

HPM1
equivalent
SKD61


ECOLOGY SPRUE BUSHINGS

—NORMAL BOLT TYPE • FLANGE THICKNESS 10mm—

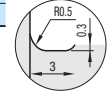
☎ Non JIS material definition is listed on P.1351 - 1352

Sprue Bushings
Locating Rings

—Straight type—

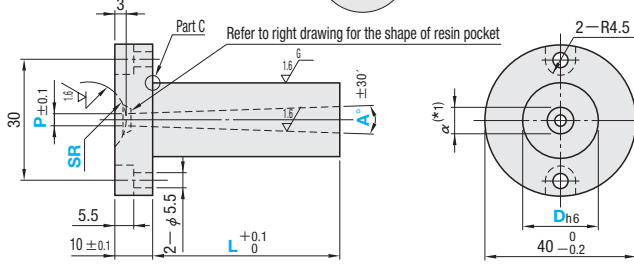


RoHS

Part Number	M	G	Details of part C
SBBPE	HPM1 equivalent	37~43HRC	
SBBKE	SKD61	48~52HRC	

▲ CB5—12 (2 pcs.)

■ Details for the resin pocket




Resin pocket depth F

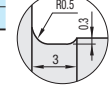
Sprue diameter P	Counterbore diameter E
2	6.5
2.5	7
3	7

For the details of resin pocket depth F, refer to P.742 of the selection of resin pocket depth F.

—Tapered type—

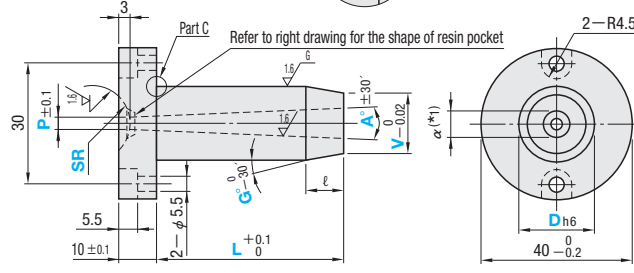


RoHS

Part Number	M	G	Details of part C
SBGPE	HPM1 equivalent	37~43HRC	
SBGKE	SKD61	48~52HRC	

▲ CB5—12 (2 pcs.)

■ Details for the resin pocket



Resin pocket depth F

Sprue diameter P	Counterbore diameter E
2	6.5
2.5	7
3	7

For the details of resin pocket depth F, refer to P.742 of the selection of resin pocket depth F.

Dh6	Part Number Type	D	L ^{(*)2} 0.1mm increments	SR	P ^{(*)3}	A ^{(*)3} 0.5° increments	F	V 0.1mm increments	G [°] 1° increments
8	SBBPE SBBKE	8	0~80.0	10.5	2	0.5~3	0.3	D>V≥α+2	1~10
10		10	0~120.0						
12		12	0~150.0						
13	SBGPE SBGKE	13	0~150.0	11	3	0.5~4	1.2	Available for tapered type only	Available for tapered type only
16		16	0~200.0						
20		20	0~200.0						

(*)1 The value of α is set in accordance with L dimension.
 (*)2 L dimension is restricted by P, V and A.
 Similarly, G is restricted by L dimension.
 (*)3 L dimension limits

P	2	2.5	3
A	0.5	1.1	1.5
L dimension limit	30	50	85

(*)4 Available only for SBBPE • SBBKE.

Working limits
 • Straight type
 $D - \alpha \geq 2$ (Calculation of α value) $\alpha = P + 2(L + (U) + 7) \tan \frac{A}{2}$ U: with ZC alteration
 • Tapered type
 $V - \alpha \geq 2$
 $L - \ell \geq 3$ (Calculation of ℓ value) $\ell = \frac{D - V}{2 \tan(G - 0.25)}$ ※0.25 is a value that takes G tolerance into account.

