


Locating Pins for Fixtures - Standard Grade, Short Set Screw Circumference Groove

Locating Pins for Fixtures - Standard Grade, Short Set Screw Tip Shape Selectable, Circumference Groove / Notched

Shouldered

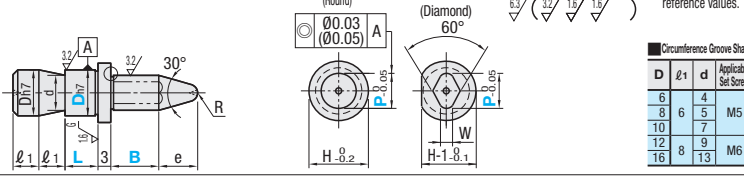


Features: Can be used for thin locators due to the short retaining part. For Standard Grade, P Dim. For Standard Grade, P Dim. Tolerance is 0.05 and concentricity is 0.03 or 0.05. Polishing Relief Groove is smaller than the conventional products to avoid a workpiece getting stuck.

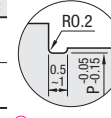
Type	Circumference Groove	Shape	Material	Hardness	Surface Treatment
ELASA	Round	SCM435	Treated Hardness 35-40HRC		
ELASD	Diamond	SCM435	Treated Hardness 35-40HRC		
TELASA	Round	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads		Hard Chrome Plating
TELASD	Diamond	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads		Hard Chrome Plating

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$

Tip Shape



Surface Finish Relief




RoHS 10

Part Number	Type	D _{H7}	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	H	R	W	Unit Price
Hardened (Round)	ELASA	6	3.0-7.0	2-30	5-10	9	1	1-2	
Carburized (Round)	TELASA	8	3.0-9.0			11	1.5	1-2	
Hard Chrome (Round)	R-LASA	10	4.5-12.0			13	2	1-3	
Dicoat® (Round)	D-LASA	12	9.0-13.0			15	3	4	
(Diamond)	ELASD	16	13.0-16.0			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 B dimension of Dicoat treated products are to be specified from 5mm~

No Shoulder

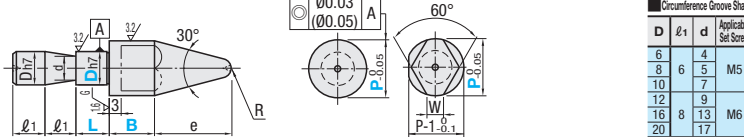


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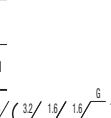
Type	Circumference Groove	Shape	Material	Hardness	Surface Treatment
ELNSA	Round	SCM435	Treated Hardness 35-40HRC		
ELNSD	Diamond	SCM435	Treated Hardness 35-40HRC		
TELNSA	Round	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads		Hard Chrome Plating
TELNSD	Diamond	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads		Hard Chrome Plating

Reference: $\sin 15^\circ = 0.259$, $\tan 15^\circ = 0.267$

Tip Shape



Surface Finish Relief



RoHS 10

Part Number	Type	D _{H7}	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	R	W	Unit Price
Hardened (Round)	ELNSA	6	8.0-12.0	2-30	5-10	3	3	
Carburized (Round)	TELNSA	8	10.0-16.0			4	3.5	
Hard Chrome (Round)	R-LNSA	10	12.0-20.0			4	4	
Dicoat® (Round)	D-LNSA	12	14.0-25.0			6	6	
(Diamond)	ELNSD	16	18.0-32.0			8	8	
	TELNSD	20	22.0-35.0			8	9	

B Dimension is selectable from 5 mm ~ for Dicoat® Treated / Diamond Shape.

Ordering Example


Part Number: ELASA - P5.0 - B10 - L5

Part Number: ELNSA - P12.0 - B15 - L8

Alterations: (KC, KD, SC, RTC)

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Upper Relief Radius Change	Tip Angle Change
Alterations	Shouldered / No Shoulder	Shouldered	No Shoulder		RTC	RC
Code	MK	KC	KD	SC	RTC	RC
Spec.	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wear. (Applicable to Hardening, Carburized and Round Shape Products only) (Applicable when B ≥ 4) When used together with RTC, the groove starts from the area of R value + 1 mm. 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 Adds wrench flats. (H: 9 11 13 15 19 Hi: 7 8 11 13 17) (Applicable to Round Shape with Shoulder Type only.)	Ordering Code SC Adds wrench flats. (H: 9 11 13 15 19 Hi: 7 8 11 13 17) (Applicable to Round Shape with Shoulder Type only.)	Ordering Code RTC Changes the relief to the following radius R. (Selected) R1 R2 R3 (Applicable to Shouldered only. (RTC:(H-P)/2) (B:5)	Ordering Code RC Changes the tip angle. (Selected) 60°, 90°, 120°

