


High Precision Linear Shafts

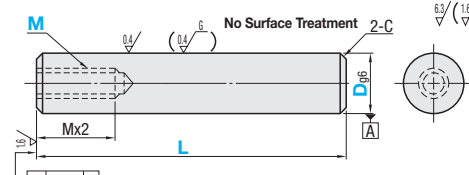
One End Tapped / One End Tapped with Wrench Flats

■ Suitable for assemblies of parts requiring high precision and high perpendicular precision of the shaft end ($\perp 0.03$).



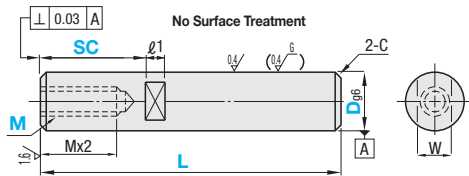
Type		D Tol.	Material	Hardness	Surface Treatment	D Tol.	
W/o Wrench Flats	With Wrench Flats					D	g6
VFJT	VFJC	g6	EN 1.3505 Equiv.	Induction Hardened Effective Hardened Depth P112	Hard Chrome Plating Plating Hardness HV750 ~ Plating Thickness: 5µ or More	4	-0.004
VSFJT	VSFJC		EN 1.4125 Equiv.			5	-0.012
VPFJT	VPFJC		EN 1.3505 Equiv.			6	
VPSFJT	VPSFJC		EN 1.4125 Equiv.			8	-0.005
VRJT	VRJC		EN 1.4125 Equiv.			10	-0.014
			EN 1.3505 Equiv.			12	
			13				
			15	-0.006			
			16	-0.017			
			18				
			20	-0.007			
			25	-0.020			
			30				

W/o Wrench Flats



No Surface Treatment

With Wrench Flats



No Surface Treatment

RoHS10

- Annealing required for wrench flats machining and shaft end threading (effective thread length + approx. 10mm) may lower hardness. P112
- L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P111
- Shafts may have centering holes at end faces.
- Features of L7BC Plating P.128

Part Number Type	D	L specified in 1mm Increment	M (Coarse), N (Coarse) Selection	Wrench Flats Dimensions			c
				SC	W	l1	
(W/o Wrench Flats) (D4-D30) VFJT VSFJT VPFJT VPSFJT VRJT	4	25~200	2	-	-	-	0.2 or Less
	5	25~300	2.6 3	-	-	-	0.5 or Less
	6	25~300	3	-	-	-	
	8	25~300	3 4 5	-	-	-	
	10	25~350	3 4 5 6	5	8	8	
	12	25~350	4 5 6 8	7	8	10	
	13	25~350	4 5 6 8	8	10	11	
	15	25~350	4 5 6 8 10	10	10	13	
	16	25~350	4 5 6 8 10	11	10	14	
	18	25~350	4 5 6 8 10 12	12	10	16	
	20	30~450	4 5 6 8 10 12	13	10	17	
	25	30~450	4 5 6 8 10 12 16	14	10	22	
	30	30~450	6 8 10 12 16 20	16	15	27	

SC=1mm Increment
 SC+l1≤L
 SC≥0
 Details of Wrench Flats P.112

For overall length L, when Mx2.5+4≥L, tap pilot holes may go through.

Ordering Example

Part Number - L - M - SC

VFJT20 - 100 - M8 - SC10

VFJC20 - 100 - M8 - SC10

Alterations

Part Number - L - M (M4, MD) - SC - (LKC...etc.)

VFJC20 - 100 - M8 - SC10 - LKC

VFJT20 - 100 - M8 - SC10 - FC10-E8

Alteration Details P.113

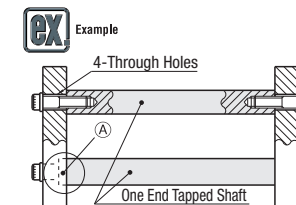
Alterations	Code	Spec.	Alterations	Code	Spec.
	LKC	Alteration to L dimension tolerance Ordering Code LKC Application Notes Applicable when L=200 or less. L dimensions can be specified in 0.1mm increment for LKC. L≤200→L±0.03		SX	Second Set of Wrench Flats Ordering Code SX15 Application Notes Applicable to D=6 or more SX=1mm Increment SC+SX+l1<L SX≥0 Orientation between two set screw flats is not coplanar.
	FC	Set Screw Flat at One Location Ordering Code FC10-A8 FC, A=1mm Increment FC≤3xD When 1.5xD<FC, FC≤L/2 A=0 or A≥2 Not available in combination with WFC.		MSC	Change to Fine Tapped Thread Ordering Code MSC14 (M is changed to MSC) NSC14 (N is changed to NSC) Application Notes Applicable to D=12 or more
	WFC	Set Screw Flats at Two Locations Ordering Code WFC8-A8-E2 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.		MD	Change the effective length of tapped part to Mx3. Ordering Code MD6 (M is changed to MD) Application Notes Only applicable to D=10~30, 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.
- The distance between wrench flats and cross-drilled holes should be greater than 2mm for alterations.
- Alterations may lower hardness. See P.112

Part Number Type	D	Unit Price					
		Min. L / 50	L51 / 100	L101 / 200	L201 / 300	L301 / 450	
VFJT	4						
	5						
	6						
	8						
	10						
	12						
	13						
	15, 16						
	18						
	20						
	25						
	30						
	VSFJT	4					
		5					
		6					
		8					
10							
12							
13							
15, 16							
18							
20							
25							
30							
VPFJT		4					
		5					
		6					
		8					
	10						
	12						
	13						
	15, 16						
	18						
	20						
	25						
	30						
	VPSFJT	4					
		5					
		6					
		8					
10							
12							
13							
15, 16							
18							
20							
25							
30							
VRJT		4					
		5					
		6					
		8					
	10						
	12						
	13						
	15, 16						
	18						
	20						
	25						
	30						

Part Number Type	D	Unit Price					
		Min. L / 50	L51 / 100	L101 / 200	L201 / 300	L301 / 450	
VFJC	6						
	8						
	10						
	12						
	13						
	15, 16						
	18						
	20						
	25						
	30						
	VSFJC	6					
		8					
		10					
		12					
		13					
		15, 16					
18							
20							
25							
30							
VPFJC		6					
		8					
		10					
		12					
		13					
		15, 16					
	18						
	20						
	25						
	30						
	VPSFJC	6					
		8					
		10					
		12					
		13					
		15, 16					
18							
20							
25							
30							
VRJC		6					
		8					
		10					
		12					
		13					
		15, 16					
	18						
	20						
	25						
	30						



Precision Type does not require stepped machining as (A), which enables effective assembly.

