

Locating Pins for Fixtures

Standard Grade, No Shoulder

Features: For Standard Grade, P Dim. Tolerance is -0.05 (for Precision Grade, -0.01 or -0.02), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02).

Threaded

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
ELNNA Round	SCM435	Hardening 35~40HRC	R-LNNA Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
ELNND Diamond	SCM435	Hardening 35~40HRC	R-LNND Diamond	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
TELNNA Round	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	D-LNNA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
TELNND Diamond	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	D-LNND Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
			H-LNNA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	TiCN Treatment
			H-LNND Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	TiCN Treatment

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

① Dicoat® Treated / TiCN Thread Shape

Part Number	Type	D _{H7}	P	B	L Selection	L ₁	R	W	Unit Price											
									ELNNA	ELNND	TELNNA	TELNND	R-LNNA	R-LNND	D-LNNA	D-LNND	H-LNNA	H-LNND		
6	Hardened (Round)	6	8.0-12.0	5	5 8 10	6	3	3												
8	Carburized (Round)	8	10.0-16.0	5	5 8 10 12 15	10	4	3.5												
10	Hard Chrome (Round)	10	12.0-20.0	5	(5) (8) 10 12 15	12	4	4												
10T	Dicoat (Round)	10T	12.0-20.0	5	(5) (8) 10 12 15	15	5	5												
12	TiCN (Diamond)	12	14.0-25.0	8	(8) 10 12 15 18	15	6	6												
16	Dicoat (Diamond)	16	18.0-32.0	10	(10) 12 15 18 20	18	8	8												
20	TiCN (Diamond)	20	22.0-35.0	12	12 15 18 20	22	8	9												

L dimension in () is not applicable to Diamond Shape, Dicoat® and TiCN treatment.
B Dimension is selectable from 5 mm ~ for Dicoat® Treated / TiCN Treated Products/Diamond Shape.

Set Screw

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
ELNTA Round	SCM435	Hardening 35~40HRC	R-LNTA Round	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
ELNTD Diamond	SCM435	Hardening 35~40HRC	R-LNTD Diamond	SCM435	35~40HRC (Surface 750HV ~)	Hard Chrome Plating
TELNTA Round	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	D-LNTA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
TELNTD Diamond	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	D-LNTD Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
			H-LNTA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	TiCN Treatment
			H-LNTD Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	TiCN Treatment

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

① Dicoat® Treated / TiCN Treated items will have the () precision.

Part Number	Type	D _{H7}	P	B	L	L ₁	d	R	Applicable Set Screw	W	Unit Price									
											ELNTA	ELNTD	TELNTA	TELNTD	R-LNTA	R-LNTD	D-LNTA	D-LNTD	H-LNTA	H-LNTD
6	Hardened (Round)	6	8.0-12.0	5	5 8 4 3	M5	3													
8	Carburized (Round)	8	10.0-16.0	5	5 8 5 4	M5	3.5													
10	Hard Chrome (Round)	10	12.0-20.0	5	5 8 7 4	M6	4													
10T	Dicoat (Round)	10T	12.0-20.0	5	5 8 7 5	M6	5													
12	TiCN (Diamond)	12	14.0-25.0	8	12 10 9 6	M8	6													
16	Dicoat (Diamond)	16	18.0-32.0	12	12 10 13 8	M8	8													
20	TiCN (Diamond)	20	22.0-35.0	12	12 10 17 8	M8	9													

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

Part Number	Type	D	P	B	L
ELNNA	10	P12.0	B10	L8	(Threaded)
ELNTA	6	P10.0	B15		(Set Screw)

Alterations	Part Number	Type	D	P	B	L
	ELNNA	6	P8.0	B14	L5	KD

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Thread Dia.	Thread Length	Tip Angle Change
Code	MK	KC	KD	MC	FC	RC
Spec.	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wear. ① Applicable to Hardening, Carburized and Round Shape Products only ② Applicable when B ≥ 4 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°. ① Applicable to Diamond Shape Type only.	Ordering Code KD Machining on one side. ① Applicable to Round Shape Type only.	Ordering Code MC8 Changes the thread diameter. D3: M-C Mmin3 ① Applicable to Threaded only.	Ordering Code FC15 Changes the thread length. FC=1mm Increment D5-10: M-FC: Mx2 D12, 16: M-FC: Mx2.5 D20 : M-FC: Mx2 ① Applicable when B ≥ 4 Groove Depth: 0.2mm (±0.05mm) Groove Shape: V Groove (90°)	Ordering Code RC60 Changes the tip angle. Selected 60°, 90°, 120°

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Tip Shape Selectable, Standard Grade, No Shoulder

Features: For Standard Grade, P Dim. Tolerance is -0.05 (for Precision Grade, -0.01 or -0.02), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02).

