENSIONS (mm)

A [°] = _____
 D = _____
 H = _____
 Order with pre-pierce tool: YES / NO

Pre-pierce dimension:
 $D_{max} - [(D_{max} - D_{min}) * 0,7]$

ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____



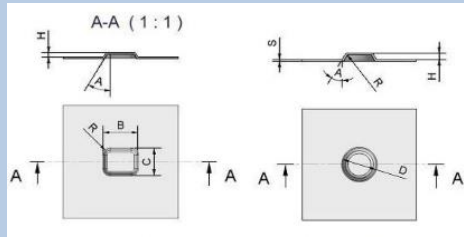
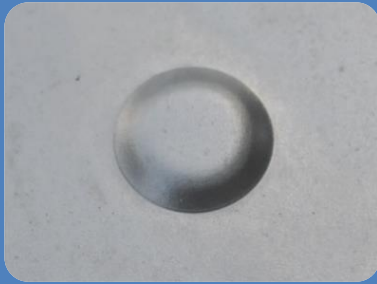
	COUNTERSINK AFTER PRE PUNCH	PUNCH	€	DIE	€
		FLTRA09P		TRA1MAT001T	

	MARKING TOOL	PUNCH CHUCK	€	DIE	€	PUNCH TH1-4.5mm	€	PUNCH TH5-8mm	€
		TRA105PPT0T		TRA1MAT001T		FLTRA23P1-4.5		FLTRA23P4.5-8	



EMBOSS UP ECONO STYLE , SOLID DIE

MAX: TOTAL ANGLE 90°-179° , H 0.5-5mm
DIAGONAL 60mm



CUSTOM DIMENSIONS (mm)

ROUND/SHAPE:

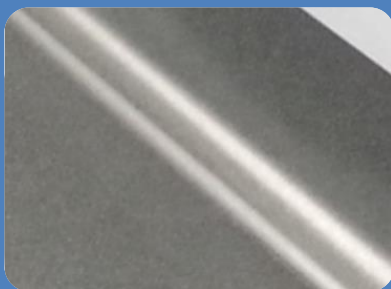
H = _____ R = _____
 A = _____ * B/C = _____
 S = _____ D = _____
 * = not strictly required



ROUND

	PUNCH	€	DIE	€	ALIGN.RING	€	SET
0-15mm	FLTRB01BP		FLTRB01MA GR1		(GR1)		
15.1-23mm	FLTRB01B2P		FLTRB01ME GR2		(GR2)		
23.1-30mm	FLTRB01CP		FLTRB01ME GR2		(GR2)		
30.1-40mm	FLTRB01DP		FLTRB01ME GR2		(GR2)		
40.1-60mm	FLTRB01EP		FLTRB01ME GR2		(GR2)		
SHAPE							
Diagonal	PUNCH	€	DIE	€	ALIGN.RING	€	SET
0-15mm	FLTRB02BP		FLTRB02MA GR1		(GR1)		
15.1-23mm	FLTRB02B2P		FLTRB02ME GR2		(GR2)		
23.1-30mm	FLTRB02CP		FLTRB02ME GR2		(GR2)		
30.1-40mm	FLTRB02DP		FLTRB02ME GR2		(GR2)		
40.1-60mm	FLTRB02EP		FLTRB02ME GR2		(GR2)		

STEPPING



PUNCH	€	DIE	€	ALIGN.RING	€	SET
FLTRB30P		FLTRB02ME		(GR2)		

Add on pag.50



COUNTERSINK UP FORMING AFTER PRE PIERCE

Sheet thickness 0.5-3mm

Thread	Upper Ø mm
M2.5	5.9
M3	7.1
M4	9.4
M5	11.7
M6	14
M8	18.5
M10	23

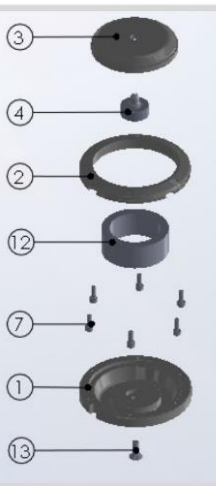


CUSTOMER INFORMATIONS

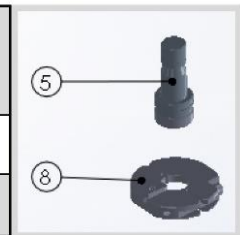
Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

COUNTERSINK DIE
 ⇒ Die with stripper and spring
 ⇒ Replaceable insert

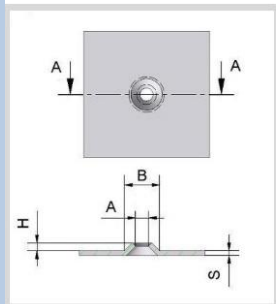
3	STRIPPER PLATE
4	PUNCH
2	RING
12	URETHANE SPRING
7	SCREW
1	DIE
13	SCREW



COUNTERSINK PUNCH	
5	PUNCH
8	ALIGNMENT RING



Notes and personal drafts. Please specify here the distance of any close deformation



CUSTOM DIMENSIONS

(mm)
 Direction: _____ Up
 A = _____
 B = _____ (max 42 mm)
 H = _____
 S = _____
 Pre-hole tool needed : _____
 YES / NO



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

PRE-PIERCE DIAMETERS [mm]

