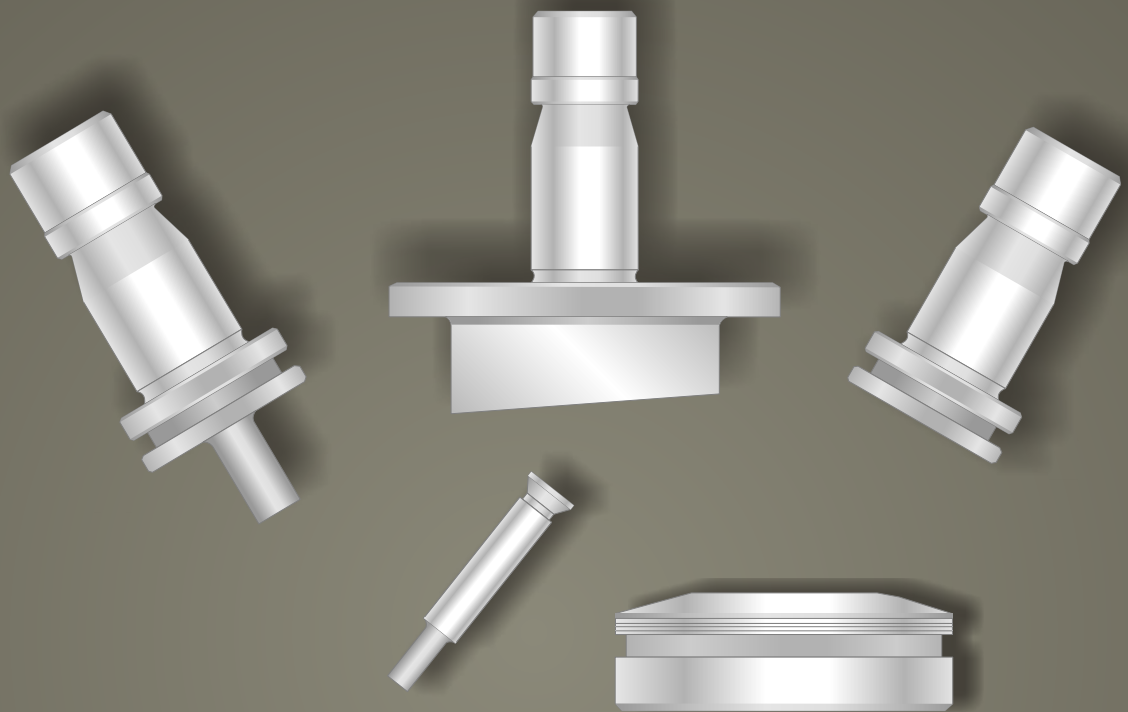
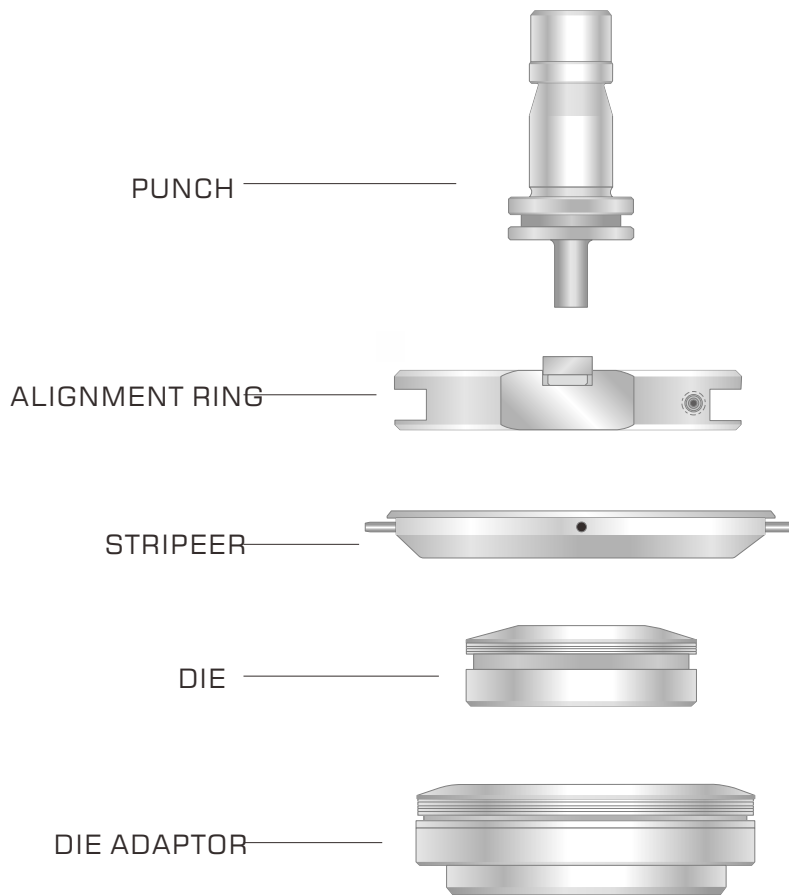




TRUMPF STYLE TOOLING



AFAB MACHINERY AND TOOLS LTD

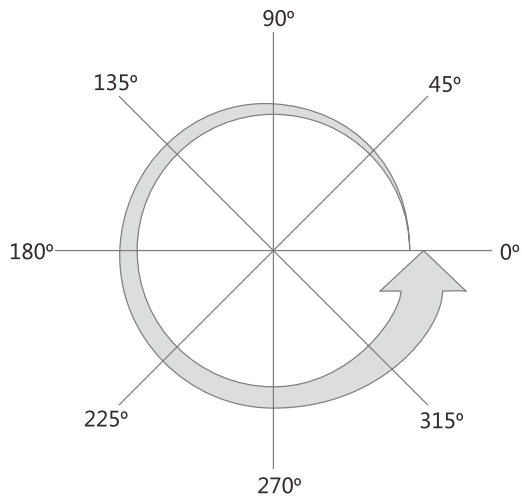


TRUMPF MACHINE CLASSIFICATION

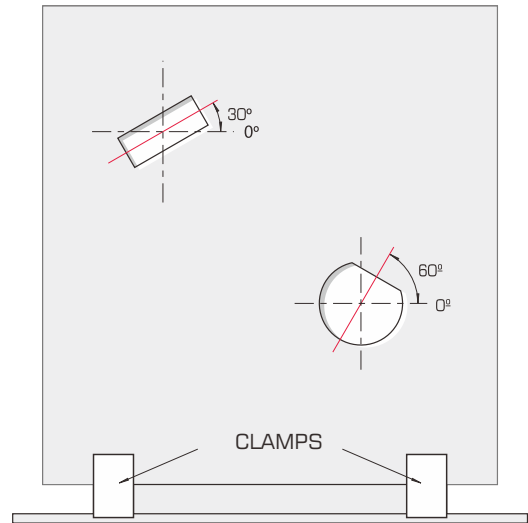
A	B	C	D	E	F	G	H*	I*	S*
CN 700	CN 901E	CN 1200S	TRUMATIC	SUNIMAT	TRUMATIC	TRUMATIC	TRUMATIC	TRUMATIC	MINIMATIC
CN 900	CN 902	CN 1200A	20	400	150W	20aW	190R	2000R	100
CN 701	CS 75	CS 15	20a	TRUMATIC	152W	202W	200R	2010R	TRUMATIC
CN 901	CS 75.2	CS 20	202M	150K	180W	300W	500R	2020R	120R
		CS 20a		151K	180.2W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

*Strippers for groups H, I + S different with other machine groups. Please ensure stripper style.

