

Laboratory	Ordnance Factory, Muradnagar, Ghaziabad, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	13.12.2014
Certificate Number	T-0171	Valid Until	12.12.2016
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	MECHANICAL PROPERTIES OF MATERIALS			
1.	Steel & Cast Iron	Yield Stress	IS 1608: 2005 (RA 2012)	100 MPa to 1800 MPa
		0.2% Proof Stress		100 MPa to 1800 MPa
		Ultimate Tensile Strength		100 MPa to 2500 MPa
		% Reduction in Area		5 % to 90 %
		% of Elongation		1 % to 70 %
		Brinell Hardness Test	IS 1500 (Part I): 2013	100 HBW to 650 HBW (2.5/187.5)
		Rockwell Hardness Test	IS 1586 (Part I): 2012	25 HRC to 60 HRC 80 HRB to 100 HRB
		Vickers Hardness Test	IS 1501(Part I) : 2013	100 HV 5 to 600 HV 5 100 HV 30 to 600 HV 30
		Tension Test by Hounsfield Tensometer	IS 1608: 2005 (RA 2012)	100 MPa to 1000 MPa
2.	Steel	Charpy Test "U Notch"	IS 1499: 1977 (RA 2009)	0 to 30 kgm & Ambient Temp .
		"V Notch"	IS 1757 (Part I): 2014	20 °C to 35 °C
		Izod Test	IS 1598: 1977 (RA 2009)	0 to 16.52 kgm
		Bend Test	IS:1599: 2012	Former dia 25 mm /4600 kN

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II. METALLOGRAPHY TEST				
1.	Cast Iron And Steel	Microstructure Evaluation	ASM Hand Book Vol-9	50X to 1000X
2.	Cast Iron	Determination of Graphite Shape Size and Distribution	IS 7754: 1975 (RA 2007)	100X
3.	Steel	Macroetch Test	IS 13015: 1991(RA 2007)	5X to 10X
		Estimation of Grain Size by Microscopic Method (Comparison Method)	IS 4748: 2009	100X
		Determination of Inclusion Rating (NMIR)	IS 4163: 2004 (RA 2010)	100X

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