

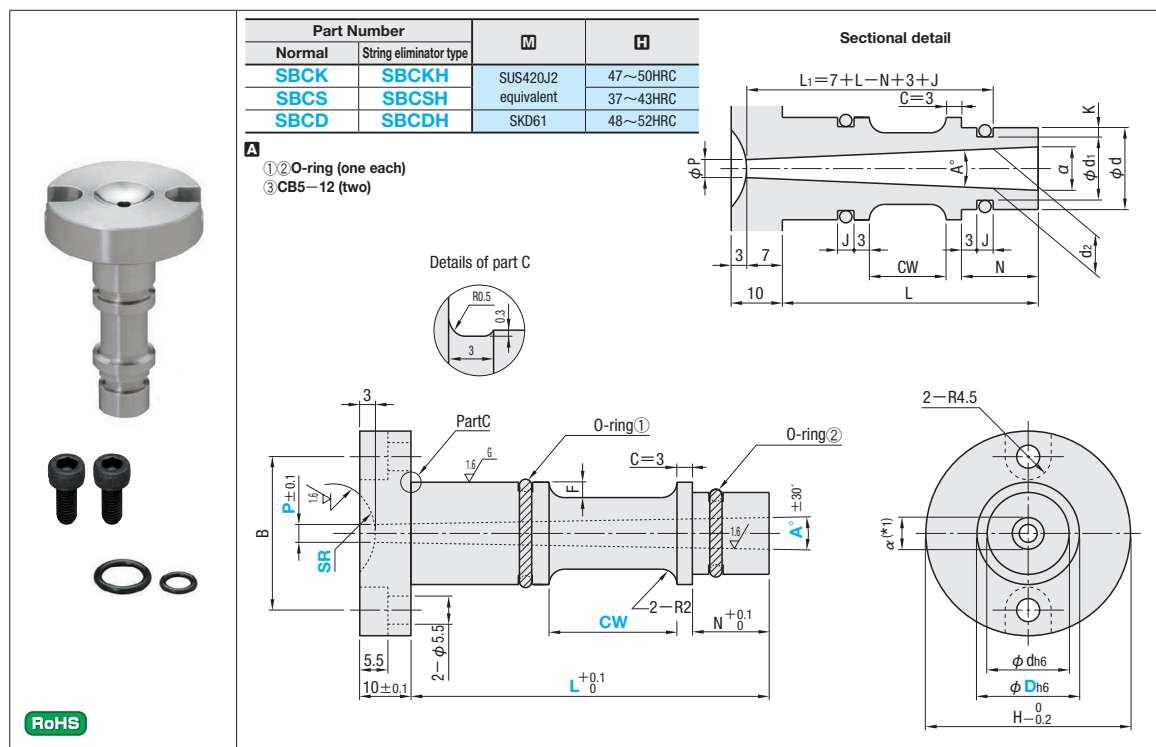
SUS420J2  
equivalent  
SKD61

# COOLING SPRUE BUSHINGS

—NORMAL BOLT TYPE • FLANGE THICKNESS 10MM—

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

Sprue Bushings  
Locating Rings



H	B	O-ring		Groove width J		Groove depth K		N	d	F	Part Number		L	SR	P	A°	Groove width CW
		①	②	Part①	Part②	Part①	Part②				Type	D					
40	30	ORP12	NSF11.2	3.2	2.5	2	1	13	13	2	Normal SBCK SBCS SBCD	16	40.0~100.0	10.5	2 2.5 3 3.5	0.5~2	6~40
		ORP16	ORP12	3.2	2	2	16	16	2.5	String eliminator type SBCKH SBCSH SBCDH							

(\*)1 The value of  $\alpha$  is set in accordance with L dimension.  
 (\*)2 L dimension is restricted by P and A.  
 (\*)3 L dimension limits

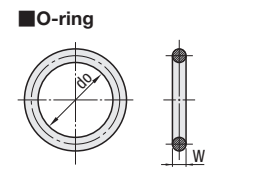
P	2	2.5	3~4.5
A	0.5	1	1.5~3.5
L dimension limits	Not Available	50	85

Working limits  
 $\alpha = P + 2(L + 7) \tan \frac{A}{2}$   
 $d_1 = d - 2K$   
 $d_2 = P + 2L_1 \cdot \tan \frac{A}{2}$   
 $d_2 \leq d_1 - 4$

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

Order **Part Number** - **L** - **SR** - **P** - **A** - **CW**  
 SBCK 20 - 50 - SR11 - P2 - A2 - CW10

Days to Ship **Quotation**



Part Number	d (inner diameter)	W (thickness)
NSF11.2	10.7	1.5
ORP12	11.8	2.4
ORP16	15.8	2.4

• ORP **P.1137**  
 • NSF Published on FA Mechanical Standard Components Catalog.

