Hex Bolts - Fine Pitch

Tensile / Yield / Shear Strength / Tightening Torque

HEX BOLTS - FINE PITCH - RECOMMENDED TIGHTENING TORQUE
CLASS 8.8

Size	Pitch	Stress Area	Tensile Load	Proof Load	Shear Load	Recommended Tightening Torque		
	(mm)	(mm^2)	(kN)	(kN)	(kN)	Plain (Nm)	Zinc (Nm)	HDG (Nm)
M8	1.00	39.2	31.4	22.7	17.3	23.6	16.6	49.7
M10	1.25	61.2	49.0	35.5	27.0	46.1	32.3	96.9
M10	1.00	64.5	51.6	37.4	29.0	48.6	34.0	102.1
M12	1.50	88.1	70.5	51.1	38.9	79.7	55.8	167.4
M12	1.25	92.1	73.7	53.4	41.3	83.3	58.3	175.0
M14	1.50	125.0	100.0	72.5	55.7	132.0	92.4	277.1
M16	1.50	167.0	133.6	96.9	75.6	201.5	141.0	423.1
M18	1.50	216.0	179.3	129.6	102.1	303.3	212.3	636.9
M20	1.50	272.0	225.8	163.2	129.0	424.3	297.0	891.1
M22	1.50	333.0	276.4	199.8	159.0	571.4	400.0	1200.0
M24	2.00	384.0	318.7	230.4	181.6	718.8	503.2	1509.6
M27	2.00	496.0	411.7	297.6	235.7	1044.6	731.2	2193.6
M30	2.00	621.0	515.4	372.6	296.8	1453.1	1017.2	3051.6
M33	2.00	761.0	631.6	456.6	364.9	1958.8	1371.2	4113.5
M36	3.00	865.0	718.0	519.0	408.5	2428.9	1700.2	5100.7
M39	3.00	1030.0	854.9	618.0	487.9	3133.3	2193.3	6579.8

Not to be used for structural fasteners or structural applications.

Note:

The tightening torque values given in the 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.
It should be noted that these figures are based on the first tightening of single assemblies in isolation.

Hex Bolts - Fine Pitch

Tensile / Yield / Shear Strength / Tightening Torque

HEX BOLTS - FINE PITCH - RECOMMENDED TIGHTENING TORQUE
CLASS 10.9

Size	Pitch	Stress Area	Tensile Load	Proof Load	Shear Load	Recommended Tightening Torque		
	(mm)	(mm^2)	(kN)	(kN)	(kN)	Plain (Nm)	Zinc (Nm)	HDG (Nm)
M8	1.00	39.2	40.8	32.5	22.5	33.8	23.7	71.1
M10	1.25	61.2	63.6	50.8	35.1	66.0	46.2	138.7
M10	1.00	64.5	67.1	53.5	37.7	69.6	48.7	146.2
M12	1.50	88.1	91.6	73.1	50.6	114.1	79.9	239.6
M12	1.25	92.1	95.8	76.4	53.7	119.3	83.5	250.4
M14	1.50	125.0	130.0	103.8	72.5	188.8	132.2	396.5
M16	1.50	167.0	173.7	138.6	98.3	288.3	201.8	605.4
M18	1.50	216.0	224.6	179.3	128.0	419.5	293.7	881.0
M20	1.50	272.0	282.9	225.8	161.6	587.0	410.9	1232.6
M22	1.50	333.0	346.3	276.4	199.2	790.5	553.3	1660.0
M24	2.00	384.0	399.4	318.7	227.5	994.4	696.1	2088.3
M27	2.00	496.0	515.8	411.7	295.3	1445.0	1011.5	3034.5
M30	2.00	621.0	645.8	515.4	371.9	2010.2	1407.1	4221.4
M33	2.00	761.0	791.4	631.6	457.3	2709.7	1896.8	5690.4
M36	3.00	865.0	899.6	718.0	511.9	3360.0	2352.0	7056.0
M39	3.00	1030.0	1071.2	854.9	611.4	4334.3	3034.0	9102.1

Not to be used for structural fasteners or structural applications.

Note:

The tightening torque values given in the 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.

It should be noted that these figures are based on the first tightening of single assemblies in isolation.