



# Locating Pins (Shoulder)

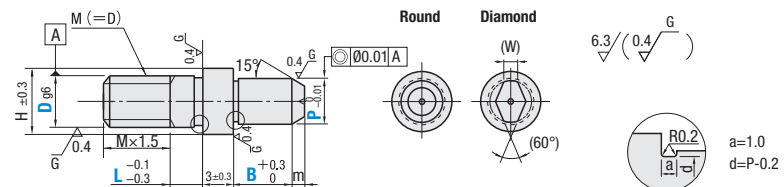
## Threaded Shank

Locating Pins – Shoulder, Threaded Shank



RoHS10

Material No.	Material	Surface Treatment	Hardness	P Configurable		P, L & B Configurable	
				Round	Diamond	Round	Diamond
(1)	O1 Tool Steel Equivalent	—	Treated Hardness: 60–63 HRC min.	JPTNA	JPTND	FPTNA	FPTND
(2)	O1 Tool Steel Equivalent	Hard Chrome Plating	Hardness: 50–55 HRC min. Plating Hardness: 750 HV min.	GJPTNA	GJPTND	GFPTNA	—



### P Configurable

Part Number	Type	D	D Tolerance g6	P 0.01 mm Increment	L	B	m	H	(W)	M (Coarse)
3	Round	3	-0.002 -0.008	2.00–4.00	2	5	1	6	1	M3
4	Round	4	-0.004 -0.012	2.00–5.00	2	6	1	6	1.2	M4
5	Round	5	-0.004 -0.012	3.00–6.00	3	6	2	8	1.5	M5
6	Round	6	-0.005 -0.014	4.00–7.00	3	8	2	8	1.8	M6
8	Round	8	-0.005 -0.014	5.00–9.00	5	8	3	11	2.2	M8
10	Round	10	-0.006 -0.017	7.00–11.00	5	10	3	13	3	M10
12	Round	12	-0.007 -0.020	7.00–12.00	8	10	4	15	3.2	M12
16	Round	16	-0.007 -0.020	13.00–16.00	8	15	4	19	4	M16
20	Round	20	-0.007 -0.020	16.00–20.00	10	15	5	23	5.5	M20

### P, L & B Configurable

Part Number	Type	D	D Tolerance g6	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	m	H	(W)	M (Coarse)
3	Round	3	-0.002 -0.008	2.00–4.00	0–6	2.0–10.0	1	6	1	M3
4	Round	4	-0.004 -0.012	2.00–5.00	0–8	2.0–10.0	1	6	1.2	M4
5	Round	5	-0.004 -0.012	3.00–6.00	0–10	2.0–15.0(10.0)	2	8	1.5	M5
6	Round	6	-0.005 -0.014	4.00–7.00	0–10	2.0–15.0	2	8	1.8	M6
8	Round	8	-0.005 -0.014	5.00–9.00	0–10	2.0–20.0(15.0)	3	11	2.2	M8
10	Round	10	-0.006 -0.017	7.00–11.00	0–15	3.0–30.0(25.0)	3	13	3	M10
12	Round	12	-0.007 -0.020	7.00–12.00	0–15	3.0–30.0(25.0)	4	15	3.2	M12
16	Round	16	-0.007 -0.020	13.00–16.00	0–20	5.0–30.0	4	19	4	M16
20	Round	20	-0.007 -0.020	16.00–20.00	0–20	5.0–30.0	5	23	5.5	M20

\*The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on MISUMI 2019 catalog P.4015). For full thread, specify L = 0 and alteration NNC.

\*Not applicable when using locking adhesives or lock washers.

Ⓢ B dimension ( ) applies to diamond shape.

