

Shafts

Set Screw Grooved



RoHS10

- 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 LTBC Plating **P.128**

Type					Material	Hardness	Surface Treatment	D Tol.	
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.				D	g6
SFJQ	SFJS	SFTS	SFNS	SFQS	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening $\geq$ P.112 EN 1.3505 Equiv. 50HRC~ EN 1.4125 Equiv. 56HRC~	Hard Chrome Plating Plating Hardness: Hv750 ~ Plating Thickness: 5µ or More	6	-0.004 -0.012
SSFJQ	SSFJS	SSFTS	SSFNS	SSFQS	EN 1.4125 Equiv.			8	-0.005 -0.014
PSFJQ	PSFJS	PSFTS	PSFNS	PSFQS	EN 1.3505 Equiv.			10	-0.005 -0.014
PSSFJQ	PSSFJS	PSSFTS	PSSFNS	PSSFQS	EN 1.4125 Equiv.			12	-0.006 -0.017
								13	
								15	-0.006 -0.017
								16	
								18	
								20	-0.007 -0.020
								25	
								30	

■ **Solid, One End Tapped**

Part Number		L	One End Tapped Selection				Slot Dimension				C	Coarse Thread Dimension						
Type	D	specified in 1mm Increment	M (Coarse)				V, G (0.1mm Increment)	K, Q (Selection)	D ₁	M		Pitch						
Solid, Both Ends Grooved	6	20-600	3				5-18	4		5		3	0.5					
	8	20-800	3	4	5		5-24	4	5	7		4	0.7					
	10	20-800	3	4	5	6	5-30	4	5	9		5	0.8					
												6	1.0					
Solid, One End Grooved	12	20-1000		4	5	6	8	5-36		5	10		8	1.25				
	13	25-1000		4	5	6	8	5-39		5	11		10	1.5				
	15	25-1000		4	5	6	8	10	5-45	5	6	13		12	1.75			
	16	30-1200		4	5	6	8	10	5-48	5	6	14		16	2.0			
One End Tapped Type	18	30-1200		4	5	6	8	10	12	5-54	5	6	16		20	2.5		
	20	30-1200		4	5	6	8	10	12	6-60		6	7	18		24	3.0	
	25	35-1200		4	5	6	8	10	12	16	6-75		6	7	23		30	3.5
	30	35-1500			6	8	10	12	16	20	24	6-90		7	28			

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

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

Part Number		1mm Increment				Selection		Slot Dimension			(Y)	R	C
Type	D	L	F	B (Threaded)	B (One End Threaded with O.D. same as Shaft O.D.)	P		G (mm Increment)	Q (Selection)	D ₁	Max.		
Threaded Type	*6	25-598	2sF≤Px5	(When P≤6) BsF-2	Pitchx3≤Bs≤Mx5	♀ 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).	3 4 5 6	5-18	4	5	600	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					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		
SFOS	13	25-998					5 6 8 10 12	5-45	5 6	13	1000		
SSFOS	*16	25-1198					5 6 8 10 12 16	5-48	5 6	14	1200		
PSFOS	18	25-1198					5 6 8 10 12 16	5-54	5 6	16	1200		
PSSFOS	*20	25-1198					6 8 10 12 16 20	6-60	6 7	18	1200		
♂ Shafts with O.D. same as Shaft O.D. are available for * sizes only.	25	25-1198	8 10 12 16 20 24	6-75	6 7	23	1200						
	*30	25-1498	8 10 12 16 20 24 30	6-90	7	28	1500	1.0 or Less					

- ⚠ $V+K/2+1 \leq L/2$ or $G+Q/2+1 \leq L/2$ is required.

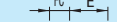


Alterations

Part Number · L · M · F · B · P (PMC, PSC) · V · K · G · Q · (LKC, SC, FC)

- ⚠ 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	Alteration to L dimension tolerance		Wrench Flats		Set Screw Flat																								
																													
Code	LKC		SC		FC																								
Spec.	Changes L tolerance. <u>Ordering Code</u> 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. <u>Ordering Code</u> SC5 ⚠ SC=1mm Increment ⚠ SC+l1≤L SC≥0 <table><tr><th>D</th><th>W</th><th>l1</th></tr><tr><td>6</td><td>5</td><td rowspan="3">8</td></tr><tr><td>8</td><td>7</td></tr><tr><td>10</td><td>8</td></tr><tr><td>12</td><td>10</td><td rowspan="3">10</td></tr><tr><td>13</td><td>11</td></tr><tr><td>15</td><td>13</td></tr></table> ⚠ Not applicable to Solid Type		D	W	l1	6	5	8	8	7	10	8	12	10	10	13	11	15	13	Adds a screw flat. <u>Ordering Code</u> FC10-E8 ⚠ FC, E=1mm Increment ⚠ FC≤Dx3 ⚠ When 1.5xD<FC, FC≤L/2 ⚠ E=0 or E±2 <table><tr><th>D</th><th>h</th></tr><tr><td>6-18</td><td>1</td></tr><tr><td>20-30</td><td>2</td></tr></table>		D	h	6-18	1	20-30	2
	D	W	l1																										
	6	5	8																										
	8	7																											
10	8																												
12	10	10																											
13	11																												
15	13																												
D	h																												
6-18	1																												
20-30	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

[illegible]

■ Solid, One End Grooved

[illegible]

■ One End Tapped

[illegible]

■ One End Threaded

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

[illegible]

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