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Drawing Dies

1) Grades and applications for carbide drawing dies

牌号 Grade	晶粒度 Grain Size (um)	密度 Density (g/ cm ³) ±0.1	硬度 Hardness (HRA)±0.5	抗弯强度 Transverse Rupture Strength (N/ mm ²)	国际牌号 ISO Code	使用性能及用途介绍 Application
YG3X	0.6~0.8	15.2	92.5	1300	K05	High hardness and good wear resistance, but with bad transverse rupture anti-impact strength, it is suitable to draw steel, non-ferrous and alloy wires with diameter within 2mm under light stress condition. Especially good in drawing metal wires with 0.6mm diameter.
YG6X	0.6~0.8	14.88	91.5	1750	K10	Comparatively high wear resistance, it is suitable to draw the steel, non-ferrous and alloy wires with diameter within 10mm under heavy stress condition, and it is also available to draw the steel, non-ferrous and alloy tubes with diameter within 10mm.
YG3	1.0~1.4	15.2	91.5	1400	K05	The wear resistance is only not so good as YG3X, and the transverse rupture strength and toughness are good, it is suitable to draw steel, non-ferrous and alloy wires with diameter within 6mm under light stress condition.
YG6	1.0~1.4	14.93	90	1800	K20	Comparatively high wear resistance with good transverse rupture strength and toughness. It is suitable to draw the steel, non-ferrous and alloy wires and rods with diameter within 20mm under heavy stress condition, and it is also available to draw the steel, non-ferrous and alloy tubes with diameter within 10mm.

YG8	1.4~1.8	14.73	89.5	1950	K30	Good wear resistance ,and its transverse rupture strength and toughness is much higher than YG6X,it is suitable to draw the steel ,non-ferrous and alloy wires and rods with diameter within 50mm under heavy stress condition,and it is also available to draw the steel,non-ferrous and alloy tubes with diameter within 35mm
YG11	1.4~1.8	14.3	88	2000	K40	Wear resistance is comparatively low,but has high transverse rupture strength and anti-impact strength. it is suitable to draw the steel ,non-ferrous and alloy wires and rods with diameter within 60mm under heavy stress condition,and it is also available to draw the steel,non-ferrous and alloy tubes with diameter within 35mm
YG15	1.4~1.8	14.00	86.5	2200	K50	Comparatively low wear resistance,but with high transverse rupture and anti-impact strength.It is suitable to draw steel tube and rods under heavy stress and high compressibility condition

2)Size and tolerance of drawing dies

A)Tolerance for the round hole of drawing dies

a)Tolerance for inner diameter of blanks

Basic Size (MM)	Tolerance (MM)	Basic Size (MM)	Tolerance (MM)
0.1~0.30	0 -0.05	>9.0~24.0	0 -0.3
>0.30~0.40	0 -0.06	>24.0~32.0	0 -0.5
>0.40~0.60	0 -0.08	>32.0~40.0	0 -0.6

>0.60~3.0	0 -0.10	>40.0~55.0	0 -0.8
>3.0~6.0	0 -0.15	>55.0~90.0	0 -1.0
>6.0~9.0	0 -0.20		

b) Tolerance for outer diameter of blanks

Basic Size (MM)	Tolerance (MM)
≤ 1 0	+0.2 0
>10~16	+0.3 0
>16~30	+0.4 0
>30~35	±0.25
>35~40	±0.30
>40~45	±0.35
>45~50	±0.40
>50	±1.3%D

c) Tolerance for height of blanks

Basic Size (MM)	Tolerance (MM)
≤ 1 0	±0.20
>10~20	±0.30
>20~30	±0.40

>30~40	± 0.50
>40~50	± 0.50
>50~60	± 0.80

B) Tolerance for the polygon hole of drawing dies

a) Tolerance for the inner hole of blanks

Basic Size (MM)	Tolerance (MM)	Basic Size (MM)	Tolerance (MM)
≤ 2	0 -0.25	>20~25	0 -0.85
>2~4	0 -0.35	>25~32	0 -0.9
>4~6	0 -0.4	>32~40	0 -1.0
>6~12	0 -0.5	>40~50	0 -1.4
>12~16	0 -0.65	>50~60	0 -1.8
>16~20	0 -0.75	>60~75	0 -2.0

b) Tolerance for the outer diameter of blanks

Basic Size (MM)	Tolerance (MM)
$\geq 7 \sim 30$	± 0.50
>30~50	± 0.80
>50~65	± 1.3
>65~80	+1.8 -1.3

>80~120	+2.3 -1.8
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c)Tolerance for the height of blanks

Basic Size (MM)	Tolerance (MM)
≤20	±0.40
>20~30	±0.50
>30~40	±0.60
>40~50	±0.80
>50~60	±1.0

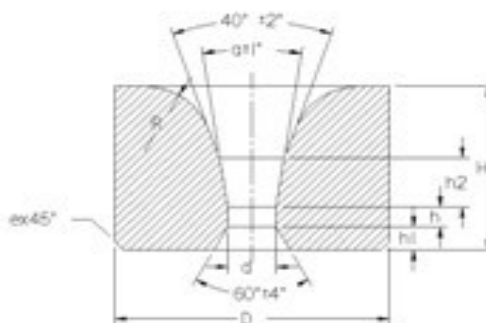
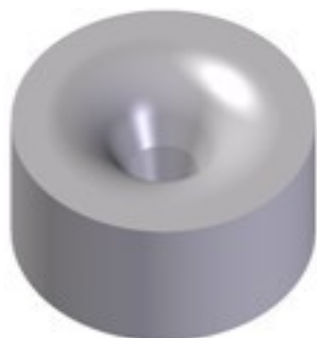
3)Drawing Dies Types and its function

Type	Function
S01	Metal Wire Drawing Dies
S10	Metal Wire Drawing Dies
S11	Metal Wire Drawing Dies
S12	Metal Wire Drawing Dies
S13	Metal Rod Drawing Dies
S20	Metal Tube Drawing Dies
S22	Metal Tube Drawing Dies
S23	Metal Tube Drawing Dies
S30	Floating Plugs for Drawing Metal Tubes
S30-A	Floating Plugs for Drawing Metal Tubes
S30-AF	Floating Plugs for Drawing Metal Tubes
S30-AB	Floating Plugs for Drawing Metal Tubes
S31	Floating Plugs for Drawing Metal Tubes
S40	Drawing Square Metal Bars
S41	Drawing Rectangular Metal Bars
S42	Drawing Metal Strips
S60	Drawing Hexagonal Metal Bars
A	Drawing Metal Wires and Bars
E	Drawing Metal Wires and Bars

V	Drawing Metal Wires and Bars
W	Drawing Metal Wires and Bars
W1	Drawing Metal Wires and Bars
R	Drawing Metal Wires and Bars
LE	Drawing Metal Wires and Bars
LV	Drawing Metal Wires and Bars

4) Drawing Dies

Type A drawing dies



Type	Dimension (mm)						Reference dimension (mm)					
	D	H	d	2α	2β	2γ	h	h1	h2	R	e	ε
A10-0.15	10	8	0.15	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.2	10	8	0.20	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.25	10	8	0.25	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.30	10	8	0.30	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.35	10	8	0.35	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.4	10	8	0.40	12°	90°	90°	≤0.1	1.6	3.7	5.0	1.0	45°
A10-0.5	10	8	0.50	12°	90°	90°	≤0.2	1.6	3.6	—	1.0	45°
A10-0.6	10	8	0.6	12°	90°	90°	0.5	1.6	3.5	—	0.5	45°
A10-0.7	10	8	0.7	12°	90°	90°	0.6	1.6	3.5	—	0.5	45°
A10-0.8	10	8	0.8	12°	90°	90°	0.6	1.6	3.5	—	0.5	45°
A10-0.9	10	8	0.9	12°	90°	90°	0.6	1.6	3.5	—	0.5	45°
A10-1.0	10	8	1.0	12°	90°	90°	0.6	1.6	3.5	—	0.5	45°
A12-0.2	12	10	0.20	12°	90°	90°	≤0.1	1.2	2.9	6.5	1.2	15°

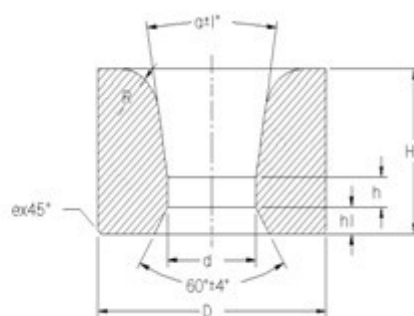
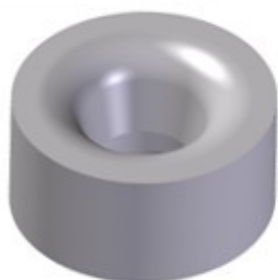
A12-0.25	12	10	0.25	12°	90°	90°	≤0.1	1.2	2.9	6.5	1.2	15°
A12-0.3	12	10	0.30	12°	90°	90°	≤0.1	1.2	2.9	6.5	1.2	15°
A12-0.35	12	10	0.35	12°	90°	90°	≤0.1	1.2	2.9	6.5	1.2	15°
A12-0.4	12	10	0.40	12°	90°	90°	0.4	2.0	5.0	—	1.0	45°
A12-0.5	12	10	0.50	12°	90°	90°	0.4	2.0	5.0	—	1.0	45°
A12-0.6	12	10	0.60	12°	90°	90°	0.5	2.0	5.0	—	1.0	45°
A12-0.7	12	10	0.70	12°	90°	90°	0.5	2.0	5.0	—	1.0	45°
A12-0.8	12	10	0.80	12°	90°	90°	0.6	2.0	5.0	—	1.0	45°
A12-0.9	12	10	0.90	12°	90°	90°	0.6	1.8	4.8	—	1.0	45°
A12-1.0	12	10	1.0	12°	90°	90°	0.7	1.8	4.8	—	1.0	45°
A12-1.1	12	10	1.1	12°	90°	90°	0.7	1.8	4.8	—	1.0	45°
A12-1.2	12	10	1.2	12°	90°	90°	0.8	1.8	4.8	—	1.0	45°
A12-1.3	12	10	1.3	12°	90°	90°	0.9	1.8	4.8	—	1.0	45°
A12-1.4	12	10	1.4	12°	90°	90°	1.0	1.8	4.8	—	1.0	45°
A12-1.6	12	10	1.6	12°	90°	90°	1.1	1.8	4.8	—	1.0	45°
A12-1.7	12	10	1.7	12°	90°	90°	1.1	1.8	4.8	—	1.0	45°
A12-1.8	12	10	1.8	12°	90°	90°	1.2	1.8	4.8	—	1.0	45°
A14-0.4	14	12	0.4	12°	60°	75°	0.4	2.0	5.0	—	1.0	45°
A14-0.4	14	12	0.5	12°	60°	75°	0.4	2.0	5.0	—	1.0	45°
A14-0.6	14	12	0.6	12°	60°	75°	0.5	2.0	5.0	—	1.0	45°
A14-0.7	14	12	0.7	12°	60°	75°	0.5	2.0	5.0	—	1.0	45°
A14-0.8	14	12	0.8	12°	60°	75°	0.6	2.0	5.0	—	1.0	45°
A14-0.9	14	12	0.9	12°	60°	75°	0.6	2.0	5.0	—	1.0	45°
A14-1.0	14	12	1.0	12°	60°	75°	0.7	2.0	5.0	—	1.0	45°
A14-1.1	14	12	1.1	12°	60°	75°	0.7	2.0	5.0	—	1.0	45°
A14-1.2	14	12	1.2	12°	60°	75°	0.8	2.0	5.0	—	1.0	45°
A14-1.3	14	12	1.3	12°	60°	75°	1.0	2.0	5.0	—	1.0	45°
A14-1.4	14	12	1.4	12°	60°	75°	1.0	2.0	5.0	—	1.0	45°
A14-1.5	14	12	1.5	12°	60°	75°	1.0	2.0	5.0	—	1.0	45°
A14-1.6	14	12	1.6	12°	60°	75°	1.1	2.0	5.0	—	1.0	45°
A14-1.7	14	12	1.7	12°	60°	75°	1.1	2.0	5.0	—	1.0	45°
A14-1.8	14	12	1.8	12°	60°	75°	1.2	2.0	5.0	—	1.0	45°
A14-1.9	14	12	1.9	12°	60°	75°	1.2	2.0	5.0	—	1.0	45°
A14-2.0	14	12	2.0	12°	60°	75°	1.2	2.0	5.0	—	1.0	45°
A14-2.1	14	12	2.1	12°	60°	75°	1.2	2.0	5.0	—	1.0	45°
A14-2.2	14	12	2.2	12°	60°	75°	1.2	2.0	5.0	—	1.0	45°
A14-2.3	14	12	2.3	14°	60°	75°	1.3	2.0	5.0	—	1.0	45°
A16-0.6	16	13	0.6	12°	60°	75°	0.5	2.5	4.5	—	1.0	45°
A16-0.7	16	13	0.7	12°	60°	75°	0.5	2.5	4.5	—	1.0	45°
A16-0.8	16	13	0.8	12°	60°	75°	0.6	2.5	4.5	—	1.0	45°
A16-0.9	16	13	0.9	12°	60°	75°	0.5	2.5	4.5	—	1.0	45°
A16-1.0	16	13	1.0	12°	60°	75°	0.7	2.5	4.5	—	1.0	45°

