

Shafts

Set Screw Grooved



RoHS 10

☑️ 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

☑️ P111

☑️ Features of LTBC Plating P128

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. 58HRC-50HRC- Hard Chrome Plating Plating Hardness: HW750 - Plating Thickness: 5µ or More	6	-0.004	
SSFJQ	SSFJS	SSFTS	SSFNS	SSFQS	EN 1.4037 Equiv.		8	-0.005	
PSFJQ	PSFJS	PSFTS	PSFNS	PSFQS	EN 1.3505 Equiv.		10	-0.014	
PSSFJQ	PSSFJS	PSSFTS	PSSFNS	PSSFQS	EN 1.4037 Equiv.		12	-0.006	
							13	-0.017	
						15	-0.006		
						16	-0.017		
						18	-0.007		
						20	-0.020		
						25	-0.020		
						30	-0.020		

Solid, Both Ends Grooved

No Surface Treatment

One End Threaded

No Surface Treatment

Solid, One End Grooved

No Surface Treatment

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

No Surface Treatment

One End Tapped Type

No Surface Treatment

☑️ L does not include incomplete threads.

• Groove Drawing

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

☑️ 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.

Part Number		1mm Increment		Selection		Slot Dimension		(Y) Max.	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)	D1	
Threaded Type	*6	25~598				3	4	5	6	5
SFNS	*8	25~798		(When P≤6)		3	4	5	6	7
SSFNS	*10	25~798		B≤F-2		4	5	6	8	9
PSFNS	*12	25~998		(When P=8, 10)		5	6	8	10	11
PSSFNS	*13	25~998		B≤F-3		5	6	8	10	11
One End Threaded with O.D. same as Shaft O.D.	15	25~998	2≤F≤Px5	(When P≥12)		5	6	8	10	12
SFQS	*16	25~1198		B≤F-5		5	6	8	10	12
SSFQS	*18	25~1198		B≤F-5		5	6	8	10	12
PSFQS	*20	25~1198		B≤F-5		5	6	8	10	12
PSSFQS	*25	25~1198		B≤F-5		5	6	8	10	12
☑️ Shafts with O.D. same as Shaft O.D. are available for * sizes only.	*30	25~1498		B≤F-5		5	6	8	10	12

☑️ 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. P114

☑️ Alterations may lower hardness. See P112

Alterations	Alteration to L dimension tolerance	Wrench Flats	Set Screw Flat
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 16 14 8 7 8 18 16 10 10 8 20 17 12 10 25 22 13 11 30 27 15 15 13 ☑️ 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 6~18 1 20~30 2



Ordering Example

Part Number - L - M - F - B - P - V - K - G - Q

SFJQ16 - 100 - M10 - F10 - B8 - P4 - V10 - K5 - G10 - Q5

SSFTS20 - 500 - M10 - F10 - B8 - P4 - V10 - K5 - G10 - Q7

PSFNS8 - 650 - F10 - B8 - P4 - V10 - K5 - G20 - Q4

Solid, Both Ends Grooved														Solid, One End Grooved																
Part Number		Unit Price												Part Number		Unit Price														
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	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									-	-	-	-	SFJS	6										-	-	-	-		
	8									-	-	-	-		8										-	-	-	-		
	10									-	-	-	-		10										-	-	-	-		
	12, 13											-	-		12, 13											-	-	-		
	15, 16														15, 16											-	-	-		
	18, 20														18, 20												-	-	-	
SSFJQ	25												-	SSFJS	25												-	-	-	
	30														30												-	-	-	
	6									-	-	-	-		6										-	-	-	-		
	8											-	-		8										-	-	-	-		
	10											-	-		10										-	-	-	-		
	12, 13												-		12, 13											-	-	-		
PSFJQ	15, 16													PSFJS	15, 16												-	-	-	
	18, 20														18, 20												-	-	-	
	25														25												-	-	-	
	30														30												-	-	-	
	6									-	-	-	-		PSSFJS	6										-	-	-	-	
	8											-	-			8										-	-	-	-	
10											-	-	10											-	-	-	-			
12, 13												-	12, 13												-	-	-			
15, 16													15, 16													-	-	-		
18, 20													18, 20														-	-	-	
PSSFJQ	25													PSSFJS	25													-	-	-
	30														30													-	-	-

One End Tapped														One End Threaded with O.D. same as Shaft O.D.																	
Part Number		Unit Price												Part Number		Unit Price															
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	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				
SFTS	6									-	-	-	-	SFNS SFQS	*6										-	-	-	-			
	8														*8											-	-	-	-		
	10														*10											-	-	-	-		
	12, 13														*12, 13												-	-	-	-	
	15, 16														15, *16													-	-	-	-
	18, 20														18, *20														-	-	-
SSFTS	25													25														-	-	-	-
	30													*30														-	-	-	-
	6									-	-	-	-	SSFNS SSFQS	*6											-	-	-	-		
	8														*8											-	-	-	-		
	10														*10												-	-	-	-	
	12, 13														*12, 13													-	-	-	-
15, 16													15, *16															-	-	-	-
18, 20													18, *20																-	-	-
PSFTS	25													25														-	-	-	-
	30													*30														-	-	-	-
	6									-	-	-	-	PSFNS PSFQS	*6											-	-	-	-		
	8														*8												-	-	-	-	
	10														*10												-	-	-	-	
	12, 13														*12, 13													-	-	-	-
15, 16													15, *16															-	-	-	-
18, 20													18, *20																-	-	-
PSSFTS	25													25														-	-	-	-
	30													*30														-	-	-	-
	6									-	-	-	-	PSSFNS PSSFQS	*6											-	-	-	-		
	8														*8												-	-	-	-	
	10														*10												-	-	-	-	
	12, 13														*12, 13													-	-	-	-
15, 16													15, *16															-	-	-	-
18, 20													18, *20																-	-	-
	25													25														-	-	-	-
	30													*30														-	-	-	-

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