Conversion Chart of Trigonometric Functions **P.1337**

Order Part Number — L — SR — P — A — F — V — G
 SBBPE20 — 85.0 — SR11 — P2.5 — A2 — F1
 SBGKE20 — 35.5 — SR11 — P3 — A2 — F1 — V18.0 — G6

Days to Ship **Quotation**

Price **Quotation**

Alterations Part Number — L — SR — P — A — F — V — G — (AIW • AXW...etc.)
 SBGPE20 — 83.25 — SR11 — P2.5 — A2 — F1 — V18.0 — G8 — BXR3—LKC
 Quotation

Alterations	Code	AIW	AHW	AXW	ATW	AJW	ALW	APW	Spec.
Shape A (Trapezoid)	Spec.								Designation method AIW10—GC10 • Bolt hole position • Dowel hole position (When NC, KP code is used) • KC position (When KC code is used)
	1Code	Quotation							• W dimension and GC° selection W t GC° 3 2.5 7° 4 3 5 3.5 6 4 8 5.5 10° 10 7
		☒ Combination with ZC not available. ☑ ATW, AJW, ALW and APW have working limits as follows. ☒ Combination with RC not available. when D≤10, (α-0.6)≥W when D≥12, (α-0.4)≥W [Designation method] AHW4—GC7 Specify in the sequence "shape (W dimension)—GC°". If you do not make a specification, (AHW4, for example) will be 10°.							
Alterations	Code	BIR	BHR	BXR	BTR	BJR	BLR	BPR	Spec.
Shape B (Semicircle)	Spec.								Designation method BXR2 • Bolt hole position • Dowel hole position (When NC, KP code is used) • KC position (When KC code is used)
	1Code	Quotation							• R dimension selection 1 1.25 1.5 1.75 2 2.25 2.5 3 3.5 4
		☒ Combination with ZC not available. ☑ BTR, BJR, BLR and BPR have working limits as follows. ☒ Combination with RC not available. when D≤10, (α-0.6)≥2×R when D≥12, (α-0.4)≥2×R							
Alterations	Code	CIQ	CHQ	CXQ	CTQ	CJQ	CLQ	CPQ	Spec.
Shape C (Arc+Tangent)	Spec.								Designation method CTQ5 • Bolt hole position • Dowel hole position (When NC, KP code is used) • KC position (When KC code is used)
	1Code	Quotation							• Q dimension selection 2 2.5 3 3.5 4 5 6 8
		☒ Combination with ZC not available. ☑ CTQ, CJQ, CLQ and CPQ have working limits as follows. ☒ Combination with RC not available. when D≤10, (α-0.6)≥Q×1.09 when D≥12, (α-0.4)≥Q×1.09							

Alterations	Code	Spec.	1Code
	BC	Increases No. of bolt holes. No. of bolt holes: 2 → 4 (Supplied bolts: 4) ☒ Combination with NC not available.	
	BN	Decreases No. of bolt holes. No. of bolt holes: 2 → 0 (Supplied bolts: 0) ☑ Available for equivalent of material HPM1	
	NC	Dowel hole boring	Quotation
	KP	Dowel hole boring (longitudinal) ☒ Combination with NC not available. ☑ Available for equivalent of HPM1 only	
	LKC	Changes L dimension tolerance $L = \frac{0}{0} \rightarrow \frac{0}{0.02}$ ☑ L dimension can be designated at 0.01mm increments when LKC is used ☒ Combination with ZC not available.	
	GKC	Changes the G tolerance. $G = \frac{0}{30} \rightarrow \frac{0}{15}$ ☑ Available for tapered type when ℓ ≤ 15 and (L - ℓ) ≥ 10 ☒ Combination with ZC not available.	

Alterations	Code	Spec.	1Code
	KC	Single flange cutting KC=0.5mm increments $D/2 \leq KC < 20$ ☒ Combination with BC not available ☒ Combination with NC • KP not available ☑ Interference with the SR part may occur.	
	WKC	Two parallel flange cutting WKC=0.5mm increments $D/2 \leq WKC < 20$ ☒ Combination with BC not available ☒ Combination with NC • KP not available ☑ Interference with the SR part may occur.	
	ZC	Undercut machining S, T, U=0.1mm increments ☑ S ≥ α + 2 ☑ α + 2 ≤ T ≤ D(V - 2UtanG) ☑ 1.5 ≤ U ≤ 5 Specification L max. ≥ L + U ☒ Not available for D8 [Designation method] ZC—53.5—T4.0—U2.0	Quotation
	RC	The step R is processed in the tip bore to prevent the connection between the sprue and the runner from breaking when releasing from the mold. Dimension selection of step R 1 2 ☑ Available for α ≥ 5 ☑ • Straight type D - α - (2×RC) 2 ☑ • Tapered type V - α - (2×RC) > 2 ☒ Combination with shapes A, B and C not available. ☒ Combination with ZC not available.	