A16-1.1	16	13	1.1	12°	60°	75°	0.7	2.5	4.5	—	1.0	45°
A16-1.2	16	13	1.2	12°	60°	75°	0.8	2.5	4.5	—	1.0	45°
A16-1.3	16	13	1.3	12°	60°	75°	0.8	2.5	4.5	—	1.0	45°
A16-1.4	16	13	1.4	12°	60°	75°	1.0	2.5	4.5	—	1.0	45°
A16-1.5	16	13	1.5	12°	60°	75°	1.0	2.5	4.3	—	1.0	45°
A16-1.6	16	13	1.6	12°	60°	75°	1.1	2.5	4.3	—	1.0	45°
A16-1.7	16	13	1.7	12°	60°	75°	1.1	2.5	4.3	—	1.0	45°
A16-1.8	16	13	1.8	12°	60°	75°	1.2	2.5	4.0	—	1.0	45°
A16-1.9	16	13	1.9	12°	60°	75°	1.2	2.5	4.0	—	1.0	45°
A16-2.0	16	13	2.0	12°	60°	75°	1.2	2.5	4.0	—	1.0	45°
A16-2.1	16	13	2.1	12°	60°	75°	1.2	2.5	4.0	—	1.0	45°
A16-2.2	16	13	2.2	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.3	16	13	2.3	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.4	16	13	2.4	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.5	16	13	2.5	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.4	16	13	2.6	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.7	16	13	2.7	14°	60°	75°	1.3	2.5	4.0	—	1.0	45°
A16-2.8	16	13	2.8	14°	60°	75°	1.4	2.5	4.0	—	1.0	45°
A16-2.9	16	13	2.9	14°	60°	75°	1.4	2.5	4.0	—	1.0	45°
A16-3.0	16	13	3.0	14°	60°	75°	1.4	2.5	4.0	—	1.0	45°
A20-1.0	20	17	1.0	12°	60°	60°	0.7	3.0	8.0	—	1.2	45°
A20-1.1	20	17	1.1	12°	60°	60°	0.7	3.0	8.0	—	1.2	45°
A20-1.2	20	17	1.2	12°	60°	60°	0.7	3.0	8.0	—	1.2	45°
A20-1.3	20	17	1.3	12°	60°	60°	1.0	3.0	8.0	—	1.2	45°
A20-1.4	20	17	1.4	12°	60°	60°	1.0	3.0	7.5	—	1.2	45°
A20-1.5	20	17	1.5	12°	60°	60°	1.0	3.0	7.5	—	1.2	45°
A20-1.6	20	17	1.6	12°	60°	60°	1.1	3.0	7.5	—	1.2	45°
A20-1.7	20	17	1.7	12°	60°	60°	1.1	3.0	7.5	—	1.2	45°
A20-1.8	20	17	1.8	14°	60°	60°	1.2	3.0	7.0	—	1.2	45°
A20-1.9	20	17	1.9	14°	60°	60°	1.2	3.0	7.0	—	1.2	45°
A20-2.0	20	17	2.0	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.1	20	17	2.1	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.2	20	17	2.2	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.3	20	17	2.3	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.4	20	17	2.4	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.5	20	17	2.5	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.6	20	17	2.6	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.7	20	17	2.7	14°	60°	60°	1.3	3.0	7.0	—	1.2	45°
A20-2.8	20	17	2.8	14°	60°	60°	1.4	3.0	7.0	—	1.2	45°
A20-2.8	20	17	2.9	14°	60°	60°	1.4	3.0	7.0	—	1.2	45°
A20-3.0	20	17	3.0	14°	60°	60°	1.5	3.0	7.0	—	1.2	45°
A20-3.2	20	17	3.2	14°	60°	60°	1.5	3.0	7.0	—	1.2	45°

A20-3.3	20	17	3.3	14°	60°	60°	1.6	3.0	7.0	—	1.2	45°
A20-3.5	20	17	3.5	14°	60°	60°	1.7	3.0	7.0	—	1.2	45°
A20-3.7	20	17	3.7	14°	60°	60°	1.8	3.0	7.0	—	1.2	45°
A20-3.8	20	17	3.8	14°	60°	60°	1.9	3.0	7.0	—	1.2	45°
A20-4.0	20	17	4.0	14°	60°	60°	1.9	3.0	7.0	—	1.2	45°
A20-4.2	20	17	4.2	14°	60°	60°	1.9	3.0	7.0	—	1.2	45°
A20-4.5	20	17	4.5	14°	60°	60°	1.9	3.0	7.0	—	1.2	45°
A20-4.7	20	17	4.7	14°	60°	60°	1.9	3.0	7.0	—	1.2	45°
A20-4.8	20	17	4.8	14°	60°	60°	2.0	3.0	7.0	—	1.2	45°
A25-2.3	25	20	2.3	14°	60°	60°	1.3	4.0	8.5	—	1.2	45°
A25-2.4	25	20	2.4	14°	60°	60°	1.3	4.0	8.5	—	1.2	45°
A25-2.5	25	20	2.5	14°	60°	60°	1.3	4.0	8.5	—	1.2	45°
A25-2.6	25	20	2.6	14°	60°	60°	1.3	4.0	8.5	—	1.2	45°
A25-2.7	25	20	2.7	14°	60°	60°	1.3	4.0	8.5	—	1.2	45°
A25-2.8	25	20	2.8	14°	60°	60°	1.4	4.0	8.5	—	1.2	45°
A25-2.9	25	20	2.9	14°	60°	60°	1.4	4.0	8.5	—	1.2	45°
A25-3.0	25	20	3.0	14°	60°	60°	1.5	4.0	8.5	—	1.2	45°
A25-3.2	25	20	3.2	14°	60°	60°	1.5	4.0	8.5	—	1.2	45°
A25-3.3	25	20	3.3	14°	60°	60°	1.6	4.0	8.5	—	1.2	45°
A25-3.5	25	20	3.5	14°	60°	60°	1.7	4.0	8.3	—	1.2	45°
A25-3.7	25	20	3.7	14°	60°	60°	1.8	4.0	8.3	—	1.2	45°
A25-3.8	25	20	3.8	14°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-4.0	25	20	4.0	14°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-4.2	25	20	4.2	14°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-4.0	25	20	4.0	16°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-4.7	25	20	4.7	16°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-4.8	25	20	4.8	16°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-5.1	25	20	5.1	16°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-5.2	25	20	5.2	16°	60°	60°	1.9	4.0	8.0	—	1.2	45°
A25-5.5	25	20	5.5	16°	60°	60°	2.2	4.0	7.5	—	1.2	45°
A25-5.7	25	20	5.7	16°	60°	60°	2.4	4.0	7.5	—	1.2	45°
A25-6.0	25	20	6.0	16°	60°	60°	2.5	4.0	7.5	—	1.2	45°
A25-6.2	25	20	6.2	16°	60°	60°	2.6	4.0	7.5	—	1.2	45°
A25-6.5	25	21	6.5	18°	60°	60°	2.1	3.0	9.6	—	1.2	45°
A25-6.8	25	21	6.8	18°	60°	60°	2.3	3.0	9.6	—	1.2	45°
A25-7.0	25	21	7.0	18°	60°	60°	2.5	3.0	9.6	—	1.2	45°
A25-7.0	25	21	7.5	18°	60°	60°	2.5	3.0	9.6	—	1.2	45°
A25-8.0	25	21	8.0	18°	60°	60°	2.5	3.0	9.6	—	1.2	45°
A25-8.5	25	21	8.5	18°	60°	60°	2.5	3.0	9.6	—	1.2	45°
A29-6.9	29	20	6.9	14°	60°	60°	2.5	4.0	8.0	—	1.2	45°
A30-3.8	30	24	3.8	16°	60°	60°	2.5	5.0	8.0	—	1.2	45°
A30-4.0	30	24	4.0	16°	60°	60°	2.5	5.0	8.0	—	1.2	45°

