

# Locating Pins for Fixtures Height Adjusting Pins

**Features:** Locating of workpiece in both vertical and horizontal directions is possible.

**Threaded**

RoHS 10

Type	Shape	Material	Hardness
HUPNA	Round	SCM435	Hardened 35-40HRC
HUPND	Diamond	SCM435	Hardened 35-40HRC
THUPNA	Round	SCM415	Carburized 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads
THUPND	Diamond	SCM415	Carburized 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads

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

\* For T 5.0 ~ 7.0, detent width is 3mm. For T 7.1 ~ 20.0, detent width is 5mm.  
 \* No relief at P dimension. For Diamond Shape, a step of 0.25 max. will be engraved at the bottom of P dimension.

Part Number		Dn7	P 0.1mm Increment	B 1mm Increment	L Selection	T 0.1mm Increment	H 1mm Increment	A Selection	E (Shape A) 1mm Increment	L1	d	r	W	Unit Price								
Type	Tip Shape													HUPNA	HUPND	THUPNA	THUPND					
Hardened (Round)	Carburized (Round)	A (Tapered)	6	3.0-7.0	2-50 (B≤Px4)	5 8 10	5.0-20.0	9-20	30	1-15	8	8	4	1	1-2							
			8	7.1-12.0		5 8 10 12 15		9-20												10	1.5	1-2
			10	3.0-9.0		(5) (8) 10 12 15		11-20												10	4	3.5
			10T	9.1-16.0		(5) (8) 10 12 15		11-20												12	2	1-3
(Diamond)	(Diamond)	B (Taper R)	10T	4.5-12.0	(5) (8) 10 12 15	13-25	60	12	4	4	18	2	1-3									
			12	12.1-20.0	(5) (8) 10 12 15	13-25	90	18	5	5	15	3	4									
			12	4.5-12.0	(8) 10 12 15 18	13-25	120	15	3	4	18	4	5									
			16	12.1-20.0	(10) 12 15 18 20	15-30	18	4	5	15	6	6										

W Dimension D6, D8: W=2 when P>5.0 D10, D10T: W=1 when P<5.0, W=3 when P>7.0 L dimension in ( ) is applicable to Round Shape only. P±2≤H≤Px5

**Set Screw**

RoHS 10

Type	Shape	Material	Hardness
HUPTA	Round	SCM435	Hardened 35-40HRC
HUPTD	Diamond	SCM435	Hardened 35-40HRC
THUPTA	Round	SCM415	Carburized 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads
THUPTD	Diamond	SCM415	Carburized 55HRC~ (Depth: 0.7 ~ 0.8) Anti-carburizing on Threads

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

\* For T 5.0 ~ 7.0, detent width is 3mm. For T 7.1 ~ 20.0, detent width is 5mm.  
 \* No relief at P dimension. For Diamond Shape, a step of 0.25 max. will be engraved at the bottom of P dimension.

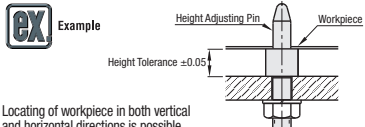
Part Number		Dn7	P 0.1mm Increment	B 1mm Increment	L Selection	T 0.1mm Increment	H 1mm Increment	A Selection	E (Shape A) 1mm Increment	L1	d	r	W	Unit Price										
Type	Tip Shape													HUPTA	HUPTD	THUPTA	THUPTD							
Hardened (Round)	Carburized (Round)	A (Tapered)	6	3.0-7.0	2-50 (B≤Px4)	5 8 10	5.0-20.0	9-20	30	1-15	8	8	4	1	M5	1-2								
			8	7.1-12.0		5 8 10 12 15		9-20												8	4	3	M5	3
			10	3.0-9.0		(5) (8) 10 12 15		11-20												8	5	1.5	M5	1-2
			10T	9.1-16.0		(5) (8) 10 12 15		11-20												8	5	4	M5	3.5
(Diamond)	(Diamond)	B (Taper R)	10T	4.5-12.0	(5) (8) 10 12 15	13-25	60	10	8	7	2	M6	1-3											
			12	12.1-20.0	(5) (8) 10 12 15	13-25	90	10	8	7	4	M6	4											
			12	4.5-12.0	(8) 10 12 15 18	13-25	120	5	8	7	2	M6	1-3											
			16	12.1-20.0	(10) 12 15 18 20	15-30	18	5	8	7	5	M6	5											

W Dimension D6, D8: W=2 when P>5.0 D10, D10T: W=1 when P<5.0, W=3 when P>7.0 L dimension in ( ) is applicable to Round Shape only. P±2≤H≤Px5

**Ordering Example** Part Number: P - B - L - T - H - A - E  
 HUPNA A 10 - P4.8 - B10 - L10 - T20.0 - H20 - A60 - E5

**Alterations** Part Number: P - B - L - T - H - A - E (KC, KD, SC, MC)  
 HUPTA10 - P6.0 - B10 - L10.0 - H15 - A30 KD (Set Screw Shape B)

Alterations	Flat Position	Flat Machining	Wrench Flats	Thread Dia.
	0°	H-1-3.1	SC	MC
<b>Code</b>	KC	KD	SC	MC
<b>Spec.</b>	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. For 15.0 ~ 7.0: 3mm For 17.1 ~ 20.0: 5mm * Applicable to Round Shape Type only.	Ordering Code SC10 Adds wrench flats. SC-1mm Increment SC-D SC-P SC-H2 * Applicable to Round Shape Type only.	Ordering Code MC8 Changes the thread diameter. D: 0.3mm±D M: min3 * Relief at thread end is available. * Applicable to Threaded only.



Locating of workpiece in both vertical and horizontal directions is possible.