

Rotary Shafts - D Tolerance h9 (Cold-drawn) / h7 (Ground) / g6 (Ground)

Both Ends Tapped

Select from h9 (Cold-drawn), h7 (Ground) and g6 (Ground) for your applications.

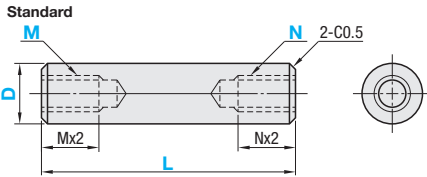


RoHS 10

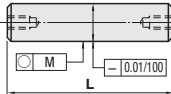
	Type		D Tolerance	Material	Surface Treatment
	Standard	Wrench Flats			
(1)	SFMRW	SFMRWS	h9 (Cold-drawn)	S45C	Black Oxide
	PSFMRW	PSFMRWS		Equivalent	Electroless Nickel Plating
	SSFMRW	SSFMRWS		SUS304	-
(2)	SFHRW	SFHRWS	h7 (Ground)	S45C	Black Oxide
	PSFHRW	PSFHRWS		Equivalent	Electroless Nickel Plating
	SSFHRW	SSFHRWS		SUS304	-
(3)	SFRW	SFRWS	g6 (Ground)	S45C	Black Oxide
	PSFRW	PSFRWS		Equivalent	Electroless Nickel Plating
	SSFRW	SSFRWS		SUS304	-
	HFRW	HFRWS		SCM435	Black Oxide
	PHFRW	-			Electroless Nickel Plating

Tolerance Table				
D	h9 (Cold-drawn)	h7 (Ground)	g6 (Ground)	
4-6	0	0	-0.004	
	-0.030	-0.012	-0.012	
8, 10	0	0	-0.005	
	-0.036	-0.015	-0.014	
12-18	0	0	-0.006	
	-0.043	-0.018	-0.017	
20-30	0	0	-0.007	
	-0.052	-0.021	-0.020	
35-50	0	0	-0.009	
	-0.062	-0.025	-0.025	

Surface roughness of Part D for h9 (Cold-drawn) is $\sqrt{1.6}$. Surface roughness for h7 (Ground) and g6 (Ground) is $\sqrt{0.8}$.



Circularity and Straightness



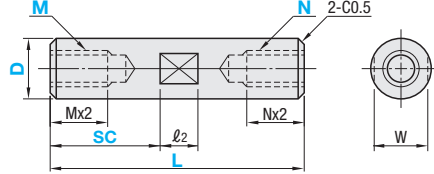
Not applicable to h9 (Cold-drawn).

Circularity of Part D

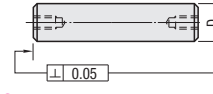
D	over	or Less	Circularity M
3	13		0.004
13	20		0.005
20	40		0.006
40	50		0.007

Not applicable to h9 (Cold-drawn).

Wrench Flats



Perpendicularity



Not applicable to h9 (Cold-drawn).

Tolerances of L and Other Dimensions

Dimension	over	or Less	Tolerance
2	6		±0.1
6	30		±0.2
30	120		±0.3
120	400		±0.5
400	1000		±0.8

(1)h9 (Cold-drawn)

Part Number Type		D	L 1mm Increment	M (Coarse) / N (Coarse) Selection	SC 1mm Increment Wrench Flats Type only	W	ℓ ₂
Standard	Wrench Flats						
SFMRW PSFMRW SSFMRW <small>(D4, D5 or D6 is not available for SFMRWS.) (Wrench flats are not available for D4 and D5.)</small>	SFMRWS PSFMRWS SSFMRWS	4	15.0-200.0	2	-	-	-
		5	15.0-250.0	2 2.6 3	-	-	-
		6	15.0-400.0	2.6 3 4	-	-	-
		8	15.0-500.0	2.6 3 4 5 6	-	-	8
		10	15.0-600.0	3 4 5 6	-	-	8
		12	15.0-700.0	4 5 6 8	-	-	10
		15	15.0-800.0	4 5 6 8 10	-	-	10
		20	30.0-1000.0	4 5 6 8 10 12 16	-	-	15
		25	50.0-1000.0	4 5 6 8 10 12 16	-	-	15
		30	60.0-1000.0	6 8 10 12 16 20	-	-	15
		35	70.0-1000.0	6 8 10 12 16 20 24	-	-	15
		40	80.0-1000.0	10 12 16 20 24 30	-	-	20
		50	100.0-1000.0	12 16 20 24 30	-	-	20

(2)h7 (Ground)

For overall length L, Mx2+Nx2≤L is required. When L dimension is less than the pilot hole depth of tapped hole, the pilot hole might go through.

