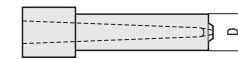


PIN-POINT GATE BUSHINGS Inner diameter SR

— D DIMENSION DESIGNATION TYPE — NORMAL TYPE • TIP CORNER ACUTE ANGLE TYPE

Inner diameter SR D dimension designation type



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

RoHS **Shape 1A**

Electro discharge finishing (is applied on the SR area.)

Enlarged view of the tip

*This bushing has a flat area of 0~0.2 (PGHD) 0~0.05(PGHDZ) on its tip (P dimension).

Type	P
PGHD	±0.01
PGHDZ	±0.02

Ⓢ (L-C-B) ≥ 3.0

Eccentricity between D and P is 0.05 or less.
Eccentricity between D and V is 0.05 or less.

RoHS **Shape 2A**

Electro discharge finishing (is applied on the SR area.)

Enlarged view of the tip

*This bushing has a flat area of 0~0.2 (PGHD) 0~0.05(PGHDZ) on its tip (P dimension).

Type	P
PGHD	±0.01
PGHDZ	±0.02

Ⓢ (L-B) ≥ 3.0

Eccentricity between D and P is 0.05 or less.

RoHS **Shape 3A**

Electro discharge finishing (is applied on the SR area.)

Enlarged view of the tip

*This bushing has a flat area of 0~0.2 (PGHD) 0~0.05(PGHDZ) on its tip (P dimension).

Type	P
PGHD	±0.01
PGHDZ	±0.02

Ⓢ (L-C-B) ≥ 3.0

Eccentricity between D and P is 0.05 or less.

RoHS **Shape 4A**

Electro discharge finishing (is applied on the SR area.)

Enlarged view of the tip

*This bushing has a flat area of 0~0.2 on its tip (P dimension).

Ⓢ (L-C-B) ≥ 3.0

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

Ⓢ $V = 2 \times \sqrt{R^2 - (\sqrt{R^2 - (P/2)^2} - C)^2}$

Eccentricity between D and P is 0.05 or less.

RoHS **Shape 5A**

Electro discharge finishing (is applied on the SR area.)

Enlarged view of the tip

*This bushing has a flat area of 0~0.2 on its tip (P dimension).

Ⓢ (L-C-B) ≥ 3.0

Eccentricity between D and P is 0.05 or less.

• Calculation for the inlet diameter * α * $\alpha = 2SR + 2(L-G-SR)\tan\frac{A}{2}$

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

Part Number	M	H
PGHD□A PGHDZ□A	SKH51	59~61HRC

H	G	SR	Part Number			L 0.01mm increments	D 0.01mm increments	P	A°	K°	B 0.01mm increments	[None for 2A]	[Shape 1A only]	[Shape 3A only]	[Shape 4A only]									
			Type	Shape	No.							C 0.1mm increments	V 0.1mm increments	S* increments	R 0.1mm increments									
4	1.0	0.75	PGHD	1A	2.5	8.00~25.00	2.51~ 3.00	0.3 0.4 0.5 0.6 ^{(*)1}	1 2 3	20	4.00~ 6.00	0.2~0.5	1.5~2.4		0.6~1.0									
																5	1.00	3	3.01~ 4.00	0.5 0.6 0.7 0.8 0.9 ^{(*)2}	1 2 3	5.00~ 9.00 5.00~ 8.00 5.00~ 7.00	2.0~2.9	
8	1.25	5	5.01~ 7.00	0.8 0.9 1.0 1.2 1.3 1.4 1.5 ^{(*)3}	1 2 3	5.00~20.00 5.00~30.00 5.00~35.00	3.5~4.9																	
									9	1.50	6	6.01~ 8.00	1.0 1.2 1.3 1.4 1.5 ^{(*)3} 1.6 ^{(*)3}	1 2 3	5.00~50.00 5.00~40.00 5.00~30.00	0.5~1.5	4.0~4.9	1~50	1.5~3.0					
																				11	2.00	8	8.01~10.00	1.2 1.3 1.4 1.5 1.6

Ⓢ For shape 4A, $R \geq \sqrt{(P/2)^2 + C^2}$
 (*)1 Only K20° can be selected for P0.6 (No.2.5)
 (*)2 When P0.9 (No.3) and K30°, G is 1.0.
 (*)3 When P1.5 • P1.6 (No.5 • No.6) and K30°, G is 1.2.
 (*)4 Shape () is only for PGHD.

Order

Part Number	L	D	P	A	K	B	C	V	S	R
PGHD1A3	20.01	D3.50	P0.8	A2	K30	B5.00	C0.5	V2.9		
PGHDZ2A3	20.01	D3.50	P0.8	A2	K30	B5.00				
PGHDZ3A3	20.01	D3.50	P0.8	A2	K30	B5.00	C0.5	S30		
PGHD4A3	20.01	D3.50	P0.8	A2	K30	B5.00	C0.5	R1.0		
PGHD5A3	20.01	D3.50	P0.8	A2	K30	B5.00	C0.5			

Price **Quotation**

Days to Ship **Quotation**

Characteristics

<Enlarged photograph of tip> <Enlarged view of the tip>

Acute angle type Acute angle type Normal type

- Normal type**
- It has a flat area of 0~0.2mm on its tip.
 - P dimension tolerance is ±0.01.
- Acute angle type**
- It has a flat area of 0~0.05mm on its tip.
 - P dimension tolerance is ±0.02.
 - With the straight part shorter than the normal type, the gate residual can be suppressed but durability may be decreased.

<Acute angle type> <Normal type>

Finished products

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

Alterations

Alterations	Code	Spec.	1Code
	PKC	Changes P dimension tolerance. P±0.02 → ±0.01 Ⓢ Only applicable for PGHDZ.	Quotation
	CC	C chamfering for inlay relief. No.2.5 → C0.2 No.3 • 4 → C0.3 No.5~8 → C0.5	Quotation