



RECOMMENDED ASSEMBLY TORQUES

Class 10.9 ISO Metric Coarse Pitch Bolts & Screws

Diameter	Pitch	Bolt Tension Corresponding to 65% of Proof Load	Recommended Assembly Torque
		kN	Nm
M5	0.80	7.67	8
M6	1.00	10.9	13
M8	1.25	19.8	32
M10	1.5	31.3	63
M12	1.75	45.5	109
M14	2.00	62.1	174
M16	2.00	84.5	270
M18	2.5	103	371
M20	2.5	132	528
M22	2.5	164	722
M24	3.00	190	914
M27	3.00	248	1339
M30	3.50	303	1817
M33	3.50	371	2449
M36	4.00	441	31173
M39	4.00	527	4110

Class 12.9 ISO Metric Coarse Pitch Bolts & Screws

Diameter	Pitch	Bolt Tension Corresponding to 65% of Proof Load	Recommended Assembly Torque
		kN	Nm
M3	0.50	3.17	1.9
M4	0.70	5.54	4.4
M5	0.80	8.97	8.9
M6	1.00	12.7	15
M8	1.25	23.1	37
M10	1.5	36.6	73
M12	1.75	53.2	128
M14	2.00	72.8	203
M16	2.00	98.8	316
M18	2.5	121	436
M20	2.5	155	620
M22	2.5	191	840
M24	3.00	222	1066
M27	3.00	289	1561
M30	3.50	354	2124
M33	3.50	437	2884
M36	4.00	515	3708

To convert kN to lbf: Multiply kN by 224.809

To convert Nm to lbft: Multiply Nm by 0.737562

Surface Condition Torque Adjustment Factors

Plain Steel, as supplied	X 1.0
Plain Steel, degreased	X 2.0
Zinc Plated, as supplied	X 1.0
Zinc Plated, lightly oiled	X 0.9
Galvanised, degreased	X 2.1
Galvanised, lightly oiled	X 1.1
Heavily greased	X 0.7