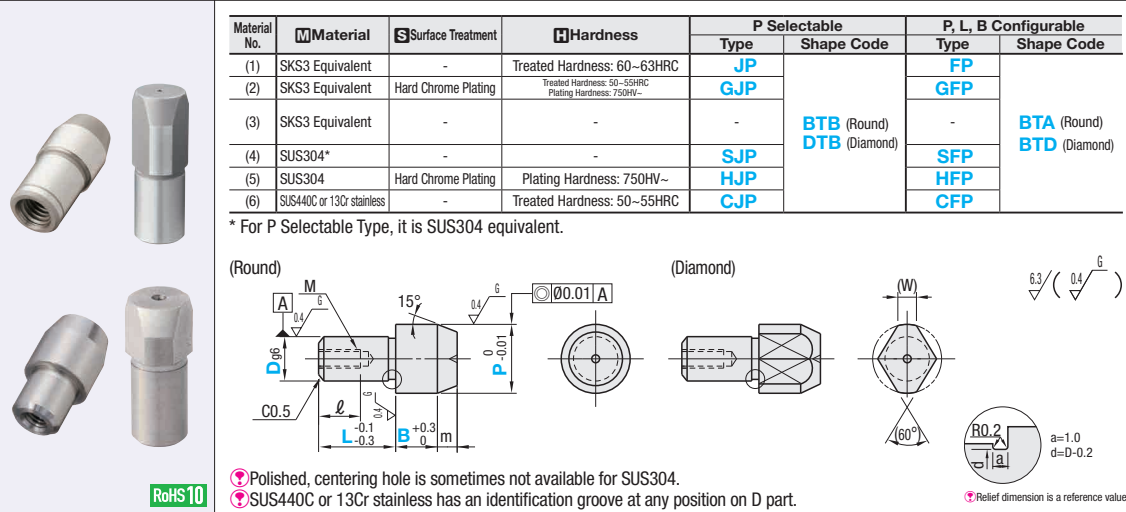


# Locating Pins - Large Head, Tapered

Tapped

For products uncovered by e-Catalog Standard, see P.131.

Features: Large Head, Tapered with the shape designed to be mounted from back using bolts. Improved maintainability compared to Press Fit Type.



Material No.	Material	Surface Treatment	Hardness	P Selectable		P, L, B Configurable	
				Type	Shape Code	Type	Shape Code
(1)	SKS3 Equivalent	-	Treated Hardness: 60-63HRC	JP	BTB (Round) DTB (Diamond)	FP	BTA (Round) BTD (Diamond)
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50-55HRC Plating Hardness: 750HV~	GJP		GFP	
(3)	SKS3 Equivalent	-	-	-		-	
(4)	SUS304*	-	-	SJP		SFP	
(5)	SUS304	Hard Chrome Plating	Plating Hardness: 750HV~	HJP		HFP	
(6)	SUS440C or 13Cr stainless	-	Treated Hardness: 50-55HRC	CJP		CFP	

\* For P Selectable Type, it is SUS304 equivalent.

(Round) (Diamond)

Polished, centering hole is sometimes not available for SUS304.  
SUS440C or 13Cr stainless has an identification groove at any position on D part.

RoHS 10

(4) Price List for Large Qty. Order of SUS304 (301-500 pcs.)

D	Round Shape	Diamond Shape
	SFPBTA	SFPBTD
5		
6		
6T		
8		
8T		
10		
10T		
12		
12T		
13		
13T		
16		
16T		
20		
20T		

P Selectable

Type	Part Number Shape	D	D dim. Tolerance g6	P Selection				L	B	m	(W)	M (Coarse)	* Tightening Torque N·cm	ℓ	
				8	10	12	13								
JP GJP SJP HJP CJP	BTB (Round) DTB (Diamond)	6	-0.004	8	10			10	8	3	3	M3	98	5	
		6T	-0.012	8	10							M2.6	-	4	
		8	-0.005 -0.014	10	12	13			15	4	3.5	M5	461	8	
		8T		10	12	13						M4	225	6	
		10		12	13	15			10	4	5	M5	461	8	
		12		13	15	16						5.5			
		13	-0.006 -0.017			15	16		22	5	7	M8	1911	12	
		16					20	25							
		20	-0.007 -0.020			25	30		30	15	5	9			

