

Locating Pins for Fixtures - Standard Grade, Round Edge

Tip Shape Selectable

Features: Addition of a radius to the edge makes smooth insertion and extraction of workpiece. For damage prevention, radius is added to upper-lower surface of shoulder.

Shouldered

Threaded
RANA RATA
RAND RATD
TRANA TRATA
TRAND TRATD

Set Screw
RANA RATA
RAND RATD
TRANA TRATA
TRAND TRATD

Type: Threaded, Set Screw, Shape: Round, Material: SCM435, Hardness: Treated Hardness 35-40HRC

Type: Threaded, Set Screw, Shape: Diamond, Material: SCM415, Hardness: Carburized Treated Hardness: 55HRC- (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

*A30=R10, A60, 90, 120=R3, however, for B Shape, only edge part will be removed as the tip becomes short.

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

Threaded

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Set Screw

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Tip Shape

The center hole remains.

A Shape: Tapered

B Shape: Taper R

$P-2E \tan(A/2) \geq 0.73$

$e = P/2 \tan(A/2) + R - (R/\sin(A/2))$

Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	Part Number																																						
						Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	L	L1	L2	d	Applicable Set Screw	H	R	W																									
Hardened (Round)	Carburized (Round)	Disc (Round)	N (Threaded)	D-HATA	D-HATD	A	10	P8.8	B10	L10	A30	E5	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30

W Dimension: D6, 8, 10, 10T: W=1 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

No Shoulder

Threaded
RNNNA RNTA
RNNND RNTD
TRNNA TRNTA
TRNND TRNTD

Set Screw
RNNNA RNTA
RNNND RNTD
TRNNA TRNTA
TRNND TRNTD

Type: Threaded, Set Screw, Shape: Round, Material: SCM435, Hardness: Treated Hardness 35-40HRC

Type: Threaded, Set Screw, Shape: Diamond, Material: SCM415, Hardness: Carburized Treated Hardness: 55HRC- (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

*A30, 60=R10, A90, 120=R3

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

Threaded

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Set Screw

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Tip Shape

The center hole remains.

A Shape: Tapered

B Shape: Taper R

$P-2E \tan(A/2) \geq 0.73$

$e = P/2 \tan(A/2) + R - (R/\sin(A/2))$

Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	Part Number																																						
						Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	L	L1	L2	d	Applicable Set Screw	H	R	W																									
Hardened (Round)	Carburized (Round)	Disc (Round)	N (Threaded)	D-HNTA	D-HNTD	A	10	P15.0	B15	L15	A60	E5	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30

L dimension in () is not applicable to Diamond Shape.

Ordering Example

Part Number: Type - Tip Shape - D - P - B - L - A - E

RANA A 10 - P8.8 - B10 - L10 - A30 - E5

RNTA B 10 - P15.0 - B15 - L12 - A60

Workpiece insertion and extraction is smooth as the insertion guide has an R shape.

Insertion Guide R Shape

Alterations

Part Number: P - B - L - A - E - (KC, SC)

RNNDA10 - P13.8 - B10 - L10 - A60 - E5 - KC

Alterations	Wear Groove Alterations	Flat Position	Wrench Flats	Flat Machining	Thread Dia.	Relief
Code	MK	KC	SC	KD	MC	NNC
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. The groove starts from the area of R value + 1mm. Groove Depth: 0.2mm Groove Shape: V Groove	Ordering Code: KC Changes the flat position to 90° from the standard position 0°. Applicable to Diamond Shape Type only.	Ordering Code: SC Adds wrench flats. Applicable to Round Shape Type only. Applicable to Round Shape with Shoulder Type only.	Ordering Code: KD Machining on one side. Applicable to Round Shape Type only. H-P≥2	Ordering Code: MC8 Changes the thread diameter. D/3≤M<D Mmin3 Applicable to Threaded only.	Ordering Code: NNC Adds a relief at the thread end. Not applicable to Set Screw Type. For damage prevention, Dicoat® treatment is not applicable.

Locating Pins for Fixtures - Standard Grade, Bullet Nose

Features: R shape at insertion guide enables smooth insertion of workpiece.

