




Locating Pin for Jig & Fixtures

Standard with Shoulder & Pilot Shape Selectable

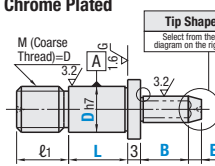
Features: For Standard Grade, P dimension tolerance is ± 0.05 (for Precision Grade, ± 0.01 or ± 0.02), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02).
Tip shape is selectable. Polishing Relief Groove is smaller than the conventional products to avoid a workpiece getting stuck.

Threaded  **RoHS10**

Type	Material	Hardness
SELANA Round	4137 Alloy Steel	Hardened 35-40 HRC min.
SELAND Diamond		Carburized 55 HRC min. (Depth 0.7-0.8)
TSELANA Round	SCM415 Alloy Steel (JIS)	Anti-Carburizing on Threads
TSELAND Diamond		

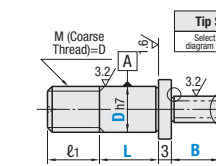
Reference: $\sin 15^\circ = 0.259$ $\sin 30^\circ = 0.5$ $\sin 45^\circ = 0.707$
 $\tan 15^\circ = 0.267$ $\tan 30^\circ = 0.577$ $\tan 45^\circ = 1$

Hardened / Carburized / Chrome Plated

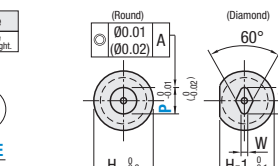


Tip Shape: Select from the diagram on the right.

Dicoat® Treated



Surface Finish Relief



Pilot-Tip Shape Selection

A Shape


- The center hole remains.
- P-2Etan (A/2) ≥ 0.73
- P-2Etan (A/2) ≥ 2 (Dicoat®)

B Shape

- The center hole remains.
- e = P/2tan(A/2) + R / (Rsin(A/2))

Part Number		P		B		L		A		E		L		L ₁		H		R		W	
Type	Tip Shape	0.1 mm Increment	1 mm Increment	0.1 mm Increment	1 mm Increment	5	8	10	12	15	18	20	30	60	90	120	1	1.5	2	3	4
Hardened (Round)	A (Taper)	3.0-8.0	2-30	30	1-10	5	8	10	12	15	18	20	30	60	90	120	6	9	1	1	1
Carburized (Round)	B (Taper R)	3.0-10.0				5	8	10	12	15							10	11	1.5	1.5	(2)
Hard Chrome (Round)		4.5-12.0															12	13	2	2	1-3
Dicoat® (Round)		9.0-14.0															15	15	3	4	4
TICN (Round)		13.0-18.0															18	19	4	5	5

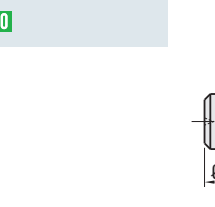
⊙ W Dimension D6, D8: W=2 when P<5.0; D10, 10T: W=1 when P<5.0; W=2 when 5.0≤P≤7.0; W=3 when P>7.0. ⊙ L Dimension in () is not applicable to diamond shape and Dicoat® treatment.
 ⊙ Angle A *30 is not applicable to Tip Shape B. Select from Standard Grade, Shouldered P.1542 ⊙ B Dimension 5 mm - will be selected for Dicoat® Treated / TICN Treated items.

Set Screw Flat Type  **RoHS10**

Type	Material	Hardness
SELATA Round	4137 Alloy Steel	Hardened 35-40 HRC min.
SELATD Diamond		Carburized 55 HRC min. (Depth 0.7-0.8)
TSELATA Round	SCM415 Alloy Steel	Anti-Carburizing on Thread
TSELATD Diamond		

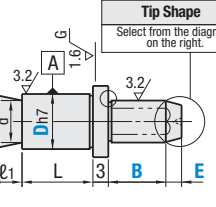
Reference: $\sin 15^\circ = 0.259$ $\sin 30^\circ = 0.5$ $\sin 45^\circ = 0.707$
 $\tan 15^\circ = 0.267$ $\tan 30^\circ = 0.577$ $\tan 45^\circ = 1$

Hardened / Carburized / Chrome Plated

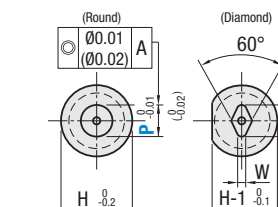


Tip Shape: Select from the diagram on the right.

