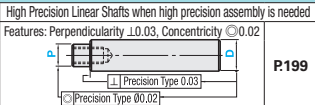


Shafts

One End Stepped and Tapped / One End Stepped



- For High Precision Linear Shafts with high perpendicular precision of the shaft end ($\perp 0.03$), see **P.199**.
- For Shafts with Wrench Flats, see **P.139**.

RoHS 10

- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). **P.112**
- L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness **P.111**
- Features of LTBC Plating **P.128**

Type						Material	Hardness	Surface Treatment
One End Stepped and Tapped		One End Stepped						
D Tol. g6	D Tol. h5	D Tol. g6	D Tol. h5	D Tol. f8				
SFAG	SFUG	-	SFAC	SFCU	-	EN 1.3505 Equiv.	Effective Hardened	-
SSFAG	SSFUG	-	SSFAC	SSFCU	-	EN 1.4037 Equiv.	Depth of Induction	-
PSSAG	PSSUG	-	PSSAC	PSSFCU	-	EN 1.3505 Equiv.	Hardening P.112	Hard Chrome Plating
PSSAG	PSSUG	-	PSSAC	PSSFCU	-	EN 1.4037 Equiv.	EN 1.3505 Equiv. 58HRC	Plating Hardness: H7/50 -
RSFAG	-	-	RSFAC	-	-	EN 1.3505 Equiv.	EN 1.4037 Equiv. 58HRC	Plating Thickness: 5μ or More
-	-	PSSFGG	-	-	-	EN 1.1191 Equiv.	-	LTBC Plating
-	-	PSSFGG	-	-	-	EN 1.4301 Equiv.	-	Plating Thickness: 10μ or More

One End Stepped and Tapped

One End Stepped

No Surface Treatment

Part Number		1mm Increment				M (Coarse) Selection				(Y) Max.	R	C
Type	D	L	F	P								
One End Stepped and Tapped (D Tol. g6) SFAG SSFAG PSSAG RSFAG (D≤30, L≤500) (D Tolerance f8) PSSFGG PSSFGG	8	25~798	2≤F≤Px4	6	3					800	0.5 or Less	0.5 or Less
	10	25~798		6~8	3 4 5					800		
	12	25~998		6~10	3 4 5 6					1000		
	13	25~998		6~11	3 4 5 6 8					1000		
	15	25~998		6~13	3 4 5 6 8 10					1000		
	16	25~1198		6~14	3 4 5 6 8 10					1200		
	18	25~1198		8~16	4 5 6 8 10 12					1200		
	20	25~1198		8~17	4 5 6 8 10 12					1200		
	25	25~1198		8~22	4 5 6 8 10 12 16					1200		
	30	25~1498		9~27	5 6 8 10 12 16 20 24					1500	1.0 or Less	1.0 or Less
	35	25~1498		9~32	5 6 8 10 12 16 20 24					1500		
	40	25~1498		11~37	6 8 10 12 16 20 24 30					1500		
	50	25~1498		11~47	6 8 10 12 16 20 24 30					1500		

•One End Stepped and Tapped •P dimensions require M+3sP. •When Mx2.5+4≥Y, tap pilot holes may go through.

Ordering Example	Part Number	L	F	P	M
	SFAG20	400	F25	P16	M10
	SFUG20	400	F25	P16	M10
	SFAC20	500	F25	P16	

Alterations	Part Number	L	F	P	M (MD)	(LKC, FC...etc.)
	SFAG30	400	F25	P16	M10	LKC

Alterations	Code	Spec.
	LKC	Alteration to L dimension tolerance (Ordering Code) LKC ✗Not applicable when D-P≤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
	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.
	WFC	Set Screw Flats at Two Locations (Ordering Code) WFC8-A8-E4 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.

Alterations	Code	Spec.
	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.
	KC	Keyway (Ordering Code) KC10-G10 (Application Notes) Only applicable to D=12, 16, 20, 25 and 30.
	WKC	Keyways at Two Locations (Ordering Code) WKC10-G10 (Application Notes) Only applicable to D=12, 16, 20, 25 and 30.
	MD	Change the effective length of tapped part to Mx3. (Ordering Code) MD6 (M is changed to MD) (Application Notes) Only applicable to D=8~30, M=6~20 • One End Tapped: MDx3.5+4≥L

- 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		Unit Price																			
Type	D	Min. L	L51	L101	L151	L201	L251	L301	L351	L401	L451	L501	L551	L601	L651	L701	L751	L801	L851	L901	L951
SFAG SFUG SFAC SFCU	8																				
	10																				
	12																				
	13																				
	15																				
	16																				
	18																				
	20																				
	25																				
	30																				
SSFAG SSFUG SSFAC SSFCU	8																				
	10																				
	12																				
	13																				
	15																				
	16																				
	18																				
	20																				
	25																				
	30																				
PSSAG PSSUG PSSAC PSSFCU	8																				
	10																				
	12																				
	13																				
	15																				
	16																				
	18																				
	20																				
	25																				
	30																				
PSSAG PSSUG PSSAC PSSFCU	8																				
	10																				
	12																				
	13																				
	15																				
	16																				
	18																				
	20																				
	25																				
	30																				

•One End Stepped and Tapped •One End Stepped

Part Number		Unit Price						
Type	D	Min. L	L101	L201	L401	L601	L801	L101
RSFAG RSFAC	8							
	10							
	12							
	13							
	15							
	16							
	18							
	20							
	25							
	30							

Part Number		Unit Price						
Type	D	Min. L	L101	L201	L401	L601	L801	L101
PSSFGG PSSCGG	8, 10							
	12, 13							
	15, 16							
	18, 20							
	25							
	30							
	35							
	40							
	50							

Part Number		Unit Price						
Type	D	Min. L	L101	L201	L401	L601	L801	L101
PSSFGG PSSCGG	8, 10							
	12, 13							
	15, 16							
	18, 20							
	25							
	30							
	35							
	40							
	50							