

Locating Pins (Small & Large Spherical Head)

Set Screw Mounting Shank

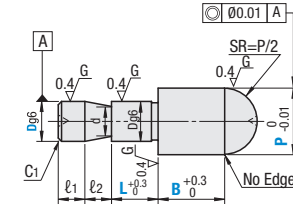
Locating Pins – Spherical Head / Set Screw Mounting Shank



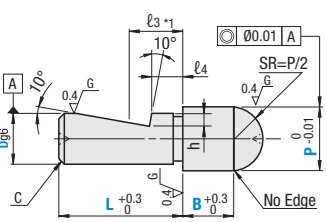
RoHS10

Materials No.	Materials	Surface Treatment	Hardness	Type			Shape Code
				Circumference Groove	Notch	Set Screw Flat	
(1)	O1 Tool Steel Equivalent	—	Treated Hardness: 60–63 HRC min.	JPGQ	JPCQ	JPDQ	S (Sound) D (Diamond)
(2)	O1 Tool Steel Equivalent	Hard Chrome Plating	Hardness: 50–55 HRC min. Plating Hardness: 750 HV min.	GJPGQ	GJPCQ	—	
(3)	304 Stainless Steel Equivalent	—	—	SJPGQ	SJPCQ	—	
(4)	440C or 420 Stainless Steel	—	Treated Hardness: 50–55 HRC min.	CJPGQ	—	—	

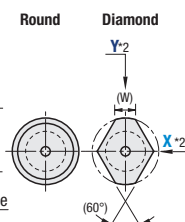
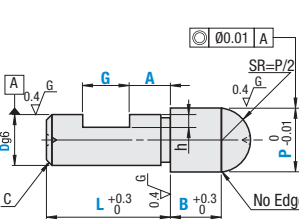
Circumference Groove Shape



Notch Shape



Set Screw Flat Shape



- ① 440C or 420 Stainless Steel has an identification groove on D part.
- *1 ℓ_3 is the recommended dimension of the position of set screw tip.
- ② When $D < P$ (Large head)
- ③ When $D = P$ (Straight)
- *Diamond-shape end has a relief.
- ④ When $D > P$ (Small Head)
- ⑤ When the P dimension is small, a centering hole in the tip will reduce the overall spherical area.
- ⑥ $L > G + A + 1$
- *2 Select set screw position X or Y for Notched Diamond Type and Set Screw Flat Diamond Type.
- When $D(P) \geq 3$
a=1.0
d=D(P)-0.2
- When $D(P) < 3$
a=0.5
d=D(P)-0.1
- ⑦ Relief dimension is reference value.

Circumference Groove Shape

Type	Part Number Shape	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	d	ℓ_1	ℓ_2	C_1	(W)		
											When $D < P$	When $D \geq P$	
JPGQ GJPGQ SJPGQ CJPGQ	S Round	6	-0.004	2.00–10.00	3–12	2.0–20.0	4.5	5	5	1	3	1.5	
		6S	-0.012		2–12			2		0.5			
		8		3.00–13.00	4–16	2.0–20.0 (15.0)	6.5	6	6	1.5	3.5	1.8	
		8S	-0.005			3–16			3		0.5		
		10	-0.014	3.00–15.00	5–20	3.0–20.0	8	8	8	2	4	2.2	
	D Diamond	12		5.00–16.00	6–24	3.0–30.0 (25.0)	10	8	8	2	5	2.5	
		12S	-0.006		5–24			4		0.5			
		16	-0.017	10.00–25.00	8–32	5.0–30.0	14	8	8	3	7	4	
		16S			7–32			4		0.5			
		20	-0.007	13.00–30.00	10–40		18	8	8	3	9	5	

B length in () is applicable to Diamond Shape.

Notch Shape / Set Screw Flat Shape

Type	Part Number Shape	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	G 1 mm Increment	A 0.1 mm Increment	Flat Position	ℓ_3	ℓ_4	h	C	Applicable Set Screws	(W)		
															When $D < P$	When $D \geq P$	
Notched JPCQ GJPCQ SJPCQ	S Round	6	-0.004	5.00–10.00	12–20	5.0–20.0 (15.0)	3–9	2.0–8.0	X Y	① Applicable to Diamond Shape Type only.	5.5	2.5	1.0	1	M4	3	1.5
		8	-0.005	5.00–13.00	14–22	5.0–20.0 (15.0)					7.5	3.5	1.2	1.5	M5	3.5	1.8
		10	-0.014	5.00–15.00	15–25	5.0–20.0 (15.0)					7.5	3.5	1.2	2	M6	4	2.2
		12	-0.006	5.00–16.00	15–25	5.0–20.0 (15.0)					7.5	3.5	1.2	2	M6	5	2.5
		16	-0.017	10.00–25.00	24–35	5.0–20.0					10.5	5.5	2.0	3	M8	7	4
	D Diamond	20	-0.007	13.00–30.00	27–40	5.0–20.0					13.5	8.5	2.0	3	M8	9	5

① Applicable set screws in the table are the recommended sizes for Notch Shape. B length in () is applicable to Diamond Shape

Part Number Example	Part Number	P	L	B	G	A	Flat Position
JPGQ10	P12.00	L6	B3.5				
SJPCQ8	P5.05	L15	B10.0	G4	A8.0	Y	

Locating Pins (Small & Large Spherical Head)

Set Screw Mounting Shank, continued

Circumference Groove Shape

D	Available Types for Round Shape				Available Types for Diamond Shape			
	(1) O1 Tool Steel Hardened JPGQS	(2) Hard O1 Tool Steel GJPGQS	(3) 304 Stainless Steel SJPGQS	(4) 440C or 420 Stainless Steel CJPGQS	(1) O1 Tool Steel Hardened JPGQD	(2) Hard O1 Tool Steel GJPGQD	(3) 304 Stainless Steel SJPGQD	(4) 440C or 420 Stainless Steel CJPGQD
6	•	•	•	•	•	—	—	—
6S	•	•	•	•	•	—	—	—
8	•	•	•	•	•	—	—	—
8S	•	•	•	•	•	—	—	—
10	•	•	•	•	•	—	—	—
10S	•	•	•	•	•	—	—	—
12	•	•	•	•	•	—	—	—
16	•	•	•	•	•	—	—	—
16S	•	•	•	•	•	—	—	—
20	•	•	•	•	•	—	—	—

Notch Shape

D	Available Sizes for Round Shape			Available Sizes for Diamond Shape		
	(1) O1 Tool Steel Hardened JPCQS	(2) Hard O1 Tool Steel GJPGQS	(3) 304 Stainless Steel SJPCQS	(1) O1 Tool Steel Hardened JPCQD	(2) Hard O1 Tool Steel GJPGQD	(3) 304 Stainless Steel SJPCQD
6	•	•	—	•	•	•
8	•	•	—	•	•	•
10	•	•	—	•	•	•
12	•	•	—	•	•	•
16	•	•	—	•	•	•
20	•	•	—	•	•	•

Set Screw Flat Shape

D	Available Sizes for Round Shape		Available Sizes for Diamond Shape	
	(1) O1 Tool Steel Hardened JPDQS	(1) O1 Tool Steel Hardened JPDQD	(1) O1 Tool Steel Hardened JPDQS	(1) O1 Tool Steel Hardened JPDQD
6	•	—	•	—
8	•	—	•	—
10	•	—	•	—
12	•	—	•	—
16	•	—	•	—
20	•	—	•	—