Thickness 0,5 : (M2.5 2,0) (M3 2,4) (M4 3,3) (M5 4,2) (M6 5,0) (M8 6,2) (M10 7,5)
 Thickness 1,0 : (M2.5 2,2) (M3 2,6) (M4 3,5) (M5 4,4) (M6 5,2) (M8 6,5) (M10 7,8)
 Thickness 1,5 : (M2.5 2,3) (M3 2,7) (M4 3,6) (M5 4,5) (M6 5,3) (M8 6,8) (M10 8,0)
 Thickness 2,0 : (M2.5 2,4) (M3 2,8) (M4 3,7) (M5 4,6) (M6 5,4) (M8 7,0) (M10 8,2)
 Thickness 2,5 : (M2.5 2,5) (M3 3,0) (M4 3,8) (M5 4,8) (M6 5,5) (M8 7,2) (M10 8,5)

	PUNCH	€	DIE WITH SPRINGS	€	ALIGN.RING	€	SET
M2,5 M3 M4 M5 M6	FLTRB01BP		FLTRB03MA		(GR1)		
M8 M10	FLTRB01B2P		FLTRB03MA		(GR2)		



COUNTERSINK DOWN FORMING

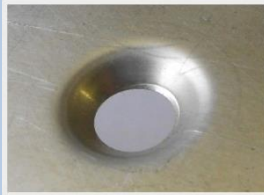
Sheet thickness 0.5-3mm

Data

Thread	Upper Ø mm
M2.5	5.9
M3	7.1
M4	9.4
M5	11.7
M6	14
M8	18.5
M10	23

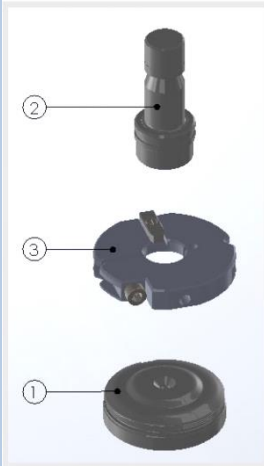
Round pre-hole

Thickness	M2.5	M3	M4	M5	M6
0.5	2.0	2.4	3.3	4.2	5.0
1.0	2.2	2.6	3.5	4.4	5.2
1.5	2.3	2.7	3.6	4.5	5.3
2.0	2.4	2.8	3.7	4.6	5.4
2.5	2.5	3.0	3.8	4.8	5.5

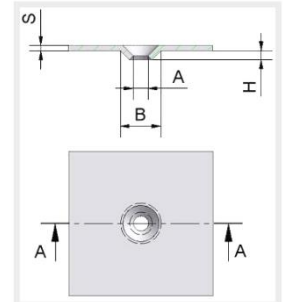


CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____



COUNTERSINK DOWN SET	
2	PUNCH
3	ALIGNMENT RING
1	DIE



CUSTOM DIMENSIONS (mm)

A = _____
 B = _____
 H = _____
 S = _____

Order with pre-pierce tool : _____
 YES / NO
 Direction: _____ Down

Notes and drafts. Please specify here the distance of any close deformation.



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

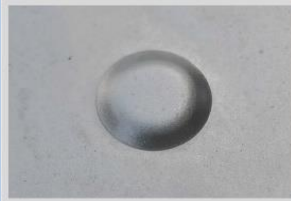
 Number of previous order: _____

M2,5 M3 M4 M5 M6	PUNCH	€	DIE	€	ALIGN.RING	€	SET
	FLTRB05BP		FLTRB01MA		(GR1)		
M8 M10	FLTRB05CP		FLTRB05MA		(GR2)		



EMBOSS UP

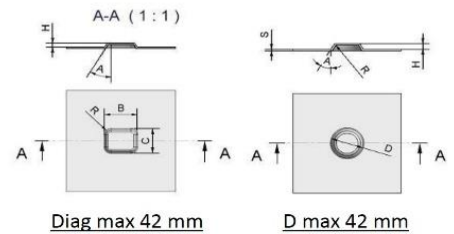
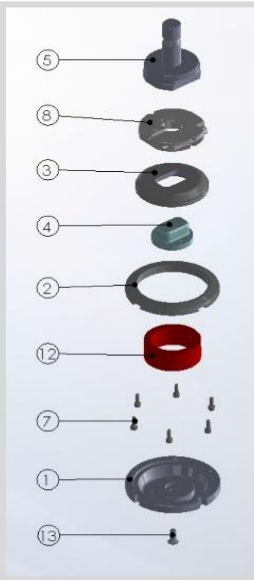
Sheet thickness 0.5-3mm



CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

EMBOSS UP TOOL	
⇒	Die with stripper and springs
⇒	Replaceable insert
5	PUNCH
8	ALIGNMENT RING
3	STRIPPER PLATE
4	LOWER PUNCH
2	RING
12	URETHANE SPRING
7	SCREW
1	DIE
13	SCREW



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

CUSTOM DIMENSIONS (mm)

ROUND/SHAPE: _____
 H = _____ R = _____
 A = _____ * B/C = _____
 S = _____ D = _____
 * = not strictly required

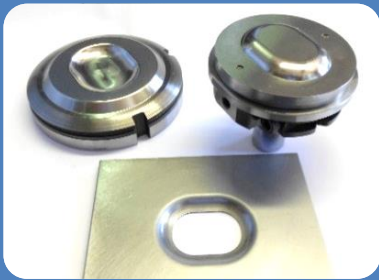
Notes and personal drafts. Please specify here the distance of any close deformation.

