

Locating Pins - Large Head, Tapered Threaded

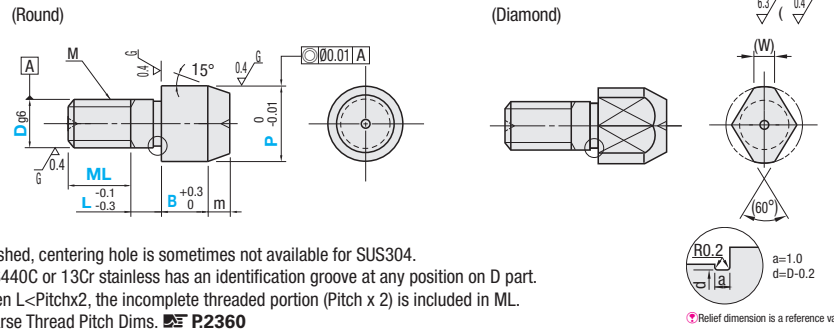
■ **Features:** Large Head, Tapered, Press Fit + Lock Nut Shape. Improved maintainability compared to Press Fit Type.



RoHS 10

Material No.	Material	Surface Treatment	Hardness	P Selectable		P, L, B Configurable		P, L, B, ML Configurable	
				Type	Shape Code	Type	Shape Code	Type	Shape Code
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	JPN	-	FPN	-	FPNL	-
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC / Plating Hardness: 750HV~	-	-	GFPN	-	GFPNL	-
(3)	SKS3 Equivalent	-	-	-	BB (Round)	BFPN	A (Round)	BFPNL	A (Round)
(4)	SUS304*	-	-	SJPN	-	SFPN	D (Diamond)	SFPNL	D (Diamond)
(5)	SUS304	Hard Chrome Plating	Plating Hardness: 750HV~	-	-	HFPN	-	HFPNL	-
(6)	SUS40C or 13Cr stainless	-	Treated Hardness: 50~55HRC	CJPN	-	CFPN	-	CFPNL	-

* For P Selectable Type, it is SUS304 equivalent.



- Polished, centering hole is sometimes not available for SUS304.
- SUS440C or 13Cr stainless has an identification groove at any position on D part.
- When L < Pitch x 2, the incomplete threaded portion (Pitch x 2) is included in ML.

Relief dimension is a reference value.

P Selectable

Type	Part Number	Shape	D	D dim. Tolerance g6	P Selection					L	B	ML	M (Coarse)	*Tightening Torque N·cm	m	(W)
					3.5	4	4.5	5	6							
JPN S/JPN C/JPN	BB (Round)	3	-0.002 -0.008	3.5	4	4.5	5	6	2	5	4.5	3	98	2	1.5	
		4	-0.004 -0.012	4.5	5	6	7	6	4	225	3	2.2				
		5	-0.004 -0.012	6	7	8	7.5	5	461	3	2.2					
		6	-0.004 -0.012	7	8	9	9	6	784	3	3					
		8	-0.005 -0.014	9	10	11	12	13	12	8	1911	4	3.5			
		10	-0.005 -0.014	11	12	13	15	10	3783	4	4					

P, L, B Configurable

Type	Part Number	Shape	D	D dim. Tolerance g6	P			ML	M (Coarse)	*Tightening Torque N·cm	m	(W)
					0.01mm Increment	1mm Increment	0.1mm Increment					
FPN GFPN BFPN SFPN HFPN CFPN	A (Round) D (Diamond)	3	-0.002 -0.008	3.50~8.00	2~6	1.0~10.0	4.5	3	98	2	1.5	
		4	-0.004 -0.012	4.50~8.00	2~8	1.0~10.0	6	4	225	3	1.8	
		5	-0.004 -0.012	5.50~8.00	3~10	1.0~15.0(10.0)	7.5	5	461	3	2.2	
		6	-0.004 -0.012	6.50~10.00	3~10	1.0~15.0	9	6	784	3	3	
		8	-0.005 -0.014	8.50~15.00	5~10	1.0~30.0(15.0)	12	8	1911	4	3.5	
		10	-0.005 -0.014	11.00~17.00	5~15	3.0~30.0(25.0)	15	10	3783	4	4	
		12	-0.006 -0.017	13.00~20.00(18.00)	5(8)~15	3.0~30.0(25.0)	18	12	6605	5	5	
		16	-0.007 -0.020	17.00~27.00	5(8)~20	5.0~30.0	24	16	16366	7	7	
		20	-0.007 -0.020	22.00~30.00	5(10)~20	5.0~30.0	30	20	32928	9	9	

P, L, B dimensions in () are applicable to Diamond Shape.

