

Shafts

Hex Socket



RoHS 10

- Features of Low Temp. Black Chrome Plating **P128**
- L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness **P111**
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

Type			D Tol.	Material	Hardness	Surface Treatment
Tapped Type	Stepped and Tapped Type	Threaded Type				
SFBT	SFBH	SFBN	g6	SUJ2 Equivalent SUS440C or 13Cr stainless	Effective Hardened Depth of Induction Hardening	Hard Chrome Plating Plating Thickness: H750 - Plating Thickness: 5µ or More Low Temp. Black Chrome Plating
SSFBT	SSFBN	SSFBN				
PSFBT	PSFBH	PSFBN				
PSSFBT	PSSFBN	PSSFBN				
RSFBT	RSFBH	RSFBN				

Tapped Type

Threaded Type

Stepped and Tapped Type

Hex Socket Dimensions

D	b	Hex Socket Depth
6	2.5	3.5
8	3	4.5
10	4	6
12, 13, 15	5	7.5
16, 18	6	9
20	8	12

Tapped Type, Stepped and Tapped Type

Part Number		1mm Increment		Selection			(Y) Max.	R	C	
Type	D	L (Tapped)	L (Stepped and Tapped)	F	P	M (Tapped)				M (Stepped and Tapped)
Tapped Type	6	20~ 300	-	-	-	3	-	0.3 or Less	0.5 or Less	
SFBT	SFBH	8	20~ 400	25~ 400	6	3 4 5	3			424
SSFBT	SSFBN	10	20~ 500	25~ 500	6-8	3 4 5 6	3 4 5			532
PSFBT	PSFBH	12	20~ 600	25~ 600	6-10	4 5 6 8	3 4 5 6			640
PSSFBT	PSSFBN	13	25~ 650	25~ 650	6-11	4 5 6 8	3 4 5 6 8			694
RSFBT (L≤500)	RSFBH (L≤500)	15	25~ 750	25~ 750	6-13	4 5 6 8 10	3 4 5 6 8 10			802
		16	30~ 800	25~ 800	6-14	4 5 6 8 10	3 4 5 6 8 10			856
		18	30~ 900	25~ 900	8-16	4 5 6 8 10 12	4 5 6 8 10 12			964
		20	30~1000	25~1000	8-17	4 5 6 8 10 12	4 5 6 8 10 12			1068

2≤F≤Px4

- Tapped Type Mx2.5+4+ℓ≤L When Mx2.5+4+ℓx1.5≥L, tap pilot holes may go through.
- Stepped and Tapped Type Pz=M+3 Mx2.5+4+ℓ≤Y When Mx2.5+4+ℓx1.5≥Y, tap pilot holes may go through.

Threaded Type

Part Number		1mm Increment		P Selection			(Y) Max.	R	C
Type	D	L	F	B (Threaded)	P Selection	(Y) Max.			
Threaded Type	6	25~ 300	-	(When P≤6)	3 4 5	330	0.3 or Less	0.5 or Less	
SFBH	8	25~ 400	-	B≤F-2	3 4 5 6	440			
SSFBN	10	25~ 500	-	(When P=8, 10)	4 5 6 8	550			
PSFBN	12	25~ 600	-	B≤F-3	5 6 8 10	660			
PSSFBN	13	25~ 650	-	(When P=12, 16)	5 6 8 10 12	715			
RSFBN (L≤500)	15	25~ 750	-	B≤F-5	5 6 8 10 12	825			
	16	25~ 800	-		5 6 8 10 12	880			
	18	25~ 900	-		5 6 8 10 12 16	990			
	20	25~1000	-		6 8 10 12 16	1100			

2≤F≤Px5

B₂Pitchx3

D>P

Ordering Example

Part Number	L	F	B	P	M
SFBT20	525	-	-	M8	-
SFBH20	400	F25	-	P16	M10
SFBN20	500	F25	B20	P16	-

