

# Locating Pins - Sphere Large Head

## Press Fit

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

**Features:** The Sphere Head can prevent the mating material from being scratched even when you insert by sliding horizontally against the pin end.

Material No.	Material	Surface Treatment	Hardness	P Selectable		P, L, B Configurable	
				Type	D Tolerance and Shape	Type	D Tolerance and Shape
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	JPQ	<Round> B (m6) PB (p6)	FPQ	<Round> A (m6) PA (p6)
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC	-		GFPQ	
(3)	SUS304*	-	-	SJPQ		SFPQ	
(4)	SUS304	Hard Chrome Plating	-	-		HFPQ	
(5)	SUS440C Equivalent	-	Treated Hardness: 50~55HRC	CJPQ		CFPQ	<Diamond> D (m6) PD (p6)
(6)	SKS3 Equivalent	Buffing	Treated Hardness: 60~63HRC	-		MFPQ	
(7)	SKS3 Equivalent	Hard Chrome Plating + Buffing	Treated Hardness: 50~55HRC	-		MGFPQ	
(8)	SUS440C Equivalent	Buffing	Treated Hardness: 50~55HRC	-		MCFPQ	

\* 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.  
 \* The insertion guide is applicable to tolerance p6 only.  
 \* SUS440C Equivalent has an identification groove at any position on D part.  
 \* Polished, centering hole is sometimes not available for SUS304.  
 \* When the P dimension is small, a centering hole will cause the sphere section to become small.  
 \* The spherical head may be polished.

**Ordering Example**

Part Number: P - L - B

Type: JPQ, FPQ, MFPQ  
 D Tol.: B, A, PA  
 D: 4, 5, 12  
 P: P5.00, P15.98  
 L: L5, L12  
 B: B2.5, B5.5

**P Selectable**

D	Unit Price	Round Shape	Diamond Shape
1	JPQB, JPQPB	SJPQB, SJPQPB	CJPQB, CJPQPB
2			
3			
4			
5			
6			
8			
10			

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

D	Round Shape	Diamond Shape
	SFPQA, SFPQPA	SFPQD, SFPQPD
2		
3		
4		
5		
6		
8		
10		
12		
13		
16		
20		

**P Selectable**

Type	Part Number	D Tolerance and Shape	D Tol.		P Selection	L	B	C	ℓ	
			m6	p6						
JPQ, SJPQ, CJPQ	<Round> B (m6) PB (p6)	<Round> B (m6) PB (p6)	1	+0.008	+0.012	2	3	3	0.1	0
			2	+0.008	+0.006	3 4	4	5	0.5	
			3			4 5 6	5	6		
			4			5 6 7	6	1		
			5	+0.012	+0.020	6 7 8	10	8	1.5	
			6	+0.004	+0.012	7 8 9 10	15	10		
			8	+0.015	+0.024	9 10 11 12				
			10	+0.006	+0.015	12 13				

**P, L, B Configurable**

Type	Part Number	D Tolerance and Shape	D Tol.		P	L	B	C	ℓ	(W)	
			m6	p6							
FPQ, GFPQ, SFPQ, HFPQ, CFPQ	<Round> A (m6) PA (p6)	<Round> A (m6) PA (p6)	1			1.50~3.00(2.50)	2, 3	1.5~5.0	0.1	0	-
			2	+0.008	+0.012	2.50~6.00(4.00)	2~6	1.5~15.0(10.0)	0.5	1	1.2
			3	+0.002	+0.006	3.50~8.00	3~10	1.5~15.0(10.0)			1.5
			4			4.50~8.00	3(4)~14	1.5~15.0(10.0)	1.8		
			5	+0.012	+0.020	5.50~10.00	5~15	1.5~15.0(10.0)	2.2		
			6	+0.004	+0.012	6.50~10.00	5~15	1.5~30.0(15.0)	3.0		
			8	+0.015	+0.024	8.50~15.00	5(6)~16	1.5~30.0(15.0)	3.5		
			10	+0.006	+0.015	11.00~17.00	5(10)~20	3.0~30.0(25.0)	4.0		
			12			13.00~18.00	6(10)~24	3.0~30.0(25.0)	5.0		
			13	+0.018	+0.029	14.00~20.00	7(12)~26	5.0~30.0(25.0)	5.5		
16	+0.007	+0.018	17.00~27.00	8(15)~32	5.0~30.0	7.0					
20	+0.021	+0.035	22.00~30.00	10(15)~40	5.0~30.0	9.0					

**P, L, B Configurable**

D	Unit Price Round Shape								Unit Price Diamond Shape							
	(1)Treated SKS3	(2)Hard SKS3	(3)SUS304	(4)Hard SUS304	(5)SUS440C	(6)Treated SKS3 + Buffing	(7)Hard SKS3 + Buffing	(8)SUS440C + Buffing	(1)Treated SKS3	(2)Hard SKS3	(3)SUS304	(4)Hard SUS304	(5)SUS440C	(6)Treated SKS3 + Buffing	(7)Hard SKS3 + Buffing	(8)SUS440C + Buffing
1	FPQA, FPQPA	GFPQA, GFPQPA	SFPQA, SFPQPA	HFPQA, HFPQPA	CFPQA, CFPQPA	MFPQA, MFPQPA	MGFPQA, MGFPQPA	MCFPQA, MCFQPA	FPQD, FPQPD	GFPQD, GFPQPD	SFPQD, SFPQPD	HFPQD, HFPQPD	CFPQD, CFPQPD	MFPQD, MFPQPD	MGFPQD, MGFPQPD	MCFPQD, MCFQPD
2																
3																
4																
5																
6																
8																
10																
12																
13																
16																
20																

**Alterations**

Part Number: P - L - B - (RC)  
 Example: FPQA4 - P6.50 - L5 - B2.5 - RC

Alterations are not available for P Selectable Type.

Alteration	Spec.
Sphere Tip RC (R0.5)	Changes the relief to R0.5. Ordering Code: RC Applicable when P-D≥2

**Example**

Pins with sphere head prevent damages on mating parts.