■ **P, L, B, ML Configurable Thread length (ML) is configurable within the range between Mx1 and Mx3 (max.).**

Type	Part Number	Shape	D	D dim. Tolerance g6	P			ML	M (Coarse)	*Tightening Torque N·cm	m	(W)
					0.01mm Increment	1mm Increment	0.1mm Increment					
FPNL GFPNL SFPNL CFPNL	A (Round) D (Diamond)	3	-0.002 -0.008	3.50~6.00	2~6	1.0~10.0	3~9	3	98	2	1.5	
		4	-0.004 -0.012	4.50~7.00	2~8	1.0~10.0	4~12	4	225	3	1.8	
		5	-0.004 -0.012	5.50~8.00	3~10	1.0~10.0	5~15	5	461	3	2.2	
		6	-0.004 -0.012	6.50~10.00	3~10	1.0~12.0	6~18	6	784	3	3	
		8	-0.005 -0.014	9.00~13.00	5~10	1.0~15.0	8~24	8	1911	4	3.5	
		10	-0.005 -0.014	11.00~15.00	5~15	3.0~20.0	10~30	10	3783	4	4	
		12	-0.006 -0.017	13.00~18.00	8~15	3.0~20.0	12~30	12	6605	5	5	
		16	-0.007 -0.020	17.00~25.00	8~20	5.0~20.0	16~40	16	16366	7	7	
		20	-0.007 -0.020	22.00~30.00	10~20	5.0~20.0	20~40	20	32928	9	9	

* The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P2365.) Not applicable when using locking materials or lock washers.

For products uncovered by e-Catalog Standard, see P131.



Ordering Example

Part Number	Type	Shape	D	P	L	B	ML
JPN BB 3 - 5	JPN	BB	3	-	5	-	-
FPN A 5 - P6.00 - L5 - B4.0	FPN	A	5	-	P6.00	-	L5 - B4.0
FPNL A 8 - P9.51 - L8 - B4.0 - ML8	FPNL	A	8	-	P9.51	-	L8 - B4.0 - ML8

P Selectable

D	Unit Price Round Shape		
	(1)Treated SKS3 JPNBB	(4)SUS304 S/JPNBB	(6)SUS440C or 13Cr stainless C/JPNBB
3			
4			
5			
6			
8			
10			

P, L, B Configurable

D	Unit Price											
	Round Shape						Diamond Shape					
	(1)Treated SKS3 FPNLA	(2)Hard SKS3 GFPNA	(3)SKS3 BFPNA	(4)SUS304 SFPNA	(5)Hard SUS304 HFPNA	(6)SUS440C or 13Cr stainless CFPNA	(1)Treated SKS3 FPND	(2)Hard SKS3 GFPND	(3)SKS3 BFPND	(4)SUS304 SFPND	(5)Hard SUS304 HFPND	(6)SUS440C or 13Cr stainless CFPND
3												
4												
5												
6												
8												
10												
12												
16												
20												

P, L, B, ML Configurable (Unit price in the table is applicable when Mx1 ≤ ML < Mx1.5. For price calculation, refer to the table on the right.)

D	Unit Price							
	Round Shape				Diamond Shape			
	(1)Treated SKS3 FPNLA	(2)Hard SKS3 GFPNA	(4)SUS304 SFPNA	(6)SUS440C or 13Cr stainless CFPNA	(1)Treated SKS3 FPND	(2)Hard SKS3 GFPND	(4)SUS304 SFPND	(6)SUS440C or 13Cr stainless CFPND
3								
4								
5								
6								
8								
10								
12								
16								
20								

Price of P, L, B, ML Configurable Type
Price is determined by length of ML.

ML	Unit Price (Round off 1s JPY digit)
Mx1 ≤ ML < Mx1.5	
Mx1.5 ≤ ML < Mx2	
Mx2 ≤ ML < Mx2.5	
Mx2.5 ≤ ML ≤ Mx3	



Alterations

Part Number	P	L	B	(SC, LAC)
FPNA10	-	P11.01	-	L12 - B6.4 - LAC

Not applicable to P Selectable Type.

Alterations Code	Wrench Flats		Wrench Hole Machining																					
	SC	LAC	SC	LAC																				
Spec.	SC = 1mm Increment P-3 ≤ SC ≤ P-1, SC ≥ D When B ≤ 11, adds wrench flats on the tip.		Machines wrench holes. Ordering Code: LAC Applicable when D ≥ 6 Diamond Shape Hole is drilled on the diamond head vertically but with arbitrary orientation of its diamond surfaces against those of the diamond head.																					
				<table border="1"> <thead> <tr> <th>D</th> <th>B Applicable Dimension</th> <th>Wrench Hole Dimensions</th> </tr> </thead> <tbody> <tr> <td>6</td> <td></td> <td>P 0</td> </tr> <tr> <td>8</td> <td></td> <td>6.50~9.99 2</td> </tr> <tr> <td>10</td> <td>5.0~</td> <td>10.00~16.99 3.5</td> </tr> <tr> <td>12</td> <td></td> <td>17.00~ 5</td> </tr> <tr> <td>16</td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> </tr> </tbody> </table>	D	B Applicable Dimension	Wrench Hole Dimensions	6		P 0	8		6.50~9.99 2	10	5.0~	10.00~16.99 3.5	12		17.00~ 5	16			20	
D	B Applicable Dimension	Wrench Hole Dimensions																						
6		P 0																						
8		6.50~9.99 2																						
10	5.0~	10.00~16.99 3.5																						
12		17.00~ 5																						
16																								
20																								