


Locating Pins for Fixtures - Standard Grade, Short Set Screw

Tip Shape Selectable, Circumference Groove / Notched

■ **Features:** Can be used for thin locators due to the short retaining part. For Standard Grade, P Dim. Tolerance is $0_{-0.05}$, and concentricity is 0.03 or 0.05. Polishing Relief Groove is smaller than that with conventional products to avoid a workpiece getting stuck.

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

Shouldered

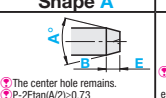


RoHS 10

Type	Material	Hardness
Notched		
ELASA	Round	Treated Hardness 35-40HRC
ELASD	Diamond	
ELACA	Round	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8)
ELACD	Diamond	
TELASA	Round	
TELASD	Diamond	
TELACA	Round	
TELACD	Diamond	

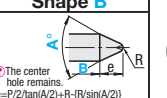
Tip Shape Selectable

Shape A




☑ The center hole remains.
☑ P: $2 \tan(A/2) \geq 0.73$

Shape B



☑ The center hole remains.
☑ $e = P/2 \tan(A/2) + R - (R \sin(A/2))$

Surface Finish Relief



☑ Relief dimensions are reference values.

• **Circumference Groove Shape** Tip Shape Select from the diagram above.

• **Notch Shape** Tip Shape Select from the diagram above.

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$


Circumference Groove Shape				Notch Shape			
D	ℓ1	d	Applicable Set Screw	D	ℓ2	ℓ3	Applicable Set Screw
6	4	4	M5	6	5.5	2.5	M4
8	6	5	M5	8	7.5	3.5	M5
10	7	7	M6	10	10	5	M6
12	9	9	M6	12	12.5	6.5	M6
16	13	13	M6	16	16.5	9.5	M6

☑ ℓ2 is the recommended dimension for the set screw tip part.

Part Number										Unit Price									
Type	Tip Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Circumference Groove Shape 1mm Increment	Notch Shape Selection	A Selection	E (Shape A) 1mm Increment	R	W	Circumference Groove				Notched				
[Circumference Groove]	[Notched]										ELASA	ELASD	TELASA	TELASD	ELACA	ELACD	TELACA	TELACD	
Hardened Carburized (Round)	Hardened Carburized (Round)	6	3.0-8.0		10 12 16				9	1-2									
ELASA	TELASA	8	3.0-10.0		12 16 19				11	1.5-2									
ELASD	TELASD	10	4.5-12.0	2-30 (B≤P×4)	12 16 19 20	5-10		1-10	13	2-3									
(Diamond) (Diamond)	(Diamond) (Diamond)	12	9.0-14.0		12 16 19 20				15	3-4									
ELASD	TELASD	16	13.0-18.0		19 20 25				19	4-5									

☑ W Dimension D6, D8: W=2 when P>5.0 D10: W=1 when P<5.0, W=2 when 5.0<P<7.0, W=3 when P>7.0 ☑ Angle A = *30 is of the standard shape and thus, is not applicable to Tip Shape B of Circumference Groove. Select any of Circumference Groove Types (P.1749).
☑ Conventional RC Alteration (change of angle) can be substituted with Tip Shape B.

No Shoulder

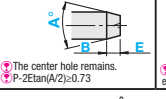


RoHS 10

Type	Material	Hardness
Notched		
ELNSA	Round	Treated Hardness 35-40HRC
ELNSD	Diamond	
ELNSA	Round	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8)
ELNSD	Diamond	
TELNSA	Round	
TELNSD	Diamond	
TELNSA	Round	
TELNSD	Diamond	

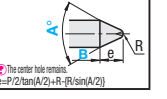
Tip Shape Selectable

Shape A




☑ The center hole remains.
☑ P: $2 \tan(A/2) \geq 0.73$

Shape B



☑ The center hole remains.
☑ $e = P/2 \tan(A/2) + R - (R \sin(A/2))$

Surface Finish Relief



☑ Relief dimensions are reference values.

