



Hex Bolts

Minimum Tensile Stress

HEX BOLTS - MINIMUM TENSILE STRESS (MPa or N/mm²)

Nominal Size	Pitch mm	Stress Area mm ²	Class 4.6	Class 8.8	AS1252	Class 10.9
M3	0.50	5.03	400	800	-	1040
M4	0.70	8.78	400	800	-	1040
M5	0.80	14.20	400	800	-	1040
M6	1.00	20.10	400	800	-	1040
M8	1.25	36.60	400	800	-	1040
M10	1.50	58.00	400	800	-	1040
M12	1.75	84.30	400	800	800	1040
M14	2.00	115.00	400	800	800	1040
M16	2.00	157.00	400	800	800	1040
M18	2.50	192.00	400	830	830	1040
M20	2.50	245.00	400	830	830	1040
M22	2.50	303.00	400	830	830	1040
M24	3.00	353.00	400	830	830	1040
M27	3.00	459.00	400	830	830	1040
M30	3.50	561.00	400	830	830	1040
M33	3.50	694.00	400	830	830	1040
M36	4.00	817.00	400	830	830	1040
M39	4.00	976.00	400	830	-	1040
M42	4.50	1121.00	400	830	-	1040
M48	5.00	1473.00	400	830	-	1040
M52	5.00	1758.00	400	830	-	1040
M64	6.00	2676.00	400	830	-	1040

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Minimum Stress Under Proof Load



HEX BOLTS - MINIMUM STRESS UNDER PROOF LOAD (MPa or N/mm²)

Nominal Size	Pitch mm	Stress Area mm ²	Class 4.6	Class 8.8	AS1252	Class 10.9
M3	0.50	5.03	225	580	-	830
M4	0.70	8.78	225	580	-	830
M5	0.80	14.20	225	580	-	830
M6	1.00	20.10	225	580	-	830
M8	1.25	36.60	225	580	-	830
M10	1.50	58.00	225	580	-	830
M12	1.75	84.30	225	580	580	830
M14	2.00	115.00	225	580	580	830
M16	2.00	157.00	225	580	580	830
M18	2.50	192.00	225	600	600	830
M20	2.50	245.00	225	600	600	830
M22	2.50	303.00	225	600	600	830
M24	3.00	353.00	225	600	600	830
M27	3.00	459.00	225	600	600	830
M30	3.50	561.00	225	600	600	830
M33	3.50	694.00	225	600	600	830
M36	4.00	817.00	225	600	600	830
M39	4.00	976.00	225	600	-	830
M42	4.50	1121.00	225	600	-	830
M48	5.00	1473.00	225	600	-	830
M52	5.00	1758.00	225	600	-	830
M64	6.00	2676.00	225	600	-	830



Hex Bolts

Minimum Proof Load

HEX BOLTS - MINIMUM PROOF LOAD (KN)

Nominal Size	Pitch mm	Stress Area mm ²	Class		AS1252	Class 10.9
			4.6	8.8		
M3	0.50	5.03	1.13	2.92	-	4.17
M4	0.70	8.78	1.98	5.09	-	7.29
M5	0.80	14.20	3.20	8.24	-	11.79
M6	1.00	20.10	4.52	11.66	-	16.68
M8	1.25	36.60	8.24	21.23	-	30.38
M10	1.50	58.00	13.10	33.60	-	48.10
M12	1.75	84.30	19.00	48.90	48.90	70.00
M14	2.00	115.00	25.90	66.70	66.70	95.50
M16	2.00	157.00	35.30	91.10	91.10	130.30
M18	2.50	192.00	43.20	115.20	115.20	159.40
M20	2.50	245.00	55.10	147.00	147.00	203.30
M22	2.50	303.00	68.20	181.80	181.80	251.50
M24	3.00	353.00	79.40	211.80	211.80	293.00
M27	3.00	459.00	103.30	275.40	275.40	381.00
M30	3.50	561.00	126.20	336.60	336.60	465.60
M33	3.50	694.00	156.20	416.40	416.40	576.00
M36	4.00	817.00	183.80	490.20	490.20	678.10
M39	4.00	976.00	219.60	585.60	-	810.10
M42	4.50	1121.00	252.20	672.60	-	930.40
M48	5.00	1473.00	331.40	883.80	-	1222.60
M52	5.00	1758.00	395.60	1054.80	-	1459.10
M64	6.00	2676.00	602.10	1605.60	-	2221.10

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Minimum Ultimate Tensile Load



HEX BOLTS - MINIMUM ULTIMATE TENSILE LOAD (KN)

Nominal Size	Pitch mm	Stress Area mm ²	Class 4.6	Class 8.8	AS1252	Class 10.9
M3	0.5	5.03	2.01	4.02	-	5.23
M4	0.7	8.78	3.51	7.02	-	9.13
M5	0.8	14.20	5.68	11.36	-	14.77
M6	1	20.10	8.04	16.08	-	20.90
M8	1.25	36.60	14.60	29.28	-	38.06
M10	1.5	58.00	23.20	46.40	-	60.30
M12	1.75	84.30	33.70	67.40	67.40	87.70
M14	2	115.00	46.00	92.00	92.00	119.60
M16	2	157.00	62.80	125.60	125.60	163.30
M18	2.5	192.00	76.80	159.40	159.40	199.70
M20	2.5	245.00	98.00	203.30	203.30	254.80
M22	2.5	303.00	121.20	251.50	251.50	315.10
M24	3	353.00	141.20	293.00	293.00	367.10
M27	3	459.00	183.60	381.00	381.00	477.40
M30	3.5	561.00	224.40	465.60	465.60	583.40
M33	3.5	694.00	277.60	576.00	576.00	721.80
M36	4	817.00	326.80	678.10	678.10	849.70
M39	4	976.00	390.40	810.10	-	1015.00
M42	4.5	1121.00	448.40	930.40	-	1165.80
M48	5	1473.00	589.20	1222.60	-	1531.90
M52	5	1758.00	703.20	1459.10	-	1828.30
M64	6	2676.00	1070.40	2221.10	-	2783.00