

Catalog



STYLE TRUMPF STYLE TRUMPF

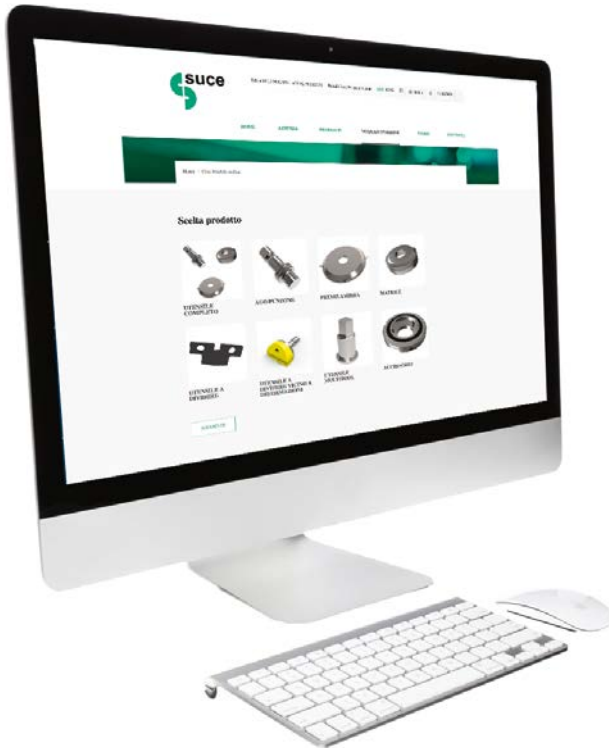
Inside the catalogue you' ll find this symbol, that indicates the possibility of ordering our product online!



SHOP NOW WITH SUCE ECOMMERCE



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HIGH DEFINITION IMAGES

Detailed pictures of products in order to avoid choice errors.



SECURE PAYMENTS

&
BEST PRICES



FAST DELIVERY



INSTANT
&
DIRECT COMMUNICATION WITH SUPPLIER





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.



WHY SUCE?



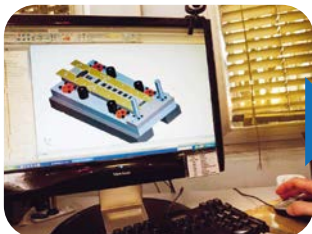
The use of double grinding wheel plants allows for a very low roughness coefficient.



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



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



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



No shape limitation thanks to EDM technology.



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





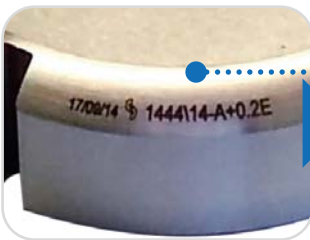
No shape limitation thanks to Wire EDM technology.



Wire EDM load-unload cell.



In warehouse: ready for delivery.

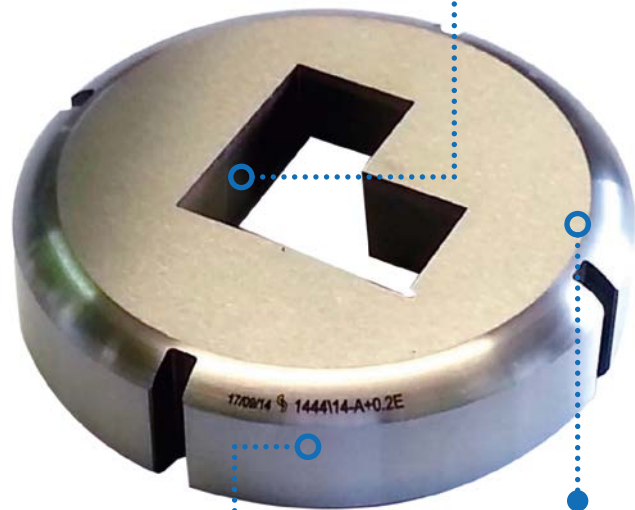
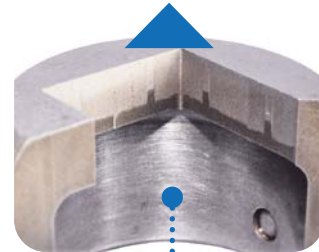


SUCE special ID number.



Manufacturing execution system.

Different lock-slug systems available



Tool testing: fault free.

DIE CLEARANCE

Die clearance is the total space between the die and the punch.

A correct clearance between the punch and the die ensures normal wear of the tool and punching without defects such as: burrs caused by excessive clearance and premature wearing of the tool and increased punching force in the case of clearance being too small.

MATERIAL				
Thickness mm	Mild steel 16-20%	Stainless steel 18-24%	Aluminum 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 – 0.55
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 aluminum and copper clearance is 10% of material thickness.



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



Lock slug **AS** best option when thickness > 3 mm.

DIES LOCK SLUG

SUCE lock slug dies eliminate slug pulling. Slug pulling occurs when 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 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.

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 3 mm, minimum cl for AS system is 0.15 mm.

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>3 mm



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 0.2 mm 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:

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	Thickness (mm)					
	1 - 1.5	2	3	4	5	6
mm						
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



Double valley
Cod 3P



Best option when shape is long, but susceptible to breakage



Roof top
Cod V



Best option when punching force is high, punching surface 75%



Inverted roof top
Cod VR



Best option for nibbling but inverted stresses could cause breakage



Whisper
Cod W



Recommended only for blanking (turret machine)



Four ways
Cod 4P



Recommended for round and square

PUNCHES ARE FLAT, ABOVE SHEAR ARE AVAILABLE UPON REQUEST; EACH TYPE OF SHARPENING REDUCES NOISE UP TO 50%



COATING

PROBUS

The TiCN coating (Titanium Carbonitride) comes from an evolutionary study of the precursor TiN (Titanium Nitride), inheriting the already appreciated qualities and also some of its features. Indeed, thanks to the introduction of the C (Carbon) within the layer, it was possible to obtain a structure that provides a hardness greater than about 50% compared to that of TiN. In consequence to this, the TiCN coating ensures a higher wear resistance while retaining excellent toughness which makes it ideal when applied to tools for interrupted cutting. A further improvement of the TiCN was achieved by developing a “multilayer” (multi-layer) structure composed of several hundreds of layers that give better control of structural stress within the coating.



STRUCTURE	Micro Hardness (HV 0.05)	Friction coefficient (100 cr6)	Thickness (micron)	Deposition temperature (°C)	Max temperature (max°C)	Colour
Multilayer	3.500	0.5	2 - 4	350 - 480	350	Blu/Grey

GEMINUS

The double coating is obtained by overlaying the traditional Probus with Movic self-lubricating coating. The Probus coating comes from an evolutionary study of the precursor TiN, inheriting the already appreciated qualities and improving some of its features. In fact, thanks to the introduction of the Carbon (C) within the layer, it was possible to obtain a structure that has a hardness greater than 50% compared to that of TiN.

In consequence to this, the Probus coating ensures a higher wear resistance.

A further improvement of the Probus was achieved by developing a “multilayer” (multi-layer) composed of several hundreds of different layers that give better control of structural stress within the 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.

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

BASIC COMPOSITION	Coating Structure	Microhardness (HV 0.05)	Coefficient of friction against (100 cr6)	µm thickness (microns)	Deposition Temperature (°C)	Max Temperature of use (max ° C)	Colour
Titanium carbonitride	Multilayer	3.500	0,5	1- 3	350 - 480	350	Pink

LEVATUS

DLC is an innovative carbon-based coating with wide spectrum of application which allows you to deal with problems related to abrasion, to chemical attack and sliding.

The low deposition temperature , the hardness and the low coefficient of friction make it of extreme interest. It is applied on finished parts while maintaining the state of the surface finishing.

The DLC is deposited by the PA-CVD (Plasma Assisted – Chemical Vapour Deposition) technology which allows to maintain low temperature of depositing and at the same time ensures an excellent adhesion.



BASIC COMPOSITION	Deposition Technology	Microhardness (HV 0.05)	Coefficient of friction against 100 Cr 6	µm thickness (microns)	Deposition Temperature (°C)	Max Temperature of use (max ° C)	Colour
a-C:H sp2-sp3	PA-CVD	1.500 - 3.000	0,05 - 0,1	0,5 - 3	250	350	Black

COATING	COPPER	ALUMINUM	MILD STEEL	GALVANIZED STEEL	STAINLESS STEEL
Probus	X	X	X	XX	XXX
GEMINUS	XX	XX	X	XXX	XX
LEVATUS	XXX	XXX	X	X	X

NEEDLESS	RECOMMENDED	HIGHLY RECOMMENDED
X	XX	XXX



GENERAL RULES TRUMPF STYLE TOOLING

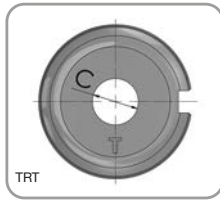
In order to optimize the use of tooling we would recommend the following basic guidelines:

- 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 1 mm is 4 mm, smaller rd punch with thickness 2 mm is 6 mm, smaller rd punch with thickness 3 mm is 8 mm;
- c) before exceeding tons capability calculate punching force with formula at page 5;
- 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 2.5 mm;
- f) slitting tools must be appropriately sharpened and must have radius on corner (0.5 mm);
- 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 coating, see pag. 6 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 0.25 mm;
- j) delivery time: 2/3 days standard, 5/7 coating tools, some items are available at stock;
- k) ordering specifications: machine type, form, thickness and material, dimensions, desired delivery.

