



PROPERTIES OF HSFG PART II BOLT & NUT

BOLT SIZE	PITCH	STRESS AREA MM2	BOLT/STUD/SCREW BS EN14399-3 GR. 10.9						NUT BS EN14399-3 Gr. 10		
			PROOF STRESS N/MM2	PROOF LOAD KN	TENSILE STRESS N/MM2	TORQUE* N-m	HARDNESS HRC	ELONGATION# %	PROOF STRESS N/MM2	PROOF LOAD KN	HARDNESS HRC
M6	1	20.1									
M8	1.25	36.6									
M10	1.5	58.8									
M12	1.75	84.3									
M14	2.0	115.0									
M16	2.0	157.0	830	70.0	1,040.0	112.7	32-39	9.0	1160	97.8	28-38
M18	2.5	192.0	830	95.5	1,040.0	179.4	32-39	9.0	1160	133.4	28-38
M20	2.5	245.0	830	130.3	1,040.0	279.9	32-39	9.0	1160	182.1	28-38
M22	2.5	303.0	830	159.4	1,040.0	385.1	32-39	9.0	1160	222.7	28-38
M24	3.0	353.0	830	203.4	1,040.0	546.0	32-39	9.0	1160	284.4	28-38
M27	3.0	459.0	830	251.5	1,040.0	742.8	32-39	9.0	1160	351.5	28-38
M30	3.5	561.0	830	293.0	1,040.0	944.0	32-39	9.0	1160	409.5	28-38
M33	3.5	694.0	830	381.0	1,040.0	1,381	32-39	9.0	1160	532.4	28-38
M36	4.0	817.0	830	465.6	1,040.0	1,875	32-39	9.0	1160	650.8	28-38
M39	4.0	976.0									
M42	4.5	1,120.0	830	678.1	1,040.0	3,277	32-39	9.0	1160	947.7	28-38
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 (HSFG)						HEAVY HEX		
MARKINGS			'10.9HR'						'10HR'		
CARBON			0.15 - 0.35						-0.58		
MANAGENESE			0.7-						-0.30		
SULPHUR			-0.035						-0.15		
SILICON											
CHROMIUM											
MOLYDENUM											
NICKLE											
VANADIUM											
BORON			-0.003								
PHOSPHOROUS			-0.035						-0.06		
Material			Alloy steel						Alloy steel		

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

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