Shouldered

Threaded
HATA
HATD
THATA
THATD

Set Screw
HATA
HATD
THATA
THATD

Type: Threaded, Set Screw, Shape: Round, Material: SCM435, Hardness: Treated Hardness 35-40HRC

Type: Threaded, Set Screw, Shape: Diamond, Material: SCM415, Hardness: Carburized Treated Hardness: 55HRC- (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads

*A30=R10, A60, 90, 120=R3, however, for B Shape, only edge part will be removed as the tip becomes short.

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

Threaded

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Set Screw

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Tip Shape

The center hole remains.

A Shape: Tapered

B Shape: Taper R

$P-2E \tan(A/2) \geq 0.73$

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Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	Part Number																																						
						Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	L	L1	L2	d	Applicable Set Screw	H	R	W																									
Hardened (Round)	Carburized (Round)	Disc (Round)	N (Threaded)	D-HATA	D-HATD	A	10	P8.8	B10	L10	A30	E5	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30

W Dimension: D6, 8, 10, 10T: W=1 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

D	HATA	HATD	THATA	THATD	D-HATA	D-HATD	HATAB	HATDB	THATAB	THATDB
6										
8										
10										
12										
16										

No Shoulder

Threaded
HNTAX
HNTD
THNTA
THNTD

Set Screw
HNTAX
HNTD
THNTA
THNTD

Type: Threaded, Set Screw, Shape: Round, Material: SCM435, Hardness: Treated Hardness 35-40HRC

Type: Threaded, Set Screw, Shape: Diamond, Material: SCM415, Hardness: Carburized Hardness 55HRC- (Depth: 0.7 ~ 0.8) / Anti-carburizing on Tapped Part

*A30, 60=R10, A90, 120=R3

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

Threaded

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Set Screw

Tip Shape: Select from the diagram on the right.

Tip Shape: Select from the diagram on the right.

Tip Shape

The center hole remains.

A Shape: Tapered

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$P-2E \tan(A/2) \geq 0.73$

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Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	Part Number																																						
						Type	Retaining Part Shape	Shape	Material	Hardness	Surface Treatment	L	L1	L2	d	Applicable Set Screw	H	R	W																									
Hardened (Round)	Carburized (Round)	Disc (Round)	N (Threaded)	D-HNTA	D-HNTD	A	10	P15.0	B15	L15	A60	E5	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30	6	8	10	12	15	18	20	30

L dimension in () is not applicable to Diamond Shape and Dicoat® treatment.

D	HNTAX	HNTD	THNTA	THNTD	D-HNTA	D-HNTD	HNTAXB	HNTDB	THNTAB	THNTDB
6										
8										
10										
12										
16										
20										

Ordering Example

Part Number: Type - Retaining Part Shape - D - P - B - L

HATA N 8 - P7.8 - B15 - L8

HNTAX T 8 - P12.0 - B15

Alterations

Part Number: P - B - L - A - E - (KC, SC)

HATDB8 - P4.5 - B10 - L12 - KC

Alterations	Wear Groove Alterations	Flat Position	Wrench Flats	Flat Machining	Thread Dia.	Relief	Tip Angle Change
Code	MK	KC	SC	KD	MC	NNC	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. The groove starts from the area of R value + 1mm. Groove Depth: 0.2mm Groove Shape: V Groove	Ordering Code: KC Changes the flat position to 90° from the standard position 0°. Applicable to Diamond Shape Type only.	Ordering Code: SC Adds wrench flats. Applicable to Round Shape Type only. Applicable to Round Shape with Shoulder Type only.	Ordering Code: KD Machining on one side. Applicable to Round Shape Type only. H-P≥2	Ordering Code: MC8 Changes the thread diameter. D/3≤M<D Mmin3 Applicable to Threaded only.	Ordering Code: NNC Adds a relief at the thread end. Not applicable to Set Screw Type. For damage prevention, Dicoat® treatment is not applicable.	Ordering Code: RC Changes the tip angle. Selectable 60°, 90°, 120°