Alterations

Part Number	L	F	B	P (PMC, PMS)	M (MSC)	(LKC-etc.)
SFBH20	250	F40	B30	P10	-	LKC

Alterations may lower hardness. See P112

Alterations	Alteration to L dimension tolerance	Fine Tap	Fine Thread																																																							
	LKC	MSC (Fine)	PMC, PMS (Fine)																																																							
Code	LKC	MSC	PMC+PMS																																																							
Spec.	<p>Changes L tolerance.</p> <p>(Ordering Code) LKC</p> <p>L<200 → L±0.03</p> <p>200≤L<500 → L±0.05</p> <p>L≥500 → L±0.1</p> <p>For use of LKC L dimensions can be specified in 0.1mm increment.</p> <p>Not applicable when D-P≤2.</p>	<p>Changes tapped threads to fine tapped threads shown in the table below.</p> <p>(Ordering Code) MSC14 (Applicable to Tapped Type)</p> <table border="1"> <thead> <tr> <th>Ordering Code</th> <th>d</th> <th>MSC</th> </tr> </thead> <tbody> <tr><td>12-13</td><td>8</td><td></td></tr> <tr><td>15-16</td><td>8 10</td><td></td></tr> <tr><td>18</td><td>8 10 12</td><td></td></tr> <tr><td>20</td><td>8 10 12 14</td><td></td></tr> </tbody> </table> <p>Pitch 1.0 1.25 1.5</p> <p>Specify M dimensions with MSC.</p> <p>M dimension is equal to MSC.</p> <p>Not applicable to Stepped and Tapped Type.</p>	Ordering Code	d	MSC	12-13	8		15-16	8 10		18	8 10 12		20	8 10 12 14		<p>Changes the threads to fine threads shown in the table below. (PMC→Applicable to bearing nut fine thread pitches.) (PMS→Applicable to cylinder fine thread pitches.)</p> <p>(Ordering Code) PMC17 (Applicable to Threaded Type only.)</p> <table border="1"> <thead> <tr> <th>Ordering Code</th> <th>d</th> <th>PMC</th> <th>PMS</th> </tr> </thead> <tbody> <tr><td>6</td><td>3 4 5</td><td></td><td></td></tr> <tr><td>8</td><td>3 4 5 6</td><td></td><td></td></tr> <tr><td>10</td><td>4 5 6 8</td><td></td><td></td></tr> <tr><td>12</td><td>5 6 8 10</td><td></td><td>10</td></tr> <tr><td>13</td><td>5 6 8 10 12</td><td></td><td>10</td></tr> <tr><td>15</td><td>5 6 8 10 12</td><td></td><td>10 12</td></tr> <tr><td>16</td><td>5 6 8 10 12 15</td><td></td><td>10 12 14</td></tr> <tr><td>18</td><td>5 6 8 10 12 15 17</td><td></td><td>10 12 14</td></tr> <tr><td>20</td><td>6 8 10 12 15 17</td><td></td><td>10 12 14 18</td></tr> </tbody> </table> <p>Pitch 0.35 0.5 0.75 1.0 1.5 1.25 1.5</p> <p>Specify P dimensions with PMC (PMS).</p> <p>P dimension is equal to that of PMC(PMS).</p>	Ordering Code	d	PMC	PMS	6	3 4 5			8	3 4 5 6			10	4 5 6 8			12	5 6 8 10		10	13	5 6 8 10 12		10	15	5 6 8 10 12		10 12	16	5 6 8 10 12 15		10 12 14	18	5 6 8 10 12 15 17		10 12 14	20	6 8 10 12 15 17		10 12 14 18
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Coarse Thread Dimension

M	pitch
3	0.5
4	0.7
5	0.8
6	1.0
8	1.25
10	1.5
12	1.75
16	2.0

Tapped Type

Part Number		Unit Price									
Type	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601	L801
SFBT	6	50									
	8	100									
	10	150									
	12	200									
	13	250									
SSFBT	6	300									
	8	400									
	10	500									
	12	600									
	13	750									
PSFBT	6	800									
	8	1000									
	10										
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	12										
	13										

Threaded Type

Part Number		Unit Price									
Type	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601	L801
SFBH	6	50									
	8	100									
	10	150									
	12	200									
	13	250									
SSFBN	6	300									
	8	400									
	10	500									
	12	600									
	13	750									
PSFBN	6	800									
	8	1000									
	10										
	12										
	13										
PSSFBN	6										
	8										
	10										
	12										
	13										
RSFBN	6										
	8										
	10										
	12										
	13										

Stepped and Tapped Type

Part Number		Unit Price									
Type	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601	L801
SFBH	8	50									
	10	100									
	12	150									
	13	200									
	15,16	250									
SSFBN	8	300									
	10	400									
	12	500									
	13	600									
	15,16	750									
PSFBN	8	800									
	10	1000									
	12										
	13										
	15,16										
PSSFBN	8										
	10										
	12										
	13										
	15,16										
RSFBN	8										
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	15,16										