

THIN TURRET TOOLING





Ketec Precision Tooling Co., LtdManufacturing CNC Punch Tooling



Ketec Precision Tooling Co., Ltd Manufacturing Press Brake Tooling

KETEC CHINA SERVE THE WORLD

The biggest sheet metal tooling manufacturer in China

- National High Tech Enterprise
- Registered Capital: 50 Million RMB.
- Fix Assets: 150 Million RMB.
- Total factory area: 506,000 square feet (47,000 square meters).
- Annual Product Capacity: 1,200,000 sets for CNC punch press tooling; 20,000 sets for Press Brake Tooling.
- Over 300 high-quality employees in the company, KETEC have completed machining, EDM, heat treatment.
- National high-tech enterprise, features sheet metal technology R&D center.
- Obtains 18 national invention and new utility patent.
- Over 10,000 sheet metal enterprises in the world are using KETEC TOOLS
- 24 Direct sales in China and 18 KETEC Agents in the global countries.

- 1998 Sept. Founded Jiangnan Mold Tools Factory in Guangzhou.

 Manufacturing stamping tooling.
- 2001 Aug. Established Ketec Precision Tooling Co.,Ltd.

 Manufacturing CNC punch tooling and stamping tooling.
- 2004 Feb. Registered **KETEC** trademark.
- 2004 Aug. ISO9000:2000 certified.
- 2004 Nov. Registered **KETEC** as an international trademark.
- 2007 Dec. Registered enterprise value increasing to 5 Million RMB.
- 2008 Jan. Move to Mingzhu Industrial Park in Conghua Guangzhou with approximately 323,000 square feet (30,000 square meters).
- 2008 Jan. Registered enterprise value increasing to 10 Million RMB.
- 2008 Mar. Awarded Guangdong Major Products certificate for CNC punch tooling.
- 2008 Jun. Created guideline with permission from Standardization

 Administration of People's Republic of China for CNC Turret

 Punch Tooling standard.
- 2010 Feb. Published JB/T 10928–2010, CNC Turret Punch Tooling standard by China Ministry of Industry and Information.

 Implemented in July 2010.
- 2010 Nov. ISO 9001:2008 Certified.
- 2011 Jun. Started selling TOP series thick turret tooling.
- 2011 Nov. Setup warehouse in Taicang Jiangsu.
- 2012 Mar. Registered enterprise value increasing to 50 Million RMB.
- 2012 Jul. Rated as National High Tech Enterprise.
 - Certification No: GR201244000059
- 2012 Aug. Second location completed in Industrial Nan Road

 Conghua Guangzhou with approximately 183000 square feet

 (17000 square meters). Manufacturing press brake tooling.
- 2012 Aug. Established KETEC Precision Tooling Inc. in USA.
- 2013 Oct. Setup warehouse in Tianjin.
- 2015 Oct. Honored the Integrity of Law-Abiding business model in Guangzhou.

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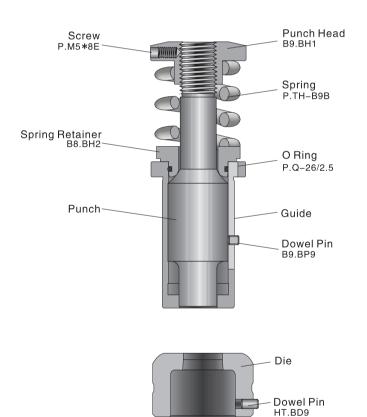
FORMING TOOLS

P5-P9



THIN TURRET TOOLING (E80)

B STATION (1-1/4") 1.6~31.7mm



Description	Code	Price
Punch ass'y		
Round	B8.BA1RO.	
Shape	B8.BA2**.	
Other	B8.BA2**.	
Punch		
Round (no pin)	B8.BP1RO.	
Shape (pin)	B8.BP2**.	
Other (pin)	B8.BP2**.	
Guide		
Round	B8.BG1RO.	
Shape	B8.BG2**	
Die		
Round (no pin)	HT.BD1RO	
Shape (pin)	HT.BD2**.	
Other (pin)	HT.BD2**.	

