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.

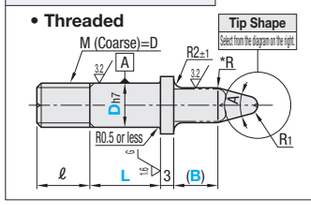
Shouldered

RoHS10

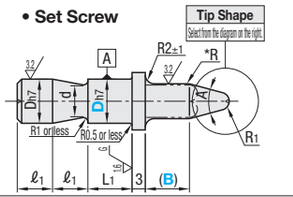
Type: Threaded	Type: Set Screw	Type: Shape	M Material	H Hardness
RANA	RATA	Round	EN 1.7220 Equiv.	Treated Hardness 35~40HRC
RAND	RATD	Diamond		
TRANA	TRATA	Round	EN 1.7242 Equiv.	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads
TRAND	TRATD	Diamond		

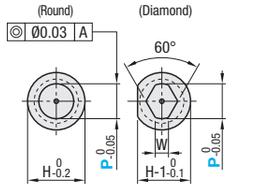
* A30=R10
A60, 90, 120=R3, however, for B Shape, only edge part will be removed as the tip becomes short.
Reference: sin15°≈0.259 sin30°=0.5 sin45°≈0.707 sin60°≈0.866
tan15°≈0.267 tan0°=0.577 tan45°=1 tan60°≈1.732

• Threaded

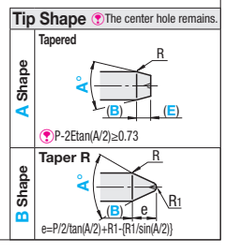


• Set Screw





Tip Shape The center hole remains.



Part Number Type [Threaded]	[Set Screw]	Tip Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Selection	A Selection	E (Shape A) 1mm Increment	ℓ	L1	ℓ1	d	Applicable Set Screw	H	R1	W	Unit Price RANA RATA	RAND RATD	TRANA TRATA	TRAND TRATD
Hardened (Round) RANA	Carburized (Round) TRANA	A	6	3.0~7.0	5~30 (B≤P×4)	5 8 10	30 60 90 120	3~10	6	8	8	4	M5	9	1	1~2				
			8	3.0~9.0		5 8 10 12 15			10	8	8	5	M5	11	1.5	1~2				
			10	4.5~12.0		(5) (8) 10 12 15			12	10	8	7	M6	13	2	1~3				
			10T	4.5~12.0					18	5	8	7	M6	13	2	1~3				
(Diamond) RNAD	(Diamond) TRNAD	B	12 (0 -0.018)	9.0~13.0		(8) 10 12 15 18			15	12	10	9	M8	15	3	4				
			16	13.0~16.0		(10) 12 15 18 20			18	12	10	13	M8	19	3	5				
Hardened (Round) RANA	Carburized (Round) TRANA	A	6	3.0~7.0	5~30 (B≤P×3)	5 8 10	30 60 90 120	3~10	6	8	8	4	M5	9	1	1~2				
			8	3.0~9.0		5 8 10 12 15			10	8	8	5	M5	11	1.5	1~2				
			10	4.5~12.0		(5) (8) 10 12 15			12	10	8	7	M6	13	2	1~3				
			10T	4.5~12.0					18	5	8	7	M6	13	2	1~3				
(Diamond) RND	(Diamond) TRND	B	12 (0 -0.018)	9.0~13.0		(8) 10 12 15 18			15	12	10	9	M8	15	3	4				
			16	13.0~16.0		(10) 12 15 18 20			18	12	10	13	M8	19	3	5				

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

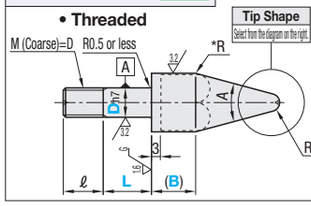
No Shoulder

RoHS10

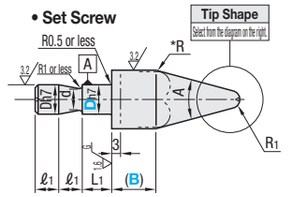
Type: Threaded	Type: Set Screw	Type: Shape	M Material	H Hardness
RNNA	RNTA	Round	EN 1.7220 Equiv.	Treated Hardness 35~40HRC
RNND	RNTD	Diamond		
TRNNA	TRNTA	Round	EN 1.7242 Equiv.	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads
TRNND	TRNTD	Diamond		

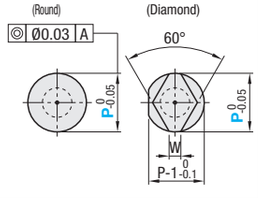
* A30, 60=R10
A90, 120=R3
Reference: sin15°≈0.259 sin30°=0.5 sin45°≈0.707 sin60°≈0.866
tan15°≈0.267 tan30°=0.577 tan45°=1 tan60°≈1.732

• Threaded

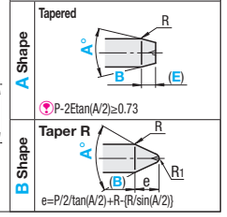


• Set Screw





Tip Shape The center hole remains.