TECHNICAL INFORMATION

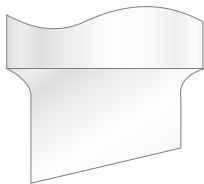


SHAPE ANGLE DIRECTION

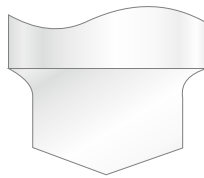


SHAPE POSITION AT SHEET METAL FROM TOP OF MACHINE

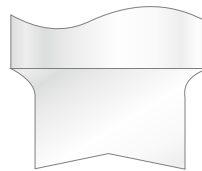
PUNCH TIP STYLE



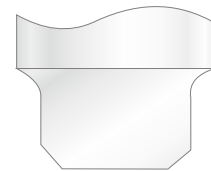
WHISPER



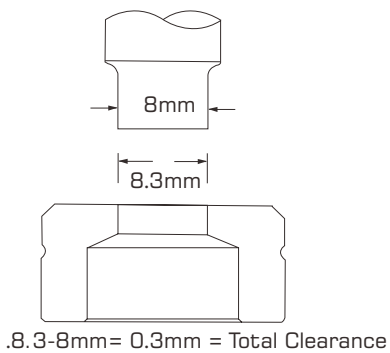
ROOFTOP



INVERTED ROOFTOP



J.K SHEAR



Recommended Total Die Clearance

Material Thickness	Aluminum Total Clearance	Mild Steel Total Clearance	Stainless Steel Total Clearance
1.00	0.15	0.20	0.20
1.50	0.23	0.30	0.40
2.00	0.30	0.40	0.50
3.00	0.60	0.75	0.90
4.00	0.80	1.00	1.20
5.00	1.00	1.25	1.75
6.35	1.60	2.00	2.22

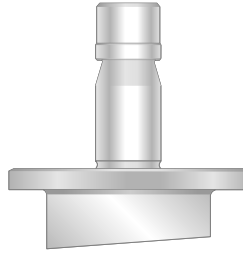
STANDARD TOOL



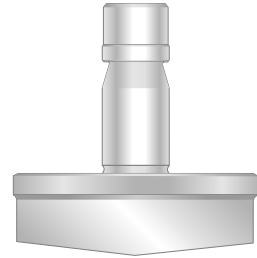
OA Punch



Flat punch



Whisper punch



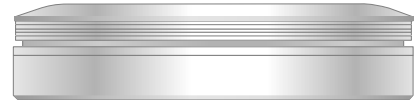
Rooftop punch

PUNCH (STD. & LONG)			
Size	Dimension	Round code	Shape code
OA	1.20-6.00mm	T0A-PBRO	T0A-PB**
OB	6.01-10.50mm	T0B-PBRO	T0B-PB**
1	1.20-30.00mm	T1-PBRO	T1-PB**
2A	30.01-38.00mm	T2A-PBRO	T2A-PB**
2B	30.01-40.00mm	T2B-PBRO	T2B-PB**
2C	40.01-50.80mm	T2C-PBRO	T2C-PB**
2D	50.81-76.2mm	T2D-PBRO	T2D-PB**

Die	Round code	Shape code
Size 1 (~30+2mm)	T1-DIRO	T1-DI**
Size 2 (30.01~76.2+2mm)	T2-DIRO	T2-DI**



SIZE 1



SIZE 2

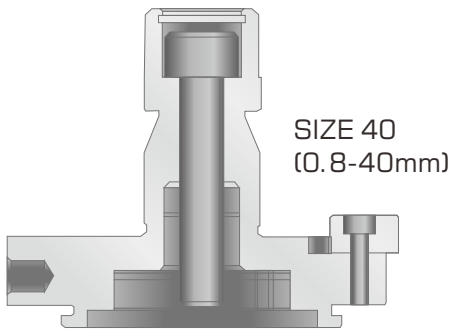
Stripper	Round code	Shape code
Keyed (old)	T0-STRO	T0-ST**
Group H/I	T1-STRO	T1-ST**



Stripper for H/I ground

R. I. SYSTEM (2.4.1/NEXT)

Replaceable Insert System

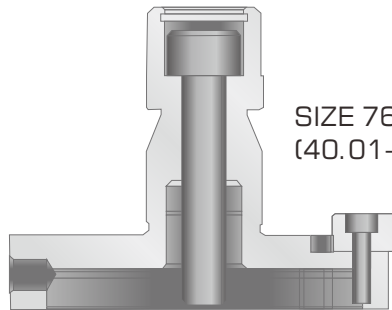


SIZE 40
(0.8-40mm)

Punch holder,code:T4-PH



Punch Shim,code:T4-PSM

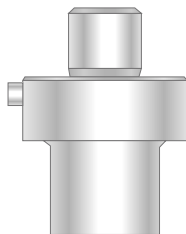


SIZE 76
(40.01-76.2mm)

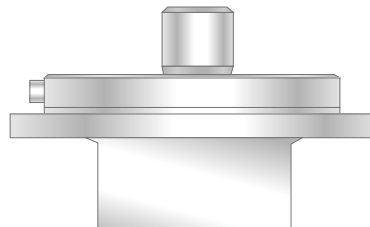
Punch holder,code:T7-PH



Punch Shim,code:T7-PSM



Punch Insert



Size	Size 4A 2.36-30.00mm	Size 4B 30.01-40.00mm	Size 7A 40.01-56mm	Size 7B 56.01-66mm	Size 7C 66.01-76.2mm
Round	T4A-PBRO	T4B-PBRO	T7A-PBRO	T7B-PBRO	T7C-PBRO
Shape	T4A-PB**	T4B-PB**	T7A-PB**	T7B-PB**	T7C-PB**



Die Insert

Size	Size 4 2.36-40.00mm	Size 7 40.01-56mm
Round	T4-DIRO	T7-DIRO
Shape	T4-DI**	T7-DI**



Die Shim Size 4: T4-DSM



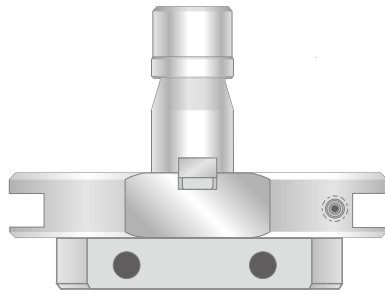
Die Shim Size 7: T7-DSM



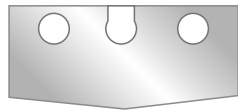
Die Holder

Size	Size 4 2.36-40.00mm	Size 7 40.01-56mm
Code	T4-DHD	T7-DHD

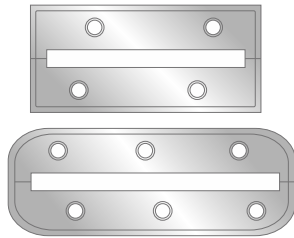
PARTING TOOL SYSTEM



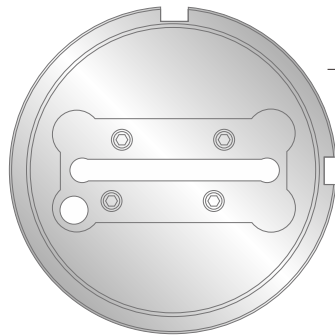
Punch holder
TP-PH



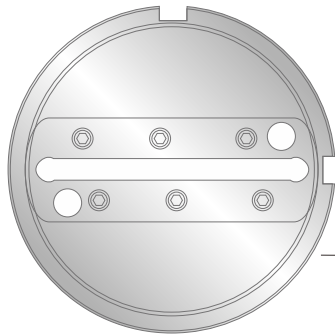
Punch Insert
TP3-PBRE 5X30
TP5-PBRE 5X56
TP7-PBRE 5X76.2



Die Insert
TP3-DIRE 5X30
TP5-DIRE 5X56
TP7-DIRE 5X76.2

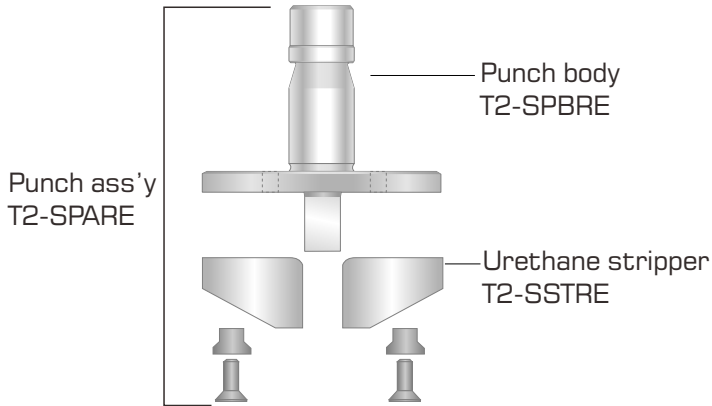


Die Holder
TP5-DH
TP7-DH

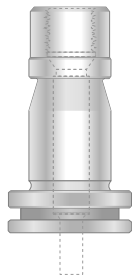


Shape optional: Oblong
Size optional: 5XL < 76.2

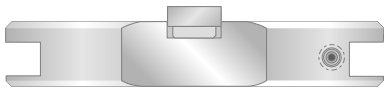
PU SLITTING



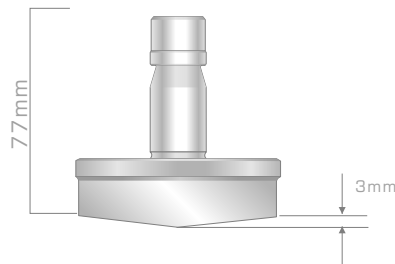
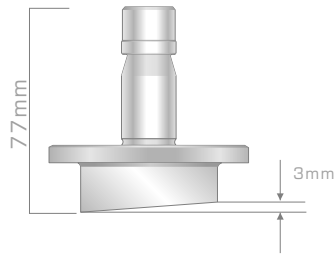
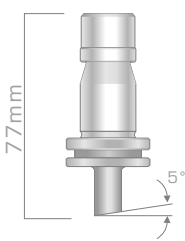
- * Width range: 10mm~60mm
- * Length range: ~76.2mm
- * Stripper is standard
- * Die is standard



