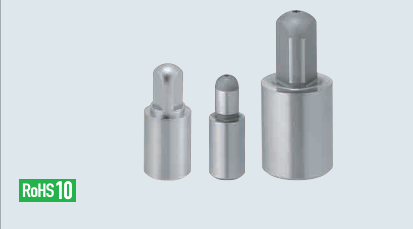


Locating Pins (Spherical Small Head)

D & P Tolerance Selectable

Locating Pins – Spherical Head / D & P Tolerance Selectable



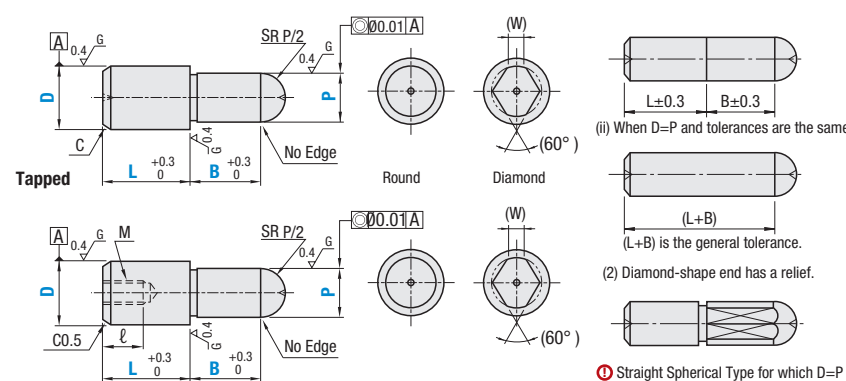
Tolerance Selection

D or P	Standard Grade				Precision Grade		
	M	P	G	H	S	A	B
1.00	+0.008	+0.012	-0.002	0			
3.00	+0.002	+0.006	-0.008	-0.010			
3.01	+0.012	+0.020	-0.004	0			
6.00	+0.004	+0.012	-0.012	-0.012			
6.01	+0.015	+0.024	-0.005	0	0	+0.005	0
10.00	+0.006	+0.015	-0.014	-0.015	-0.01	0	-0.005
10.01	+0.018	+0.029	-0.006	0			
18.00	+0.007	+0.018	-0.017	-0.018			
18.01	+0.021	+0.035	-0.007	0			
20.00	+0.008	+0.022	-0.020	-0.021			

⊗ Precision Grade Tolerance is not available for Chrome Plated product types

Materials No.	Materials	Surface Treatment	Hardness	Type		Shape Code
				Standard	Tapped	
(1)	O1 Tool Steel Equivalent	—	60~63 HRC min.	KFQS	KFQST	A Round
(2)	O1 Tool Steel Equivalent	Chrome Plating	60~63 HRC min. Plating Hardness 750 HV min.	GKFQS	GKFQST	
(3)	304 Stainless Steel Equivalent	—	—	SKFQS	SKFQST	D Diamond
(5)	440C or 420 Stainless Steel	—	50~55 HRC min.	CKFQS	—	

Standard



- ① When D=P, (1) Round Shape has no relief. (i) When D=P and tolerances are different
- ② When D=P and tolerances are the same (L+B) is the general tolerance.
- ③ Diamond-shape end has a relief.
- ④ Straight Spherical Type for which D=P is standardized is available. P.1613
- ⑤ 440C or 420 Stainless Steel has an identification groove on D part.
- ⑥ The smaller the dimension P, the less the size of sphere, due to center hole.
- ⊗ Precision Grade Tolerance is not available for Chrome Plated product types.