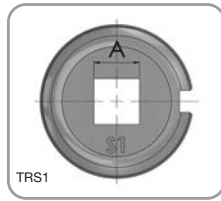
MACHINE GROUP:

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 150, 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

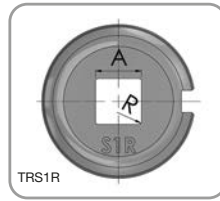
TRUMPF ROUND AND STANDARD SHAPE



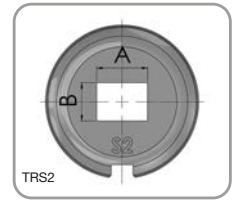
TRT
C: _____



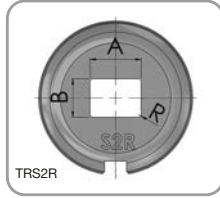
TRS1
A: _____



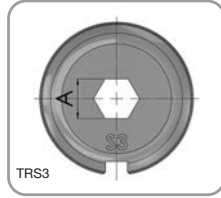
TRS1R
A: _____ R: _____



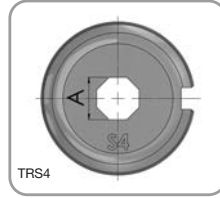
TRS2
A: _____ B: _____



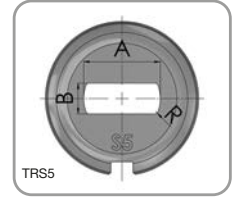
TRS2R
A: _____ B: _____
R: _____



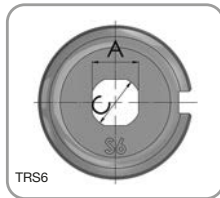
TRS3
A: _____



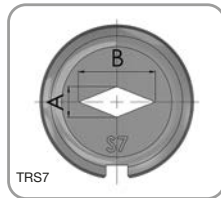
TRS4
A: _____



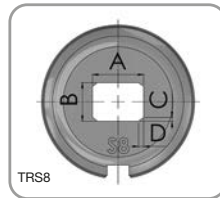
TRS5
A: _____ B: _____
R: _____



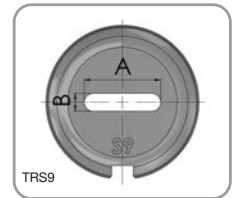
TRS6
A: _____ C: _____



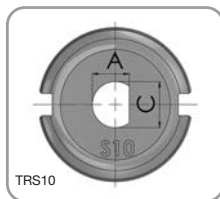
TRS7
A: _____ B: _____



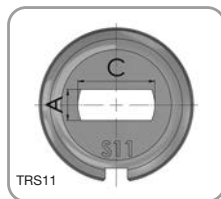
TRS8
A: _____ B: _____
C: _____ D: _____



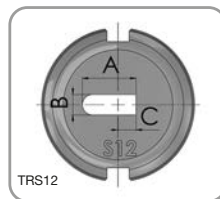
TRS9
A: _____ B: _____



TRS10
A: _____ C: _____

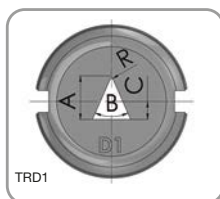


TRS11
A: _____ C: _____

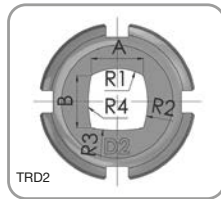


TRS12
A: _____ B: _____
C: _____

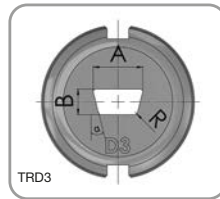
SPECIAL A



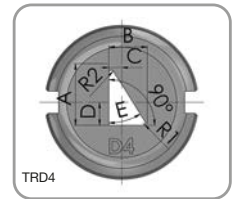
TRD1
A: _____ B: _____
C: _____ R1: _____



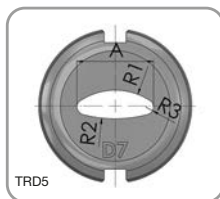
TRD2
A: _____ B: _____
R1: _____ R2: _____
R3: _____ R4: _____



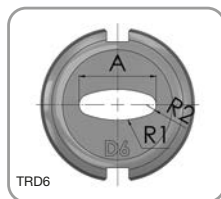
TRD3
A: _____ B: _____
 α : _____ R: _____



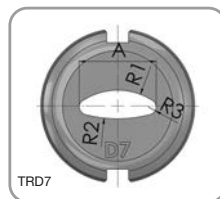
TRD4
A: _____ B: _____ C: _____
D: _____ E: _____
R1: _____ R2: _____



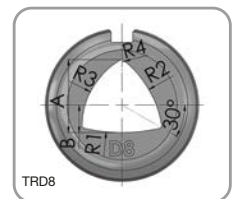
TRD5
A: _____ B: _____



TRD6
A: _____ R1: _____
R2: _____



TRD7
A: _____ R1: _____
R2: _____ R3: _____



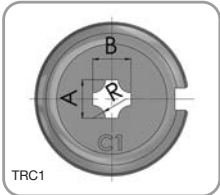
TRD8
A: _____ B: _____
R1: _____ R2: _____
R3: _____ R4: _____

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°

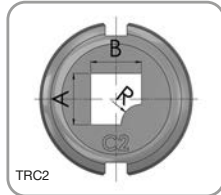


SPECIAL B



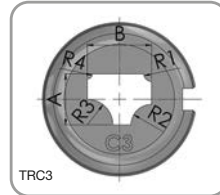
TRC1

A: _____ B: _____
R: _____



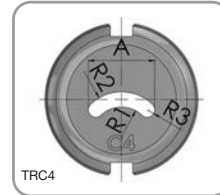
TRC2

A: _____ B: _____
R: _____



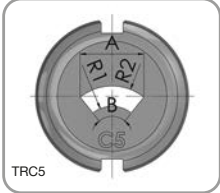
TRC3

A: _____ B: _____
R1: _____ R2: _____
R3: _____ R4: _____



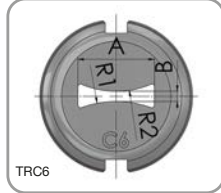
TRC4

A: _____ R1: _____
R2: _____ R3: _____



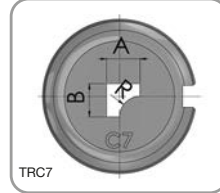
TRC5

A: _____ B: _____
R1: _____ R2: _____



TRC6

A: _____ B: _____
R1: _____ R2: _____

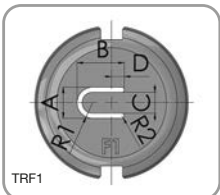


TRC7

A: _____ B: _____
R: _____

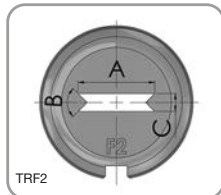
Note:
R<3 price is SPECIAL 2

SPECIAL C & CUSTOMIZED



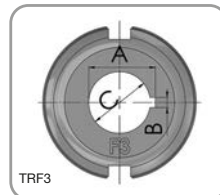
TRF1

A: _____ B: _____
C: _____ D: _____
R1: _____ R2: _____



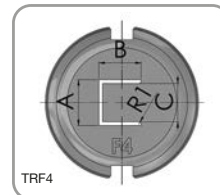
TRF2

A: _____ B: _____
C: _____



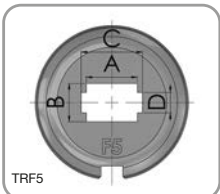
TRF3

A: _____ B: _____
C: _____



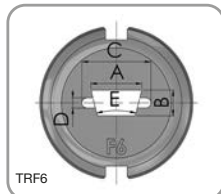
TRF4

A: _____ B: _____
C: _____ R1: _____



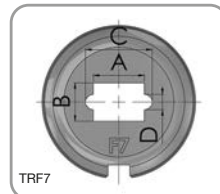
TRF5

A: _____ B: _____
C: _____ D: _____



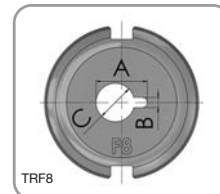
TRF6

A: _____ B: _____
C: _____ D: _____
E: _____



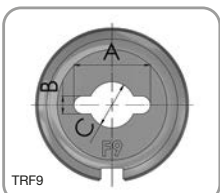
TRF7

A: _____ B: _____
C: _____ D: _____



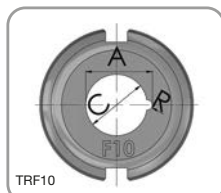
TRF8

A: _____ B: _____
C: _____



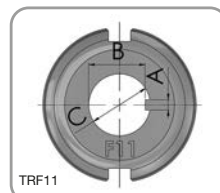
TRF9

A: _____ B: _____
C: _____



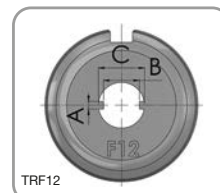
TRF10

A: _____ C: _____
R: _____



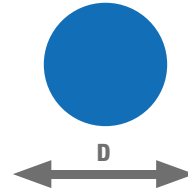
TRF11

A: _____ B: _____
C: _____



TRF12

A: _____ B: _____
C: _____



Shapes:
TRT

SIZE	PUNCH Ø mm *	€	Probus	Geminus	Levatus
0	Ø6 mis 1.5 - 6.0 L59.5 TRA6PST006T L63 TRA6PSTL06T				
	Ø10.5 mis 1.5 - 6.0 L59.5 TRA105PST006T L63 TRA105PSTL06T				
	Ø10.5 mis 6.1 - 10.5 L59.5 TRA105PST006T L63 TRA105PSTL06T				
1	1.5 - 30.0 L74 TRA1PUT006T L77.5 TRA1PUTL06T				
2	30.1 - 40.0 L74 TRB2PUT006T L77.5 TRB2PUTL06T				
	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***				



max punching cap.50kN
D6 max thickness 2 mm
mat. 40 kg/mm²
D6 max thickness 1.5 mm
mat.60 kg/mm²
D10.5 max thickness 4 mm
mat.40 kg/mm²
D10.5 max thickness 2 mm
mat.60 kg/mm²
Punch grinding life 3 mm h 59,5
Punch grinding life 6.5 mm h 63,0



GR1 max thickness 10 mm
Mat 60kg/mm²
GR1 punching force 20 KN

GR2 max thickness 12 mm
Mat.60kg/mm²
GR2 punching force 30 KN*

Punch grinding life 3 mm h 74
Punch grinding life 6.5 mm h 77,5
*20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm
GR2 TRC1PUTR06T+ € ...
Recommended when punching force >20 tons



* Punch 0 HSS
** not suitable with urethan stripper
*** max Ø 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 32 mm	TRA1MAT001T	
2 32.1 - 77.8 mm	TRE1MAT001T	



GR1 max thickness 10 mm
mat.60kg/mm² ,Max 250 kN
GR2 max thickness 12 mm
mat.60kg/mm² ,Max 180 kN
Die grinding life 1 mm
Key 0° round, standard

Machine without rotation*:
Keys 0 - 90° standard shape
Keys 0 - 135° square
* to specify

REINFORCED DIE
GR1 TRA1MATP01S + € ...
GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons



SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 76.2 mm	TRAELPTOT		TRAELPT500T		TRAELPLOMT	

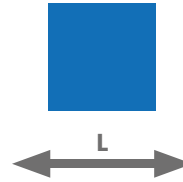
Punch size +1 mm

Stripper pin:
NSP060003016
€ ...





