

Rotary Shafts

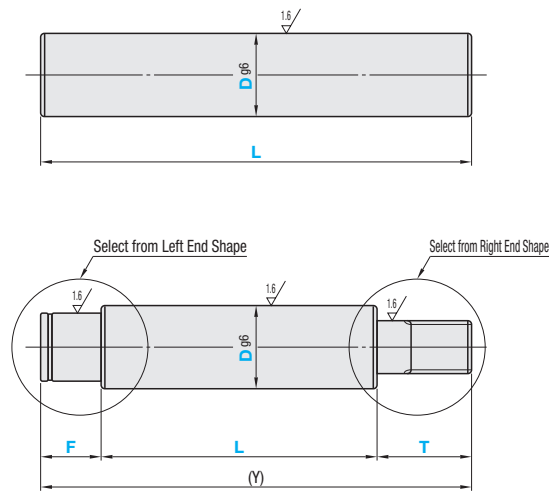
End Shape Selectable



RoHS10

Type	Material	Surface Treatment
SFR□□	EN 1.1191 Equiv.	Black Oxide
PSFR□□	EN 1.1191 Equiv.	Electroless Nickel Plating
SSFR□□	EN 1.4301 Equiv.	-

Base Shape (A Shape on Both Ends)



- (Y) ≤ Dx50 is required for (Y) dimension.
- When only one end needs to be machined, select A Shape for the other end.
- When L dimension is less than the tap pilot hole depth, the pilot hole might go through.
- H and J will not be symmetrical when applied to both ends of the shaft.
- H and J may be out of phase with other alterations.

	Left End Shape	Right End Shape	Machining Conditions
A			
B			For M3~8, M≤D-2 For M10~16, M≤D-3 For M20 or 24, M≤D-4 For M30, M≤D-5
C			P(Q)=M(N) Specify M(N) Dimension. Specification of P(Q) dimension is not required.
D			
E			For M3 ~ 8, M(N)≤P(Q)-2 For M10 ~ 16, M(N)≤P(Q)-3 For M20 or 24, M(N)≤P(Q)-4 For M30, M(N)≤P(Q)-5
F			For dimensions of retaining ring grooves (m, d), see P820. D dimension 27, 31, 33, 34, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48 or 49 cannot be specified.
G			
H			For details of hex socket dimensions, see P820. Applicable when D≤30.
J			R(W)-M(N)≥t D-R-M≥2 D-W-N≥2 M(N) tmin 4- 5 0.8 6-12 1.0 Tap Depth Mx2 Nx2

Type	Part Number		1mm Increment	0.1mm Increment	1mm Increment			Selection	1mm Increment	C
	Left End Shape	Right End Shape			D	L	F, T			
SFR	A	A	6-50	20.0~800.0 (L≤Dx50)	2≤F≤Px5 2≤T≤Qx5	When M, N≤10 2≤B≤Mx3 2≤S≤Nx3	When D, P, Q≤6 2≤H, U	D/3≤P, Q<D	3 4 5	D≥M+4+R R≥M+3 W≥N+3
PSFR	B	B				When 6<D, P, Q≤10 3≤H, U	6 8 10			
	C	C				When M, N≥12 2≤B≤Mx3 2≤S≤Nx3 & B≤F-5 S≤T-5	When 10<D, P, Q≤20 4≤H, U		12 16 20	
	D	D				When 20<D, P, Q	24 30			
	E	E								
SSFR	F	F								

For D Dimension, 31, 37, 39, 41~44 or 46~49 cannot be specified.

Type	D	Material Unit Price								Shaft End Machining Unit Price							
		L20.0	L50.1	L100.1	L150.1	L200.1	L300.1	L400.1	L600.1	B	C	D	E	F	G	H	J
SFR□□	6-10	50.0	100.0	150.0	200.0	300.0	400.0	600.0	800.0								
	11-15																
	16-20																
	21-25																
	26-30																
	31-35																
PSFR□□	6-10																
	11-15																
	16-20																
	21-25																
	26-30																
	31-35																
SSFR□□	6-10																
	11-15																
	16-20																
	21-25																
	26-30																
	31-35																

Ordering Example: Part Number - D - L - F - B - H - P - M - T - S - U - Q - N - R - W
SFRCE - D15 - L350 - F20 - B16 - M8 - T20 - Q14 - N6

Alterations Example: Part Number - D - L - F - B - H - P - M(PMC) - T - S - U - Q - N(QNC) - R - W - (KC, WKC, FC-etc.)
SFRCE - D15 - L350 - F20 - B16 - PMC8 - T20 - Q14 - N6 - LKC

	Keyway	Keyway on Shaft End	Set Screw Flat	Slit Cam Groove	Wrench Flats	Undercut / L Dimension Tolerance	Concentricity	Fine Thread	
Alterations	1 Keyway: KC 2 Keyways: WKC	PKC, QKC	FC, WFC	SFC	UC	SC	PC, QC, LKC	CKC	PMC, QNC
Code	KC, WKC	PKC, QKC	FC, WFC	SFC	UC	SC	PC, QC, LKC	CKC	PMC, QNC
Spec.	KC: Adds a keyway. WKC: Adds two keyways. PKC10(QKC10) WKC50-C8-K40-E10 KC, A, WKC, C, KE = 1mm Increment A, E, Cs100 For Keyway Details, refer to P820. If 3 keyways are required, use both KC and WKC. When the keyway position is less than 1mm away from the end face, R is not applied. Ex.	Adds a keyway on the shaft end P (Q). PKC10(QKC10) PKC, QKC=50 PKC(QKC)=F(T) Available for shaft end shapes C and D only. For Keyway Details, refer to P820. Not applicable to P (Q)=5 or less.	FC: Adds 1 set screw flat. FC10-G3 WFC: Adds 2 set screw flats. WFC10-J3-W10-V3 FC, G, WFC, J, W, V = 1mm Increment G, J, Vs50	Adds a set screw flat at any desired angle besides the datum plane (P). SFC, SG= 1mm Increment AG = 15° Increment SG=50 SFC10-SG3-AG90	Adds a slit cam groove. UC = 1mm Increment UC10 UC=1 UC=1	Adds a wrench flat. SC = 1mm Increment SC=0 or SC=1 SC=0 or SC=1	PC, QC: Adds an undercut on P and Q. PC For detailed undercut dimensions, refer to P820. F-B=Mx2 Not applicable when D=P or D=Q.	Changes the concentricity to 0.02. CKC	Changes threads to Fine Thread in the table below. PMC20(QNC16)

For D Dimension, 31, 37, 39, 41~44 or 46~49 cannot be specified.