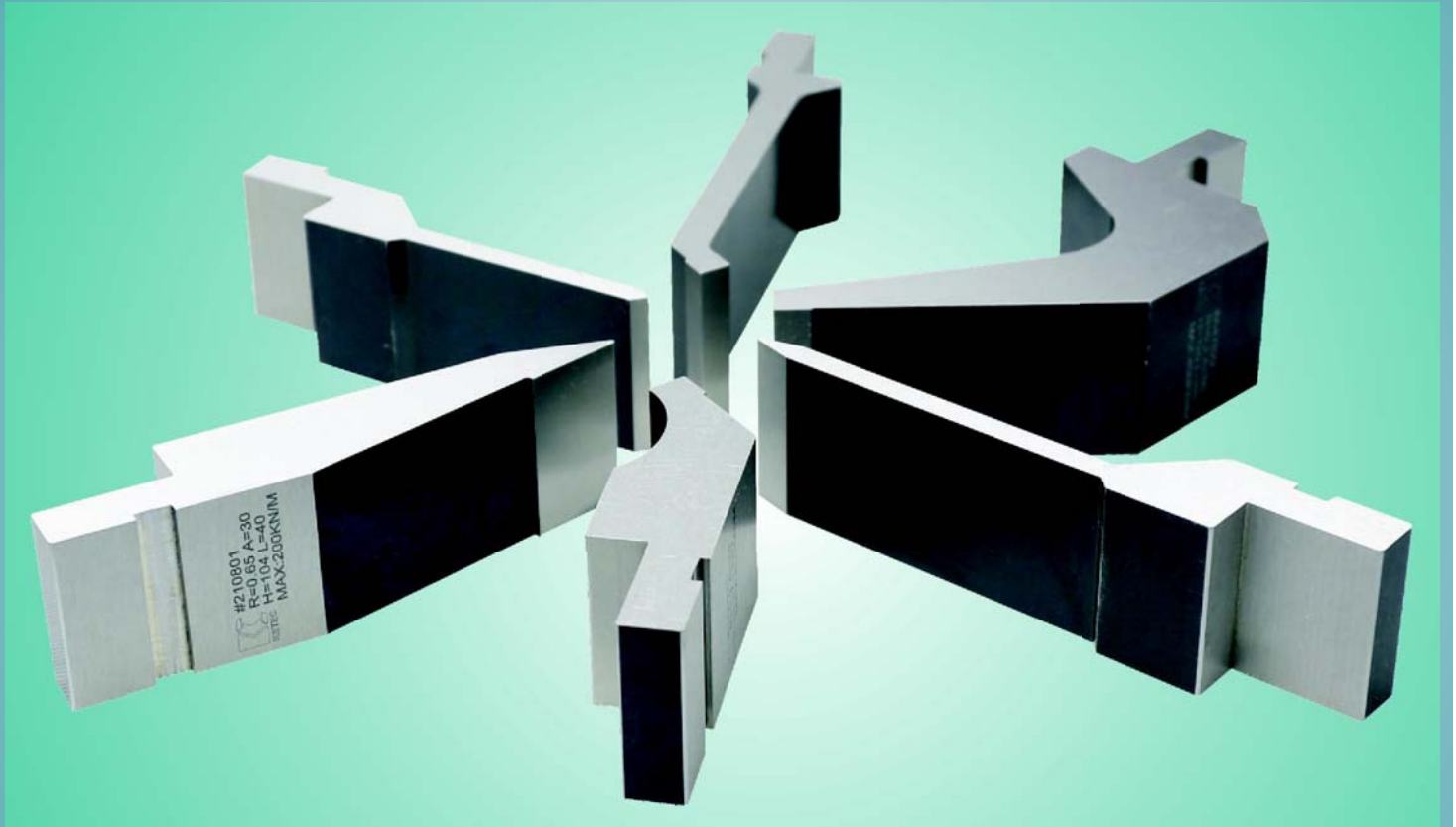




PRESS BRAKE TOOLING



■ Ketec Precision Tooling Co., Ltd
Manufacturing 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.

CONTENTS

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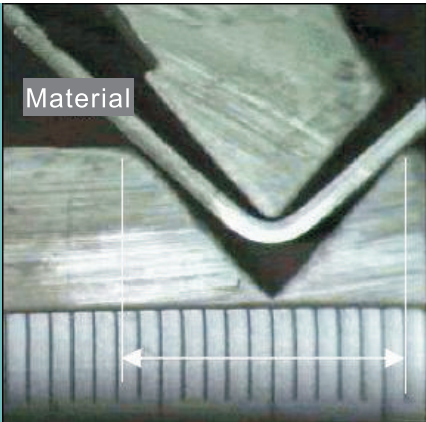
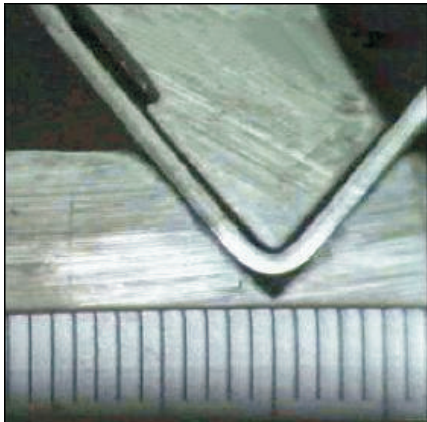
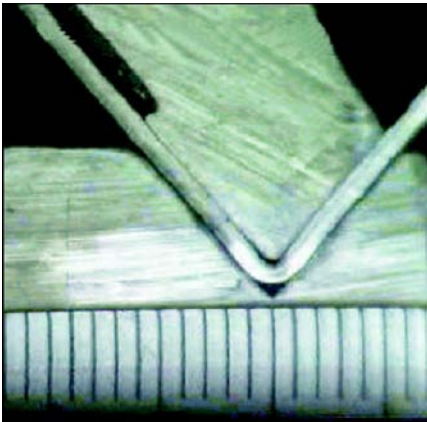
Storage and Management *P56*

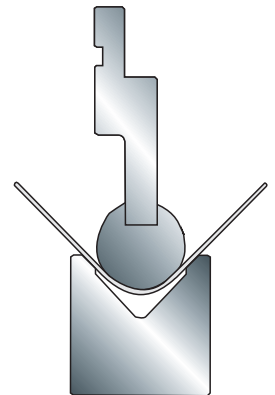
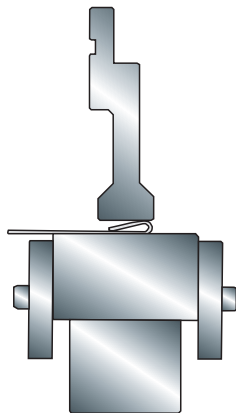
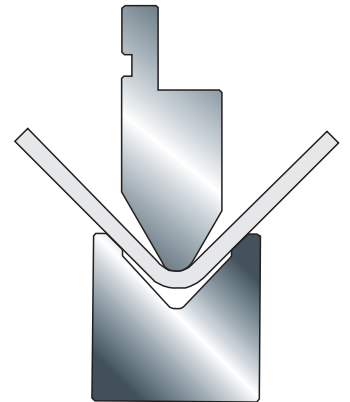
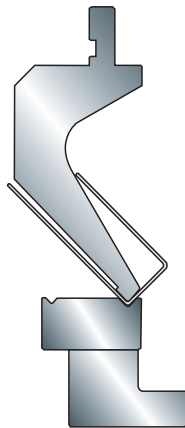
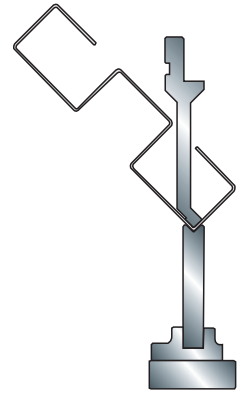
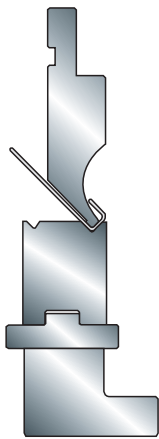
Correct Usage of Dies *P57*

Bending Tonnage Calculation Form *P58*

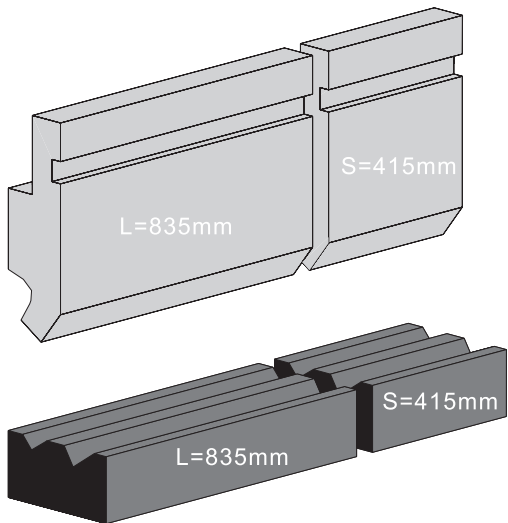
Bending Methods

Air Bending	Work surface & die surface do not contact after bend. The work is bent without reaching to die bottom.
Bottoming	The work surface and die surface contact after bend. Bending accuracy is gained with relatively smaller tonnage. This is mostly popular bending technique.
Coining	Punch edge penetrates into the work and this prevents the work from spring-back. Very good accuracy is gained but 5 - 8 times bigger tonnage is required than bottoming.

	Air Bending	Bottoming	Coining
Instruction Photos			
V width	12~15t	6~12t	5~6t
Inner Radius	2~2.5t	1~2t	0.5~0.8t
Bending Accuracy	over $\pm 45'$	$\pm 30'$	$\pm 15'$
Accuracy	Large curvature radius circle arc surface	Good	Good
Features	Obtain any angles you want	Bending accuracy is gained with relatively smaller tonnage	Very good accuracy is gained but 5-8 times bigger tonnage is required than air bending



L=835mm [32.87"]
S=415mm [16.34"]

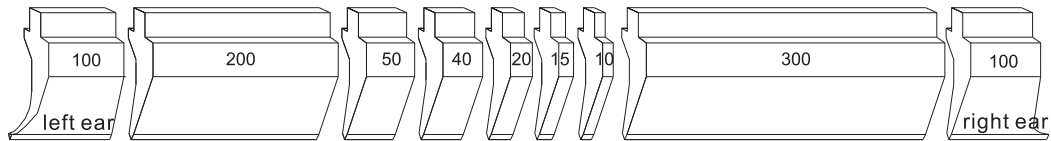


Available lengths

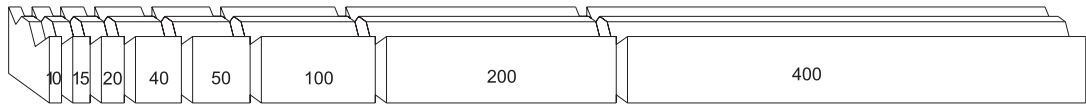
1250		49.21"
2085		82.08"
2505		99.21"
3340		131.49"
4175		164.37"

Table length 835mm [32.87"] 415mm [16.34"]

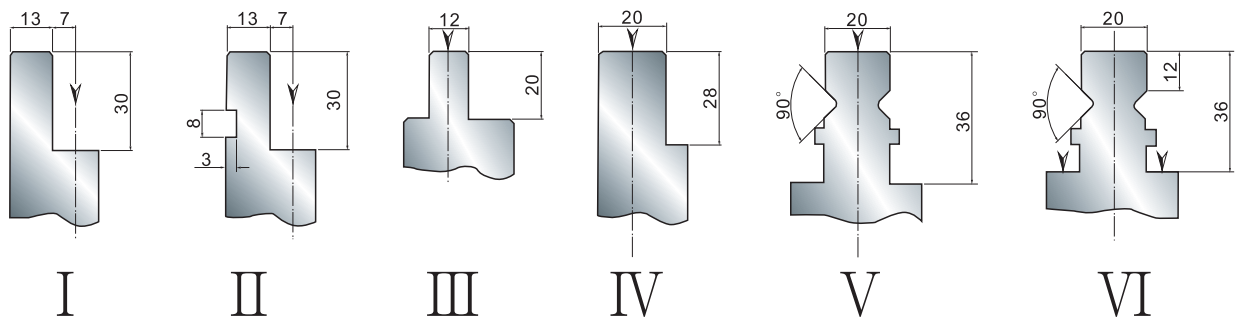
Segmented Punch: 100 (left ear) , 10, 15, 20, 40, 50, 200, 300, 100(right ear)=835mm



Segmented Die: 10, 15, 20, 40, 50, 100, 200, 400=835mm



CLAMPING STYLE OF PUNCHES



KETEC PRESS BRAKE TOOLING

KETEC PRECISION TOOLING COMPANY, since 1998, specialized in design manufacturing of CNC press, stamping and press brake under specification on European or American customers over 36 countries around the world. KETEC PRECISION TOOLING is certified by ISO 9001:2008 and B/T9001-2008

PRODUCTION FACILITY

KETEC PRECISION TOOLING equips the latest CNC production equipment with high efficiency, global industrial standardization, advanced processing technology and the expertise of our professional employees. Production of high precision and consistency of first class products is our pursuit.

QUALITY

KETEC press brake tooling is manufactured under cutting edge production technology with high tensity 42CrMo alloy, accuracy in variance of $\pm 0.01\text{mm}$, for precise bending performance.

ACCURACY

KETEC'S high-precision press brake tooling and die tip adopts European's one-time grind process. Our production ensures stability in all angles, radius and height to maintain the accurate consistency in respect to the tooling classification. In order to retain assembly accuracy, our quality assurance has a critical tolerances range of $\pm 0.01\text{ mm}$.

FLEXIBLE

Standardization of tooling is compatible to international machine brands such as Amada, Trumpf, LVD and many other interchangeable systems. Our segmented tooling will fulfill a wide range of bending requirements. Standardization of the tooling enhances the speed of tool loading and eliminates stop errors, thus decrease down time.

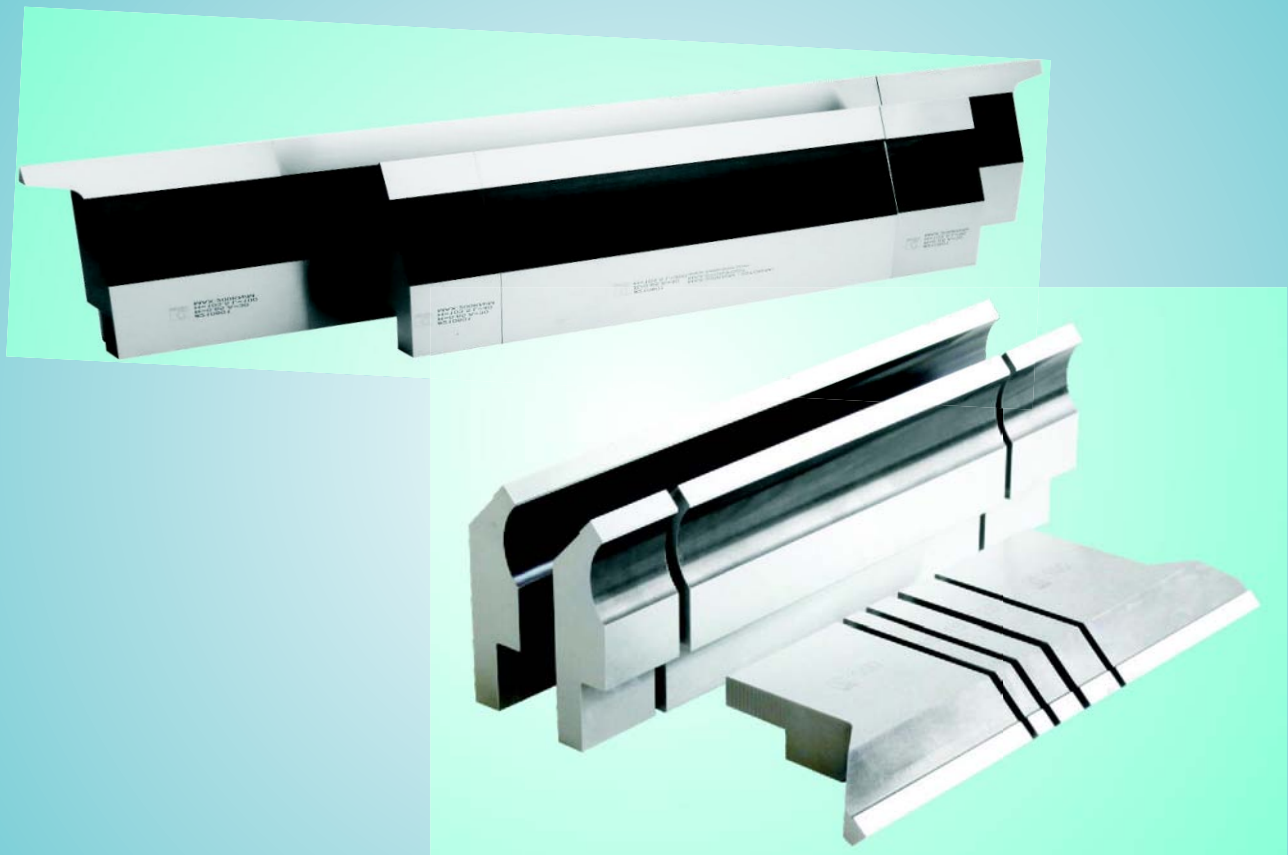
DURABILITY

As a result of advanced hardening and grinding production technology, TM SPHG, KETEC tooling punch hardness reaches $\text{HRC}47\pm 2$.