Dicoat® Treated



Surface Finish Relief



Pilot-Tip Shape Selection

A Shape

- The center hole remains.
- P-2Etan (A/2) ≥ 0.73
- P-2Etan (A/2) ≥ 2 (Dicoat®)

B Shape

- The center hole remains.
- e = P/2tan(A/2) + R / (Rsin(A/2))

Part Number		P		B		L		A		E		L		L ₁		H		R		W	
Type	Tip Shape	0.1 mm Increment	1 mm Increment	0.1 mm Increment	1 mm Increment	5	8	10	12	15	18	20	30	60	90	120	1	1.5	2	3	4
Hardened (Round)	A (Tapered)	3.0-8.0	2-30	30	1-10	5	8	10	12	15	18	20	30	60	90	120	8	9	4	1	1
Carburized (Round)	B (Taper R)	3.0-10.0				5	8	10	12	15							11	5	1.5	1.5	M5
Hard Chrome (Round)		4.5-12.0															13	7	2	2	M6
Dicoat® (Round)		9.0-14.0															15	9	3	3	M8
TICN (Round)		13.0-18.0															19	13	4	4	M8

⊙ 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 Standard Grade, Shouldered P.1542
 ⊙ B Dimension 5 mm - will be selected for Dicoat® Treated / TICN Treated items.

Part Number Alterations

Part Number: SELATA A 6 - P6.8 - B14 - A30 - E2 - SC

Part Number Example

Part Number: SELANA A 16 - P14.2 - B21 - L15 - A60 - E2
 SELATA B 8 - P6.0 - B15 - A90

Part Number Alterations

Part Number: ELNNA 10 - P12.0 - B10 - L8
 ELNTA 6 - P10.0 - B15

Part Number Alterations


Part Number: ELANA 6 - P8.0 - B14 - L5 - KD

Alterations	Grooves for Wear Sign	Flat Position	Flat Machining	Wrench Flats	Thread Diameter	Thread Length	Upper Relief Radius Change
Code	MK	KC	KD	SC	MC	FC	RTC
Spec.	Machine 4 grooves on B Dimension. The wear and tear of the grooves indicate the degree of wears. ⊙ Applicable to Hardened, 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 (±0.06 mm) 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. ⊙ H-P=2 ⊙ Applicable to Round Shape Type only.	Ordering Code: SC Adds wrench flats. ⊙ Applicable to Round Shape Type only.	Ordering Code: MC8 Changes the thread diameter. ⊙ D/3≤M<D ⊙ Mmin3 ⊙ Applicable to Threaded Type only.	Ordering Code: FC15 Changes the thread length. FC=1 mm 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.	Ordering Code: RTC1 Changes the relief to the following radius R. Selection: R1 R2 R3 ⊙ RTC≤(H-P)/2 ⊙ Applicable when B≥5

Locating Pin for Jigs & Fixtures

Standard (h7)

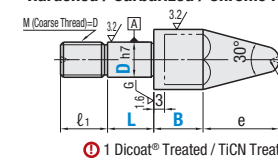
Features: For Standard Grade, P dimension tolerance is ± 0.05 (for Precision Grade, ± 0.01 or ± 0.02), concentricity is 0.03 or 0.05 (for Precision Grade, 0.01 or 0.02).

Threaded  **RoHS10**

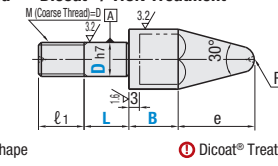
Type	Material	Hardness
ELNNA Round	4137 Alloy Steel	Hardened 35-40 HRC min.
ELNND Diamond	4137 Alloy Steel or Equivalent	Carburized 55 HRC min. (Depth 0.7-0.8)
TELNNA Round	SCM415 Alloy Steel (JIS)	Anti-Carburizing on Threads
TELNND Diamond		

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

Hardened / Carburized / Chrome Plated



Dicoat® / TICN Treatment



Pilot-Tip Shape Selection

A Shape


- The center hole remains.
- P-2Etan (A/2) ≥ 0.73
- P-2Etan (A/2) ≥ 2 (Dicoat®)

B Shape

- The center hole remains.
- e = P/2tan(A/2) + R / (Rsin(A/2))

