Shafts

One End Stepped and Tapped, One End Threaded / One End Stepped, One End Threaded

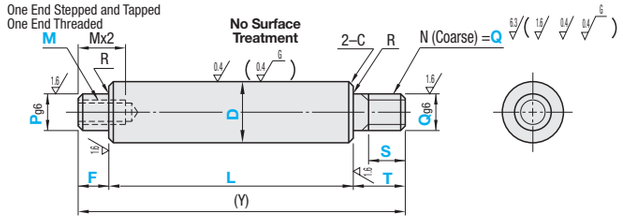
RoHS10

- Shaft End Machined Area (Effective Thread Length + Approx. 10mm) Annealing may lower hardness.
- L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P.111
- Features of LTBC Plating P.128

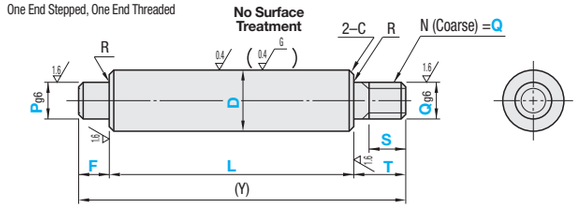
Type: One End Stepped and Tapped One End Threaded D Tol. g6	D Tol. h5	D Tol. f8	One End Stepped, One End Threaded D Tol. g6	D Tol. h5	D Tol. f8	M Material	H Hardness	S Surface Treatment
SFAB	SFUA	-	SFNB	SFUB	-	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening P.112 EN 1.3505 Equiv. 58HRC~ EN 1.4125 Equiv. 56HRC~	-
SSFAB	SSFUA	-	SSFNB	SSFUB	-	EN 1.4125 Equiv.		
PSFAB	PSFUA	-	PSFNB	PSFUB	-	EN 1.3505 Equiv.		Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5μ or More ~
PSSFAB	PSSFUA	-	PSSFNB	PSSFUB	-	EN 1.4125 Equiv.		
RSFAB	-	-	RSFNB	-	-	EN 1.3505 Equiv.		LTBC Plating
-	-	PSFGB	-	-	PSNGB	EN 1.1191 Equiv.	-	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 10μ or More ~
-	-	PSSFGB	-	-	PSSNGB	EN 1.4301 Equiv.		

D	D Tol. g6	D Tol. h5	D Tol. f8
8	-0.005 -0.014	0 -0.006	-0.013 -0.035
10			
12	-0.006 -0.017	0 -0.008	-0.016 -0.043
13			
15			
16			
18			
20			
25	-0.007 -0.020	0 -0.009	-0.020 -0.053
30			
35	-0.009 -0.025	0 -0.011	-0.025 -0.064
40			
50			