ROUND	PUNCH	€	URETHAN STRIPPER (opt)	€	DIE WITH SPRINGS	€	ALIGN.RING	€	SET
0-15mm	FLTRB01BP		€FLTRB12E		FLTRB03MA		(GR1)		
15.1-30mm	FLTRB01CP		€FLTRB12EC		FLTRB03MA		(GR2)		
30.1-42mm	FLTRB01DP		€FLTRB12ED		FLTRB03MA		(GR2)		
SHAPE Diagonal	PUNCH	€	URETHAN STRIPPER (opt)	€	DIE WITH SPRINGS	€	ALING.RING	€	SET
0-15mm	FLTRB02BP		€FLTRB12E		FLTRB04MA		(GR1)		
15.1-23mm	FLTRB02B2P		€FLTRB12EC		FLTRB04MA		(GR2)		
23.1-30mm	FLTRB02CP		€FLTRB12EC		FLTRB04MA		(GR2)		
30.1-42mm	FLTRB02DP		€FLTRB12ED		FLTRB04MA		(GR2)		

Add on pag.50



EMBOSS DOWN



CUSTOMER INFORMATIONS

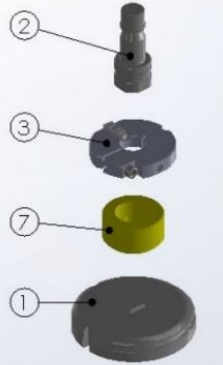
Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

EMBOSS TOOL

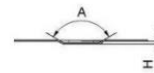
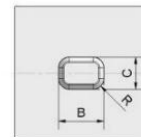
⇒ Forming direction: down

⇒ Solid die

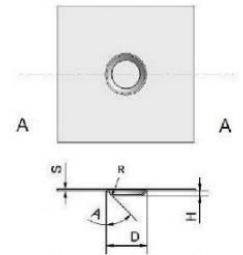
2	PUNCH
3	ALIGNMENT RING
7	URETHANE STRIPPER
1	DIE



Notes and personal drafts. Please specify here the distance of any close deformation.



Diag max 60 mm



D max 60 mm

ORDERING SPECIFICATIONS

Order _____ Offer _____

Item required: _____

Number of previous order: _____

CUSTOM DIMENSIONS(mm)

ROUND/SHAPE: _____

DIRECTION: DOWN

B/C = _____

D = _____

H = _____

S = _____

A = _____ *

R = _____ *

* = not strictly required

ROUND	PUNCH	€	URETHAN STRIPPER (optional)	€	DIE 2	€	ALIGN.RING	€	SET
0-15mm	FLTRB05BP		FLTRB12E		FLTRB05MA		(GR1)		
15.1-30mm	FLTRB05CP		FLTRB12EC		FLTRB05MA		(GR2)		
30.1-42mm	FLTRB05EP		FLTRB12ED		FLTRB05MA		(GR2)		
SHAPE	PUNCH	€	URETHAN STRIPPER (optional)	€	DIE 2	€	ALIGN.RING	€	SET
Diagonal		* / **							* / **
0-15mm	FLTRB06BP		FLTRB12E		FLTRB06MA		(GR1)		
15.1-23mm	FLTRB06B2P		FLTRB12EB		FLTRB06MA		(GR2)		
23.1-30mm	FLTRB06CP		FLTRB12EC		FLTRB06MA		(GR2)		
30.1-40mm	FLTRB06EP		FLTRB12ED		FLTRB06MA		(GR2)		

* GRINDED **MILLED *** DIE WITH EJECTORS + €



CLUSTER



Price calculation

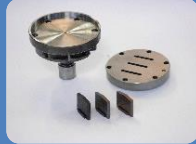
SOLID PUNCH



GR1: TRB1PUT006M
€+(€ x QT)

GR2: TRE1PUT006M
€+(€ x QT)
Spec.0-1-2 + €

REPLACEABLE INSERTS



Ø FLTRB20PA
€+(€* x QT)

SHAPE FLTRB21PA
€+
Std (€** x QT)
Spec 0 € x QT
Spec 1 € x QT
Spec 2 € x QT

STRIPPER



MACH.GR E-F-G
TRAELTOM
€+(€ x QT)

MACH.GR H-I
TRAELT500M
€+(€ x QT)

DIE



GR1_ **ISODUR**
TRA1MATP01M
€+(€ x QT)

GR2_ **ISODUR**
TRE1MAT006M
€+(€ x QT)

GR2_ **ISODUR**
TRE1MATR01M
Heavy duty + 20%

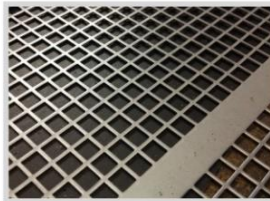
RING



GR1 TRABAATI €

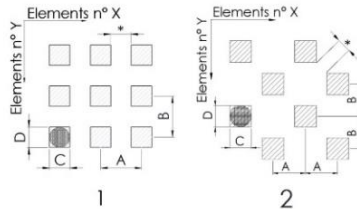
GR2 TRCFAATP €

HD40mm
(insert style)
TRFAATR €



CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____



PUNCH DIMENSIONS (mm)

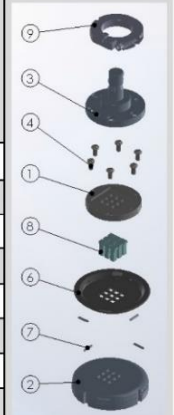
A= _____ Round: _____ Shape: _____
 B= _____ Pattern: _____ 1 / 2
 C= _____ Nx= _____ Ny= _____
 D= _____