A30-4.2	30	24	4.2	16°	60°	60°	2.5	5.0	8.0	—	1.2	45°
A30-4.5	30	24	4.5	16°	60°	60°	2.5	4.0	8.0	—	1.2	45°
A30-4.7	30	24	4.7	16°	60°	60°	2.5	4.0	8.0	—	1.2	45°
A30-5.0	30	24	5.0	16°	60°	60°	2.5	4.0	8.0	—	1.2	45°
A30-5.2	30	24	5.2	16°	60°	60°	2.5	4.0	8.0	—	1.2	45°
A30-5.5	30	24	5.5	16°	60°	60°	2.5	3.0	8.0	5.0	1.2	45°
A30-5.7	30	24	5.7	16°	60°	60°	2.6	5.0	8.0	—	1.2	45°
A30-6.0	30	24	6.0	16°	60°	60°	2.6	5.0	8.0	—	1.2	45°
A30-6.2	30	24	6.2	16°	60°	60°	2.6	5.0	8.0	5.0	1.2	45°
A30-6.5	30	24	6.5	16°	60°	60°	2.5	5.0	8.0	—	1.2	45°
A30-6.7	30	24	6.7	16°	60°	60°	2.6	5.0	8.5	—	1.2	45°
A30-7.0	30	24	7.0	16°	60°	60°	2.8	5.0	8.5	—	1.2	45°
A30-7.3	30	24	7.3	16°	60°	60°	2.8	5.0	8.5	—	1.2	45°
A30-7.7	30	24	7.7	16°	60°	60°	3.0	5.0	8.5	—	1.2	45°
A30-8.2	30	24	8.2	16°	60°	60°	3.1	5.0	8.5	—	1.2	45°
A30-8.7	30	24	8.7	16°	60°	60°	3.3	5.0	8.5	—	1.2	45°
A30-9.0	30	24	9.0	16°	60°	60°	3.5	3.0	8.5	5.0	1.2	45°
A30-9.5	30	24	9.5	16°	60°	60°	3.5	3.0	8.5	5.0	1.2	45°
A30-9.7	30	24	9.7	16°	60°	60°	3.5	3.0	8.0	—	1.2	45°

Type W Carbide drawing dies for drawing non-ferrous metal rods



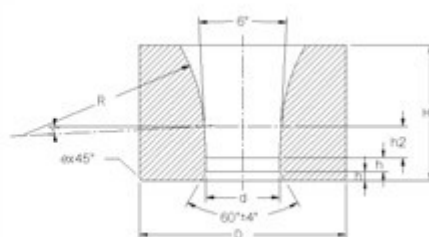
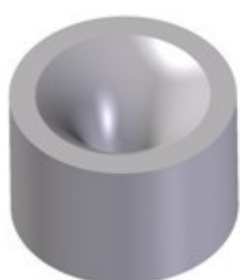
Type	Basic Size					Reference Size					
	D	H	d	2α	2γ	h	h1	R	D1	e	ε
W103-0.20	12	6	0.20	12°	60°	≤0.1	0.8	5.2	8.5	1.2	15°
W103-0.25	12	8	0.25	12°	60°	≤0.1	0.8	5.2	8.5	1.2	15°
W103-0.30	12	8	0.30	12°	60°	≤0.1	0.8	5.2	8.5	1.2	15°
W103-0.40	12	8	0.40	12°	60°	≤0.1	0.8	5.2	8.5	1.2	15°
W103-0.60	12	8	0.60	14°	60°	1.5	0.8	4.1	4.3	1.5	45°
W103-0.70	12	8	0.70	14°	60°	1.5	0.8	4.1	4.3	1.5	45°
W103-0.80	12	8	0.80	14°	60°	1.5	0.8	6.0	8.2	1.5	45°
W103-0.90	12	8	0.90	14°	60°	1.5	0.8	6.0	8.2	1.5	45°
W103-1.0	12	8	1.0	14°	60°	1.5	0.8	6.0	8.2	1.5	45°

W103-1.1	12	8	1.1	14°	60°	1.5	0.8	6.0	8.6	1.5	45°
W103-1.2	12	8	1.2	14°	60°	1.5	0.8	6.0	8.6	1.5	45°
W103-1.3	12	8	1.3	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W103-1.4	12	8	1.4	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W103-1.5	12	8	1.5	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W103-1.6	12	8	1.6	14°	60°	1.2	1.0	5.4	9.0	1.5	45°
W104-1.0	15	10	1.0	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-1.1	15	10	1.1	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-1.2	15	10	1.2	14°	60°	1.5	1.2	7.0	8.2	1.5	45°
W104-1.3	15	10	1.3	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-1.4	15	10	1.4	14°	60°	1.5	1.2	7.0	8.2	1.5	45°
W104-1.5	15	10	1.5	14°	60°	1.5	1.2	7.0	8.6	1.2	45°
W104-1.6	15	10	1.6	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W104-1.7	15	10	1.7	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W104-1.8	15	10	1.8	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W104-1.9	15	10	1.9	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W104-2.0	15	10	2.0	14°	60°	1.5	1.2	7.0	9.0	1.5	45°
W104-2.1	15	10	2.1	14°	60°	1.5	1.2	7.0	11.0	1.2	45°
W104-2.2	15	10	2.2	14°	60°	1.5	1.2	7.0	11.0	1.2	45°
W104-2.3	15	10	2.3	14°	60°	1.6	1.0	6.0	12.0	1.5	45°
W104-2.4	15	10	2.4	14°	60°	1.5	1.2	6.0	12.0	1.5	45°
W104-2.5	15	10	2.5	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-2.6	15	10	2.6	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-2.7	15	10	2.7	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-2.8	15	10	2.8	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-2.9	15	10	2.9	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-3.0	15	10	3.0	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W104-3.2	15	10	3.2	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W104-3.4	15	10	3.4	14°	60°	1.6	1.2	7.0	10.5	1.2	45°
W104-3.5	15	10	3.5	14°	60°	1.8	1.0	7.0	12.0	1.2	45°
W104-3.7	15	10	3.7	14°	60°	1.8	1.1	7.0	10.5	1.2	45°
W104-3.8	15	10	3.8	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W105-1.1	20	14	1.1	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.2	20	14	1.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.3	20	14	1.3	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.4	20	14	1.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.5	20	14	1.5	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.6	20	14	1.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.7	20	14	1.7	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.8	20	14	1.8	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-1.9	20	14	1.9	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.0	20	14	2.0	14°	60°	2.0	1.6	9.0	13.2	1.5	45°

W105-2.1	20	14	2.1	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.2	20	14	2.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.3	20	14	2.3	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.4	20	14	2.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.5	20	14	2.5	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.6	20	14	2.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.7	20	14	2.7	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.8	20	14	2.8	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-2.9	20	14	2.9	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-3.0	20	14	3.0	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-3.2	20	14	3.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-3.4	20	14	3.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-3.6	20	14	3.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-3.8	20	14	3.8	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-4.0	20	14	4.0	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W105-4.2	20	14	4.2	14°	60°	2.1	1.0	6.0	17.0	1.5	45°
W105-4.4	20	14	4.4	16°	60°	2.2	1.0	6.0	17.0	2.0	45°
W105-4.7	20	14	4.7	16°	60°	2.3	1.0	6.0	17.0	2.0	45°
W105-5.0	20	14	5.0	16°	60°	2.4	1.0	5.5	17.0	2.0	45°
W105-5.3	20	14	5.3	16°	60°	2.4	1.0	5.6	17.0	2.0	45°
W105-5.6	20	14	5.6	16°	60°	2.5	1.0	5.6	17.0	2.0	45°
W105-5.7	20	14	5.7	16°	60°	2.6	1.0	5.6	17.0	2.0	45°
W106-3.0	25	18	3.0	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-3.2	25	18	3.2	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-3.4	25	18	3.4	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-3.6	25	18	3.6	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-3.8	25	18	3.8	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-4.0	25	18	4.0	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-4.2	25	18	4.2	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-4.5	25	18	4.5	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-4.8	25	18	4.8	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-5.1	25	18	5.1	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-5.4	25	18	5.4	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-5.5	25	18	5.5	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-5.8	25	18	5.8	14°	60°	3.0	2.5	12.0	18.0	2.0	45°
W106-6.0	25	18	6.0	14°	60°	2.8	2.9	14.0	18.0	2.0	45°
W106-6.3	25	18	6.3	14°	60°	3.0	2.5	14.0	18.0	2.0	45°
W106-6.5	25	18	6.5	16°	60°	3.2	2.0	12.0	18.0	2.0	45°
W106-6.8	25	18	6.8	16°	60°	3.1	2.3	12.0	18.0	2.0	45°
W106-7.0	25	18	7.0	14°	60°	3.1	2.6	14.0	18.0	2.0	45°
W106-7.3	25	18	7.3	16°	60°	3.2	2.0	12.0	17.5	2.0	45°
W106-7.7	25	18	7.7	16°	60°	3.2	2.0	12.0	17.5	2.0	45°

W107-7.7	30	22	7.7	16°	60°	4.5	2.0	14.5	20.5	2.0	45°
W107-8.0	30	22	8.0	16°	60°	3.3	3.0	15.0	26.0	2.0	45°
W107-8.4	30	22	8.4	16°	60°	3.3	3.0	14.8	26.0	2.0	45°
W107-9.0	30	22	9.0	16°	60°	3.4	2.9	14.6	26.0	2.0	45°
W107-9.4	30	22	9.4	16°	60°	3.5	2.8	14.5	26.0	2.0	45°
W107-10.0	30	22	10.0	16°	60°	3.6	2.7	14.4	26.0	2.0	45°
W107-10.5	30	22	10.5	16°	60°	3.6	2.7	14.4	26.0	2.0	45°
W107-11.0	30	22	11.0	16°	60°	3.7	2.6	14.3	26.0	2.0	45°
W108-6.7	35	25	6.7	16°	60°	4.5	2.0	14.5	23.5	2.0	45°
W106-7.0	35	25	7.0	16°	60°	2.5	3.5	14.5	25.0	2.0	45°
W106-7.5	35	25	7.5	16°	60°	2.5	3.5	14.5	25.0	2.0	45°
W108-7.7	35	25	7.7	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W108-8.2	35	25	8.2	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W108-8.7	35	25	8.7	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W108-9.3	35	25	9.3	16°	60°	2.8	3.5	14.0	25.0	3.0	45°
W108-9.8	35	25	9.8	16°	60°	2.8	3.5	14.0	25.0	3.0	45°
W108-10	35	25	10.0	16°	60°	3.0	3.5	14.0	25.0	3.0	45°
W108-10.5	35	25	10.5	16°	60°	3.2	3.5	14.0	25.0	3.0	45°
W108-11	35	25	11.0	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W108-11.5	35	25	11.5	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W108-12	35	25	12.0	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W108-12.5	35	25	12.5	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W108-13	35	25	13.0	16°	60°	3.6	3.5	14.0	25.0	3.0	45°