P, L, B Configurable

Type	Part Number Shape	D	D dim. Tolerance g6	P Selection			m	(W)	M (Coarse)	* Tightening Torque N·cm	ℓ	
				0.01mm Increment	1mm Increment	0.1mm Increment						
FP GFP SFP HFP CFP	BTA (Round) BTD (Diamond)	5	-0.004 -0.012	5.50-8.00	5(9)-10	1.5-15.0(12.0)	3	2.2	M2	-	3	
		6		6.50-10.00	6(9)-12					M3	98	5
		6T								M2.6	-	4
		8	-0.005 -0.014	8.50-15.00	8(12)-16	1.5-30.0(15.0)	4	3.5	M5	461	8	
		8T		6(12)-16		M4			225	6		
		10		11.00-17.00	10(12)-20	3.0-30.0(20.0)			M5	461	8	
		10T		6(12)-16		M4			225	6		
		12		13.00-18.00	12-24	3.0-30.0(20.0)	5	4	M5	461	8	
		12T	8(12)-18		M4	225			6			
		13	-0.006 -0.017	14.00-20.00	13(14)-26	5.0-30.0(20.0)	5	5.5	M8	1911	10	
		13T		8(14)-20		M6			784	9		
		16		17.00-27.00	16-32	5.0-30.0(27.0)			M8	1911	12	
		16T			10(14)-24		7	7	M6	784	9	
		20	-0.007 -0.020	22.00-30.00	20-40				9	9	M8	1911
		20T			12(18)-30	5.0-30.0	M6	784			9	

Pins of D dimension with T have one size smaller thread diameter and larger wall thickness. (Actual D dimension is the number without "T".)  
L, B dimensions in ( ) are applicable to Diamond Shape. Note the strength of under-head part. P.1618 Please confirm pilot hole depth on P.1618. Holes may go through.  
The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P.2365.) Not applicable when using locking materials or lock washers.

Ordering Example

Part Number: JP BTB 6 - 8  
FP BTA 10 - P11.01 - L12 - B6.4

P Selectable

D	Unit Price Round Shape					Unit Price Diamond Shape				
	(1)Treated SKS3 JPBTA	(2)Hard SKS3 GJPBTA	(4)SUS304 SJPBTA	(5)Hard SUS304 HJPBTA	(6)SUS440C or 13Cr stainless CJPBTA	(1)Treated SKS3 JPBTD	(2)Hard SKS3 GJPBTD	(4)SUS304 SJPBTD	(5)Hard SUS304 HJPBTD	(6)SUS440C or 13Cr stainless CJPBTD
6										
6T										
8										
8T										
10										
10T										
12										
13										
16										
20										

P, L, B Configurable

D	Unit Price Round Shape					Unit Price Diamond Shape				
	(1)Treated SKS3 FPBTA	(2)Hard SKS3 GFPBTA	(4)SUS304 SFPBTA	(5)Hard SUS304 HFPBTA	(6)SUS440C or 13Cr stainless CFPBTA	(1)Treated SKS3 FPBTD	(2)Hard SKS3 GFPBTD	(4)SUS304 SFPBTD	(5)Hard SUS304 HFPBTD	(6)SUS440C or 13Cr stainless CFPBTD
5										
6										
6T										
8										
8T										
10										
10T										
12										
12T										
13										
13T										
16										
16T										
20										
20T										

Alterations

Part Number - P - L - B - (TC, RC, RAC, LAC)  
FPBTA10 - P11.01 - L12 - B6.4 - TC6

Not applicable to P Selectable Type.