Note

Die Shim

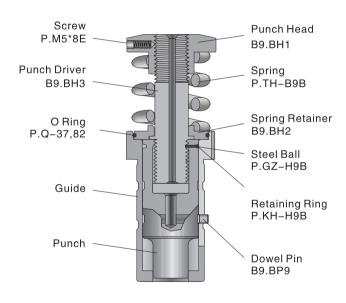
- 1. Standard tooling, interchange with popular tooling
- 2.One completed set tooling includes Punch ass'y & Die
- 3. Punch ass'y is installed in upper turret of the CNC punch machine.

Q-ADJUST TOOLING (M90) B STATION

B STATION (1–1/4") (1.6~31.7mm)

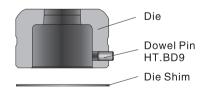


Description	Code	Price
Punch ass'y Round Shape Others	B9.BA1RO. B9.BA2**. B9.BA2**.	
Punch Round (no pin) Shape (pin) Other (pin)	B9.BP1RO. B9.BP2**. B9.BP2**.	
Guide Round Shape	B9.BG1RO. B9.BG2**.	
Die Round (no pin) Shape (pin) Other (pin)	HT.BD1RO HT.BD2**. HT.BD2**.	
Driver ass'y	B9.BH9	



Note

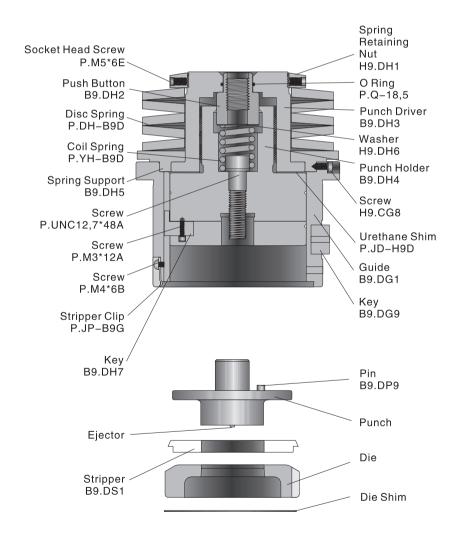
- 1. 90 punch grind life 6.3mm, reduce cost 60%
- 2. Adjusting tool faster by using independent punch head ass'y
- 3. Standard tooling, interchange with popular tooling
- 4. One completed set tooling includes Punch ass'y $\&\ \mathsf{Die}$
- 5. Punch ass'y is installed in upper turret of the CNC punch machine





Q-ADJUST TOOLING (M90)

D STATION (3-1/2") (31.7~88.9mm)



Description	Code	Price
Punch ass'y Round Shape Other	(31.71~50.8) B9.DA1RO. B9.DA1**. B9.DA1**.	
Punch ass'y Round Shape Other	(50.81~88.9) B9.DA2RO. B9.DA2**. B9.DA2**.	
Guide ass'y	B9.DC1.	
Punch Round Shape Other	(31.71~50.8) B9.DP1RO. B9.DP1**. B9.DP1**.	
Punch Round Shape Other	(50.81~88.9) B9.DP2RO. B9.DP2**. B9.DP2**.	
Stripper Round Shape Other	B9.DS1RO. B9.DS1**. B9.DS1**.	
Die Round (0°) Shape (0°, 90°) Other (0°, 90°) Square (Opt. 0°,135°	B9.DD1RO B9.DD2**. B9.DD2**.	

Note

- 1. 90 punch grind life 10mm, reduce cost 60%
- 2. Adjust conveniently and without shim after grinding
- 3. Standard tooling, interchange with popular tooling
- 4. High strength guide, no deformation

DROP IN STYLE TOOLING (M5/8") B STATION (5/8") (1.6~15.8mm)