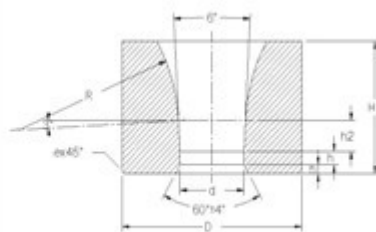
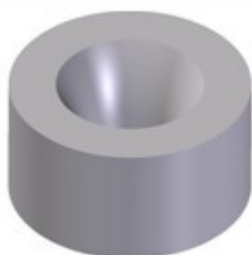
Type V Carbide drawing dies for drawing non-ferrous metal rods



Type	Dimensions				Reference Dimensions					
	D	d	d1	H	h1	h	α_0	β_0	R	e
V13-0.4	13	0.4	9	10	3.0	0.6	120	900	6	1.2
V13-0.6	13	0.6	9	10	2.0	0.6	120	900	6	1.2

V13-1.3	13	1.3	9	10	3.0	0.6	120	900	6	1.2
V13-1.5	13	1.5	9	10	2.0	0.6	120	900	6	1.2
V15-0.4	15	0.4	13	12	2.0	0.6	120	850	9.65	1.2
V15-1.5	15	1.5	12	13	2.0	1.0	120	850	6.79	1.2
V17-0.5	17	0.5	13	15	3.0	0.6	140	900	10	1.2
V17-0.6	17	0.6	13	15	3.0	0.6	140	900	10	1.2
V17-0.8	17	0.8	13	15	3.0	0.7	140	900	10	1.2
V17-1.0	17	1.0	13	15	3.0	0.7	140	900	10	1.2
V17-1.2	17	1.2	13	15	3.0	0.9	140	900	10	1.2
V17-1.5	17	1.5	13	15	3.0	0.9	140	900	10	1.2
V17-2.0	17	2.0	13	15	3.0	1.0	140	900	10	1.2
V17-2.5	17	2.5	13	15	3.0	1.0	140	900	10	1.2
V17-3.0	17	3.0	13	15	3.0	1.0	140	900	10	1.2
V17-3.5	17	3.5	13	15	3.0	1.3	140	900	10	1.2
V17-4.0	17	4.0	13	15	3.0	1.5	140	900	10	1.2
V19-1.0	19	1.0	15	17	2.5	1.0	120	850	8.5	1.5
V19-1.5	19	1.5	15	17	2.5	1.2	120	850	8.5	1.5
V19-2.0	19	2.0	15	17	2.5	1.3	120	850	8.5	1.5
V19-3.0	19	3.0	15	17	2.5	1.5	120	850	8.5	1.5
V19-4.0	19	4.0	15	17	2.5	1.7	120	850	8.5	1.5
V22-1.5	22	1.5	18	18	3.6	1.0	160	900	12	1.5
V22-2.0	22	2.0	18	18	3.6	1.0	160	900	12	1.5
V22-3.0	22	3.0	18	18	3.6	1.0	160	900	12	1.5
V22-3.5	22	3.5	18	18	3.6	1.5	160	900	12	1.5
V22-4.0	22	4.0	18	18	3.6	1.5	160	900	12	1.5
V22-4.5	22	4.5	18	18	3.6	1.8	160	900	12	1.5
V22-5.0	22	5.0	18	18	3.6	1.8	160	900	12	1.5
V22-5.5	22	5.5	18	18	3.6	2.0	160	900	12	1.5
V22-6.0	22	6.0	18	18	3.6	2.0	160	900	12	1.5
V22-6.5	22	6.5	18	18	3.6	2.0	160	900	12	1.5
V30-7.7-L	30	7.7	25	20	3.5	3.0	180	750	11	1.5
V30-9.0-L	30	9.0	25	20	3.5	3.0	180	750	11	1.5
V30-10.0L	30	10.0	25	20	3.5	3.0	180	750	11	1.5

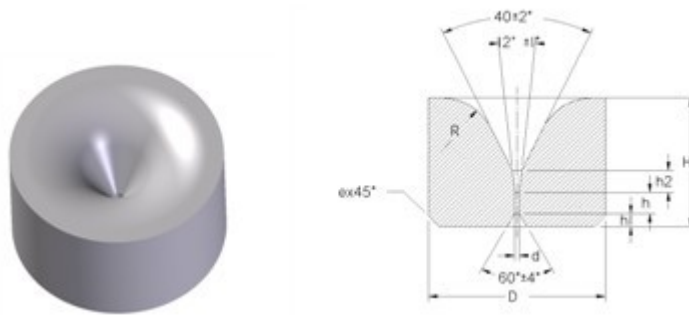
Type E Carbide drawing dies for drawing metal tubes



Type	Dimensions				Referecnce Dimensions				
	D	d	H	h1	h	A	B	R	e
E25-5.7	25	5.7	20	3.0	2.0	240	600	3	1.2
E25-6.7	25	6.7	20	3.0	2.0	240	600	3	1.2
E25-7.0	25	7.0	20	3.0	2.0	240	600	3	1.2
E25-8.0	25	8.0	20	3.0	2.0	240	600	3	1.2
E25-7.7	25	7.7	20	3.0	2.0	240	600	3	1.2
E30-7.7	30	7.7	24	3.5	2.1	240	600	4	1.2
E30-9.0	30	9.0	24	3.5	2.1	240	600	4	1.2
E30-10	30	10.0	24	3.5	2.1	240	600	4	1.2
E30-11	30	11.0	24	3.5	2.1	240	600	4	1.2
E35-9.0	35	9.0	24	3.5	2.1	240	600	4	1.5
E35-10	35	10.0	24	3.5	2.1	240	600	4	1.5
E35-11	35	11.0	24	3.5	2.1	240	600	4	1.5
E35-13	35	13.0	24	3.5	2.1	240	600	4	1.5
E35-14	35	14.0	24	3.5	2.1	240	600	4	1.5
E35-16	35	16.0	24	3.5	2.1	240	600	4	1.5
E35-18	35	18.0	24	3.5	2.1	240	600	4	1.5
E40-12	40	12.0	24	3.5	2.1	240	600	4	1.5
E40-16	40	16.0	24	3.5	2.1	240	600	4	1.5
E40-19	40	19.0	24	3.5	2.1	240	600	4	1.5
E45-16	45	16.0	25	4.0	2.6	240	600	5	1.5
E45-18	45	18.0	25	4.0	2.6	240	600	5	1.5
E45-20	45	20.0	25	4.0	2.6	240	600	5	1.5
E50-18	50	18.0	25	4.0	2.6	240	600	5	2.0
E55-20	55	20.0	27	4.5	3.2	240	600	6	2.0
E60-20	60	20.0	27	4.5	3.2	240	600	6	2.0
E60-22	60	22.0	27	4.5	3.2	240	600	6	2.0
E60-25	60	25.0	27	4.5	3.2	240	600	6	2.0
E65-20	65	20.0	27	4.5	3.2	240	600	6	2.5
E65-25	65	25.0	27	4.5	3.2	240	600	6	2.5
E65-28	65	28.0	27	4.5	3.2	240	600	6	2.5
E65-30	65	30.0	27	4.5	3.2	240	600	6	2.5
E70-32	70	32.0	30	5.5	4.0	240	600	6	2.5
E70-35	70	35.0	30	5.5	4.0	240	600	6	2.5
E75-32	75	32.0	30	5.5	4.0	240	600	6	2.5
E75-35	75	35.0	30	5.5	4.0	240	600	6	2.5
E80-40	80	40.0	30	5.5	4.0	240	600	6	2.5
E85-40	85	40.0	33	6.0	4.5	240	600	7	2.5

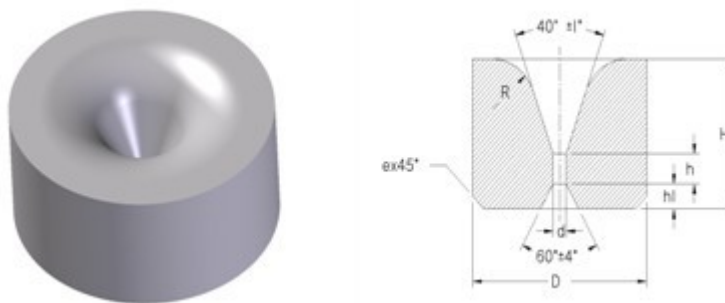
E90-40	90	40.0	33	6.5	5.0	240	600	7	2.5
E95-42	95	42.0	33	6.5	5.0	240	600	7	2.5
E100-45	100	45.0	33	7.0	5.5	240	600	7	2.5

Type S01 Carbide drawing die nibs for drawing ferrous and nonferrous metal wires



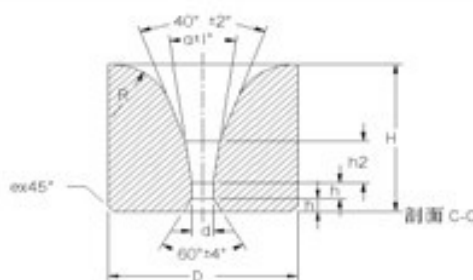
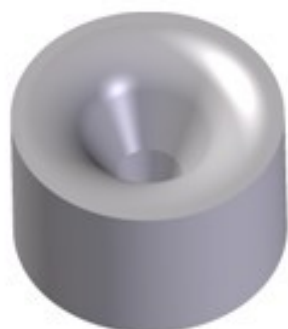
Type	Dimensions (mm)					Reference Dimensions (mm)			
	D	H	d	2α	2γ	h	h1	h2	R
S01-00604	6	4	0.2	40°	60°	0.8	0.6	0.8	1.5
S01-00806	8	6	0.2	40°	60°	1.0	0.6	1.0	2.5

Type S10 Carbide drawing die nibs for drawing ferrous and nonferrous metal wires



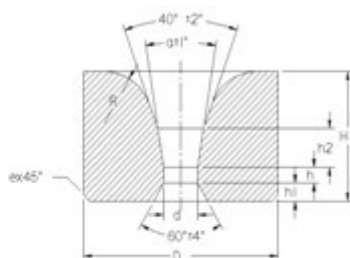
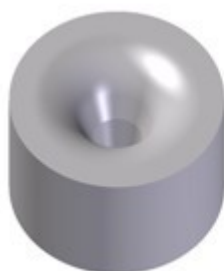
Type	Dimensions (mm)					Reference Dimensions (mm)			
	D	H	d	2α	2γ	h	h1	R	e
S10-00604	6	4	0.4~0.8	40°	60°	0.8~1.2	0.8	1.0	0.5
S10-00806	8	6	0.4~0.8			1.0~1.5		1.5	

