
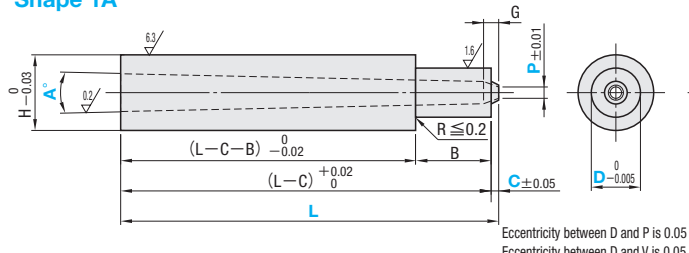
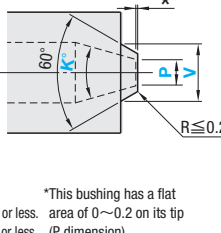

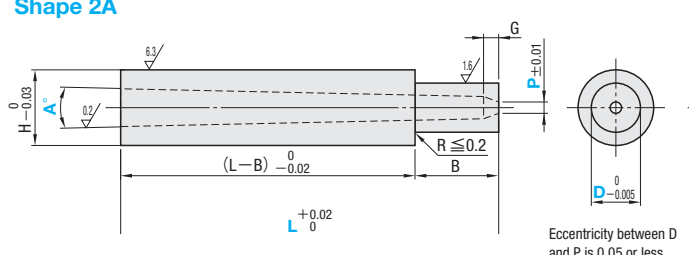
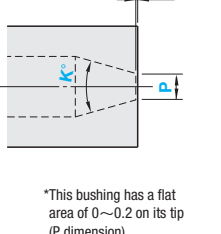

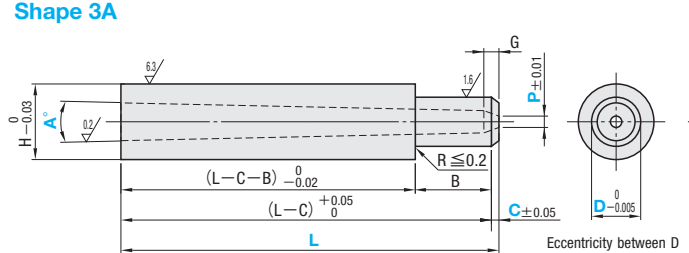
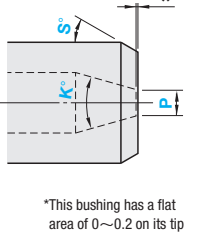

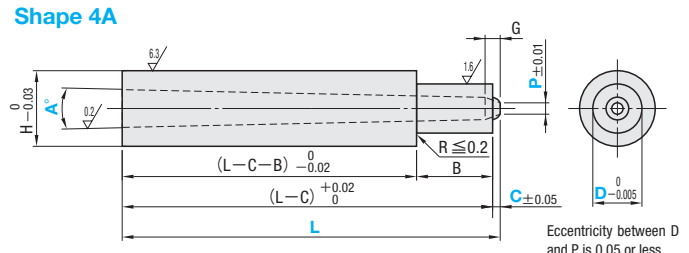
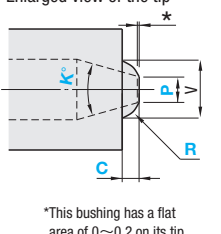

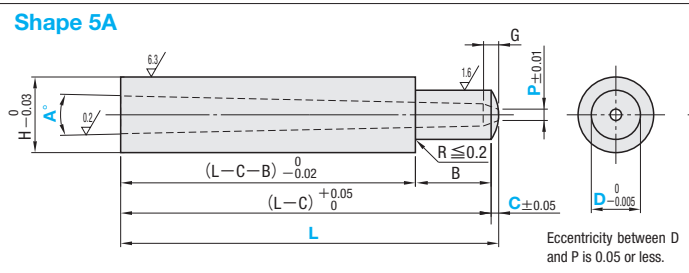
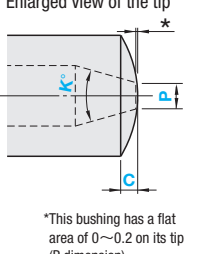


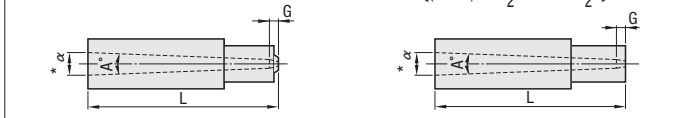


Ⓜ Non JIS material definition is listed on P.1351 - 1352

Ⓜ The inside diameter is finished by electric discharge. Ⓜ The angle (K°) and the secondary sprue (A°) are roundly connected.

