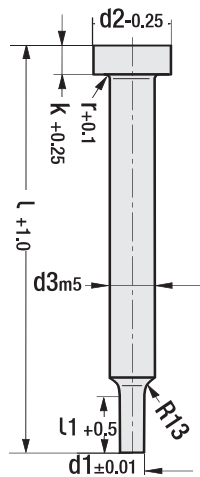
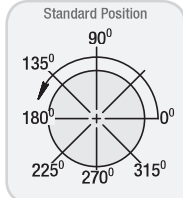
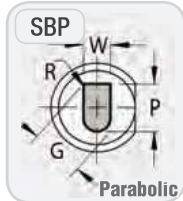
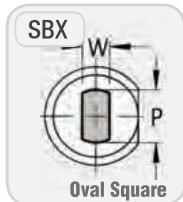
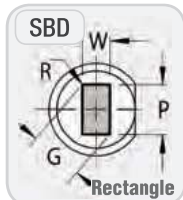
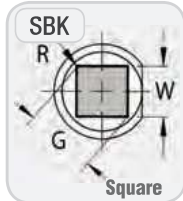
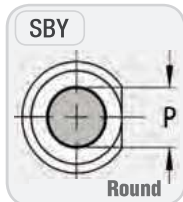


## Shapes



ISO 8020

## Cylinder Head Stepped Punch

Code: SB..

Order Codes: SBY - SBO - SBK - SBD - SBA - SBM - SBX - SBP

Please refer to the table on the left side

Order d3	Head d2	d1 / Shape		Standard L1	Alternative L1		L mm
		(SBY) Round P	Other Shapes W G/P		Min.	Max.	
SB..04	6	1.6 ~ 3.99	1.6 - 4.0	8	10	-	50
SB..05	8	1.6 ~ 4.99	1.6 - 5.0	13	10	-	60
SB..06	9	1.6 ~ 5.99	1.6 - 6.0	13	10	-	71
SB..08	11	2.5 ~ 7.99	2.5 - 8.0	19	13	-	80
SB..10	13	3.2 ~ 9.99	3.2 - 10	19	13	25	90
SB..13	16	5.0 ~ 12.99	4.5 - 13	19	13	25	100
SB..16	19	8.0 ~ 15.99	6.0 - 16	19	13	25	100
SB..20	23	10 ~ 19.99	8.0 - 20	19	13	25	60
SB..25	28	12 ~ 24.99	9.0 - 25	19	13	25	71
SB..32	35	16 ~ 31.99	10 - 32	25	19	30	80
SB..40	43	30 ~ 39.99	14 - 40	25	19	30	90
							100

### How to order:

Shape

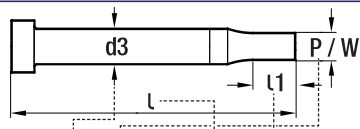
d3

P/W

L1

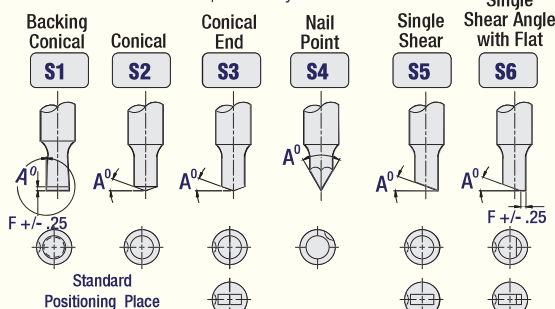
L

Material



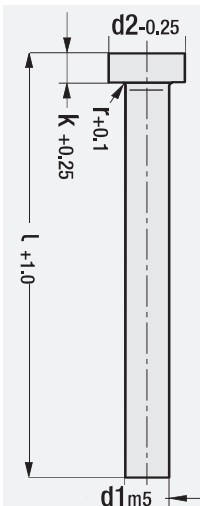
SBY x 10 x P7.0 x 13 x 80 - M2  
SBO x 10 x P8.2 x W5.2 x 25 x 100 - M2

Cutting Angles (special tools): In case of demand, "A" angle and "F" dimension should be specified by user.



Note: By looking their position at die from upper surface of die, parts are displayed. Positions of punches are determined by looking along body. It is determined by tracking from the upper surface.

The standard location of key flats is at 0°. Alternate locations of 90°, 180° or 270° can be specified.



Punch as per request:

TIN / TIC Coating

Complete Coating

ASP (powder metal)

Sintered Carbide

## Cylinder Head Punch - ISO 8020

Code: SBZ

Mounting of cylinder head type punch to the holder plate during usage is planned, guiding process is provided by the stripper plate. By mounting punches in this style, the elimination of axial errors that resulted from incorrect mounting of die set or press is more easier. The use of this mounting method provided the alteration between the transmission of punching power and bearing.

Material: 1.3343 (M2) completely ground

Heat Treated: (62 - 64 HRC)

Head Hardness: (52 ± 3)

Surface: ≥ 950 HV 0.3

It is for durable parts in all kinds of dies. Also, full or partial coating can be preferred upon request, by providing resistance against heat and friction on external layer, it solves problems such as winding and cold welding, coating thickness is 2 - 4 microns. For harder work pieces, ASP / PS (powder metal) and for very hard and abrasive work pieces, sintered carbide punches are preferred.

Code: SBZ

d1	L	d2	k	r
10	71	13	5	0.40
	80			
	100			
	125			
13	71	16	5	0.40
	80			
	100			
	125			
16	71	19	5	0.40
	80			
	100			
	125			
20	71	23	5	0.40
	80			
	100			
	125			
25	71	28	5	0.40
	80			
	100			
	125			
32	71	35	5	0.40
	80			
	100			
	125			

d1	L	d2	k	r
2.0	71	5.0	3	0.20
	80			
	100			
2.5	71	6.0	3	0.20
	80			
	100			
3.0	71	6.0	3	0.20
	80			
	100			
3.5	71	6.0	3	0.20
	80			
	100			
4.0	71	6.0	3	0.20
	80			
	100			
4.5	71	8.0	5	0.25
	80			
	100			
5	71	8.0	5	0.25
	80			
	100			
6.0	71	9.0	5	0.25
	80			
	100			
	125			
8.0	71	11	5	0.25
	80			
	100			
	125			

Order: SBZ.d1 x L

Dies



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