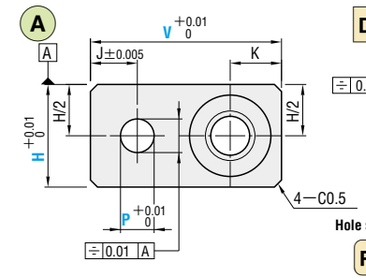
SCRAP RETENTION BLOCK DIES
—FIXING-BOLT TYPE—

PRODUCTS DATA P.1619

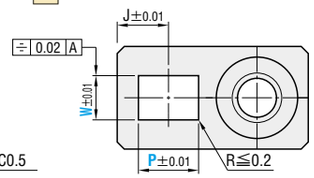
M H	Catalog No.
Equivalent to SKD11 60 ～ 63HRC	Ⓐ SR—BBD
	Ⓓ SR—BBDD
	Ⓡ SR—BBDR
	Ⓔ SR—BBDE
	Ⓖ SR—BBDG

RoHS

Hole shape Ⓐ

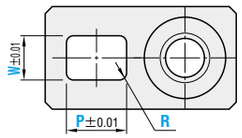


Hole shape Ⓓ



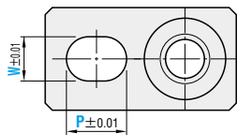
- If P≧W P−0.4≧1.5 (P dimension straight section 1.5 mm or longer)
- If P＜W W−0.4≧1.5 (W dimension straight section 1.5 mm or longer)

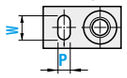
Hole shape Ⓡ



- If P≧W $0.15 \leqq R < \frac{W}{2}$ $P-2R \geqq 1.5$ (P dimension straight section 1.5 mm or longer)
- If P＜W $0.15 \leqq R < \frac{P}{2}$ $W-2R \geqq 1.5$ (W dimension straight section 1.5 mm or longer)

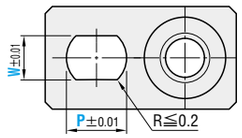
Hole shape Ⓔ

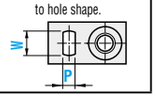




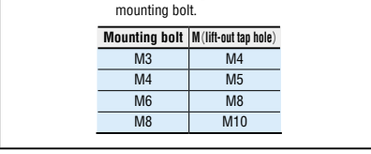
- ⊗ P=W cannot be selected.
- If P＜W, pay particular attention to hole shape.
- ⊗ P cannot be selected.
- If P＞W $\sqrt{W^2-P^2} \geqq 1.5$ (P dimension straight section 1.5 mm or longer)
- If P＜W $\sqrt{W^2-P^2} \geqq 1.5$ (W dimension straight section 1.5 mm or longer)

Hole shape Ⓖ





Pay particular attention to hole shape.



- For the lift-out tap hole, use a bolt 1 size larger than the mounting bolt.

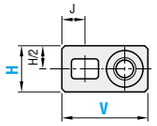
Mounting bolt	M (lift-out tap hole)
M3	M4
M4	M5
M6	M8
M8	M10

K	Mounting bolt d	h	Size	J	Catalog No.	V	H	L	0.01mm increments Ⓐ min. P max.	0.01mm increments ⒹⓇⒺⒼ min. P max.	0.01mm increments ⒹⓇⒺⒼ min. W max.	0.01mm increments Ⓡ R	0.01mm increments MT (workpiece material thickness)	0.005mm increments C (clearance)	Base unit price 1 ～ 9 pieces SR—BBD	Base unit price 1 ～ 9 pieces SR—BBD□
4	6	7.5	M3	3	Ⓐ SR—BBD Ⓓ SR—BBDD Ⓡ SR—BBDR Ⓔ SR—BBDE Ⓖ SR—BBDG	13	8	16 20 22 25 30 35	1.00 ～ 3.00	1.00 ～ 3.00	1.00 ～ 4.00	$0.15 \leqq R < \frac{W}{2}$ (Ⓡ only)	MT≧0.15 Select a workpiece material thickness of 0.15mm or more.	C≧0.010 Select a clearance of 0.010mm or more. Clearance Punch tip Die shaped hole	Quotation	
				4		16			1.00 ～ 4.00	1.00 ～ 4.00						
				5		18				1.00 ～ 6.00						
				6.5		20				1.00 ～ 9.00						
5	8	8.5	M4	4		18	10		1.00 ～ 4.00	1.00 ～ 4.00	1.00 ～ 6.00					
				5		20			1.00 ～ 6.00	1.00 ～ 6.00						
				6.5		22				1.00 ～ 9.00						
				8		25				1.00 ～ 12.00						
6.5	11	10.5	M6	5		22	13		1.00 ～ 6.00	1.00 ～ 6.00	1.00 ～ 9.00					
				6.5		25				1.00 ～ 9.00						
				8		28			1.00 ～ 9.00	1.00 ～ 12.00						
				10		32				1.50 ～ 16.00						
				6.5		25	16		1.00 ～ 9.00	1.00 ～ 9.00	1.00 ～ 12.00					
				8		28			1.00 ～ 12.00	1.00 ～ 12.00						
				10		32				1.50 ～ 16.00						
				12.5		38				1.50 ～ 21.00						
8	14	12.5	M8	8		32	20		1.00 ～ 12.00	1.00 ～ 12.00	1.50 ～ 16.00					
				10		35				1.50 ～ 16.00						
				12.5		40			1.50 ～ 16.00	1.50 ～ 21.00						
				15		45				1.50 ～ 26.00						
				10		35	25		1.50 ～ 16.00	1.50 ～ 16.00	1.50 ～ 21.00					
				12.5		40				1.50 ～ 21.00						
				15		45			1.50 ～ 21.00	1.50 ～ 26.00						
				17.5		50				1.50 ～ 31.00						

