

# Locating Pins - Shouldered Set Screw

# Locating Pins - Shouldered Tip Shape Selectable



■ Features: Shouldered Set Screws. Selectable from Circumference Groove/Notched/Set Screw Flat Shape.

RoHS10

Material	Surface Treatment	Hardness	Type	Shape Code
① EN 1.2510 Equiv.	-	Treated Hardness: 60 ~ 63HRC	JPGJ JPCJ JPDJ	S (Round) D (Diamond)

When D(P)≥3  
a=1.0  
d=D(P)-0.2  
When D(P)<3  
a=0.5  
d=D(P)-0.1

Relief dimension is a reference value.

• Circumference Groove Shape

• Set Screw Flat Shape

• Notch Shape

• A machining step remains on the shoulder top for Diamond Shape.

• L > A + G + 1

• l3 is the recommended dimension of the position of set screw tip.

• Select set screw position X or Y for Notched Diamond Type and Set Screw Flat Diamond Type.

■ Circumference Groove Shape

Type	Part Number	Shape Code	D	D dim. Tolerance μm	P		L		B		d	l1	l2	C1	m	H	(W)	
					0.01mm Increment	1mm Increment	0.1mm Increment	0.1mm Increment	When D<P	When D≥P								
JPGJ	S (Round) D (Diamond)	6	-0.004	2.00-6.00	3-12	2.0-20.0	4.5	5	5	1	3	8	3	1.5				
		6S	-0.012	3.00-8.00	4-16	3.0-20.0	6.5	6	6	1.5	4	11	3.5	1.8				
		8	-0.005	3.00-10.00	5-20	3.0-20.0	8	8	8	2	5	15	5	2.5				
		8S	-0.014	4.20-12.00	6-24	5.0-20.0	10	4	8	0.5	5	19	7	4				
		10	-0.014	5.00-12.00	6-24	5.0-20.0	12	4	8	0.5	5	23	9	5				
		10S	-0.014	5.00-12.00	4-20	5.0-20.0	12S	-0.006	10.00-16.00	8-32	5.0-20.0	16	-0.017	13.00-20.00	10-40			
		12	-0.006	5.00-12.00	4-20	5.0-20.0	12S	-0.006	10.00-16.00	8-32	5.0-20.0	16	-0.017	13.00-20.00	10-40			
		12S	-0.006	10.00-16.00	8-32	5.0-20.0	20	-0.027	13.00-20.00	10-40								
		16	-0.017	10.00-16.00	8-32	5.0-20.0	20	-0.027	13.00-20.00	10-40								
		16S	-0.017	13.00-20.00	10-40													

• Pins of D dimension with S are for space-saving with shorter mounting parts (L and l1).

■ Notch Shape, Set Screw Flat Shape

Type	Part Number	Shape Code	D	D dim. Tolerance μm	P		L		B		G	A		Flat Position	l3	l4	h	c	m	H	Applicable Set Screw	(W)	
					0.01mm Increment	1mm Increment	0.1mm Increment	0.1mm Increment	When D<P	When D≥P													
(Notched) JPCJ	(Set Screw Flat) JPDJ	S (Round) D (Diamond)	6	-0.004	5.00-7.00	12-20	5.0-20.0	3-9	2.0-8.0	X	5.5	2.5	1	1	3	8	M4	3	1.5				
			8	-0.005	5.00-9.00	14-22	5.0-20.0	3-9	2.0-12.0	Y	7.5	3.5	1.2	2	4	13	M5	4	2.2				
			10	-0.014	5.00-11.00	15-25	5.0-20.0	3-9	2.0-16.0	Y	10.5	5.5	2	3	5	19	M6	7	4				
			12	-0.006	5.00-12.00	15-25	5.0-20.0	3-9	2.0-20.0	Y	13.5	8.5	2	3	5	23	M8	9	5				
			16	-0.017	10.00-16.00	24-35	5.0-20.0	3-9	2.0-28.0	Y	13.5	8.5	2	3	5	23	M8	9	5				
			20	-0.027	13.00-20.00	27-40	5.0-20.0	3-9	2.0-36.0	Y	13.5	8.5	2	3	5	23	M8	9	5				

• Applicable set screws in the table are the recommended sizes for Notch Shape.

