

HPM1 equivalent
SKD61
DC53

SPRUE BUSHINGS

—NORMAL BOLT TYPE • FLANGE THICKNESS 10mm—

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

Ⓢ Electroforming **P.773**

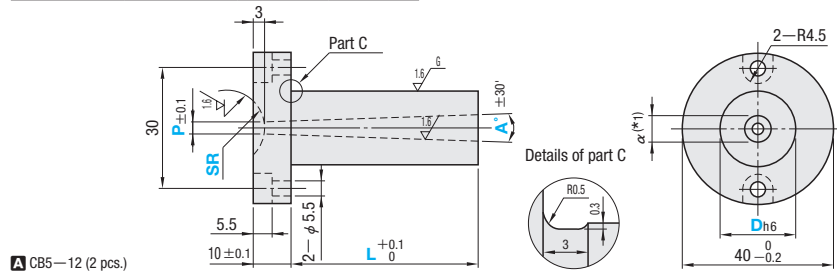
Ⓢ Details of string eliminator (**P.747**)

—Straight type—



RoHS

Part Number		M	G
Normal	String eliminator type		
SBBP	SBBPH	HPM1 equivalent	37~43HRC
SBBK	SBBKH	SKD61	48~52HRC
SBBS	SBBSH	DC53	58~62HRC



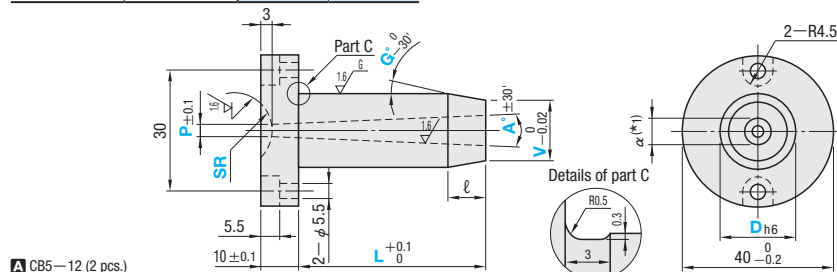
A CB5—12 (2 pcs.)

—Tapered type—



RoHS

Part Number		M	G
Normal	String eliminator type		
SBGP	SBGPH	HPM1 equivalent	37~43HRC
SBGK	SBGKH	SKD61	48~52HRC
SBGS	SBGSH	DC53	58~62HRC



A CB5—12 (2 pcs.)

Dh6	Part Number Type	D	L ^{(*)2}		SR	P	A°	V	G°					
			0.1mm increments	0.5mm increments										
8	—Straight type— Normal String eliminator type	8	0~80.0	10.5	0	2 2.5 3 3.5	0.5~3	Available for tapered type only	1~10					
										10	0~120.0	0	2 ^{(*)3,4} 2.5 ^{(*)3} 3 ^{(*)3} 3.5	0.5~4
10	—Tapered type— Normal String eliminator type	10	0~120.0	0	2 ^{(*)3,4} 2.5 ^{(*)3} 3 ^{(*)3} 3.5	0.5~4	Available for tapered type only	1~10						
									12	0~150.0	10.5	4		
													13	0~150.0
12	—Tapered type— Normal String eliminator type	12	0~150.0	10.5	3 ^{(*)3} 3.5	0.5~4	Available for tapered type only	1~10						
									13	0~150.0	11	4.5		
													16	0~200.0
12	—Tapered type— Normal String eliminator type	12	0~150.0	10.5	4	0.5~4	Available for tapered type only	1~10						
									13	0~150.0	11	4.5		
													16	0~200.0
13	—Tapered type— Normal String eliminator type	13	0~150.0	10.5	5	0.5~4	Available for tapered type only	1~10						
									16	0~200.0	12	5		
													20	0~200.0
16	—Tapered type— Normal String eliminator type	16	0~200.0	10.5	6	0.5~4	Available for tapered type only	1~10						
									20	0~200.0	11	4.5		
													20	0~200.0
20	—Tapered type— Normal String eliminator type	20	0~200.0	10.5	7	0.5~4	Available for tapered type only	1~10						
									20	0~200.0	13	6		
													20	0~200.0
20	—Tapered type— Normal String eliminator type	20	0~200.0	10.5	8	0.5~4	Available for tapered type only	1~10						
									20	0~200.0	16	6.5		
													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
 (*)4 Not available for products with string eliminator.
 (*)5 Available only for SBBP and SBBK
 (*)6 D20 cannot be designated for SBBS • SBBSH • SBGS • SBGSH
 (*)7 L dimension is up to 100 for SBBS • SBBSH • SBGS • SBGSH
 Similar specifications : P3.5, SR11, L dimension selection type **P.749**