• **Circumference Groove Shape** Tip Shape Select from the diagram above.

• **Notch Shape** Tip Shape Select from the diagram above.

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$, $\sin 30^\circ = 0.5$, $\tan 30^\circ = 0.577$, $\sin 45^\circ = 0.707$, $\tan 45^\circ = 1$, $\sin 60^\circ = 0.866$, $\tan 60^\circ = 1.732$

Circumference Groove Shape				Notch Shape			
D	ℓ1	d	Applicable Set Screw	D	ℓ2	ℓ3	Applicable Set Screw
6	4	4	M5	6	5.5	2.5	M4
8	6	5	M5	8	7.5	3.5	M5
10	7	7	M6	10	10	5	M6
12	9	9	M6	12	12.5	6.5	M6
16	13	13	M6	16	16.5	9.5	M6
20	17	17	M6	20	20.5	13.5	M6

☑ ℓ2 is the recommended dimension for the set screw tip part.

Part Number										Unit Price									
Type	Tip Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Circumference Groove Shape 1mm Increment	Notch Shape Selection	A Selection	E (Shape A) 1mm Increment	R	W	Circumference Groove				Notched				
[Circumference Groove]	[Notched]										ELNSA	ELNSD	TELNSA	TELNSD	ELNSA	ELNSD	TELNSA	TELNSD	
Hardened Carburized (Round)	Hardened Carburized (Round)	6	8.0-12.0		10 12 16				3	3									
ELNSA	TELNSA	8	10.0-16.0		12 16 19				4	3.5									
ELNSD	TELNSD	10	12.0-20.0		12 16 19	5-10		1-10	4	4									
(Diamond) (Diamond)	(Diamond) (Diamond)	12	14.0-25.0	☑ 2-30	12 16 19 20				6	6									
ELNSD	TELNSD	16	18.0-32.0		19 20 25				8	8									
ELNSD	TELNSD	20	22.0-35.0		19 20 25				8	9									

☑ Angle A = *30 is of the standard shape and thus, is not applicable to Tip Shape B of Circumference Groove. Select any of Circumference Groove Types (P.1749). ☑ Conventional RC Alteration (change of angle) can be substituted with Tip Shape B.
☑ For the Diamond Shape, the value of 5mm- can be configured for the B dimension.

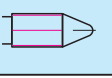
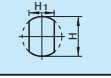
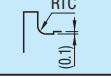
Ordering Example

Part Number: **ELNSA** - **A** - **6** - **P5.0** - **B10** - **L5** - **A60** - **E5**

ELNSA B 6 - P8.0 - B10 - L10 - A60

Alterations

Part Number: **ELNSAB10** - **P23** - **B15** - **L10** - **A60** - **KD**

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Upper Relief Radius Change
		Shouldered No Shoulder 90° 0°	Shouldered No Shoulder H-P≥2 H-1-0.1		
Code	MK	KC	KD	SC	RTC
Spec.	Drill 4 grooves at D Dimension. Abrasion management can be facilitated by checking the wear and tear of the grooves. ☑ Applicable to Hardening, Carburized and Round Shape prods. only ☑ Applicable when B ≥ 4 ☑ When combined with RTC, Groove starts from "R" value + 1 mm" area. Groove Depth: 0.2mm (±0.05mm) Groove Shape: V Groove (90°)	Ordering Code KC Changes the flat position to 90° from the standard position 0°. ☑ Applicable to Diamond Shape Type only.	Ordering Code KD Machining on one side. ☑ Applicable to Round Shape Type. ☑ KD cannot be combined with SC.	Ordering Code SC Adds wrench flats. [H] 9 [11] [13] [15] [19] [R] 7 [8] [11] [13] [17] ☑ Applicable to Round Shape Type with Shoulder only.	Ordering Code RTC Changes the relief to the following radius R. [R] 1 [2] [3] ☑ Applicable to Shouldered Type only. ☑ RTC:(H-P)/2 ☑ B:5