Insert Chuck	Code
Size OA (0.77~6.0mm)	TOA-CK
Size OB (0.77~10.5mm)	TOB-CK

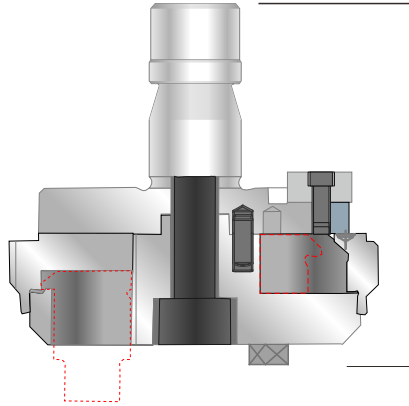


Alignment Ring for E/F/H/I	Code
Size 1	T1-AG
Size 2	T2-AG



- * Flat Punch for group I ---77mm long, flat punch for other group---74mm long
- *All whisper punch — 77mm long, To order whisper, please specify
- *Punch in 10~35mm with 5° , punch over 35mm with 3mm height
- *Whisper punch can reduce noise and tonnage

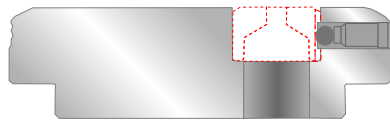
MULTI-TOOL 5 STATION (Max. size 16mm)



MT 5 Punch holder
T5-PH

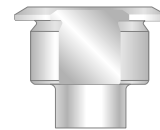


MT 5 Stripper
T5-PH

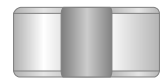


MT 5 Die holder
T5-PH

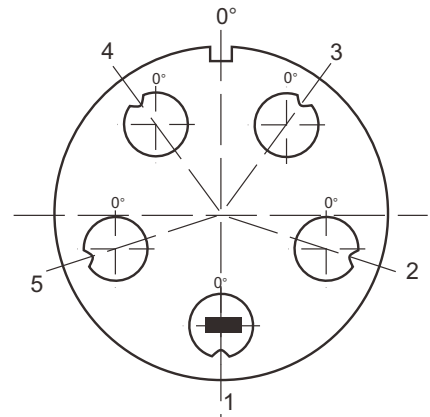
Multi-tool 5 station	Round code	Shape code
Punch MT 5 (~16mm)	T5-PIRO	T5-PI**
Die MT 5 (~16+0.6mm)	T5-DIRO	T5-DI**



Punch



Die



Angle setting

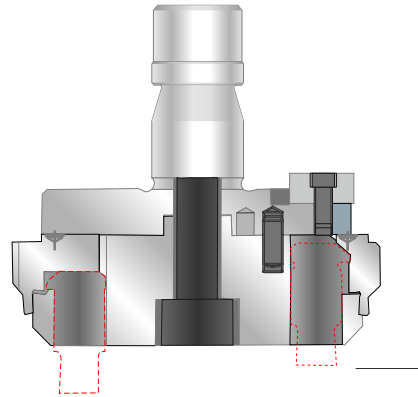
*Max. size 16mm

* Stripper with diameter 17.2mm hole

*Angle set in position 1, 90°

*Die grind life only 1.0mm

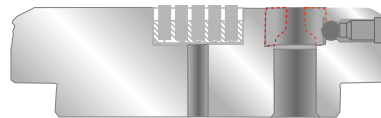
MULTI-TOOL 10 STATION (Max.size 10.5mm)



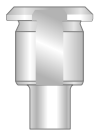
MT 10 Punch holder
TO-PH



MT 10 Stripper
TO-PH



MT 10 Die holder
TO-PH

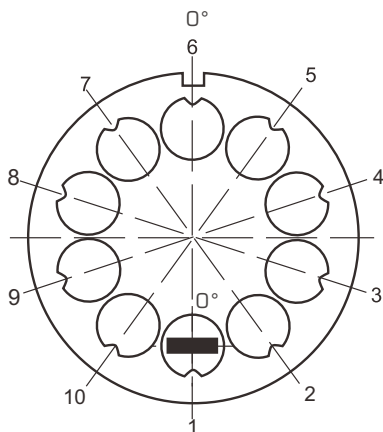


Punch



Die

Multi-tool 5 station	Round code	Shape code
Punch MT 10 (~10.5mm)	TO-PIRO	TO-PI**
Die MT 10 (~10.5+0.6mm)	TO-DIRO	TO-DI**



Angle setting

- *Max.size 10.5mm
- * Stripper with diameter 11.7mm hole
- *Angle set in position 1,90°
- *Die grind life only 1.0mm

Description	Code
Trumpf cartridge universal	TF-CT



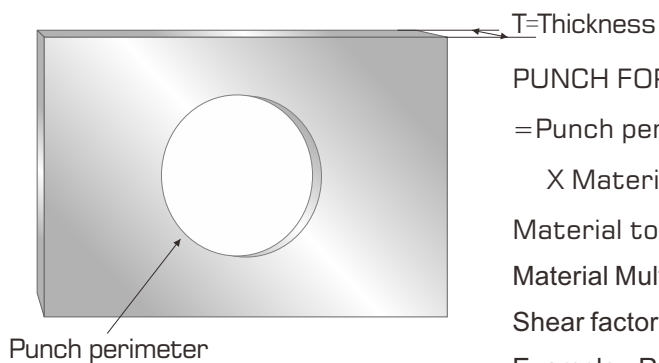
Description	Code
Die plate	TF-DP



Description	Code
Die adaptor (1-2 size)	TF-AD



Description	Code
C Ring	TF-CR



PUNCH FORCE(metric tonnage)

=Punch perimeter X Thickness X Material tonnage value
X Material Multiplier X Shear factor

Material tonnage value=0.0352 metric tons/mm²

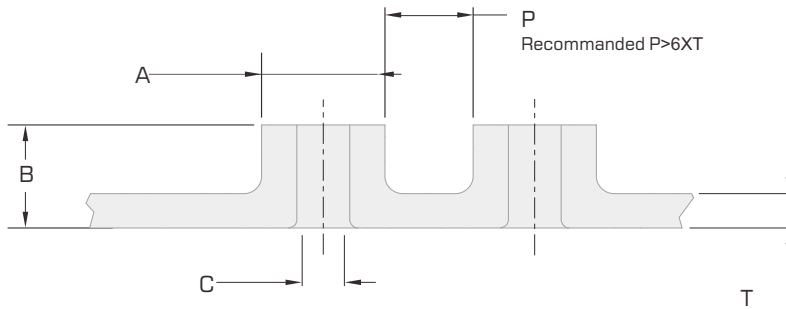
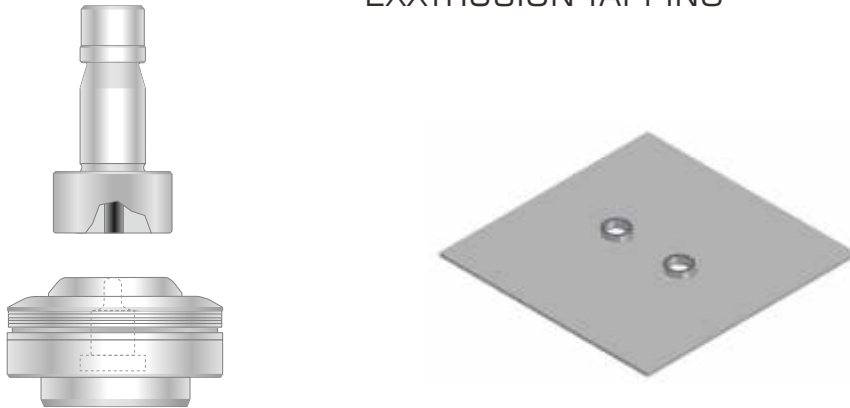
Material Multiplier: aluminum=0.5 mild steel=1 stainless=1.6