Type S11 Carbide drawing die nibs for drawing ferrous and nonferrous metal wires



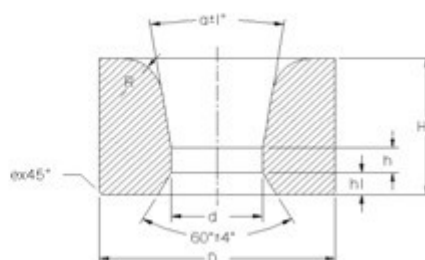
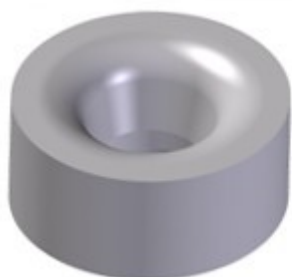
Type	Dimensions (mm)					Reference Dimensions(mm)			
	D	H	d	2α	2γ	h	h1	R	e
S11-00806	8	6	0.4~1.2	12°~16°	60°	0.3~0.6	1.0	2.0	0.5
S11-01210	12	10	0.4~2.3	14°~16°	90°	0.4~1.2	1.2	3.5~4.0	1.0
S11-01310	13	10	0.4~2.6	12°~18°	60° 90°	0.3~1.4	1.2~1.5	2.0~4.0	1.0
S11-01513	15	13	0.4~2.8	14°~16°	90°	0.4~1.5	1.5	7.0~9.1	1.2
S11-01613	16	13	0.4~3.2	16°	60°	0.2~1.3	1.5	5.0	1.0
S11-01614	16	14	0.4~2.8	18°	60°	0.3~1.4	1.5	4.0	1.0
S11-01916	19	16	2.3~5.9	16°~18°	75°	1.2~2.0	2.5	7.9~9.6	1.5
S11-02017	20	17	2.3~6.0	16°~18°	60° 75°	2.3~2.6	2.5	5.0~9.8	1.2
S11-02117	21	17	1.6~5.7	18°	60°	1.2~3.0	2.5	5.0	1.2
S11-02218	22	18	1.5~6.3	18°	60°	1.2~2.6	2.5	5.0~8.0	1.2

Type S12 Carbide drawing die nibs for drawing nonferrous wires and rods



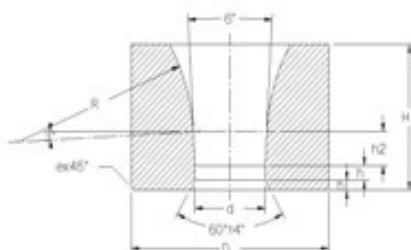
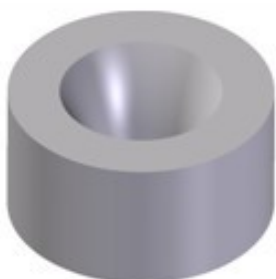
Type	Dimensions (mm)					Reference Dimensions(mm)			
	D	H	d	2α	2γ	h	h1	R	e
S12-00806	8	6	0.4~0.8	16°	60°	0.3~0.4	1.0	2.5	0.6
S12-01308	13	8	0.4~0.8	16°	60°	0.3~0.8	1.2	3.0	1.0
S12-01610	16	10	0.8~2.0	18°	60°	0.8~1.2	1.6	4.0	1.0
S12-02012	20	12	2.3~4.0	20°	60°	0.8~1.4	1.6~2.0	4.0	1.0
S12-02214	22	14	4.2~5.7	22°	60°	1.4~2.3	2.0	4.0	1.0
S12-02216	22	16	6.4~8.0	22°	60°	2.0~2.3	2.0	4.5	1.0
S12-02616	26	16	6.4~8.0	22°	60°	2.0	3.5	3.5	1.0

S13 Carbide drawing dies for drawing metal rods



Type	Dimension(mm)					Reference dimension(mm)			
	D	H	d	2α	2γ	h	h1	R	e
S13-02818	28	18	5.7~7.3	20°	60°	2.5	3.0	9.0	1.2
S13-02820	28	20	4.7~9.9	20°	60°	2.5~4.5	2.5~3.0	7.0~10.0	1.2
S13-03021	30	21	5.4~10.1	20°	60°	3.5~4.0	2.5~3.5	7.0	1.2~1.5
S13-03524	35	24	6.7~12.5	20°	60°	5.0	4.0	7.0~14.0	1.5
S13-03824	38	24	10.5~15.5	21°~23°	60°	4.0~5.0	3.5~4.0	7.0~14.0	1.5
S13-04025	40	25	10.0~15.5	20°	60°	5.0	4.0	7.0	1.5
S13-04827	48	27	16.5~24.5	20°~23°	60°	5.0~6.0	4.5	7.0~14.0	15
S13-04927	49	27	21.5~23.5	23°	60°	6.0	4.0	14	15
S13-05028	50	28	16.5~24.5	20°	60°	6.0~7.0	4.5	7.0	1.5
S13-06032	60	32	25.5~34.5	21°	60°	7.0~7.5	5.0	14	1.5
S13-06035	60	35	25.5~34.5	20°	60°	7.0~7.5	6.0	8	1.5
S13-07535	75	35	35.5~43.5	20°	60°	8.0	6.0	8.0	1.5
S13-08035	80	35	43.5	20°	60°	7.0	5.5	8.0	1.5
S13-09035	90	35	45~58	20°	60°	9.0~10.0	6.0	8.0	1.5~2.0
S13-09535	95	35	53~57	20°	60°	8.5	6.0	8.0	1.5
S13-11040	110	40	53~69	20°	60°	9.0~11.0	6.0	8.0	2.0
S13-12045	120	45	65	20°	60°	11.0	6.0	8.0	2.0
S13-14050	140	50	71~84	20°	60°	12.0	6.0	8.0	2.0

Type S20 Carbide drawing dies for drawing metal tubes

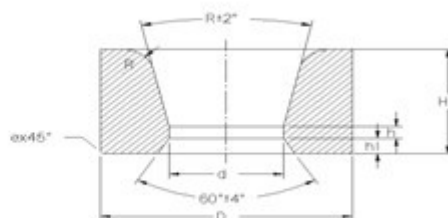
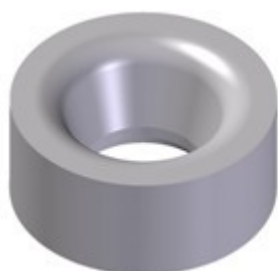


Type	Dimension(mm)	Reference dimension(mm)
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	D	H	d	2α	2γ	h	h1	e
S20-01614	16	14	2.0~3.0	10°	60°	1.0~1.5	1.5	1.0
S20-02218	22	18	4.0	10°	60°	2.0	1.5	1.0
S20-03022	30	22	5.0~8.0	10°	60°	3.0	2.0	1.2
S20-03525	35	25	9.0~11.0	10°	60°	3.0	2.0	1.2
S20-04028	40	28	12.0~14.0	10°	60°	3.0	2.0	1.5
S20-04530	45	30	15.0~17.0	10°	60°	3.0	1.5	1.5
S20-05032	50	32	18.0~25.0	10°	60°	4.0	2.5	1.5
S20-05532	55	32	26.0~28.0	10°	60°	4.0	2.5	1.5
S20-06034	60	34	29.0~31.0	10°	60°	4.0	2.5	1.5
S20-06536	65	36	33.0~35.0	10°	60°	4.0	2.5	1.5
S20-07542	75	42	37.0~39.0	10°	60°	5.0	3.0	1.5
S20-08545	85	45	40.0~45.0	10°	60°	5.0	3.0	1.5
S20-09548	95	48	41.0~45.0	10°	60°	5.0	3.0	1.5
S20-10052	100	52	48.0~51.0	10°	60°	7.0	4.0	1.5
S20-11052	110	52	56.0~60.0	10°	60°	7.0	4.0	1.5

Type S22 Carbide drawing dies for drawing nonferrous metal

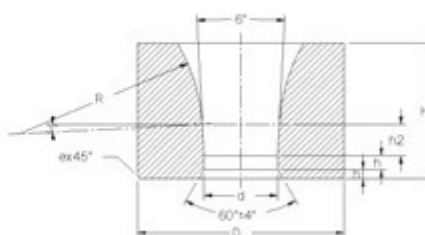
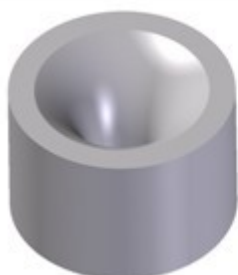
tubes



Type	Dimension(mm)					Reference dimension(mm)			
	D	H	d	2α	2γ	h	h1	R	e
S22-02013	20	13	2.8~5.0	24°	60°	1.5	3.0	4.0	1.0
S22-02014	20	14	5.5~7.6	24°	60°	2.0	3.0	4.5	1.0
S22-02518	25	18	10.0~11.0	24°	60°	2.0	3.0	4.5	1.2
S22-03018	30	18	6.7~11.5	24°	60°	2.0	3.0	4.5	1.2
S22-03518	35	18	13	24°	60°	4.0	3.0	5.5	1.2
S22-04524	45	24	12.5~23.5	24°	60°	2.7	3.0	5.5	1.2
S22-05025	50	25	26	24°	60°	5.0	4.0	7.0	1.2
S22-05427	54	27	21.5~23.5	24°	60°	4.0	5.0	7.0	1.5
S22-06030	60	30	24.0~33.5	24°	60°	4.0	4.5	5.5	1.2
S22-08035	80	35	34.5~47.0	24°	60°	4.0	5.0	10.0	1.5
S22-09040	90	40	49.0~52.0	24°	60°	6.5	5.0	10.0	2.0
S22-10040	100	40	53.0~57.0	24°	60°	5.5	5.5	10.0	2.0
S22-12045	120	45	59.0~67.0	24°	60°	5.5	5.5	10.0	2.0

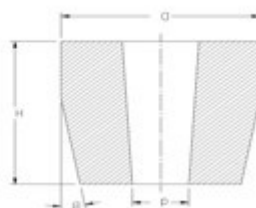
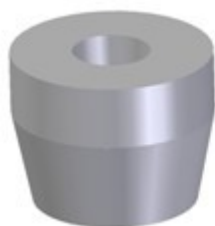
S22-13050	130	50	69.0~78.0	24°	60°	6.0	5.5	12.0	2.0
S22-14050	140	50	79.0~88.0	24°	60°	6.0	5.5	12.0	2.0
S22-23060	230	60	138.0	24°	60°	6.0	5.5	12.0	2.0
S22-24060	240	60	152.0	24°	60°	10.0	10.0	10.0	3.0