INFORMATION MARKS

	#501861	88°	MAX: 600KN/M (60 ton/m)
	2V4-7		MAX: 18TON/FOOT
	H=45.5	L=100	www.ketecool.com

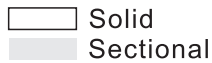
Laser identification in each tool



■ STANDARD PUNCHES

PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

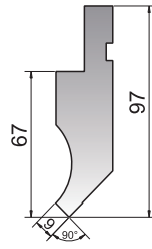
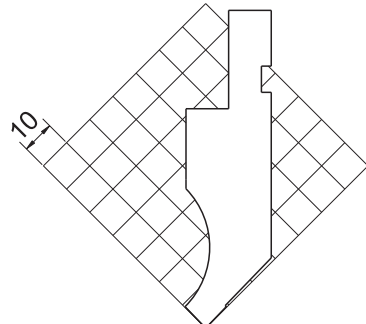
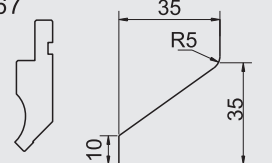
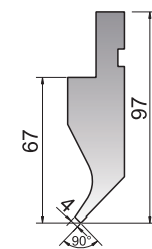
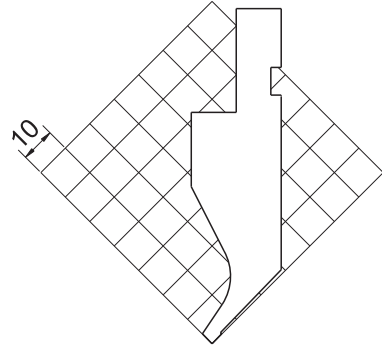
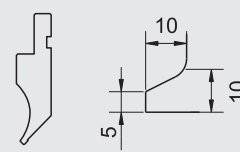
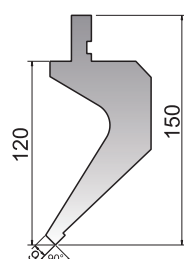
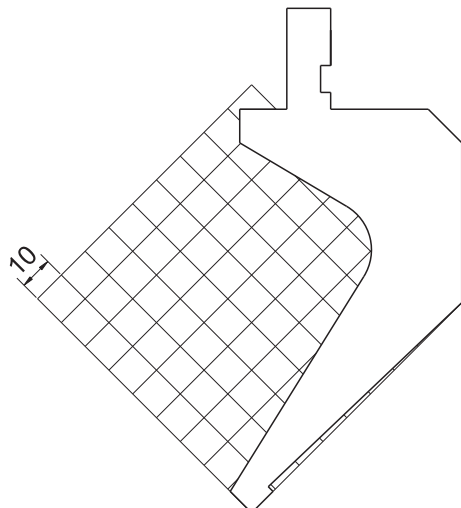
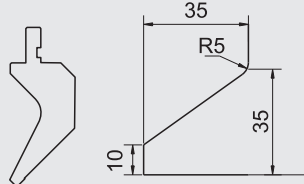


Description	Profile	Radius (R)	Bending Scale
004 Through Hardened HRC47±2 100TON/M	H=67 	0.2R L: 004021 S: 004022 0.6R L: 004061 S: 004062 0.8R L: 004081 S: 004082 1.5R L: 004151 S: 004152 3.0R L: 004301 S: 004302	
	H=67 	0.2R L: 148021 0.6R L: 148061 0.8R L: 148081 1.5R L: 148151 3.0R L: 148301	
117 Through Hardened HRC47±2 20TON/M	H=67 	0.2R L: 117001 S: 117002 0.6R L: 117061 S: 117062	
	H=67 	0.2R L: 117801 0.6R L: 117861	
047 Through Hardened HRC47±2 50TON/M	H=120 	0.2R L: 047021 S: 047022 0.6R L: 047061 S: 047062 0.8R L: 047081 S: 047082 1.5R L: 047151 S: 047152 3.0R L: 047301 S: 047302	
	H=120 	0.2R L: 052021 0.6R L: 052061 0.8R L: 052081 1.5R L: 052151 3.0R L: 052301	

PUNCHES (90°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
016 Through Hardened HRC47±2 100TON/M	H=67 	0.2R L: 016021 S: 016022 0.8R L: 016081 S: 016082 1.5R L: 016151 S: 016152 3.0R L: 016301 S: 016302	
	H=67 	0.2R L: 147001 0.8R L: 147081 1.5R L: 147151 3.0R L: 147301	
116 Through Hardened HRC47±2 20TON/M	H=67 	0.2R L: 116001 S: 116002	
	H=67 	0.2R L: 116801	
048 Through Hardened HRC47±2 50TON/M	H=120 	0.2R L: 048001 S: 048002	
	H=120 	0.2R L: 053001	

GOOSENECK PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]



Description	Profile	Radius (R)	Bending Scale
452 Through Hardened HRC47±2 70TON/M	H=90 	0.2R L:452021 S:452022 0.6R L:452061 S:452062 0.8R L:452081 S:452082 1.5R L:452151 S:452152 3.0R L:452301 S:452302	
	H=90 	0.2R L:150021 0.6R L:150061 0.8R L:150081 1.5R L:150151 3.0R L:150301	
453 Through Hardened HRC47±2 50TON/M	H=90 	0.2R L:453021 S:453022 0.6R L:453061 S:453062 0.8R L:453081 S:453082 1.5R L:453151 S:453152 3.0R L:453301 S:453302	
	H=90 	0.2R L:155001 0.6R L:155061 0.8R L:155081 1.5R L:155151 3.0R L:155301	
045 Through Hardened HRC47±2 50TON/M	H=105 	0.2R L:045021 S:045022 0.6R L:045061 S:045062 0.8R L:045081 S:045082 1.5R L:045151 S:045152 3.0R L:045301 S:045302	
	H=105 	0.2R L:050021 0.6R L:050061 0.8R L:050081 1.5R L:050151 3.0R L:050301	

GOOSENECK PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

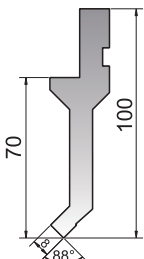
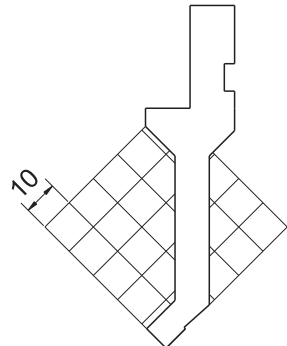
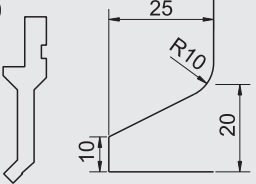
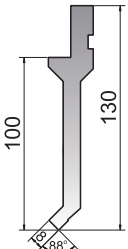
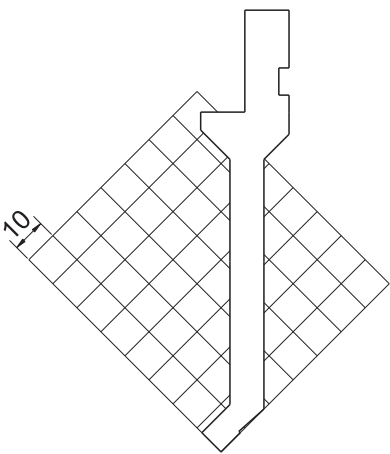
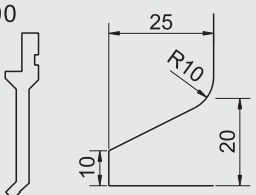
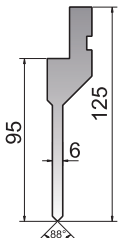
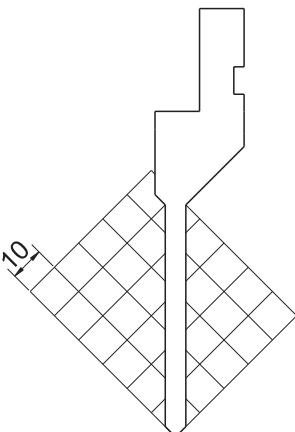
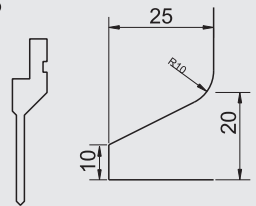


Description	Profile	Radius (R)	Bending Scale
462 Through Hardened HRC47±2 70TON/M	H=90 	0.2R L:462001 S:462002	
	H=90 	0.2R L: 151001	
463 Through Hardened HRC47±2 50TON/M	H=90 	0.2R L: 463001 S: 463002	
	H=90 	0.2R L: 156001	
046 Through Hardened HRC47±2 50TON/M	H=105 	0.2R L: 046001 S: 046002	
	H=105 	0.2R L: 051001	

SASH PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

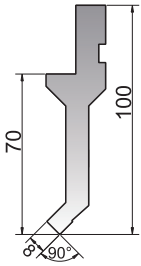
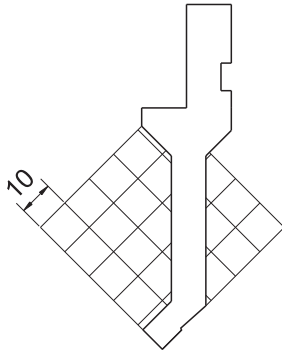
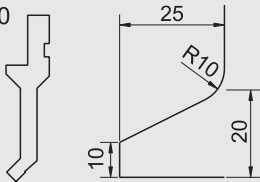
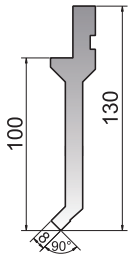
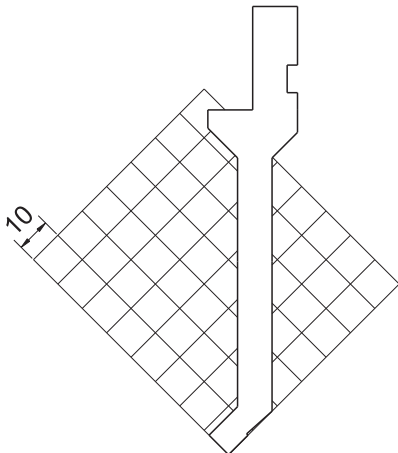
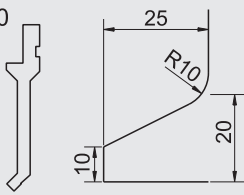
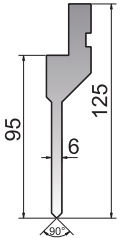
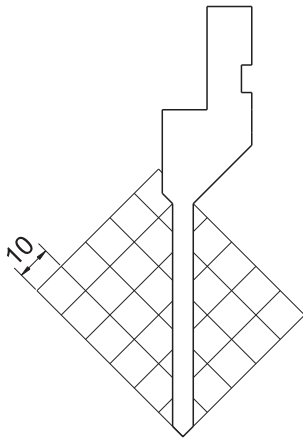
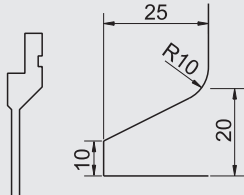
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
200 Through Hardened HRC47±2 30TON/M	H=70 	0. 2R L: 200001 S: 200002 0. 6R L: 200061 S: 200062	
	H=70 	0. 2R L: 200801 0. 6R L: 200861	
202 Through Hardened HRC47±2 30TON/M	H=100 	0. 2R L: 202001 S: 202002 0. 6R L: 202061 S: 202062	
	H=100 	0. 2R L: 202801 0. 6R L: 202861	
109 Through Hardened HRC47±2 50TON/M	H=95 	0. 2R L: 109001 S: 109002 0. 6R L: 109061 S: 109062	
	H=95 	0. 2R L: 107001 0. 6R L: 107061	

SASH PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

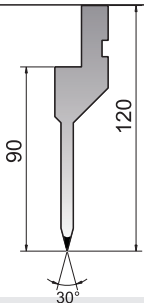
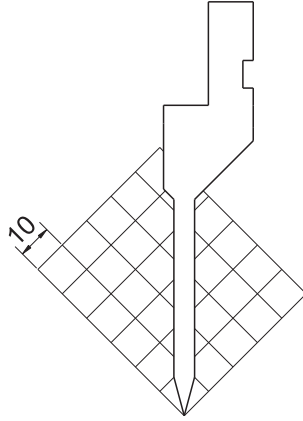
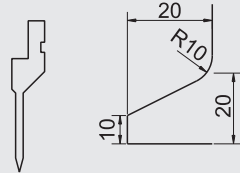
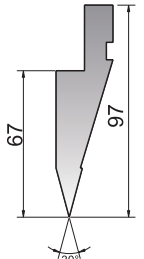
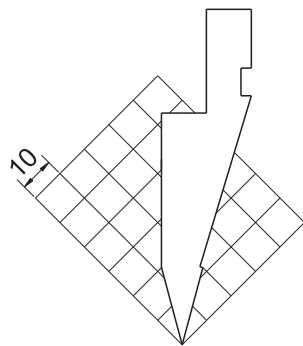
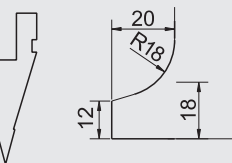
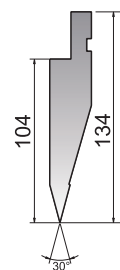
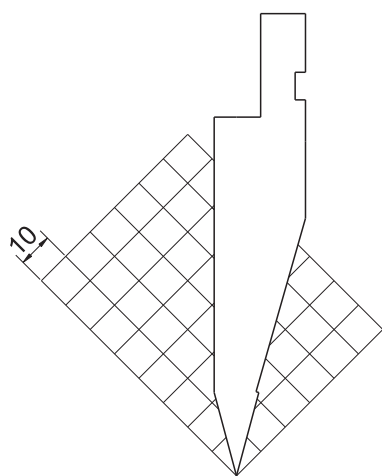
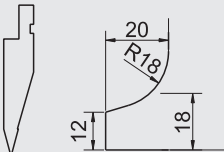
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
201 Through Hardened HRC47±2 30TON/M	H=70 	0. 2R L: 201001 S: 201002	
20180 Through Hardened HRC47±2 15TON/M	H=70 	0. 2R L: 201801	
203 Through Hardened HRC47±2 30TON/M	H=100 	0. 2R L: 203001 S: 203002	
20380 Through Hardened HRC47±2 15TON/M	H=100 	0. 2R L: 203801	
108 Through Hardened HRC47±2 50TON/M	H=95 	0. 2R L: 108001 S: 108002	
106 Through Hardened HRC47±2 12TON/M	H=95 	0. 2R L: 106001	

ACCUTE ANGLE PUNCHES (30°)

Material: 42CrMo
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S=415mm [16.34"]

