

HPM1 equivalent
SKD61
DC53

SPRUE BUSHINGS

—NORMAL BOLT TYPE · FLANGE THICKNESS 10mm—

Non JIS material definition is listed on P.1359 - 1360

Sprue Bushings
Locating Rings

Electroforming P.777

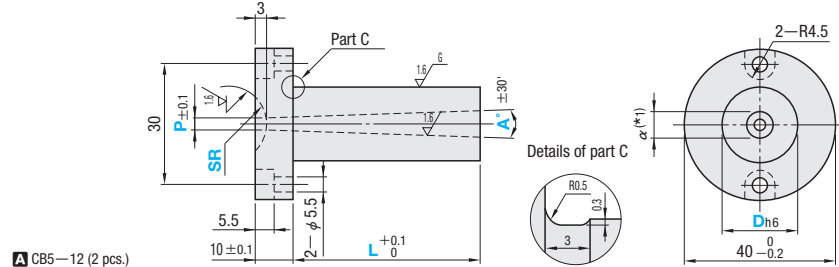
Details of string eliminator P.751

—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



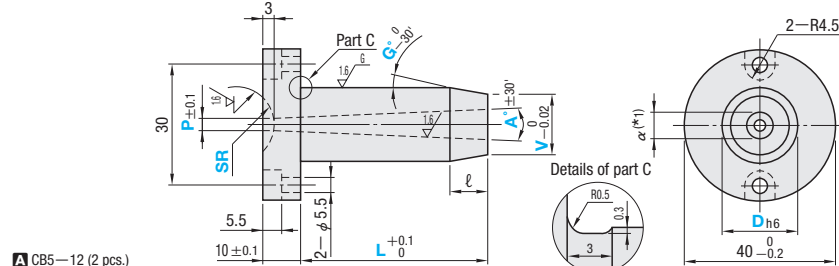
A CB5—12 (2 pcs.)

—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} 0.1mm increments	SR	P	A° 0.5° increments	V 0.1mm increments	G° 1° increments		
									Normal	String eliminator type
8	—Straight type— (HPM1 equivalent)	8	0~80.0	0	2 2.5	0.5~3	D > V ≥ α + 2	1~10		
									Normal	String eliminator type
									SBBP	SBBPH
10	(SKD61)	10	0~120.0	0	2 (*3,4)	2.5 (*3)	D > V ≥ α + 2	1~10		
									Normal	String eliminator type
									SBBK	SBBKH
12	(DC53)	12	0~150.0	10.5	3 (*3)	3.5	D > V ≥ α + 2	1~10		
									Normal	String eliminator type
									SBBS	SBBSH
13	—Tapered type— (HPM1 equivalent)	13	0~150.0	12	4.5	0.5~4	Available for tapered type only	Available for tapered type only		
									Normal	String eliminator type
									SBGP	SBGPH
16	(SKD61)	16	0~150.0	13	5.5	0.5~4	Available for tapered type only	Available for tapered type only		
									Normal	String eliminator type
									SBGK	SBGKH
20	(DC53)	20	0~200.0	16	6.5	0.5~4	Available for tapered type only	Available for tapered type only		
									Normal	String eliminator type
									SBGS	SBGSH

(*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 is up to 100 for SBBS · SBBSH · SBGS · SBGSH.
 (*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 : P.3.5, SR11, L dimension selection type P.753

Working Limits Conversion Chart of Trigonometric Functions P.1345

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

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

Normal	String eliminator type
(HPM1 equivalent)	(HPM1 equivalent) · (SKD61)
SBBP	SBBPH
SBGP	SBBKH
	D=12 · 13 · 16
(SKD61)	(HPM1 equivalent) · (SKD61)
SBBK	SBBPH
SBGK	SBBKH
(DC53)	D=10 · 20
SBBS	SBGPH
SBGS	SBGKH
	(DC53)
	SBBSH · SBGSH



Price

Quantity discount rate P.45

Quantity	1~4	5~9	10~14	15~20
Rate	—	5%	10%	15%

To be quoted on price & lead time above Max. Q'ty.



Alterations

Part Number — L — SR — P — A — V — G — (AIW · AXW · etc.)

SBGPH20 — 83.25 — SR16 — P2.5 — A2 — V18.0 — G8 — BXR3 — LKC

Normal · HPM1 equivalent · SKD61 · DC53 String eliminator type · HPM1 equivalent · SKD61 · DC53

3 Days 3 Days 5 Days 3 Days

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									Quotation

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

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

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 $L = \frac{0}{0} \rightarrow \frac{0}{0.02}$ 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 $\ell \leq 15$ 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.	
	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. $\geq L + U$ ✗ 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 1 2 Available for $\alpha \geq 5$ • Straight type $D - \alpha - (2 \times RC) > 2$ • Tapered type $V - \alpha - (2 \times RC) > 2$ ✗ Combination with shapcs A, B and C not available. ✗ Combination with ZC not available.	