Type S23 Carbide drawing dies for drawing metal tubes



Type	Dimension(mm)				Reference dimension (mm)				
	D	H	d	2γ	h	h1	R	e	
S23-01510	15	10	2.5~3.5	60°	2.5	1.0	8.0	2.0	
S23-02014	20	14	4.3~7.9	60°	4.6~5.0	1.0	9.0~10.0	2.0	
S23-02418	24	18	8.4~12.7	60°	6.2~7.3	1.5	12.0~13.0	2.0	
S23-04524	45	24	20	60°	4.0	2.5	30.0	1.5	
S23-05032	50	32	20.0~24.0	60°	12.0	2.0	30.0	1.5	
S23-06035	60	35	26.0~30.0	60°	12.0	2.0	35.0	1.5	
S23-07042	70	42	32.0~36.0	60°	15.0	2.5	35.0	1.5	
S23-07542	75	42	38.0~40.0	60°	15.0	2.5	35.0	1.5	
S23-08545	85	45	42.0~46.0	60°	15.0	2.5~3.0	40.0	1.5	
S23-10050	100	50	48.0~54.0	60°	18.0	3.0	40.0	2.4	
S23-11050	110	50	56.0~62.0	60°	18.0	3.0	40.0	2.4	
S23-12555	125	55	64.0~70.0	60°	20.0	3.0	40.0	2.0	
S23-14755	147	55	72.0~90.0	60°	20.0	4.0	50.0	2.0	
S23-16855	168	55	91.0~113.0	60°	20.0	4.0	50.0	2.0	

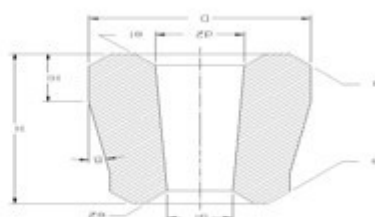
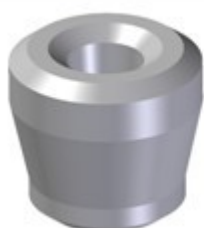
Type S30-A Carbide floating plugs for drawing metal tubes



Type	Dimension(mm)	Reerence dimension(mm)
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	D	H	d	β
S30-35A	35	21	12	8°
S30-40A	40	23	16	
S30-45A	45	25	16	
S30-50A	50	28	18	
S30-55A	55	30	18	
S30-60A	60	32	22	
S30-65A	65	34	22	

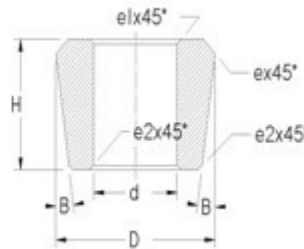
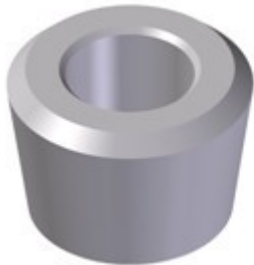
Type S30-AB Carbide floating plugs for drawing metal tubes



Type	Dimension (mm)					Reference dimension (mm)		
	D	H	H1	d	d1	e	a	β
S30-21AB	21	25	8	18	6	2	2	9.5°
S30-20.6AB	20.6	25	8	18.4	6	2	2	
S30-25.2AB	25.2	30	8	21.5	8	2	2	
S30-27AB	27	30	8	24.2	8	2	2	
S30-22.6AB	22.6	32	10.5	20.1	8	R8	2	10.5°
S30-10AB	10	25	6	8	4	1	1	9.5°
S30-11AB	11	25	6	9	4	1	1	9.5
S30-12AB	12	25	6	10	4	1	1	9.5
S30-13AB	13	25	6	10	4	1	1	9.5
S30-14AB	14	25	6	12	4	1	1	9.5
S30-14ABC	14	25	6	11	4	1	1	9.5
S30-15AB	15	25	8	13	6	1	1	9.5
S30-15ABC	15	25	8	12	6	1	1	9.5
S30-16AB	16	25	8	14	6	1.5	1.1	9.5
S30-17AB	17	25	8	14	6	1.5	1.1	9.5
S30-18AB	18	25	8	15	6	1.5	1.1	9.5
S30-18ABC	18	25	8	16	6	1.5	1.1	9.5
S30-19AB	19	25	8	16	8	1.5	1.1	9.5
S30-20AB	20	25	8	18	8	1.5	1.1	9.5
S30-20ABC	20	25	8	17	8	1.5	1.1	9.5
S30-21AB	21	25	8	18	8	1.5	1.1	9.5

S30-22AB	22	25	8	19	8	1.5	1.1	9.5
S30-23AB	23	30	9	20	10	1.5	1.1	9.5
S30-24AB	24	30	9	21	10	1.5	1.1	9.5
S30-25AB	25	30	9	22	10	1.5	1.1	9.5
S30-26AB	26	31	11	22.9	10	1.5	1.1	9.5
S30-26AB	26	30	9	23	10	1.5	1.1	9.5
S30-27AB	27	30	9	24	10	1.5	1.1	9.5
S30-28AB	28	35	10	25	12	1.5	1.1	9.5
S30-29AB	29	35	10	26	12	1.5	1.1	9.5
S30-30AB	30	35	10	27	12	1.5	1.1	9.5
S30-31AB	31	35	10	28	12	1.5	1.1	9.5

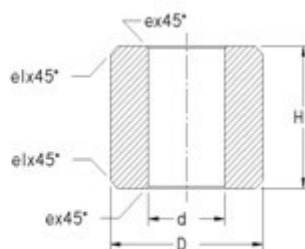
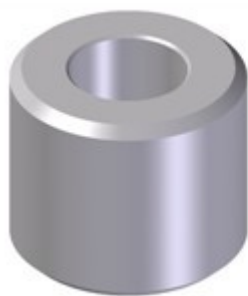
Type S30 Carbide floating plugs for drawing metal tubes



Type	dimension(mm)				Reference dimension(mm)		
	D	H	d	β	e	e1	e2
S30-23	23.0	16.0	12.0	8.5°	1.0	1.0	1.0
S30-25	25.0	16.0	14.0	8.5°	1.0	1.0	1.0
S30-27	27.0	16.0	17.0	8.5°	2.0	1.0	1.0
S30-28	28.0	27.0	17.0	8.5°	2.0	1.0	1.0
S30-29	29.2	27.0	17.0	8.5°	2.0	1.0	1.0
S30-30	30.4	27.0	17.0	8.5°	2.0	1.0	1.0
S30-31	31.6	27.0	17.0	8.5°	2.0	1.0	1.0
S30-32	32.2	27.0	17.0	8.5°	2.0	1.0	1.0
S30-33	33.4	27.0	17.0	8.5°	2.0	1.0	1.0
S30-34	34.0	38.8	17.0	8.5°	2.0	1.0	1.0
S30-35	35.2	27.0	17.0	8.5°	2.0	1.0	1.0
S30-36	36.4	27.0	17.0	8.5°	2.0	1.0	1.0
S30-37	37.0	27.0	19.0	8.5°	2.0	1.0	1.0
S30-38	38.2	27.0	19.0	8.5°	2.0	1.0	1.0
S30-39	39.4	27.0	19.0	8.5°	2.0	1.0	1.0
S30-40	40.0	27.0	21.0	8.5°	3.0	1.0	1.0
S30-41	41.0	27.0	21.0	8.5°	3.0	1.0	1.0
S30-42	42.0	27.0	21.0	8.5°	3.0	1.0	1.0
S30-43	43.0	27.0	21.0	8.5°	3.0	1.0	1.0

S30-44	44.0	32.0	23.0	8.5°	3.0	1.0	1.0
S30-45	45.0	32.0	23.0	8.5°	3.0	1.0	1.0
S30-46	46.0	32.0	23.0	8.5°	3.0	1.0	1.0
S30-47	47.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-48	48.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-49	49.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-50	50.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-51	51.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-52	52.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-53	53.0	32.0	25.0	8.5°	4.0	1.0	1.0
S30-54	54.0	32.0	28.0	8.5°	4.0	1.0	1.0
S30-55	55.0	32.0	28.0	8.5°	4.0	1.0	1.0
S30-56	56.0	32.0	28.0	8.5°	4.0	1.0	1.0
S30-57	57.0	32.0	28.0	8.5°	4.0	1.0	1.0
S30-58	58.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-59	59.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-60	60.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-61	61.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-62	62.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-63	63.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-64	64.0	35.0	28.0	8.5°	4.0	1.0	1.0
S30-68	68.0	35.0	34.0	9°	5.0	3.0	2.0
S30-71	71.0	35.0	34.0	9°	5.0	3.0	2.0
S30-75	75.0	35.0	38.0	9°	5.0	3.0	2.0
S30-77	77.0	35.0	38.0	9°	5.0	3.0	2.0
S30-80	80.0	35.0	42.0	9°	5.0	3.0	2.0
S30-82	82.0	35.0	42.0	9°	5.0	3.0	2.0
S30-86	86.0	35.0	47.8	9°	5.0	3.0	2.0
S30-88	88.0	35.0	47.8	9°	6.0	3.0	2.0
S30-91	91.0	35.0	48.0	9°	6.0	3.0	2.0
S30-94	94.0	35.0	48	9°	6.0	3.0	2.0
S30-99	99.0	35.0	58	9°	6.0	3.0	2.0
S30-102	102.0	35.0	58	9°	6.0	3.0	2.0
S30-105	105.0	35.0	58	9°	6.0	3.0	2.0

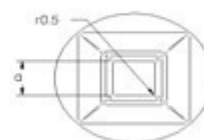
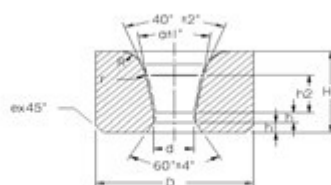
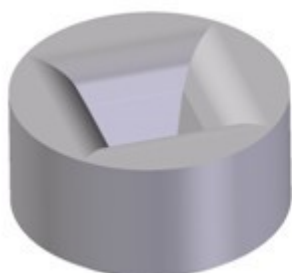
Type S31 Carbide floating plugs for drawing metal tubes



Type	Dimension(mm)			Reference dimension (mm)	
	D	H	d	e1	e
S31-14	14	25	7.0	1.0	0.5
S31-15	15	25	7.0	1.0	0.5
S31-16	16	25	7.0	1.0	0.5
S31-17	17	25	8.0	1.0	0.5
S31-18	18	25	8.0	1.0	0.5
S31-19	19	30	10.0	1.0	0.5
S31-20	20	30	10.0	1.0	0.5
S31-21	21	30	10.0	1.0	0.5
S31-22	22	30	10.0	1.0	0.5
S31-23	23	30	12.0	1.0	0.5
S31-24	24	30	12.0	1.0	0.5
S31-25	25	30	12.0	1.0	0.5
S31-26	26	30	12.0	1.0	0.5
S31-27	27	30	12.0	1.0	0.5
S31-28	28	35	16.0	1.0	0.5
S31-29	29	35	16.0	1.0	0.5
S31-30	30	35	16.0	1.0	0.5
S31-31	31	35	16.0	2.0	0.5
S31-32	32	35	16.0	2.0	0.5
S31-33	33	35	20.0	2.0	0.5
S31-34	34	35	20.0	2.0	0.5
S31-35	35	35	20.0	2.0	0.5
S31-36	36	35	20.0	2.0	0.5
S31-37	37	35	20.0	2.0	0.5
S31-38	38	35	20.0	2.0	0.5
S31-39	39	35	20.0	2.0	0.5
S31-40	40	35	20.0	2.0	0.5
S31-41	41	35	20.0	2.0	0.5
S31-42	42	35	20.0	2.0	0.5
S31-43	43	40	22.0	2.0	0.5
S31-44	44	40	22.0	2.0	0.5
S31-45	45	45	26.4	2.0	0.5
S31-46	46	45	26.4	2.0	0.5