Shear factor: flat punch=1 whisper=0.5~0.95

Example: Round 20mm,2.0 mild steel, shear type punch

Tonnage=20x3.14x2.0x0.0352x1x0.5=2.2 tons

EXXTRUSION TAPPING

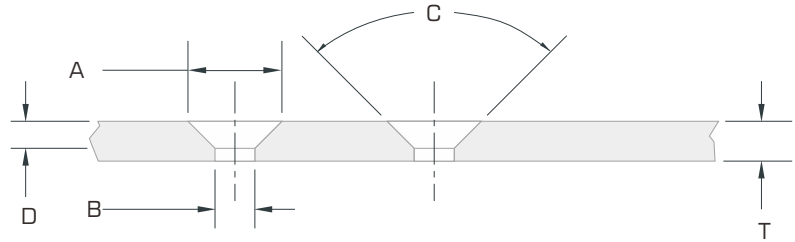
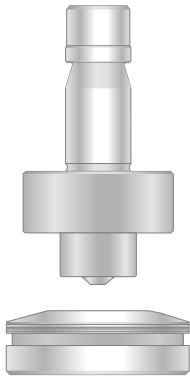


A _____ Material Type _____
 B _____ P _____ Machine Type _____
 C _____ T _____ Tooling Station _____

CHART FOR PREPUNCH SIZE

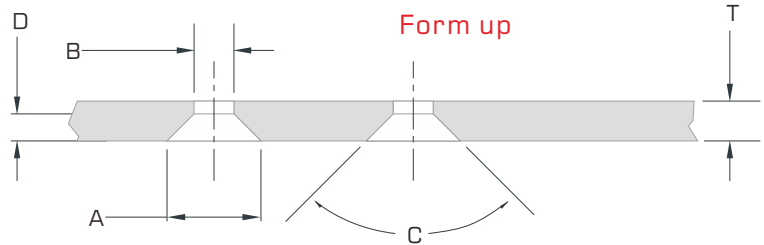
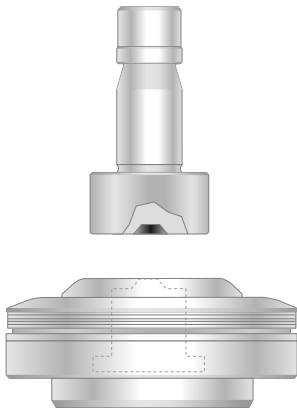
Material	Tapping size	Thickness I.D. C size	0.8	1.0	1.2	1.6	2.0	2.3
			Aluminum Mild steel	M2.6	2.21	1.3	1.3	1.3
M3	2.57	1.3		1.3	1.6	1.6	N/A	N/A
M4	3.40	2.0		2.0	2.0	2.3	2.3	2.5
M5	4.30	N/A		2.3	2.3	2.8	2.8	3.0
M6	5.20	N/A		N/A	N/A	3.0	3.8	3.8
Stainless steel	M2.6	2.21	1.3	1.3	N/A	N/A	N/A	N/A
	M3	2.57	1.3	1.6	1.8	N/A	N/A	N/A
	M4	3.40	2.0	2.0	2.0	N/A	N/A	N/A
	M5	4.30	N/A	2.3	2.3	N/A	N/A	N/A
	M6	5.20	N/A	3.0	3.0	N/A	N/A	N/A

COUNTERSINK



Form down

A _____ Material Type _____
 B _____ D _____ Machine Type _____
 C _____ T _____ Tooling Station _____

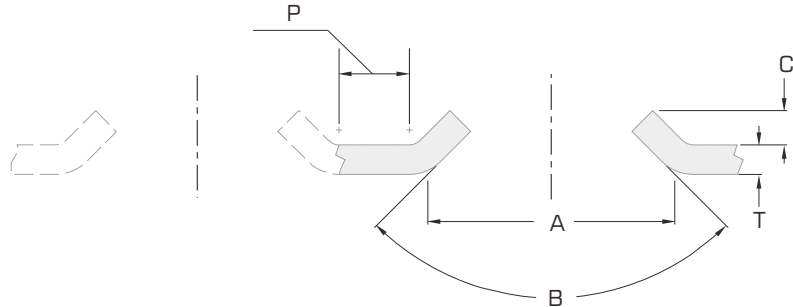
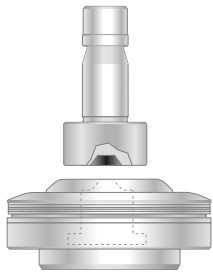
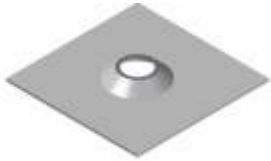


Form up

A _____ Material Type _____
 B _____ D _____ Machine Type _____
 C _____ T _____ Tooling Station _____

M2 (ØA=Ø 4.3)			M2.5 (ØA=Ø 5.3)			M2.6 (ØA=Ø 5.5)			M3 (ØA=Ø 6.4)			M4 (ØA=Ø 8.6)			M5 (ØA=Ø 10.6)			M6 (ØA=Ø 12.8)			
THK	ØB	PPØ	THK	ØB	PPØ	THK	ØB	PPØ	THK	ØB	PPØ	THK	ØB	PPØ	THK	ØB	PPØ	THK	ØB	PPØ	
1.0	3.2	3.5	1.0	4.2	4.5	1.0	4.4	4.7	1.0	5.5	5.7										
1.2	3.2	3.5	1.2	4.2	4.5	1.2	4.4	4.7	1.2	5.1	5.5	1.2	7.2	7.5							
1.5	2.6	3.0	1.5	3.6	4.0	1.5	3.8	4.2	1.5	4.6	5.0	1.5	6.8	7.2	1.5	9.1	9.5				
1.6	2.6	3.0	1.6	3.6	4.0	1.6	3.8	4.2	1.6	4.6	5.0	1.6	6.8	7.2	1.6	9.1	9.5				
2.0	2.6	3.0	2.0	3.2	3.8	2.0	3.4	4.0	2.0	4.0	4.8	2.0	6.7	7.2	2.0	8.8	9.3	2.0	10.6	11.0	
2.3	2.6	3.0	2.3	3.3	3.8	2.3	3.5	4.0	2.3	4.2	4.8	2.3	5.7	6.5	2.3	7.9	8.5	2.3	10.6	11.0	
										2.5	4.1	4.7	2.5	5.6	6.4	2.5	7.8	8.4	2.5	10.4	10.8
										3.0	3.7	4.5	3.0	4.8	5.7	3.0	7.0	8.0	3.0	9.4	10.0
* THK= sheet thickness			PP= prepunch size							3.2	3.7	4.5	3.2	4.8	5.7	3.2	7.0	8.0	3.2	9.4	10.0

EMBOSS COUNTERSINK



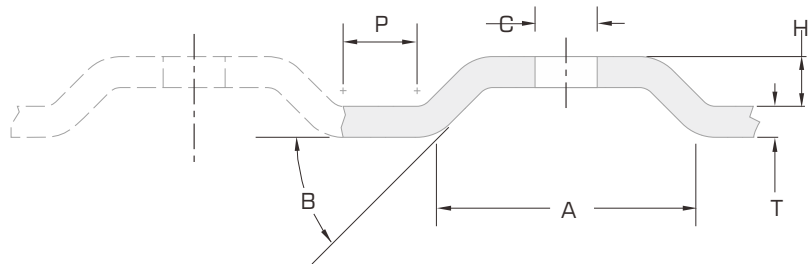
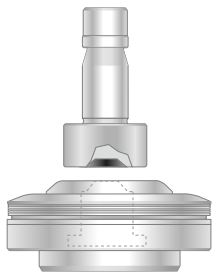
- A _____
- B _____
- C _____
- P _____
- T _____

Material Type _____

Machine Type _____

Tooling Station _____

EMBOSS EXTRUSION

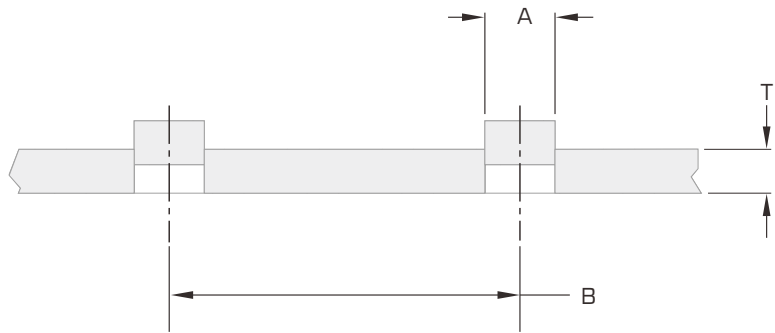
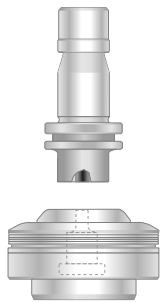
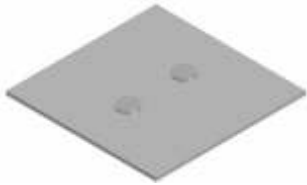


