

Rotary Shafts

Both Ends Stepped, One End Threaded / Both Ends Stepped, One End Threaded, One End Tapped

One End Threaded



RoHS 10

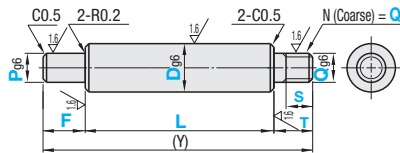
Type		Material	Surface Treatment
Standard	Wrench Flats	S45C Equivalent	Black Oxide
SFRE	SFRES	SUS304	-

⊕ Circularity, Straightness, Perpendicularity, Concentricity P844

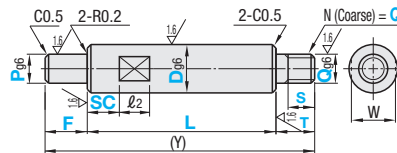
D Tolerance (g6)	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12-18	-0.006 -0.017
20-30	-0.007 -0.020
35-50	-0.009 -0.025

6.3 / (1.6 /)

Standard



Wrench Flats



Part Number		0.1mm Increment				1mm Increment		Q Selection	1mm Increment SC Wrench Flats Type only	W	l ₂	(Y) max.
Type	D	L	F	T	P	S						
SFRE	SFRES SSFRES (D13, D16, D18 or D22 is not available for SSFRES.)	6	15.0-395.0	2.5 ≤ F ≤ P × 5	5 ≤ T ≤ Q × 7	3 ≤ P < D	When Q ≤ 6 S ≤ Q × 3 & S ≤ T - 2	3 4 5	SC + l ₂ ≤ L SC = 0 or SC ≥ 1	5	8	400
		8	15.0-495.0					3 4 5 6		7		500
		10	15.0-595.0					4 5 6 8		8		600
		12	15.0-695.0					5 6 8 10		10		700
		13	15.0-695.0					5 6 8 10		11		800
		15	15.0-795.0					5 6 8 10 12		13		900
		16	15.0-895.0					5 6 8 10 12		15		1000
		17	30.0-895.0					5 6 8 10 12		17		
		18	30.0-895.0					5 6 8 10 12		19		
		20	30.0-995.0					6 8 10 12 16		22		
		22	40.0-995.0			6 8 10 12 16	27					
		25	30.0-995.0			8 10 12 16 20	30					
		30	30.0-995.0			8 10 12 16 20 24	36					
		35	40.0-995.0			10 12 16 20 24 30	41					
		40	40.0-995.0			12 16 20 24 30						
		50	40.0-995.0			16 20 24 30						

⊕ When D - P (Q) ≤ 2, chamfer C at the step is 0.2 or less.

One End Threaded, One End Tapped



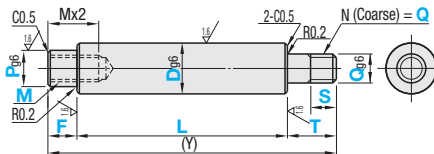
RoHS 10

Type	Material	Surface Treatment
SFRB	S45C Equivalent	Black Oxide
PSFRB		Electroless Nickel Plating

⊕ Circularity, Straightness, Perpendicularity, Concentricity P844

D Tolerance (g6)	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12-18	-0.006 -0.017
20-30	-0.007 -0.020
35-50	-0.009 -0.025

6.3 / (1.6 /)



Part Number		0.1mm Increment				1mm Increment		M (Coarse) Selection	Q Selection	(Y) max.	
Type	D	L	F	T	P	S					
SFRB PSFRB	SFRES SSFRES (D13, D16, D18 or D22 is not available for SSFRES.)	6	15.0-396.0	2.5 ≤ F ≤ P × 5	5 ≤ T ≤ Q × 7	5	When Q ≤ 6 S ≤ Q × 3 & S ≤ T - 2	2.6 3	SC + l ₂ ≤ L SC = 0 or SC ≥ 1	3 4 5	400
		8	15.0-495.0					2.6 3 4 5		3 4 5 6	500
		10	15.0-595.0					3 4 5 6		4 5 6 8	600
		12	15.0-695.0					4 5 6 8		5 6 8 10	700
		13	15.0-695.0					4 5 6 8 10		5 6 8 10	800
		15	15.0-795.0					4 5 6 8 10 12		5 6 8 10 12	900
		16	15.0-895.0					4 5 6 8 10 12		5 6 8 10 12	1000
		17	30.0-895.0					4 5 6 8 10 12		5 6 8 10 12 16	
		18	30.0-895.0					4 5 6 8 10 12		6 8 10 12 16	
		20	30.0-996.0					4 5 6 8 10 12		8 10 12 16 20	
		22	50.0-996.0			4 5 6 8 10 12 16	8 10 12 16 20				
		25	30.0-996.0			4 5 6 8 10 12 16	10 12 16 20 24				
		30	30.0-996.0			6 8 10 12 16 20	12 16 20 24 30				
		35	40.0-996.0			8 10 12 16 20 24	16 20 24 30				
		40	40.0-996.0			10 12 16 20 24 30					
		50	40.0-996.0			12 16 20 24 30					

⊕ When D - P (Q) ≤ 2, chamfer C at the step is 0.2 or less.

Ordering Example	Part Number	-	L	-	F	-	P	-	T	-	S	-	Q	-	SC
	SFRE25	-	300	-	F50	-	P20	-	T20	-	S15	-	Q10	-	SC70
	Part Number	-	L	-	F	-	P	-	M	-	T	-	S	-	Q
SFRB20	-	400	-	F25	-	P16	-	M10	-	T20	-	S15	-	Q10	