SQUARE



Shapes:
TRS1 - TRS1R

SIZE	PUNCH L mm *	€	Probus	Geminus	Levatus
0	1.0 - 4.2 L59.5 TRA6PST006S L63 TRA6PSTL06S				
	4.21 - 7.4 L59.5 TRA105PST006S L63 TRA105PSTL06S				
1	1.5 - 21.0 L74 TRA1PUT006S L77.5 TRA1PUTL06S				
2	21.1 - 28.0 L74 TRB2PUT006S L77.5 TRB2PUTL06S				
	28.1 - 35.0 L74 TRC1PUT006S L77.5 TRC1PUTL06S				
	35.1 - 42.0 L74 TRD1PUT006S** L77.5 TRD1PUTL06S**				
	42.1 - 53.8 L74 TRE1PUT006S*** L77.5 TRE1PUTL06S***				



PUNCH 0

max punching cap.50kN
D6 max thickness 2 mm
mat. 40 kg/mm²
D6 max thickness 1.5 mm
mat.60 kg/mm²
D10.5 max thickness 4 mm
mat.40 kg/mm²
D10.5 max thickness 2 mm
mat.60 kg/mm²
Punch grinding life 3 mm h 59,5
Punch grinding life 6.5 mm h 63,0



PUNCH

GR1 max thickness 10 mm
Mat 60kg/mm²
GR1 punching force 20 KN

GR2 max thickness 12 mm
Mat.60kg/mm²
GR2 punching force 30 KN*

Punch grinding life 3 mm h 74
Punch grinding life 6.5 mm h 77,5
*20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm

GR2 TRC1PUTR06S+ € ...

Recommended when
punching force > 20 tons
Recommended radius
on corner 1 mm



* Punch 0 HSS

** not suitable with urethan stripper

*** max diagonal 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 22 mm	TRA1MAT001Q	
2 22.1 - 55 mm	TRE1MAT001Q	



DIE

GR1 max thickness 10 mm
mat.60kg/mm², Max 250 kN
GR2 max thickness 12 mm
mat.60kg/mm², Max 180 kN
Die grinding life 1 mm
Key 0° round, standard

Machine without rotation*:
Keys 0 - 90° standard shape
Keys 0 - 135° square
* to specify + € ...

REINFORCED DIE

GR1 TRA1MATP01S + € ...

GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons
Recommended radius on corner 1 mm



SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 53.8 mm	TAEPLT0S		TAEPLT500S		TAEPLOMS	

Punch size +1 mm

STRIPPER

Stripper pin:
NSP060003016
€ ...



ADD-ONS PAG 37



RECTANGLE



OBROUND



Shapes:

TRS2 - TRS2R - TRS3 - TRS4 - TRS5 - TRS6 - TRS7 - TRS8
TRS9 - TRS10 - TRS11 - TRS12

SIZE	PUNCH L mm *	€	Probus	Geminus	Levatus
0	1.0 - 5.9 L59.5 TRA6PST006A L63 TRA6PSTL06A				
	5.91 - 10.4 L59.5 TRA105PST006A L63 TRA105PSTL06A				
1	1.5 - 30.5 L74 TRA1PUT006A L77.5 TRA1PUTL06A				
2	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
max punching cap.50kN
D6 max thickness 2 mm
mat. 40 kg/mm²
D6 max thickness 1.5 mm
mat.60 kg/mm²
D10.5 max thickness 4 mm
mat.40 kg/mm²
D10.5 max thickness 2 mm
mat.60 kg/mm²
Punch grinding life 3 mm h 59,5
Punch grinding life 6.5 mm h 63,0



PUNCH
GR1 max thickness 10 mm
Mat 60kg/mm²
GR1 punching force 20 KN

GR2 max thickness 12 mm
Mat.60kg/mm²
GR2 punching force 30 KN*

Punch grinding life 3 mm h 74
Punch grinding life 6.5 mm h 77,5
*20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm
GR2 TRC1PUTR06A + € ...

Recommended when punching force > 20 tons
Recommended radius on corner 1 m



* Punch 0 HSS

** not suitable with urethan stripper

*** max diagonal 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 32 mm	TRA1MAT001S	
2 32.1 - 77.8 mm	TRE1MAT001S	



DIE
GR1 max thickness 10 mm
mat.60kg/mm² ,Max 250 kN
GR2 max thickness 12 mm
mat.60kg/mm², Max 180 kN
Die grinding life 1 mm
Key 0° round, standard

Machine without rotation*:
Keys 0 - 90° standard shape
Keys 0 - 135° square
* to specify + € ...

REINFORCED DIE
GR1 TRA1MATP01S + € ...
GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons
Recommended radius on corner 1 mm



Punch size +1 mm

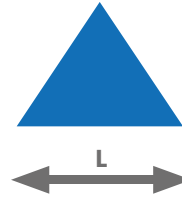
SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 76.2 mm	TRAELPT0S		TRAELPT500S		TRAELPOMS	

Stripper pin:
NSP060003016
€ ...





SPECIAL A



Shapes:

TRD1 - TRD2 - TRD3 - TRD4 - TRD5 - TRD6 - TRD7 - TRD8

SIZE	PUNCH L mm *	€	Probus	Geminus	Levatus
0	1.5 - 10.4 L59.5 TRA105PST006D L63 TRA105PSTL06D				
	1.5 - 30.5 L74 TRA1PUT006D L77.5 TRA1PUTL06D				
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***				



PUNCH 0

max punching cap.50kN
D6 max thickness 2 mm
mat. 40 kg/mm²
D6 max thickness 1.5 mm
mat.60 kg/mm²
D10.5 max thickness 4 mm
mat.40 kg/mm²
D10.5 max thickness 2 mm
mat.60 kg/mm²
Punch grinding life 3 mm h 59,5
Punch grinding life 6.5 mm h 63,0



PUNCH

GR1 max thickness 10 mm
Mat 60kg/mm²
GR1 punching force 20 KN

GR2 max thickness 12 mm
Mat.60kg/mm²
GR2 punching force 30 KN*

Punch grinding life 3 mm h 74
Punch grinding life 6.5 mm h 77,5
*20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm

GR2 TRC1PUTR06D + € ...

Recommended when
punching force > 20 tons
Recommended radius
on corner 1 mm



* Punch 0 HSS

** not suitable with urethan stripper

*** max diagonal 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 32 mm	TRA1MAT001D	
2 32.1 - 77.8 mm	TRE1MAT001D	



DIE

GR1 max thickness 10 mm
mat.60kg/mm² ,Max 250 kN
GR2 max thickness 12 mm
mat.60kg/mm² ,Max 180 kN
Die grinding life 1 mm
Key 0° round, standard

Machine without rotation*:
Keys 0 - 90° standard shape
Keys 0 - 135° square
* to specify + € ...

REINFORCED DIE

GR1 TRA1MATP01S + € ...

GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons
Recommended radius on corner 1 mm



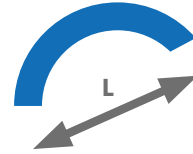
SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 76.2 mm	TRAELPT0D		TRAELPT500D		TRAELPOMD	

Punch size +1 mm

Stripper pin:
NSP060003016
€ ...



STRIPPER



Shapes:

TRC1 - TRC2 - TRC3 - TRC4 - TRC5 - TRC6 - TRC7 R>2.95

SIZE	PUNCH L mm *	€	Probus	Geminus	Levatus
0	1.5 - 10.4 L59.5 TRA105PST006C L63 TRA105PSTL06C				
	1.5 - 30.5 L74 TRA1PUT006C L77.5 TRA1PUTL06C				
2	30.6 - 40.0 L74 TRB2PUT006C L77.5 TRB2PUTL06C				
	40.1 - 50.8 L74 TRC1PUT006C L77.5 TRC1PUTL06C				
	50.9 - 60.0 L74 TRD1PUT006C** L77.5 TRD1PUTL06C**				
	60.1 - 76.2 L74 TRE1PUT006C*** L77.5 TRE1PUTL06C***				



PUNCH 0
 max punching cap.50kN
 D6 max thickness 2 mm
 mat. 40 kg/mm²
 D6 max thickness 1.5 mm
 mat.60 kg/mm²
 D10.5 max thickness 4 mm
 mat.40 kg/mm²
 D10.5 max thickness 2 mm
 mat.60 kg/mm²
 Punch grinding life 3 mm h 59,5
 Punch grinding life 6.5 mm h 63,0



PUNCH
 GR1 max thickness 10 mm
 Mat 60kg/mm²
 GR1 punching force 20 KN
 GR2 max thickness 12 mm
 Mat.60kg/mm²
 GR2 punching force 30 KN*
 Punch grinding life 3 mm h 74
 Punch grinding life 6.5 mm h 77,5
 *20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm GR2 TRC1PTR06C + € ...

Recommended when punching force > 20 tons
 Recommended radius on corner 1 m



* Punch 0 HSS

** not suitable with urethan stripper

*** max diagonal 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 32 mm	TRA1MAT001F	
2 32.1 - 77.8 mm	TRE1MAT001F	



DIE
 GR1 max thickness 10 mm
 mat.60kg/mm² ,Max 250 kN
 GR2 max thickness 12 mm
 mat.60kg/mm² , Max 180 kN
 Die grinding life 1 mm
 Key 0° round, standard
 Machine without rotation*:
 Keys 0 - 90° standard shape
 Keys 0 - 135° square
 * to specify

REINFORCED DIE GR1 TRA1MATP01S + € ... GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons
 Recommended radius on corner 1 mm



SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 76.2 mm	TRAEPLT0F		TRAEPLT500F		TRAEPL0MF	

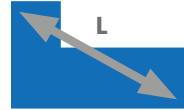
Punch size +1 mm

Stripper pin:
 NSP060003016
 € ...





SPECIAL CUSTOMIZED



Shapes:

TRC1 - TRC2 - TRC3 - TRC4 - TRC5 - TRC6 - TRC7 R<2.95
TRF1 - TRF2 - TRF3 - TRF4 - TRF5 - TRF6 - TRF7 - TRF8
TRF9 - TRF10 - TRF11 - TRF12

SIZE	PUNCH L mm *	€	Probus	Geminus	Levatus
0	1.5 - 10.4 L59.5 TRA105PST006F L63 TRA105PSTL06F				
	1.5 - 30.5 L74 TRA1PUT006F L77.5 TRA1PUTL06F				
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

max punching cap.50kN
D6 max thickness 2 mm
mat. 40 kg/mm²
D6 max thickness 1.5 mm
mat.60 kg/mm²
D10.5 max thickness 4 mm
mat.40 kg/mm²
D10.5 max thickness 2 mm
mat.60 kg/mm²
Punch grinding life 3 mm h 59,5
Punch grinding life 6.5 mm h 63,0



PUNCH

GR1 max thickness 10 mm
Mat 60kg/mm²
GR1 punching force 20 KN

GR2 max thickness 12 mm
Mat.60kg/mm²
GR2 punching force 30 KN*

Punch grinding life 3 mm h 74
Punch grinding life 6.5 mm h 77,5
*20 kN Whisper tool

HEAVY DUTY PUNCH WITH COLLAR Ø 40mm GR2 TRC1PUTR06F + € ...