- A _____
- B _____
- C _____
- H _____
- P _____

Material Type _____

Machine Type _____

SHEAR BUTTON



A _____

B _____

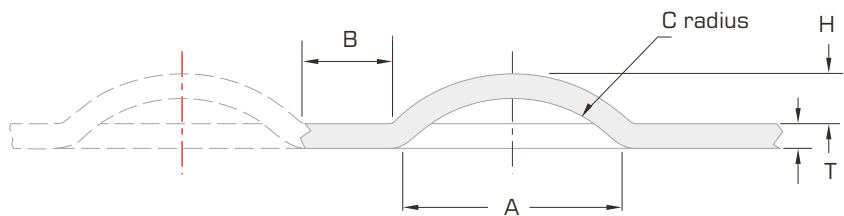
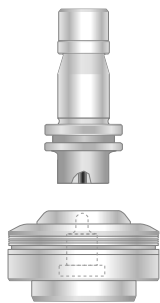
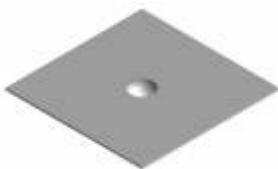
T _____

Material Type _____

Machine Type _____

Tooling Station _____

DIMPLE



A _____

B _____

C _____

H _____

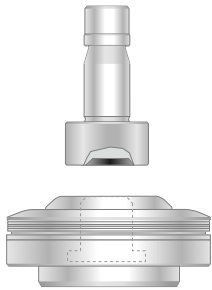
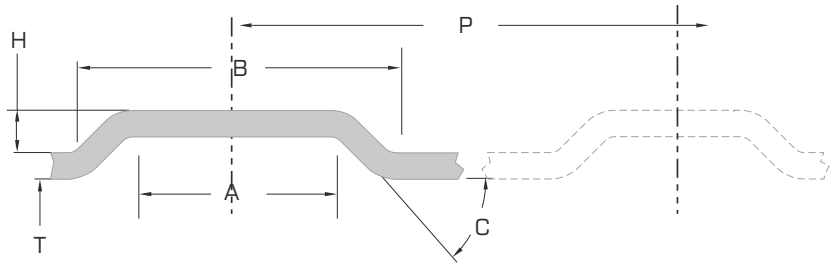
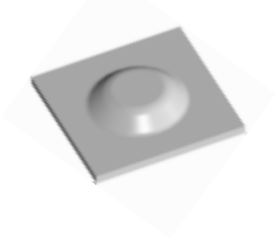
T _____

Material Type _____

Machine Type _____

Tooling Station _____

EMBOSS



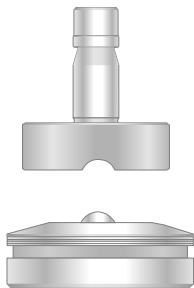
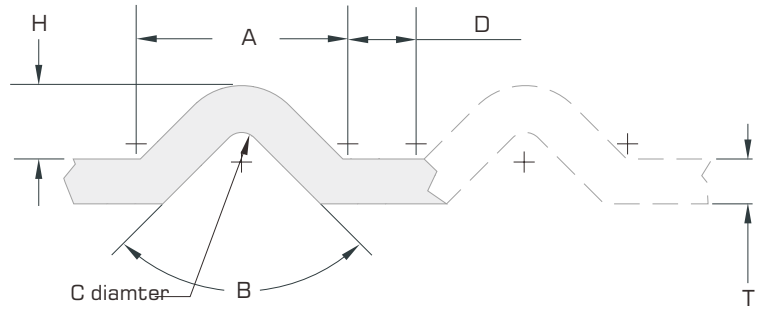
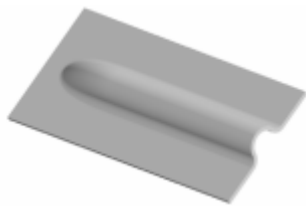
A _____
 B _____
 C _____
 H _____
 T _____
 P _____

Material Type _____

Machine Type _____

Tooling Station _____

COUNTINUOUS BEAD



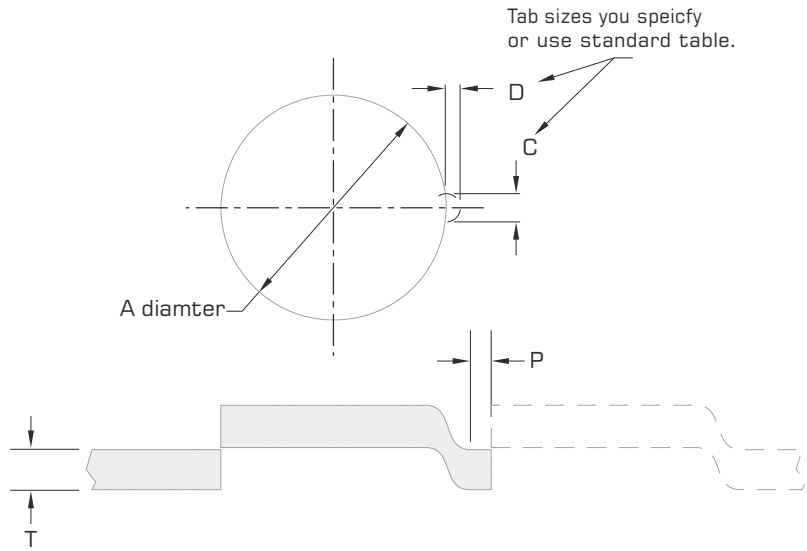
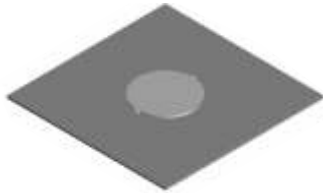
A _____ D _____
 B _____ H _____
 C _____ T _____

Material Type _____

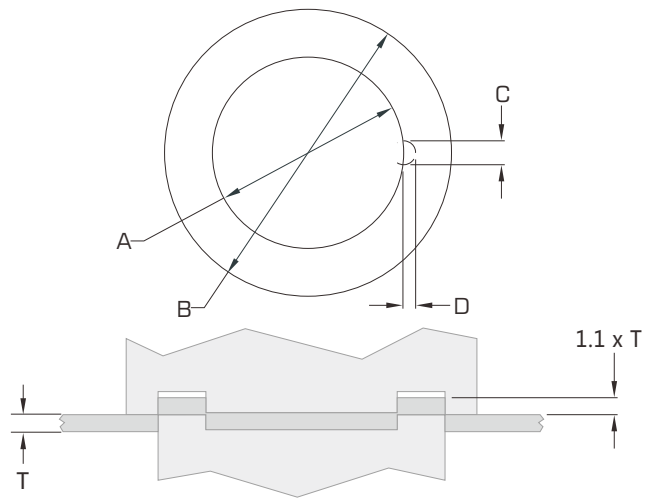
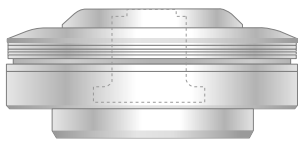
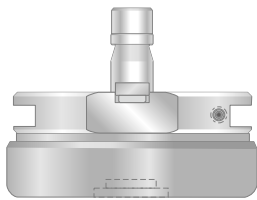
Machine Type _____

Tooling Station _____

SINGLE KNOCKOUT (EKO)

