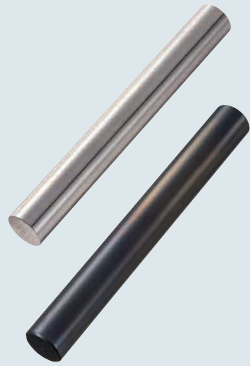




# Precision Linear Shafts

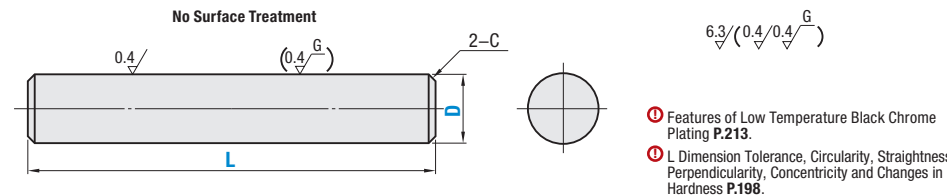
## Straight

### Precision Linear Shafts – Straight



Type			Material	Hardness	Surface Treatment
D Tol. g6	D Tol. h5	D Tol. f8			
SFJ	SFU	—	52100 Bearing Steel Equivalent	Induction Hardening Effective Hardened Depth P.199 52100 Bearing Steel Equivalent 58 HRC min.	—
ZSFJ	—	—			
SSFJ	SSFU	—	SUS440C (13Cr) Stainless Steel Equivalent	SUS440C (13Cr) Stainless Steel Equivalent 56 HRC min.	Hard Chrome Plating Plating Hardness: HV 750~ Plating Thickness 5 μ or More
PSFJ	PSFU	—			
PSSFJ	PSSFU	—	SUS440C (13Cr) Stainless Steel Equivalent	SUS440C (13Cr) Stainless Steel Equivalent 56 HRC min.	Low Temperature Black Chrome Plating
RSFJ	—	—			
—	—	PSFG	1045 Carbon Steel Equivalent	—	Hard Chrome Plating Plating Hardness: HV 750~ Plating Thickness: 10 μ or More
—	—	PSSFG	304 Stainless Steel		

Can be selected in 1 mm increments. Stocked in fixed dimensions.  
\*ZSFJ is only available in fixed lengths for cost efficiency



Part Number	D			L 1 mm Increment	C		
	Type	D Tol. g6	D Tol. h5				
D Tolerance g6 SFJ SSFJ PSFJ PSSFJ	3	-0.002 -0.008	0 -0.004	10-400	0.2 or Less		
	4			10-400			
	5	-0.004 -0.012	0 -0.005	10-400			
	6			15-900			
	D Tolerance h5 SFU SSFU PSFU PSSFU	8	-0.005 -0.014	0 -0.006	15-1100	0.5 or Less	
		10			15-1200		
		12			15-1400		
		13			15-1400		
		D Tolerance f8 PSFG PSSFU	15	-0.006 -0.017	0 -0.008	15-1400	1.0 or Less
			16			30-1400	
18					30-1400		
20					30-1400		
25			-0.007 -0.020	0 -0.009	35-1400	1.0 or Less	
30					35-1500		
35				35-1500			
40	-0.009 -0.025		0 -0.011	50-1500			
50				65-1500			

Part Number	Type	D Tol. g6	L		C	
			1 mm Increment			
D Tolerance g6 Low Temp. Black Chrome Plating RSFJ	3	-0.002 -0.008	10-400	0.2 or Less		
	4		10-400			
	5	-0.004 -0.012	10-400			
	6		20-500			
		8	-0.005 -0.014	20-500	0.5 or Less	
		10		20-500		
		12		20-500		
		13		25-500		
			15	-0.006 -0.017	25-500	1.0 or Less
			16		30-500	
18				30-500		
20				30-500		
			25	-0.007 -0.020	35-500	1.0 or Less
			30		35-500	

Part Number	Type	D Tol. g6	L Fixed	C
	12	-0.006 -0.017	300	
			200	1.0 or Less
			300	

Part Number Example SFJ20 - L 75

# Precision Linear Shafts

## Straight, continued

Part Number Alterations SFJ30 - L 250 - LKC

Alteration Details P.200

Alterations	Code	Spec.
	LKC	L Dimension Tolerance Change (Precision) Ordering Code: LKC L dimension can be specified in 0.1 mm increment for LKC. ① 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 Application Notes: Applicable to D=6 or more SC=1 mm Increment ① SC+L <sub>1</sub> ≤L SC≥0 ⊗ Not available in combination with WSC.
	WSC	Wrench Flats at Two Locations Ordering Code: WSC12-X8 Application Notes: Applicable to D=6 or more WSC, X=1 mm Increment ① WSC+W+L <sub>1</sub> +2<L WSC(X)≥0 ⊗ Orientation between wrench flats is not coplanar. ⊗ Not available in combination with SC.
	FC	Set Screw Flat at One Location Ordering Code: FC10-A8 FC, A=1 mm Increment ① FC≤3xD ② When 1.5xD<FC, FC≤L/2 ③ A=0 or A≥2
	WFC	Set Screw Flat at Two Locations Ordering Code: WFC10-A8-E20 WFC, A, E=1 mm Increment ① WFC≤3xD ② When 1.5xD<WFC, 2WFC≤L/2 ③ A(E)=0 or A(E)≥2 ④ Orientation of two set screw flats is random.

Alterations	Code	Spec.
	RC	90° Set Screw Flat at One Location Ordering Code: RC10 Application Notes: Applicable to D=10 to 30 ⊗ Not available in combination with WRC.
	WRC	90° Set Screw Flat at Two Locations Ordering Code: WRC10 Application Notes: Applicable to D=10 to 30 ⊗ Not available in combination with RC. ⊗ Orientation between two set screw flat is not coplanar.
	VC	V Groove at One Location Ordering Code: VC8 Application Notes: Applicable to D=6 or more ⊗ Not available in combination with WVC.
	WVC	V Groove at Two Locations Ordering Code: WVC180-F8 Application Notes: Applicable to D=6 or more ⊗ Not available in combination with VC.
	KC	Keyway at one location
	WKC	Keyways at two locations
		Keyway Ordering Code: KC10-G10 WKC10-C8-KC10-G10 Application Notes: Only applicable to D=12, 16, 20, 25 and 30.

- ① Please see Shaft Alteration Overview for details if provided. P.200
- ② When selecting multiple alteration additions, the distance between machined areas should be greater than 2 mm. P.201
- ③ Alterations may lower hardness. See P.199