

Rolled ball screw shafts

Nominal diameter	Lead	Number of threads	Ball diameter	best available tolerance class for right-hand thread shafts	best available tolerance class for left-hand thread shafts	External diameter	Thread minor diameter	Maximum length	Specific mass per meter shaft length	Cross-sectional area	Minimum axial moment of inertia	Polar moment of inertia
d_0	P_h		D_w			d_1	d_2	l_{max}	M	a	i	I_p
[mm]	[mm]		[mm]			[mm]	[mm]	[mm]	[kg/m]	[mm ²]	[mm ⁴]	[mm ⁴]
12	4	1	2.000	P3		11.60 h11	10.07	3000	0.76	9.63E+01	7.00E+02	1.48E+03
12	5	1	2.000	P3		11.50 h11	9.97	3000	0.76	9.64E+01	6.89E+02	1.48E+03
12	10	2	2.000	P3		11.50 h11	10.05	3000	0.75	9.61E+01	6.59E+02	1.48E+03
16	5	1	3.500	P3	T7	15.55 h11	12.88	6000	1.38	1.75E+02	2.22E+03	4.93E+03
16	5.08	1	3.500	P3		15.68 h12	12.86	6000	1.26	1.60E+02	2.03E+03	4.08E+03
16	10	2	3.000	P3		15.35 h11	12.89	6000	1.26	1.60E+02	1.69E+03	4.17E+03
20	5	1	3.500	P3	P3	19.50 h11	16.87	6000	2.21	2.82E+02	5.85E+03	1.27E+04
20	20	4	3.500	P3		19.50 h11	16.87	6000	2.03	2.59E+02	5.41E+03	1.08E+04
20	50	5	3.500	P3		19.10 h11	16.40	6000	2.05	2.62E+02	5.53E+03	1.11E+04
25	5	1	3.500	P3	T7	24.60 h11	21.90	6000	3.32	4.23E+02	1.42E+04	2.85E+04
25	10	2	3.500	P3		24.60 h11	21.92	6000	3.34	4.25E+02	1.27E+04	2.90E+04
25	20	4	3.500	P3		24.60 h11	21.92	6000	3.32	4.23E+02	1.44E+04	2.88E+04
25	25	4	3.500	P3		24.71 h12	21.92	6000	3.40	4.34E+02	1.51E+04	3.02E+04
25	25	5	3.500	P3		24.60 h11	21.92	6000	3.32	4.23E+02	1.44E+04	2.88E+04
25	50	5	3.500	P3		24.15 h11	21.47	6000	3.37	4.29E+02	1.48E+04	2.95E+04
32	5	1	3.500	P3	T7	31.50 h11	28.87	6000	5.90	7.52E+02	4.29E+04	9.01E+04
32	10	1	5.556	P3		31.67 h11	27.36	6000	5.54	7.05E+02	3.80E+04	7.92E+04
32	10	1	7.144	P3		32.74 h11	27.33	6000	5.57	7.10E+02	3.98E+04	8.03E+04
32	20	2	5.000	P3		31.70 h11	27.81	6000	5.67	7.22E+02	3.63E+04	8.38E+04
32	20	2	5.556	P3		31.67 h11	27.36	6000	5.53	7.04E+02	3.38E+04	7.99E+04
32	32	4	3.969	P3		31.30 h11	28.33	6000	5.74	7.31E+02	4.28E+04	8.56E+04
32	40	4	3.500	P3		30.90 h11	28.26	6000	5.63	7.17E+02	4.10E+04	8.21E+04
40	5	1	3.500	P3	T7	39.53 h11	36.90	6000	9.03	1.15E+03	1.05E+05	2.11E+05
40	10	1	7.144	P3	T7	39.62 h11	34.28	6000	8.43	1.07E+03	9.11E+04	1.83E+05
40	20	2	5.000	P3		39.70 h11	35.81	6000	9.05	1.15E+03	9.52E+04	2.13E+05
40	20	2	5.556	P3		40.00 h12	35.72	6000	8.87	1.13E+03	9.00E+04	2.05E+05
40	40	4	3.500	P3		38.95 h11	36.24	6000	9.02	1.15E+03	1.05E+05	2.11E+05
40	40	4	7.144	P3		39.81 h12	34.32	6000	8.37	1.07E+03	9.16E+04	1.83E+05
50	10	1	7.144	P3	T7	49.60 h11	44.11	6000	13.53	1.72E+03	2.35E+05	4.73E+05
50	20	2	6.350	P3		49.60 h11	44.87	6000	13.86	1.77E+03	2.22E+05	4.99E+05
50	20	2	7.144	P3		49.50 h11	43.99	6000	13.46	1.71E+03	2.05E+05	4.72E+05
63	10	1	7.144	P3		62.60 h11	57.15	6000	22.07	2.81E+03	6.25E+05	1.26E+06
63	20	2	7.144	P3		62.70 h11	57.16	6000	22.06	2.81E+03	5.70E+05	1.26E+06
80	10	1	7.144	T7		79.65 h12	74.20	6000	36.43	4.64E+03	1.71E+06	3.43E+06

Nut styles available from stock
 (R = with right-hand thread
 L = with left-hand thread)

KGF-D (FK)	KGF-D (FH)	KGF-L (FL)	KGM-G (ZG)	KGF-D	KGF-N	KGM-D	KGM-N	FM-D	FM-N	MM-D	MM-N	FF-D	FF-N
			R				R						
							R						
				R		R							
R		R	R	R	R	R		R	R	R		R	R
				R		R		R		R		R	
R		R	R	R+L	R	R+L	R	R+L	R	R+L	R	R+L	R
	R				R		R		R		R		R
					R		R						
R		R	R	R	R	R	R	R	R	R	R	R	R
	R		R	R		R		R		R		R	
				R		R		R		R		R	
	R												
				R		R		R		R		R	
				R		R							
R		R	R	R	R	R	R	R	R	R	R	R	R
R		R	R										
		R	R	R	R	R	R	R	R	R	R	R	R
	R												
	R			R								R	
					R		R						
R		R	R	R	R	R	R	R	R	R	R	R	R
R		R	R	R	R	R		R	R	R		R	R
	R		R										
				R		R		R		R		R	
	R												
R		R	R	R	R	R	R	R	R	R	R	R	R
	R												
R			R	R	R	R	R	R	R	R	R	R	R
	R			R		R		R		R		R	
R			R		R		R		R		R		R
R									R		R		R

