
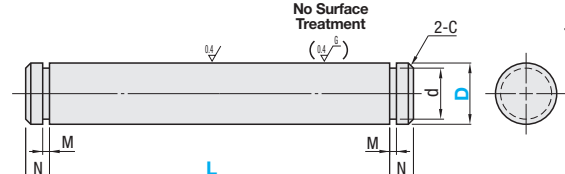


Shafts

With Retaining Ring Grooves



Type			Material	Hardness	Surface Treatment
D Tol. g6	D Tol. h5	D Tol. f8			
SFAR	SFUR	-	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P.112 SUJ2 Equivalent 58HRC~ SUS440C or 13Cr stainless 56HRC~	-
SSFAR	SSFUR	-	SUS440C or 13Cr stainless		
PSFAR	PSFUR	-	SUJ2 Equivalent		
PSSFAR	PSSFUR	-	SUS440C or 13Cr stainless		
RSFAR	-	-	SUJ2 Equivalent		
-	-	PSFGR	S45C Equivalent		
-	-	PSSFGR	SUS304	-	Low Temp. Black Chrome Plating
					

D Tol.			
D	g6	h5	f8
3	-0.002 -0.008	0 -0.004	-
4			
5	-0.004 -0.012	0 -0.005	-0.010 -0.028
6			
8	-0.005 -0.014	0 -0.006	-0.013 -0.035
10			
12			
13			
15	-0.006 -0.017	0 -0.008	-0.016 -0.043
16			
18			
20	-0.007 -0.020	0 -0.009	-0.020 -0.053
25			
30			

RoHS 10

- ⚠ L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P.111
- ⚠ Features of Low Temp. Black Chrome Plating P.128
- ⚠ For O.D. tolerance f8 type, D needs to be 6 or more.

Part Number Type	D	L specified in 1mm Increment	N	M	d		Applicable Retaining Ring	C		
					Tolerance	Tolerance				
(D Tolerance g6) (D Tolerance h5) SFAR SFUR SSFAR SSFUR PSFAR PSFUR PSSFAR PSSFUR RSFAR (L≤500)	3	10~400	2	0.5	+0.05 0	2	+0.06 0	NETW□2 NETW□3	0.5 or Less	
	4	10~400				3	0	NETW□4 NETW□5		
	5	10~400		4	0.7	+0.1 0	4	+0.075 0		NETW□4 NETW□5
	6	20~600					5	0		NETW□5
	(D Tolerance f8) PSFGR (D≥6) PSSFGR (D≥6)	8	20~800	3	0.9		7	+0.09 0		NETW□7
		10	20~800				9.6	-0.09 0		STW□10
		12	20~1000	4	1.15	+0.14 0	11.5	0 -0.11		STW□12
		13	25~1000				12.4			STW□13
		15	25~1200				14.3			STW□15
		16	30~1200				15.2			STW□16
18		30~1200	17				STW□18			
20		30~1200	19				STW□20			
25		35~1200	5	1.35		23.9	0 -0.21	STW□25	1.0 or Less	
30		35~1200				28.6		STW□30		

⚠ For E Type Retaining Rings, see P.2302; and for C Type Retaining Rings, see P.2303.

Ordering Example Part Number - L
SFAR20 - 300

Alterations Part Number - L(LLC) - (NWC)
SFAR20 - LLC300

Alterations	One End w/o Retaining Ring Groove	Length Leader Position Change
	Code	NWC
Spec.	One end will be left w/o retaining ring groove. Ordering Code NWC	Dimensioning leader position of L dimension will be altered to the outside of retaining ring grooves. Ordering Code LLC300 ⚠ Specify L dimensions with LLC. ⚠ LLC=1mm Increment

⚠ Alterations may lower hardness. See P.112