Shafts

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

For products uncovered by the e-Catalog Standards, see P.131.

RoHS10

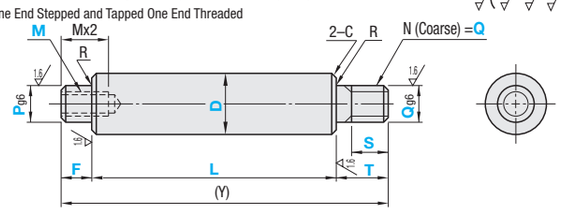
- Shaft End Machined Area (Effective Thread Length + Approx. 10mm) Annealing may lower hardness.
- L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P.141
- Features of Low Temp. Black Chrome Plating P.156

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	-	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P.142	-
SSFAB	SSFUA	-	SSFNB	SSFUB	-	SUS440C or 13Cr stainless		
PSFAB	PSFUA	-	PSFNB	PSFUB	-	SUJ2 Equivalent		Hard Chrome Plating - Plating Hardness: HV750 ~, Plating Thickness: 5μ or More ~
PSSFAB	PSSFUA	-	PSSFNB	PSSFUB	-	SUS440C or 13Cr stainless		
RSFAB	-	-	RSFNB	-	-	SUJ2 Equivalent	SUJ2 Equivalent 58HRC~	Low Temp. Black Chrome Plating
-	-	PSFGB	-	-	PSNGB	S45C Equivalent	SUS440C or 13Cr stainless 56HRC~	Hard Chrome Plating - Plating Hardness: HV750 ~, Plating Thickness: 10μ or More ~
-	-	PSSFGB	-	-	PSSNGB	SUS304	-	

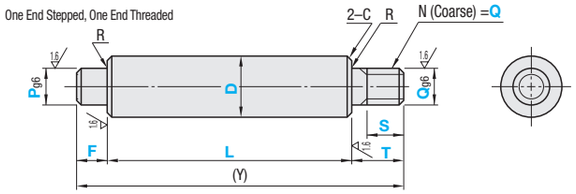
D	D Tol. g6	D Tol. h5	D Tol. f8
8	-0.005 -0.014	0 -0.006	-0.013 -0.035
10			
12	-0.006 -0.017	0 -0.008	-0.016 -0.043
13			
15			
16			
18			
20	-0.007 -0.020	0 -0.009	-0.020 -0.053
25			
30			
35	-0.009 -0.025	0 -0.011	-0.025 -0.064
40			
50			

For plated products, the surface roughness of D part is 0.4; and for unplated products, it is 0.4/6.

One End Stepped and Tapped One End Threaded



One End Stepped, One End Threaded



Coarse Thread Dimensions 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 (One End Stepped and Tapped One End Threaded)	(One End Stepped, One End Threaded)	D	1mm Increments L	F	T	S	P	M (Coarse) Selection	Q Selection	(Y) Max.	R	C
(D Tol. g6)	(D Tol. h5) (D Tol. g6)	(D Tol. h5)										
SFAB	SFUA SFNB	SFUB	8	25~ 996	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
SSFAB	SSFUA SSFNB	SSFUB	10	25~ 996				6~ 8	3 4 5	4 5 6 8 10	800		
PSFAB	PSFUA PSFNB	PSFUB	12	25~1196			(When Q=8, 10) S≤T-3	6~10	3 4 5 6	5 6 8 10 12	1000		
PSSFAB	PSSFUA PSSFNB	PSSFUB	13	25~1196				6~11	3 4 5 6 8	5 6 8 10 12	1000		
RSFAB	RSFNB		15	25~1196			(When Q≥12) S≤T-5	6~13	3 4 5 6 8 10	5 6 8 10 12	1000		
(D≤30,L≤500,Ymax.≤800)	(D≤30,L≤500,Ymax.≤800)		16	25~1196				6~14	3 4 5 6 8 10	5 6 8 10 12 16	1200		
(D Tol. f8)	(D Tol. f8)		18	25~1196				8~16	4 5 6 8 10 12	5 6 8 10 12 16	1200		
PSFGB	PSNGB		20	25~1196			(W/o Threads) S=0	8~17	4 5 6 8 10 12	6 8 10 12 16 20	1200		1.0 or Less
PSSFGB	PSSNGB		25	25~1196			S=0 is only applicable to One End Stepped and Tapped One End Threaded.	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).

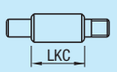
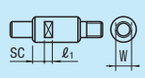
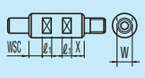
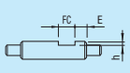
Ordering Example

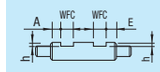
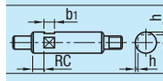
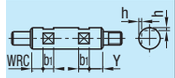
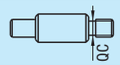
Part Number	L	F	P	M	T	S	Q
SFNB20	400	F25	P16		T35	S25	Q16
SFAB20	400	F25	P16	M10	T35	S25	Q16

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.143

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; 16 / 14; 18 / 16; 20 / 17; 25 / 22; 30 / 27; 35 / 30; 40 / 36; 50 / 41
	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. ℓ1: 10; ℓ2: 15; X: 20
	FC	Set Screw Flat at One Location Ordering Code FC10-E8 FC, E=1mm Increment D≤30:FC≤5xD,D≥35:FC≥3xD 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 D≤30:WFC≤5xD,D≥35:WFC≥3xD 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.143

- Please see Shaft Alteration Overview for details if provided. P.143
- When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
- Alterations may lower hardness. See P.142.

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												

For D tolerance h5, add the relevant surcharge to the prices above.

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												

For D tolerance h5, add the relevant surcharge to the prices above.

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												

For D tolerance h5, add the relevant surcharge to the prices above.

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												

For D tolerance h5, add the relevant surcharge to the prices above.

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								

For One End Stepped Shafts, subtract the relevant charge from the prices above.

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							

For One End Stepped Shafts, subtract the relevant charge from the prices above.