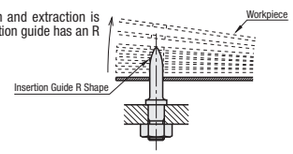
Part Number Type [Threaded]	[Set Screw]	Tip Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Selection	A Selection	E (Shape A) 1mm Increment	ℓ	L1	ℓ1	d	Applicable Set Screw	R1	W	Unit Price RNNA RNTA	RNND RNTD	TRNNA TRNTA	TRNND TRNTD
Hardened (Round) RNNA	Carburized (Round) TRNNA	A	6	9.0~12.0	5~30 (B≤P×3)	5 8 10	30 60 90 120	3~10	6	8	8	4	M5	3	3				
			8	11.0~16.0		5 8 10 12 15			10	8	8	5	M5	3	3.5				
			10	13.0~20.0	5~30 (B≤P×4)	(5) (8) 10 12 15			12	10	8	7	M6	3	4				
			10T	13.0~20.0					18	5	8	7	M6	5	5				
(Diamond) RNND	(Diamond) TRNND	B	12 (0 -0.018)	15.0~25.0		(8) 10 12 15 18			15	12	10	9	M8	5	6				
			16	19.0~32.0		(10) 12 15 18 20			18	12	10	13	M8	6	8				
			20 (0 -0.021)	23.0~35.0		12 15 18 20			22	12	10	17	M8	6	9				

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

Ordering Example

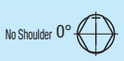
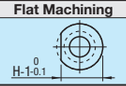
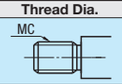
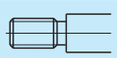
Part Number											
Type	Tip Shape	D	-	P	-	B	-	L	-	A	-	E
RANA	A	10	-	P8.8	-	B10	-	L10	-	A30	-	E5
RNTA	B	10	-	P15.0	-	B15	-	L12	-	A60		

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



Alterations

Part Number	-	P	-	B	-	L	-	A	-	E	-	(KC, SC)
RNNDA10	-	P13.8	-	B10	-	L10	-	A60	-	E5	-	KC

	Wear Groove Alterations	Flat Position	Wrench Flats	Flat Machining	Thread Dia.	Relief
Alterations						
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 wears. Applicable to Hardening, Carburized and Round Shape Products only The groove starts from the area of R value + 1 mm. 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. H 9 11 13 15 19 H1 7 8 11 13 17 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

Part Number Change Printed in Purple

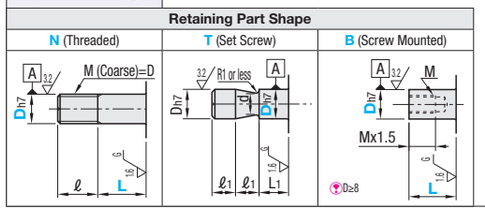
Features: R shape at insertion guide enables smooth insertion of workpiece.

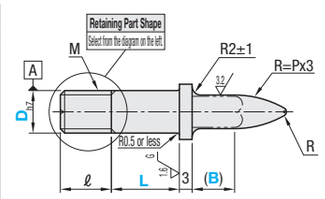
Shouldered RoHS10

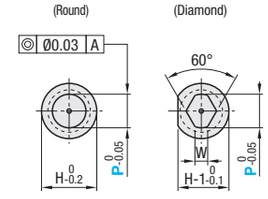
Type	Retaining Part Shape	Shape	M Material	H Hardness
HATA	N (Threaded) T (Set Screw) B (Screw Mounted)	Round	EN 1.7220 Equiv.	Treated Hardness 35~40HRC
HATD		Diamond		
THATA		Round	EN 1.7242 Equiv.	Carburized Treated Hardness: 55HRC~ (Depth: 0.7 ~ 0.8) / Anti-carburizing on Threads
THATD		Diamond		

Type	Retaining Part Shape	Shape	M Material	H Hardness	S Surface Treatment
D-HATA	N (Threaded) T (Threaded)	Round	EN 1.7220 Equiv.	55HRC~ (Surface 3000HV)	Dicoat® Treated
D-HATD		Diamond			