* minimum distance between holes: 2.5 x thickness

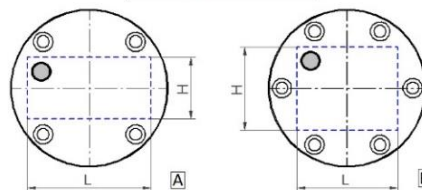
CLUSTER TOOL	
SOLID	
3	ALIGNMENT RING
2	PUNCH
7	STRIPPER PLATE
8	PIN
1	DIE



CLUSTER TOOL	
WITH REPLACEABLE INSERTS	
9	ALIGNMENT RING
3	PUNCH SUPPORT
4	SCREW
1	PUNCH HOLDER
8	PUNCH INSERT
6	STRIPPER PLATE
7	PIN
2	DIE



MAX PUNCHING AREA



	DIAM. [mm]	WITH REPLACEABLE INSERTS			
		A		B	
		L [mm]	H [mm]	L [mm]	H [mm]
II	Ø76	65	25	45	40
I	Ø30/38*	//	//	//	//

* machine group S

If particular dimensions or holes are needed, our technical department is willing to find the solution that fits your needs.

Notes and drafts. Please specify here the distance of any near deformation.

ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

ADD ON : +10% DIE SIZE 2_3.1mm , +10% STRIPPER SIZE < 3.1mm , +25% DIE SIZE 1.5_1.99mm DIE AND STRIPPER SPECIAL FORM +15%

ROUND size mm	2-3-4-5-6-7-8	10-12	15	Decimal value ex 3.2 max11,9
Add each Ø				
Spare punch HSS				

SHAPE diagonal size mm	2_20	>20	2_20	>20
	Square and rectangle	Square and rectangle	Obround and hexagon	Obround and hexagon
Add each shape				
Spare punch HSS				

Coating

DIAGONAL size mm	2-6	6.1-10	10.1-12	12.1-15	15.1-25
HDP each Ø					
FNC each Ø					

Add on pag.50



LOUVER
STANDARD 60X12 AND SPECIAL SIZE

Standard size 60x12
Technical info:
Thickness: 0.8 ÷ 2.5mm , Height : 5.5mm ,
Spacing X 18mm, Y 70mm



Trumf style



Special style



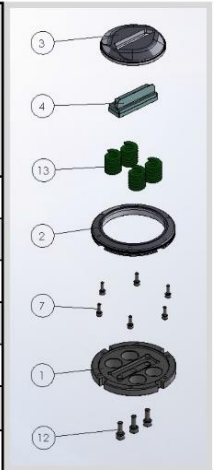
CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
Machine Model : _____ Fax : _____
Material Type : _____ Email : _____
Material Thickness : _____ Address : _____

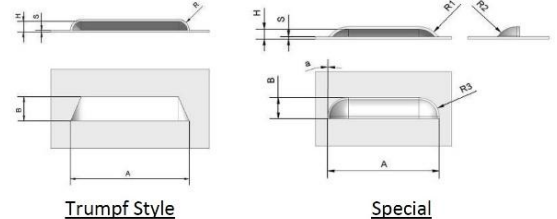
LOUVER PUNCH ⇒ Replaceable insert	
8	ALIGNMENT RING
5	PUNCH HOLDER
7	SCREW
6	LOUVER INSERT



LOUVER DIE ⇒ Die with stripper and springs ⇒ Replaceable insert	
1	DIE
2	RING
3	STRIPPER PLATE
4	LOWER PUNCH
7	SCREW
12	SCREW
13	SPRINGS



Notes and drafts. Please specify here the distance of any close deformation.



TRUMPF STYLE DIM. (mm)	SPECIAL DIM. (mm)
A = standard : 60	A = _____
B = standard : 12	B = _____
H = standard : 5	a = * R3 = *
S = _____	H = _____
R = _____	S = R1 = * R2 = *
Min. distance between louvers : _____	Min. distance between louvers : _____
x= _____ y= _____	x= _____ y= _____
Number of previous order: _____	TICN coating: YES / NO

* = not strictly required

ORDERING SPECIFICATIONS

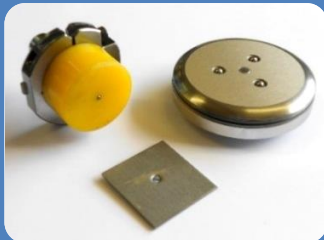
Order _____ Offer _____
Item required: _____
Number of previous order: _____

Louver size:	PUNCH ASSEMBLY	€	DIE WITH SPRINGS	€	ALIGN.RING	€	SET
Standard 60x12mm	FLTRB14PA		FLTRB14M		(GR2)		
Special size (max 70mm)	FLTRB14PB		FLTRB14MB		(GR2)		
SPARES	Upper revolving blade 60x12HDP		Lower punch 60x12 HDP				



EXTRUSION UP AFTER PRE. PIERCE

Sheet thickness 0.5-3mm



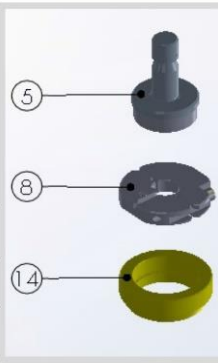
Option down forming



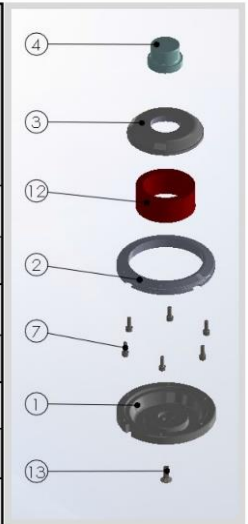
CUSTOMER INFORMATIONS

Name: _____ Telephone n. : _____
 Machine Model: _____ Fax: _____
 Material Type: _____ Email: _____
 Material Thickness: _____ Address: _____