Recommended when
punching force > 20 tons
Recommended radius
on corner 1 mm



* Punch 0 HSS

** not suitable with urethan stripper

*** max diagonal 70 mm with urethan stripper

SIZE	DIE	€
0/1 1.5 - 32 mm	TRA1MAT001F	
2 32.1 - 77.8 mm	TRE1MAT001F	



DIE

GR1 max thickness 10 mm
mat.60kg/mm², Max 250 kN
GR2 max thickness 12 mm
mat.60kg/mm², Max 180 kN
Die grinding life 1 mm
Key 0° round, standard

Machine without rotation*:
Keys 0 - 90° standard shape
Keys 0 - 135° square
* to specify

REINFORCED DIE GR1 TRA1MATP01S + € ... GR2 TRC1MATR01S + € ...

Recommended when punching force >15 tons
Recommended radius on corner 1 mm



SIZE	STRIPPER GROUP MACHINE E - F - G	€	STRIPPER GROUP MACHINE H - I	€	STRIPPER GROUP MACHINE HACO OMES	€
0/1/2 1.5 - 76.2 mm	TRAELPT0F		TRAELPT500F		TRAELPOMF	

Punch size +1 mm

STRIPPER



Stripper pin:
NSP060003016
€ ...



MULTITOOL

MT3 MT4 MT6
 MODEL TC500R, TC200R, TC190R, TC600L
 Max thickness 3.2 mm (40 kg/mm²) - 2 mm (60 kg/mm²)
 Punching force 55 Kn
 Punch grinding life 0.2 mm DIE 1 mm

MT5 , MT10
 MODEL TC2000R, TC2020R, TC5000R, TC6000L
 Max thickness 4.5 mm (40 kg/mm²)
 Max thickness 3mm (60 kg/mm²)
 Mt5 max punching force 87 kn
 Mt10 max punching force 57 Kn
 Punch grinding life 0.2 mm DIE 1 mm

MT3 MT6 - 10.5 mm



MT4 - 16 mm



MT5 - 16 mm



MT10 - 10.5 mm



MULTITOOL	ITEM MT3 - MT6	€	ITEM MT4	€	ITEM MT5	€	ITEM MT10	€
HSS PUNCH ROUND	TRA0PUM606T		TRA0PUM406T		TRA0PUM506T		TRA0PUM1006T	
DIE ROUND	TRA0MAM601T		TRA0MAM401T		TRA0MAM501T		TRA0MAM1001T	
HSS PUNCH STANDARD SHAPE	TRA0PUM606S		TRA0PUM406S		TRA0PUM506S		TRA0PUM1006S	
DIE STANDARD SHAPE	TRA0MAM601S		TRA0MAM401S		TRA0MAM501S		TRA0MAM1001S	

Coating	PROBUS	MT6 €	MT4 €	MT5 €	MT10 €
	GEMINUS	MT6 €	MT4 €	MT5 €	MT10 €
	LEVATUS	MT6 €	MT4 €	MT5 €	MT10 €

REVOTOOL BOSCHERT 6, 7-8 POSITION

REVO 7-8



REVO 7-8



REVO 6



REVO 6



ITEM	PUNCH REVO 7-8	€	DIE REVO 7-8	€	PUNCH REVO 6	€	DIE REVO 6	€
ROUND	TRA0PUM806T		TRA0MAM801T		BOA0PUM606T		BOA0MAM606T	
STANDARD	TRA0PUM806S		TRA0MAM801S		BOA0PUM606S		BOA0MAM606S	
SPECIAL B	TRA0PUM806C		TRA0MAM801D		BOA0PUM606C		BOA0MAM606D	
SPECIAL A	TRA0PUM806D		TRA0MAM801D		BOA0PUM606D		BOA0MAM606D	
SPECIAL CUSTOMIZED	TRA0PUM806F		TRA0MAM801D		BOA0PUM606F		BOA0MAM606D	

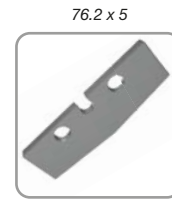
Coating	PROBUS	REVO7-8 €	REVO6 €
	GEMINUS	REVO7-8 €	REVO6 €
	LEVATUS	REVO7-8 €	REVO6 €



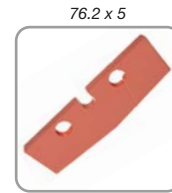
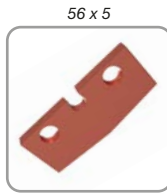
SLITTING TOOL

Max. Thickness 3 mm
Radius on corner 0.5 mm

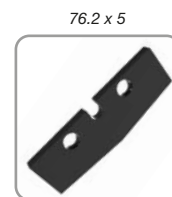
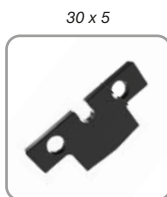
BLADE HOLDER 30x5 56x5 76.2x5 WITH INTEGRATED ALIGN.RING	
ITEM	€
TR56/76PL	



BLADE	30X5		56X5		76.2X5	
	HSS	€	HSS	€	HSS	€
RECT	TR30LRE06		TR56LRE06		TR76LRE06	
TRAP	TR30LTP06		TR56LTP06		TR76LTP06	
MICROJ	TR30LMJ06		TR56LMJ06		TR76LMJ06	



BLADE PROBUS COATING	30X5		56X5		76.2X5	
	HSS + Probus	€	HSS + Probus	€	HSS + Probus	€
RECT	TR30LRE06H		TR56LRE06H		TR76LRE06H	
TRAP	TR30LTP06H		TR56LTP06H		TR76LTP06H	
MICROJ	TR30LMJ06H		TR56LMJ06H		TR76LMJ06H	



BLADE GEMINUS COATING	30X5		56X5		76.2X5	
	HSS + Geminus	€	HSS + Geminus	€	HSS + Geminus	€
RECT	TR30LRE06F		TR56LRE06F		TR76LRE06F	
TRAP	TR30LTP06F		TR56LTP06F		TR76LTP06F	
MICROJ	TR30LMJ06F		TR56LMJ06F		TR76LMJ06F	

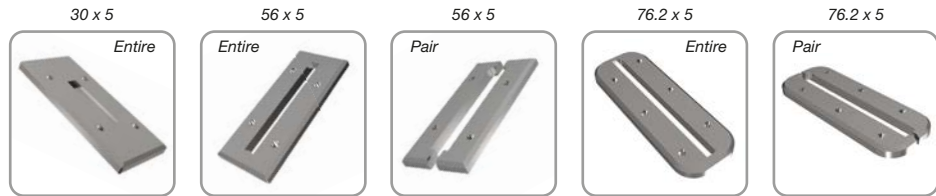


SLITTING TOOL

Max. Thickness 3 mm
Radius on corner 0.5 mm



SLITTING TOOL	30 x 5		56 x 5		76.2 x 5	
	ITEM	€	ITEM	€	ITEM	€
DIE HOLDER (with shims)	TRCEMAIN90		TRCEMAIN90		TRCFMAIN76TT	
DIE HOLDER WITH BRUSHES (with shims)					TRCFMAIN76BR	
DIE SHIMS 1 SET INCLUDES 0.2 0.3 0.5 mm	TRCEMAINSP56		TRCEMAINSP56		TRCEMAINSP76	



SLITTING TOOL	30x5		56x5		76.2x5	
	ITEM	€	ITEM	€	ITEM	€
RECTANGLE PAIR HSS DIE INSERT MAX THICKNESS 3 mm	—		TRCEIM56P206		TRCFIM76P206	
MICROJ HSS DIE INSERT ENTIRE MAX THICKNESS 2 mm	TRCEIM309MI6		TRCEIM569MI6		TRCFIM76TMI06	

SLITTING TOOL CLOSE TO DEFORMATION

Minimum distance to emboss:
min 35mm H5, min 22 H2
URETHAN STRIPPER



ITEM	56X5 max thickness 2.5 mm		76.2x5 max thickness 2 mm	
	ITEM	€	ITEM	€
PUNCH ASSEMBLY	TRD1PA56X5		TRE1PA76.2X5	
PUNCH	TRD1PU56X5		TRE1PU76.2X5	
PAIR OF URETHAN STRIPPER	TRD1PLPO56X5		TRE1PLPO76.2X5	
PAIR OF SCREW	TRDEVI76.2X5		TRDEVI76.2X5	
ALIGNMENT RING SIZE2	TRCFAATP		TRCFAATP	

Coating		€		€		€
56x5	PROBUS		GEMINUS		LEVATUS	
76.2x5						



ALIGNMENT RING



FITTING	MACHINE GR E, F, G, H, I	
	ITEM	€
ALIGNMENT RING SIZE 1	TRABAATI	
ALIGNMENT RING SIZE 2	TRCFAATP	
ALIGNMENT RING HD 40 mm	TRAFATR	
ALIGNMENT KEY	TRAFACHT0	
ALIGNMENT KEY RING HD	TRAFACHTR	

DIE ADAPTOR



FITTING	MACHINE GR E, F, G, H, I	
	ITEM	€
DIE ADAPTOR ALL MODELS SIZE 1/2	TRABPMT0	
DIE ADAPTOR ALL MODELS SIZE 1/2 WITH BRUSHES	TRABPMT0SP	
DIE HOLDER SIZE 2	TRCEPMT0*	

* Only for machines group H, I

PUNCH CHUCK



FITTING	ITEM	€	ITEM	€	ITEM	€
PUNCH CHUCK	D6 SIZE 0A - TRA6PPT0T		D10.5 SIZE 0B - TRA105PPT0T		SCREW M14 - MGR14MBX135	

SHIM

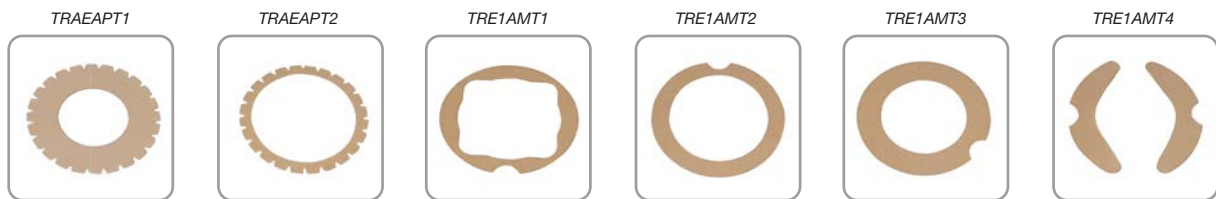


FITTING	TRAOSPMAM5	€	TRAOSPMAM10	€	TRABSPMA	€	TRCESPMA	€
DIE SHIMS mm	0,1		0,1		0,1		0,1	
	0,2		0,2		0,3		0,3	
	0,3		0,3		0,5		0,5	
	0,5		0,5		1		1	