Retaining Part Shape







Part Number Type	Retaining Part Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Threaded Selection	L Screw Mounted 1mm Increment	ℓ	L1	ℓ1	d	Applicable Set Screw	M (Coarse) Screw Mounted	H	R	W
Hardened (Round) HATA	N (Threaded) T (Set Screw) B (Screw Mounted)	6	3.0~7.0	5~30 (B≤P×3)	5 8 10	-	6	8	8	4	M5	-	9	1	1(2)
		8	3.0~9.0		5 8 10 12 15	10~20	10	8	8	5	M5	M4	11	1	1(2)
		10 (0 -0.015)	4.5~12.0	5~30 (B≤P×4)	(5) (8) 10 12 15	15~30	12	10	8	7	M6	M5	13	1	1~3
		10T	4.5~12.0			15~30	18	5	8	7	M6	M6	13	1	1~3
(Diamond) HATD	B (Screw Mounted)	12 (0 -0.018)	9.0~13.0		(8) 10 12 15 18	15~30	15	12	10	9	M8	M5	15	1	4
		16	13.0~16.0		(10) 12 15 18 20	20~40	18	12	10	13	M8	M8	19	2	5

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

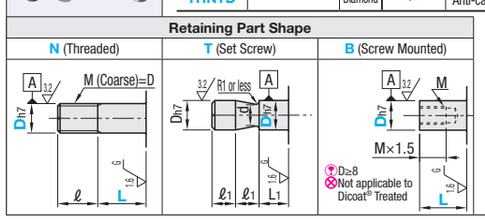
D	Unit Price HATAN HATAT	HATDN HATDT	THATAN THATAT	THATDN THATDT	D-HATAN D-HATAT	D-HATDN D-HATDT	HATAB	HATDB	THATAB	THATDB
6							-	-	-	-
8										
10										
10T										
12										
16										

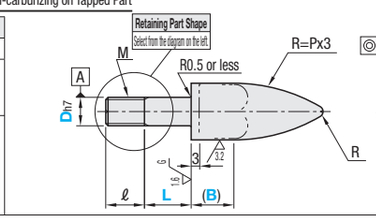
No Shoulder RoHS10

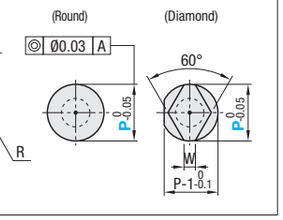
Part Number Type	Retaining Part Shape	Shape	M Material	H Hardness
HNTAX	N (Threaded) T (Set Screw) B (Screw Mounted)	Round	EN 1.7220 Equiv.	Treated Hardness 35~40HRC
HNTD		Diamond		
THNTA		Round	EN 1.7242 Equiv.	Carburized Hardness 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Tapped Part
THNTD		Diamond		

Type	Retaining Part Shape	Shape	M Material	H Hardness	S Surface Treatment
D-HNTA	N (Threaded) T (Set Screw)	Round	EN 1.2379 Equiv.	55HRC ~ (Surface 3000HV)	Dicoat® Process
D-HNTD		Diamond			

Retaining Part Shape







Part Number Type	Retaining Part Shape	Dh7	P 0.1mm Increment	B 1mm Increment	L Threaded Selection	L Screw Mounted 1mm Increment	ℓ	L1	ℓ1	d	Applicable Set Screw	M (Coarse) Screw Mounted	R	W
Hardened (Round) HNTAX	N (Threaded) T (Set Screw) B (Screw Mounted)	6	9.0~12.0	5~30 (B≤P×3)	5 8 10	-	6	8	8	4	M5	-	2	3
		8	11.0~16.0		5 8 10 12 15	10~20	10			5		M4		3.5
		10 (0 -0.015)	13.0~20.0	5~30 (B≤P×4)	(5) (8) 10 12 15	10~30	12	10		7	M6	M5		4
		10T					18	5				M6		5
(Diamond) HNTD	B (Screw Mounted)	12 (0 -0.018)	15.0~25.0		(8) 10 12 15 18		15	12	10	9	M8	M5	3	6
		16	19.0~32.0		(10) 12 15 18 20	10~32	18			13		M8		8
		20 (0 -0.021)	23.0~35.0		12 15 18 20	10~40	22			17		M10		9

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

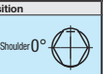
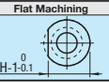
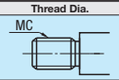
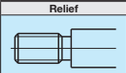
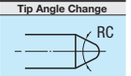
D	Unit Price HNTAXN HNTAXT	HNTDN HNTDT	THNTAN THNTAT	THNTDN THNTDT	D-HNTAN D-HNTAT	D-HNTDN D-HNTDT	HNTAXB	HNTDB	THNTAB	THNTDB
6							-	-	-	-
8										
10										
10T										
12										
16					-	-				
20					-	-				

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	-	(KC, SC)
HATDB8	-	P4.5	-	B10	-	L12	-	KC

	Wear Groove Alterations	Flat Position	Wrench Flats	Flat Machining	Thread Dia.	Relief	Tip Angle Change
Alterations							
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 wears. Applicable to Hardening, Carburized and Round Shape Products only The groove starts from the area of R value + 1 mm. 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. H 9 11 13 15 19 H1 7 8 11 13 17 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, DicoatR treatment is not applicable.	Ordering Code RC60 Changes the tip angle. Selection 60°, 90°, 120°