Part Number Example: JPTNA8 - P6.00 - L8 - B3.5

Part Number Alterations: FPTNA6 - P4.01 - L8 - B3.5 - HC7.0

Alterations	Radius	Wrench Hole	Wrench Flats Alteration	Hex Socket Machining	Length of Tapered Point	Relief
<b>Code</b>	RC	LAC	HC	RAC	TC	NNC
<b>Spec.</b>	Changes the relief to R0.5. - Ordering Code: RC - Applicable when H-P≥2 - Combination with LAC is not available.	Machines wrench hole. - Ordering Code: LAC - Round shape is applicable to D≥8 and P≥6, and diamond to D≥10 and P≥8. - Orientation between diamond shape head and wrench hole is arbitrary. - Combination with TC, RC and RAC is not available.	HC=0.5mm Increment - HC>D, HC>P Ordering Code: HC10.0	Machines hex socket. Ordering code: RAC - Applicable to P, L and B dimension configurable only. - Round shape is applicable to D≥8, and diamond to D≥10. - When D=8, it is applicable to P≥6. - Combination with TC and LAC is not available.	Changes the m dimension. Ordering Code: TC8 (1mm increment) - B+m≥TC+2 (Straight Part Min.2mm) - P/2-TC x tan15°(≈0.27)>0.5 (Tip Ø1.0min) - B Dimension changes when TC is specified (Changed B dimension = B+m-TC) - Combination with RAC and LAC is not available.	Ordering Code: L NNC - Applicable when L=0 - Combination with RAC is not available - Adds a relief at the thread end.

# Locating Pins (Shoulder, Pilot Angle)

## D & P Tolerance Selectable

Locating Pins – Shoulder, Pilot Angle / D & P Tolerance Selectable



RoHS10

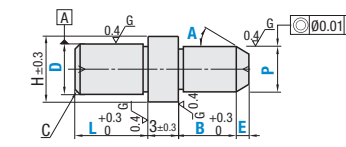
Material No.	Material	Surface Treatment	Hardness	Type		
				Standard	Tapped	Threaded
(1)	O1 Tool Steel Equivalent	—	60–63 HRC min.	KFHA	KFHTA	KFHNA
(2)	O1 Tool Steel Equivalent	Chrome Plating	60–63 HRC min. Plating Hardness 750 HV min.	GKFHA	GKFHTA	GKFHNA
(3)	304 Stainless Steel Equivalent	—	—	SKFHA	SKFHTA	SKFHNA
(5)	440C or 420 Stainless Steel	—	50–55 HRC min.	CKFHA	CKFHTA	CKFHNA

### Tolerance Selection

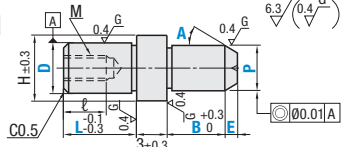
D or P	Standard Grade					Precision Grade	
	M	P	G	H	S	A	B
1.00	+0.008	+0.012	-0.002	0	—	—	—
3.00	+0.002	+0.006	-0.008	-0.010	—	—	—
3.01	+0.012	+0.020	-0.004	0	—	—	—
6.00	+0.004	+0.012	-0.012	-0.012	—	—	—
6.01	+0.015	+0.024	-0.005	0	0	+0.005	0
10.00	+0.006	+0.015	-0.014	-0.015	—	—	-0.005
10.01	+0.018	+0.029	-0.006	0	—	—	—
18.00	+0.007	+0.018	-0.017	-0.018	—	—	—
18.01	+0.021	+0.035	-0.007	0	—	—	—
20.00	+0.008	+0.022	-0.020	-0.021	—	—	—

Ⓢ 440C or 420 Stainless Steel has an identification groove on D part.

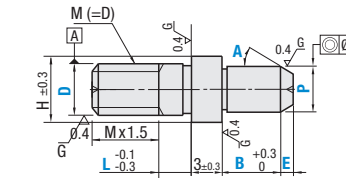
### Standard



### Tapped



### Threaded



Ⓢ P-2Etan A≥0.73 (Tip dia. Ø 0.73 or more)  
Reference: tan15°=0.267 tan30°=0.577  
tan45°=1 tan60°=1.732