Part Number Type		D	L 1mm Increment	M (Coarse) / N (Coarse) Selection	SC 1mm Increment Wrench Flats Type only	W	ℓ ₂
Standard	Wrench Flats						
SFHRW PSFHRW SSFHRW <small>(Wrench flats are not available for D4 and D5.)</small>	SFHRWS PSFHRWS SSFHRWS	4	15.0-200.0	2	-	-	-
		5	15.0-250.0	2 2.6 3	-	-	-
		6	15.0-400.0	2.6 3 4	-	-	-
		8	15.0-500.0	2.6 3 4 5 6	-	-	8
		10	15.0-600.0	3 4 5 6	-	-	8
		12	15.0-700.0	4 5 6 8	-	-	10
		15	15.0-800.0	4 5 6 8 10	-	-	10
		17	30.0-900.0	4 5 6 8 10 12	-	-	15
		20	30.0-900.0	4 5 6 8 10 12 16	-	-	15
		25	50.0-900.0	4 5 6 8 10 12 16	-	-	15
		30	60.0-900.0	6 8 10 12 16 20	-	-	15
		35	70.0-1000.0	6 8 10 12 16 20 24	-	-	15
		40	80.0-1000.0	10 12 16 20 24 30	-	-	20
		50	100.0-1000.0	12 16 20 24 30	-	-	20

(3)g6 (Ground)

For overall length L, Mx2+Nx2≤L is required. When L dimension is less than the pilot hole depth of tapped hole, the pilot hole might go through.

Part Number Type		D	L 1mm Increment	M (Coarse) / N (Coarse) Selection	SC 1mm Increment Wrench Flats Type only	W	ℓ ₂
Standard	Wrench Flats						
SFRW PSFRW SSFRW *HFRW *PHFRW <small>(D13, D16, D18 or D22 is not available for SSFRWS.) (Only * marked sizes are available.)</small>	SFRWS PSFRWS SSFRWS *HFRWS *PHFRWS	4	15.0-200.0	2	-	-	-
		5	15.0-250.0	2 2.6 3	-	-	-
		6	15.0-400.0	2.6 3 4	-	-	-
		8	15.0-500.0	2.6 3 4 5 6	-	-	8
		10	15.0-600.0	3 4 5 6	-	-	8
		12	15.0-700.0	4 5 6 8	-	-	10
		13	15.0-700.0	4 5 6 8	-	-	10
		*15	15.0-800.0	4 5 6 8 10	-	-	10
		*16	15.0-900.0	4 5 6 8 10	-	-	10
		*17	30.0-900.0	4 5 6 8 10 12	-	-	15
		*18	30.0-900.0	4 5 6 8 10 12	-	-	15
		*20	30.0-1000.0	4 5 6 8 10 12 16	-	-	15
		*22	40.0-1000.0	4 5 6 8 10 12 16	-	-	15
		*25	50.0-1000.0	4 5 6 8 10 12 16	-	-	15
		*30	60.0-1000.0	6 8 10 12 16 20	-	-	15
*35	70.0-1000.0	6 8 10 12 16 20 24	-	-	15		
*40	80.0-1000.0	10 12 16 20 24 30	-	-	20		
*50	100.0-1000.0	12 16 20 24 30	-	-	20		

For overall length L, Mx2+Nx2≤L is required. When L dimension is less than the pilot hole depth of tapped hole, the pilot hole might go through. For HFRW, HFRWS, PHFRW, the upper limit for L dim. is 800.0.



Ordering Part Number - L - M - N - SC
 Example SFMRW30 - 250 - M12 - N10
 SFHRWS25 - 200 - M8 - N12 - SC20