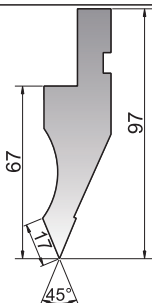
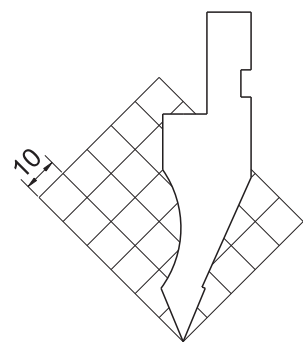
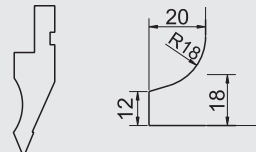
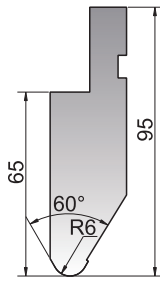
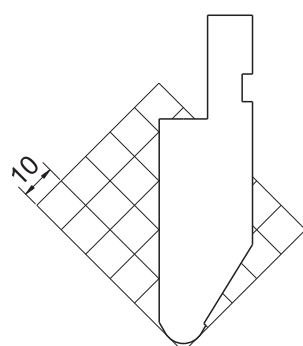
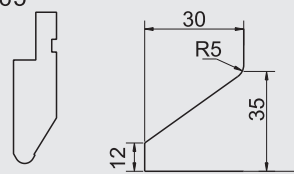
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
10870 Induction Hardened HRC52~56 50TON/M	H=90 	0.2R L: 108701 S: 108702	
10878 Induction Hardened HRC52~56 11TON/M	H=90 	0.2R L: 108781	
103 Through Hardened HRC47±2 100TON/M	H=67 	0.52R L: 103001 S: 103002	
10380 Through Hardened HRC47±2 30TON/M	H=67 	0.52R L: 103801	
210 Through Hardened HRC47±2 100TON/M	H=104 	0.65R L: 210001 S: 210002	
21080 Through Hardened HRC47±2 20TON/M	H=104 	0.65R L: 210801	

ACCUTE ANGLE PUNCHES (45° 60°)

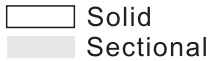
Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
008 Through Hardened HRC47±2 60TON/M	H=67 	0.37R L : 008001 S : 008002	
049 Through Hardened HRC47±2 30TON/M	H=67 	0.37R L : 049001	
003 Through Hardened HRC47±2 100TON/M	H=65 	6.0R L : 003001 S : 003002	
138 Through Hardened HRC47±2 100TON/M	H=65 	6.0R L : 138001	

RELIEF PUNCHES (90° 88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

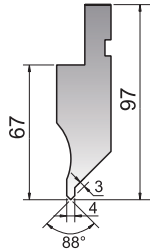
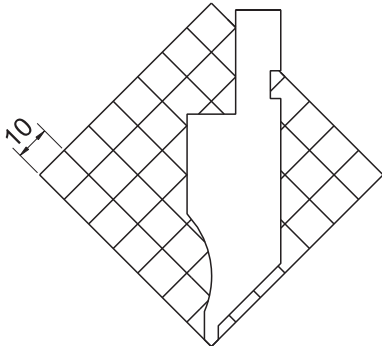
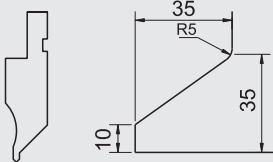
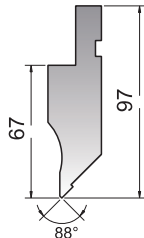
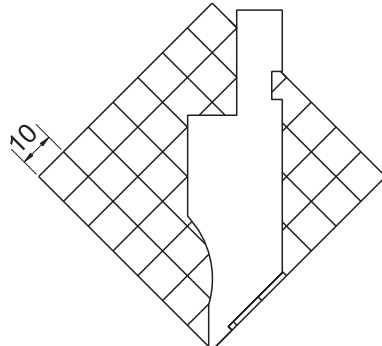
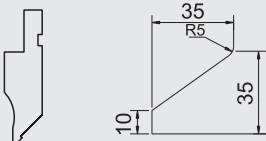
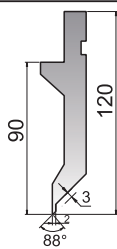
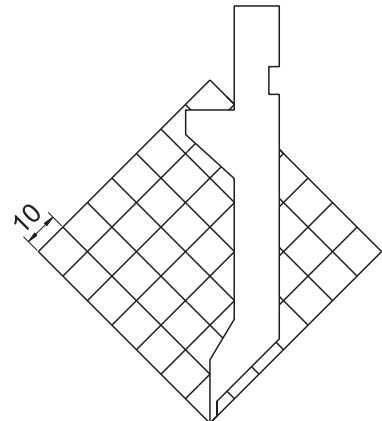
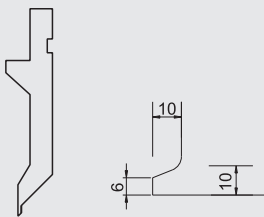


Description	Profile	Radius (R)	Bending Scale
0168 Induction Hardened HRC52~56 20TON/M	H=67 	0.2R L:016801 S:016802	
	H=67 	0.2R L:147801	
0169 Induction Hardened HRC52~56 80TON/M	H=67 	0.2R L:016901 S:016902	
	H=67 	0.2R L:147901	
4527 Induction Hardened HRC52~56 80TON/M	H=90 	0.2R L:452701 S:452702	
	H=90 	0.2R L:150701	

RELIEF PUNCHES (88°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

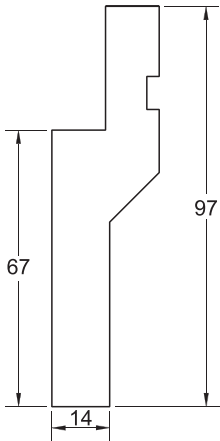
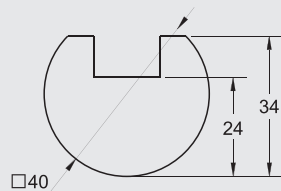
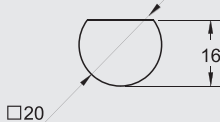
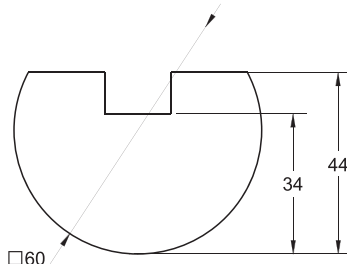
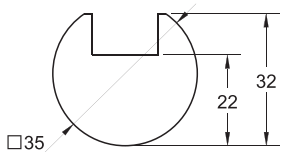
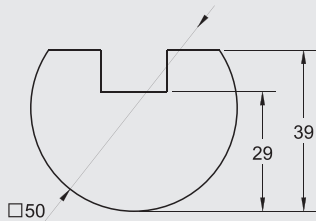
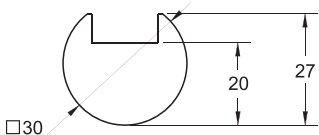
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
0048 Induction Hardened HRC52~56 40TON/M	H=67 	0. 2R L: 004801 S: 004802 0. 6R L: 004861 S: 004862	
1488 Induction Hardened HRC52~56 20TON/M	H=67 	0. 2R L: 148801 0. 6R L: 148861	
0049 Induction Hardened HRC52~56 80TON/M	H=67 	0. 2R L: 004901 S: 004902 0. 6R L: 004961 S: 004962	
1489 Induction Hardened HRC52~56 40TON/M	H=67 	0. 2R L: 148901 0. 6R L: 148961	
0047 Induction Hardened HRC52~56 40TON/M	H=90 	0. 2R L: 004701 S: 004702	
00478 Induction Hardened HRC52~56 11TON/M	H=90 	0. 2R L: 004781	

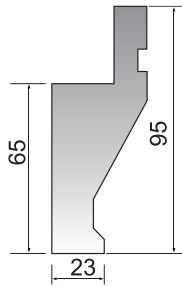
RADIUS PUNCHES RULERS (90° 88°)

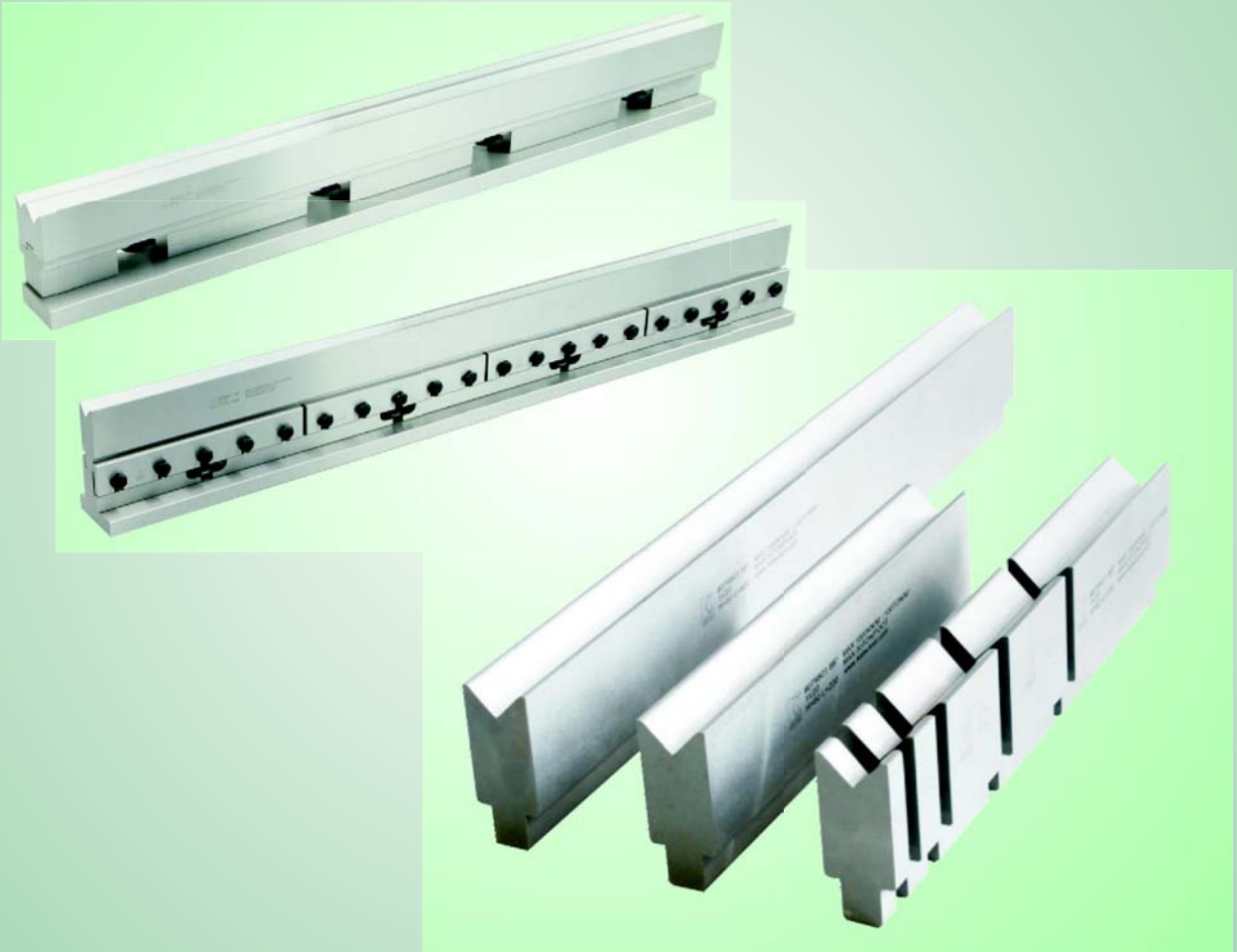
Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
015 L:015001 S:015002 HRC25±3			01720 L:017201 S:017202 20R 
01710 L:017101 S:017102 10R			01730 L:017301 S:017302 30R 
01717 L:017171 S:017172 17.5R			
01725 L:017251 S:017252 25R			
01715 L:017151 S:017152 15R			

HEMMING PUNCH

220 L: 220001 S: 220002 Through Hardened HRC47±2 100TON/M	H=65 
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■ STANDARD BENDING DIE

QUICK CHANGE 2V DIE (90° 88°)

Material 42CrMo

L=835mm

S=415mm

□ Solid

■ Sectional

90°

Description	Profile	Description	Profile
5019 L: 501901 S: 501902 (90° V4-V7) Through Hardened HRC47±2 60TON/M L: 501801	H=46 	5079 L: 507901 S: 507902 (90° V5-V9) Through Hardened HRC47±2 70TON/M L: 507801	H=46

88°

50196 L: 501961 S: 501962 (88° V4-V7) Through Hardened HRC47±2 60TON/M L: 501861	H=45.5 H=46 	50796 L: 507961 S: 507962 (88° V5-V9) Through Hardened HRC47±3 70TON/M L: 507861	H=45.5 H=46
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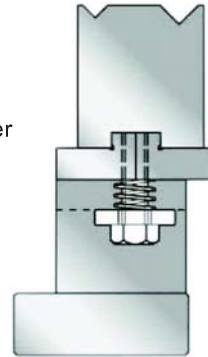
50490 L: 504901 S: 504902 (88° V14-V18) Through Hardened HRC47±2 100TON/M L: 504801	H=46 	50590 L: 505901 S: 505902 (88° V12-V20) Through Hardened HRC47±2 100TON/M L: 505801	H=46
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86°

50198 L: 501981 S: 501982 (86° V4-V7) Through Hardened HRC47±2 60TON/M L: 501881	H=46 	50298 L: 502981 S: 502982 (86° V6-V10) Through Hardened HRC47±2 70TON/M L: 502881	H=46
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Standard Die Holder

H=39mm
H=55mm
H=75mm



1set Bolt M8x25
Ass'y Shim
Spring

Quality
L: 4set
S: 2set
Fixed bolt ass'y
Die rail mounted on 2V die holder

Description

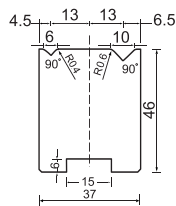
Profile

5029

L: 502901 S: 502902
(90° V6-V10)
Through Hardened
HRC47±2
70TON/M

L:502801

H=46



Description

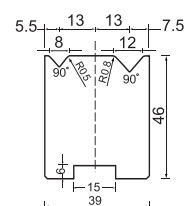
Profile

5039

L: 503901 S: 503902
(90° V8-V12)
Through Hardened
HRC47±2
70TON/M

L:503801

H=46

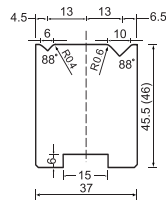


50296

L: 502961 S: 502962
(88° V6-V10)
Through Hardened
HRC47±2
70TON/M

L:502861

H=45.5
H=46

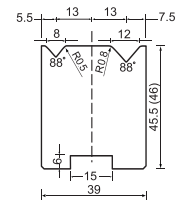


50396

L: 503961 S: 503962
(88° V8-V12)
Through Hardened
HRC47±2
70TON/M

L:503861

H=45.5
H=46

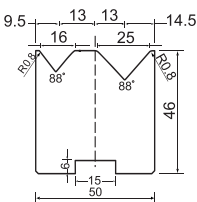


50690

L: 506901 S: 506902
(88° V16-V25)
Through Hardened
HRC47±2
100TON/M

L:506801

H=46

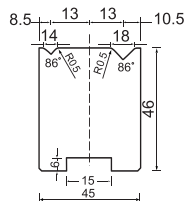


50498

L: 504981 S: 504982
(86° V14-V18)
Through Hardened
HRC47±2
100TON/M

L:504881

H=46

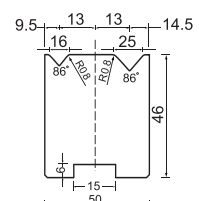


50698

L: 506981 S: 506982
(86° V16-V25)
Through Hardened
HRC47±2
100TON/M

L:506881

H=46



SECTIONALIZED 2V DIE (90° 88°)

