

Laboratory Testing Laboratory, Sanghvi Forging & Engineering Ltd., 1401-02-03,
GIDC Industrial Estate, Waghodia, Dist. Vadodara, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing **Issue Date** 28.05.2015

Certificate Number T-3439 **Valid Until** 27.05.2017

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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.	Forged Carbon Steel, Alloy Steel, Stainless Steel, Tool Steel	Tensile Test	IS 1608: 2005 ASTM A 370: 2013	20 kN to 600 kN
		UTS	ASTM E8 / E8M (2013a) DIN EN ISO 6892-1: 2009	
		0.2% Proof Stress / Yield Stress		20 kN to 600 kN
		% Elongation		5 % to 70 %
		% Reduction of Area		5 % to 80 %
		Brinell Hardness Test	IS 1500:2005 ASTM E10: 2014	5 mm/750 kgf & 10 mm/3000 kgf 130 HBW to 500 HBW
		Rockwell Hardness Test : B & C (100 kg & 150 kg)	IS 1586: 2012	HRB 20 to 95 HRC 20 to 70
Charpy Impact Test (V Notch & U Notch)	ASTM A 370: 2013 ASTM E:23: 2012c	1 J to 300 J		
II. METALLOGRAPHY TEST				
1.	Forged Carbon Steel, Alloy Steel, Stainless Steel, Tool Steel	Grain Size	IS 4748: 2009 ASTM E 112: 2013 Clause. A3.2.1.5	Qualitative (1 to 8)
		Microstructural Examination	ASM Handbook Vol-9: 2004 IS 7739 (Part I): 1975 (RA2010) IS 7739 (Part 2): 1975 (RA2012) ASTM E-3-01-2011 ASTM E- 407-2007e1	Qualitative (Upto 1000 x)

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