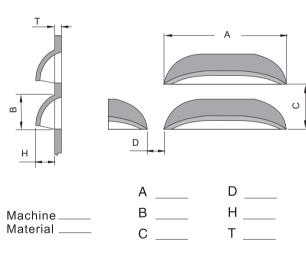
Description Punch ass'y	Code	Price	Screw P.UNF4.8*9E	Punch Head BN.BH1
Round Shape Other	BN.BA1RO. BN.BA2** BN.BA2**		Canister BN.BH2	Spring P.TH-B9B
Guide ass'y Round Shape	BN.BC1 BN.BC2		Screw P.UNF4,8*6D	- Guide
Punch Round (no pin) Shape (pin)	BN.BP1RO. BN.BP2**		Punch	- Key
Other (pin) Stripper Round	BN.BP2**. BN.BS1RO.		Retaining Ring	Dowel Pin BN.BG9
Shape Other	BN.BS1**. BN.BS1**.		P.DQ-BNB	BN.BH1 Spring P.TH-B9B Guide Key HT.T-2A Dowel Pin
Die Round (no pin) Shape (pin) Other (pin)	HT.BD1RO. HT.BD2** HT.BD2**			
Guide Round Shape	BN.BG1 BN.BG2			HT.BD9
Onape	DIV.DUZ			

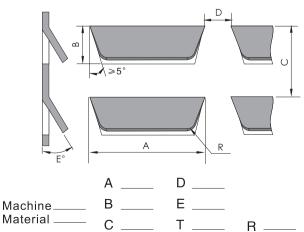
Note

- 1. Guide ass'y is for general use, replaceable stripper only
- 2. Lower cost for punch, grind life is 6 mm
- 3. Adjust conveniently and without shim after grinding
- 4. One completed set tooling includes Punch ass'y & Die
- 5. Punch ass'y is installed in upper turret of the CNC punch machine



FORMING TOOLS

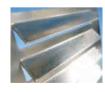






CLOSE LOUVER

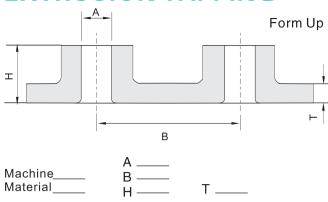
- 1. Tooling is made for specific sheet metal thickness
- 2. Consider the moving direction of the material when programming
- 3. Adjust length without shim, replaceable insert
- 4. Form up only



OPEN LOUVER

- 1. Tooling is made for specific sheet metal thickness
- 2. Consider the moving direction of the material when programming
- 3. Adjust length without shim, replaceable insert
- 4. Form up only

EXTRUSION TAPPING





- 2. Give tool enough time to strip
- 3. Replaceable insert design on extrusion
- 4. Form Up & Form Down
- 5. Max. thickness: Mild steel 2.3mm [0.09"], AL 2.0mm[0.08"], SS 1.2mm [0.05"] Max. forming height: over 3 x thread pitch





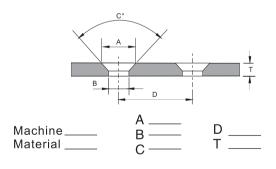
Prepunch size (Stainless steel)

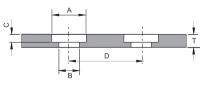
Unit: mm [inch] Prepunch size (Mild steel, Aluminum)

Unit: mm [inch]

Extrusion		Thickness: T			Extrusion		Thickness: T						
Size	ØΑ	0.6 [0.02]	0.8 [0.03]	1.0 [0.04]	1.2 [0.05]	Size	ØΑ	0.8 [0.03]	1.0 [0.04]	1.2 [0.04]	1.6 [0.06]	2.0 [0.08]	2.3 (no AL) [0.09]
M2.6	2.21	1.3 [0.05]	1.3	1.3		M2.6	2.21	1.3 [0.05]	1.3	1.3	1.6		
МЗ	2.60	1.3	1.3	1.6 [0.06]	1.8 [0.07]	М3	2.60	1.3	1.3	1.6	1.6		
M4	3.40		2.0 [0.08]	2.0	2.0	M4	3.40	2.0 [0.08]	2.0	2.0	2.3 [0.09]	2.3	2.5 [0.10]
M5	4.30			2.3 [0.09]	2.3	M5	4.30		2.3	2.3	2.8 [0.04]	2.8	3.0 [0.12]
M6	5.10			3.0 [0.12]	3.0	M6	5.10			3.0	3.0	3.8 [0.15]	3.8

COUNTERSINK





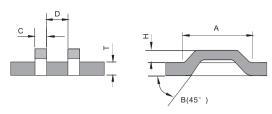
- Machine B Material C
- A ____ D C ___ T
 - D ____ T ____