Material 42CrMo

L=835mm

S=415mm

 Solid

 Sectional

90°

Description

Profile

Description

Profile

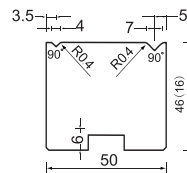
30148

L:301481 S:301482
(90° V4-V7)

Through Hardened
HRC47±2
60TON/M

L:301401

H=46



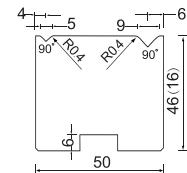
30748

L:307481 S:307482
(90° V5-V9)

Through Hardened
HRC47±2
65TON/M

L:307401

H=46



88°

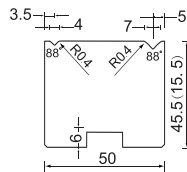
30147

L:301471 S:301472
(88° V4-V7)

Through Hardened
HRC47±2
60TON/M

L:301461

H=45.5



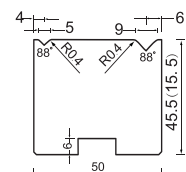
30747

L:307471 S:307472
(88° V5-V9)

Through Hardened
HRC47±2
65TON/M

L:307461

H=45.5



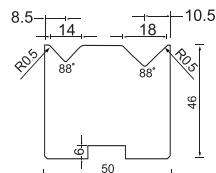
30448

L:304481 S:304482
(88° V14-V18)

Through Hardened
HRC47±2
100TON/M

L:304401

H=46



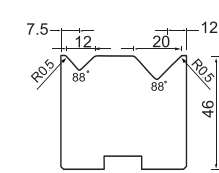
30548

L:305481 S:305482
(88° V12-V20)

Through Hardened
HRC47±2
100TON/M

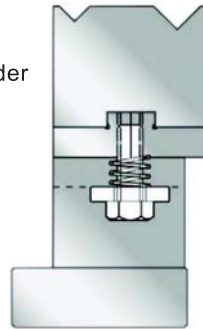
L:305401

H=46



Standard Die Holder

H=39mm
H=55mm
H=75mm



1set Bolt M8x25
Ass'y Shim
Spring

Quality
L: 4set
S: 2set
Fixed bolt ass'y
Die rail mounted on 2V die holder

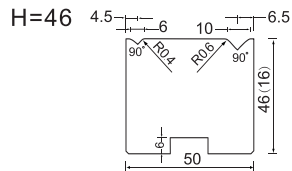
Description

Profile

30248

L: 302481 S: 302482
(90° V6-V10)
Through Hardened
HRC47±2
70TON/M

L:302401



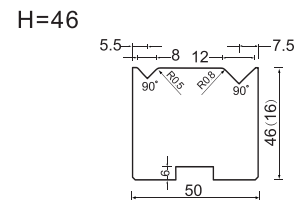
Description

Profile

30348

L: 303481 S: 303482
(90° V8-V12)
Through Hardened
HRC47±2
70TON/M

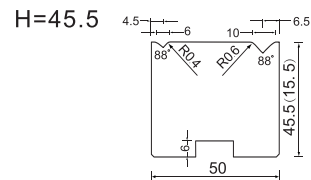
L:303401



30247

L: 302471 S: 302472
(88° V6-V10)
Through Hardened
HRC47±2
70TON/M

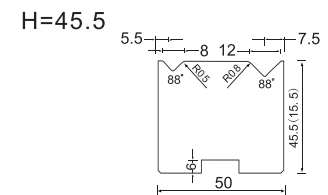
L:302461



30347

L: 303471 S: 303472
(88° V8-V12)
Through Hardened
HRC47±2
70TON/M

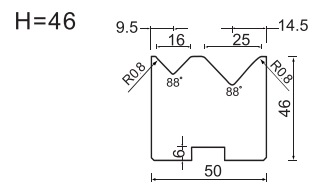
L:303461



30648

L: 306481 S: 306482
(88° V16-V25)
Through Hardened
HRC47±2
100TON/M

L:306401



2V BOLT FIXED DIE (90° 88°)

Material 42CrMo

L=835mm

S=415mm

90°

Description	Profile	Description	Profile
121 L: 121001 S: 121002 (90° V4-V7) Through Hardened HRC47±2 60TON/M	H=26 	122 L: 122001 S: 122002 (90° V5-V9) Through Hardened HRC47±2 65TON/M	H=26

88°

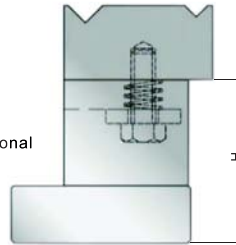
12106 L: 121061 S: 121062 (88° V4-V7) Through Hardened HRC47±2 60TON/M	H=25.5 	12206 L: 122061 S: 122062 (88° V5-V9) Through Hardened HRC47±2 65TON/M	H=25.5
125 L: 125001 S: 125002 (88° V14-V18) Through Hardened HRC47±2 100TON/M	H=26 	126 L: 126001 S: 126002 (88° V12-V20) Through Hardened HRC47±2 100TON/M	H=26

2V DIE FOR SS/AL.SHEET METAL

311 L: 311001 S: 311002 (90° V6-V10) Through Hardened HRC47±2 80TON/M	H=26 	31106 L: 311061 S: 311062 (88° V6-V10) Through Hardened HRC47±2 80TON/M	H=25.5
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Increase shoulder radius to get more precision and smooth when pressing for stainless steel and aluminum

Standard die holder:
H=39mm
H=55mm
H=75mm
※2V bolt fixed standard die non-sectional



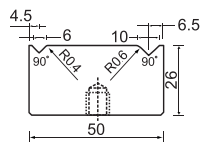
Fixed bolt ass'y
Quality
L: 4set
S: 2set
Die rail mounted on 2V die holder

Description

Profile

123
L: 123001 S: 123002
(90° V6-V10)
Through Hardened
HRC47±2
70TON/M

H=26

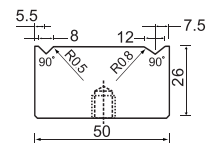


Description

Profile

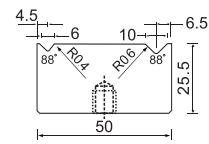
124
L: 124001 S: 124002
(90° V8-V12)
Through Hardened
HRC47±2
80TON/M

H=26



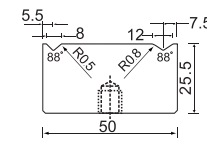
12306
L: 123061 S: 123062
(88° V6-V10)
Through Hardened
HRC47±2
70TON/M

H=25.5



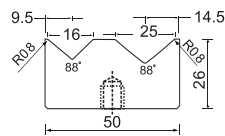
12406
L: 124061 S: 124062
(88° V8-V12)
Through Hardened
HRC47±2
80TON/M

H=25.5



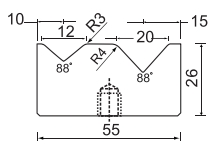
127
L: 127001 S: 127002
(88° V16-V25)
Through Hardened
HRC47±2
70TON/M

H=26



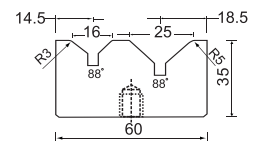
31400
L: 314001 S: 314002
(88° V12-V20)
Through Hardened
HRC47±2
100TON/M

H=26



128
L: 128001 S: 128002
(88° V16-V25)
Through Hardened
HRC47±2
100TON/M

H=35



1V DIE (90°)

Material 42CrMo

L=835mm

S=415mm



Solid



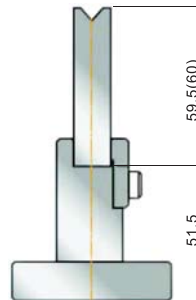
Sectional

90°

Description	Profile	Description	Profile
08300 L: 083001 S: 083002 (90° V3) Through Hardened HRC47±2 40TON/M L:083801	H=60 	08400 L: 084001 S: 084002 (90° V4) Through Hardened HRC47±2 40TON/M L:084801	H=60
071 L: 071001 S: 071002 (90° V8) Through Hardened HRC47±2 95TON/M L:071801	H=60 	073 L: 073001 S: 073002 (90° V10) Through Hardened HRC47±2 95TON/M L:073801	H=60

30°

A8403 L: A84031 S: A84032 (30° V4) Through Hardened HRC47±2 16TON/M L:A84831	H=60 	A7003 L: A70031 S: A70032 (30° V6) Through Hardened HRC47±3 18TON/M L:A70831	H=60
08403 L: 084031 S: 084032 (30° V4) Through Hardened HRC47±2 20TON/M L:084831	H=60 	08503 L: 085031 S: 085032 (30° V5) Through Hardened HRC47±2 20TON/M L:085831	H=60



1V die feature:

1. Bigger radius, less bending scratch.
2. More free space to bend complicated parts.
3. Mount easily, suitable to more accurate machine

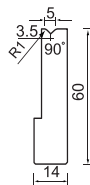
Description

Profile

08500

L: 085001 S: 085002
(90° V5)
Through Hardened
HRC47±2
50TON/M

H=60



L:085801

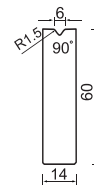
Description

Profile

070

L: 070001 S: 070002
(90° V6)
Through Hardened
HRC47±2
95TON/M

H=60

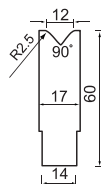


L:070801

075

L: 075001 S: 075002
(90° V12)
Through Hardened
HRC47±2
95TON/M

H=60

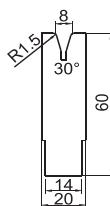


L:075801

A7103

L: A71031 S: A71032
(30° V8)
Through Hardened
HRC47±2
20TON/M

H=60

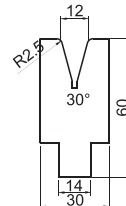


L:A71831

A7403

L: A74031 S: A74032
(30° V12)
Through Hardened
HRC47±2
30TON/M

H=60



L:A74831

1V DIE (88°)

Material 42CrMo

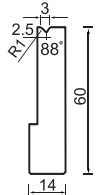
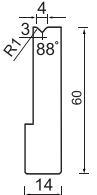
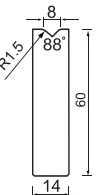
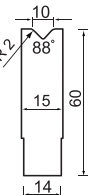
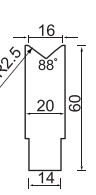
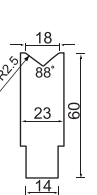
L=835mm

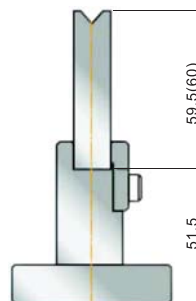
S=415mm

 Solid

 Sectional

88°

Description	Profile	Description	Profile
08306 L: 083061 S: 083062 (88° V3) Through Hardened HRC47±2 40TON/M L:083861	H=60 	08406 L: 084061 S: 084062 (88° V4) Through Hardened HRC47±2 40TON/M L:084861	H=60 
07108 L: 071081 S: 071082 (88° V8) Through Hardened HRC47±2 95TON/M L:071881	H=60 	07200 L: 072001 S: 072002 (88° V10) Through Hardened HRC47±2 95TON/M L:072801	H=60 
07700 L: 077001 S: 077002 (88° V16) Through Hardened HRC47±2 100TON/M L:077801	H=60 	07800 L: 078001 S: 078002 (88° V18) Through Hardened HRC47±2 100TON/M L:078801	H=60 



1V die feature:

1. Bigger radius, less bending scratch.
2. More free space to bend complicated parts.
3. Mount easily, suitable to more accurate machine

Description	Profile	Description	Profile
08506 L: 085061 S: 085062 (88° V5) Through Hardened HRC47±2 50TON/M L:085861	H=60 	07008 L: 070081 S: 070082 (88° V6) Through Hardened HRC47±2 95TON/M L:070881	H=60
07400 L: 074001 S: 074002 (88° V12) Through Hardened HRC47±2 95TON/M L:074801	H=60 	07600 L: 076001 S: 076002 (88° V14) Through Hardened HRC47±2 95TON/M L:076801	H=60
07900 L: 079001 S: 079002 (88° V20) Through Hardened HRC47±2 100TON/M L:079801	H=60 	08200 L: 082001 S: 082002 (88° V25) Through Hardened HRC47±2 100TON/M L:082801	H=60

1V DIE (86°)

Material 42CrMo

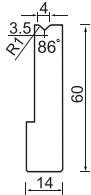
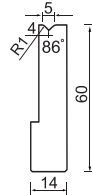
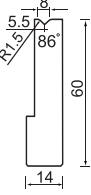
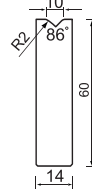
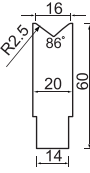
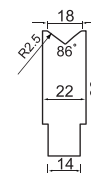
L=835mm

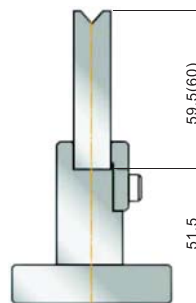
S=415mm

 Solid

 Sectional

86°

Description	Profile	Description	Profile
A8406 L:A84061 S:A84062 (86° V4) Through Hardened HRC47±2 75TON/M L:A84862	H=60 	A8506 L:A85061 S:A85062 (86° V5) Through Hardened HRC47±2 40TON/M L:A85862	H=60 
A7106 L:A71061 S:A71062 (86° V8) Through Hardened HRC47±2 90TON/M L:A71862	H=60 	A7206 L:A72061 S:A72062 (86° V10) Through Hardened HRC47±2 100TON/M L:A72862	H=60 
A7706 L:A77061 S:A77062 (86° V16) Through Hardened HRC47±2 100TON/M L:A77862	H=60 	A7806 L:A78061 S:A78062 (86° V18) Through Hardened HRC47±2 100TON/M L:A78862	H=60 



1V die feature:

1. Bigger radius, less bending scratch.
2. More free space to bend complicated parts.
3. Mount easily, suitable to more accurate machine

Description	Profile	Description	Profile
A7006 L: A70061 S: A70062 (86° V6) Through Hardened HRC47±2 80TON/M L:A70862	H=60 	A8606 L: A86061 S: A86062 (86° V7) Through Hardened HRC47±2 85TON/M L:A86862	H=60
A7406 L: A74061 S: A74062 (86° V12) Through Hardened HRC47±2 100TON/M L:A74862	H=60 	A7606 L: A76061 S: A76062 (86° V14) Through Hardened HRC47±2 100TON/M L:A76862	H=60
A7906 L: A79061 S: A79062 (86° V20) Through Hardened HRC47±2 100TON/M L:A79862	H=60 	A8206 L: A82061 S: A82062 (86° V25) Through Hardened HRC47±2 100TON/M L:A82862	H=60

1V BOLT FIXED DIE (90° 88°)

Material 42CrMo

L=835mm

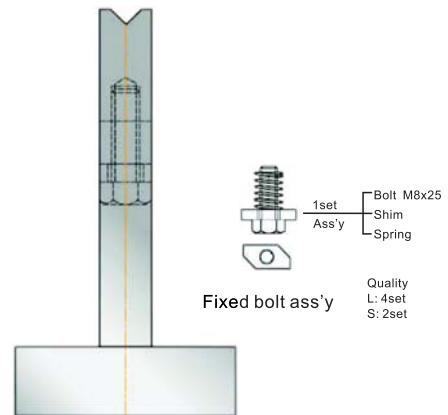
S=415mm

90°

Description	Profile	Description	Profile
320 L:320001 S:320002 (90° V6) Through Hardened HRC47±2 95TON/M	H=30 	321 L:321001 S:321002 (90° V8) Through Hardened HRC47±2 95TON/M	H=30

88°

32006 L:320061 S:320062 (88° V6) Through Hardened HRC47±2 95TON/M	H=29.5 	32106 L:321061 S:321062 (88° V8) Through Hardened HRC47±2 95TON/M	H=29.5
325 L:325001 S:325002 (88° V14) Through Hardened HRC47±2 100TON/M	H=30 		