- Characteristics
- The cycle time can be shortened by directly cooling the sprue bushing with cooling water.
  - Use a stainless type if you are concerned about corrosion-resistance of SKD61.
  - Water as well as air can be used for cooling. (Air jet cooler for mold)

**P** Price **Quotation**

Alterations **Part Number** - **L** - **SR** - **P** - **A** - **CW** - (AIW • AXW...etc.)  
 SBCK 20 - 50 - SR11 - P2 - A2 - CW10 - AIW10-GC7-WKC25

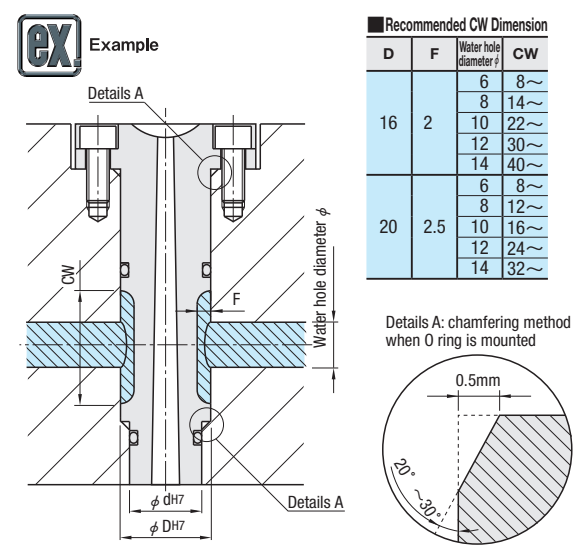
Alterations	Code	AIW	AHW	AXW	ATW	AJW	ALW	APW	Spec.															
Shape A (Trapezoid)	Spec.								Designation method AIW10-GC7 • W dimension • GC° selection + Bolt hole position KC position (When KC code is used)															
	1Code	Quotation								<table border="1"> <tr> <th>D</th> <th>W</th> <th>t</th> <th>GC°</th> </tr> <tr> <td>16</td> <td>20</td> <td>5</td> <td>3.5</td> </tr> <tr> <td>6</td> <td>4</td> <td>8</td> <td>5.5</td> </tr> <tr> <td>20</td> <td>10</td> <td>7</td> <td>10°</td> </tr> </table>	D	W	t	GC°	16	20	5	3.5	6	4	8	5.5	20	10
D	W	t	GC°																					
16	20	5	3.5																					
6	4	8	5.5																					
20	10	7	10°																					
Shape B (Semicircle)	Spec.								Designation method BXR2 • R dimension selection + Bolt hole position KC position (When KC code is used)															
	1Code	Quotation								<table border="1"> <tr> <th>R</th> </tr> <tr> <td>1</td> </tr> <tr> <td>1.25</td> </tr> <tr> <td>1.5</td> </tr> <tr> <td>1.75</td> </tr> <tr> <td>2</td> </tr> <tr> <td>2.25</td> </tr> <tr> <td>2.5</td> </tr> <tr> <td>3</td> </tr> <tr> <td>3.5</td> </tr> <tr> <td>4</td> </tr> </table>	R	1	1.25	1.5	1.75	2	2.25	2.5	3	3.5	4			
R																								
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4																								

⚠ This has the following making limit. ( $\alpha - 0.4 \geq W$ )  
 ⚠ The trapezoidal taper angle is selectable from 10° and 7°.  
 [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°".

⚠ This has the following making limit.  
 ( $\alpha - 0.4 \geq 2 \times R$ )

Alterations	Code	Spec.	1Code
	BC	Increases No. of bolt holes. No. of bolt holes: 2 ~ 4 (Supplied bolts: 4)	Quotation
	LKC	L dimension tolerance alteration $L +0.1 \dots L -0.02$ ⚠ When LKC is used, L dimension alteration in 0.01mm increments possible	Quotation

Alterations	Code	Spec.	1Code			
	KC	Single flange cutting KC=0.5mm increments $D/2 \leq KC < 20$ ⚠ Not available for string eliminator type ⚠ Interference with the SR part may occur.				
	WKC	Two parallel flange cutting WKC=0.5mm increments $D/2 \leq WKC < 20$ ⚠ Not available for string eliminator type ⚠ Interference with the SR part may occur.	Quotation			
Cooling groove position alteration	CC	Starting point change of cooling groove (C=3mm part thickness change) CC=1mm increments $3 < CC \leq L - N - CW - 13$ ⚠ The position of O ring ① varies with CC and CW values. [Designation method] CC8	Quotation			
		<table border="1"> <tr> <th>D</th> <th>N</th> </tr> <tr> <td>16</td> <td>13</td> </tr> <tr> <td>20</td> <td>16</td> </tr> </table>		D	N	16
D	N					
16	13					
20	16					



Recommended CW Dimension

D	F	Water hole diameter φ	CW
16	2	6	8~
		8	14~
		10	22~
		12	30~
20	2.5	6	8~
		8	12~
		10	16~
		12	24~
		14	32~

- Notes on handling
- Please finish it until the surface roughness on the plate side in contact with O ring reaches  $1.6 \sqrt{\mu}$ .
  - Before inserting the sprue bushing, apply special grease on the O ring to protect it from breakage.
  - The recommended tolerance of sprue bushing hole on the mold side is H7.