

Locating Pins - Tip Shape Selectable

Press Fit

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

Features: The tip shape is selectable from three types. Highly customizable with each dimension configurable. Press Fit.

Material No.	Material	Surface Treatment	Hardness	Round			Diamond
				D dim. Tolerance m6	D dim. Tolerance p6	D dim. Tolerance m6	D dim. Tolerance m6
(1)	SKS3 Equivalent	-	Treated Hardness: 55~60HRC	LPEJ	LPPEJ	LPDEJ	
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC Plating Hardness: 750HV~	LPEG	LPPEG	LPDEG	
(3)	S45C Equivalent	-	Treated Hardness: 45~50HRC	LPE	LPPE	LPDE	
(4)	S45C Equivalent	Black Oxide	Treated Hardness: 45~50HRC	LPEB	LPPEB	LPDEB	
(5)	S45C Equivalent	Hard Chrome Plating	Treated Hardness: 45~50HRC Plating Hardness: 750HV~	LPER	LPPER	LPDER	
(6)	SUS304	-	-	LPES	LPPEs	LPDES	
(7)	SUS304	Hard Chrome Plating	Plating Hardness: 750HV~	LPED	LPPEd	LPDED	
(8)	SUS440C or 13Cr stainless	-	Treated Hardness: 50~55HRC	LPEC	LPPEC	LPDEC	

Tip Shape

A

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

B

$l_2 = \frac{P-G}{2 \tan 30^\circ}$ Reference: $2 \tan 30^\circ \approx 1.15$
 $G \leq P$
 When $G=P$, add about CO.2 chamfering.

C

$l_3 = \frac{P}{2} / \tan 30^\circ + R - (R/\sin 30^\circ)$
 $R \leq P/2$
 Reference: $\tan 30^\circ \approx 0.577$
 $\sin 30^\circ = 0.5$

Insertion Guide D: $\begin{matrix} -0.01 \\ -0.03 \end{matrix}$

Tip Shape: Select from the diagram on the right.

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When $D < 3$: $a = 0.5$, $d = D - 0.1$

When $D \geq 3$: $a = 1.0$, $d = D - 0.2$

Relief dimension is a reference value.

Part Number		Tip Shape	D	D dim. Tolerance m6	D dim. Tolerance p6	P	B	R	G	L	C	l	(W)
Type	Shape												
(Round) m6	(Round) p6	(Diamond) m6	2	+0.008	+0.012	2.50-6.00(4.00)	2.0-25.0(10.0)	Shape A R≥P/2	Shape B G=P	2-6	0.5	0	1.2
LPEJ	LPPEJ	LPDEJ	3	+0.002	+0.006	3.50-8.00	2.0-25.0(10.0)			3-11			
LPEG	LPPEG	LPDEG	4			4.50-9.00	2.0-25.0(10.0)	Shape C R≥P/2	Shape B G=P	3(4)-14	1	1	1.8
LPE	LPPE	LPDE	5	+0.012	+0.020	5.50-10.00	2.0-30.0(10.0)			5-15			
LPEB	LPPEB	LPDEB	6	+0.004	+0.012	6.50-12.00	2.0-40.0(12.0)	Shape C R≥P/2	Shape B G=P	5-15	1.5	1	3.5
LPER	LPPER	LPDER	8	+0.015	+0.024	9.00-15.00	2.0-40.0(15.0)			5(6)-16			
LPES	LPPEs	LPDES	10	+0.006	+0.015	11.00-20.00	3.0-50.0(20.0)	Shape C R≥P/2	Shape B G=P	5(10)-20	2	2	4
LPED	LPPEd	LPDED	12	+0.018	+0.029	13.00-20.00	3.0-50.0(20.0)			6(10)-24			
LPEC	LPPEC	LPDEC	16	+0.007	+0.018	17.00-27.00	5.0-50.0(20.0)	Shape C R≥P/2	Shape B G=P	8(15)-32	3	2	7
			20	+0.021 +0.008	+0.035 +0.022	21.00-30.00	5.0-50.0(20.0)			10(15)-40			

P, B, L dimensions in () are for Diamond Shape.

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

LPEA5 - P10.0 - B12.0 - R6 - G - L5

LPPEJB10 - P15.0 - B27.0 - R - G12 - L10

D	Round Shape Unit Price								Diamond Shape Unit Price							
	(1)Treated SKS3 LPEJ	(2)Hard SKS3 LPPEJ	(3)S45C LPE	(4)S45C Black Oxide LPEB	(5)Hard S45C LPER	(6)SUS304 LPES	(7)Hard SUS304 LPED	(8)SUS440C or 13Cr stainless LPEC	(1)Treated SKS3 LPDEJ	(2)Hard SKS3 LPDEG	(3)S45C LPDE	(4)S45C Black Oxide LPDEB	(5)Hard S45C LPDER	(6)SUS304 LPDES	(7)Hard SUS304 LPDED	(8)SUS440C or 13Cr stainless LPDEC
2																
3																
4																
5																
6																
8																
10																
12																
16																
20																

Alterations **Part Number** - **P** - **B** - **R** - **G** - **L** - (SC, LAC, LTE)

LPEA5 - P10.0 - B12.0 - R6 - G - L5 - LTE

Alterations	Wrench Flats	Wrench Hole (Ø3.5)	Wrench Hole (Ø2.5)
	Code	SC	LAC
Spec.	SC = 1mm Increment When B≤11, adds wrench flats on the tip. P-3≤SC≤P-1, SC≥D	Adds a Ø3.5 hole. Applicable when B≥10 and P≥8.	Adds a Ø2.5 hole. Applicable when B≥8 and 7≤P≤15.

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