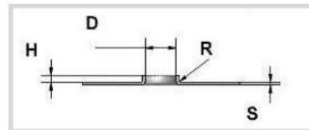
EXTRUSION AFTER PRE PIERCE - PUNCH	
5	PUNCH
8	ALIGNMENT RING
	URETHANE
14	STRIPPER



EXTRUSION AFTER PRE PIERCE - DIE	
⇒ Die with stripper and spring	
⇒ Replaceable insert	
4	LOWER PUNCH
3	STRIPPER PLATE
12	URETHANE SPRING
2	RING
7	SCREW
1	DIE
13	SCREW



Notes and drafts. Please specify here the distance of any close deformation.



CUSTOM DIMENSIONS (mm)

D = _____
 H = _____
 R = _____ *
 S = _____
 FNC coating: _____ YES / NO

* = not strictly required

ORDERING SPECIFICATIONS

Order _____ Offer _____

Item required: _____

Number of previous order: _____

Extrusion according to DIN7952

- Thread size M2.5 pre-punch diameter 1,0mm, thickness 0,8-1,5 , diameter hole 2,10 – 2,30*
 - Thread size M3 pre-punch diameter 1.5/1.8mm thickness 0,8 - 1,5 , diameter hole 2,55 – 2,80*
 - Thread size M4 pre-punch diameter 2.0/2.3mm thickness 1,0 – 2,0 , diameter hole 3,35 – 3,70*
 - Thread size M5 pre-punch diameter 2.5/2.7mm thickness 1,0 – 2,0 , diameter hole 4,25 – 4,65*
 - Thread size M6 pre-punch diameter 3.0/3.3mm thickness 1,5 – 2,5 diameter hole 5,10 – 5,55*
 - Thread size M8 pre-punch diameter 4.1/4.5mm thickness 1,5 - 2,5 diameter hole 6,80 – 7,40*
 - Thread size M10 pre-punch diameter 5/5.5mm thickness 1,5 - 2,5 diameter hole 8,50 – 9,30*
- Extrusion tapping Height= 2 times thickness
 *Hole size with thread in machine

D size	PUNCH	€	URETHAN STRIPPER	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
0-6mm	FLTRB12PB		FLTRB12E		FLTRB12M1 (GR1)		(GR1)		
6.1-9.40mm	FLTRB12PB		FLTRB12E		FLTRB12ME		(GR1)		
9.5-25mm	FLTRB12PC		FLTRB12EC		FLTRB12ME		(GR2)		
25.1-42mm	FLTRB12PE		FLTRB12EE		FLTRB12ME		(GR2)		
	SPARES		PUNCH		PUNCH				
			0-6mm		25.1-42mm				
			COATING FNC 0-25mm		COATING FNC 19,1-42mm				

Add on pag.50



SINGLE AND DOUBLE BRIDGE

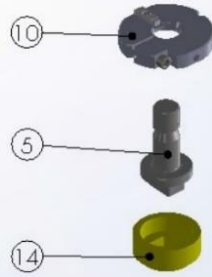
Sheet thickness 0.5-2.5mm



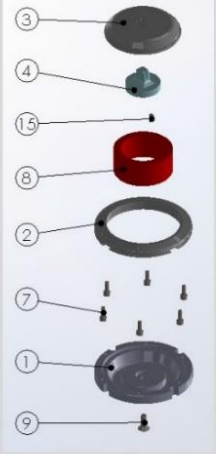
CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

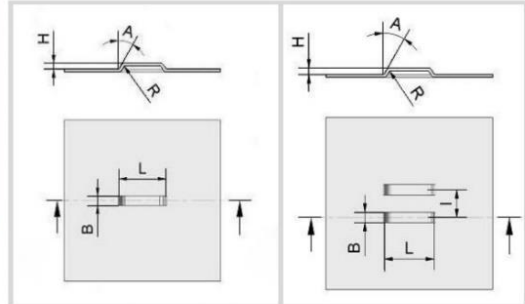
BRIDGE - PUNCH	
10	ALIGNMENT RING
5	PUNCH
14	URETHANE STRIPPER



BRIDGE - DIE	
⇒	Die with stripper and spring
⇒	Replaceable insert
3	STRIPPER PLATE
4	LOWER PUNCH
15	PIN
8	URETHANE SPRING
2	RING
7	SCREW
1	BASE
9	SCREW



Notes and drafts. Please specify here the distance of any close deformation.



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

CUSTOM DIMENSIONS (mm)

H= _____ R= _____
 A= _____ l= _____ (double bridge)
 B= _____ * TYPE: DOUBLE / SINGLE
 L= _____ TICN Coating: YES / NO
 * min = 1.5 x thickness (MS)
 min = 2 x thickness (SS)

SIZE	PUNCH*	€	URETHAN STRIPPER	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
0-18mm	FLTRB17P1		FLTRB17-18E1		FLTRB17M		(GR1)		
18.1-40mm	FLTRB17P2		FLTRB17-18E2		FLTRB17M		(GR2)		
0-18mm DOUBLE	FLTRB18P1		FLTRB17-18E1		FLTRB18M		(GR1)		
18.1-40mm DOUBLE	FLTRB18P2		FLTRB17-18E2		FLTRB18M		(GR2)		