Description	Profile	Description	Profile
323 L:323001 S:323002 (90° V10) Through Hardened HRC47±2 95TON/M	H=30 	326 L:326001 S:326002 (90° V12) Through Hardened HRC47±2 100TON/M	H=30
322 L:322001 S:322002 (88° V10) Through Hardened HRC47±2 95TON/M	H=30 	324 L:324001 S:324002 (88° V12) Through Hardened HRC47±2 100TON/M	H=30

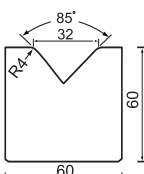
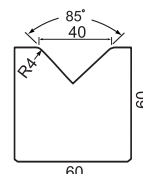
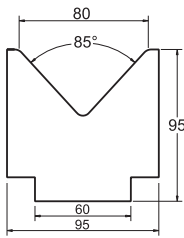
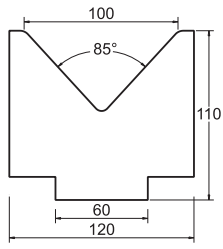
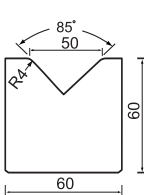
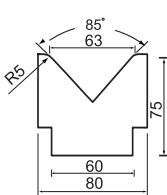
1V LARGE V DIE

Material 42CrMo

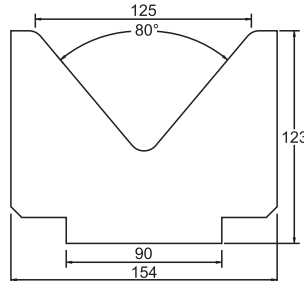
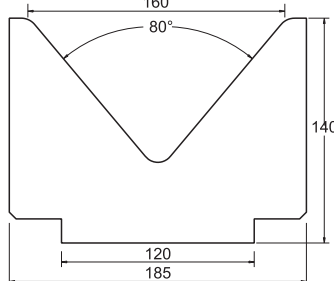
L=835mm

S=415mm

85°

Description	Profile	Description	Profile
035 L:035001 S:035002 (85° V32) Through Hardened HRC47±2 100TON/M Can have U groove, fixed rail.	H=60 	036 L:036001 S:036002 (85° V40) Through Hardened HRC47±2 100TON/M Can have U groove, fixed rail.	H=60 
013 L:013601 S:013602 (85° V=63) Shoulder induction hardened HRC52~56 100TON/M	H=95 	018 L:018601 S:018602 (85° V=100) Shoulder induction hardened HRC52~56 100TON/M	H=110 
037 L:037001 S:037002 (85° V50) Through Hardened HRC47±2 100TON/M Can have U groove, fixed rail.	H=60 	038 L:038001 S:038002 (85° V63) Shoulder induction hardened HRC52~56 100TON/M	H=75 

80°

039 L:039001 S:039002 (80° V=125) Shoulder induction hardened HRC52~56 100TON/M	H=123 	014 L:014001 S:014002 (80° V=160) 肩部高频淬火 HRC52~56 100TON/M	H=140 
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1V ACUTE ANGLE DIE (30°)

Material 42CrMo

L=835mm

S=415mm

 Solid

 Sectional

30°

Description

Profile

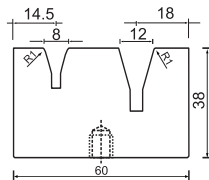
Description

Profile

337

H=38

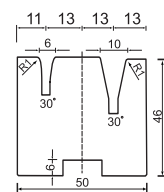
L: 337001 S: 337002
(30° V8-V12)
Through Hardened
HRC47±2
30TON/M



33706

H=46

L: 337061 S: 0337062
(30° V6-V10)
Through Hardened
HRC47±2
26TON/M

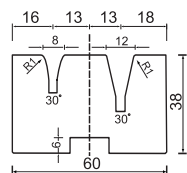


L:337461

339

H=38

L: 339001 S: 339002
(30° V8-V12)
Through Hardened
HRC47±2
40TON/M



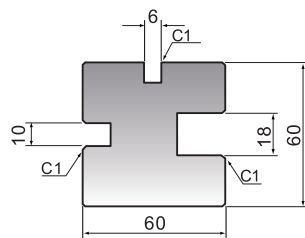
L:339401

3U/4V DIE

012

L: 012001 S: 012002

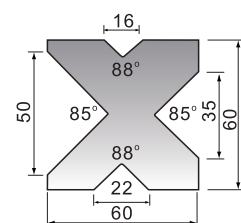
(3U DIE)
Through Hardened
HRC47±2
100TON/M



129

L: 129001 S: 129002

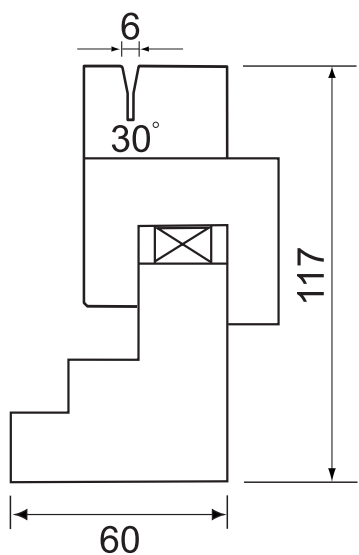
(4V DIE)
Through Hardened
HRC47±2
100TON/M



HEMMING DIE (30°)

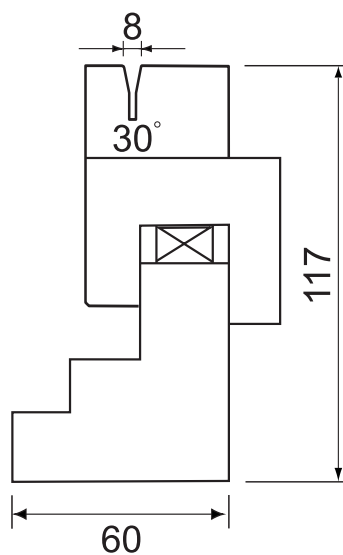
10469

L:104691 S:104692
Through Hardened
HRC47±2
65TON/M
For thickness: 0.4~1.6mm



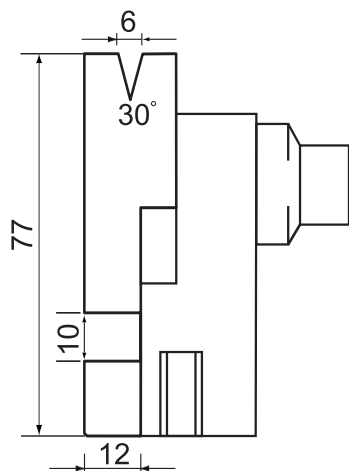
10409

L:104091 S:104092
Through Hardened
HRC47±2
65TON/M
For thickness: 0.4~1.6mm



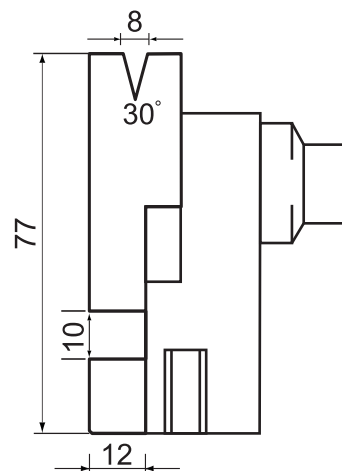
115601

L:115601 S:115602
Through Hardened
HRC47±2
80TON/M
Need to match the die holder
For thickness: 0.4~1.6mm



115801

L:115801 S:115802
Through Hardened
HRC47±2
80TON/M
Need to match the die holder
For thickness: 0.4~1.6mm



HEMMING DIE (30°)

115101

L:115101 S:115102

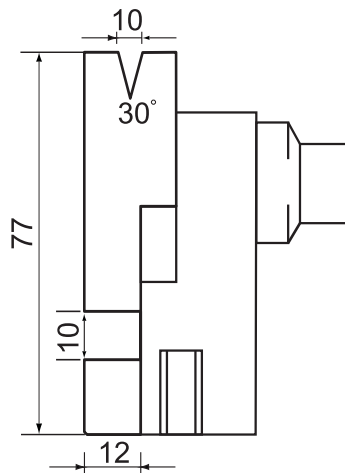
Through Hardened

HRC47±2

80TON/M

Need to match the die holder

For thickness: 0.4~1.6mm



115121

L:115121 S:115122

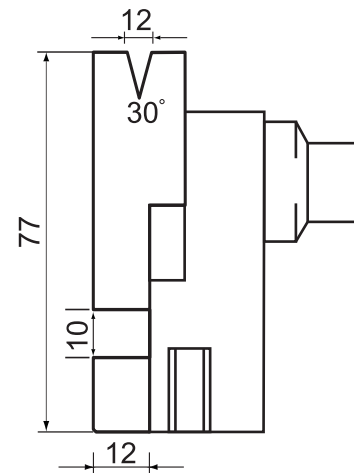
Through Hardened

HRC47±2

80TON/M

Need to match the die holder

For thickness: 0.4~1.6mm

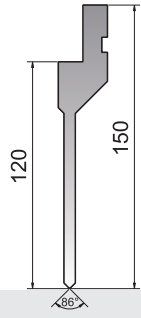
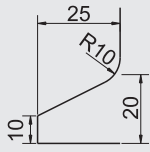
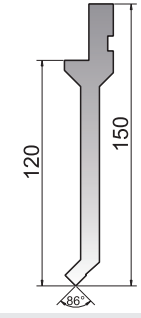
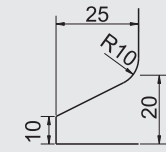
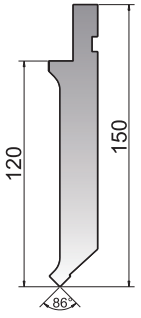
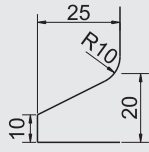


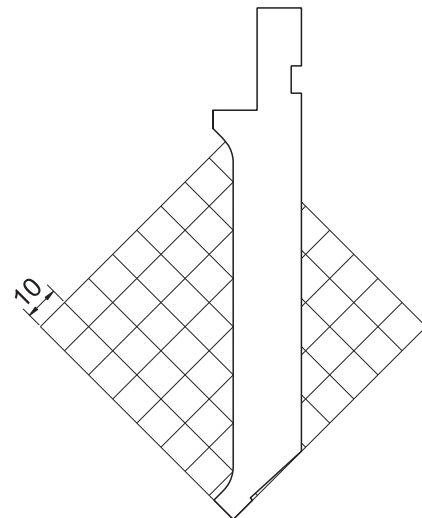
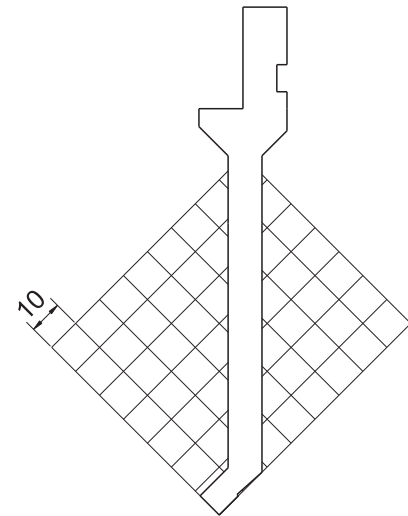
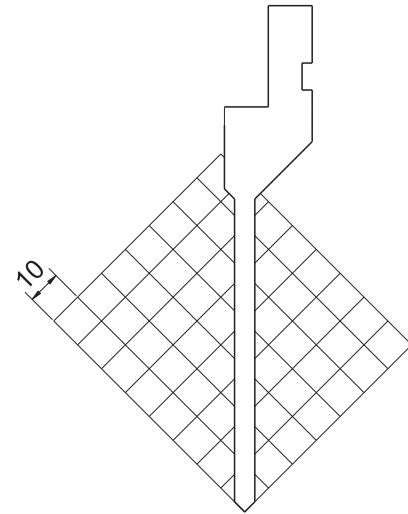
■ NEW STYLE TOOLS

- Higher punch (H=120) provide more free bending area.





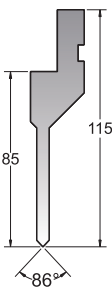
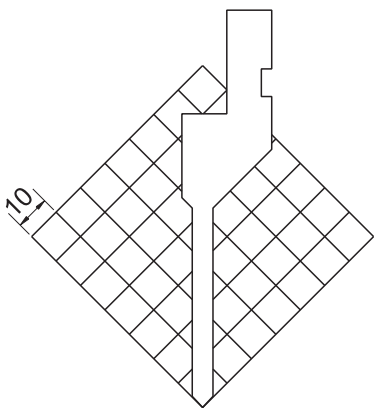
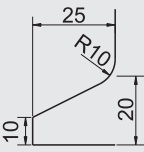
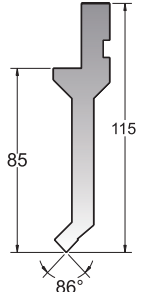
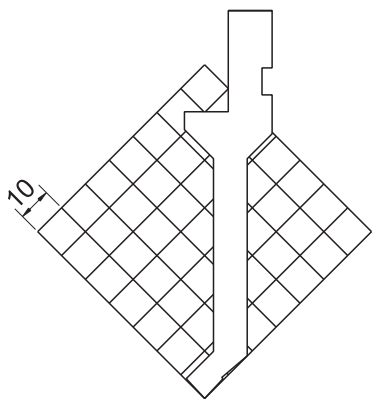
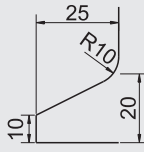
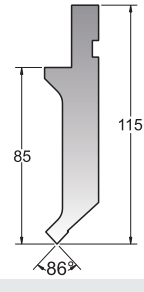
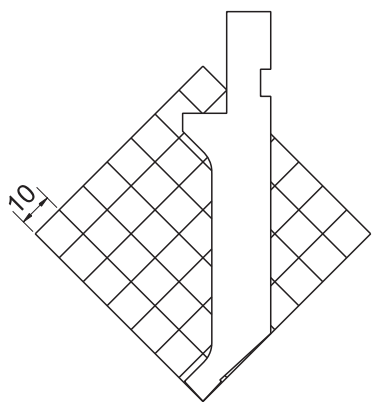
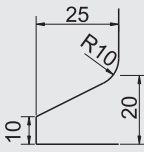
A190 Through Hardened HRC47±2 45TON/M	H=120 	0.2R L:A19021 S:A19022 0.6R L:A19061 S:A19062
	H=120 	0.2R L:A19822 0.6R L:A19862
A200 Through Hardened HRC47±2 45TON/M	H=120 	0.2R L:A20021 S:A20022 0.6R L:A20061 S:A20062
	H=120 	0.2R L:A20822 0.6R L:A20862
A040 Through Hardened HRC47±2 100TON/M	H=120 	0.2R L:A04021 S:A04022 0.6R L:A04061 S:A04062
	H=120 	0.2R L:A04822 0.6R L:A04862



