

Laboratory	Mechanical Laboratory, Engine Factory, Quality Control Section, Ministry of Defence, Avadi, Chennai		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	14.10.2013
Certificate Number	T-0665	Valid Until	13.10.2015
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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
METAL & METAL PRODUCTS				
1.	Ferrous Metals & Alloys	Tensile Testing Ultimate Tensile Strength Yield Strength % Elongation % of Reduction in Area.	IS:1608 : 2005	0.2 kN to 100 kN Grip Size Round : 10 mm to 30 mm Flat: 2 mm to 20 mm
2.	Ferrous & Non Ferrous Metals & Alloys	Ultimate Tensile Strength % Elongation % of Reduction in Area	IS:1608 : 2005	1 kg to 2000 kgf Grip Size Round : 5 mm to 30 mm Flat: 2 mm to 20 mm
		Brinell Hardness Testing	IS:1500 : 2005	100 HBW to 450 HBW 10/3000 100 to 400 HBW5/ 750
		Rockwell Hardness Testing	IS:1586 (Part-1) : 2012	20 to 88 HRA 20 to 100 HRB 20 to 70 HRC 70 to 93 HR15N
		Micro Vickers Hardness Test	IS: 1501: 2002	50 to 1100 HV 0.3 50 to 1100 HV 0.5
3.	Non Ferrous Metals & Alloys	Ultimate Tensile Strength % Elongation % of Reduction in Area	IS:1608 : 2005	1 kN to 100 kN Grip Size Round : 10 mm to 30 mm Flat: 2 mm to 20 mm
4.	Low Alloy Steels	Charpy Impact Test (U Notch)	IS: 1499 : 1977 (RA 99)	0.2 to 30 kgf. m at Temperature (20 °C to 40° C)

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5.	Low Alloy Spring Steels	Load Vs. Deflection Test Helical Compression(C) & Extension (E) Springs	IS: 7906 Part -8 :1989 (RA'94) Part -5 : 2004 IS:7907 Part -2 : 1976 IS:7907 Part -I : 2004	0.125 N to 2500 N Spring OD: 10 mm to 100 mm
6.	Steels & Alloys	Case Depth Measurement	IS: 6416: 1988	0.05 mm to 5.0 mm
7.	Ferrous , Aluminium & Alloys	General Microstructure Analysis	ASM Hand Book Volume-9	50 x to 1000 x

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