- Can be used only for workpiece materials with tensile strengths up to 1177 N/mm² (120 kgf/mm²).
- Workpiece material thickness and clearance are used as machining data for the scrap retention. Specify the shaped hole dimensions (P・W・R) when selecting the block die finishing dimensions.

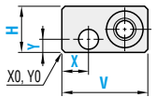
Order

(1) If shaped hole is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (Ⓡ only)	—	MT	—	C
SR—BBDD	25	13	—	20	—	P6.34	—	W4.65			—	MT1.50	—	C0.105

(2) If shaped hole is not at center of shank (hole shapes Ⓐ only)



Catalog No.	V	H	—	L	—	0.01mm increments P	—	MT	—	C	—	0.01mm increments X—Y
SR—BBD	25	13	—	20	—	P6.34	—	MT1.50	—	C0.105	—	X6.35 — Y9.5

- Upper and lower limit values of X and Y

Hole shapes Ⓐ $2.5+\frac{P}{2} \leqq X \leqq V-(2.5+\frac{P}{2})-(K+\frac{d}{2})$ $2.5+\frac{P}{2} \leqq Y \leqq H-(2.5+\frac{P}{2})$

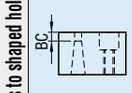
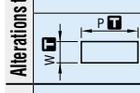
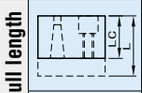
- X, Y tolerance: ±0.005
- Be aware that the shaped hole position and X/Y values are determined differently for block punches.

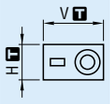
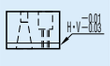
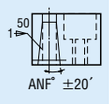
Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	V	H	—	L (LC)	—	P—W—R	—	MT	—	C	— (BC・LKC, etc.)
SR—BBD	25	13	—	LC18	—	P1.5	—	0.5	—	0.04	— BC3 — LKC — ANF1.2

Alteration		Code	Ⓐ	ⒹⓇⒺⒼ	1Code
Alterations to shaped hole		BC	Shaped hole depth change 1≦BC≦Bmax. 0.1mm increments P: 1.00 ～ 1.99 → Bmax. 3; 2.00 ～ → Bmax. 4	Shaped hole depth change 1≦BC＜2 0.1mm increments	Quotation
		PKC	Shaped hole tolerance change P +0.01 0 ⇨ +0.005 0	Shaped hole tolerance change P・W±0.01 ⇨ +0.01 0	
Alterations to full length		LC	Full length change 16＜LC＜35 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.)		
		LKC	Full length tolerance change L +0.4 +0.2 ⇨ +0.05 0		
		LKZ	Full length tolerance change L +0.4 +0.2 ⇨ +0.01 0		

Alteration		Code	Ⓐ	ⒹⓇⒺⒼ	1Code
Others		VKC1	V・H tolerance change V・H +0.01 0 ⇨ +0.005 0		Quotation
		VKC2	V・H tolerance change V・H +0.01 0 ⇨ 0 −0.005		
		NDC	No press-in lead		
		ANF	Angular angle change 0≦ANF≦1.2 0.2° increments d≦dmax. d=P+2{(L−B)tan(ANF°)} P−Btan(ANF°)≧0.6 W−Btan(ANF°)≧0.6 ⊗ Cannot be used if shaped hole is not at the center.		

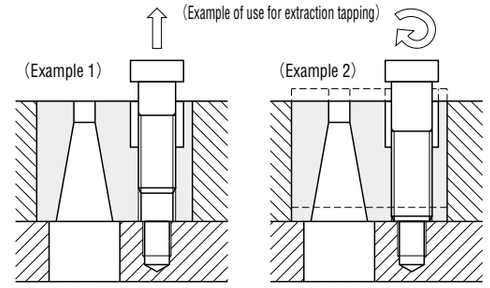
H	d max.
8	4.4
10	6.4
13	8.4
16	10.6
20	12.6
25	14.6

Taper	1/50
Angle (one side)	0.573°

Example

■Features

1. Maintenance is possible without disassembling the die.
2. The use of shims allows fine adjustment even after the is assembled.



Screw a bolt into the lift-out tap hole and pull the die away from the die plate.

Screw a bolt into the lift-out tap hole and lift up the die.

BLOCK DIES