One End Stepped and Tapped One End Threaded



One End Stepped, One End Threaded



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

Part Number Type	D	1mm Increment L	F	T	S	P	M (Coarse) Selection	Q Selection	(Y) Max.	R	C
One End Stepped and Tapped One End Threaded (D Tolerance g6) (D Tolerance h5): SFAB SFUA, SSFAB SSFUA, PSFAB PSFUA, PSSFAB PSSFUA, RSFAB (D≤30,L≤500,Ymax≤800) (D Tolerance f8): PSFGB PSSFGB; One End Stepped, One End Threaded (D Tolerance g6) (D Tolerance h5): SFNB SFUB, SSFNB SSFUB, PSFNB PSFUB, PSSFNB PSSFUB, RSFNB (D≤30,L≤500,Ymax≤800) (D Tolerance f8): PSNGB PSSNGB	8	25~ 796	2≤F≤Px4	2≤T≤Qx5	(When Q≤6) S≤T-2	6	3	3 4 5 6 8	800	0.3 or Less	0.5 or Less
	10	25~ 796				6~8	3 4 5	4 5 6 8 10	800		
	12	25~ 996			(When Q=8, 10) S≤T-3	6~10	3 4 5 6	5 6 8 10 12	1000		
	13	25~ 996				6~11	3 4 5 6 8	5 6 8 10 12	1000		
	15	25~ 996				6~13	3 4 5 6 8 10	5 6 8 10 12	1000		
	16	25~1196			(When Q≥12) S≤T-5	6~14	3 4 5 6 8 10	5 6 8 10 12 16	1200		
	18	25~1196				8~16	4 5 6 8 10 12	5 6 8 10 12 16	1200		
	20	25~1196			(W/o Threads) S=0 (S=0 is only applicable to One End Stepped and Tapped One End Threaded.)	8~17	4 5 6 8 10 12	6 8 10 12 16 20	1200		1.0 or Less
	25	25~1196				8~22	4 5 6 8 10 12 16	8 10 12 16 20 24	1200		
	30	25~1496				9~27	5 6 8 10 12 16 20 24	8 10 12 16 20 24 30	1500		
	35	25~1496				9~32	5 6 8 10 12 16 20 24	10 12 16 20 24 30	1500	0.5 or Less	
	40	25~1496				11~37	6 8 10 12 16 20 24 30	12 16 20 24 30	1500		
	50	25~1496			(S≤Pitchx3)	11~47	6 8 10 12 16 20 24 30	16 20 24 30	1500		

- P dimensions require M+3≤P.
- L+F dimensions require Mx4 or more.
- When D=Q, specify T=S as S dimensions. However, L and T dimensions have manufacturing priority and S dimension will be T-(Pitchx2).

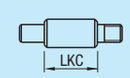
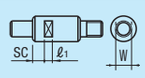
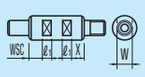
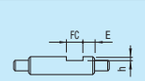
Ordering Example

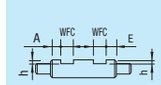
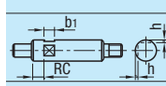
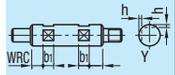
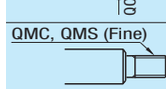
Part Number	L	F	P	M	T	S	Q
SFNB20	400	F25	P16		T35	S25	Q16
SFAB20	400	F25	P16	M10	T35	S25	Q16

Alterations

Part Number	L	F	P	M	T	S	Q(QMC · QMS)	(LKC···etc.)
SFAB20	400	F25	P16	M10	T35	S25	Q16	LKC-QC

Alteration Details P.113

Alterations	Code	Spec.
	LKC	Alteration to L dimension tolerance Ordering Code LKC ⊗Not applicable when D-P(Q)≤2. L dimensions can be specified in 0.1mm increment for LKC. L<200 ···L±0.03 200≤L<500 ···L±0.05 L≥500 ···L±0.1
	SC	Wrench Flats at One Location Ordering Code SC5 SC=1mm Increment SC+ℓ1≤L SC≥0 ⊗Not available in combination with WSC. D / W / ℓ1: 8 / 7 / 8; 10 / 8; 12 / 10; 13 / 11; 15 / 13
	WSC	Wrench Flats at Two Locations Ordering Code WSC12-X8 WSC, X=1mm Increment WSC+X+ℓ1x2<L WSC(X)≥0 ⊗Orientation between wrench flats is not coplanar. Not available in combination with SC. D / W / ℓ1 / ℓ2 / X: 16 / 14 / 10; 18 / 16; 20 / 17; 25 / 22; 30 / 27; 35 / 30; 40 / 36; 50 / 41
	FC	Set Screw Flat at One Location Ordering Code FC10-E8 FC, E=1mm Increment FC≤3xD When 1.5xD<FC, FC≤L/2 E=0 or E≥2 ⊗Not available in combination with WFC. D / h: 8~18 / 1; 20~40 / 2; 50 / 3