Threaded

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
SELNNA Round	SCM435	Hardening 35~40HRC	D-SLNNA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
SELNND Diamond	SCM435	Hardening 35~40HRC	D-SLNND Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
TSELNNA Round	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	TSELNND Diamond	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	Dicoat® Treated items will have the () precision and Thread Shape will be ①.

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

① Dicoat® Treated · TiCN Thread Shape

Tip Shape Select from the diagram on the right.

Part Number	Type	Tip Shape	D _{H7}	P	B	L Selection	A Selection	E	L ₁	R	W	Unit Price								
												SELNNA	SELNND	TSELNNA	TSELNND	D-SLNNA	D-SLNND			
6	Hardened (Round)	A	6	8.0-12.0	5	5 8 10	*30	6	3	3										
8	Carburized (Round)	A	8	10.0-16.0	5	5 8 10 12 15	60	10	4	3.5										
10	Hard Chrome (Round)	A	10	12.0-20.0	5	(5) (8) 10 12 15	90	12	4	4										
10T	Dicoat (Round)	A	10T	12.0-20.0	5	(5) (8) 10 12 15	120	15	5	5										
12	TiCN (Diamond)	B	12	14.0-25.0	8	(8) 10 12 15 18		15	6	6										
16	Dicoat (Diamond)	B	16	18.0-32.0	10	(10) 12 15 18 20		18	8	8										
20	TiCN (Diamond)	B	20	22.0-35.0	12	12 15 18 20		22	8	9										

Angle A*30 is not applicable to Tip Shape B. Select from Standard Grade, No Shoulder (P.1691).
B Dimension is selectable from 5 mm ~ for Dicoat® Treated / Diamond Shape.

Set Screw

Type	Material	Hardness	Type	Material	Hardness	Surface Treatment
SELNTA Round	SCM435	Hardening 35~40HRC	D-SLNTA Round	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
SELNTD Diamond	SCM435	Hardening 35~40HRC	D-SLNTD Diamond	SKD11 Equivalent	55HRC~ (Surface 3000HV)	Dicoat® Treated
TSELNTA Round	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	TSELNTD Diamond	SCM415	Carburized 55HRC~ (depth 0.7~0.8) / Anti-carburizing on Threads	Dicoat® Treated items will have the () precision.

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 Select from the diagram on the right.

Part Number	Type	Tip Shape	D _{H7}	P	B	L Selection	A Selection	E	L ₁	d	R	Applicable Set Screw	W	Unit Price							
														SELNTA	SELNTD	TSELNTA	TSELNTD	D-SLNTA	D-SLNTD		
6	Hardened (Round)	A	6	8.0-12.0	5	5 8 4 3	*30	6	3	3	M5	3									
8	Carburized (Round)	A	8	10.0-16.0	5	5 8 5 4	60	10	4	3.5	M5	3.5									
10	Hard Chrome (Round)	A	10	12.0-20.0	5	5 8 7 4	90	12	4	4	M6	4									
10T	Dicoat (Round)	A	10T	12.0-20.0	5	5 8 7 5	120	15	5	5	M6	5									
12	TiCN (Diamond)	B	12	14.0-25.0	8	12 10 9 6		15	6	6	M8	6									
16	Dicoat (Diamond)	B	16	18.0-32.0	12	12 10 13 8		18	8	8	M8	8									
20	TiCN (Diamond)	B	20	22.0-35.0	12	12 10 17 8		22	8	9	M8	9									

Angle A*30 is not applicable to Tip Shape B. Select from Standard Grade, No Shoulder (P.1691).
B Dimension is selectable from 5 mm ~ for Dicoat® Treated / Diamond Shape.

Part Number	Type	Tip Shape	D	P	B	L	A	E
SELNNA	A	16	P18.0	B21	L15	A60	E2	(Threaded)
SELNTA	B	10	P14.0	B10		A60		(Set Screw)

Alterations	Part Number	Type	Tip Shape	D	P	B	L	A	E
	SELNTA	A	6	P8.0	B14		A30	E2	KD

Alterations	Wear Groove Alterations	Flat Position	Flat Machining	Thread Dia.	Thread Length
Code	MK	KC	KD	MC	FC
Spec.	Drill 4 grooves at B Dimension. The wear and tear of the grooves indicate the degree of wear. ① Applicable to Hardening, Carburized and Round Shape Products only ② Applicable when B ≥ 4 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°. ① Applicable to Diamond Shape Type only.	Ordering Code KD Machining on one side. ① Applicable to Round Shape Type only.	Ordering Code MC8 Changes the thread diameter. D3: M-C Mmin3 ① Applicable to Threaded only.	Ordering Code FC15 Changes the thread length. FC=1mm Increment D5-10: M-FC: Mx2 D12, 16: M-FC: Mx2.5 D20 : M-FC: Mx2 ① Applicable when B ≥ 4 Groove Depth: 0.2mm (±0.05mm) Groove Shape: V Groove (90°)