### Standard

Type	D Tolerance Selection	P Tolerance Selection	D	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	E 0.1 mm Increment	A Selection	C	H
KFHA GKFHA* SKFHA CKFHA	M P G H *A *B	S M P G H *A *B	2	1.00–2.00	2–4	2.0–10.0	0.5–10.0	15 30 45 60	0.5	6
			3	2.00–4.00	3–6	2.0–10.0				
			4	2.00–5.00	4–8	2.0–10.0				
			5	3.00–6.00	5–10	2.0–15.0				
			6	4.00–7.00	5–12	2.0–15.0				
			8	5.00–9.00	5–16	2.0–20.0				
			10	7.00–11.00	8–20	3.0–30.0				
			12	7.00–12.00	10–24	3.0–30.0				
			13	8.00–13.00	13–26	5.0–30.0				
			16	13.00–16.00	16–32	5.0–30.0				
			20	16.00–20.00	20–40	5.0–30.0				

Ⓢ Precision Grade Tolerance is not available for the Chrome Plated Product Types. \*(Precision Grade A and B).

### Tapped

Type	D Tolerance Selection	P Tolerance Selection	D	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	E 0.1 mm Increment	A Selection	H	M (Coarse)	ℓ
KFHTA GKFHTA SKFHTA CKFHTA	M P G H	S M P G H	6	4.00–7.00	6–12	2.0–15.0	0.5–10.0	15 30 45 60	8	M3	5
			6T	4.00–7.00	6–12	2.0–15.0					
			8	5.00–9.00	8–16	2.0–20.0					
			8T	5.00–9.00	8–16	2.0–20.0					
			10	7.00–12.00	10–20	2.0–30.0					
			12	7.00–12.00	12–24	3.0–30.0					
			13	8.00–13.00	13–26	3.0–30.0					
			16	13.00–16.00	16–32	5.0–30.0					
			16	13.00–16.00	16–32	5.0–30.0					
			20	16.00–20.00	20–40	5.0–30.0					
			20	16.00–20.00	20–40	5.0–30.0					

Ⓢ Pins with D value ending in T (ex. 8T) one size smaller thread diameter and larger wall thickness. (Actual D dimension is the number without "T").

Ⓢ Note the strength of under-head part. P.1542 Please confirm pilot hole depth on P.1542. Holes may go through.

### Threaded

Type	D Tolerance Selection	P Tolerance Selection	D	P 0.01 mm Increment	L 1 mm Increment	B 0.1 mm Increment	E 0.1 mm Increment	A Selection	H	M (Coarse)
KFHNA GKFHNA* SKFHNA CKFHNA	M P G H *A *B	S M P G H *A *B	3	2.00–4.00	0–6	2.0–10.0	0.5–10.0	15 30 45 60	6	M3
			4	2.00–5.00	0–8	2.0–10.0				
			5	3.00–6.00	0–10	2.0–15.0				
			6	4.00–7.00	0–10	2.0–15.0				
			8	5.00–9.00	0–10	2.0–20.0				
			10	7.00–11.00	0–15	3.0–30.0				
			12	7.00–12.00	0–15	3.0–30.0				
			16	13.00–16.00	0–20	5.0–30.0				
			16	13.00–16.00	0–20	5.0–30.0				
			20	16.00–20.00	0–20	5.0–30.0				
			20	16.00–20.00	0–20	5.0–30.0				

Ⓢ Precision Grade Tolerance is not available for the Chrome Plated Product Types. \*(Precision Grade A and B). For full thread, specify L = 0 and alteration NNC.

Part Number Example: KFHA M S 6 - P6.00 - L10 - B3.0 - E5.0 - A30

Part Number Alterations: KFHAM6 - P6.00 - L6 - B3.0 - E5.0 - A30 - RC

Alterations	Radius	Wrench Flats Alteration	Relief
<b>Code</b>	RC	HC	NNC
<b>Spec.</b>	Changes the relief to R0.5. - Ordering Code: RC - Applicable when H-P≥2	HC=0.5mm Increment - HC>D, HC>P Ordering Code: HC10.0	Ordering Code: L NNC - Applicable when L=0 - Adds a relief at the thread end.