Locating Pins - Sphere Large Head
Threaded

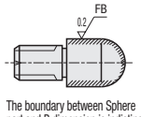
For products uncovered by e-Catalog Standard, see P.131.

Features: Sphere Large Head, Threaded + Lock Nut Type. Improved maintainability compared to Press Fit Type.

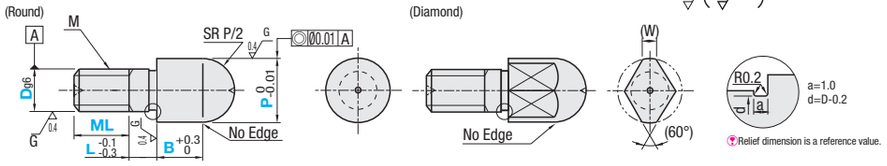
Material No.	Material	Surface Treatment	Hardness	Type			Shape Code	
				P Selectable	P, L, B Configurable	P, L, B, ML Configurable	P Selectable	Other than P Selectable Type
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	JPQN	FPQN	FPQNL	BB (Round)	A (Round) D (Diamond)
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC	-	GFPQN	GFPQNL		
(3)	SUS304*	-	-	SJPQN	SFPQN	SFPQNL		
(4)	SUS304	Hard Chrome Plating	-	-	HFPQN (Round only)	-		
(5)	SUS440C Equivalent	-	Treated Hardness: 50~55HRC	CJPQN	CFPQN	CFPQNL		
(6)	SKS3 Equivalent	Buffing	Treated Hardness: 60~63HRC	-	MFPQN	-		
(7)	SKS3 Equivalent	Hard Chrome Plating + Buffing	Treated Hardness: 50~55HRC	-	MGFPQN	MGFPQNL		
(8)	SUS440C Equivalent	Buffing	Treated Hardness: 50~55HRC	-	MCFPQN	MCFPQNL		

* For P Selectable Type, it is SUS304 equivalent.
Hard Chrome Plating: Plating Thickness 3μm or more, Plating Hardness: 750HV ~

Buffed at ▨ part only. (Except Diamond Cut Surface)



The boundary between Sphere part and B dimension is indistinct.



Relief dimension is a reference value.

SUS440C Equivalent has an identification groove at any position on D part.
Polished, centering hole is sometimes not available for SUS304.
The spherical head may be polished.

Locating Pins for Height Adjusting with shorter B fixed dimension is also available. P.1669

P Selectable

Part Number Type		D	D dim. Tolerance g6	P Selection	L	B	M (Coarse)	* Tightening Torque N·cm	ML
JPQN SJPQN CJPQN	BB (Round)	3	-0.002 -0.008	4 5 6	2	5	M 3	147	4.5
		4	-0.004 -0.012	5 6 7	6		M 4	333	6
		5		6 7 8	3		M 5	676	7.5
		6		7 8 9 10		8	M 6	1156	9
		8	-0.005 -0.014	9 10 11 12 13	5		M 8	2803	12
		10		11 12 13 15		10	M10	5557	15
		12	-0.006 -0.017	15 16	8		M12	9702	18

P, L, B Configurable

Part Number Type		D	D dim. Tolerance g6	P 0.01mm Increment	L 1mm Increment	B 0.1mm Increment	M (Coarse)	* Tightening Torque N·cm	ML	(W)
FPQN GFPQN SFPQN HFPQN CFPQN (Buff Finished) MFPQN MGFPQN MCFPQN Applicable when D≥5.	A (Round) D (Diamond)	3	-0.002 -0.008	3.50~8.00	2~6	2.0~10.0	M 3	147	4.5	1.5
		4	-0.004 -0.012	4.50~8.00	2~8	2.0~10.0	M 4	333	6	1.8
		5		5.50~8.00	3~10	2.0~15.0(10.0)	M 5	676	7.5	2.2
		6		6.50~10.00	3~10	2.0~15.0	M 6	1156	9	3
		8	-0.005 -0.014	8.50~15.00	5~10	2.0~30.0(15.0)	M 8	2803	12	3.5
		10		11.00~17.00	5~15	3.0~30.0(25.0)	M10	5557	15	4
		12	-0.006 -0.017	13.00~20.00(18.00)	5(8)~15	3.0~30.0(25.0)	M12	9702	18	5
		16		17.00~27.00	5(8)~20	5.0~30.0	M16	24108	24	7
		20	-0.007 -0.020	22.00~30.00	5(10)~20	5.0~30.0	M20	46942	30	9

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

P, L, B, ML Configurable

Thread length (ML) is configurable between Mx1 ~ Mx3 (max.).

