

## Tightening Torque Values

Metric Hexagon Bolts & Screws, Coarse Pitch Threads. Property classes 4.6, 5.8 & 8.8

		Prop Class	Prop Class 4.6		Prop Class 5.8		Prop class 8.8	
		Bolt		Bolt		Bolt		
		Tension	Torque	Tension	Torque	Tension	Torque	
		kN	Nm	kN	Nm	kN	Nm	
M1.6	0.35	0.19	0.06	0.31	0.10	0.48	0.15	
M2	0.40	0.31	0.12	0.51	0.20	0.78	0.31	
M2.5	0.45	0.50	0.25	0.84	0.42	1.28	0.64	
M3	0.50	0.73	0.44	1.24	0.74	1.90	1.10	
M4	0.70	1.29	1.00	2.17	1.70	3.32	2.70	
M5	0.80	2.08	2.10	3.51	3.50	5.35	5.00	
M6	1.00	2.94	3.50	4.97	5.90	7.54	9.00	
M8	1.25	5.36	8.50	9.04	14.00	13.80	22.00	
M10	1.50	8.45	17.00	14.30	29.00	21.90	44.00	
M12	1.75	12.40	30.00	20.80	49.00	31.80	77.00	
M14	2.00	16.80	47.00	28.40	79.00	43.40	122.00	
M16	2.00	22.90	73.00	38.80	124.00	59.20	190.00	
M18	2.50	28.10	101.00	47.50	171.00	74.80	269.00	
M20	2.50	35.80	143.00	60.50	242.00	95.60	372.00	
M22	2.50	44.30	195.00	74.80	329.00	118.00	519.00	
M24	3.00	51.60	248.00	87.10	418.00	138.00	640.00	
M27	3.00	66.90	361.00	113.00	610.00	179.00	967.00	
M30	3.50	81.90	491.00	138.00	828.00	219.00	1314.00	
M33	3.50	101.00	667.00	172.00	1135.00	270.00	1782.00	
M36	4.00	120.00	864.00	202.00	1454.00	319.00	2297.00	
M42	4.50	164.00	1378.00	277.00	2327.00	437.00	3671.00	
M48	5.00	215.00	2064.00	363.00	3485.00	573.00	5500.00	
M56	5.50	298.00	3338.00	501.00	5611.00	792.00	8870.00	
M64	6.00	393.00	5030.00	662.00	8473.00	1045.00	13376.00	

Note: bolt tensions detailed in above table equate to 65% of proof load.



Metric Hexagon Bolts, Fine Pitch Threads Property class 12.9 Threads to ISO 898/1

	Property Class	12.9		
Diam	Pitch mm	TSA Mm2	kN Bolt Tension	Torque Nm
8	1.00	39.20	24.70	40.00
10	1.25	61.20	38.60	77.00
12	1.25	92.10	58.00	139.00
14	1.50	125.00	78.70	220.00
16	1.50	167.00	105.00	336.00
18	1.50	216.00	137.00	493.00
20	1.50	272.00	172.00	688.00
22	1.50	333.00	210.00	924.00
24	2.00	384.00	242.00	1162.00
27	2.00	496.00	313.00	1690.00
30	2.00	621.00	391.00	2346.00
33	2.00	761.00	480.00	3168.00
36	3.00	865.00	545.00	3924.00

Note: bolt tensions detailed in above table equate to 65% of proof load.