

Shafts

Tapped Pilot Type



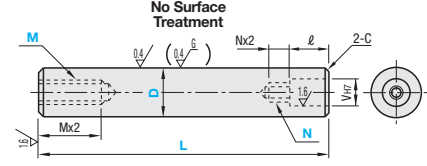
RoHS 10

⚡ Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

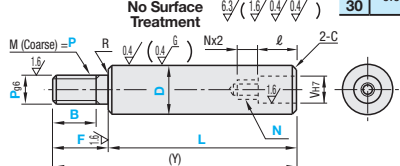
⚡ L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness **P.111**

Type				Material	Hardness	Surface Treatment	D Tol.	
One End Tapped	One End Stepped and Tapped	One End Threaded	One End Threaded with O.D. same as Shaft O.D.				D	g6
SFIT	SFIG	SFIN	SFIQ	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening P.112	-	12	-0.006
SSFIT	SSFIG	SSFIN	SSFIQ	EN 1.4125 Equiv.	EN 1.3505 Equiv. 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5μ or More	13	-0.017
PSFIT	PSFIG	PSFIN	PSFIQ	EN 1.3505 Equiv.	EN 1.4125 Equiv. 56HRC~		15	
PSSFIT	PSSFIG	PSSFIN	PSSFIQ	EN 1.4125 Equiv.			16	
							18	
							20	-0.007
							25	-0.020
							30	

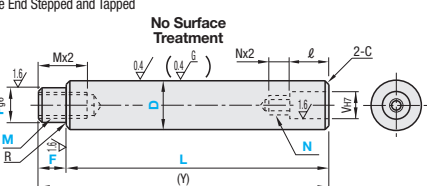
One End Tapped Type



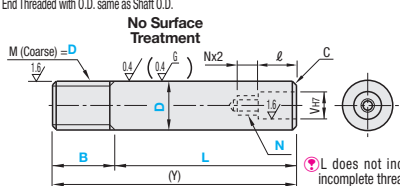
One End Threaded



One End Stepped and Tapped



One End Threaded with O.D. same as Shaft O.D.



⚡ L does not include incomplete threads.

One End Tapped, One End Stepped and Tapped										
Part Number	1mm Increment				Selection				Pilot Dimensions	
Type	D	L	F	P	M Coarse (Tapped)	M Coarse (Stepped and Tapped)	N (Selection)	V Hole Diameter	ℓ Hole Depth	(Y) Max.
Tapped Type	12	25~1000			6~10	4 5 6 8	4	8	9	1000
SFIT	13	25~1000			6~11	4 5 6 8	4 5	10	11	1000
SSFIT	15	25~1000			6~13	4 5 6 8 10	4 5			1000
PSFIT	16	30~1200			6~14	4 5 6 8 10	4 5 6	12	13	1200
PSSFIT	18	30~1200			8~16	4 5 6 8 10 12	4 5 6	16	17	1200
Stepped and Tapped Type	SFIG	18	30~1200		8~17	4 5 6 8 10 12	5 6 8 10	16	17	1200
SSFIG	20	30~1200			8~22	4 5 6 8 10 12 16	6 8 10 12	20	21	1200
PSFIG	25	35~1200			9~27	6 8 10 12 16 20 24	6 8 10 12			1500
PSSFIG	30	35~1500								

⚡ L(Y)>Mx2.5+4+ℓ+Nx1.5+4 is required to have effective thread length. • One End Stepped and Tapped ⚡ P dimensions require M+3≤P.

One End Threaded, One End Threaded with O.D. same as Shaft O.D.										
Part Number	1mm Increment				Selection				Pilot Dimensions	
Type	D	L	F	B (Threaded)	B (One End Threaded with O.D. same as Shaft O.D.)	P	N (Selection)	V Hole Diameter	ℓ Hole Depth	(Y) Max.
Threaded Type	*12	25~998				5 6 8 10 12	4	8	9	1000
SFIN	13	25~998				5 6 8 10 12	4 5	10	11	1000
SSFIN	15	25~998				5 6 8 10 12	4 5			1000
PSFIN	*16	25~1198				5 6 8 10 12 16	4 5 6	12	13	1200
PSSFIN	18	25~1198				5 6 8 10 12 16	4 5 6	16	17	1200
SFIQ	*20	25~1198				6 8 10 12 16 20	5 6 8 10	20	21	1200
SSFIQ	*25	25~1198				8 10 12 16 20 24	6 8 10 12			1500
PSFIQ	*30	25~1498				8 10 12 16 20 24 30	6 8 10 12			

⚡ Shaft with O.D. same as Shaft O.D. are available for * Size only.

