Locating Pins for Fixtures - Standard Grade, Short Set Screw

Circumference Groove

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 $^{0}_{-0.05}$ and concentricity is 0.03 or 0.05. Polishing Relief Groove is smaller than the conventional products to avoid a workpiece getting stuck.

Shouldered

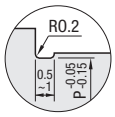
Type: Circumference Groove	Shape	Material	Hardness
ELASA	Round	SCM435	Treated Hardness 35~40HRC
ELASD	Diamond		
TELASA	Round	SCM415	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads
TELASD	Diamond		

Type: Circumference Groove	Shape	Material	Hardness	Surface Treatment
D-LASA	Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-LASD	Diamond			
R-LASA	Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-LASD	Diamond			

Reference: sin15°≈0.259tan15°≈0.267

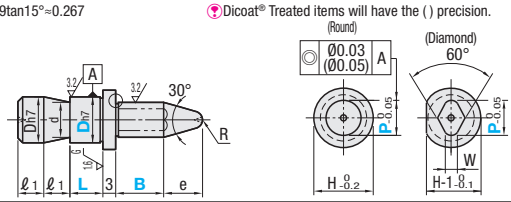
Dicoat® Treated items will have the ( ) precision.

Surface Finish Relief



Relief dimensions are reference values.

e=P/2/tan15°+R-(R/sin15°)



Circumference Groove Shape

D	ℓ1	d	Applicable Set Screw
6	6	4	M5
8		5	
10		7	
12	8	9	M6
16		13	

Part Number: Type (Hardened (Round) / Carburized (Round) / Hard Chrome (Round) / Dicoat (Round))	(Diamond)	Dh7	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	H	R	W	Unit Price: ELASA	ELASD	TELASA	TELASD	D-LASA	D-LASD	R-LASA	R-LASD
ELASA	ELASD	6 (0 -0.012)	3.0~7.0	2~30 (B≤P×4)	5~10	9	1	1~2								
		8 (0 -0.015)	3.0~9.0			11	1.5	1~2								
		10	4.5~12.0			13	2	1~3								
		12 (0 -0.018)	9.0~13.0			15	3	4								
		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

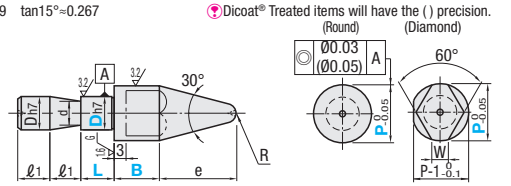
Type: Circumference Groove	Shape	Material	Hardness
ELNSA	Round	SCM435	Treated Hardness 35~40HRC
ELNSD	Diamond		
TELNSA	Round	SCM415	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads
TELNSD	Diamond		

Type: Circumference Groove	Shape	Material	Hardness	Surface Treatment
R-LNSA	Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
R-LNSD	Diamond			
D-LNSA	Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
D-LNSD	Diamond			

Reference: sin15°≈0.259 tan15°≈0.267

Dicoat® Treated items will have the ( ) precision.

e=P/2/tan15°+R-(R/sin15°)



Circumference Groove Shape

D	ℓ1	d	Applicable Set Screw
6	6	4	M5
8		5	
10		7	
12	8	9	M6
16		13	
20		17	

Part Number: Type (Hardened (Round) / Carburized (Round) / Hard Chrome (Round) / Dicoat (Round))	(Diamond)	Dh7	P 0.1mm Increment	B 1mm Increment	L 1mm Increment	R	W	Unit Price: ELNSA	ELNSD	TELNSA	TELNSD	R-LNSA	R-LNSD	D-LNSA	D-LNSD
ELNSA	ELNSD	6 (0 -0.012)	8.0~12.0	2~30	5~10	3	3								
		8 (0 -0.015)	10.0~16.0			4	3.5								
		10	12.0~20.0			4	4								
		12 (0 -0.018)	14.0~25.0			6	6								
		16	18.0~32.0			8	8					-	-	-	-
		20 (0 -0.021)	22.0~35.0			8	9					-	-	-	-

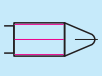
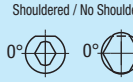
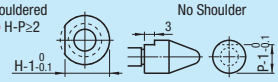
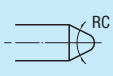
B Dimension is selectable from 5 mm ~ for Dicoat® Treated / Diamond Shape.

Ordering Example

Part Number: Type	D	-	P	-	B	-	L
ELASA	6	-	P5.0	-	B10	-	L5
ELNSA	8	-	P12.0	-	B15	-	L8

Alterations

Part Number	-	P	-	B	-	L	-	(KC, KD, SC, RTC)
ELASA10	-	P10.0	-	B15	-	L10	-	KD

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Upper Relief Radius Change	Tip Angle Change
		Shouldered / No Shoulder 	Shouldered H-P≥2  No Shoulder		• Dicoat® • Others	
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 wears. 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. Machining on one side. Applicable to Round Shape Type.	Ordering Code SC. Adds wrench flats. H: 9, 11, 13, 15, 19; H1: 7, 8, 11, 13, 17. Applicable to Round Shape with Shoulder Type only.	Ordering Code RTC2. Changes the relief to the following radius R. Selection R1 R2 R3. Applicable to Shouldered only. RTC≤(H-P)/2. B≥5	Ordering Code RC60. Changes the tip angle. Selection 60°, 90°, 120°