

# Locating Pins - Tip Shape Selectable

## Full Threaded

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

Features: Screw-fitting type without pilot. Costs for hole machining on fixtures can be reduced.

(Alteration LAC)

RoHS 10

Material No.	Material	Surface Treatment	Hardness	Type
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	JPNG
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC Plating Hardness: 750HV	GJPNG
(3)	SKS3 Equivalent	-	-	BJPNG
(4)	SUS304	-	-	SJPNG

### Tip Shape

**A**

$l_1 = R \sqrt{R^2 - \frac{P^2}{4}}$

**B**

$l_2 = \frac{P-G}{2 \tan 30^\circ}$  Reference:  $2 \tan 30^\circ = 1.15$

When G=P, add about CO.2 chamfering.

**C**

$l_3 = \frac{P}{2} / \tan 30^\circ + R (R/\sin 30^\circ)$

Reference:  $\tan 30^\circ = 0.577$   $\sin 30^\circ = 0.5$

M	(a)	(d)
3	1.3	2.2
4	1.3	2.9
5	1.3	3.7
6	1.7	4.4
8	2.0	6
10	2.5	7.7
12	3.0	9.4
16	3.0	13
20	4.4	16.4

Tip Shape  
Select from the diagram on the right.

RoHS 10

Ⓜ Above dimensions are for reference, not guaranteed. Ⓜ There is no center hole.

Part Number	Type	Tip	M (Coarse)	*Tightening Torque N·cm	P 0.1mm Increment	B 0.1mm Increment	R 1mm Increment	G 1mm Increment	Unit Price					
									(1) Treated SKS3 JPNG	(2) Hard SKS3 GJPNG	(3) SKS3 BJPNG	(4) SUS304 SJPNG		
JPNG GJPNG BJPNG SJPNG	A B C	3	3	98	3.5~8.0									
		4	4	225	4.5~8.0	1.0~10.0	Shape A R ≥ P/2	Shape B G ≤ P						
		5	5	461	5.5~8.0									
		6	6	784	6.5~10.0	1.0~15.0								
		8	8	1911	9.0~15.0	1.0~30.0								
		10	10	3783	11.0~17.0	1.0~30.0								
		12	12	6605	13.0~20.0	3.0~30.0								
		16	16	16366	17.0~27.0									
		20	20	32928	21.0~30.0	5.0~30.0								

\*The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P.2365.) Not applicable when using locking materials or lock washers.

Ordering Example

Part Number - P - B - R - G

JPNGA3 - P4 - B2 - R2 - G3

JPNGB5 - P6 - B3 - R3 - G3

### Alterations

Alterations	Wrench Flats	Wrench Hole (Ø3.5)	Hex Socket Machining																																								
Code	SC	LAC	RAC																																								
Spec.	SC = 1mm Increment [Ordering Code] SC5 Ⓜ When B ≤ 11, add wrench flats on the tip. Ⓜ P-3 ≤ SC ≤ P-1, SC ≥ M	Adds a Ø3.5 hole. [Ordering Code] LAC Ⓜ Applicable when B ≥ 10 and P ≥ 8.	Machines hex sockets. [Ordering Code] RAC3 <table border="1" style="font-size: small;"> <thead> <tr> <th>G</th> <th>B</th> <th>S Configurable Range</th> <th>S</th> <th>E</th> </tr> </thead> <tbody> <tr><td>4-5</td><td></td><td>2, 2.5</td><td>2</td><td>2</td></tr> <tr><td>6-7</td><td>10-</td><td>2, 2.5, 3, 4</td><td>2.5</td><td>2</td></tr> <tr><td>8-9</td><td></td><td>2, 2.5, 3, 4, 5</td><td>3</td><td>2</td></tr> <tr><td>10-30</td><td>10-12.9</td><td>2, 2.5, 3, 4, 5, 6</td><td>4</td><td>2.5</td></tr> <tr><td></td><td>13-</td><td>2, 2.5, 3, 4, 5, 6, 8</td><td>5</td><td>3</td></tr> <tr><td></td><td></td><td></td><td>6</td><td>4</td></tr> <tr><td></td><td></td><td></td><td>8</td><td>5</td></tr> </tbody> </table>	G	B	S Configurable Range	S	E	4-5		2, 2.5	2	2	6-7	10-	2, 2.5, 3, 4	2.5	2	8-9		2, 2.5, 3, 4, 5	3	2	10-30	10-12.9	2, 2.5, 3, 4, 5, 6	4	2.5		13-	2, 2.5, 3, 4, 5, 6, 8	5	3				6	4				8	5
G	B	S Configurable Range	S	E																																							
4-5		2, 2.5	2	2																																							
6-7	10-	2, 2.5, 3, 4	2.5	2																																							
8-9		2, 2.5, 3, 4, 5	3	2																																							
10-30	10-12.9	2, 2.5, 3, 4, 5, 6	4	2.5																																							
	13-	2, 2.5, 3, 4, 5, 6, 8	5	3																																							
			6	4																																							
			8	5																																							