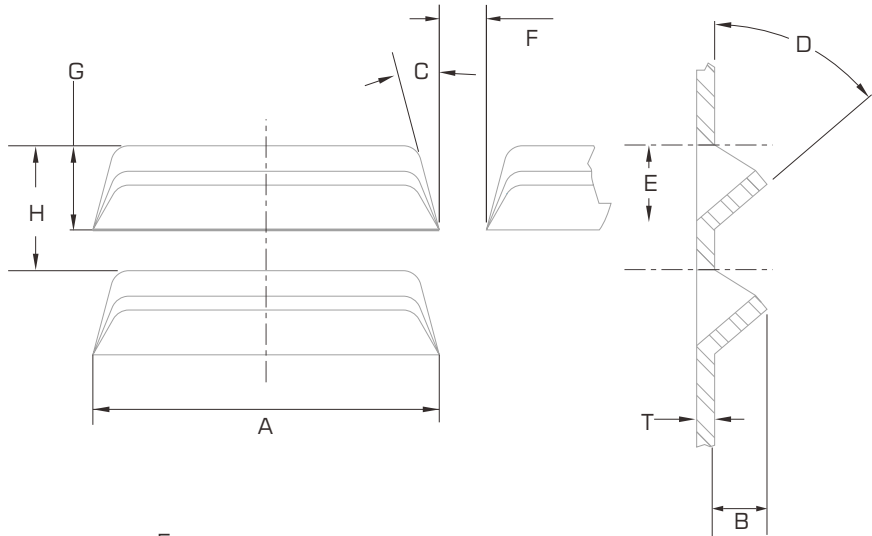
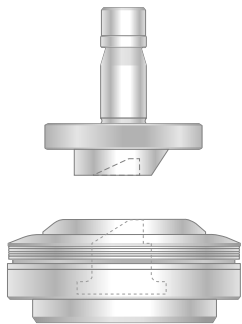


DOUBLE KNOCKOUT (EKO)



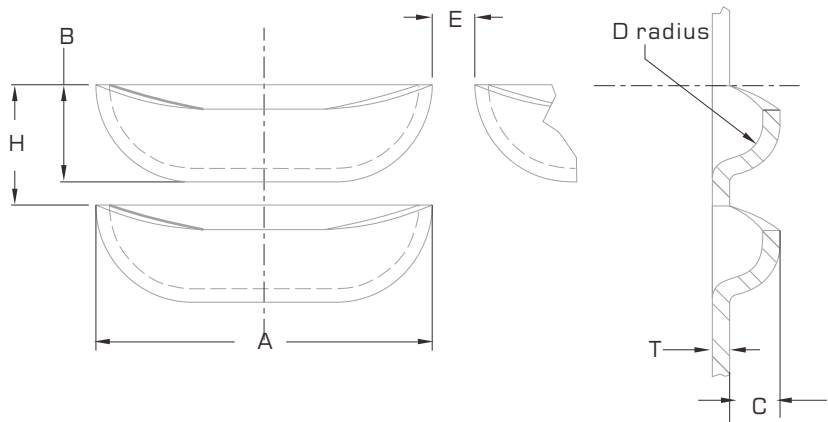
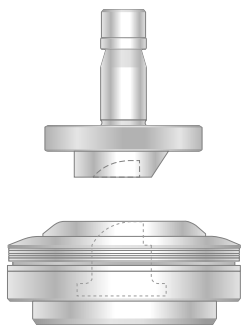
A	_____	D	_____	Material Type	_____
B	_____	P	_____	Machine Type	_____
C	_____	T	_____	Tooling Station	_____

LOUVER OPEN END



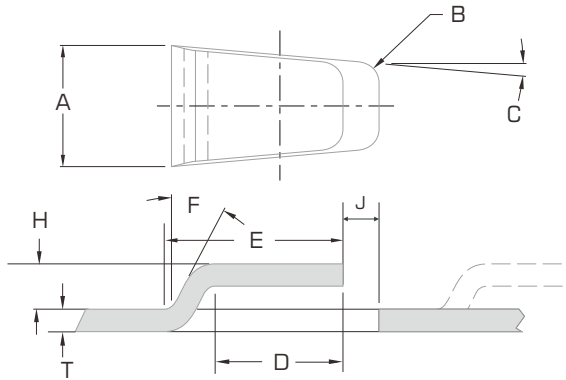
A _____ E _____ Material Type _____
 B _____ F _____ Machine Type _____
 C _____ G _____ Tooling Station _____
 D _____ T _____

LOUVER RADIUS CLOSE



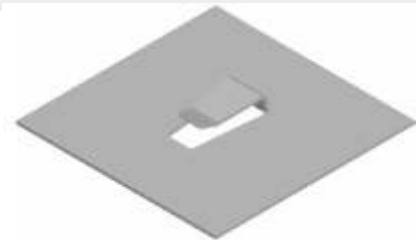
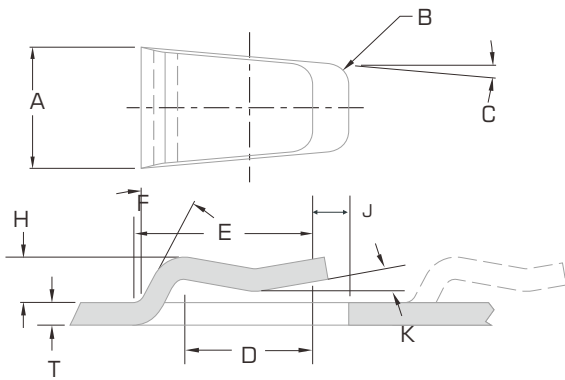
A _____ Material Type _____
 B _____ E _____ Machine Type _____
 C _____ H _____ Tooling Station _____
 D _____ T _____

LANCE AND FORM SELF CLIP



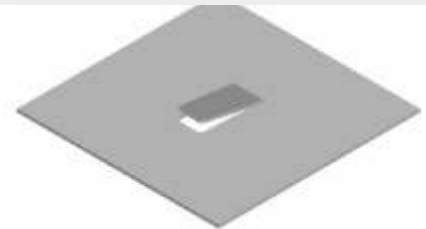
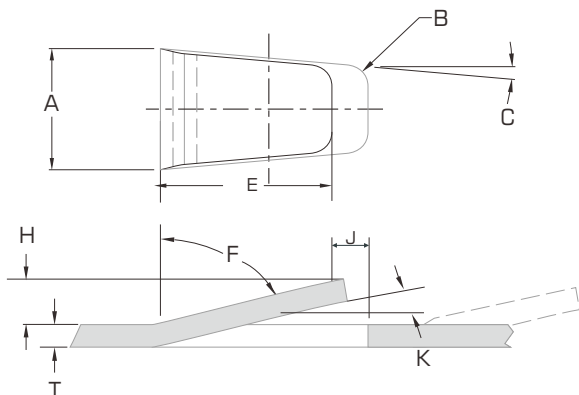
A _____ H _____
 B _____ J _____
 C _____ T _____
 D _____ Material Type _____
 E _____ Machine Type _____
 F _____ Tooling Station _____

LANCE AND FORM SPRING CLIP



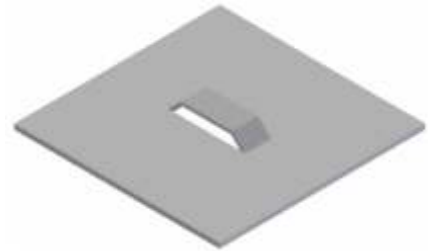
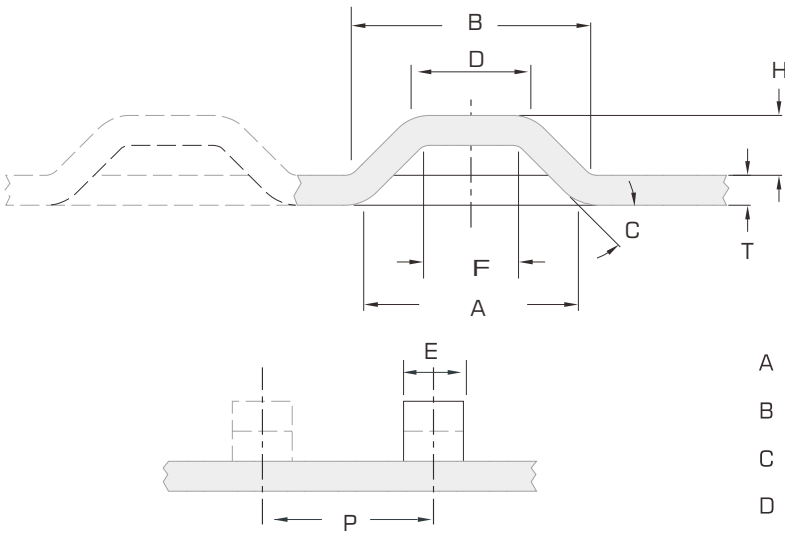
A _____ H _____
 B _____ J _____
 C _____ T _____ K _____
 D _____ Material Type _____
 E _____ Machine Type _____
 F _____ Tooling Station _____

