Shafts

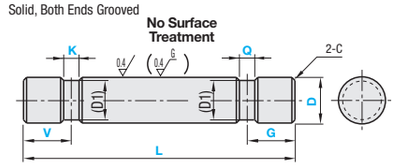
Set Screw Grooved

RoHS10

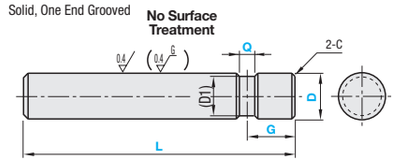
Type: Solid, Both Ends Grooved	Solid, One End Grooved	One End Tapped	One End Threaded	One End Threaded with O.D. same as Shaft O.D.	M Material	H Hardness	S Surface Treatment
SFJQ	SFJS	SFTS	SFNS	SFQS	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P.112	-
SSFJQ	SSFJS	SSFTS	SSFNS	SSFQS	SUS440C or 13Cr stainless		
PSFJQ	PSFJS	PSFTS	PSFNS	PSFQS	SUJ2 Equivalent	SUJ2 Equivalent 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5μ or More
PSSFJQ	PSSFJS	PSSFTS	PSSFNS	PSSFQS	SUS440C or 13Cr stainless	SUS440C or 13Cr stainless 56HRC~	

D	D Tol. g6
6	-0.004 -0.012
8	-0.005 -0.014
10	
12	-0.006 -0.017
13	
15	
16	
18	
20	-0.007 -0.020
25	
30	

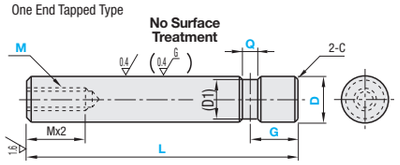
Solid, Both Ends Grooved



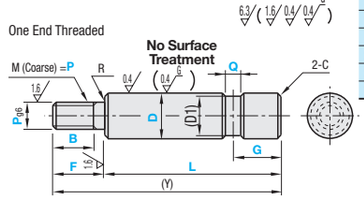
Solid, One End Grooved



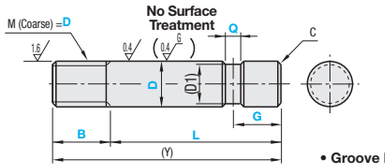
One End Tapped Type



One End Threaded

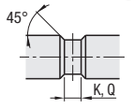


One End Threaded with O.D. same as Shaft O.D.



L does not include incomplete threads.

• Groove Drawing



Annealing could reduce hardness at set screw grooved shaft end machined areas (effective thread length + approx. 10mm).
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P.111
Features of Low Temp. Black Chrome Plating P.128

Solid, One End Tapped

Part Number Type	D	L specified in 1mm Increment	One End Tapped Selection M (Coarse)	Slot Dimension V, G (0.1mm Increment)	K, Q (Selection)	D1	C
Solid, Both Ends Grooved	6	20~600	3	5~18	4	5	0.5 or Less
SFJQ	8	20~800	3 4 5	5~24	4 5	7	
SSFJQ	10	20~800	3 4 5 6	5~30	4 5	9	
PSFJQ	12	20~1000	4 5 6 8	5~36	5	10	
PSSFJQ	13	25~1000	4 5 6 8	5~39	5	11	
Solid, One End Grooved	15	25~1000	4 5 6 8 10	5~45	5 6	13	
SFJS	16	30~1200	4 5 6 8 10	5~48	5 6	14	
SSFJS	18	30~1200	4 5 6 8 10 12	5~54	5 6	16	
PSFJS	20	30~1200	4 5 6 8 10 12	6~60	6 7	18	1.0 or Less
PSSFJS	25	35~1200	4 5 6 8 10 12 16	6~75	6 7	23	
One End Tapped Type	30	35~1500	6 8 10 12 16 20 24	6~90	7	28	
SFTS							
SSFTS							
PSFTS							
PSSFTS							

Coarse Thread Dimension M	Pitch
3	0.5
4	0.7
5	0.8
6	1.0
8	1.25
10	1.5
12	1.75
16	2.0
20	2.5
24	3.0
30	3.5

V+K/2+1≤L/2 or G+Q/2+1≤L/2 is required. For One End Tapped Type, G≤L-Mx2-Qx2 is required.
When Mx2.5+4≥L, tap pilot holes may go through.