Ⓜ Applicable to Shape B with M ≥ 6 only.

# Marker Pins

## Hex Socket / Flathead Slot

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

Feature: Hex hole enables easy mounting with a hex wrench.

RoHS 10

Material	Surface Treatment	Hardness	Type
S45C Equivalent	-	-	JPLR
	Electroless Nickel Plating	-	JPLRM
SUS304	-	Treated Hardness: 50~55HRC	JPLRK
	-	-	JPLRS

Part Number	Type	M (Coarse)	*Tightening Torque N·cm	P 0.1mm Increment	B 0.1mm Increment	l	E	Unit Price			
								JPLR	JPLRM	JPLRK	JPLRS
JPLR JPLRM JPLRK JPLRS	3	3	98	5.0~6.0	6.5~10.0	2	2				
	4	4	225	5.0~7.0	6.5~10.0	2	2.5				
	5	5	461	6.0~8.0	6.5~10.0	2	3				
	6	6	784	6.5~10.0	6.5~12.0	2	3				
	8	8	1911	8.5~12.0	7.5~12.0	2.5	4				
	10	10	3783	10.5~15.0	8.5~12.0	3	5				

Ⓜ SUS304 may not be polished and may have no centering hole.

Note that pins with small thread diameter have thin under-head part.  
\*The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P.2365.) Not applicable when using locking materials or lock washers.

Features: Flathead slot enables easy mounting with a screwdriver.

RoHS 10

Material	Surface Treatment	Hardness	Type
S45C Equivalent	-	-	JPLB
	Electroless Nickel Plating	-	JPLBM
SUS304	-	Treated Hardness: 50~55HRC	JPLBK
	-	-	JPLBS

Part Number	Type	M (Coarse)	*Tightening Torque N·cm	P 0.1mm Increment	B 0.1mm Increment	Unit Price			
						JPLB	JPLBM	JPLBK	JPLBS
JPLB JPLBM JPLBK JPLBS	2	2	-	3.0~5.0	5.0~10.0				
	3	3	98	3.5~6.0	2.0~10.0				
	4	4	225	4.5~7.0	2.0~10.0				
	5	5	461	5.5~8.0	2.0~10.0				
	6	6	784	6.5~10.0	2.0~12.0				
	8	8	1911	8.5~12.0	2.0~12.0				
	10	10	3783	10.5~15.0	2.0~12.0				

Ⓜ SUS304 may not be polished and may have no centering hole.

Note that pins with small thread diameter have thin under-head part.  
\*The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P.2365.) Not applicable when using locking materials or lock washers.

Ordering Example

Part Number - P - B

JPLR6 - P8.5 - B6.5 (Hex Socket)

JPLB8 - P9.5 - B3.2 (Flathead Slot)