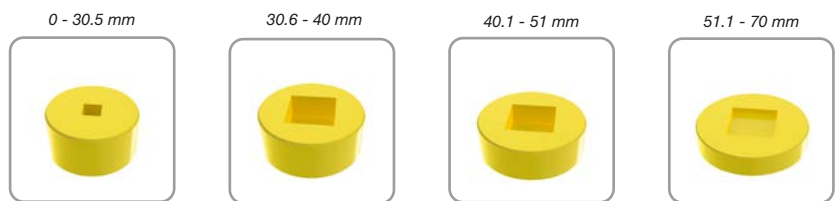
FITTING	ITEM	€
SET STANDARD AND SPECIAL PUNCH WITH ALIGNMENT RING ANGLE: 0	TRAEAP2	

ADHESIVE PADS



ITEM	TRAEAPT1 For stripper	TRAEAPT2 For stripper	TRE1AMT1 For dies	TRE1AMT2 For dies	TRE1AMT3 For dies, die adaptor	TRE1AMT4 For dies
€						

URETHAN STRIPPER 82SHORE



STRIPPER	ITEM	€	ITEM	€	ITEM	€	ITEM	€
ROUND	TRA1PLPOT		TRB2PLPOT		TRC1PLPOT		TRE1PLPOT	
STANDARD	TRA1PLPOS		TRB2PLPOS		TRC1PLPOS		TRE1PLPOS	
SPECIAL A - B	TRA1PLPOD		TRB2PLPOD		TRC1PLPOD		TRE1PLPOD	

FOR PRESS BRAKE MACHINE

FITTING	ITEM	€
ADAPTOR FOR PRESS BRAKE MACHINE, PROMECAM STYLE	TRAEAP	



TOOL CARTRIDGE

FITTING	ITEM	€
TOOL CARTRIDGE	TRAECP	





FORMING TOOL DATA SHEET

COUNTER SINK DOWN

Machine Model: _____
Material: _____

A: _____
D: _____
H: _____
S: _____

COUNTER SINK DOWN FORMING AFTER PRE PIERCE

Machine Model: _____
Material: _____

A: _____
D1: _____
D2: _____
H: _____
S: _____

COUNTER SINK UP FORMING AFTER PRE PIERCE

Machine Model: _____
Material: _____

A: _____
B: _____
D: _____
H: _____
R: _____
S: _____

EMBOSS UP ROUND

Machine Model: _____
Material: _____

A: _____
B: _____
D: _____
H: _____
R1: _____
R2: _____
S: _____

EMBOSS UP RECTANGULAR

Machine Model: _____
Material: _____

A: _____
B: _____
L: _____
H: _____
R1: _____
R2: _____
R3: _____
S: _____

EMBOSS DOWN ROUND

Machine Model: _____
Material: _____

A: _____
B: _____
D: _____
H: _____
S: _____
R1: _____
R2: _____

EMBOSS DOWN RECTANGULAR

Machine Model: _____
Material: _____

A: _____
B: _____
C: _____
H: _____
R1: _____
R2: _____
R3: _____
S: _____

FORM DOWN MARKING TOOL

Machine Model: _____
Material: _____

A: _____
H: _____
S: _____

EXTRUSION DOWN ROUND

Machine Model: _____
Material: _____

D: _____
H: _____
R: _____
S: _____

EXTRUSION UP ROUND

Machine Model: _____
Material: _____

D: _____
H: _____
R: _____
S: _____



FORMING TOOL DATA SHEET

LOUVER

Machine Model: _____
Material: _____

B: _____
H: _____
L: _____
S: _____
X: _____
Y: _____

LOUVER TRUMPF

Machine Model: _____
Material: _____

B: 12
H: 60
L: 5.5
S: 0.8 - 2.5
X: 18
Y: 70

CONTINUOUS LOUVER

Machine Model: _____
Material: _____

B: _____
H: _____
S: _____
X: _____

BRIDGE UP

Machine Model: _____
Material: _____

A: _____
B: _____
H: _____
L: _____
I: _____
R1: _____
R2: _____
S: _____

LANCE UP_3 BENDS

Machine Model: _____
Material: _____

A: _____
B: _____
C: _____
D: _____
H: _____
L: _____
R: _____
S: _____

SHEAR BUTTON

Machine Model: _____
Material: _____

D: _____
H: _____
S: _____

BEND 45°

Machine Model: _____
Material: _____

H: _____
S: _____

KNOCK-OUT DOWN

Machine Model: _____
Material: _____

D: _____
H: _____
S: _____

EMBOSS CONTINUOUS

Machine Model: _____
Material: _____

H: _____
L: _____
S: _____

BEND 80°

Machine Model: _____
Material: _____

H: _____
R: _____
S: _____

CLUSTER

Elements n° X

Elements n° X

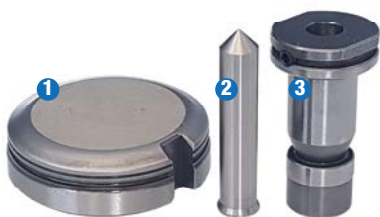
Punch dimensions (mm):

Round: _____
Shape: _____
Pattern: 1/2
Nx: _____
Ny: _____

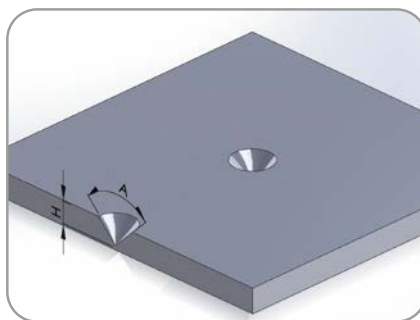
A: _____
B: _____
C: _____
D: _____

* See data pag. 40

MARKING



- 3. PUNCH CHUCK
- 2. MARKING PUNCH 1 - 4.5 mm
- 2. MARKING PUNCH 5 - 8 mm
- 1. DIE



Custom dimensions (mm) A :
H:

ORDERING SPECIFICATIONS

Company:

Machine model:

Material:

Thickness :

Order / Offer :

Item required:

Number of previous order:

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

COUNTERSINK AFTER PREPIERCE

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

ORDERING SPECIFICATIONS

Company:

Machine model:

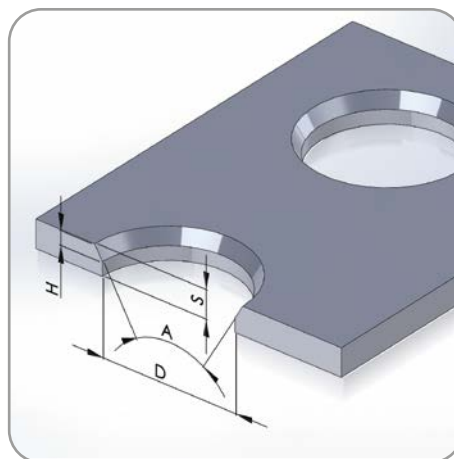
Material:

Thickness :

Order / Offer :

Item required:

Number of previous order:



Custom dimensions (mm)

A :
D:
H:
S:

Order with prepiece tool:

Yes No

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

ITEM	PUNCH	€	DIE	€
COUNTERSINK AFTER PRE PUNCH	FLTRA09P		TRA1MAT001T	

COUNTERSINK DATA

DIN EN ISO 10642 (hexagon socket)

SCREW	Upper Ø mm	Thickness mm
M3	7.1	1 - 3
M4	9.4	1.5 - 3
M5	11.7	1.5 - 4
M6	14	2 - 4
M8	18.5	2 - 4

COUNTERSINK DATA

DIN EN ISO 2009 and 7046-1

SCREW	Upper Ø mm	Thickness mm
M2.5	5.9	1 - 3
M3	6.7	1 - 3
M4	8.8	1.5 - 3
M5	10.6	1.5 - 4
M6	12.7	2 - 4
M8	16.7	2 - 4

MAXIMUM COUNTERSINK DEPTH

MATERIAL TYPE	Thickness mm	H Maximum S%
Aluminum, Copper, Brass	0.8 - 5	95
Mild Steel, Galvanized Steel	0.8 - 3	85
	3.1 - 5	60
Stainless Steel	0.8 - 2	85
	2.1 - 3	60
	3.1 - 5	50



EMBOSS UP

Sheet thickness 0.5 - 3 mm
 Maximum size with solid Die 60 mm
 Maximum size with Die with Springs 42 mm

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

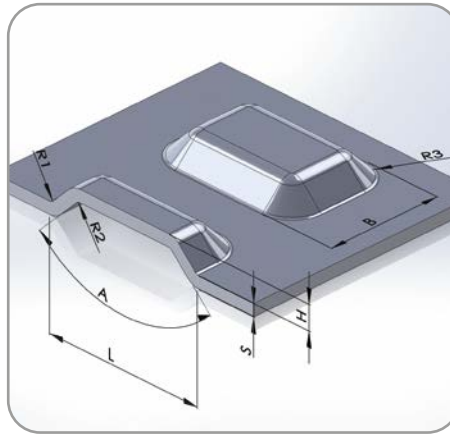
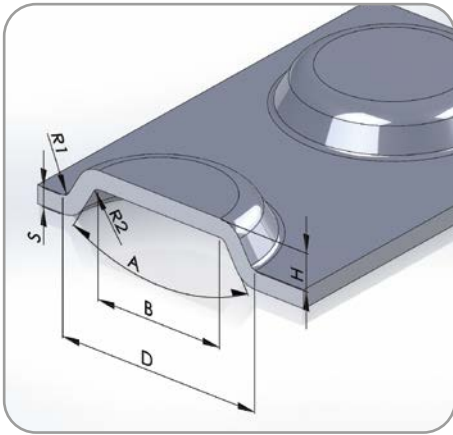
ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:

Solid Die sample "A" - min 90°



Die with Spring sample



Custom dimensions (mm)
 ROUND/SHAPE :

A:
 B:
 D:
 H:
 L:
 R1:
 R2:
 R3:
 S:

ROUND	PUNCH	€	SOLID DIE	€	DIE ASSEMBLY	€	ALIGN. RING	€	URETHAN STRIPPER (OPT)	€
0 - 15 mm	FLTRB01BP		FLTRB01MA (S1)		FLTRB03MA		TRABAATI		FLTRB12E	
15.1 - 23 mm	FLTRB01B2P		FLTRB01ME (S2)		FLTRB03MA		TRCFAATP		FLTRB12EB2	
23.1 - 30 mm	FLTRB01CP		FLTRB01ME (S2)		FLTRB03MA		TRCFAATP		FLTRB12EC	
30.1 - 42 mm	FLTRB01DP		FLTRB01ME (S2)		FLTRB03MA		TRCFAATP		FLTRB12ED	
42.1 - 60 mm	FLTRB01EP		FLTRB01ME (S2)		FLTRB03MA		TRCFAATP			