 <p>RoHS</p>	<p><b>Shape 1A</b></p>  <p>Enlarged view of the tip</p> <p>*This bushing has a flat area of 0~0.2 on its tip (P dimension). Eccentricity between D and P is 0.05 or less. Eccentricity between D and V is 0.05 or less.</p>	
 <p>RoHS</p>	<p><b>Shape 2A</b></p>  <p>Enlarged view of the tip</p> <p>*This bushing has a flat area of 0~0.2 on its tip (P dimension). Eccentricity between D and P is 0.05 or less.</p>	
 <p>RoHS</p>	<p><b>Shape 3A</b></p>  <p>Enlarged view of the tip</p> <p>*This bushing has a flat area of 0~0.2 on its tip (P dimension). Eccentricity between D and P is 0.05 or less.</p>	
 <p>RoHS</p>	<p><b>Shape 4A</b></p>  <p>Enlarged view of the tip</p> <p>*This bushing has a flat area of 0~0.2 on its tip (P dimension). Eccentricity between D and P is 0.05 or less.</p> <p>Ⓜ <math>R \geq \sqrt{(P/2)^2 + C^2}</math> Ⓜ <math>V = 2 \times \sqrt{R^2 - (P/2)^2 - C^2} / \sqrt{R^2 - (P/2)^2 - C^2}</math></p>	
 <p>RoHS</p>	<p><b>Shape 5A</b></p>  <p>Enlarged view of the tip</p> <p>*This bushing has a flat area of 0~0.2 on its tip (P dimension). Eccentricity between D and P is 0.05 or less.</p>	

• Calculation for the inlet diameter \*  $\alpha$  \*  $\alpha = 2\{(L-G)\tan \frac{A^\circ}{2} + G \tan \frac{K^\circ}{2}\} + P$



Ⓜ The dimension acquired using the above calculation is the theoretical (reference) value.

Part Number	M	H
PGHBV□A	SKH51	59~61HRC

H	G	B	Part Number			L 0.01mm increments	P	A°	K°	None for 2A	Shape 1A only	Shape 3A only	Shape 4A only	
			Type	Shape	D					C 0.1mm increments	V 0.1mm increments	S° 1° increments	R 0.1mm increments	
4	1.0	4	PGHBV (High Speed Steel) SKH51	1A	2.5	8.00~25.00	0.3 0.4 0.5 0.6 <sup>(*)1</sup>	1	20 30	0.2~0.5	1.5~2.4	1~45	0.6~1.0	
5	1.2	6			3	10.00~40.00	0.5 0.6 0.7 0.8 <sup>(*)2</sup>		20 30	0.3~0.8	2.0~2.9		0.8~1.5	
6					4	0.6 0.7 0.8 0.9 1.0 1.2	40		2.5~3.9					
8	1.5	10			5	15.00~60.00	0.8 0.9 1.0 1.1 1.2 <sup>(*)3</sup> 1.3 <sup>(*)3</sup> 1.4 <sup>(*)3</sup>		20 30	0.5~1.5	3.5~4.9		1~50	1.5~3.0
9					6		1.0 1.1 1.2 1.3 1.4 1.5 <sup>(*)4</sup> 1.6 <sup>(*)4</sup>				4.0~5.9			
11					8		4.5~7.9				1~60			
13	2.0	10			10	5.0~9.9	2.5~5.0							

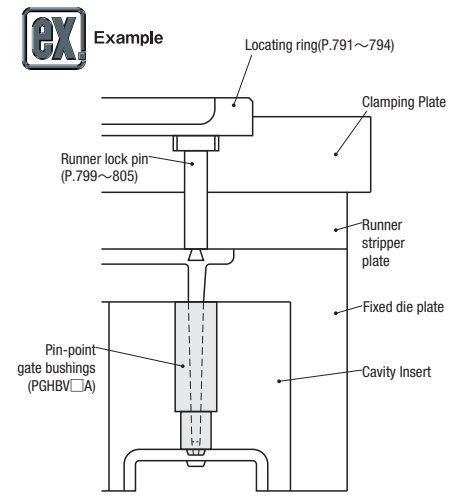
Ⓜ For shape 4A,  $R \geq \sqrt{(P/2)^2 + C^2}$   
 (\*)1 For P0.6 (D2.5), only K20° can be selected. (\*)3 For P1.2~P1.4 (D5), only K60° can be selected.  
 (\*)2 P0.8 (D3) is selected from K20° · K30° (\*)4 When P1.5 · P1.6 (D6) and K30° or more, G is 1.2.

Order **Part Number** - **L** - **P** - **A** - **K** - **C V S R**

PGHBV1A4 - 20.01 - P0.8 - A2 - K30 - C0.5 - V3.0  
 PGHBV2A4 - 20.01 - P0.8 - A2 - K30  
 PGHBV3A4 - 20.01 - P0.8 - A2 - K30 - C0.5 - S30  
 PGHBV4A4 - 20.01 - P0.8 - A2 - K30 - C0.5 - R1.0  
 PGHBV5A4 - 20.01 - P0.8 - A2 - K30 - C0.5

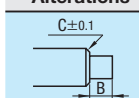
Days to Ship **Quotation**

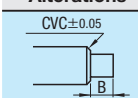
Price **Quotation**



Alterations **Part Number** - **L** - **P** - **A** - **K** - **C V S R** - **(CC · CVC)**

PGHBV1A4 - 20.01 - P0.8 - A2 - K20 - C0.5 - V3.0 - CVC0.3

Alterations	Code	Spec.	1Code
	CC	C chamfering for inlay relief. D2.5 → C0.2 D3 · 4 → C0.3 D5~10 → C0.5	Quotation

Alterations	Code	Spec.	1Code
	CVC	C chamfering for inlay relief. CVC=0.1mm increments $0.2 \leq CVC < \frac{(H-D)}{2} - 0.1$	Quotation