LANCE AND FROM TAB



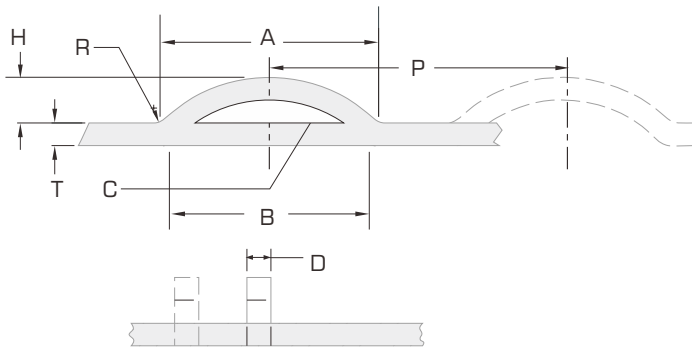
A _____ H _____
 B _____ J _____
 C _____ T _____ K _____
 D _____ Material Type _____
 E _____ Machine Type _____
 F _____ Tooling Station _____

LOUVER OPEN END



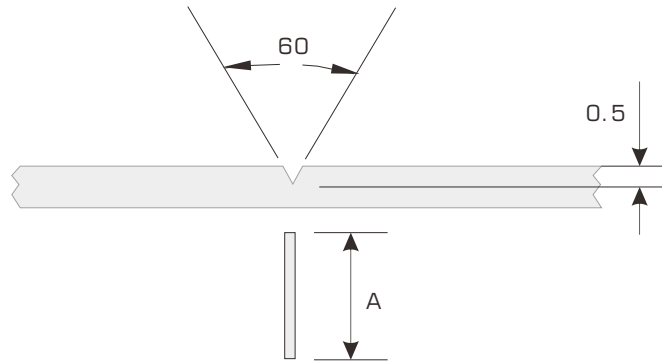
A _____ H _____
 B _____ J _____
 C _____ T _____
 D _____ Material Type _____
 E _____ Machine Type _____
 F _____ Tooling Station _____

LOUVER RADIUS CLOSE



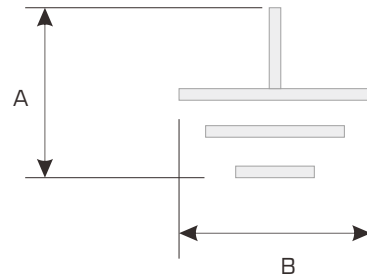
A _____ R _____
 B _____ T _____
 C _____ Material Type _____
 D _____ Machine Type _____
 P _____ Tooling Station _____
 H _____

V LINE MARKING



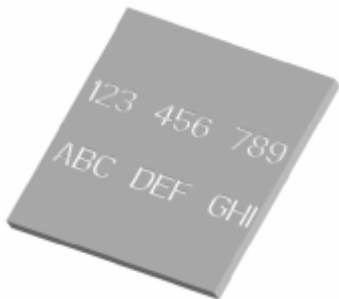
Material Type _____
 A _____ Machine Type _____
 T-thickness _____ Tooling Station _____

EARTH GROUND



A _____ Material Type _____
 B _____ Machine Type _____
 T _____ Tooling Station _____

LOGO MARKING

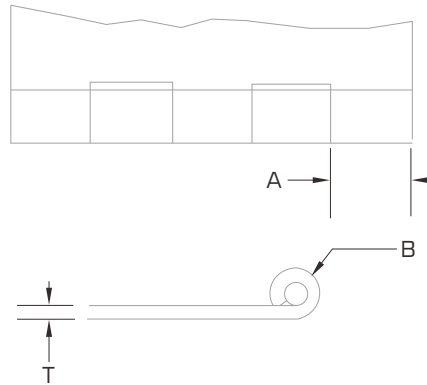
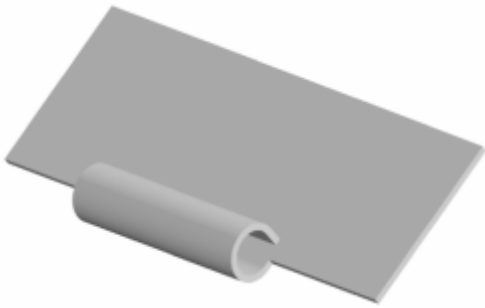


please supply drawing



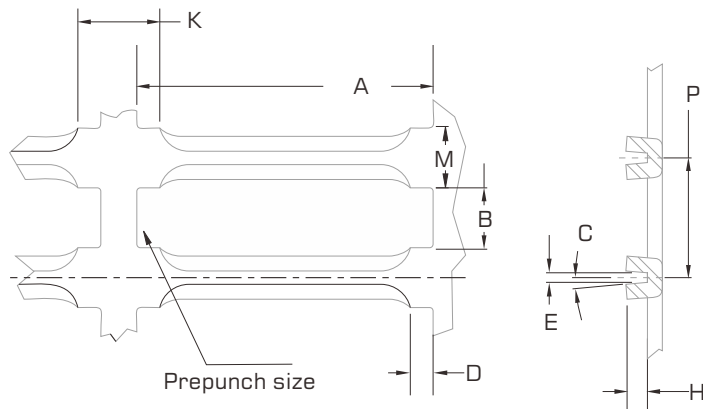
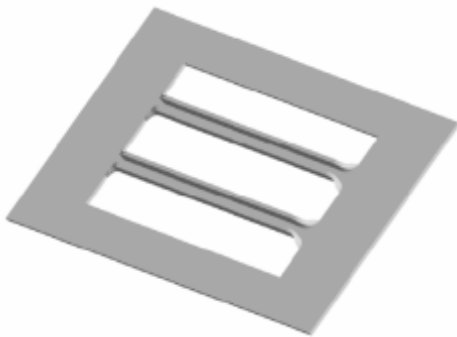
Material Type _____
 H _____ Machine Type _____
 T _____ Tooling Station _____

HINGLE



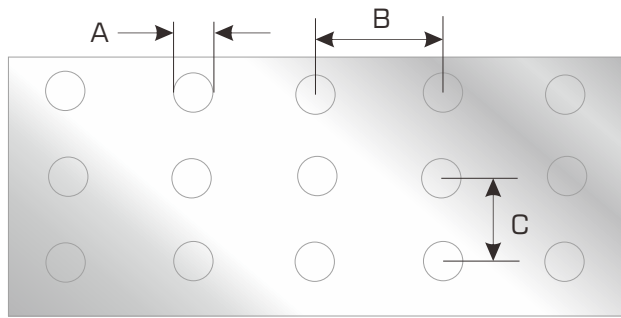
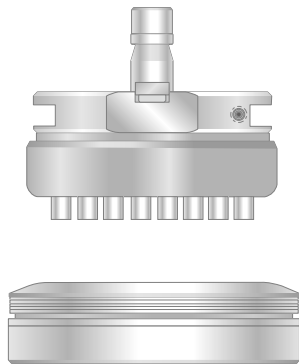
A _____ Material Type _____
 B _____ Machine Type _____
 T _____ Tooling Station _____

CARD GUIDE



A _____ K _____
 B _____ P _____
 C _____ M _____
 D _____ Material Type _____
 E _____ Machine Type _____
 H _____ Tooling Station _____

CLUSTER



A _____
 B _____ Material Type _____
 C _____ Machine Type _____
 T _____ Tooling Station _____

PUNCH DIE GRINDER



Punch die grinder specification.

Grinding accuracy: + -0.005mm	Tool setting mode: Automatic
Grinding mode: Automatic	Grinding type: Rough, Precision, Polishing
Wheel: Boronizing wheel	Grinding area: 150mm
3-jaw chuck fixture Dia. 1-180mm	Max. feed speed: 900mm/min (adjustable)
PLC controller: Mitsubishi	Screen: Touch screen Interface
Spindle motor: 2.2KW ,3600R/PM	Motor for rotating table: 0.375KW, 1800R/PM
Motor for cooling : 0.125KW, 1800R/PM	Electrical: AC380/400V (50/60 HZ)
Size: 600x700x1650mm	Weight: 600KG