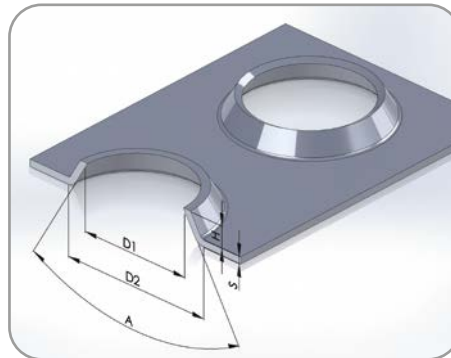
SHAPE Diagonal	PUNCH	€	SOLID DIE	€	DIE ASSEMBLY	€	ALIGN. RING	€	URETHAN STRIPPER (OPT)	€
0 - 15 mm	FLTRB02BP		FLTRB02MA (S1)		FLTRB04MA		TRABAATI		FLTRB12E	
15.1 - 23 mm	FLTRB02B2P		FLTRB02ME (S2)		FLTRB04MA		TRCFAATP		FLTRB12EB2	
23.1 - 30 mm	FLTRB02CP		FLTRB02ME (S2)		FLTRB04MA		TRCFAATP		FLTRB12EC	
30.1 - 42 mm	FLTRB02DP		FLTRB02ME (S2)		FLTRB04MA		TRCFAATP		FLTRB12ED	
42.1 - 60 mm	FLTRB02EP		FLTRB02ME (S2)		FLTRB04MA		TRCFAATP			

COUNTERSINK UP FORMING AFTER PRE PIERCE

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

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



Custom dimensions (mm)

Direction: Up

A:

D1:

D2:

H:

S:

Pre-hole tool needed:

Yes No

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)

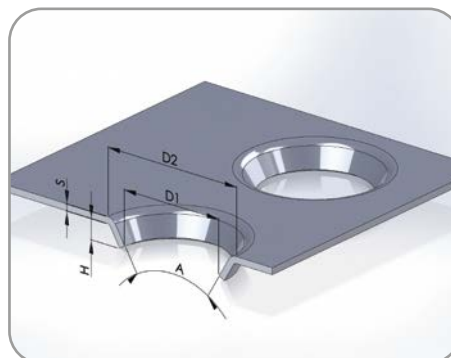
Thickness 2.0: (M2.5 2.4) (M3 2.8) (M4 3.7) (M5 4.6) (M6 5.4) (M8 7.0) (M10 8.2)

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)

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

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

COUNTERSINK DOWN FORMING AFTER PRE PIERCE



Custom dimensions (mm)

Direction: Up

A:

D1:

D2:

H:

S:

Pre-hole tool needed:

Yes No

ITEM	PUNCH	€	SOLID DIE	€	ALIGN.RING	€
M2.5 M3 M4 M5 M6	FLTRB05BP		FLTRB01MA (S1)		TRABAATI	
M8 M10	FLTRB05CP		FLTRB05MA (S2)		TRCFAATP	

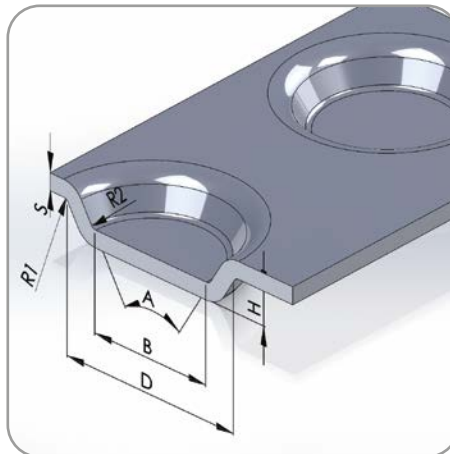
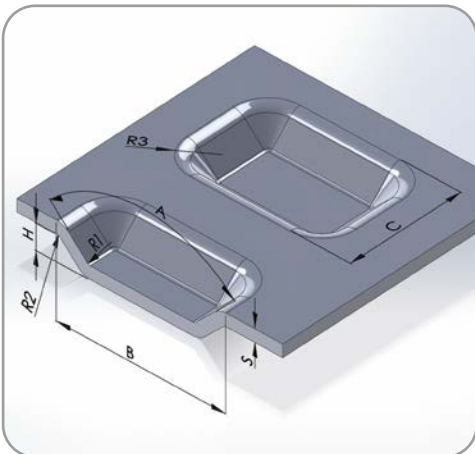
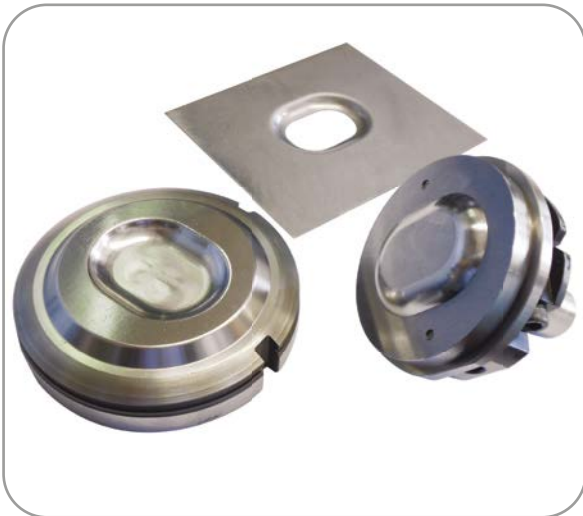


EMBOSS DOWN

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

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



Custom dimensions (mm)
 ROUND/SHAPE :

Direction: Down

A:
 B:
 C:
 H:
 R1:
 R2:
 R3:
 S:

ROUND	PUNCH	€	URETHAN STRIPPER (optional)	€	DIE 2	€***	ALIGN.RING	€
0 - 15 mm	FLTRB05BP		FLTRB12E		FLTRB05MA		(GR1)	
15.1 - 30 mm	FLTRB05CP		FLTRB12EC		FLTRB05MA		(GR2)	
30.1 - 42 mm	FLTRB05EP		FLTRB12ED		FLTRB05MA		(GR2)	
SHAPE Diagonal	PUNCH	€/**	URETHAN STRIPPER (optional)	€	DIE 2	€***	ALIGN.RING	€
0 - 15 mm	FLTRB06BP		FLTRB12E		FLTRB06MA		(GR1)	
15.1 - 23 mm	FLTRB06B2P		FLTRB12EB		FLTRB06ME		(GR2)	
23.1 - 30 mm	FLTRB06CP		FLTRB12EC		FLTRB06ME		(GR2)	
30.1 - 40 mm	FLTRB06EP		FLTRB12ED		FLTRB06ME		(GR2)	

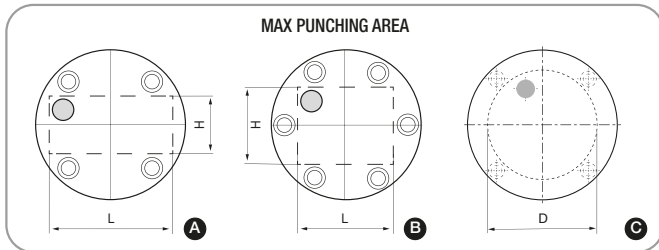
* GRINDED - ** MILLED - *** DIE WITH EJECTORS + €

CLUSTER

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

ORDERING SPECIFICATIONS

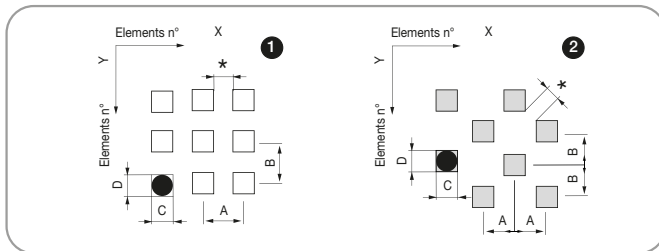
Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



	SOLID	WITH REPLACEABLE INSERTS				
		A		B		C
	DIAM (mm)	L (mm)	H (mm)	L (mm)	H (mm)	D (mm)
II	Ø 76	65	25	45	40	Ø 55
I	Ø 30/38*	-	-	-	-	-

* machine group S

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



Punch dimensions (mm):

A:
 B:
 C:
 D:

Round:

Shape:
 Pattern: 1/2
 Nx:
 Ny:

* Minimum size 1.5 x thickness.

Minimum distance between rounds 2.5 thickness

If size C < 30 mm example 20 x 3 minimum distance between shapes 3 time thickness

If size C > 30 mm example 40 x 3 minimum distance between shapes 4 time thickness



ITEM	SOLID PUNCH H74	SOLID PUNCH H77.5	€	ALIGNMENT RING	€
1.5 - 30	TRA1PUT006M	TRA1PUTL06M		TRABAATI	
30.1 - 40	TRB2PUT006M	TRB2PUTL06M		TRCFAATP	
40.1 - 50.8	TRC1PUT006M	TRC1PUTL06M		TRCFAATP	
50.9 - 60	TRD1PUT006M	TRD1PUTL06M		TRCFAATP	
60.1 - 76.2	TRE1PUT006M	TRE1PUTL06M		TRCFAATP	

PUNCHES:

* STANDARD SHAPE € X QTY

SOLID PUNCH SPECIAL 0-1-2 ADD € + IF PERIMETER <50 mm € X QTY

IF > 50 mm € X QTY



SOLID PUNCH

ITEM	INSERTS STYLE - ROUND *	INSERT STYLE - SHAPE **	€	ALIGNMENT RING	€
AREA 65X25 OR 45X40	FLTRB20PA	FLTRB21PA	∅ ∅	TRFAATR	
INTEGRATED ALIGN.RING VERSION AREA Ø 55	FLTRB21IPA		∅ ∅		



INSERTS STYLE

* ROUND size mm	2 - 8	8,1 - 12	12,1 - 15	15,1 - 20
Add each Ø	€	€	€	€
Spare punch HSS	€	€	€	€



ROUND

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



SHAPE

PUNCHES:

REPLACEABLE INSERT STYLE PUNCH ADD: SPC. 0 € X QTY, SPC. 1 € X QTY

SPC. 2 € X QTY (+ 50% IF PERIMETER > 50 mm)