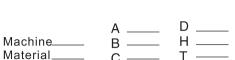




- 1.Need prepunch
- 2. Adjust prepunch size to get different depth
- 3. Form Up & Form Down
- 4. Min. thickness: T≥1.0mm [0.04]

BRIDGE

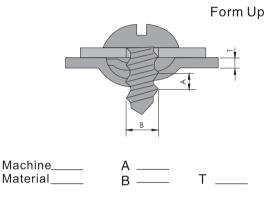






- 1.Can be designed in single or double bridge
- 2. Form Up & Form Down
- 3. Width of the Bridge: C≥2T & C≥1.8mm

THREAD FORM



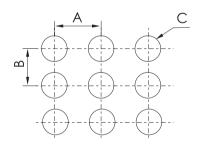


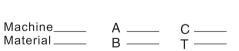


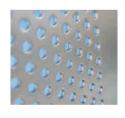


- 1.Form Up & Form Down 2. Thickness: 0.5mm ~1.2mm [0.02"~0.05"]

CLUSTER



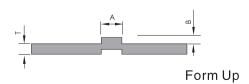








- 1. Space of holes must be over 3.2mm [0.125"] or 2T
- 2. Please fill in the left form.



Machine_ Material_



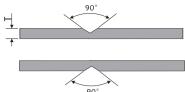
- 1. Form Up & Form Down
- 2. Max. B size: 0.6T
- 3. Please fill in the left form

HALF SHEAR





CENTER POINT



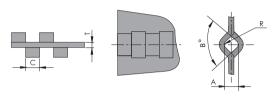
1. Forbid punching without sheet

2. Adjust the height of the tool to change the depth when punching

3. Form Up & Form Down

4. Angle: 90 degree, Max. thickness: 6.0mm [0.236"]

THREAD LOOP





Machine_

Material_

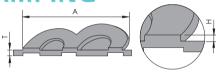




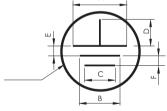


- 1. Angle B = 90°
- 2. Please fill in the left form.

STAMPING



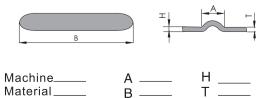




- Machine ——— Material ———
- B ____ C ___
- D ____ E ___ F ___
- G (width)_

- Forbid punching without sheet
- 2. Adjust the height of the tool to change the depth when punching
- 3. Form Up or Form Down
- 4. Please fill in the left form

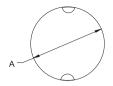
RIB TOOL





- 1. Form Up
- 2. Increment of ribbing rib should be $0.5\sim2.0$ mm $[0.02"\sim0.08"]$
- 3. For Max. thickness:
 Mild steel & AL 2.7 mm, Stainless steel 2.3mm

KNOCKOUT



Machine____ Material____ A ___ T ____

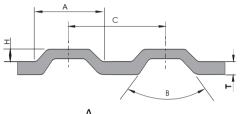


- 1. For small thickness range only
- 2. Changeable insert for another size



EMBOSS



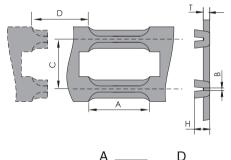


Machine____ B ___ H _
Material ___ C ___ T _



- 1. Escape clamp or punching hole
- 2. Can form in Round or Shape
- 3. Form Up & Form Down

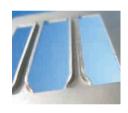
CARD GUIDE



Machine____ Material____

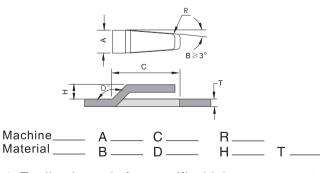






- 1. Tooling is made for specific thickness.
- 2. Adjust length without shim, replaceable insert Forming Height ≤2T, Otherwise will be deformation easily.