⚡ Overall length L requires Nx2.5+ℓ≤L.

One End Tapped										
Part Number	Unit Price									
Type	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601
SFIT	12	50	100	150	200	300	400	500	600	800
	13									
	15									
	16									
	18									
	20									
SSFIT	12									
	13									
	15									
	16									
	18									
	20									
PSFIT	12									
	13									
	15									
	16									
	18									
	20									
PSSFIT	12									
	13									
	15									
	16									
	18									
	20									

One End Threaded										
One End Threaded with O.D. same as Shaft O.D.										
Part Number	Unit Price									
Type	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601
SFIN	*12	50	100	150	200	300	400	500	600	800
	13									
	15									
	16									
	18									
	20									
SSFIN	*12									
	13									
	15									
	16									
	18									
	20									
PSFIN	*12									
	13									
	15									
	16									
	18									
	20									
PSSFIN	*12									
	13									
	15									
	16									
	18									
	20									

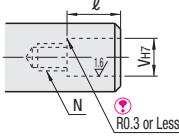
⚡ * marked sizes are only available for One End Threaded with O.D. same as Shaft O.D.

Ordering Example: Part Number - L - F - B - P - M - N
SFIT12 - 500 - F4 - P10 - M6 - N10
PSSFIG30 - 1000 - F4 - P10 - M6 - N10

Alterations	Part Number	L	F	B	P	M	N	(LKC, SC, FC--etc.)
	PSSFIG30	- 1000	- F4	-	- P10	- M6	- N10	- LKC

⚡ When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm. **P.114** ⚡ Alterations may lower hardness. See **P.112**

Alterations	Code	Spec.
	LKC	Changes L tolerance. Ordering Code LKC ⚡ L<200→L±0.03 200≤L<500→L±0.05 L≥500→L±0.1 ⚡ L dimensions can be specified in 0.1mm increment for LKC. ⚡ Not applicable to One End Threaded Type when D≤P-2. ⚡ Not applicable to One End Threaded with O.D. same as Shaft O.D.
	SC	Adds wrench flats. Ordering Code SC5 ⚡ SC=1mm Increment ⚡ SC+ℓ1≤L SC≥0 ⚡ SC machining is not applicable to pilot machined areas. SC≤L-ℓ1-ℓ-2
	FC	Adds a screw flat. Ordering Code FC10-E8 ⚡ FC, E=1mm Increment ⚡ FC≤Dx3 ⚡ When 1.5xD<FC, FC≤L/2 ⚡ E=0 or E≥2 ⚡ FC machining is not applicable to pilot machined areas. E≥ℓ+2



⚡ Pilot bore of the precision hole has R0.3 or less.
Mating part is required to be C0.4 or better for assembly.

Example

⚡ Cautions

• Pilot Dimensions

D	N (Selection)	V Hole Diameter	ℓ Hole Depth
12	4	8	9
13	4 5	10	11
15	4 5		
16	4 5 6	12	13
18	4 5 6		
20	5 6 8 10	16	17
25	6 8 10 12	20	21
30	6 8 10 12		

Alterations	Code	Spec.
	PMC, PMS	Changes the threads to fine threads shown in the table below. (PMC is for bearing nut fine thread pitches.) (PMS is for cylinder fine thread pitches.) Ordering Code PMC17 ⚡ Applicable to One End Threaded Type only.
	MSC	Changes tapped threads to fine tapped threads shown in the table below. Ordering Code MSC14 ⚡ Only applicable to One End Tapped Type.