Standard

Type	Shape	Part Number			P Specify in 0.01 mm Inc.	L Specify in 1 mm Inc.	B Specify in 0.1 mm Inc.	C	(W)	Available Types for Round Shape				Available Types for Diamond Shape				
		D Tol. Sel.	P Tol. Sel.	D						(1) O1 Tool Steel Hardened KFQSA	(2) Hard O1 Tool Steel GKFQSA	(3) 304 Stainless Steel SKFQSA	(5) 440C or 420 Stainless Steel CKFQSA	(1) O1 Tool Steel Hardened KFQSD	(2) Hard O1 Tool Steel GKFQSD	(3) 304 Stainless Steel SKFQSD	(5) 440C or 420 Stainless Steel CKFQSD	
KFQS GKFQS+ SKFQS CKFQS	A Round	M P G H	S M P G H	2	1.00~2.00	2~4	2.0~10.0	0.3	—	•	•	•	•	—	—	—	—	
				3	1.00~3.00	3~6	2.0~10.0	0.5	1.0	•	•	•	•	—	—	—	—	
				4	2.00~4.00	4~8	2.0~10.0	1.0	1.0	•	•	•	•	•	•	•	•	•
				5	2.00~5.00	5~10	2.0~10.0	1	1.2	•	•	•	•	•	•	•	•	•
				6	2.00~6.00	6~12	2.0~12.0	1.5	1.5	•	•	•	•	•	•	•	•	•
	D Diamond	*A *B	*A *B	*A *B	8	3.00~8.00	8~16	2.0~15.0	1.5	1.8	•	•	•	•	•	•	•	•
					10	3.00~10.00	10~20	3.0~20.0	2.2	2.2	•	•	•	•	•	•	•	•
					12	5.00~12.00	12~24	3.0~20.0	2	2.5	•	•	•	•	•	•	•	•
					13	6.00~13.00	13~26	5.0~20.0	3	3	•	•	•	•	•	•	•	•
					16	10.00~16.00	16~32	5.0~20.0	4	4	•	•	•	•	•	•	•	•
20	13.00~20.00	20~40	5.0~20.0	3	5	•	•	•	•	•	•	•	•	•				

⊗ Precision Grade Tolerance is not available for Chrome Plated product types.

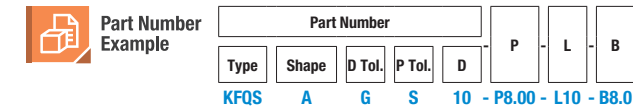
Locating Pins (Spherical Small Head)

D & P Tolerance Selectable, continued

Tapped

Type	Shape	Part Number			P Specify in 0.01 mm Inc.	L Specify in 1 mm Inc.	B Specify in 0.1 mm Inc.	(W)	M (Coarse)	ℓ	Available Types for Round Shape			Available Types for Diamond Shape			
		D Tol. Sel.	P Tol. Sel.	D							(1) O1 Tool Steel Hardened KFQSTA	(2) Hard O1 Tool Steel GKFQSTA	(3) 304 Stainless Steel SKFQSTA	(1) O1 Tool Steel Hardened KFQSTD	(2) Hard O1 Tool Steel GKFQSTD	(3) 304 Stainless Steel SKFQSTD	
KFQST GKFQST SKFQST	A Round	M P G H	S M P G H	6	4.00~6.00	8 (9)~12	2.0~12.0	1.5	M3	5	•	•	•	•	—	—	
				8	6.00~8.00	11 (12)~16	2.0~15.0	1.8	M5	8	•	•	•	•	—	—	
				10	7.00~10.00	11 (12)~20	3.0~20.0	2.2		10	•	•	•	•	—	—	
				12	7.00~12.00	12~24	3.0~20.0	2.5		12	•	•	•	•	—	—	
				D Diamond	*A *B	*A *B	*A *B	13	8.00~13.00	13 (14)~26	5.0~20.0	3	M8	10	•	•	•
	16	10.00~16.00	16~32					5.0~20.0	4	12	•	•		•	•	—	—
	20	13.00~20.00	20~40					5.0~20.0	5	12	•	•		•	•	—	—

① L dimension in (j) is applicable to diamond shape. ② Note the strength of under-head part. P.1542 ③ Please confirm pilot hole depth on P.1542. Holes may go through.



Alterations	Insertion Guide Machining	Radius	Air Vent
Code	GDC	RC	AC
Spec.	Adds Insertion Guide. Ordering Code: GDC 	Changes the relief to R0.5. Ordering Code: RC 	Adds an air vent. Ordering Code: AC
	⊗ Not applicable to D≤2	① Applicable when D-P≥2.	