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

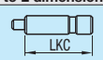
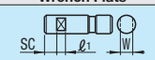
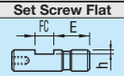
Part Number Type	D	1mm Increment L	F	B (Threaded)	B (One End Threaded with O.D. same as Shaft O.D.)	Selection P	Slot Dimension G (1mm Increment)	Q (Selection)	D1	(Y) Max.	R	C
Threaded Type	*6	25~598	2≤F≤Px5	(When P≤6) B≤F-2	Pitchx3≤B≤Mx5	3 4 5 6	5~18	4	5	600	0.3 or Less	0.5 or Less
SFNS	*8	25~798				3 4 5 6 8	5~24	4 5	7	800		
SSFNS	*10	25~798				4 5 6 8 10	5~30	4 5	9	800		
PSFNS	*12	25~998				5 6 8 10 12	5~36	5	11	1000		
PSSFNS	13	25~998		(When P=8, 10) B≤F-3	For One End Threaded with O.D. same as Shaft O.D., L dimensions have priority, thus the effective thread length will be B-(Pitchx2).	5 6 8 10 12	5~39	5	11	1000		
One End Threaded with O.D. same as Shaft O.D.	15	25~998				5 6 8 10 12	5~45	5 6	13	1000		
SFQS	*16	25~1198		(When P≥12) B≤F-5		5 6 8 10 12 16	5~48	5 6	14	1200		
SSFQS	18	25~1198				5 6 8 10 12 16	5~54	5 6	16	1200		
PSFQS	*20	25~1198		B≥Pitchx3		6 8 10 12 16 20	6~60	6 7	18	1200		1.0 or Less
PSSFQS	25	25~1198				8 10 12 16 20 24	6~75	6 7	23	1200		
Shaffts with O.D. same as Shaft O.D. are available for * sizes only.	*30	25~1498				8 10 12 16 20 24 30	6~90	7	28	1500		

V+K/2+1≤L/2 or G+Q/2+1≤L/2 is required.

Alterations

Part Number	L	M	F	B	P (PMC, PSC)	V	K	G	Q	(LKC, SC, FC)
PSFNS8	650		F10	B8	P4			G18	Q4	LKC

The distance between set screw grooves should be greater than 2mm for alterations.
When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm. P.114
Alterations may lower hardness. See P.112

	Alteration to L dimension tolerance	Wrench Flats	Set Screw Flat
Alterations			
Code	LKC	SC	FC
Spec.	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.	Adds wrench flats. Ordering Code SC5 SC=1mm Increment SC+ℓ1≤L SC≥0 D W ℓ1: 6 5; 8 7 8; 10 8; 12 10; 13 11 10; 15 13 D W ℓ1: 16 14; 18 16 10; 20 17; 25 22; 30 27 15 Not applicable to Solid Type	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 D h: D 6~18 h 1; D 20~30 h 2

Ordering Example

Part Number	L	M	F	B	P	V	K	G	Q
SFJQ16	100					V10	K5	G10	Q5
SSFTS20	500	M10						G10	Q7
PSFNS8	650		F10	B8	P4			G20	Q4

Solid, Both Ends Grooved

Part Number Type	D	Min. L ≥50	L51 ≥100	L101 ≥150	L151 ≥200	L201 ≥300	L301 ≥400	L401 ≥500	L501 ≥600	L601 ≥800	L801 ≥1000	L1001 ≥1200	L1201 ≥1500
SFJQ	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
SSFJQ	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSFJQ	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSSFJQ	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												

Solid, One End Grooved

Part Number Type	D	Min. L ≥50	L51 ≥100	L101 ≥150	L151 ≥200	L201 ≥300	L301 ≥400	L401 ≥500	L501 ≥600	L601 ≥800	L801 ≥1000	L1001 ≥1200	L1201 ≥1500
SFJS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
SSFJS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSFJS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSSFJS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												

One End Tapped

Part Number Type	D	Min. L ≥50	L51 ≥100	L101 ≥150	L151 ≥200	L201 ≥300	L301 ≥400	L401 ≥500	L501 ≥600	L601 ≥800	L801 ≥1000	L1001 ≥1200	L1201 ≥1500
SFTS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
SSFTS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSFTS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												
PSSFTS	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12, 13											-	-
	15, 16												-
	18, 20												-
	25												-
	30												

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

Part Number Type	D	Min. L ≥50	L51 ≥100	L101 ≥150	L151 ≥200	L201 ≥300	L301 ≥400	L401 ≥500	L501 ≥600	L601 ≥800	L801 ≥1000	L1001 ≥1200	L1201 ≥1498
SFNS SFQS	*6									-	-	-	-
	*8										-	-	-
	*10										-	-	-
	*12, 13											-	-
	15, *16												-
	18, *20												-
	25												-
	*30												
SSFNS SSFQS	*6									-	-	-	-
	*8										-	-	-
	*10										-	-	-
	*12, 13											-	-
	15, *16												-
	18, *20												-
	25												-
	*30												
PSFNS PSFQS	*6									-	-	-	-
	*8										-	-	-
	*10										-	-	-
	*12, 13											-	-
	15, *16												-
	18, *20												-
	25												-
	*30												
PSSFNS PSSFQS	*6									-	-	-	-
	*8										-	-	-
	*10										-	-	-
	*12, 13											-	-
	15, *16												-
	18, *20												-
	25												-
	*30												

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