

# Locating Pins - Large Head, Tapered

## Configurable Taper Angle / D and P Selectable Tolerance

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

**Features:** Large Head, Tapered, with the configurable dimension for each part. The tolerances on both ends and the tapered dimensions are also configurable.



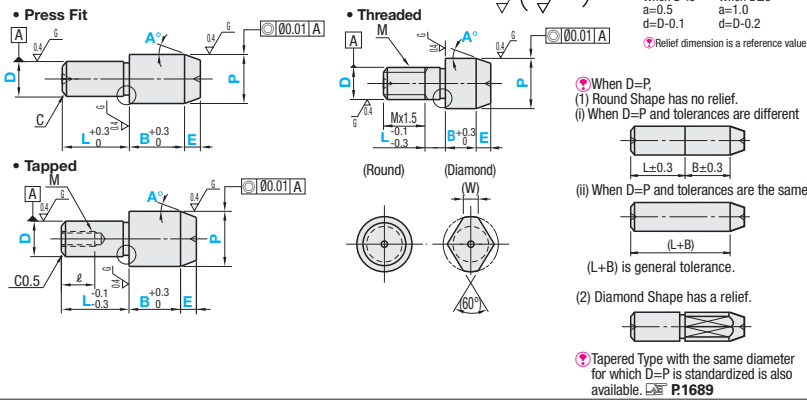
Material No.	Material	Surface Treatment	Hardness	Type			Shape Code
				Press Fit	Tapped	Threaded	
(1)	SKS3 Equivalent	-	Treated Hardness: 60~63HRC	KF	KFT	KFN	A (Round)
(2)	SKS3 Equivalent	Hard Chrome Plating Plating Thickness: 3um or more	Treated Hardness: 50~55HRC Plating Hardness: 750HV~	GKF	GKFT	GKFN	
(3)	SKS3 Equivalent	-	-	BKF	BKFT	BKFN (Round only)	
(4)	SUS304	-	-	SKF	SKFT	SKFN	D (Diamond)
(5)	SUS304	Hard Chrome Plating Plating Thickness: 3um or more	Plating Hardness: 750HV~	HKF	HKFT	HKFN	
(6)	SUS40C Equivalent	-	Treated Hardness: 50~55HRC	CKF	CKFT	-	



### 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	-	-	-
6.00	+0.012	+0.020	-0.004	0	-	-	-
10.00	+0.004	+0.012	-0.012	-0.012	-	-	-
18.00	+0.015	+0.024	-0.005	0	+0.005	0	-0.005
30.00	+0.006	+0.015	-0.014	-0.015	-	-	-
6.01	+0.015	+0.024	-0.005	0	-	-	-
10.01	+0.006	+0.015	-0.014	-0.015	-	-	-
18.01	+0.018	+0.029	-0.006	0	-	-	-
30.01	+0.007	+0.018	-0.017	-0.018	-	-	-
6.01	+0.021	+0.035	-0.007	0	-	-	-
10.01	+0.008	+0.022	-0.020	-0.021	-	-	-

The unit price of Precision Type is the price of Standard Type multiplied by 1.1.  
 Hard Chrome Plating products are not available for Precision Grade Tolerance.  
 SUS40C Equivalent has an identification groove at any position on D part.  
 Polished, centering hole is sometimes not available for SUS304.  
 P-2EtanA=0.73 (Tip dia. 0.0.73 or more)  
 Reference: tan15°=0.267 tan30°=0.577  
 tan45°=1 tan60°=1.732



### Press Fit

Type	Shape	Part Number		D	P	L	B	E	A	C	(W)
		Tolerance	P Tolerance								
KF GKF* BKF SKF HKF* CKF	A (Round)	M P G H *A *B	S M P G H *A *B	1	1.25~3.25	2, 3	1.5~5.0	0.5~15.0	15	0.1	0.6
				2	2.00~6.00(4.00)	2~6	1.5~15.0(10.0)				
				3	3.00~8.00	3~10	1.5~15.0(10.0)				
				4	4.00~8.00	3(4)~14	1.5~15.0(10.0)				
				5	5.00~10.00	5~15	1.5~15.0(10.0)				
				6	6.00~10.00	5~15	1.5~30.0(15.0)				
	D (Diamond)	M P G H *A *B	S M P G H *A *B	8	8.00~15.00	5(6)~16	1.5~30.0(15.0)				
				10	10.00~17.00	5(10)~20	3.0~30.0(25.0)				
				12	12.00~18.00	6(10)~24	3.0~30.0(25.0)				
				13	13.00~20.00	7(12)~26	5.0~30.0(25.0)				
				16	16.00~27.00	8(15)~32	5.0~30.0				
				20	20.00~30.00	10(15)~40	5.0~30.0				

P, L, B dimensions in ( ) are applicable to Diamond Shape. Hard Chrome Plating products are not available for \* marked Precision Grade (Precision Grade A and B).

