
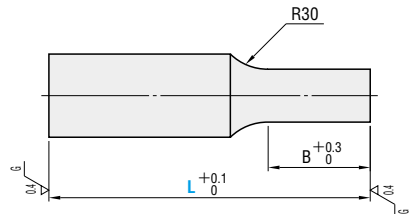
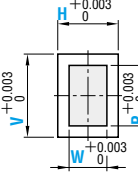
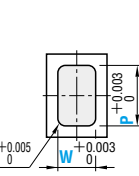
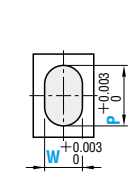

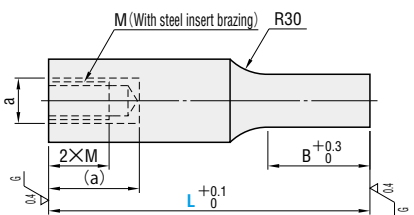
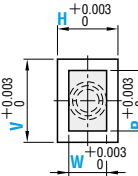
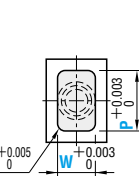
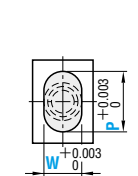

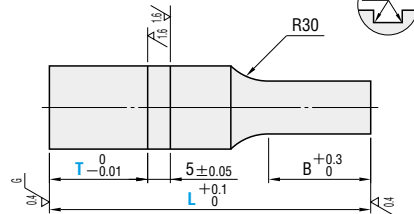
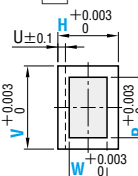
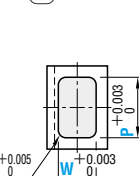
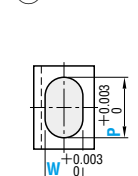

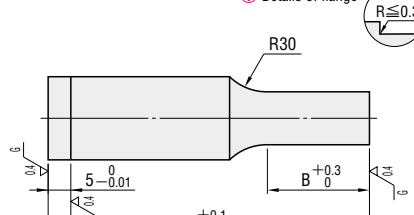
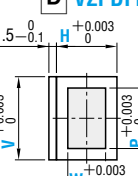
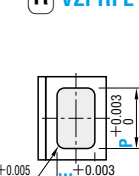
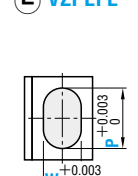
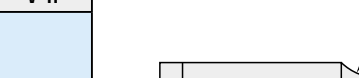
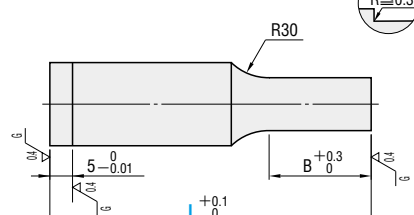
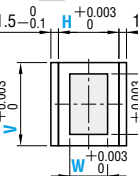
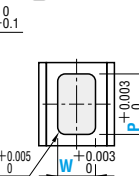
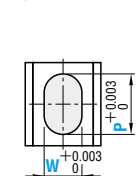


# PRECISION CARBIDE BLOCK PUNCHES

		RoHS	•Tip machining limit	Tip shape	Tip shape	Tip shape
				D	R	E
				$P \geq W$	$P \geq W$ $0.15 \leq R < \frac{W}{2}$	$P > W$
	Shank dimensions V · H	—Normal—		D VZPDBL	R VZPRBL	E VZPEBL
	V30 (HIP) 88~89HRA	V · H 3~20				
	Shank dimensions V · H	—Tapped—		D VZPDML	R VZPRML	E VZPEML
	V30 (HIP) 88~89HRA	V · H 8~20				
	Shank dimensions V · H	—With key groove—	Details of key groove	D VZPDKL	R VZPRKL	E VZPEKL
	V30 (HIP) 88~89HRA	V · H 3~20				
	Shank dimensions V · H	—Single flange—	Details of flange	D VZPDFL	R VZPRFL	E VZPEFL
	V30 (HIP) 88~89HRA	V · H 3~16				
	Shank dimensions V · H	—Double flanges—	Details of flange	D VZPDWL	R VZPRWL	E VZPEWL
	V30 (HIP) 88~89HRA	V · H 3~16				

Catalog No.		Shank and tip dimensions (mm)										0.1mm		B			(a)	U								
Type	Tip shape	Type	3	4	5	6	8	10	13	16	20	L	T	L 40	L 50	L 60-70			M							
VZP	D	BL	3	4	5	6	8	10	13	16	20	40	T ≥ 2	13	13	—	—	1.0								
		KL	4	5	6	8	10	13	16	20																
		FL	5	6	8	10	13	16	20	—	—															
		WL	6	8	10	13	16	20	—	—	—															
		E	BL	8	10	13	16	20	—	—	—								—	50	19	19	4	6	8	1.5
			KL	10	13	16	20	—	—	—	—															
	FL		13	16	20	—	—	—	—	—	—															
	WL		16	20	—	—	—	—	—	—	—															
	R		BL	10	13	16	20	—	—	—	—	—	60	8	8	10	—	—	—							
			KL	13	16	20	—	—	—	—	—															
		FL	16	20	—	—	—	—	—	—	—															
		WL	20	—	—	—	—	—	—	—	—															