BEADING CONTINUOUS TOOL

Thickness 0.8-3mm
 Height 2, 3, 4, 5 mm
 Feed 1 – 2 mm



Lower side of the sheet



Version active die :

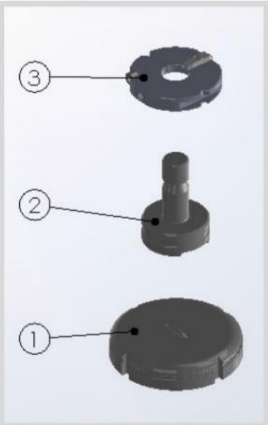


Wheel tool:



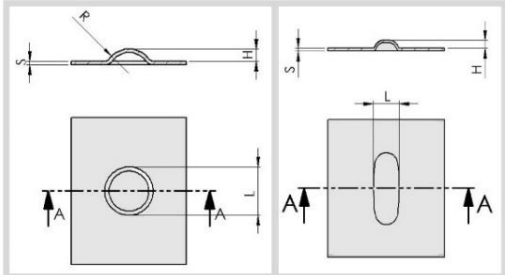
CUSTOMER INFORMATION

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____



CONTINUOUS EMBOSS SET	
⇒ Solid die	
3	ALIGNMENT RING
2	PUNCH
1	DIE

Notes and drafts. Please specify here the distance of any close deformation.



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

CUSTOM DIMENSIONS (mm)

Round: _____ Shape: _____ S= _____
 H= _____ L= _____
 R= _____ TICN Coating: YES / NO

PUNCH	€	DIE GR2	€	ALIGN.RING (GR2)	€	SET
EMBOSS PUNCH FLTRB29P		EMBOSS SOLID DIE FLTRB29M				
		EMBOSS DIE WITH SPRINGS FLTRB29M2				
WHEEL PUNCH FLTRB29P2		WHEEL DIE FLTRB29M3				



Add on pag.50

SHEAR BUTTON

Thickness 1-3mm
Height 0.5 x thickness

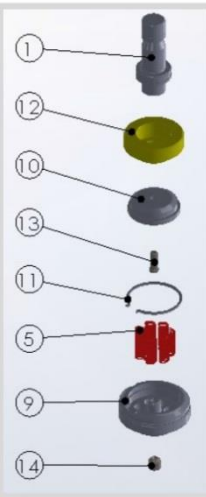


CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

SHEAR BUTTON SET
 ⇒ Die with stripper and springs
 ⇒ Replaceable insert

1	PUNCH
12	URETHANE STRIPPER
10	STRIPPER PLATE
13	LOWER PUNCH
11	SEEGER
5	SPRING
9	DIE
14	SCREW



Notes and drafts. Please specify here the distance of any close deformation.



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

CUSTOM DIMENSIONS _____ (mm)

D = _____ (max 6mm)
 H = _____
 Thickness = _____ (max 3mm)
 Direction: _____ Up
 TICN coating: _____ YES / NO

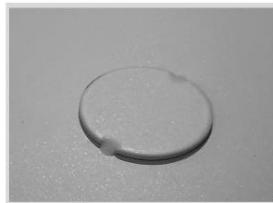
PUNCH	€	URETHAN STRIPPER	€	DIE ASSEMBLY GR1	€	ALIGN.RING	€	SET
FLTRB15BP		FLTRB12E		FLTRB15M1		(GR1)		

D 1.9 , 2.9 , 3.9 , 4.9 , 5.9



KNOCK OUT ROUND

Sheet thickness 1-2mm

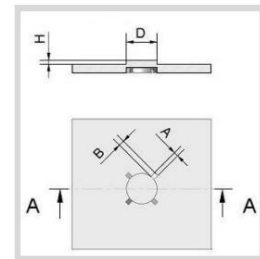
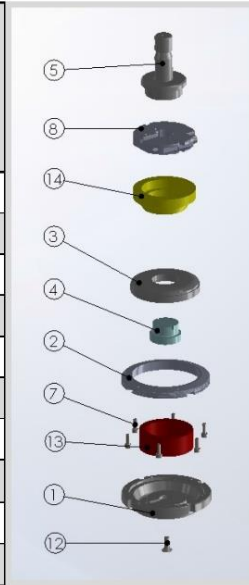


CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

KNOCK - OUT SET
 ⇒ Die with stripper and spring
 ⇒ Replaceable insert

5	PUNCH
8	ALIGNMENT RING
14	URETHANE STRIPPER
3	STRIPPER PLATE
4	LOWER PUNCH
2	RING
7	SCREW
13	URETHANE SPRING
1	DIE
12	SCREW



Notes and drafts. Please specify here the distance of any close deformation.

CUSTOM DIMENSIONS (mm)
 D = _____ Number of connections*: _____
 A* = _____ Direction: _____ Up
 B* = _____ TICN coating: _____ YES / NO
 H* = _____ * = Not strictly required

ORDERING SPECIFICATIONS
 Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

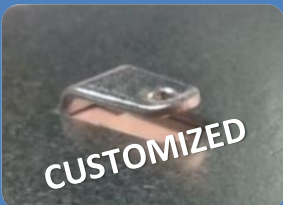
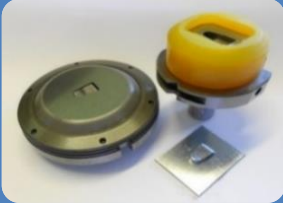
D size