Part Number Type		D	D dim. Tolerance g6	P 0.01mm Increment	L 1mm Increment	B 0.1mm Increment	ML 1mm Increment	M (Coarse)	* Tightening Torque N·cm	(W)
FPQNL GFPQNL SFPQNL CFPQNL (Buff Finished) MGFPQNL MCFPQNL Applicable when D≥5.	A (Round) D (Diamond)	3	-0.002 -0.008	3.50~6.00	2~6	2.0~10.0	3~9	M 3	147	1.5
		4	-0.004 -0.012	4.50~7.00	2~8	2.0~10.0	4~12	M 4	333	1.8
		5		5.50~8.00	3~10	2.0~10.0	5~15	M 5	676	2.2
		6		6.50~10.00	3~10	2.0~12.0	6~18	M 6	1156	3
		8	-0.005 -0.014	9.00~13.00	5~10	2.0~15.0	8~24	M 8	2803	3.5
		10		11.00~15.00	5~15	3.0~20.0	10~30	M10	5557	4
		12	-0.006 -0.017	13.00~18.00	8~15	3.0~20.0	12~30	M12	9702	5
		16		17.00~25.00	8~20	5.0~20.0	16~40	M16	24108	7
		20	-0.007 -0.02	22.00~30.00	10~20	5.0~20.0	20~40	M20	46942	9

* Tightening torque (reference) is of Tightening Torque Strength Class (10.9) indicated on Technical Data P.2365. Not applicable when using locking materials or lock washers.

Ordering Example

Part Number	-	P	-	L	-	B	-	ML
JPQNBB3	-	5						
FPQNA16	-	P18.00	-	L12	-	B7.5		
SFPQNLA10	-	P11.97	-	L5	-	B5.0	-	ML12

P Selectable

D	Unit Price Round Shape (1) Treated SKS3 JPQNBB	(3) SUS304 SJPQNBB	(5) SUS440C CJPQNBB
3			
4			
5			
6			
8			
10			
12			

(3) Price List for Large Qty. Order of SUS304 (301~500 pcs.)

D	Round Shape SFPQNA	Diamond Shape SFPQND
3		
4		
5		
6		
8		
10		
12		
16		
20		

P, L, B Configurable

D	Unit Price Round Shape (1) Treated SKS3 FPQNA	(2) Hard SKS3 GFPQNA	(3) SUS304 SFPQNA	(4) Hard SUS304 HFPQNA	(5) SUS440C CFPQNA	(6) Treated SKS3 + Buffed MFPQNA	(7) Hard SKS3 + Buffed MGFPQNA	(8) SUS440C + Buffed MCFPQNA	Unit Price Diamond Shape (1) Treated SKS3 FPQND	(2) Hard SKS3 GFPQND	(3) SUS304 SFPQND	(4) Hard SUS304 HFPQND	(5) SUS440C CFPQND	(6) Treated SKS3 + Buffed MFPQND	(7) Hard SKS3 + Buffed MGFPQND	(8) SUS440C + Buffed MCFPQND
3						-	-	-				-		-	-	-
4						-	-	-				-		-	-	-
5												-				
6												-				
8												-				
10												-				
12												-				
16												-				
20												-				

P, L, B, ML Configurable

Price is determined by ML length. See the table below.

D	Unit Price Round Shape (1) Treated SKS3 FPQNLA	(2) Hard SKS3 GFPQNLA	(3) SUS304 SFPQNLA	(5) SUS440C CFPQNLA	(7) Hard SKS3 + Buffed MGFPQNLA	(8) SUS440C + Buffed MCFPQNLA	Unit Price Diamond Shape (1) Treated SKS3 FPQNLD	(2) Hard SKS3 GFPQNLD	(3) SUS304 SFPQNLD	(5) SUS440C CFPQNLD	(7) Hard SKS3 + Buffed MGFPQNLD	(8) SUS440C + Buffed MCFPQNLD
3					-	-					-	-
4					-	-					-	-
5												
6												
8												
10												
12												
16												
20												

Price of P, L, B, ML Configurable Type

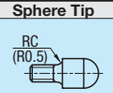
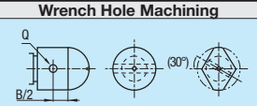
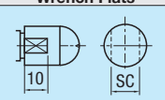
Price is determined by ML length.

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	-	ML	-	(RC, LAC, SC)
SFPQNLA6	-	P10.00	-	L10	-	B5	-	ML10	-	RC

Alterations are not available for P Selectable Type. Combination with RC, LAC or SC is not available.

Alteration	Sphere Tip	Wrench Hole Machining	Wrench Flats
			
Code	RC	LAC	SC
Spec.	Changes the relief to R0.5. Ordering Code RC Applicable when P-D≥2	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 their diamond surfaces against those of the diamond head. Applicable when Q+1.5≤B. D: 6, 8, 10, 12, 16, 20 — B Applicable Dimension: 5.0~ Wrench Hole Dimensions: P 6.50~9.99 Q 2; 10.00~16.99 Q 3.5; 17.00~ Q 5	SC = 1mm Increment P-3≤SC≤P-1, SC≥D When B≤11, adds wrench flats on the tip.