S31-47	47	45	26.4	2.0	0.5
S31-48	48	45	26.4	2.0	0.5
S31-50	50	45	26.4	2.0	0.5

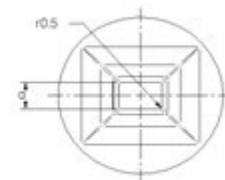
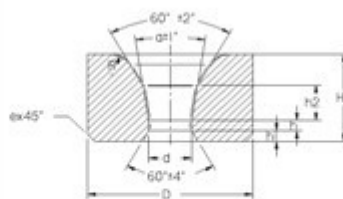
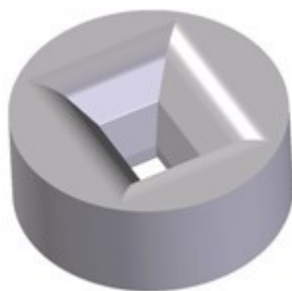
Type S40 Carbide drawing dies for drawing square metal bars



Type	Dimension(mm)						Reference dimension (mm)				
	D	H	a	2α	2β	2γ	h	h1	h2	R	e
S40-1.8	16	12	1.8	14°	40°	60°	1.0	1.5	5.0	1.5	1.0
S40-2.4	16	12	2.4	14°	40°	60°	1.0	1.5	5.0	1.5	1.0
S40-2.8	22	18	2.8	14°	40°	60°	1.5	2.0	7.0	2.0	1.2
S40-3.2	22	18	3.2	14°	40°	60°	1.5	2.0	7.0	2.0	1.2
S40-3.6	22	18	3.6	14°	40°	60°	1.5	2.0	7.0	2.0	1.2
S40-4.0	22	18	4.0	14°	40°	60°	1.5	2.0	7.0	2.0	1.2
S40-4.6	30	21	4.6	14°	40°	60°	2.0	2.0	11.0	3.0	1.5
S40-5.0	30	21	5.0	14°	40°	60°	2.0	2.0	11.0	3.0	1.5
S40-5.7	30	21	5.7	14°	40°	60°	2.0	2.0	11.0	3.0	1.5
S40-6.7	30	21	6.7	14°	40°	60°	2.0	2.0	11.0	3.0	1.5
S40-7.7	35	25	7.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S40-8.7	35	25	8.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S40-9.7	35	25	9.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S40-10	45	25	10.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S40-11	45	25	11.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S40-12	45	25	12.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S40-13	45	25	13.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S40-14	45	25	14.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S40-15	50	28	15.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S40-16	50	28	16.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S40-17	50	28	17.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S40-18	50	28	18.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S40-19	60	30	19.7	16°	40°	60°	5.0	4.0	14.0	4.0	1.5
S40-20	60	30	20.7	16°	40°	60°	5.0	4.0	14.0	4.0	1.5
S40-21	60	30	21.7	16°	40°	60°	5.0	4.0	14.0	4.0	1.5
S40-22	60	30	22.7	16°	40°	60°	5.0	4.0	14.0	4.0	1.5
S40-23	60	30	23.7	16°	40°	60°	5.0	4.0	14.0	4.0	1.5

S40-24	65	32	24.7	16°	40°	60°	6.0	5.0	14.0	5.0	1.5
S40-25	65	32	25.5	16°	40°	60°	6.0	5.0	14.0	5.0	1.5
S40-26	65	32	26.5	16°	40°	60°	6.0	5.0	14.0	5.0	1.5
S40-27	65	32	27.5	16°	40°	60°	6.0	5.0	14.0	5.0	1.5
S40-28	70	35	28.5	16°	40°	60°	8.0	6.0	16.0	5.0	1.5
S40-29	70	35	29.5	16°	40°	60°	8.0	6.0	16.0	5.0	1.5
S40-30	70	35	30.5	16°	40°	60°	8.0	6.0	16.0	5.0	1.5
S40-31	70	35	31.5	16°	40°	60°	8.0	6.0	16.0	5.0	1.5
S40-32	80	35	32.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-33	80	35	33.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-34	80	35	34.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-32	80	35	35.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-36	80	35	36.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-37	80	35	37.5	16°	40°	60°	8.0	6.0	16.0	5.0	2.0
S40-38	90	40	38.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-39	90	40	39.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-40	90	40	40.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-41	90	40	41.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-42	100	40	42.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-44	100	40	44.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-42	100	40	47.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-49	120	45	49.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-51	120	45	51.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0
S40-53	120	45	53.5	20°	40°	60°	8.0	6.0	16.0	6.0	2.0

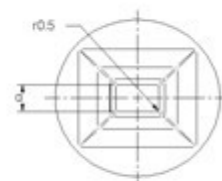
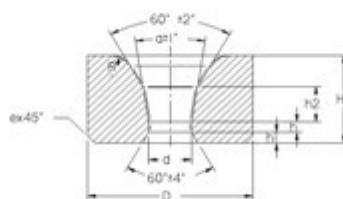
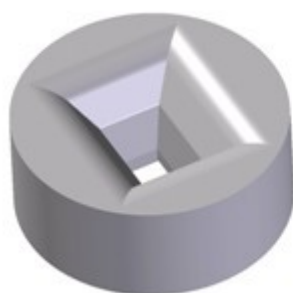
Type S41 Carbide drawing dies for drawing rectangular metal bars



Type	Dimension(mm)							Reference dimension(mm)				
	D	H	a	B	2α	2β	2γ	h	h1	h2	R	e
S41-6.7×4.7	30	21	6.7	4.7	14°	40°	60°	2.0	2.0	11.0	3.0	1.2
S41-7.7×5.7	35	25	7.7	5.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-7.7×6.7	35	25	7.7	6.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5

S41-8.7×2.7	35	25	8.7	2.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-9.7×3.7	35	25	9.7	3.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-9.7×5.7	35	25	9.7	5.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-9.7×6.7	35	25	9.7	6.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-9.7×7.7	35	25	9.7	7.7	14°	40°	60°	3.0	3.0	13.0	3.0	1.5
S41-11×7.7	45	25	11.7	7.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S41-11×9.7	45	25	11.7	9.7	14°	40°	60°	3.5	3.0	13.0	4.0	1.5
S41-13×6.7	50	28	13.7	6.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-13×8.7	50	28	13.7	8.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-15×7.7	50	28	15.6	7.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-15×9.7	50	28	15.6	9.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-15×11	50	28	15.6	11.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-15×12	50	28	15.6	12.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-17×10	50	28	17.6	10.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-17×15	50	28	17.6	15.7	14°	40°	60°	4.0	3.0	14.0	4.0	1.5
S41-19×7.7	60	30	19.6	7.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-19×9.7	60	30	19.6	9.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-19×11	60	30	19.6	11.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-19×14	60	30	19.6	14.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-21×9.2	60	30	21.6	9.2	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-21×11	60	30	21.6	11.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-21×14	60	30	21.6	14.2	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-23×11	60	30	23.6	11.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5
S41-23×14	60	30	23.6	14.7	14°	40°	60°	5.0	4.0	14.0	4.0	1.5

Type S42 Carbide drawing dies for drawing metal strips



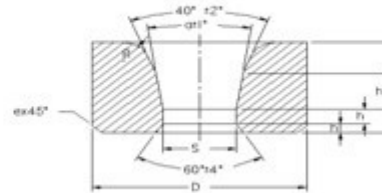
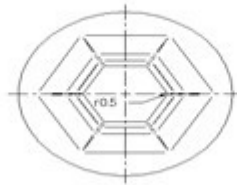
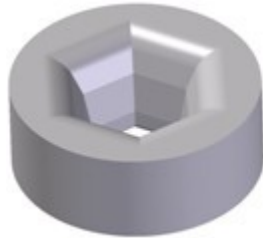
Type	Dimension (mm)							Reference dimension (mm)					
	D	H	a	b	2α	2β	2γ	h	h1	h2	R	r	e
S42-1.9×1.0	20	12	1.9	1.0	18°	60°	60°	2.0	2.0	4.0	3.0	0.5	1.0
S42-1.9×1.4	20	12	1.9	1.4	18°	60°	60°	2.0	2.0	4.0	3.0	0.6	1.0
S42-2.4×1.0	20	12	2.4	1.0	18°	60°	60°	2.0	2.0	4.0	3.0	0.5	1.0
S42-2.4×1.4	20	12	2.4	1.4	18°	60°	60°	2.0	2.0	4.0	3.0	0.6	1.0
S42-3.1×1.0	20	12	3.1	1.0	18°	60°	60°	2.0	2.0	4.0	3.0	0.5	1.0
S42-3.1×1.4	20	12	3.1	1.4	18°	60°	60°	2.0	2.0	4.0	3.0	0.6	1.0

S42-3.1×1.9	20	12	3.1	1.9	18°	60°	60°	2.0	2.0	4.0	3.0	0.6	1.0
S42-3.9×1.0	25	15	3.9	1.0	18°	60°	60°	2.5	2.5	5.0	3.0	0.5	1.2
S42-3.9×1.5	25	15	3.9	1.5	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-3.9×1.9	25	15	3.9	1.9	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-3.9×2.4	25	15	3.9	2.4	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-4.5×1.1	25	15	4.5	1.1	18°	60°	60°	2.5	2.5	5.0	3.0	0.5	1.2
S42-4.5×1.5	25	15	4.5	1.5	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-4.5×1.9	25	15	4.5	1.9	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-4.5×2.4	25	15	4.5	2.4	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-4.5×2.8	25	15	4.5	2.8	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-5.3×1.1	25	15	5.3	1.1	18°	60°	60°	2.5	2.5	5.0	3.0	0.5	1.2
S42-5.3×1.5	25	15	5.3	1.5	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-5.3×1.9	25	15	5.3	1.9	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-5.3×2.3	25	15	5.3	2.3	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-5.3×3.1	25	15	5.3	3.1	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-5.3×3.9	25	15	5.3	3.9	18°	60°	60°	2.5	2.5	5.0	3.0	1.0	1.2
S42-6.2×1.1	25	15	6.2	1.1	18°	60°	60°	2.5	2.5	5.0	3.0	0.5	1.2
S42-6.2×1.5	25	15	6.2	1.5	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-6.2×1.9	25	15	6.2	1.9	18°	60°	60°	2.5	2.5	5.0	3.0	0.6	1.2
S42-6.2×2.4	25	15	6.2	2.4	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-6.2×3.1	25	15	6.2	3.1	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-6.2×3.9	25	15	6.2	3.9	18°	60°	60°	2.5	2.5	5.0	3.0	0.8	1.2
S42-7.2×1.1	35	18	7.2	1.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-7.2×1.5	35	18	7.2	1.5	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-7.2×1.9	35	18	7.2	1.9	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-7.2×2.4	35	18	7.2	2.4	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-7.2×3.1	35	18	7.2	3.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-7.2×3.9	35	18	7.2	3.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-7.2×4.9	35	18	7.2	4.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-8.4×1.2	35	18	8.4	1.2	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-8.4×1.5	35	18	8.4	1.5	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-8.4×1.9	35	18	8.4	1.9	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-8.4×2.4	35	18	8.4	2.4	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-8.4×3.1	35	18	8.4	3.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-8.4×3.9	35	18	8.4	3.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-8.4×4.9	35	18	8.4	4.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-9.1×1.0	35	18	9.1	1.0	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-9.1×1.7	35	18	9.1	1.7	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-9.1×2.0	35	18	9.1	2.0	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-9.1×2.4	35	18	9.1	2.4	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-9.1×3.0	35	18	9.1	3.0	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-9.1×3.8	35	18	9.1	3.8	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2

