

Locating Pins - Shouldered

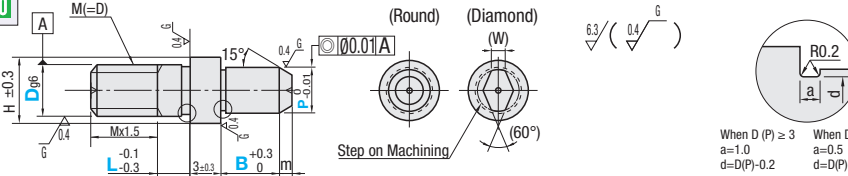
Tapered, Threaded

For products uncovered by e-Catalog Standard, see P.131.

Features: Shouldered, Press Fit + Lock Nut Type. Improved maintainability compared to Press Fit Type.



Material No.	Material	Surface Treatment	Hardness	P, L, B Configurable	
				Round	Diamond
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	FPTNA	FPTND
(2)	SKS3 Equivalent	Hard Chrome Plating	Treated Hardness: 50~55HRC Plating Hardness: 750HV ~	GFPTNA	GFPTND



Step on Machining

When D (P) ≥ 3
a=1.0
d=D(P)-0.2

When D(P) < 3
a=0.5
d=D(P)-0.1

Relief dimension is a reference value.

P, L, B Configurable

Part Number		P		L		B		m		H		M		*Tightening Torque N·cm		Unit Price	Round Shape	Unit Price	Diamond Shape
Type	D	D Tolerance g6	0.01mm Increment	1mm Increment	0.1mm Increment	m	H	(W)								(1)Treated SKS3 FPTNA	(2)Hard SKS3 GFPTNA	(1)Treated SKS3 FPTND	(2)Hard SKS3 GFPTND
(Round) FPTNA GFPTNA	3	-0.002 -0.008	2.00~4.00	2~6	2.0~10.0	1	6	1	M 3	98									
	4	-0.004 -0.012	2.00~5.00	2~8	2.0~10.0			1.2	M 4	225									
	5	-0.004 -0.012	3.00~6.00	3~10	2.0~15.0(10.0)			1.5	M 5	461									
	6	-0.005 -0.014	4.00~7.00	3~10	2.0~15.0	2	8	1.8	M 6	784									
	8	-0.005 -0.014	5.00~9.00	5~10	2.0~20.0(15.0)		11	2.2	M 8	1911									
	10	-0.006 -0.017	7.00~11.00	5~15	3.0~30.0(25.0)	3	13	3	M10	3783									
	12	-0.006 -0.017	7.00~12.00	8~15	3.0~30.0(25.0)		15	3.2	M12	6605									
	16	-0.007 -0.020	13.00~16.00	8~20	5.0~30.0	4	19	4	M16	16366									
(Diamond) FPTND GFPTND	20	-0.007 -0.020	16.00~20.00	10~20	5.0~30.0	5	23	5.5	M20	32928									

B dimension in () is applicable to Diamond Shape. *The tightening torque (ref. value) for hardened products is strength class 8.8. (See technical data on P.2365.) Not applicable when using locking materials or lock washers.

Ordering Example: **Part Number** - **P** - **L** - **B**
FPTNA6 - **P4.01** - **L8** - **B3.5**

Alterations: **Part Number** - **P** - **L** - **B** - (HC, TC, RC, RAC, LAC)
FPTNA6 - **P4.01** - **L8** - **B3.5** - **HC7.0**

	Wrench Flats Alteration	Length of Tapered Point	Sphere Tip	Hex Socket Machining	Wrench Hole Machining																																																																			
Alterations																																																																								
Code	HC	TC	RC	RAC	LAC																																																																			
Spec.	HC = 0.5mm Increment ♥ HC>D HC>P (Ordering Code) HC10.0	Changes the m dimension. (Ordering Code) TC8 (1mm increment) <table><tr><td>D</td><td>TC</td><td>D</td><td>TC</td></tr><tr><td>6</td><td>3~11</td><td>13</td><td>5~22</td></tr><tr><td>8</td><td>4~14</td><td>16</td><td>5~22</td></tr><tr><td>10</td><td>4~18</td><td>20</td><td>6~23</td></tr><tr><td>12</td><td>4~20</td><td></td><td></td></tr></table> ♣ B+m≥TC+2 (Straight Section min. 2mm) ♣ P/2 · TC x tan15° (=0.27) > 0.5 (Tip 0.1mm) ♣ B dimension changes when TC is specified. (Changed B dimension = B+m-TC) ✖ Combination with RAC or LAC is not available.	D	TC	D	TC	6	3~11	13	5~22	8	4~14	16	5~22	10	4~18	20	6~23	12	4~20			Changes the relief to R0.5. (Ordering Code) RC ♥ Applicable when H-P≥2 ✖ Combination with LAC is not available.	Machines hex sockets. (Ordering Code) RAC <table><tr><th rowspan="2">D</th><th colspan="2">Applicable Dimension</th><th colspan="2">Hex Hole Dimensions</th></tr><tr><th>Threaded</th><th>Hex</th><th>E</th><th>S</th></tr><tr><td>8 8T</td><td>6.00~</td><td rowspan="3">3.5~</td><td rowspan="3">2</td><td rowspan="3">3</td></tr><tr><td>10 10T</td><td>7.00~</td></tr><tr><td>12 12T</td><td>7.00~</td></tr><tr><td>13 13T</td><td>-</td><td>-</td><td>2.5</td><td>4</td></tr><tr><td>16 16T</td><td>13.00~</td><td>4.5~</td><td>3</td><td>5</td></tr><tr><td>20 20T</td><td>16.00~</td><td>6.0~</td><td>4</td><td>6</td></tr></table> ♥ Applicable to P, L, B Dimension Configurable Type only. ♥ Round Shape is applicable to D≥8, and Diamond Shape is applicable to D≥10. ✖ Combination with TC or LAC is not available	D	Applicable Dimension		Hex Hole Dimensions		Threaded	Hex	E	S	8 8T	6.00~	3.5~	2	3	10 10T	7.00~	12 12T	7.00~	13 13T	-	-	2.5	4	16 16T	13.00~	4.5~	3	5	20 20T	16.00~	6.0~	4	6	Machines wrench holes. (Ordering Code) LAC <table><tr><th>D</th><th>Applicable Dim.</th><th>P</th><th>Q</th></tr><tr><td rowspan="4">8 8T 10 10T 12 12T 13 13T 16 16T 20 20T</td><td rowspan="4">B 5.0~ 10.0~</td><td>6.00~9.99</td><td>2</td></tr><tr><td>10.00~16.99</td><td>3.5</td></tr><tr><td>17.00~</td><td>5</td></tr><tr><td></td><td></td></tr></table> ♥ Round Shape is applicable to D≥8 and P≥6, and Diamond Shape to D≥10 and P≥8. ♥ Diamond Shape Hole is drilled on the diamond head vertically but with arbitrary orientation of its diamond surfaces against those of the diamond head. ✖ Combination with TC, RC or RAC is not available.	D	Applicable Dim.	P	Q	8 8T 10 10T 12 12T 13 13T 16 16T 20 20T	B 5.0~ 10.0~	6.00~9.99	2	10.00~16.99	3.5	17.00~	5		
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