Ⓢ Working Limits Conversion Chart of Trigonometric Functions **P.1337**

• **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



Price

Quotation



Alterations

Part Number — L — SR — P — A — V — G — (AIW • AXW...etc.)
 SBGPH20 — 83.25 — SR16 — P2.5 — A2 — 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, KC code is used) • KC position (When KC code is used)																					
1Code									• W dimension and GC ^o selection <table border="1"> <tr><td>W</td><td>T</td><td>GC^o</td></tr> <tr><td>3</td><td>2.5</td><td></td></tr> <tr><td>4</td><td>3</td><td>7°</td></tr> <tr><td>5</td><td>3.5</td><td></td></tr> <tr><td>6</td><td>4</td><td></td></tr> <tr><td>8</td><td>5.5</td><td>10°</td></tr> <tr><td>10</td><td>7</td><td></td></tr> </table>	W	T	GC ^o	3	2.5		4	3	7°	5	3.5		6	4		8	5.5	10°	10	7	
W	T	GC ^o																												
3	2.5																													
4	3	7°																												
5	3.5																													
6	4																													
8	5.5	10°																												
10	7																													

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									• R dimension selection <table border="1"> <tr><td>R</td><td></td></tr> <tr><td>1</td><td>1.25</td></tr> <tr><td>1.5</td><td>1.75</td></tr> <tr><td>2</td><td>2.25</td></tr> <tr><td>2.5</td><td>3</td></tr> <tr><td>3</td><td>3.5</td></tr> <tr><td>4</td><td></td></tr> </table>	R		1	1.25	1.5	1.75	2	2.25	2.5	3	3	3.5	4	
R																							
1	1.25																						
1.5	1.75																						
2	2.25																						
2.5	3																						
3	3.5																						
4																							

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									• Q dimension selection <table border="1"> <tr><td>Q</td><td></td></tr> <tr><td>2</td><td>2.5</td></tr> <tr><td>3</td><td>3.5</td></tr> <tr><td>3.5</td><td>4</td></tr> <tr><td>4</td><td>5</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>6</td><td>8</td></tr> </table>	Q		2	2.5	3	3.5	3.5	4	4	5	5	6	6	8
Q																							
2	2.5																						
3	3.5																						
3.5	4																						
4	5																						
5	6																						
6	8																						

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 Ⓢ Not available for string eliminator type	Quotation
	KP	Dowel hole boring (longitudinal) Ⓢ Not available for string eliminator type Ⓢ Combination with NC not available. Ⓢ Available for equivalent of HPM1 only	Quotation
	LKC	L dimension tolerance alteration $L +0.1 \dots L -0.02$ Ⓢ L dimension can be designated at 0.01mm increments when LKC is used. Ⓢ Combination with ZC not available.	
	GKC	Changes the G tolerance. $G -0.30 \dots G -0.15$ Ⓢ Available for tapered type when $\ell \leq 15$ and $(L - \ell) \geq 10$ Ⓢ 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 Ⓢ Not available for string eliminator type Ⓢ 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 Ⓢ Not available for string eliminator type Ⓢ Combination with NC • KP not available Ⓢ Interference with the SR part may occur.	Quotation
	ZC	Undercut machining S, T, U=0.1mm increments Ⓢ $S \geq \alpha + 2$ Ⓢ $\alpha + 2 \leq T \leq D(V - 2U \tan G)$ Ⓢ $1.5 \leq U \leq 5$ Ⓢ Specification L max. $\geq L + U$ Ⓢ [Designation method] Ⓢ Not available for D8 ZC—S3.5—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 Ⓢ The step R is cut with an inner R cutter. Ⓢ Surface roughness and position precision are not provided.	

Order Part Number — L — SR — P — A — V — G
 SBBP20 — 85.0 — SR16 — P2.5 — A2
 SBGK20 — 35.5 — SR11 — P3 — A2 — V18.0 — G6

Days to Ship Quotation

Sprue Bushings
Locating Rings