Alterations	Code	Spec.
	WFC	Set Screw Flats at Two Locations Ordering Code WFC10-A8-E20 WFC, A, E=1mm Increment WFC≤3xD When 1.5xD<WFC, 2WFC≤L/2 A(E)=0 or A(E)≥2 ⊗Orientation between set screw flats is not coplanar. Not available in combination with FC. D / h: 8~18 / 1; 20~40 / 2; 50 / 3
	RC	90-deg. Set Screw Flat at One Location Ordering Code RC10 Application Notes Only applicable to D=10 ~ 30. ⊗Not available in combination with WRC.
	WRC	90-deg. Set Screw Flats at Two Locations Ordering Code WRC10-Y10 Application Notes Only applicable to D=10 ~ 30. ⊗Not available in combination with RC. ⊗Orientation between two set screw flats is not coplanar.
	QC	Undercut Ordering Code QC Application Notes Applicable to M=6 or more. ⊗Not Applicable to D=Q.
QMC, QMS (Fine)	QMC QMS	Change to Fine Thread Ordering Code QMC14 (Q is changed to QMC) QMS14 (Q is changed to QMS)

For details, see Shaft Alteration Overview. P.113

- Please see Shaft Alteration Overview for details if provided. P.113
- When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
- Alterations may lower hardness.See P.112

Part Number Type	D	Unit Price Min. L ~ 50	L51 ~ 100	L101 ~ 150	L151 ~ 200	L201 ~ 300	L301 ~ 400	L401 ~ 500	L501 ~ 600	L601 ~ 800	L801 ~ 1000	L1001 ~ 1200	L1201 ~ 1496
SFAB SFUA	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												
SSFAB SSFUA	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												

Part Number Type	D	Unit Price Min. L ~ 50	L51 ~ 100	L101 ~ 150	L151 ~ 200	L201 ~ 300	L301 ~ 400	L401 ~ 500	L501 ~ 600	L601 ~ 800	L801 ~ 1000	L1001 ~ 1200	L1201 ~ 1496
PSFAB PSFUA	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												
PSSFAB PSSFUA	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												

Part Number Type	D	Unit Price Min. L ~ 50	L51 ~ 100	L101 ~ 150	L151 ~ 200	L201 ~ 300	L301 ~ 400	L401 ~ 500	L501 ~ 600	L601 ~ 800	L801 ~ 1000	L1001 ~ 1200	L1201 ~ 1496
SFNB SFUB	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												
SSFNB SSFUB	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												

Part Number Type	D	Unit Price Min. L ~ 50	L51 ~ 100	L101 ~ 150	L151 ~ 200	L201 ~ 300	L301 ~ 400	L401 ~ 500	L501 ~ 600	L601 ~ 800	L801 ~ 1000	L1001 ~ 1200	L1201 ~ 1496
PSFNB PSFUB	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												
PSSFNB PSSFUB	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	15											-	-
	16												-
	18												-
	20												-
	25												-
	30												
	35												
	40												
	50												

Part Number Type	D	Unit Price Min. L ~ 100	L101 ~ 200	L201 ~ 400	L401 ~ 600	L601 ~ 800	L801 ~ 1000	L1001 ~ 1200	L1201 ~ 1496
PSFGB PSNGB	8						-	-	-
	10						-	-	-
	12							-	-
	13							-	-
	15, 16								-
	18, 20								-
	25								-
	30								
	35								
	40								
	50								
PSSFGB PSSNGB	8						-	-	-
	10						-	-	-
	12							-	-
	13							-	-
	15, 16								-
	18, 20								-
	25								-
	30								
	35								
	40								
	50								

Part Number Type	D	Unit Price Min. L ~ 50	L51 ~ 100	L101 ~ 150	L151 ~ 200	L201 ~ 300	L301 ~ 400	L401 ~ 500
RSFAB RSFNB	8							
	10							
	12							
	13							
	15							
	16							
	18							
	20							
	25							
	30							