Part Number		P		B		L		L ₁		R		W	
Type	Tip Shape	0.1 mm Increment	1 mm Increment	0.1 mm Increment	1 mm Increment	5	8	10	12	15	18	20	22
Hardened (Round)	A (Taper)	8.0-12.0	5-30	5	8	10	12	15	18	20	22	6	3
Carburized (Round)	B (Taper R)	10.0-16.0				5	8	10	12	15		10	3.5
Hard Chrome (Round)		12.0-20.0										12	4
Dicoat® (Round)		14.0-25.0										15	5
TICN (Round)		18.0-32.0										18	6
		22.0-35.0										22	8
													9

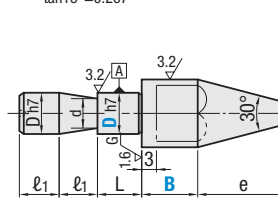
⊙ L Dimension in () is not applicable to Diamond Shape, Dicoat® and TICN treatment. ⊙ B Dimension is selectable from 5 mm - for Dicoat® Treated / TICN Treated Products/Diamond Shape.
 ⊙ D16, D20 not available for R-LNNA, R-LNND, D-LNNA, D-LNND, H-LNNA, H-LNND part types. ⊙ D6, D8 not available for H-LNNA, H-LNND part types.

Set Screw Flat Type  **RoHS10**

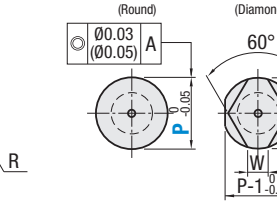
Type	Material	Hardness
ELNTA Round	4137 Alloy Steel	Hardened 35-40 HRC min.
ELNTD Diamond	4137 Alloy Steel or Equivalent	Carburized 55 HRC min. (Depth 0.7-0.8)
TELNTA Round	SCM415 Alloy Steel	Anti-Carburizing on Threads
TELNTD Diamond		

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

Hardened / Carburized / Chrome Plated



Dicoat® / TICN Treatment



Pilot-Tip Shape Selection

A Shape

- The center hole remains.
- P-2Etan (A/2) ≥ 0.73
- P-2Etan (A/2) ≥ 2 (Dicoat®)

B Shape

- The center hole remains.
- e = P/2tan(A/2) + R / (Rsin(A/2))

Part Number		P		B		L		L ₁		d		R		Applicable Set Screw		W	
Type	Tip Shape	0.1 mm Increment	1 mm Increment	0.1 mm Increment	1 mm Increment	5	8	10	12	15	18	20	3	4	5	6	8
Hardened (Round)	A (Taper)	8.0-12.0	5-30	5	8	10	12	15	18	20	22	3	4	3	M5	3	3
Carburized (Round)	B (Taper R)	10.0-16.0				5	8	10	12	15		5	4	4	M5	3.5	3.5
Hard Chrome (Round)		12.0-20.0										7	5	5	M6	4	4
Dicoat® (Round)		14.0-25.0										9	6	6	M6	5	5
TICN (Round)		18.0-32.0										13	7	7	M6	5	5
		22.0-35.0										17	8	8	M8	6	6

⊙ D16, D20 not available for R-LNTA, R-LNTD, D-LNTA, D-LNTD, H-LNTA, H-LNTD part types.
 ⊙ D6, D8 not available for H-LNTA, H-LNTD part types.

Part Number Example

Part Number: ELNNA 10 - P12.0 - B10 - L8 Threaded Set Screw
 ELNTA 6 - P10.0 - B15

Part Number Alterations

Part Number: ELANA 6 - P8.0 - B14 - L5 - KD

Alterations	Grooves for Wear Sign	Flat Position	Flat Machining	Thread Diameter	Thread Length
Code	MK	KC	KD	MC	FC
Spec.	Machine 4 grooves on B Dimension. The wear and tear of the grooves indicate the degree of wears. ⊙ Applicable to Hardened, Carburized and Round Shape Products only. ⊙ Applicable when B ≥ 4. Groove Depth: 0.2mm (±0.06 mm) 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 Threaded Type only.	Ordering Code: MC8 Changes the thread diameter. ⊙ D/3≤M<D ⊙ Mmin3 ⊙ Applicable to Threaded only. ⊙ Not applicable to Dicoat® treatment and TICN treatment.	Ordering Code: FC15 Changes the thread length. FC=1 mm Increment D6-10: M≤FC≤Mx3 D12, 16: M≤FC≤Mx2.5 D20: M≤FC≤Mx2 ⊙ Applicable to Threaded only. ⊙ Not applicable to Dicoat® treatment and TICN treatment.