PUNCHES (86°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

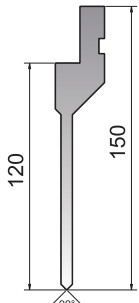
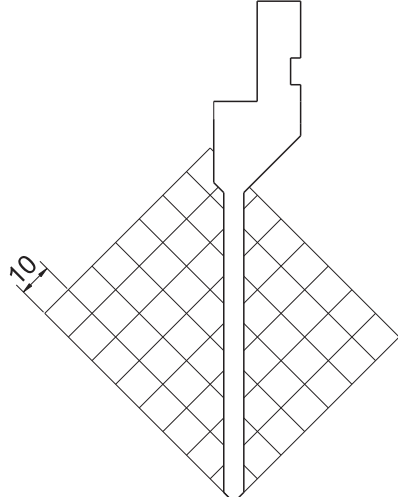
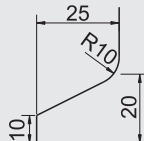
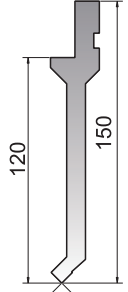
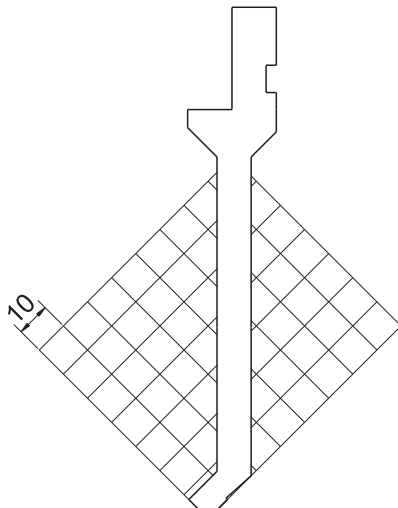
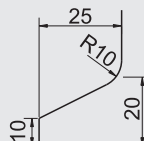
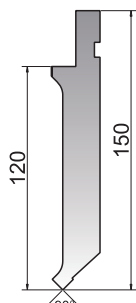
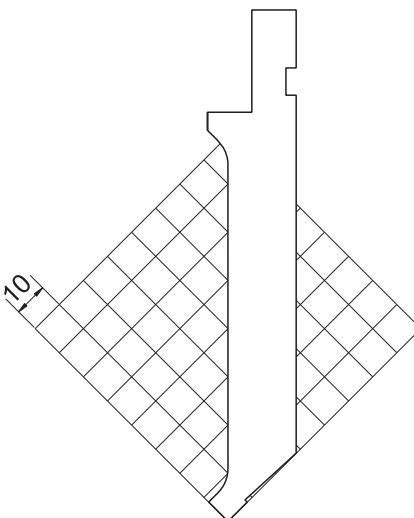
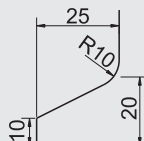
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
A29 Through Hardened HRC47±2 50TON/M	H=85 	0.6R L:A29061 S:A29062	
	H=85 	0.6R L:A29861	
A10 Through Hardened HRC47±2 30TON/M	H=85 	0.6R L:A10061 S:A10062	
	H=85 	0.6R L:A10861	
A14 Through Hardened HRC47±2 100TON/M	H=85 	0.6R L:A14061 S:A14062	
	H=85 	0.6R L:A14861	

PUNCHES (90°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

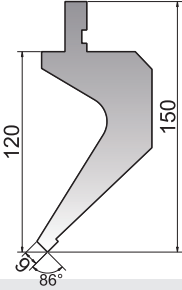
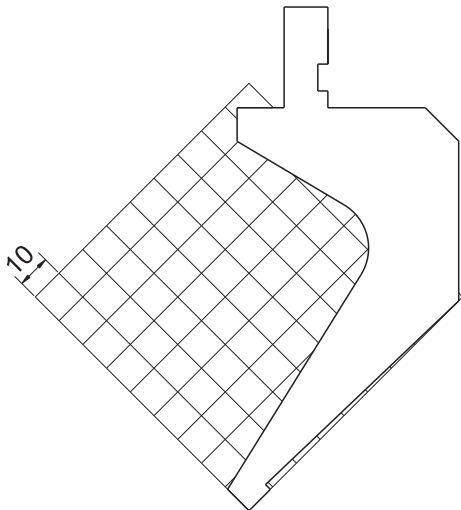
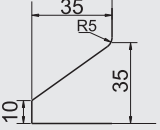
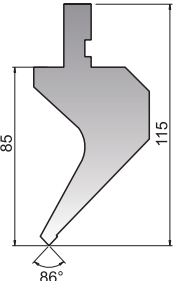
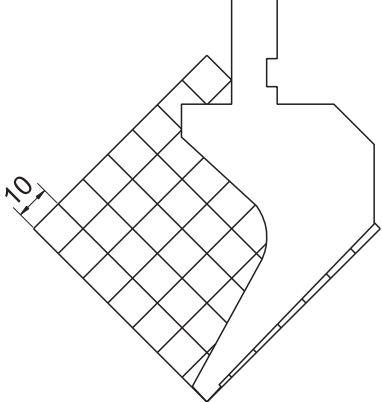
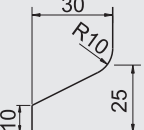
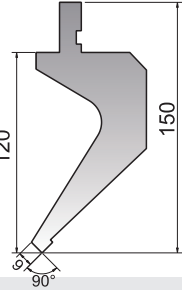
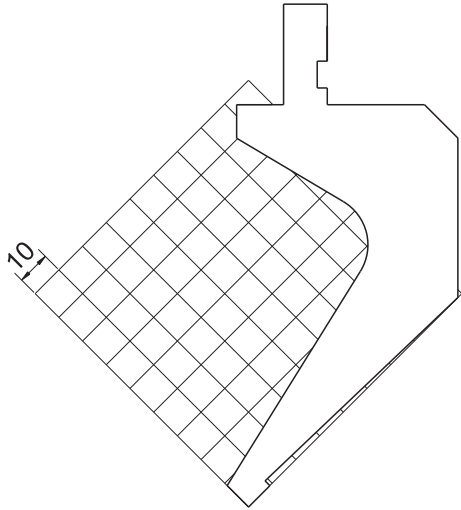
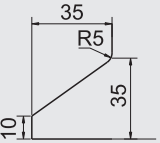
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
A180 Through Hardened HRC47±2 45TON/M	H=120  0.2R L:A18021 S:A18022		
A188 Through Hardened HRC47±2 12TON/M	H=120  0.2R L:A18822		
A210 Through Hardened HRC47±2 45TON/M	H=120  0.2R L:A21021 S:A21022		
A218 Through Hardened HRC47±2 15TON/M	H=120  0.2R L:A21822		
A160 Through Hardened HRC47±2 100TON/M	H=120  0.2R L:A16021 S:A16022		
A168 Through Hardened HRC47±2 45TON/M	H=120  0.2R L:A16822		

PUNCHES (86° 90°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

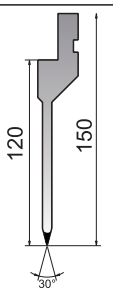
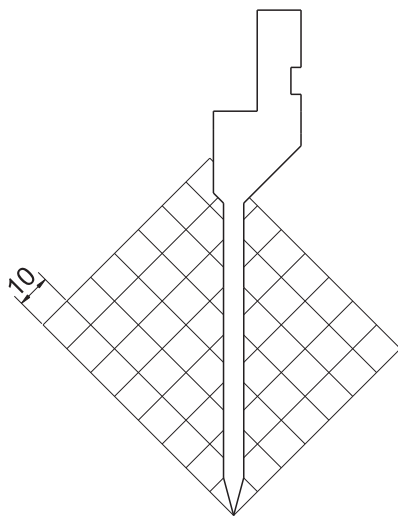
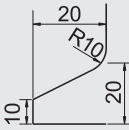
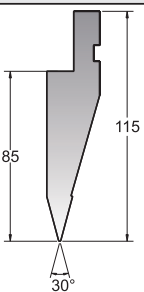
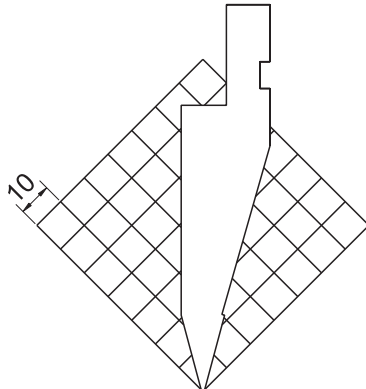
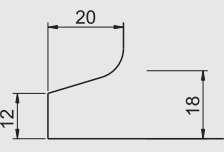
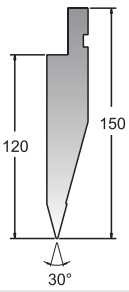
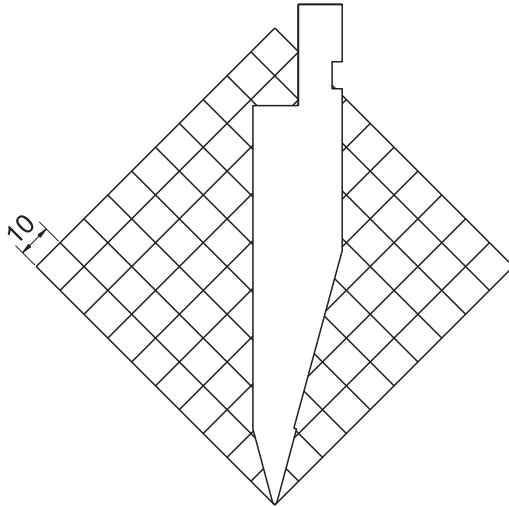
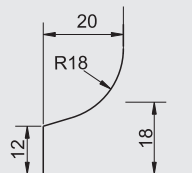
 Solid
 Sectional

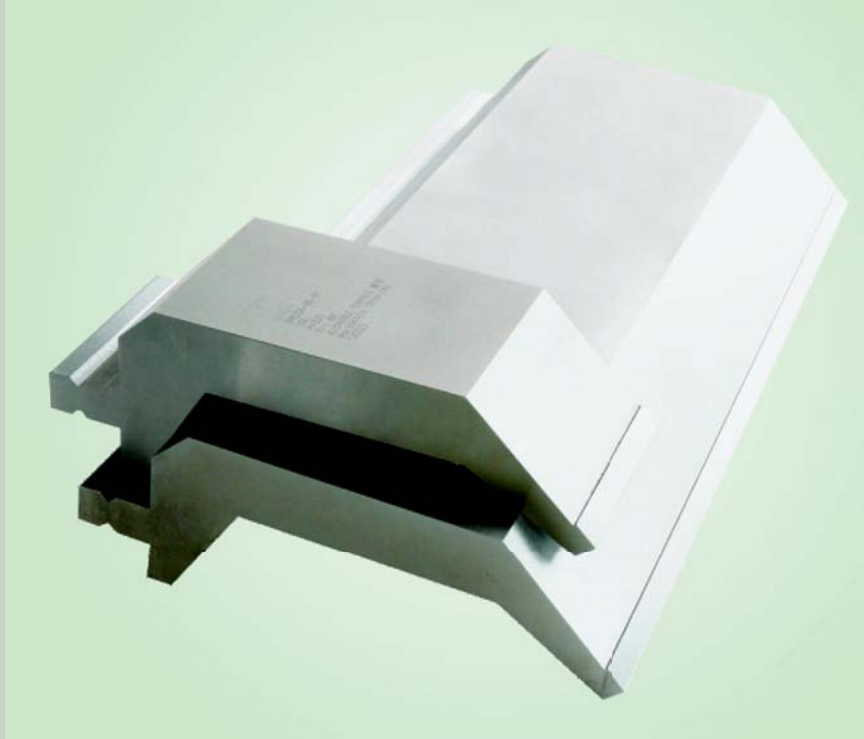
Description	Profile	Radius (R)	Bending Scale
A470 Through Hardened HRC47±2 50TON/M	H=120 	0.2R L:A47021 S:A47022 0.6R L:A47061 S:A47062	
		0.2R L:A47822 0.6R L:A47862	
A43 Through Hardened HRC47±2 50TON/M	H=115 	0.6R L:A43061 S:A43062	
		0.6R L:A43861	
A480 Through Hardened HRC47±2 50TON/M	H=120 	0.2R L:A48021 S:A48022	
		0.2R L:A48822	

ACUTE ANGLE PUNCHES (30°)

Material: 42CrMo
L=835mm [32.87"]
S=415mm [16.34"]

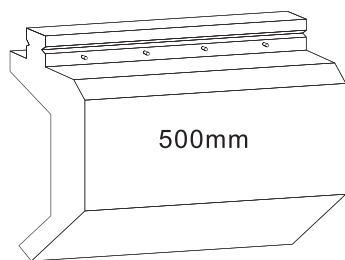
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
A130 Induction Hardened HRC52~56 45TON/M	H=120 	0.2R L:A13021 S:A13022 0.6R L:A13061 S:A13062	
	H=120 	0.2R L:A13822 0.6R L:A13862	
A23 Through Hardened HRC47±2 100TON/M	H=85 	0.6R L:A23061 S:A23062	
	H=85 	0.6R L:A23862	
L210 Through Hardened HRC47±2 100TON/M	H=120 	0.65R L:L210001 S:L210002	
	H=120 	0.65R L:L210801	

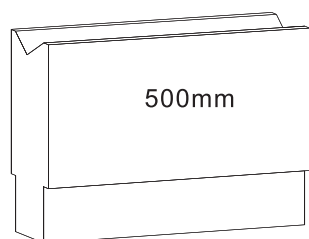


■ TRUMPF STYLE TOOLS

Standard Length: 500mm

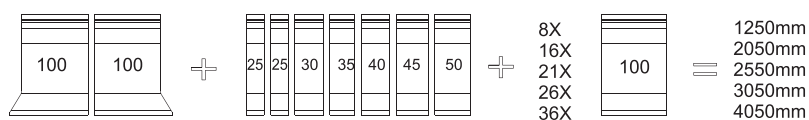


Sectional punch size:
25, 30, 35, 40, 45, 50, 100
200, 300, 100 left ear, 100 right ear



Sectional die size:
25, 30, 35, 40, 45, 50, 100
200, 300

Assembly A type:



Assembly B type:



TRUMPF PUNCHES (86°)

Material 42CrMo L=500mm

 Solid
 Sectional
 Description

Profile

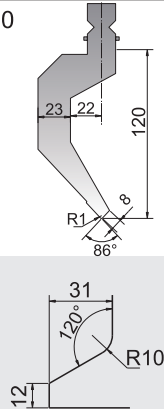
Radius (R)