D size	PUNCH	€	DIE ASSEMBLY	€	URETHAN STRIPPER	€	ALIGN.RING	€	SET
0-8mm	FLTRB15PB		FLTRB15M1 (GR1)		FLTRB15E		(GR1)		
8.1-15mm	FLTRB15PB		FLTRB15M2B		FLTRB15E		(GR1)		
15.1-25mm	FLTRB15PC		FLTRB12M2C		FLTRB15EC		(GR2)		
25.1-42mm	FLTRB15PE		FLTRB12M2E		FLTRB15EE		(GR2)		



LANCE UP

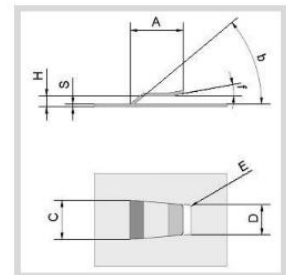
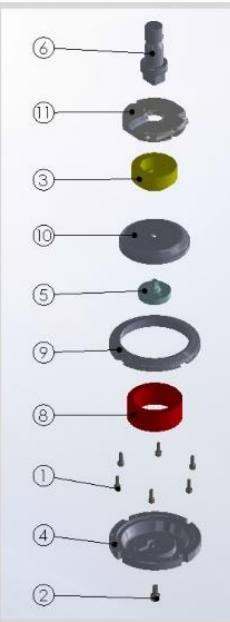
Sheet thickness 0.5-2.5mm



CUSTOMER INFORMATIONS

Name : _____ Telephone n. : _____
 Machine Model : _____ Fax : _____
 Material Type : _____ Email : _____
 Material Thickness : _____ Address : _____

LANCE UP TOOL	
⇒	Die with stripper and spring
⇒	Replaceable insert
6	PUNCH
11	ALIGNMENT RING
3	URETHANE STRIPPER
10	STRIPPER PLATE
5	LOWER PUNCH
9	RING
8	URETHANE SPRING
1	SCREW
4	DIE
2	SCREW



ORDERING SPECIFICATIONS

Order _____ Offer _____
 Item required: _____

 Number of previous order: _____

CUSTOM DIMENSIONS (mm)

H= _____ C= _____
 A= _____ D= _____
 S= _____ (max: 2,5) E= _____
 b= _____ TICN coating: YES / NO
 f= _____

Notes and drafts. Please specify here the distance of any close deformation.

1 - 2 BENDS
 3 BENDS
 RENFORCED

PUNCH	€	DIE ASSEMBLY	€	URETHAN STRIPPER	€	ALIGN.RING	€	SET
FLTRB19P		FLTRB19M		FLTRB19E		(GR2)		
FLTRB193P		FLTRB19-3M		FLTRB19E		(GR2)		
FLTRB19PR		FLTRB19MR		FLTRB19E		(GR2)		



Add on pag.50

CONTINUOUS LOUVER

PUNCH SIZE 24x12mm
 Standard: L 12 H 5.5
 Technical info:
 Thickness: 0.8 ÷ 2.5mm Height: 5.5mm
 Spacing minimum 20mm



PUNCH	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
FLTRB13P		FLTRB13M1 (GR1) FLTRB13M2 (GR2)		(GR2) (GR2)		

THREAD FORM AFTER PRE PIERCE

Sheet thickness 0.8 – 1.5mm

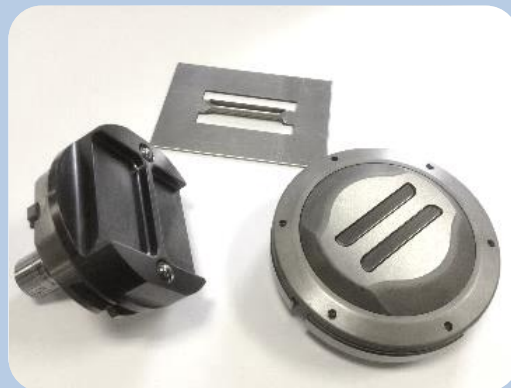


Thread	Pitch	Thickness
3.3	1.3	0.8-1.2mm
3.5	1.3	0.8-1.2mm
3.9	1.4	0.9-1.3mm
4.2	1.4	0.9-1.3mm
4.8	1.6	1-1.5mm



PUNCH	€	DIE	€	ALIGN.RING	€	SET
FLTRB31P		FLTRB31M		(GR1)		

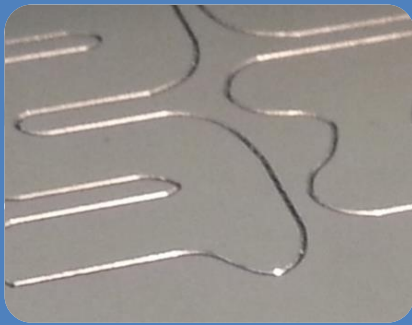
CARD GUIDE



PUNCH	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
FLTRB34P		FLTRB34M		(GR2)		



DEBURRING AND MARKING ENDLESS



PUNCH	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
FLTRB35P		FLTRB35M		(GR2)		

MARKING TOOL ALPHA NUMERIC



PUNCH	€	DIE	€	ALIGN.RING	€	SET
FLTRB26PR		FLTRC1MAT001T		(HD 40mm)		

FORMED STAMPING LOGO



PUNCH	€	DIE	€	ALIGN.RING	€	SET
FLTRB26P		FLTRB26M		(GR2)		

