



PROPERTIES OF STRUCTURAL BOLT & NUT AS PER A320

BOLT SIZE	PITCH	STRESS AREA MM ²	BOLT/STUD/SCREW ASTM A320 B8M-1						NUT ASTM A194 8M		
			PROOF STRESS N/MM ²	PROOF LOAD KN	TENSILE STRESS N/MM ²	TORQUE* N-m	HARDNESS HRC	ELONGATION# %	PROOF STRESS N/MM ²	PROOF LOAD KN	HARDNESS HRC
M6	1	20.1	205	4.1	515.0	3.3	-96	30.0	550	11.1	60-105
M8	1.25	36.6	205	7.5	515.0	8.1	-96	30.0	550	20.1	60-105
M10	1.5	58.8	205	12.1	515.0	16.2	-96	30.0	550	32.3	60-105
M12	1.75	84.3	205	17.3	515.0	27.8	-96	30.0	550	46.4	60-105
M14	2.0	115.0	205	23.6	515.0	44.3	-96	30.0	550	63.3	60-105
M16	2.0	157.0	205	32.2	515.0	69.1	-96	30.0	550	86.4	60-105
M18	2.5	192.0	205	39.4	515.0	95.1	-96	30.0	550	105.6	60-105
M20	2.5	245.0	205	50.2	515.0	134.9	-96	30.0	550	134.8	60-105
M22	2.5	303.0	205	62.1	515.0	183.5	-96	30.0	550	166.7	60-105
M24	3.0	353.0	205	72.4	515.0	233.2	-96	30.0	550	194.2	60-105
M27	3.0	459.0	205	94.1	515.0	341.1	-96	30.0	550	252.5	60-105
M30	3.5	561.0	205	115.0	515.0	463	-96	30.0	550	308.6	60-105
M33	3.5	694.0	205	142.3	515.0	630	-96	30.0	550	381.7	60-105
M36	4.0	817.0	205	167.5	515.0	809	-96	30.0	550	449.4	60-105
M39	4.0	976.0	205	200.1	515.0	1,048	-96	30.0	550	536.8	60-105
M42	4.5	1,120.0	205	229.6	515.0	1,295	-96	30.0	550	616.0	60-105
M45	4.5	1,310.0									
M48	5.0	1,470.0									
M52	5.0	1,760.0									
M56	5.5	2,030.0									
M60	5.5	2,360.0									
M64	6.0	2,680.0									
M68	6.0	3,060.0									
M72	6.0	3,460.0									
DIMENSIONS			HEAVY HEX						HEAVY HEX		
MARKINGS			RS' 'B8M'						'RS' '8M'		
CARBON			-0.08						-0.08		
MANAGENESE			-2.0						-2.0		
SULPHUR			-0.03						-0.03		
SILICON			-1.0						-1.0		
CHROMIUM			16.0-18.0						16.0-18.0		
MOLYDENUM			2.0-3.0						2.0-3.0		
NICKLE			10.0-14.0						10.0-14.0		
VANADIUM											
BORON											
PHOSPHOROUS			-0.048						-0.048		
MATERIAL			AISI 316						AISI 316		

NOTES:

Left hand side of '-' is minimum value
 Right hand side of '-' is maximum value
 Eg. 0.5 - 0.7 min. is 0.5 and max is 0.7
 Eg. -0.8 max is 0.8 no minimum value
 Eg. 2.0- min. is 2.0 no maximum value

Carbide Solution Treated

* Torque value based on 75% of proof load and finish as recieved steel