Alterations	Length of Tapered Point	Sphere Tip	Hex Socket Machining	Wrench Hole Machining																																																																																																																																		
Code	TC	RC	RAC	LAC																																																																																																																																		
Spec.	Changes the m dimension. Ordering Code TC8 (1mm increment)	Changes the relief to R0.5. Ordering Code RC Applicable when P-D≥2 Combination with RAC or LAC is not available.	Machines hex sockets. Ordering Code RAC	Machines wrench holes. Ordering Code LAC																																																																																																																																		
	<table border="1"> <thead> <tr> <th>D</th> <th>TC</th> <th>D</th> <th>TC</th> </tr> </thead> <tbody> <tr><td>5</td><td>4-13</td><td>12</td><td>5-22</td></tr> <tr><td>6</td><td>4-13</td><td>13</td><td>5-22</td></tr> <tr><td>8</td><td>5-16</td><td>16</td><td>6-23</td></tr> <tr><td>10</td><td>5-22</td><td>20</td><td></td></tr> </tbody> </table> <p>B+m≥TC+2 (Straight Section min. 2mm) P/2 - TC x tan15° (≈0.27) &gt; 0.5 (Tip Ø1.0min.) B dimension changes when TC is specified. (Changed B dimension = B+m-TC) Combination with RAC or LAC is not available.</p>	D	TC	D	TC	5	4-13	12	5-22	6	4-13	13	5-22	8	5-16	16	6-23	10	5-22	20		<table border="1"> <thead> <tr> <th rowspan="2">D</th> <th colspan="4">Applicable Dimension</th> <th colspan="4">Hex Hole Dimensions</th> </tr> <tr> <th>P</th> <th>L</th> <th>B</th> <th>E</th> <th>S</th> <th>E</th> <th>S</th> </tr> </thead> <tbody> <tr><td>5</td><td>6.00-</td><td>8-</td><td>6.0-</td><td>2</td><td>2</td><td></td><td></td></tr> <tr><td>6 6T</td><td>6.50(8.00)-</td><td>10-</td><td>6.0-</td><td>2</td><td>3</td><td></td><td></td></tr> <tr><td>8 8T</td><td>9.00(10.00)-</td><td>10-</td><td>10.0-</td><td>2.5</td><td>4</td><td></td><td></td></tr> <tr><td>10 10T</td><td>11.00(12.00)-</td><td>12-</td><td>10.0-</td><td>3</td><td>5</td><td></td><td></td></tr> <tr><td>12 12T</td><td>13.00-</td><td>12-</td><td>12.0-</td><td>4</td><td>6</td><td></td><td></td></tr> <tr><td>13 13T</td><td>14.00-</td><td>15-</td><td>15.0-</td><td></td><td></td><td></td><td></td></tr> <tr><td>16 16T</td><td>17.00-</td><td>16-</td><td>15.0-</td><td>5</td><td>8</td><td></td><td></td></tr> <tr><td>20 20T</td><td>22.00-</td><td>20-</td><td>15.0-</td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>P dimension in ( ) is applicable to Diamond Shape. Combination with TC, RC or LAC is not available.</p>	D	Applicable Dimension				Hex Hole Dimensions				P	L	B	E	S	E	S	5	6.00-	8-	6.0-	2	2			6 6T	6.50(8.00)-	10-	6.0-	2	3			8 8T	9.00(10.00)-	10-	10.0-	2.5	4			10 10T	11.00(12.00)-	12-	10.0-	3	5			12 12T	13.00-	12-	12.0-	4	6			13 13T	14.00-	15-	15.0-					16 16T	17.00-	16-	15.0-	5	8			20 20T	22.00-	20-	15.0-					<table border="1"> <thead> <tr> <th rowspan="2">D</th> <th rowspan="2">Applicable Dimension</th> <th colspan="2">Wrench Hole Dimensions</th> </tr> <tr> <th>P</th> <th>Q</th> </tr> </thead> <tbody> <tr><td>5</td><td rowspan="5">5.0-</td><td>5.50-9.99</td><td>2</td></tr> <tr><td>6 6T</td><td>10.00-16.99</td><td>3.5</td></tr> <tr><td>8 8T</td><td>17.00-</td><td>5</td></tr> <tr><td>10 10T</td><td></td><td></td></tr> <tr><td>12 12T</td><td></td><td></td></tr> <tr><td>13 13T</td><td rowspan="3">10.0-</td><td></td><td></td></tr> <tr><td>16 16T</td><td></td><td></td></tr> <tr><td>20 20T</td><td></td><td></td></tr> </tbody> </table> <p>Diamond Shape Hole is drilled on the diamond head vertically but with arbitrary orientation of its diamond surfaces against those of the diamond head. Combination with TC, RC or RAC is not available.</p>	D	Applicable Dimension	Wrench Hole Dimensions		P	Q	5	5.0-	5.50-9.99	2	6 6T	10.00-16.99	3.5	8 8T	17.00-	5	10 10T			12 12T			13 13T	10.0-			16 16T			20 20T	
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