

AANURAJ FASTENERS PVT.LTD.

ASTM A193 Gr.B7M (Inches) Stud/Bolt/Screws

Chemical Requirements		
	Range	Product Variation, Over or Under
Carbon	0.37-0.49	0.02
Manganese	0.65-1.10	0.04
Phosphorus, max	0.035	0.005over
Sulphur, max	0.040	0.005over
Silicon	0.15-0.35	0.02
Chromium	0.75-1.20	0.05
Molybdenum	0.15-0.25	0.02

Mechanical Requirements- Inch					
Diameter, in	Minimum Tempering Temperature, °F	Tensile Strength, Min, Ksi	Yield Strength, Min, 0.2% offset, Ksi	Elongation In 4D, Min, %	Reduction of Area, Min, %
4 and under	1150	100	80	18	50
Over 4 to 7	1150	100	75	18	50

Hardness –Max(Inch)	
4 and under	99 HRB
Over 4 to 7	99 HRB

Process Carried Out	
Stage I	Hardening at 880°C For 2 Hours in Electric Furnace.
Stage II	Quench in Hot oil 60 to 95°C.
Stage III	As Quenched Hardness 52/54 HRC.
Stage IV	Tempering at 690°C for 3Hrs.
Stage V	Cool in Air