ITEM	STRIPPER MACHINES GR E - F - G	STRIPPER MACHINES GR H - I	€
1.5 - 76.2	TRAEPLT0M	TRAEPLT500M	∅ ∅



STRIPPER

ITEM	DIE SIZE 1	€	DIE SIZE 2	€	REINFORCED DIE SIZE 2	€
	TRA1MATP06M	∅ ∅	TRE1MAT006M	∅ ∅	TRE1MATR01M	



DIE

DIES and STRIPPERS:

ADD 15% DIE SIZE <3.5 mm; ADD 10% STRIPPER SIZE < 3.5 mm; ADD 15% DIE AND STRIPPER SPECIAL 0-1-2

ADD 20% DIE IF PERIMETER SHAPE >50 mm (ex SQUARE 15 mm), ADD 20% REINFORCED DIE

DIAGONAL size mm	2 - 6	6.1 - 10	10.1 - 12	12.1 - 15	> 15.1
Coating Probus each Ø	€	€	€	€	€
Coating Geminus or Levatus each Ø	€	€	€	€	€

LOUVER STANDARD 60 x 12 AND SPECIAL SIZE

Standard size 60 x 12
 Technical info:
 Thickness: 0.8 ÷ 2.5 mm
 Height : 5.5 mm
 Spacing X 18 mm, Y 70 mm



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

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:

TRUMPF STYLE DIM. (mm)

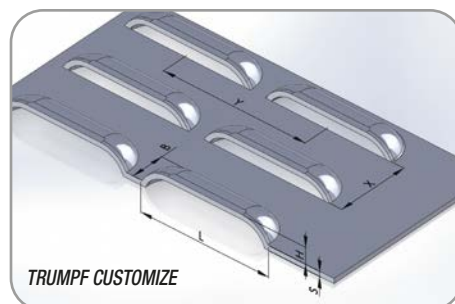
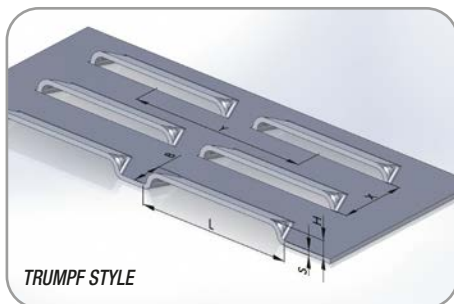
Y: 70
 X: 18
 B: 12
 H: 5.5
 L: 60
 S: 0.8 - 2.5

Probus Coating: Yes

TRUMPF CUSTOMIZED DIM. (mm)

Y:
 X:
 B:
 H:
 L:
 S:

Probus Coating: Yes



LOUVER SIZE:	PUNCH ASSEMBLY	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
Standard 60 x 12 mm	FLTRB14PA		FLTRB14M		(GR2)		
Special size (max 70 mm)	FLTRB14PB		FLTRB14MB		(GR2)		
SPARES	Upper revolving blade 60x12 Probus		Lower punch 60x12 Probus				

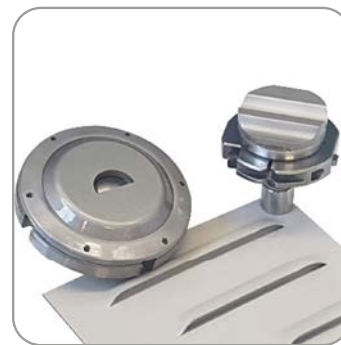
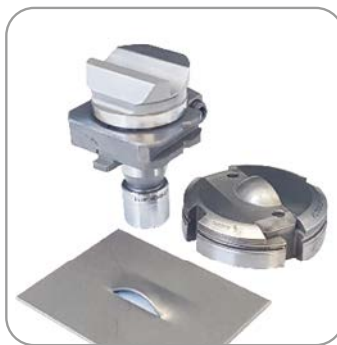
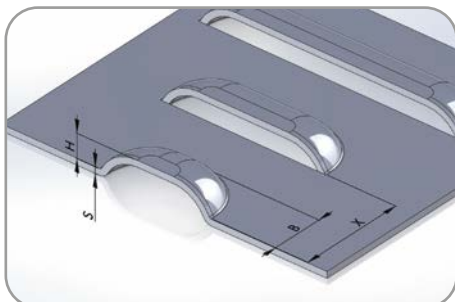
CONTINUOUS LOUVER

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

SPECIAL DIM. (mm)

B:
 H:
 S:
 X:

Probus coating: Yes No



LOUVER SIZE:	PUNCH	€	DIE	€	DIE ASSEMBLY	€	ALIGN.RING	€
24x12 h 5.5	FLTRB13P		FLTRB13M1 (GR1)		FLTRB14MB		(GR2)	
			FLTRB13M2 (GR2)					



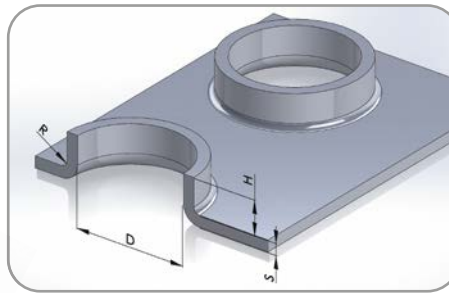
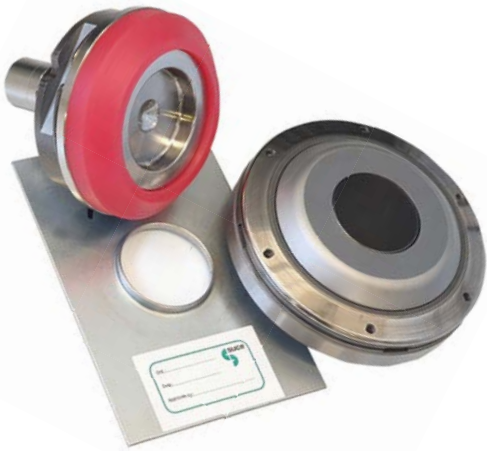
EXTRUSION UP AFTER PRE.PIERCE

Sheet thickness 1 - 3 mm

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

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



Custom dimensions (mm)

D:
 H:
 R:
 S:

Geminus coating: Yes No

Extrusion according to DIN7952

Thread size M2.5 pre-punch diameter 1.0 mm, thickness 0.8 - 1.5, diameter hole 2.10 - 2.30*
 Thread size M3 pre-punch diameter 1.5/1.8 mm, thickness 0.8 - 1.5, diameter hole 2.55 - 2.80*
 Thread size M4 pre-punch diameter 2.0/2.3 mm, thickness 1.0 - 2.0, diameter hole 3.35 - 3.70*
 Thread size M5 pre-punch diameter 2.5/2.7 mm, thickness 1.0 - 2.0, diameter hole 4.25 - 4.65*
 Thread size M6 pre-punch diameter 3.0/3.3 mm, thickness 1.5 - 2.5, diameter hole 5.10 - 5.55*
 Thread size M8 pre-punch diameter 4.1/4.5 mm, thickness 1.5 - 2.5, diameter hole 6.80 - 7.40*
 Thread size M10 pre-punch diameter 5/5.5 mm, thickness 1.5 - 2.5, diameter hole 8.50 - 9.30*
 Extrusion tapping Height: 2 times thickness

*Hole size for tapping in machine.

D SIZE	PUNCH	€	URETHAN STRIPPER	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
0 - 6 mm	FLTRB12PB		FLTRB12E		FLTRB12M1 (GR1)		(GR1)		
6.1 - 9.40 mm	FLTRB12PB		FLTRB12E		FLTRB12ME		(GR1)		
9.5 - 25 mm	FLTRB12PC		FLTRB12EC		FLTRB12ME		(GR2)		
25.1 - 42 mm	FLTRB12PE		FLTRB12EE		FLTRB12ME		(GR2)		
SPARES	PUNCH 0 - 25 mm FLTRB12IP				PUNCH 25.1 - 42mm FLTRB12IPB				
	COATING GEMINUS 0 - 25 mm				COATING GEMINUS 25.1 - 42 mm				

EXTRUSION UP 1 HIT



ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:

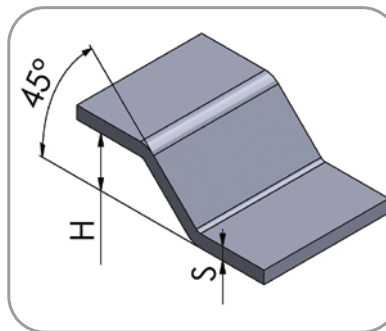
ITEM	PUNCH	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
	FLTRB12PB		FLTRB12M1 (GR1)		(GR2)		

STEPPING TOOL

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

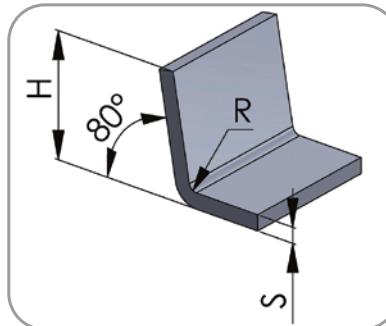
ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



Custom dimensions (mm)

H:
 S:



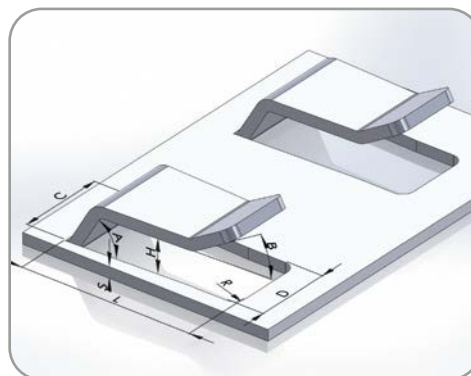
Custom dimensions (mm)

H:
 R:
 S:

ANGLE	PUNCH	€	DIE	€	ALIGN.RING	€	SET
45°	FLTRB07P		FLTRB02ME		(GR2)		
80°	FLTRB07P80		FLTRB02ME		(GR2)		

LANCE UP

Sheet thickness 0.5 - 2.5 mm



Custom dimensions (mm)

A:
 B:
 C:
 D:
 H:
 L:
 R:
 S:

Probus Coating: Yes No

SHEET THICKNESS 0.5 - 2.5 mm	PUNCH	€	DIE ASSEMBLY	€	URETHAN STRIPPER	€	ALIGN. RING	€	SET
1 - 2 BENDS	FLTRB19P		FLTRB19M		FLTRB19E		(GR2)		
3 BENDS	FLTRB193P		FLTRB19-3M		FLTRB19E		(GR2)		
REINFORCED	FLTRB19PR		FLTRB19MR		FLTRB19E		(GR2)		