S42-9.1×4.9	35	18	9.1	4.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-9.8×1.2	35	18	9.8	1.2	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-9.8×1.8	35	18	9.8	1.8	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-9.8×2.3	35	18	9.8	2.3	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-9.8×3.1	35	18	9.8	3.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-9.8×4.9	35	18	9.8	4.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-9.8×6.3	35	18	9.8	6.3	18°	60°	60°	2.5	2.5	6.0	4.0	1.2	1.2
S42-10×1.0	35	18	10.8	1.0	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-10×1.5	35	18	10.8	1.5	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-10×1.9	35	18	10.8	1.9	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-10×2.4	35	18	10.8	2.4	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-10×2.9	35	18	10.8	2.9	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-10×3.8	35	18	10.8	3.8	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-11×1.1	35	18	11.4	1.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.5	1.2
S42-11×1.5	35	18	11.4	1.5	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-11×1.9	35	18	11.4	1.9	18°	60°	60°	2.5	2.5	6.0	4.0	0.6	1.2
S42-11×2.4	35	18	11.4	2.4	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-11×3.1	35	18	11.4	3.1	18°	60°	60°	2.5	2.5	6.0	4.0	0.8	1.2
S42-11×3.9	35	18	11.4	3.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-11×4.9	35	18	11.4	4.9	18°	60°	60°	2.5	2.5	6.0	4.0	1.0	1.2
S42-11×6.3	35	18	11.4	6.3	18°	60°	60°	2.5	2.5	6.0	4.0	1.2	1.2
S42-12×1.4	45	20	12.8	1.4	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-12×1.9	45	20	12.8	1.9	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-12×1.4	45	20	12.8	2.6	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-12×3.4	45	20	12.8	3.4	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-12×4.1	45	20	12.8	4.1	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-12×4.9	45	20	12.8	4.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-12×5.9	45	20	12.8	5.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-14×1.6	45	20	14.6	1.6	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-14×2.1	45	20	14.6	2.1	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-14×2.8	45	20	14.6	2.8	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-14×3.4	45	20	14.6	3.4	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-14×4.1	45	20	14.6	4.1	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-14×4.9	45	20	14.6	4.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-14×5.9	45	20	14.6	5.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-16×1.9	50	20	16.5	1.9	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-16×2.4	50	20	16.5	2.4	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-16×3.1	50	20	16.5	3.1	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-16×3.9	50	20	16.5	3.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-16×4.9	50	20	16.5	4.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-16×6.3	50	20	16.5	6.3	18°	60°	60°	3.0	3.0	6.0	4.0	1.2	1.5
S42-17×1.0	50	20	17.6	1.0	18°	60°	60°	3.0	3.0	6.0	4.0	0.5	1.5

S42-17×1.5	50	20	17.6	1.5	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-17×2.1	50	20	17.6	2.1	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-17×2.8	50	20	17.6	2.8	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-17×3.4	50	20	17.6	3.4	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-17×4.1	50	20	17.6	4.1	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-17×4.9	50	20	17.6	4.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-17×5.9	50	20	17.6	5.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-19×1.0	50	20	19.2	1.0	18°	60°	60°	3.0	3.0	6.0	4.0	0.5	1.5
S42-19×1.5	50	20	19.2	1.5	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-19×2.0	50	20	19.2	2.0	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-19×2.8	50	20	19.2	2.8	18°	60°	60°	3.0	3.0	6.0	4.0	0.8	1.5
S42-19×3.9	50	20	19.2	3.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-19×4.9	50	20	19.2	4.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-19×5.9	50	20	19.2	5.9	18°	60°	60°	3.0	3.0	6.0	4.0	1.0	1.5
S42-20×2.1	50	20	20.8	2.1	18°	60°	60°	3.0	3.0	6.0	4.0	0.6	1.5
S42-20×2.8	50	20	20.8	2.8	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-20×3.4	50	20	20.8	3.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-20×4.1	50	20	20.8	4.1	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-20×4.9	50	20	20.8	4.9	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-20×5.9	50	20	20.8	5.9	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-23×1.0	50	20	23.2	1.0	18°	60°	60°	3.0	3.0	6.0	5.0	0.5	1.5
S42-23×1.4	50	20	23.2	1.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.6	1.5
S42-23×1.9	50	20	23.2	1.9	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-23×2.4	50	20	23.2	2.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-23×3.0	50	20	23.2	3.0	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-23×3.8	50	20	23.2	3.8	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-23×4.9	50	20	23.2	4.9	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-23×5.9	50	20	23.2	5.9	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-24×1.0	60	20	24.5	1.0	18°	60°	60°	3.0	3.0	6.0	5.0	0.5	1.5
S42-24×1.4	60	20	24.5	1.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.6	1.5
S42-24×2.6	60	20	24.5	2.6	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-24×3.3	60	20	24.5	3.3	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-24×3.8	60	20	24.5	3.8	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5
S42-27×1.4	60	20	27.0	1.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.6	1.5
S42-27×1.9	60	20	27.0	1.9	18°	60°	60°	3.0	3.0	6.0	5.0	0.6	1.5
S42-27×2.4	60	20	27.0	2.4	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-27×3.0	60	20	27.0	3.0	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-31×1.5	60	20	31.0	1.5	18°	60°	60°	3.0	3.0	6.0	5.0	0.6	1.5
S42-31×3.0	60	20	31.0	3.0	18°	60°	60°	3.0	3.0	6.0	5.0	0.8	1.5
S42-31×3.8	60	20	31.0	3.8	18°	60°	60°	3.0	3.0	6.0	5.0	1.0	1.5

Type S60 Carbide drawing dies for drawing hexagonal metal bars



Type	Dimension(mm)						Reference dimension(mm)					
	D	H	s	2α	2β	2γ	h	h1	h2	R	e	
S60-2.5	30	21	2.5	14°	40°	60°	1.5	2.0	10.0	3.0	1.2	
S60-3.0	30	21	3.0	14°	40°	60°	1.5	2.0	10.0	3.0	1.2	
S60-4.0	30	21	4.0	14°	40°	60°	1.5	2.0	10.0	3.0	1.2	
S60-4.7	30	21	4.7	14°	40°	60°	2.0	2.0	10.5	3.0	1.2	
S60-5.7	30	21	5.7	14°	40°	60°	2.0	2.0	10.5	3.0	1.2	
S60-6.7	30	21	6.7	14°	40°	60°	2.0	2.0	10.5	3.0	1.2	
S60-7.7	30	21	7.7	14°	40°	60°	2.0	2.0	10.5	3.0	1.2	
S60-8.6	35	21	8.6	14°	40°	60°	3.0	3.0	11.0	3.0	1.2	
S60-9.6	35	21	9.6	14°	40°	60°	3.0	3.0	11.0	3.0	1.2	
S60-10	35	21	10.6	14°	40°	60°	3.0	3.0	11.0	3.0	1.2	
S60-11	40	25	11.5	14°	40°	60°	3.5	3.0	12.5	4.0	1.5	
S60-12	40	25	12.5	14°	40°	60°	3.5	3.0	12.5	4.0	1.5	
S60-13	45	25	13.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-14	45	25	14.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-15	45	25	15.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-16	45	25	16.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-17	45	25	17.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-18	45	25	18.5	14°	40°	60°	4.0	3.0	13.0	4.0	1.5	
S60-19	55	28	19.5	14°	40°	60°	5.0	4.0	14.0	5.0	1.5	
S60-20	55	28	20.5	14°	40°	60°	5.0	4.0	14.0	5.0	1.5	
S60-21	55	28	21.5	14°	40°	60°	5.0	4.0	14.0	5.0	1.5	
S60-22	55	28	22.5	14°	40°	60°	5.0	4.0	14.0	5.0	1.5	
S60-23	55	28	23.5	14°	40°	60°	5.0	4.0	14.0	5.0	1.5	
S60-24	65	30	24.5	16°	40°	60°	6.0	4.5	14.0	5.0	1.5	
S60-25	65	30	25.5	16°	40°	60°	6.0	4.5	14.0	5.0	1.5	
S60-26	65	30	26.5	16°	40°	60°	6.0	4.5	14.0	5.0	1.5	
S60-27	65	30	27.5	16°	40°	60°	6.0	4.5	14.0	5.0	1.5	
S60-28	65	30	28.5	16°	40°	60°	6.0	4.5	14.0	5.0	1.5	
S60-29	75	35	29.5	16°	40°	60°	7.0	5.0	15.0	6.0	1.5	
S60-30	75	35	30.5	16°	40°	60°	7.0	5.0	15.0	6.0	1.5	

S60-31	75	35	31.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-32	75	35	32.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-33	75	35	33.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-34	75	35	34.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-35	75	35	35.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-36	75	35	36.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-37	75	35	37.3	16°	40°	60°	7.0	5.0	15.0	6.0	1.5
S60-38	90	35	38.3	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-39	90	35	39.3	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-41	90	35	41.0	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-42	90	35	42.0	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-44	90	35	44.0	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-47	90	35	47.0	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-49	90	35	49.0	16°	40°	60°	7.0	5.0	15.0	6.0	2.0
S60-52	100	40	52.0	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-54	100	40	54.0	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-57	100	40	57.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-59	120	42	59.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-61	120	42	61.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-54	120	42	64.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-67	120	42	67.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-70	120	42	70.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0
S60-74	120	42	74.5	16°	40°	60°	8.0	6.0	15.0	6.0	2.0