PROPERTIES OF LOW TEMPERATURE FASTENERS

BOLT SIZE	PITCH	STRESS AREA **MM2**	BOLT/STUD/SCREW ASTM A320 L7						NUT ASTM A194 GR7		
			PROOF STRESS **N/MM2**	PROOF LOAD **KN**	TENSILE STRESS **N/MM2**	TOUR-QUE* **N-m**	HARD-NESS **HRC**	ELONGA-TION# **%**	PROOF STRESS **N/MM2**	PROOF LOAD **KN**	HARD-NESS **HRC**
M6	1	20.1	725	14.6	860.0	11.7	-	16.0	1205	24.2	24-35
M8	1.25	36.6	725	26.5	860.0	28.5	-	16.0	1205	44.1	24-35
M10	1.5	58.8	725	42.6	860.0	57.2	-	16.0	1205	70.9	24-35
M12	1.75	84.3	725	61.1	860.0	98.5	-	16.0	1205	101.6	24-35
M14	2.0	115.0	725	83.4	860.0	156.7	-	16.0	1205	138.6	24-35
M16	2.0	157.0	725	113.8	860.0	244.5	-	16.0	1205	189.2	24-35
M18	2.5	192.0	725	139.2	860.0	336.4	-	16.0	1205	231.4	24-35
M20	2.5	245.0	725	177.6	860.0	476.9	-	16.0	1205	295.2	24-35
M22	2.5	303.0	725	219.7	860.0	648.8	-	16.0	1205	365.1	24-35
M24	3.0	353.0	725	255.9	860.0	824.6	-	16.0	1205	425.4	24-35
M27	3.0	459.0	725	332.8	860.0	1,206	-	16.0	1205	553.1	24-35
M30	3.5	561.0	725	406.7	860.0	1,638	-	16.0	1205	676.0	24-35
M33	3.5	694.0	725	503.2	860.0	2,229	-	16.0	1205	836.3	24-35
M36	4.0	817.0	725	592.3	860.0	2,863	-	16.0	1205	984.5	24-35
M39	4.0	976.0	725	707.6	860.0	3,705	-	16.0	1205	1,176	24-35
M42	4.5	1,120.0	725	812.0	860.0	4,578	-	16.0	1205	1,350	24-35
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' 'L7'	'RS' '7'
TEMPERING oC	593	595
Heating for 24 Hours for the Nut oC		590
HARDNESS AFTER HEATING		94 HRB
CARBON	0.38-0.48	0.37-0.49
MANAGENESE	0.75-1.0	0.65-1.10
SULPHUR	-0.04	0.04
SILICON	0.15-0.35	0.15-0.35
CHROMIUM	0.80-1.10	0.75-1.20
MOLYDENUM	0.15-0.25	0.15-0.25
NICKLE	-	
VANADIUM		
BORON		
PHOSPHOROUS	-0.035	-0.035
MATERIAL	AISI 4140 TO 4145	AISI 4140 TO 4145H

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

Elongation in 2 Inch or 50mm
* Torque value based on 75% of proof load and finish as recieved steel