LANCE & FORM



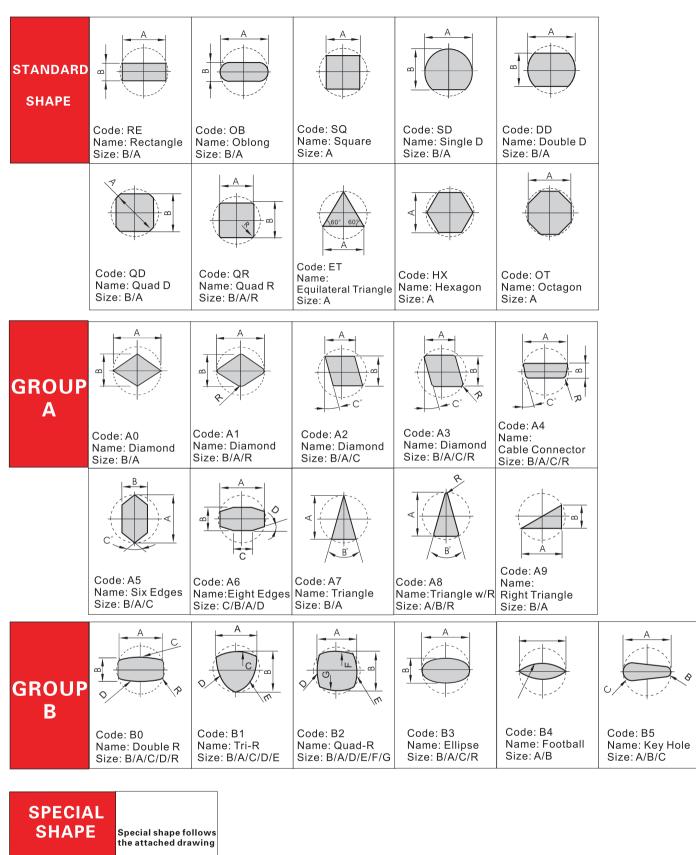
- Tooling is made for specific thickness, can not use thicker sheet metal, otherwise the tool will be damaged.
- 2. Max. height: Over 2 T for 90 degree lance & form.







SHAPE CLASSES



CODE: FT

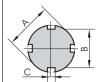
GROUP C



Code: C0 Name: Key Way Size: C/B/A



Code: C1 Name: Double Key Way Size: C/B/A



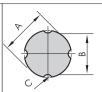
Code: C2 Name: Quad Key Way Size: C/B/A



Code: C3 Name: Key Way Size: C/B/A



Code: C4 Name: Key Way Size: C/B/A



Code: C5 Name: Key Way Size: C/B/A





Code: C7 Name: Micro-joint



Name: Key Way Size: C/B/A/D



Size: B/A

GROUP D



Code: D0 Name:Triangle w/R Size: A/B/C/R



Code: D1 Name: One way radius Size: B/A/R



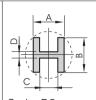
Code: D2 Name: Four way radius Size: A/Ř



Code: D3 Name: Four way radius Size: A/B/C/D/E/F



Code: D4 Name: H w/radius Size: D/C/B/A

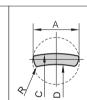


Code: D5 Name: H shape Size: D/C/B/A

GROUP ΕF



Code: E0 Name: Four radius Size: A/B/C/D/E



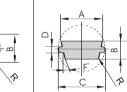
Code: E1 Name: Banana Size: A/C/D/R



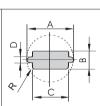
Code: E2 Name: Banana Size: B/C/A



Code: E3 Name: Connector Size: D/B/C/A/R



Code: E4 Name: Connector Size: D/B/A/C/F/R



Code: E5 Name: Connector Size: D/B/C/A/R



Code: E6 Name: Key Hole Size: C/A/B



Code: E7 Name: Key Hole Size: C/A/B



Code: E8 Name: Key Hole Size: C/A/B



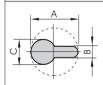
Code: F0 Name: Key Hole Size: C/A/B



Code: F1 Name: Key Hole Size: C/A/B



Code: F2 Name: Key Hole Size: C/A/B



Code: F3 Name: Key Hole Size: B/C/A



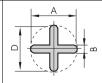
Code: F4 Name: T shape Size: D/C/B/A



Code: F5 Name: T shape Size: D/C/A/B



Code: F6 Name: Cross Size: C/B/D/A



Code: F7 Name: Cross Size: B/A/D



Code: F8 Name: Cross Size: B/A/C/D/R



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