Bending Scale

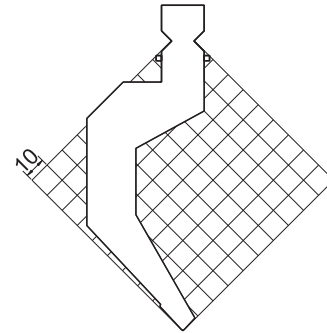
OW200/K
R1/86°

Induction
Hardened
HRC52~56
60 TON/M

H=120



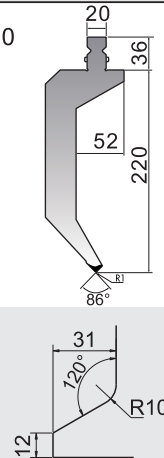
1.0R



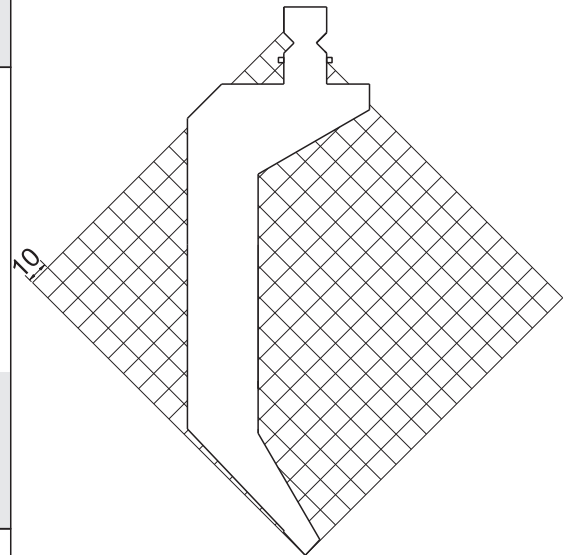
OW200/S
R1/86°

Induction
Hardened
HRC52~56
80 TON/M

H=220



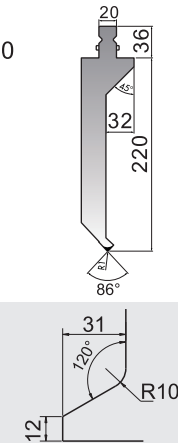
1.0R



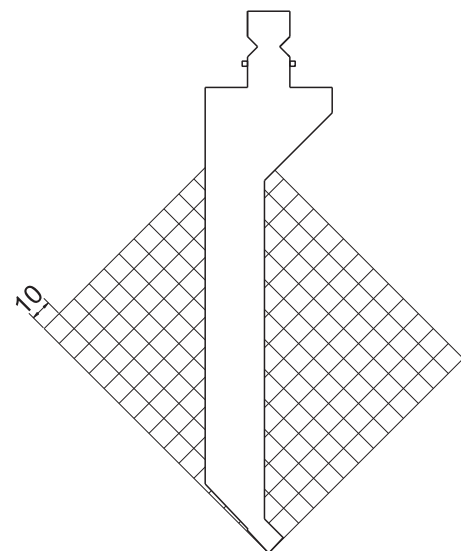
OW201/S
R1/86°

Induction
Hardened
HRC52~56
80 TON/M

H=220



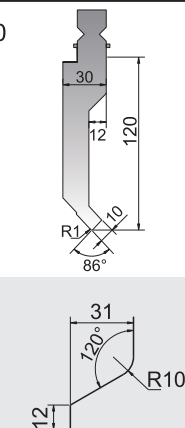
1.0R



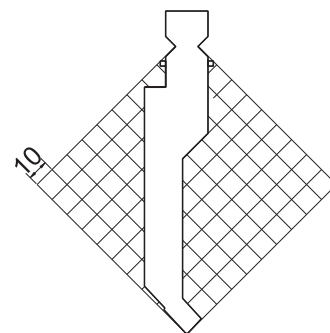
OW201/K
R1/86°

Induction
Hardened
HRC52~56
80 TON/M

H=120



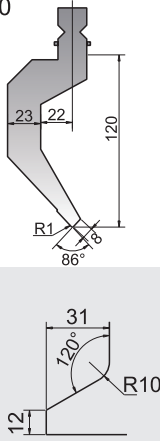
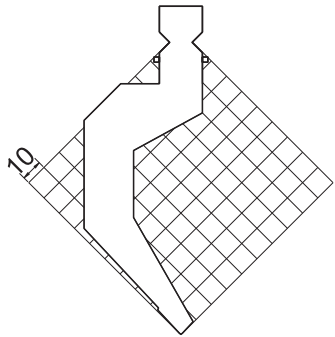
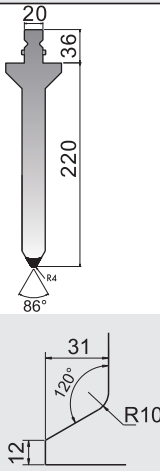
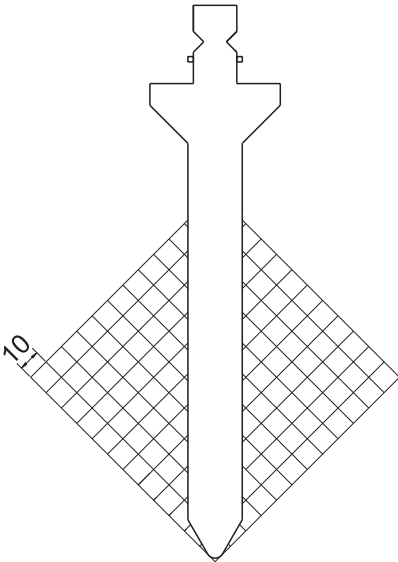
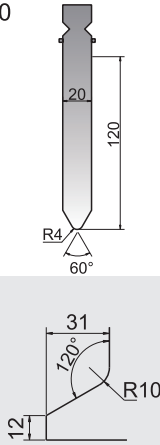
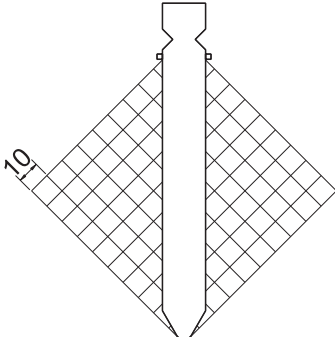
1.0R



TRUMPF PUNCHES (86° 60°)

Material 42CrMo L=500mm

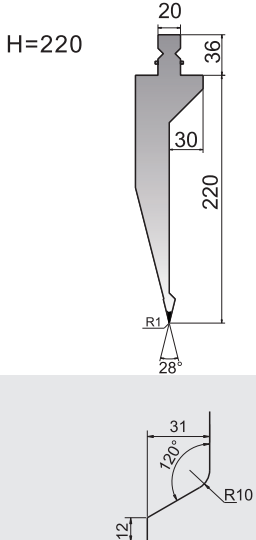
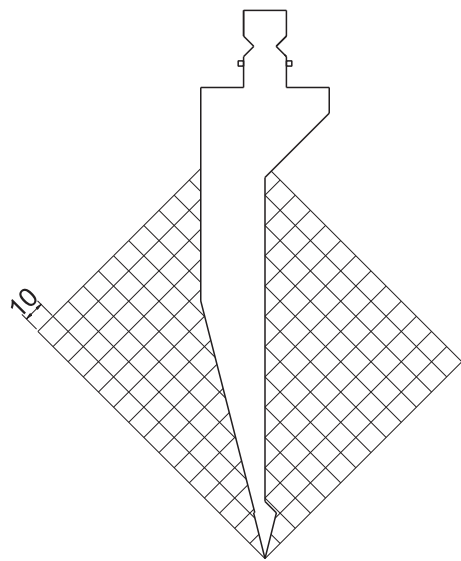
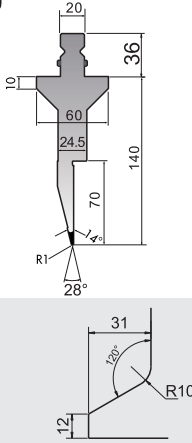
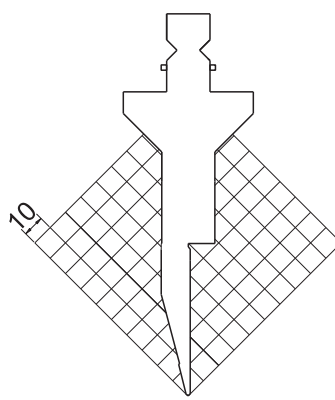
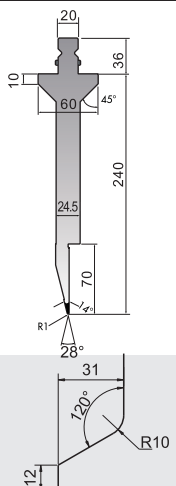
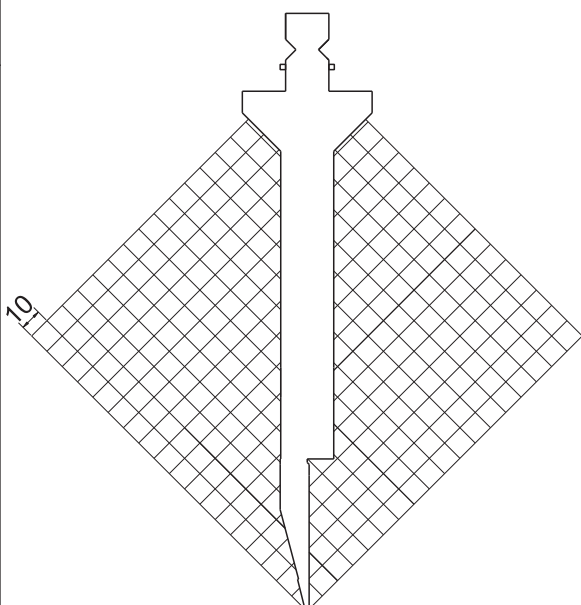
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
OW200/K R1/86° Induction Hardened HRC52~56 60 TON/M	H=120 	1.0R	
OW203/S R4/60° Induction Hardened HRC52~56 100 TON/M	H=220 	4.0R	
OW203/K R4/60° Induction Hardened HRC52~56 130 TON/M	H=120 	4.0R	

TRUMPF PUNCHES (28°)

Material 42CrMo L=500mm

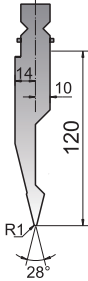
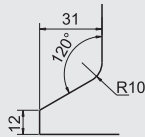
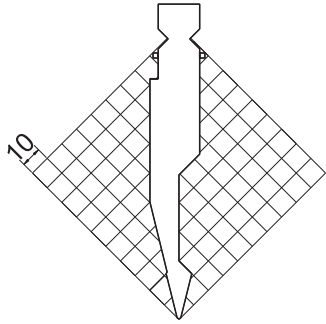
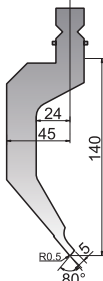
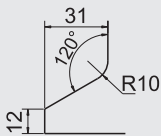
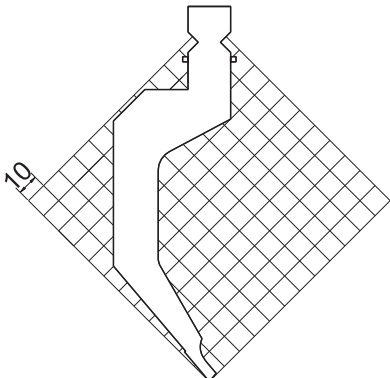
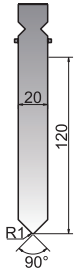
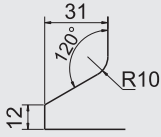
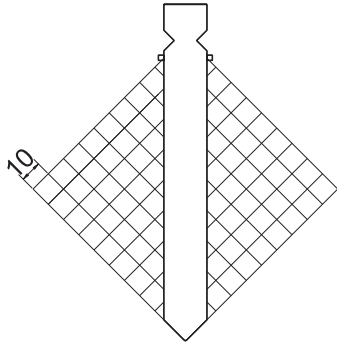
 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
OW202/S R1/28° Induction Hardened HRC52~56 40 TON/M		1.0R	
OW210 R1/28° Induction Hardened HRC52~56 40 TON/M		1.0R	
OW210/S R1/28° Induction Hardened HRC52~56 40 TON/M		1.0R	

TRUMPF PUNCHES (28° 80° 90°)

Material 42CrMo L=500mm

 Solid
 Sectional

Description	Profile	Radius (R)	Bending Scale
OW202/K R1/28° Induction Hardened HRC52~56 60TON/M	H=120  	1.0R	
OW280/K R0.5/80° Induction Hardened HRC52~56 40TON/M	H=140  	0.5R	
OW211/K R1/90° Induction Hardened HRC52~56 130TON/M	H=120  	1.0R	

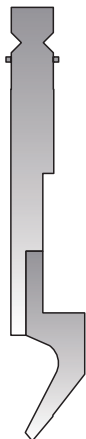
TRUMPF PUNCHES (28° 80° 90°)

Material 42CrMo L=500mm

Description	Profile	Description	Profile
0W/K 80 Induction Hardened HRC52~56 100TON/M		0W/K 130 Induction Hardened HRC52~56 100TON/M	

Description	Profile	Description	Profile	Description	Profile
0W390 R0.5/28° Induction Hardened HRC52~56 40TON/M		0W391 R0.5/80° Induction Hardened HRC52~56 40TON/M		0W390 R0.5/90° Induction Hardened HRC52~56 80TON/M	

Assembly

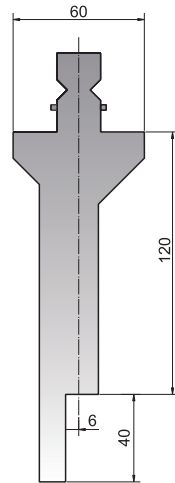


TRUMPF PUNCHES (28° 90°)

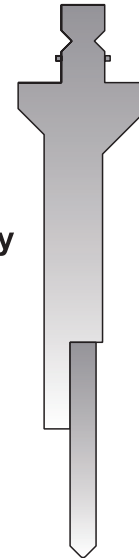
Material 42CrMo L=500mm

OW209/S

Induction Hardened
HRC52~56
100TON/M

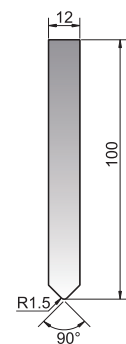
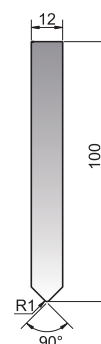
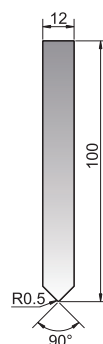
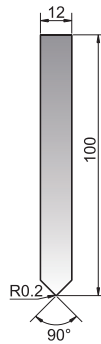


Assembly
figure



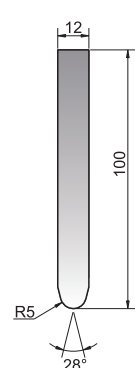
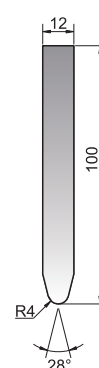
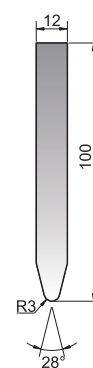
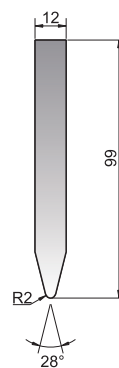
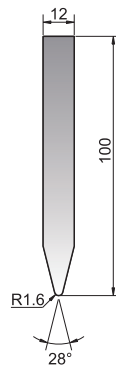
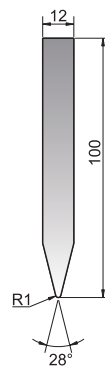
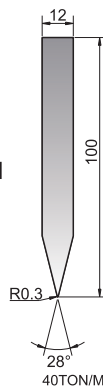
OW320.../90°

Induction Hardened
HRC52~56
100TON/M



OW320.../28°

Induction Hardened
HRC52~56
100TON/M



TRUMPF DIES (86° 30° 80° 90°)

Material 42CrMo L=500mm

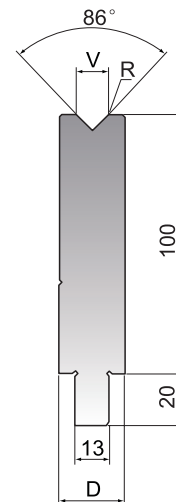
Description

Through hardened

HRC47 ± 2

	V	R	D	max t/m
Ev020	6	0,6	20	80
Ev021	8	0,8	20	90
Ev022	10	1	20	100
Ev023	12	1	25	100
EV024	16	1,6	30	100
EV025	20	2	30	100
EV026	24	2	30	100
EV027	30	3	45	100
EV028	40	3	55	100
EV029	50	3	75	100

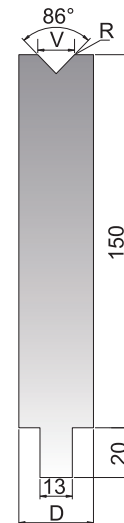
Profile



Through hardened

HRC47 ± 2

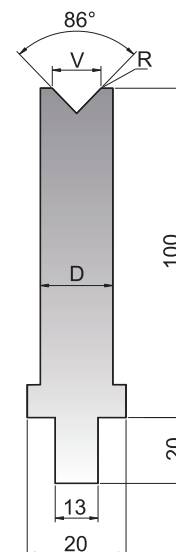
	V	R	D	max t/m
EV020/H	6	0,6	20	80
EV021/H	8	0,8	20	90
EV022/H	10	1	20	100
EV023/H	12	1	25	100
EV024/H	16	1,6	30	100
EV025/H	20	2	30	100
EV026/H	24	2	30	100
EV027/H	30	3	45	100
EV028/H	40	3	55	100
EV029/H	50	3	75	100



Through hardened

HRC47 ± 2

	V	R	D	max t/m
EV020/S	6	0,6	10	39
EV021/S	8	0,8	12	39
EV022/S	10	1	14	45
EV023/S	12	1	16	50



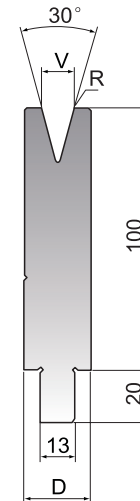
TRUMPF DIES (86° 30° 80° 90°)

Material 42CrMo L=500mm

Through Hardened

HRC47 ± 2

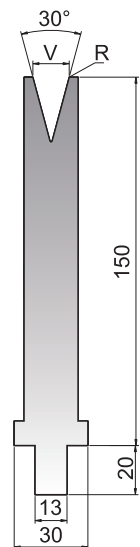
	V	R	D	max t/m
EV001	6	0,6	20	40
EV002	8	1	20	40
EV003	10	1	20	40
EV004	12	1	25	40
EV005	16	1,6	30	50
EV006	20	2	35	60
EV007	24	2,5	40	65
EVW30/30°	30	3	55	90
EVW40/30°	40	5	60	90