Ordering Example: Part Number - P - L - B - G - A - Flat Position  
 Example: JPGJ10 - P8.05 - L6 - B3.5 - G5 - A8.2 - X

■ Circumference Groove Shape

D	Unit Price Round Shape	Unit Price Diamond Shape
6		
6S		
8		
8S		
10		
10S		
12		
12S		
16		
16S		
20		

■ Notch Shape

D	Unit Price Round Shape	Unit Price Diamond Shape
6		
8		
10		
12		
16		
20		

■ Set Screw Flat Shape

D	Unit Price Round Shape	Unit Price Diamond Shape
6		
8		
10		
12		
16		
20		

■ Features: The tip shape and the fixed shape of the Shouldered type are selectable from three types respectively.

RoHS10

Material	Surface Treatment	Hardness	Type	Mounting Shape	Material Code
① EN 1.2510 Equiv.	-	Treated Hardness: 55 ~ 60HRC	LP (Round) LPD (Diamond)	M (Press Fit) U (Tapped) X (Threaded)	J
② EN 1.2510 Equiv.	Hard Chrome Plating	Treated Hardness: 50 ~ 55HRC Plating Hardness: 750HV ~			G
③ EN 1.1191 Equiv.	-	Treated Hardness: 45 ~ 50HRC or more			Y
④ EN 1.1191 Equiv.	Black Oxide	Treated Hardness: 45 ~ 50HRC or more			B
⑤ EN 1.1191 Equiv.	Hard Chrome Plating	Treated Hardness: 45 ~ 50HRC Plating Hardness: 750HV ~			R
⑥ EN 1.4301 Equiv.	-	-			S
⑦ EN 1.4301 Equiv.	Hard Chrome Plating	Plating Hardness: 750HV ~			D
⑧ EN 1.4037 Equiv.	-	Treated Hardness: 50 ~ 55HRC			C

When D(P)≥3  
a=1.0  
d=D(P)-0.2  
When D(P)<3  
a=0.5  
d=D(P)-0.1

Relief dimension is a reference value.

• Installation Part Shape: Select from the diagram on the left.

• Tip Shape: Select from the diagram on the right.

• EN 1.4037 Equiv. has an identification groove at any position on D part.

• A machining step remains on the shoulder top for Diamond Shape.

• B dimensions in ( ) and L dimensions in ( ) are for Diamond Shape.

• Price in the table is for Installation Shape Selectable M.  
 Shape U: (Price in the Table) x 1.10  
 Shape X: (Price in the Table) x 1.20

■ Mounting Shape Selection

D	C	H	(W)	M Coarse	Tightening Torque M-cm	l	Shape M (Press Fit)			Shape U (Tapped)			Shape X (Threaded)			
							D	C	H	D	C	H	D	C	H	
2	0.5	7	-	-	-	-										
3	0.5	8	1	-	-	-										
4	1	9	1.2	-	-	-										
5	1	10	1.5	-	-	-										
6	1	11	1.8	M3	98	5										
8	1.5	13	2.2	-	-	-										
10	2	15	3	M5	461	8										
12	2	17	3.2	-	-	-										
16	3	21	4	-	-	-										
20	3	25	5.5	M8	1911	12										

Ordering Example: Part Number - P - B - R - G - L - T

Example: LP U J B 8 - P10.00 - B10.0 - R6 - G8 - L14 - T2.0

D	Round Shape Mounting Shape M Unit Price								Diamond Shape Mounting Shape M Unit Price							
	① EN 1.2510 Equiv. LPMJA	② Hard EN 1.2510 Equiv. LPMGC	③ EN 1.1191 Equiv. LPMKY	④ EN 1.1191 Equiv. LPMB	⑤ Hard EN 1.1191 Equiv. LPMW	⑥ EN 1.4301 Equiv. LPMMS	⑦ Hard EN 1.4301 Equiv. LPMD	⑧ EN 1.4037 Equiv. LPMC	① EN 1.2510 Equiv. LPMJA	② Hard EN 1.2510 Equiv. LPMGC	③ EN 1.1191 Equiv. LPMKY	④ EN 1.1191 Equiv. LPMB	⑤ Hard EN 1.1191 Equiv. LPMW	⑥ EN 1.4301 Equiv. LPMMS	⑦ Hard EN 1.4301 Equiv. LPMD	⑧ EN 1.4037 Equiv. LPMC
2																
3																
4																
5																
6																
8																
10																
12																
16																
20																

Alterations

Alterations	Wrench Flats Alteration	Wrench Hole (Ø3.5)	Wrench Hole (Ø2.5)
Code	HC	LAC	LTE
Spec.	HC=0.5mm Increment HC>D Ordering Code: HC10.0	Adds a Ø3.5 hole. Applicable when B≥10 and P≥8. Not applicable to Diamond Shape.	Adds a Ø2.5 hole. Applicable when B≥8 and 7≤P≤15. Not applicable to Diamond Shape.