### Tapped

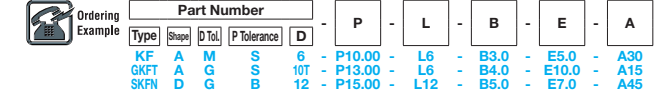
Type	Shape	Part Number		D	P	L	B	E	A	(W)	M (Coarse)	Tightening Torque N·cm	l
		Tolerance	P Tolerance										
KFT GKFT BKFT SKFT HKFT CKFT	A (Round)	M P G H	S M P G H	5	5.00~8.00	5(9)~10	1.5~15.0(12.0)	0.5~15.0	15	2.2	M2	-	3
				6	6.00~10.00	6(9)~12	1.5~15.0(12.0)						
				6T	6.00~10.00	6(9)~12	1.5~15.0(12.0)						
				8	8.50~15.00	8(12)~16	1.5~30.0(15.0)						
				8T	8.50~15.00	8(12)~16	1.5~30.0(15.0)						
				10	10.00~17.00	10(12)~20	3.0~30.0(20.0)						
	D (Diamond)	M P G H	S M P G H	10T	10.00~17.00	6(12)~16	3.0~30.0(20.0)						
				12	12.00~18.00	12~24	3.0~30.0(20.0)						
				12T	12.00~18.00	8(12)~18	3.0~30.0(20.0)						
				13	13.00~20.00	13(14)~26	5.0~30.0(20.0)						
				13T	13.00~20.00	8(14)~20	5.0~30.0(20.0)						
				16	16.00~27.00	16~32	5.0~30.0(27.0)						
D (Diamond)	M P G H	S M P G H	16T	16.00~27.00	10(14)~24	5.0~30.0(27.0)							
			20	20~40	20~40	5.0~30.0							
			20T	20.00~30.00	20~40	5.0~30.0							
			20T	20.00~30.00	12(18)~30	5.0~30.0							

Pins of D dimension with T have 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.1618 P, L, B dimensions in ( ) are applicable to Diamond Shape. Please confirm pilot hole depth on P.1618. Holes may go through.  
 Tightening torque (reference) is of Tightening Torque Strength Class (10.9) indicated on Technical Data P.2365. Not applicable when using locking materials or lock washers.

### Threaded

Type	Shape	Part Number		D	P	L	B	E	A	M (Coarse)	Tightening Torque N·cm	(W)
		Tolerance	P Tolerance									
KFN GKFN* BKFN SKFN HKFN*	A (Round)	M P G H *A *B	S M P G H *A *B	3	3.50~8.00	2~6	2.0~10.0	0.5~15.0	15	M3	147	1.5
				4	4.50~8.00	2~8	2.0~10.0					
				5	5.50~8.00	3~10	2.0~15.0(10.0)					
				6	6.50~10.00	3~10	2.0~15.0					
				8	8.50~15.00	5~10	2.0~30.0(15.0)					
				10	11.00~17.00	5~15	3.0~30.0(25.0)					
	D (Diamond)	M P G H *A *B	S M P G H *A *B	12	13.00~20.00(18.00)	5(8)~15	3.0~30.0(25.0)					
				16	17.00~27.00	5(8)~20	5.0~30.0					
				20	22.00~30.00	5(10)~20	5.0~30.0					
				20	22.00~30.00	5(10)~20	5.0~30.0					
				20	22.00~30.00	5(10)~20	5.0~30.0					
				20	22.00~30.00	5(10)~20	5.0~30.0					

P, L, B dimensions in ( ) are applicable to Diamond Shape. Hard Chrome Plating products are not available for \* marked Precision Grade (Precision Grade A and B).  
 Tightening torque (reference) is of Tightening Torque Strength Class (10.9) indicated on Technical Data P.2365. Not applicable when using locking materials or lock washers.



### Press Fit

D	Unit Price Round Shape						Unit Price Diamond Shape					
	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304	(6)SUS440C	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304	(6)SUS440C
1	KFA	GKFA	BKFA	SKFA	HKFA	CKFA	KFD	GKFD	BKFD	SKFD	HKFD	CKFD
2												
3												
4												
5												
6												
8												
10												
12												
13												
16												
20												

### Tapped

D	Unit Price Round Shape						Unit Price Diamond Shape					
	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304	(6)SUS440C	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304	(6)SUS440C
5	KFA	GKFA	BKFA	SKFA	HKFA	CKFA	KFD	GKFD	BKFD	SKFD	HKFD	CKFD
6												
6T												
8												
8T												
10												
10T												
12												
12T												
13												
13T												
16												
16T												
20												
20T												

### Threaded

D	Unit Price Round Shape					Unit Price Diamond Shape				
	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304	(1)Treated SKS3	(2)Hard SKS3	(3)SKS3	(4)SUS304	(5)Hard SUS304
3	KFNA	GKFNA	BKFNA	SKFNA	HKFNA	KFND	GKFND	BKFND	SKFND	HKFND
4										
5										
6										
8										
10										
12										
16										
20										



### Alterations

Code	Tapping	Insertion Guide	Sphere Tip	Air Vent	Wrench Flats	Wrench Hole Machining
MH	<p>Adds a tapped hole. Ordering Code: MH</p>	<p>Adds the insertion guide. Ordering Code: GDC</p>	<p>Changes the relief to R0.5. Ordering Code: RC</p>	<p>Adds an air vent. Ordering Code: AC</p>	<p>SC</p>	<p>LAC</p>
Spec.	<p>Applicable when D≥6</p> <p>B≥2~4</p> <p>M+2≤P-2EtanA</p> <p>Not applicable to Tapped.</p>	<p>Not applicable when D≥2</p> <p>Not applicable to Threaded Type.</p>	<p>Applicable when P-D≥2</p>	<p>Not applicable to Threaded Type.</p>	<p>SC = 1mm Increment</p> <p>P-3≤SC≤P-1, SC≥D</p> <p>When B=11, adds wrench flats on the tip.</p> <p>Not applicable to Press Fit Type.</p>	<p>Diamond Shape Hole is drilled on the diamond head vertically but with arbitrary orientation of its diamond surfaces against those of the diamond head.</p> <p>For Threaded Type, the alteration is applicable when D≥5.</p> <p>Not applicable to Press Fit Type.</p>