

Locating Pins for Fixtures

Tip Shape Selectable, Precision Grade, Shouldered

Features: For Precision Grade, P Dim. Tolerance is $\begin{matrix} 0 \\ 0.01 \text{ or } 0.02 \end{matrix}$ (for Standard Grade, $\begin{matrix} 0 \\ 0.05 \end{matrix}$), concentricity is 0.01 or 0.02 (for Standard Grade, 0.03 or 0.05). Tip shape is selectable.

Threaded

RoHS 10

Only the Shape B Dicoat® Treated items do not come with a center hole.

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
SLANA Round	SCM435	Hardening 35-40HRC	R-SANA Round	SCM435	35-40HRC (Surface 750HV -)	Hard Chrome Plating
SLAND Diamond			R-SAND Diamond			
TSLANA Round	SCM415	Carburized 55HRC-(depth 0.7 ~ 0.8) / Anti-carburizing on Threads	D-SANA Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
TSLAND Diamond			D-SAND Diamond			

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

Dicoat® Treated items will have the () precision and Thread Shape will be $\Phi 1$.

Relief dimensions are reference values.

Tip Shape Selectable

Shape A: The center hole remains. $e=P/2 \tan(A/2) \pm 0.73$
 Shape B: The center hole remains. $e=P/2 \tan(A/2) \pm R \sin(A/2)$

Part Number		P		B		L Selection		A Section		E (Shape A) / 1mm Increment		H		R		W		Unit Price											
Type	Tip Shape	D _{h7}	0.1mm Increment	1mm Increment	5	8	10	12	15	30	60	90	120	1	1.5	2	3	4	SLANA	SLAND	TSLANA	TSLAND	R-SANA	R-SAND	D-SANA	D-SAND			
Hardened (Round)	A (Tapered)	6	0.004-0.012	3.0-7.0																									
		8	-0.005-0.014	3.0-9.0	Φ2-30 (B≤Px4)	(5)	(8)	(10)	(12)	(15)																			
		10T	-0.014	4.5-12.0		(5)	(8)	(10)	(12)	(15)																			
Diamond (Diamond)	B (Taper R)	10T	-0.006-0.017	9.0-13.0																									
		12	-0.006-0.017	9.0-13.0		(8)	(10)	(12)	(15)	(18)																			
		16	-0.017	13.0-16.0		(10)	(12)	(15)	(18)	(20)																			

W Dimension D6, D8: W=2 when P>5.0 D10, 10T: 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. Select from Precision Grade, Shouldered (P.1693).
 L dimension in () is not applicable to Diamond Shape and Dicoat® treatment.

Set Screw

RoHS 10

Only the Shape B Dicoat® Treated items do not come with a center hole.

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
SLATA Round	SCM435	Hardening 35-40HRC	R-SATA Round	SCM435	35-40HRC (Surface 750HV -)	Hard Chrome Plating
SLATD Diamond			R-SATD Diamond			
TSLATA Round	SCM415	Carburized 55HRC-(depth 0.7 ~ 0.8) / Anti-carburizing on Threads	D-SATA Round	SKD11 Equivalent	55HRC ~ (Surface 3000HV)	Dicoat® Treated
TSLATD Diamond			D-SATD Diamond			

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

Dicoat® Treated items will have the () precision and Thread Shape will be $\Phi 1$.

Relief dimensions are reference values.

Tip Shape Selectable

Shape A: The center hole remains. $e=P/2 \tan(A/2) \pm 0.73$
 Shape B: The center hole remains. $e=P/2 \tan(A/2) \pm R \sin(A/2)$

Part Number		P		B		L Selection		A Section		E (Shape A) / 1mm Increment		H		d		R		W		Unit Price									
Type	Tip Shape	D _{h7}	0.1mm Increment	1mm Increment	5	8	10	12	15	30	60	90	120	1	1.5	2	3	4	5	SLATA	SLATD	TSLATA	TSLATD	R-SATA	R-SATD	D-SATA	D-SATD		
Hardened (Round)	A (Tapered)	6	0.004-0.012	3.0-7.0																									
		8	-0.005-0.014	3.0-9.0	Φ2-30 (B≤Px4)	(5)	(8)	(10)	(12)	(15)																			
		10T	-0.014	4.5-12.0		(5)	(8)	(10)	(12)	(15)																			
Diamond (Diamond)	B (Taper R)	10T	-0.006-0.017	9.0-13.0																									
		12	-0.006-0.017	9.0-13.0		(8)	(10)	(12)	(15)	(18)																			
		16	-0.017	13.0-16.0		(10)	(12)	(15)	(18)	(20)																			

W Dimension D6, D8: W=2 when P>5.0 D10, 10T: W=1 when P<5.0, W=2 when 5.0≤P≤7.0, W=3 when P>7.0
 B Dimension 5 mm ~ will be selected for Dicoat® Treated / TiCN Treated items.
 Angle A*30 is not applicable to Tip Shape B. Select from Standard Grade, Shouldered (P.1693).

Part Number

Type Tip Shape D P B L A E

SLANA A 6 P6.8 B14 L8 A30 E2

SLATA B 8 P7.5 B15 A60

Alterations

Part Number Type Tip Shape D P B L A E (KC, KD, SC, MC) R-SANA B 10 P4.5 B10 L5 A60 KD

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Wrench Flats	Thread Dia.	Thread Length	Upper Relief Radius Change
Code	MK	KC	KD	SC	MC	FC	RTC
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°)	Grinding Code KC Changes the flat position to 90° from the standard position 0°. Applicable to Diamond Shape Type only.	Grinding Code KD Machining on one side. H-P:2 Applicable to Round Shape Type only.	Grinding Code SC Adds wrench flats. H 9 11 13 15 19 7 8 11 13 17 Applicable to Round Shape Type only.	Grinding Code MC8 Changes the thread diameter. D/3:M-D Mmin3 Applicable to Threaded only.	Grinding Code FC15 Changes the thread length. FC=1mm Increment D6-10 : M:FC:Mx3 D12-16 : M:FC:Mx2.5 D20 : M:FC:Mx2 Applicable to Threaded only. Not applicable to Dicoat® and TiCN treatment.	Grinding Code RTC Changes the relief to the following radius. R: Changes the R1 R2 R3 RTC:(H-P)/2 Applicable when B:5