Add on pag.50



STAMPING LOGO



Marking Depth: 0.4 – 0.6mm

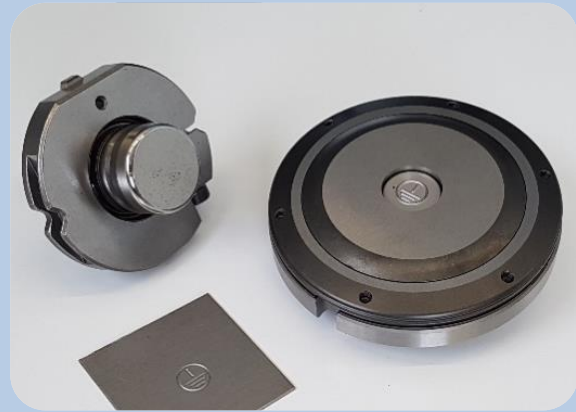


PUNCH	€	PUNCH ALPHANUMERIC CHARACTER	€	DIE	€
FLTRB26P		FLTRB26PM		TRC1MAT001T	

MARKING GROUND SYMBOL DIN40011



Marking Depth: 0.4 – 0.6mm



	€	DIE	€	ALIGN.RING	€	SET
From the top		TRA1MAT001T		(GR1)		
From the bottom		FLTRB27M		(GR1)		

PIERCE AFTER EMBOSING



PUNCH	€	DIE WITH SUPPORT EMBOSS	€	ALIGN.RING	€	SET
FLTRB35P		FLTRB35M		(GR1)		

EMBOSS CODE PAG 126

Add on pag.50



Sales condition

Availability of products in the catalogue is subject to change. Our sales department will check the availability of products before confirming your order.

Delivery :

The order confirmation provides an estimate of the date on which the order will be dispatched from the Suce warehouse. In the case of orders requiring an advanced payment we will provide an estimated delivery date as soon as we receive confirmation of payment.

Minimum invoice value : €100

Payment :

Payment terms are detailed in the order confirmation. Our finance department may charge interest on payment received more than 10 working days after the payment dead line.

Freight : according to Incoterms rules and are detailed in order confirmation

Cancellation , returns and complains :

Any claims will be considered if made within 2 weeks of receiving the goods. The return of materials must be authorized and managed by Suce. A return charge of 20% of the product's value will be applied to cover the costs of return.

Cancellations can be made free of charge up to 24h after order confirmation. Cancellations made after 24h could be subject to a charge.

Credit :

Customers with a credit account should be aware of their credit limit. Our finance department will provide instructions in the event that your order exceeds your credit limit.



COMPANY	ADDRESS	TEL	FAX	EMAIL	MACHINE TYPE	DELIVERY DATE	ORDER	OFFER	MATERIAL	THICKNESS
---------	---------	-----	-----	-------	--------------	---------------	-------	-------	----------	-----------

FORM	DIMENSION	PUNCH 0 HSS	PUNCH 1 ISODUR	PUNCH 2 ISODUR	STRIPPER	DIE	HWS	ISODUR	CL. or THICK.	SHEAR WHISPER	SHEAR DOUBLE W	COAT. HDP	COAT. FNC
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						
		QT	QT	QT	QT	QT	QT						

FORM	DIMENSION	PUNCH MULTITool MT	DIE MULTITool MT	COAT. HDP	COAT. FNC	CL
		QT	QT			
		QT	QT			
		QT	QT			
		QT	QT			

FITTING	ALIGN. RING 1	ALIGN. RING 2	ALIGN. RING REF. D40
QT			
FITTING	PUNCH CHUCK D6	PUNCH CHUCK D10.5	DIE ADAPTOR RING
QT			DIE ADAPTOR WITH BRUSHES

SLITTING TOOLS	PUNCH HOLDER WITH INTEGRATED ALIGN RING	PUNCH HOLDER	DIE HOLDER 56X5	DIE HOLDER 76.2X5	Set shims DIE HOLDER 56X5	Set shims DIE HOLDER 76.2X5
QT						

SLITTING TOOLS	SHAPE	BLADE 56X5	BLADE 76.X5	COATING	DIE INSERT	CLEARANCE	56X5 (PAIR)	76.2X5 (PAIR)	56X5 (ENTIRE)	76.2X5 (ENTIRE)
RECT	TRAP	MICROJ	QT	HSS	PSM	HSS	PSM	HSS	FNC	QT
RECT	TRAP	MICROJ	QT	HSS	PSM	HSS	PSM	HSS	FNC	QT
RECT	TRAP	MICROJ	QT	HSS	PSM	HSS	PSM	HSS	FNC	QT



Add on:

Shear option					
Type of shear	Roof top	Inverted roof top*	Double valley*	Whisper	Four ways*
When	Best option when punching force is high, minimum feed 75% of tool length	Recommended for nibbling at maximum tonnage. But inverted stress could cause breakage	Recommended when punch is longer than 80mm. But inverted stress could cause breakage	Best option classic trumpf style to reduce noise and tonnage, max 5°	Recommended for punching and nibbling Ø and square at maximum tonnage
Code	Cod V	Cod VR	Cod 3P	Cod W	Cod 4P
Add on					

* only for Haco, Boschert, Euromac machines

Add on	Die lock slug	Extra Key slot	Back taper punch / Jump station	Reduced milled land
When	Best option to prevent the come out of the slug	Special, machines without rotation	Recommended for punching thick material, more than 4mm. Needful with punches that work with urethane	To facilitate the fall of the slug; recommended when long side is more than 20 times short side, ex re22x1

Add on	Die clearance <math>< 0.1</math>	Punch width size <math>< 1.5</math>	Die size <math>< 1.5</math>	1,51 < Die size <math>< 2,2</math>





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