



## Allthread Tightening Torque

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Tensile / Yield / Shear Strength / Tightening Torque

### HOBSON PRECISION HOBROD™ - RECOMMENDED TIGHTENING TORQUE CLASS 10.9

Size	Pitch (mm)	Stress Area (mm <sup>2</sup> )	Core Area (mm <sup>2</sup> )	Tensile Load (kN)	Proof Load (kN)	Shear Load (kN)	Recommended Tightening Torque		
							Plain (Nm)	Zinc (Nm)	HDG (Nm)
M3	0.50	5.0	4.5	5.2	4.2	2.8	1.6	1.1	3.4
M4	0.70	8.8	7.8	9.1	7.3	4.8	3.8	2.7	8.0
M5	0.80	14.2	12.7	14.8	11.8	7.9	7.7	5.4	16.1
M6	1.00	20.1	17.9	20.9	16.7	11.2	13.0	9.1	27.3
M8	1.25	36.6	32.8	38.1	30.4	20.5	31.6	22.1	66.3
M10	1.50	58.0	52.3	60.3	48.1	32.6	62.6	43.8	131.4
M12	1.75	84.3	76.2	87.7	70.0	47.5	109.2	76.4	229.2
M14	2.00	115.0	104.7	119.6	95.5	65.3	173.7	121.6	364.8
M16	2.00	157.0	144.0	163.3	130.3	89.9	271.0	189.7	569.2
M18	2.50	192.0	175.0	199.7	159.4	109.2	372.9	261.0	783.1
M20	2.50	245.0	225.0	254.8	203.4	140.4	528.7	370.1	1110.3
M22	2.50	303.0	281.0	315.1	251.5	175.3	719.3	503.5	1510.4
M24	3.00	353.0	324.0	367.1	293.0	202.2	914.1	639.9	1919.7
M27	3.00	459.0	427.0	477.4	381.0	266.4	1337.2	936.0	2808.1
M30	3.50	561.0	519.0	583.4	465.6	323.9	1816.0	1271.2	3813.5
M33	3.50	694.0	647.0	721.8	576.0	403.7	2471.1	1729.8	5189.4
M36	4.00	817.0	759.0	849.7	678.1	473.6	3173.6	2221.5	6664.5
M39	4.00	976.0	912.0	1015.0	810.1	569.1	4107.1	2875.0	8624.9
M42*	4.50	1120.0	1050.0	1164.8	929.6	655.2	5075.6	3552.9	10658.8
M48*	5.00	1470.0	1380.0	1528.8	1220.1	861.1	7613.4	5329.4	15988.2
M56*	5.50	2030.0	1910.0	2111.2	1684.9	1191.8	12266.1	8586.3	25758.8
M64*	6.00	2680.0	2520.0	2787.2	2224.4	1572.5	18507.0	12954.9	38864.7



\* Extrapolated

#### Note:

The tightening torque values given in the above table serve only as a guide. A k factor of 0.2 has been used for plain threads which assumes burr-free with a light oil coating. A k factor of 0.14 has been used for zinc plated and 0.42 for HDG coating. Note that these figures are based on the first tightening of single assemblies in isolation.

Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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