BALL DIE

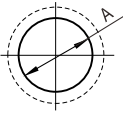
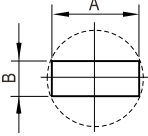
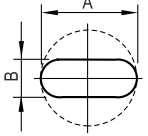
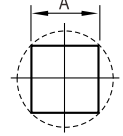
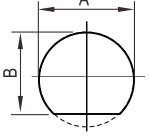
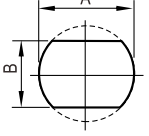
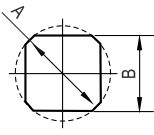
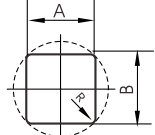
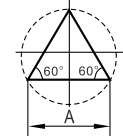
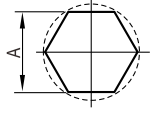
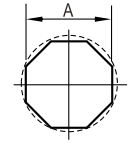
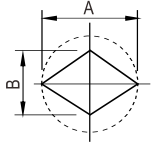
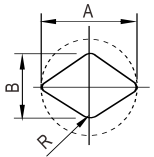
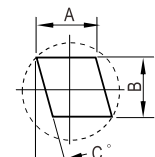
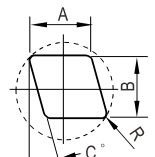
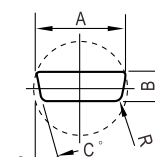
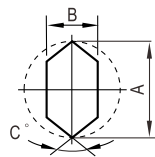
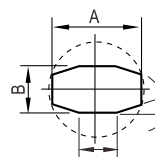
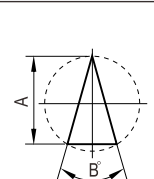
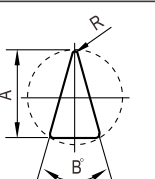
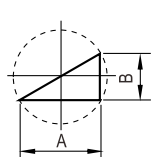
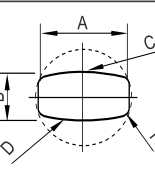
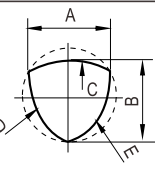
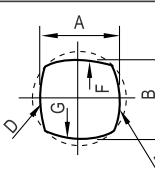
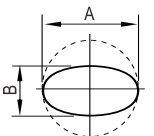
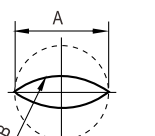
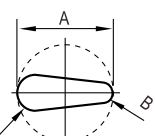
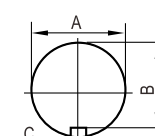
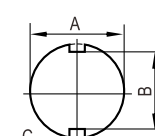
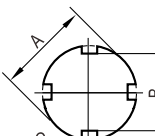
Station	A	B	C	D
Part code	TA.ABD	TA.BBD	TA.CBD	TA.DBD



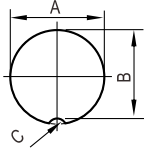
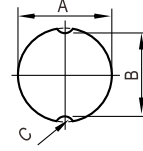
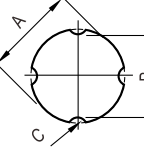
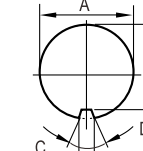
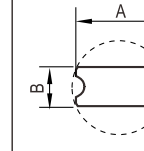
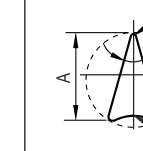
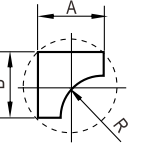
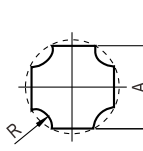
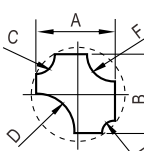
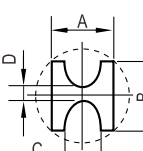
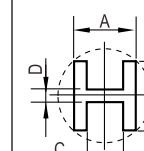
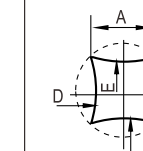
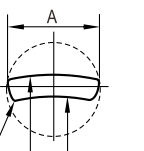
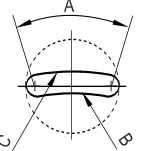
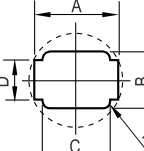
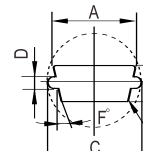
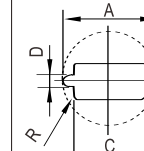
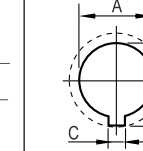
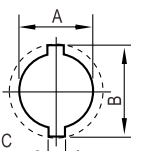
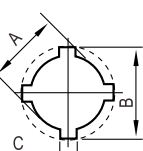
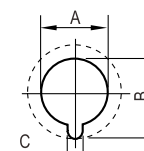
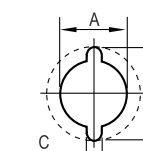
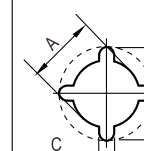
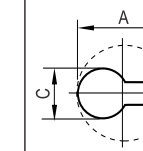
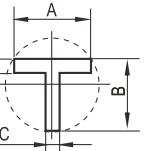
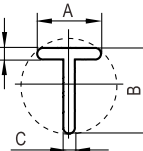
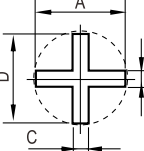
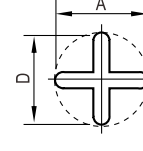
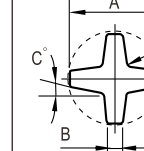
PU EJECTOR (ON PUNCH TIP)

Station	A = 3.3	A = 6.3	A = 10.3
Part code	TA.3EJ	TA.6EJ	TA.1EJ

SPECIAL SHAPES

					
Code: RO	Code: RE	Code: OB	Code: SQ	Code: SD	Code: DD
Name: Round	Name: Rectangle	Name: Oblong	Name: Square	Name: Single D	Name: Double D
size: A	size: B/A	size: B/A	size: A	size: B/A	size: B/A
					
Code: QD	Code: QR	Code: ET	Code: HX	Code: OT	Code: A0
Name: Quad D	Name: Quad R	Name: Equi.triangle	Name: Hexagon	Name: Octagon	Name: Diamond
size: B/A	size: B/A/A	size: A	size: A	size: A	size: B/A
					
Code: A1	Code: A2	Code: A3	Code: A4	Code: A5	Code: A6
Name: Diamond	Name: Diamond	Name: Diamond	Name: Cable connector	Name: Eix edge	Name: Eight edge
size: B/A/R	size: B/A/C	size: B/A/C/R	size: B/A/C/R	size: B/A/C	size: C/B/A/D
					
Code: A7	Code: A8	Code: A9	Code: B0	Code: B1	Code: B2
Name: Triangle	Name: Tri.with R	Name: Right Tri.	Name: Double R	Name: Tri-R	Name: Quad-R
size: B/A	size: A/B/R	size: B/A	size: B/A/C/D/R	size: B/A/C/D/E	size: B/A/D/E/F/G
					
Code: B3	Code: B4	Code: B5	Code: C0	Code: C1	Code: C2
Name: Ellipse	Name: Football	Name: Keyhole	Name: Keyway	Name: Double keyway	Name: Quad keyway
size: B/A/C/R	size: A/B	size: A/B/C	size: C/B/A	size: C/B/A	size: C/B/A

SPECIAL SHAPES

					
Code: C3	Code: C4	Code: C5	Code: C6	Code: C7	Code: D0
Name: keyway	Name: Double-keyway	Name: Quad-keyway	Name: Keyway	Name: Micro-joint	Name: Triangle with R
size: C/B/A	size: C/B/A	size: C/B/A	size: C/B/A/D	Size: B/A	size: A/B/C/R
					
Code: D1	Code: D2	Code: D3	Code: D4	Code: D5	Code: E0
Name: One way radius	Name: Four way radius	Name: Four way	Name: H with radius	Name: H shape	Name: Four Radius
size: B/A/R	size: A/R	size: A/B/C/D/E/F	size: D/C/B/A	size: D/C/A/B	size: A/B/C/D/E
					
Code: E1	Code: E2	Code: E3	Code: E4	Code: E5	Code: E6
Name: Banana	Name: Banana	Name: Connector	Name: Connector	Name: Connector	Name: Keyhole
size: A/C/D/R	size: B/C/A	size: D/B/C/A/R	size: D/B/A/C/F/R	size: D/B/C/A/R	size: C/A/B
					
Code: E7	Code: E8	Code: F0	Code: F1	Code: F2	Code: F3
Name: Keyhole	Name: Keyhole	Name: Keyhole	Name: Keyhole	Name: Keyhole	Name: Keyhole
size: C/A/B	size: C/A/B	size: C/A/B	size: C/A/B	size: C/A/B	size: B/C/A
					
Code: F4	Code: F5	Code: F6	Code: F7	Code: F8	
Name: Tshape	Name: Tshape	Name: Cross	Name: Cross	Name: Cross	
size: D/C/B/A	size: D/C/A/B	size: C/B/D/A	size: B/A/D	size: B/A/C/D/R	

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