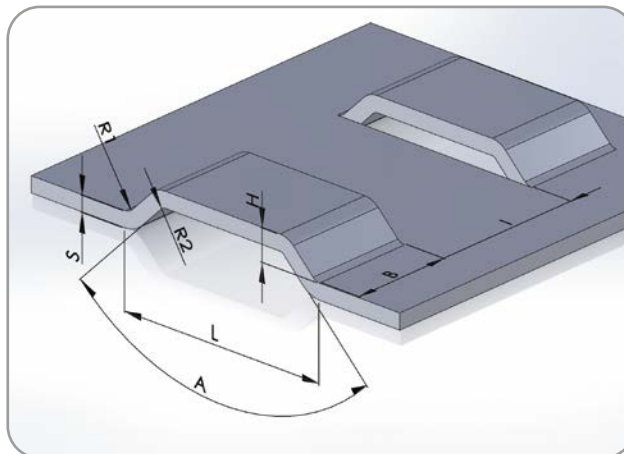
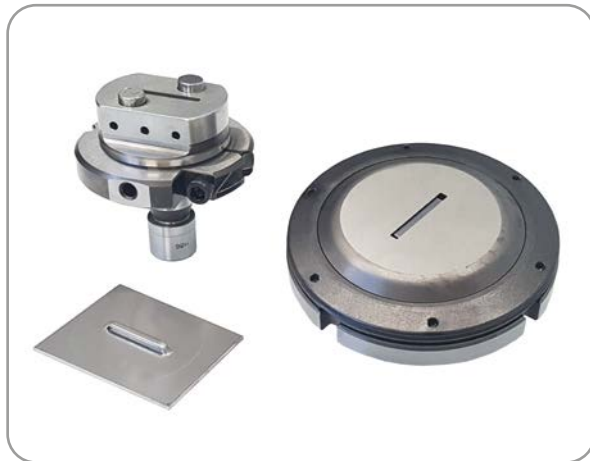
SINGLE AND DOUBLE BRIDGE

Sheet thickness 0.5 - 2.5 mm

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

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



Custom dimensions (mm)

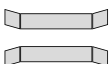
A:
 B:
 H:
 S:
 I:
 R1:
 R2:

TYPE: DOUBLE SINGLE

Geminus Coating: Yes No

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

PUNCH WITH EJECTOR + € ...



ADD € ... PUNCH, € ... DIE

BEADING CONTINUOUS TOOL

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

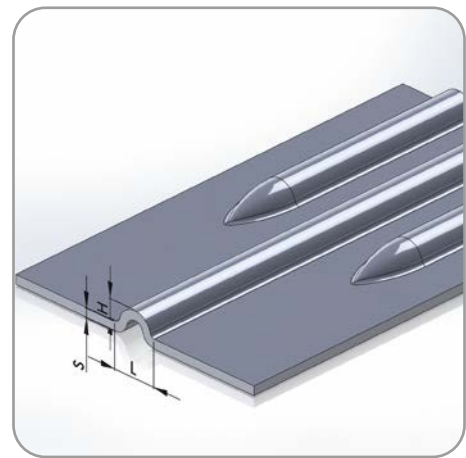
Notes and personal drafts. Please specify here the distance of any close deformation.

ORDERING SPECIFICATIONS

Company:
 Machine model:
 Material:
 Thickness :
 Order / Offer :
 Item required:
 Number of previous order:



SOLID DIE



DIE WITH SPRINGS

Custom dimensions (mm)

H:
 S:
 L:

RIB TOOL

Thickness 0.8 - 2.5 Aluminium, 0.8 - 2 Mild steel, 0.8 - 1.5 Stainless steel
 Minimum radius 25 mm
 Width 5 - 6 mm



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



SHEAR BUTTON

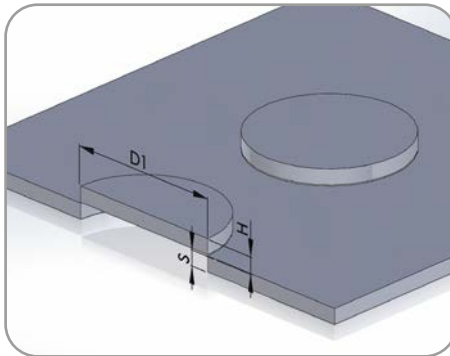
Thickness 1 - 3 mm
Height 0.5 x thickness



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

ORDERING SPECIFICATIONS

Company:
Machine model:
Material:
Thickness :
Order / Offer :
Item required:
Number of previous order:



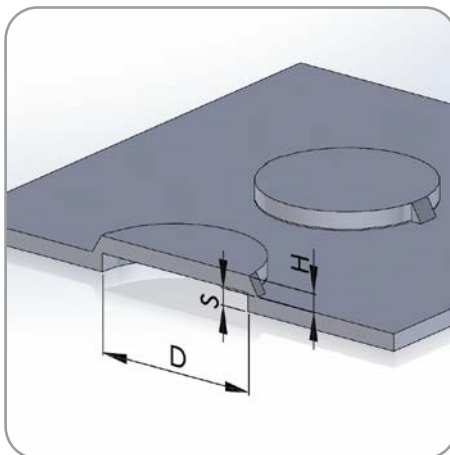
Custom dimensions (mm)

D:
H:
S:

SHEAR BUTTON	PUNCH	€	URETHAN STRIPPER	€	DIE ASSEMBLY GR1	€	ALIGN.RING	€	SET
D 1.9, 2.9, 3.9, 4.9, 5.9	FLTRB15BP		FLTRB12E		FLTRB15M1		(GR1)		

KNOCK OUT ROUND

Sheet thickness 1 - 2 mm



Custom dimensions (mm)

D:
H:
S:

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

CARD GUIDE



CARD GUIDE	PUNCH	€	DIE ASSEMBLY	€	ALIGN.RING	€	SET
0 - 60 mm	FLTRB34P		FLTRB34M		(GR2)		

MARKING TOOL ALPHA NUMERIC



MARKING TOOL ALPHA NUMERIC	PUNCH HOLDER	€	DIE	€	ALIGN.RING	€	SET
	FLTRB26PR		FLTRC1MAT001T		(HD 40 mm)		

FORMED STAMPING LOGO

Embossed Logo



Marked Logo



FORMED STAMPING LOGO	PUNCH	€	DIE	€	ALIGN.RING	€	SET
EMBOSSED	FLTRB26P		FLTRB26M		(GR2)		
MARKED	FLTRB26P		FLTRC1MAT001T		(GR2)		

MARKING GROUND SYMBOL DIN40011

Marking Depth: 0.4 - 0.6 mm



MARKING DEPTH: 0.4 - 0.6 mm	PUNCH	€	DIE	€	ALIGN.RING	€	SET
From the top	FLTRB27P		TRA1MAT001T		(GR1)		
From the bottom	TRA1PUT006T		FLTRB27M		(GR1)		



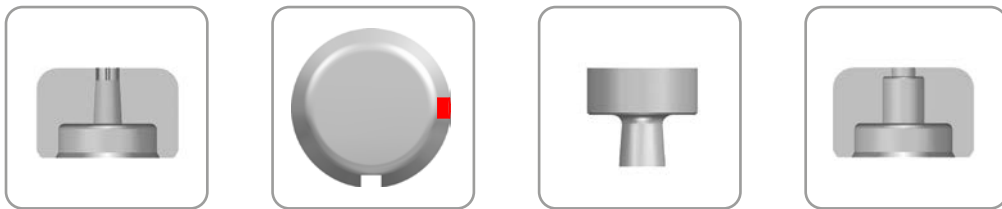
ADD ON

Shear option

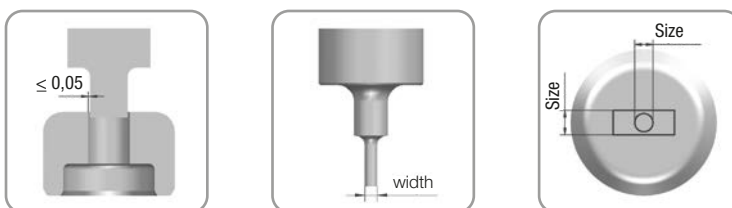


TYPE OF SHEAR	Roof top	Inverted roof top	Double valley	Whisper	Four ways
WHEN	Best option when punching force is high, minimum feed 75% of tool length	Recommended for nibbling at maximum tonnage but inverted stress could cause breakage	Recommended when punch is longer than 80mm But inverted stress could 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	€	€	€	€	€

Add on



	Die lock slug	Extra Key slot	Back taper punch Jump station*	Reduced milled land
ADD ON	€	€		shape: € diam<11 € ; diam>11 €
WHEN	Best option to prevent the come out of the slug	C-D-E thick turret dies keys 0-90 standard shape 0-135 square	Recommended for punching thick material, more than 4mm. *Thick turret punches example: square10 in C station	To facilitate the fall of the slug; recommended when long side is more than 20 times short side, ex re22x1



	Die clearance <math><0.1</math>	Punch width	Die size
ADD ON			

GRINDING MACHINE



Tools sharpening can give back to a punch all features as first purchased. The machine used for regrinding tool is also very important as all our tools (and most of the tool you have in your tool's inventory) are made of High-Quality Special steel, so you must follow some specific procedures to grind these tools in a proper way and prevent them from damaging. You must use coolant when grinding, to prevent punch tip from cracking or damaging, polishing by hand after grinding is necessary to remove burrs on punch edge that is naturally generated by reshaping operation. Always demagnetize tools before taking them to storage. This machine has been specifically designed for punching tools and therefore, it must fulfill some specific requirements in terms of structure, grinding speed and capacity.



Click on the QR code or scan it to find out more about **our grinding machine and tool sharpening service.**

The machine has been implemented with a software functionality for automatic data exchange using the OPC UA protocol which has the advantage of being an **open standard, ideal for meeting the basic requirements of Industry 4.0.**

Proper sharpened tools give the following advantages:

- Flatter sheets
- Less noise
- Less stress on tool and machine
- Increased holes quality
- Tools lasting longer
- Reduced amount of new tools to be purchased
- Saving money
- Robust construction
- Fully aluminum constructed grinding area
- Sensorless automatic height sensing of tools (never Need any adjustment)
- High Capacity Cooling Tank with triple filtration (40lt)
- Easy To Use Siemens Touch Screen HMI
- Information panel of operations and alarms in progress
- Sliding door with Security switch
- No additional accessories needed for tool clamping
- Straight and angular grinding
- Tool Drawer
- Grinding pressure controlled
- Automatic grinding speed adjustment
- Illuminated Grinding Area
- Security sensor equipped doors
- High Quality Grinding Wheel
- Washing system with water gun



Bending tools compatible with all major brands of press brakes.
We are also able to supply special tools, tailor-made with our customers, to meet any need.
Type PROMECAM , WILA , LVD , BYSTRONIC , Rolla V dies.



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