**Order** (1) If tip is at center of shank




Catalog No.	V	H	L	0.001mm increments			0.1mm increments	K · F · WF
				P	W	R (R only)	T	
VZPEBL	20	08	60	P18.000	W 4.000			
VZPEML	20	10	70	P16.000	W 9.000			
VZPEKL	10	06	60	P 8.000	W 5.000			
VZPEFL	16	13	60	P15.000	W12.000			
VZPEWL	13	10	40	P 8.000	W 5.000			

— T25.5 — K0  
— F90  
— WF90

(2) If tip is not at center of shank

Catalog No.	V	H	L	0.001mm increments			0.1mm increments	K · F · WF	0.001mm increments
				P	W	R (R only)	T		X - Y
VZPEFL	16	13	50	P15.000	W12.000				X0.000 - Y0.500

### Key groove position · flange position change (KEY POSITION ≠ 0)

With key groove	Single flange	Double flanges
		

**Days to Ship** **Quotation** **Price** **Quotation**

**Alterations** Catalog No. V H L(LC) P(PC) · W(WC) · R T K · F · WF (BC · HC · TC, etc.)

VZPEBL 20 08 60.0 P18.000 - WC1.500 T K · F · WF LKC - WK

Alteration	Code	Spec.	1Code											
Alterations to tip	PC	Tip dimension change $PC \geq V \times 0.3 \geq 1.000$ $WC \geq H \times 0.15 \geq 0.500$ 0.001mm increments												
	WC		<table border="1"> <tr> <th>P · W</th> <th>Bmax</th> </tr> <tr> <td>0.500~0.999</td> <td>8</td> </tr> <tr> <td>1.000~1.999</td> <td>13</td> </tr> <tr> <td>2.000~2.999</td> <td>20</td> </tr> <tr> <td>3.000~4.999</td> <td>30</td> </tr> <tr> <td>5.000~</td> <td>35</td> </tr> </table>	P · W	Bmax	0.500~0.999	8	1.000~1.999	13	2.000~2.999	20	3.000~4.999	30	5.000~
P · W	Bmax													
0.500~0.999	8													
1.000~1.999	13													
2.000~2.999	20													
3.000~4.999	30													
5.000~	35													
Alterations to full length	BC	Tip length change $2 \leq BC \leq Bmax$ 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).												
	LC	Full length change $30 + B(BC) \leq LC < L$ 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length - 30).												
Alteration to key groove	LKC	Full length tolerance change $L + 0.1$ $0$												
	WK	Addition of key groove at symmetrically opposite position An additional key groove is added at a position symmetrically opposite to the specified key groove. $H - \{2 \times U(UK)\} \geq 2$ (K0, K180) $V - \{2 \times U(UK)\} \geq 2$ (K90, K270) Can be combined with UK.												
Alteration to key groove	UK	Key groove depth change $0.5 \leq UK \leq U + 0.2$ 0.1mm increments $H(V) - UK \geq 2$ Can be combined with WK.												

Alteration	Code	Spec.	1Code																								
Alterations to flange	HC	Flange width change $0 \leq HC < 1.5$ 0.1mm increments																									
	TC	Flange thickness change $2 \leq TC < 5$ 0.1mm increments Full length L is shortened by (5 - TC). If combined with LC, full length is equal to LC.																									
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage. Cannot be used for normal, tapped, and types with key grooves.																									
Alterations to tap	MC	Tap diameter change <table border="1"> <tr> <th>H</th> <th>8</th> <th>10</th> <th>13</th> <th>16</th> <th>20</th> </tr> <tr> <td></td> <td>M4 - M3</td> <td>M6 - M5</td> <td>M8 - M6</td> <td>M8 - M6</td> <td>M8 - M6</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>M8 - M6</td> <td>M8 - M6</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>M8 - M6</td> </tr> </table> The dimensions are M × 2 + 4m (reference level).	H	8	10	13	16	20		M4 - M3	M6 - M5	M8 - M6	M8 - M6	M8 - M6					M8 - M6	M8 - M6						M8 - M6	
	H	8	10	13	16	20																					
	M4 - M3	M6 - M5	M8 - M6	M8 - M6	M8 - M6																						
				M8 - M6	M8 - M6																						
					M8 - M6																						
Others	VHM	Shank tolerance change $V \cdot H + 0.003$ $0$ → $V \cdot H - 0.003$																									
	DC	Addition of press-in lead Press-in lead 3mm (H.V. $-0.01$ $-0.03$ ) is added. Cannot be used for flanged types.																									