

# PIN-POINT GATE BUSHINGS [INNER DIAMETER SR]

—STANDARD • HIGH HARDNESS B DIMENSION SELECTION TYPE—

Inner diameter SR B dimension selection type



① Non JIS material definition is listed on P.1351 - 1352

	<b>Shape 1A</b>	<p>Enlarged view of the tip *This bushing has a flat area of 0~0.1 on its tip (P dimension).</p>												
	<b>Shape 2A</b>	<p>Enlarged view of the tip *This bushing has a flat area of 0~0.1 on its tip (P dimension).</p>												
	<b>Shape 3A</b>	<p>Enlarged view of the tip *This bushing has a flat area of 0~0.1 on its tip (P dimension).</p>												
	<b>Shape 4A</b>	<p>Enlarged view of the tip *This bushing has a flat area of 0~0.1 on its tip (P dimension).</p> <p>② <math>R \geq \sqrt{(P/2)^2 + C^2}</math> ③ <math>V = 2 \times \sqrt{R^2 - (\sqrt{R^2 - (P/2)^2} - C)^2}</math></p>												
	<b>Shape 5A</b>	<p>Enlarged view of the tip *This bushing has a flat area of 0~0.1 on its tip (P dimension).</p>												
<p>• Calculation for the inlet diameter * <math>\alpha</math> * <math>\alpha = 2SR + 2(L - G - SR)\tan\frac{A}{2}</math></p> <p>④ The dimension acquired using the above calculation is the theoretical (reference) value.</p>														
<table border="1"> <thead> <tr> <th>Part Number</th> <th>Type</th> <th>M</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>PGBE□A</td> <td>Standard</td> <td>Nickel alloy</td> <td>(Inside) 55~60HRC depth: 0.5 (Outside) 40~45HRC</td> </tr> <tr> <td>PGKB□A</td> <td>High hardness</td> <td></td> <td>50~62HRC (The inner and outer surface have the same hardness)</td> </tr> </tbody> </table>			Part Number	Type	M	H	PGBE□A	Standard	Nickel alloy	(Inside) 55~60HRC depth: 0.5 (Outside) 40~45HRC	PGKB□A	High hardness		50~62HRC (The inner and outer surface have the same hardness)
Part Number	Type	M	H											
PGBE□A	Standard	Nickel alloy	(Inside) 55~60HRC depth: 0.5 (Outside) 40~45HRC											
PGKB□A	High hardness		50~62HRC (The inner and outer surface have the same hardness)											

Please use the D dimension designation type PGED and PGKD (P.859), if D dimension is designated.

H	G	B	SR	Part Number		L 0.01mm increments	P	A°	None for 2A 0.1mm increments	Shape 1A only 0.1mm increments	Shape 3A only 0.1mm increments	Shape 4A only 0.1mm increments
				Type	Shape	D	C	V	S			
PGEB (Standard) type	3	0.7	3	0.60	2	6.00~20.00	0.3 0.4		0.2~0.4	1.3~1.9		0.4~0.8
	4	1.0	4	0.75	2.5	8.00~25.00	0.3 0.4 0.5		0.2~0.5	1.5~2.4		0.6~1.0
	5			1.00	3		0.5 0.6 0.7 0.8 0.9 <sup>(*)2</sup>			2.0~2.9		
	6	1.2	6	1.00	2A 4	10.00~40.00	0.6 0.7			2.5~3.9		
				1.25			0.8 0.9 1.0 1.2					
	8			1.25	3A 5		0.8 0.9 1.0			3.5~4.9		1.0~2.0
PGKB (High hardness) type				1.50	4A 6	15.00~80.00 <sup>(*)1</sup>	1.2 1.4 1.5 <sup>(*)3</sup>					
	9	1.5	10	1.25			1.0			1.2 1.4 1.5 <sup>(*)3</sup> 1.6 <sup>(*)4</sup> 1.8 <sup>(*)5</sup>		1.5~3.0
				1.50			1.2 1.4 1.5 <sup>(*)3</sup>					
	11			2.00	5A 8		1.6 1.8 <sup>(*)4</sup> 2.0 <sup>(*)5</sup>			4.5~7.9	1~60	2.0~4.0

(\*1) PGKB will be available for maximum L dimension as 60.

(\*2) When P0.9(D3), G is 1.0.

(\*3) When P1.5(D5 • D6 • D8) • P1.6(D6), G is 1.2.

(\*4) When P1.8(D8), G is 1.1.

(\*5) When P1.8(D6) • P2.0(D8), G is 0.8.

⑤ For shape 4A,  $R \leq \sqrt{(P/2)^2 + C^2}$ 

(\*4)(\*5) P1.8 • P2.0 are not available for PGKB.



Order

Part Number	L	P	A	C	V	S	R
PGB1A4	20.01	P0.8	A2	C0.5	V3.0		
PGB2A4	20.01	P0.8	A2				
PGB3A4	20.01	P0.8	A2	C0.5	S30		
PGB4A4	20.01	P0.8	A2	C0.5	R1.0		
PGB5A4	20.01	P0.8	A2	C0.5			



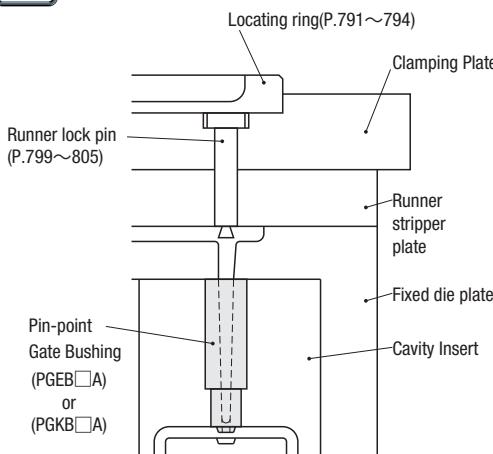
Days to Ship



Quotation



Example



Part Number	L	P	A	C	V	S	R	CC	LKC
PGB1A4	20.01	P0.8	A2	C0.5	V3.0				



Alterations	Code	Spec.	1Code
	CC	C chamfering for inlay relief. D2 • 2.5 → C0.2 D3 • 4 → C0.3 D5~8 → C0.5	 Quotation



Alterations	Code	Spec.	1Code
	CC	Changes the tolerances of the dimensions below.	
1A (L-C-B) 0 -0.05 ... -0.02			
4A (L-C) +0.05 ... +0.02			
2A (L-B) 0 -0.05 ... -0.02			
3A (L-C-B) 0 +0.05 ... +0.02			
5A (L-C-B) 0 -0.05 ... -0.02			
⑥ The tolerance of L-C remains unchanged.			

