

HPM1  
equivalent  
SKD61


# ECOLOGY SPRUE BUSHINGS

—SHOULDER TYPE—

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

Sprue Bushings  
Locating Rings

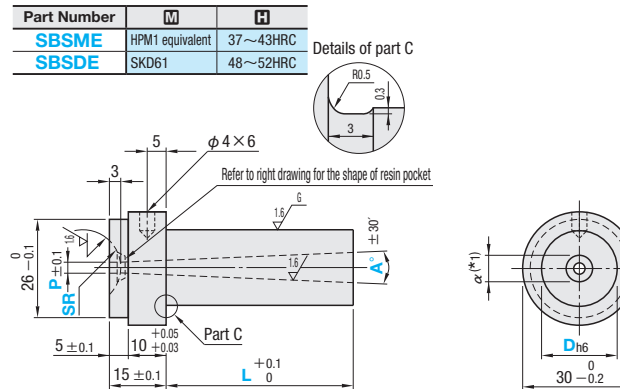
—Straight type—



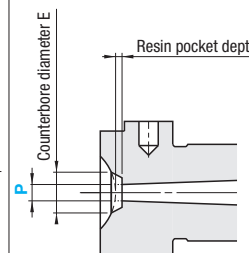
RoHS

Part Number	M	H
SBSME	HPM1 equivalent	37~43HRC
SBSDE	SKD61	48~52HRC

Details of part C




■Details for the resin pocket



Counterbore diameter E  
Resin pocket depth F

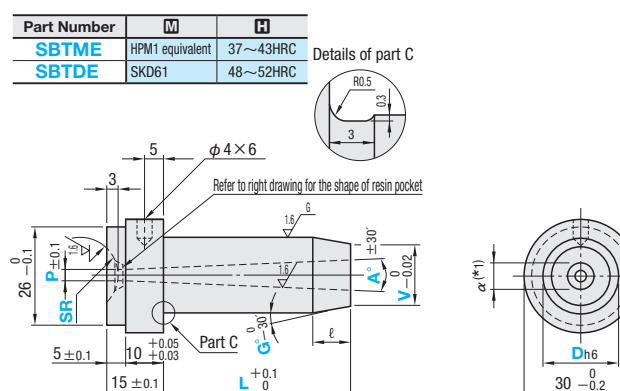
—Tapered type—



RoHS

Part Number	M	H
SBTME	HPM1 equivalent	37~43HRC
SBTDE	SKD61	48~52HRC

Details of part C



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	(*2)L		SR	P	(*3) A°	F	V	G°
			0.1mm increments	1° increments						
8	—Straight type— (HPM1 equivalent) SBSME SBSDE SKD61	8 <sup>(*)4</sup>	0~80.0	10.5	2	0.5~3	0.3	D>V≥α+2	1~10	
10		0~120.0	0.5							
12		0~150.0	0.8							
13	—Tapered type— (HPM1 equivalent) SBTME SBTDE SKD61	13	0~150.0	11	3	0.5~4	1.2	Available for tapered type only	Available for tapered type only	
16		0~200.0	1.5							
20		0~200.0	1.8							
25		25					2			

(\*)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 1.5~4.0	0.5 1 1.5~4.0	0.5 1~1.5
L dimension limit	30 50 85	45 50 85	60 85

(\*)4 Available only for SBSME • SBSDE.

Working limits  
 • Straight type  
 $D - \alpha \geq 2$  (Calculation of α value)  $\alpha = P + 2(L + (U) + 12) \tan \frac{A}{2}$  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

**P** Price **Quotation**

Alterations **Part Number** — L — SR — P — A — F — V — G — (AIW · AXW · etc.)  
 SBSME20 — 45.5 — SR11 — P3 — A4 — F1 — AXW10—GC10—KC  
**Quotation**

Alterations	Code	AIW	AHW	AXW	ATW	AJW	AKW	AEW	ALW	APW	AUW	ACW	Spec.
<b>Shape A</b> (Trapezoid)	<b>Spec.</b>												• W dimension and GC° selection W t GC° 3 2.5 4 3 7° 5 3.5 10° 6 4 8 5.5 10 7
	<b>1Code</b>												
	<b>Designation method</b>	• Dowel hole position not available. Ⓜ Combination with ZC not available. Ⓜ ATW, AJW, AKW, AEW, ALW, APW, AUW and ACW have working limits as follows. • KC position (When KC code is used) Ⓜ 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°.											
<b>Alterations</b>	<b>Code</b>	BIR	BHR	BXR	BTR	BJR	BKR	BER	BLR	BPR	BUR	BCR	<b>Spec.</b>
<b>Shape B</b> (Semicircle)	<b>Spec.</b>												• R dimension selection 1 1.25 1.5 1.75 2 2.25 2.5 3 3.5 4
	<b>1Code</b>												
	<b>Designation method</b>	• Dowel hole position not available. Ⓜ Combination with ZC not available. Ⓜ BTR, BJR, BKR, BER, BLR, BPR, BUR and BCR have working limits as follows. • KC position (When KC code is used) Ⓜ Combination with RC not available. Ⓜ when D ≤ 10, (α - 0.6) ≥ 2 × R when D ≥ 12, (α - 0.4) ≥ 2 × R [Designation method] BXR2											
<b>Alterations</b>	<b>Code</b>	CIQ	CHQ	CXQ	CTQ	CJQ	CKQ	CEQ	CLQ	CPQ	CUQ	CCQ	<b>Spec.</b>
<b>Shape C</b> (Arc+Tangent)	<b>Spec.</b>												• Q dimension selection 2 2.5 3 3.5 4 5 6 8
	<b>1Code</b>												
	<b>Designation method</b>	• Dowel hole position not available. Ⓜ Combination with ZC not available. Ⓜ CTQ, CJQ, CKQ, CEQ, CLQ, CPQ, CUQ and CCQ have working limits as follows. • KC position (When KC code is used) Ⓜ Combination with RC not available. Ⓜ when D ≤ 10, (α - 0.6) ≥ Q × 1.09 when D ≥ 12, (α - 0.4) ≥ Q × 1.09 [Designation method] CTQ5											

Alterations	Code	Spec.	1Code	Alterations	Code	Spec.	1Code
	KC	 Adds a key flat on the head. $13_{-0.1}$			GKC	Changes the G tolerance. $G_{-30} \dots G_{-15}$ Available for tapered type when $\ell \leq 15$ and $(L - \ell) \geq 10$ Ⓜ Combination with ZC not available.	
	WKC	 Adds two parallel flats on the head. $26_{-0.1}$	<b>Quotation</b>		LKC	Changes L dimension tolerance $L_{+0.1} \dots L_{-0.02}$ L dimension: 0.01mm increments when LKC is used. Ⓜ Combination with ZC not available.	<b>Quotation</b>
	ZC	 Undercut machining S, T, U = 0.1mm increments $S \geq \alpha + 2$ $\alpha + 2 \leq T \leq D(V - 2U \tan G)$ $1.5 \leq U \leq 5$ $L_{max} \geq L + U$ [Designation method] ZC—S3.5—T4.0—U2.0 Ⓜ Not available for D8	<b>Quotation</b>		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 Ⓜ The step R is cut with an inner R cutter. Surface roughness and position precision are not provided.	<b>Quotation</b>

Order **Part Number** — L — SR — P — A — F — V — G  
 SBSDE20 — 80.0 — SR11 — P3 — A2 — F1  
 SBTME20 — 45.5 — SR11 — P3 — A4 — F1 — V15.0 — G5

Days to Ship **Quotation**