Shouldered

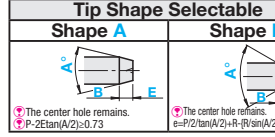


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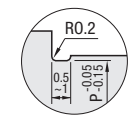
Type	Circumference Groove	Notched	Shape	Material	Hardness	Surface Treatment
ELASA	Round	ELACA	Round	SCM435	Treated Hardness 35-40HRC	
ELASD	Diamond	ELACD	Diamond	SCM435	Treated Hardness 35-40HRC	
TELASA	Round	TELACA	Round	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads	
TELASD	Diamond	TELACD	Diamond	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads	

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

Tip Shape Selectable



Surface Finish Relief




RoHS 10

Part Number	Type	Tip Shape	D _{H7}	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	A Selection	E (Shape A) 1mm Increment	H	R	W	Unit Price
Hardened (Round)	ELASA	A	6	3.0-7.0	2-30	5-10	10	12	16	9	1	1-2
Carburized (Round)	TELASA	B	8	3.0-9.0			12	16	19	11	1.5	1-2
Hard Chrome (Round)	R-LASA	B	10	4.5-12.0			12	16	19	13	2	1-3
Dicoat® (Round)	D-LASA	B	12	9.0-13.0			12	16	19	15	3	4
(Diamond)	ELASD	B	16	13.0-16.0			12	16	19	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 not applicable to Tip Shape B of Circumference Groove. Select from Circumference Groove Type (P1699). Conventional RC alteration (change of angle) can be substituted with Tip Shape B.

No Shoulder

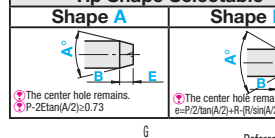


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Type	Circumference Groove	Notched	Shape	Material	Hardness	Surface Treatment
ELNSA	Round	ELNCA	Round	SCM435	Treated Hardness 35-40HRC	
ELNSD	Diamond	ELNCD	Diamond	SCM435	Treated Hardness 35-40HRC	
TELNSA	Round	TELNCA	Round	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads	
TELNSD	Diamond	TELNCD	Diamond	SCM415	Carburized Treated Hardness: 55HRC - (Depth: 0.7 - 0.8) / Anti-carburizing on Threads	

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

Tip Shape Selectable



Surface Finish Relief



RoHS 10

Part Number	Type	Tip Shape	D _{H7}	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	A Selection	E (Shape A) 1mm Increment	H	R	W	Unit Price
Hardened (Round)	ELNSA	A	6	8.0-12.0	2-30	5-10	10	12	16	3	3	
Carburized (Round)	TELNSA	B	8	10.0-16.0			12	16	19	4	3.5	
Hard Chrome (Round)	R-LNSA	B	10	12.0-20.0			12	16	19	4	4	
Dicoat® (Round)	D-LNSA	B	12	14.0-25.0			12	16	19	6	6	
(Diamond)	ELNSD	B	16	18.0-32.0			12	16	19	8	8	
	TELNSD	B	20	22.0-35.0			12	16	19	8	9	

Angle A*30 is not applicable to Tip Shape B of Circumference Groove. Select from Circumference Groove Type (P1699). B Dimension is selectable from 5 mm ~ for Diamond Shape. Conventional RC alteration (change of angle) can be substituted with Tip Shape B.

Ordering Example

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

Part Number: ELNCA - P8.0 - B10 - L10 - A60

Alterations: (KC, KD, SC, RTC)

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Upper Relief Radius Change
Alterations	Shouldered / No Shoulder	Shouldered	No Shoulder		RTC
Code	MK	KC	KD	SC	RTC
Spec.	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wear. (Applicable to Hardening, Carburized and Round Shape Products only) (Applicable when B ≥ 4) When used together with RTC, the groove starts from the area of R value + 1 mm. 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 Adds wrench flats. (H: 9 11 13 15 19 Hi: 7 8 11 13 17) (Applicable to Round Shape with Shoulder Type only.)	Ordering Code SC Adds wrench flats. (H: 9 11 13 15 19 Hi: 7 8 11 13 17) (Applicable to Round Shape with Shoulder Type only.)	Ordering Code RTC Changes the relief to the following radius R. (Selected) R1 R2 R3 (Applicable to Shouldered only. (RTC:(H-P)/2) (B:5)