Through Hardened

HRC47 ± 2

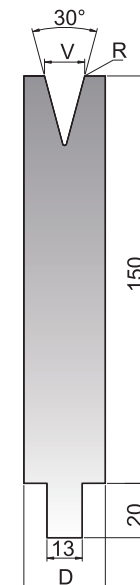
	V	R	D	max t/m
EV001/H	6	0,6	20	40
EV002/H	8	1	20	40
EV003/H	10	1	20	40



Through Hardened

HRC47 ± 2

	V	R	D	max t/m
EV004/H	12	1	25	40
EV005/H	16	1.6	30	50
EV006/H	20	2	35	60
EV007/H	24	2.5	40	65



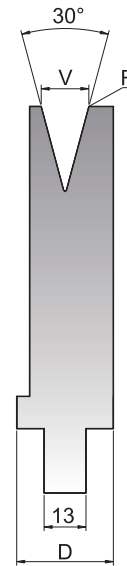
TRUMPF DIES (86° 30° 80° 90°)

Material 42CrMo L=500mm

Through hardened

HRC47 ± 2

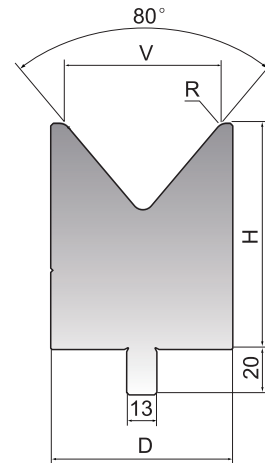
	V	R	D	max t/m
EV001/S	6	0.6	20	17
EV002/S	8	1	20	20
EV003/S	10	1	20	20
EV004/S	12	1	25	25



Through hardened

HRC47 ± 2

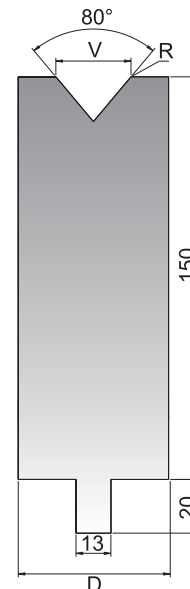
	V	H	R	D	max t/m
EVW24/80°	24	100	2.5	35	70
EVW30/80°	30	100	5	45	90
EVW40/80°	40	100	5	55	100
EVW50/80°	50	100	8	65	100
EVW60/80°	60	100	5	75	100
EVW70/80°	70	100	5	85	100
EVW80/80°	80	100	5	100	100
EVW90/80°	90	120	8	110	100
EVW100/80°	100	120	8	120	100



Through hardened

HRC47 ± 2

	V	H	R	D	max t/m
EV/H W24/80°	24	150	2.5	35	70
EV/H W30/80°	30	150	5	45	90
EV/H W40/80°	40	150	5	55	100
EV/H W50/80°	50	150	5	65	100



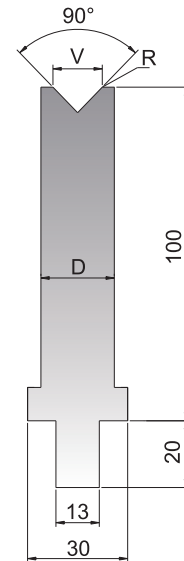
TRUMPF DIES (86° 30° 80° 90°)

Material 42CrMo L=500mm

Through hardened

HRC47 $\pm$ 2

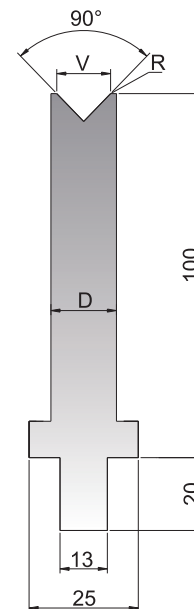
	V	R	D	max t/m
Ev040	6	0.6	20	100
EV041	8	0.8	20	100
EV042	10	1	20	100
EV043	12	1	20	100
EV044	16	1.6	30	100



Through hardened

HRC47 $\pm$ 2

	V	R	D	max t/m
EV040	6	0.6	10	39
EV041	8	0.8	12	46
EV042	10	1	14	53
EV043	12	1	16	55



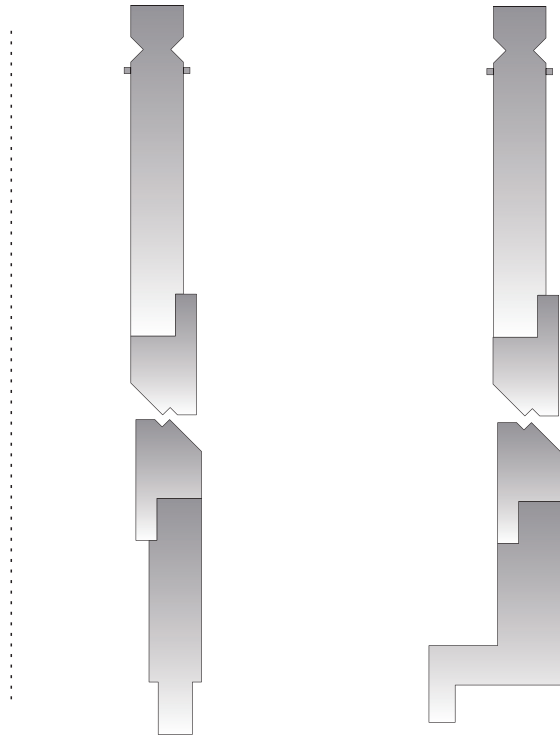
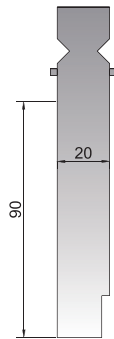
TRUMPF OFFSET TOOL (90°)

Material 42CrMo L=500mm

Assembly figure

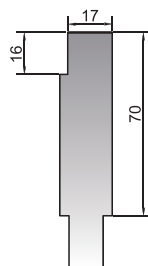
OWK 80

Induction hardened
HRC52~56
120TON/M



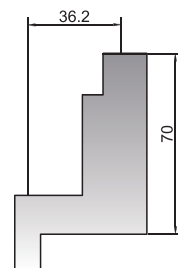
EV70-M

Induction hardened
HRC52~56
120TON/M



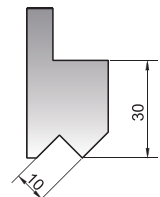
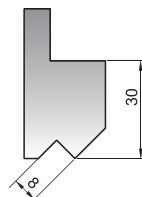
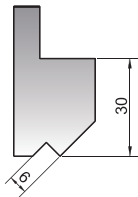
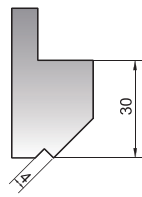
EV70

Induction hardened
HRC52~56
120TON/M



ZE.../90°

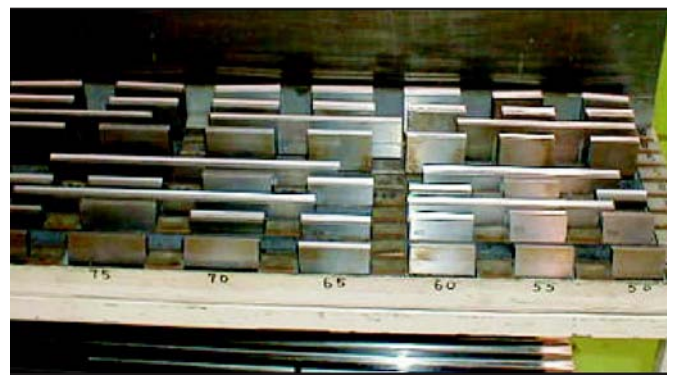
induction hardened
HRC52~56
120TON/M



STORAGE AND MANAGEMENT

1. Avoid bumping each other		Cause the tooling damage, affect precise and quality, shorten tooling life.
2. For easy to find		Shorten production time, avoid repeat order.
3. For easy maintain		Check up convenient, rust protection.
4. User's security		Pick up convenient, avoid tooling fall down to hurt workers.

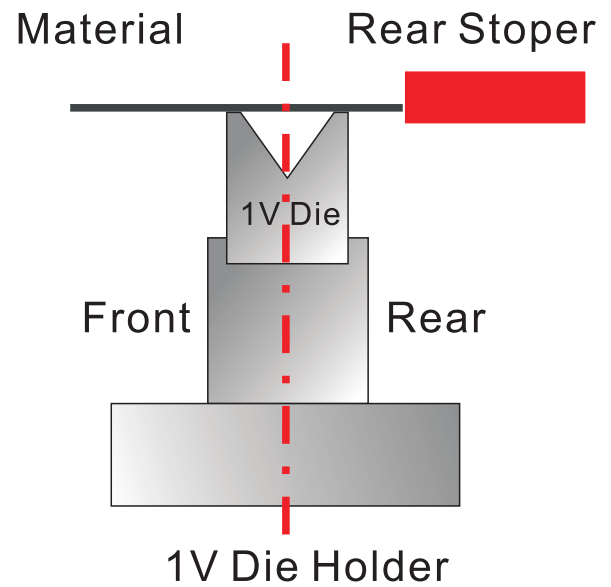
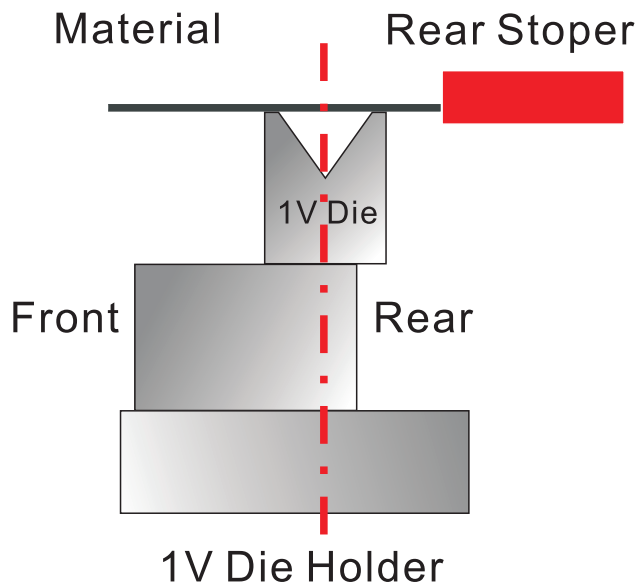
Distinguish the tooling by colors
it is very clear that which tooling
is for what machine.
Or can distinguish the tooling
by size.



✗ WRONG

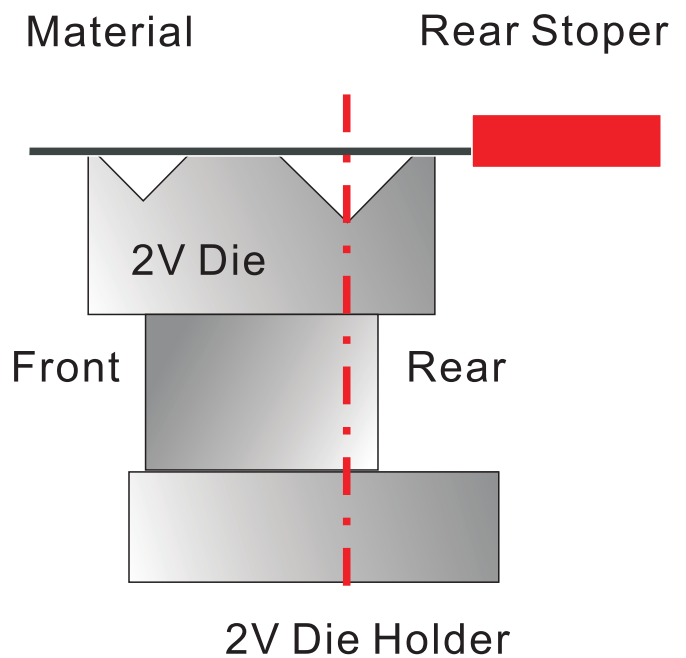
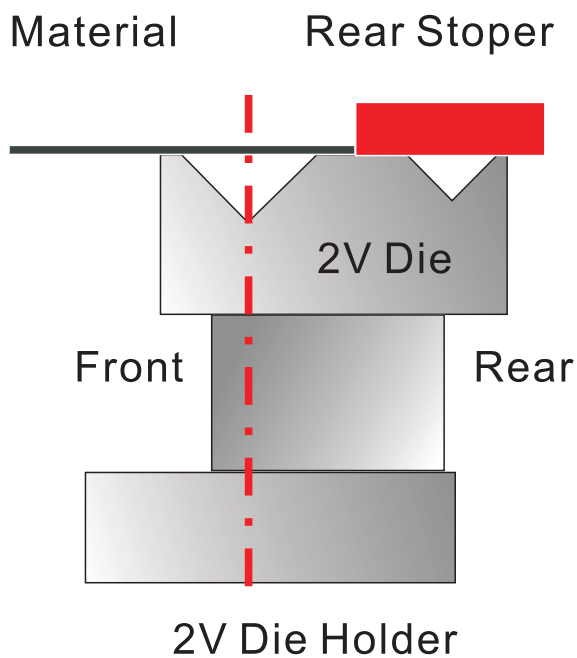
CORRECT ○

CORRECT USAGE OF DIES



✗ WRONG

CORRECT ○



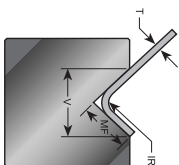
✗ WRONG

CORRECT ○

Bending Tonnage Calculation Form

Standard formula of choosing die opening:
Material Thickness: less than 2.6mm = T x 6
3.0mm-8.0mm = T x 10
9.0mm-12.0mm = T x 10
more than 14.0mm = T x 12

Note: above formula is just for your reference, please take the form below for details information.



THICKNESS	V (mm)																								
	MF	IR	3	4	6	7	8	10	12	14	16	18	20	22	25	32	40	50	63	80	100	125	160	200	250
0.5mm			5.2	4.5	2.8																				
0.6mm				6.0	4.2																				
0.8mm					8.0	7.2	5.6	4.4																	
1.0mm					11.0	10.0	9.0	7.0	5.5																
1.2mm						14.0	13.2	10.8	8.4	7.5	6.6														
1.4mm							15.4	14.0	12.6	9.8	8.8	7.7	8.8												
1.6mm								17.6	16.0	14.4	11.2	10.0													
2.0mm	T							22.0	20.0	18.0	16.0	14.0	12.5	11.0											
2.3mm	O								25.3	23.0	20.7	18.4	16.1	14.4	12.7										
2.6mm	N									28.6	26.0	23.4	20.8	18.2	14.3										
3.0mm	S										33.0	30.0	28.53	27.0	21.0	16.5									
3.2mm												35.2	31.9	28.8	22.4	17.6	14.4								
3.5mm	P												38.5	31.9	28.8	22.4	17.6	14.0							
4.0mm	E													44.0	35.0	28.0	21.9	15.8	14.0						
4.5mm	R														44.0	36.0	28.0	22.0	18.0						
5.0mm																55.0	45.0	35.0	26.3	22.5					
6.0mm	M																60.0	54.0	37.5	31.5	24.0				
7.0mm	E																		56.0	43.8	31.5	28.0			
9.0mm	T																			72.0	56.3	40.5			
10.0mm	E																			90.0	70.0	52.5	45.0		
12.0mm	R																				108.0	84.0	63.0	54.0	
16.0mm																						144.0	112.0	72.0	
19.0mm																							152.0	118.8	99.8
22.0mm																								176.0	137.5
25.0mm																									225.0
30.0mm																									270.0

T=Thickness V=Die Opening MF=Minimum Internal Edge IR=Internal Radius

Above tonnage calculation is based on the carbon steel, strength is between 45-50kgS/CM², please refer the data on the right form when calculating the tonnage for the other material.

Note: the die opening is based on 88°, the tonnage will be increased when the die is below 88°

Soft Copper Tonnage x 50% per meter

Soft AL..... Tonnage x 50% per meter

Hard AL..... Tonnage x 100% per meter

SUS Tonnage x 150% per meter



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[Http://www.ketecool.com](http://www.ketecool.com)

KETEC has certified by the ISO9001:2008 quality management system



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