

Laboratory Calibration & Testing Laboratory, USUI Susira International Pvt. Ltd.,
G- 16, 1st Main Road, Ambattur Industrial Estate, Chennai,
Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5247 (in lieu of T-1229)

Page 1 of 2

Validity 29.01.2017 to 28.01.2019

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

MECHANICAL TESTING

I. MECHANICAL PROPERTIES OF MATERIALS				
1.	Ferrous Material	Tensile Test		
		Ultimate Tensile Strength	ASTM A370 - 2016	5 KN to 350KN
		Yield Strength (Excluding 0.2 % PS)	ASTM E8M – 2013	5 KN to 350KN
		Elongation		4% to 40%
		Weld Product load test for Ends	ISO 14272 : 2016	1 KN to 20 KN
		Rock Well Hardness Test	ASTM E18 - 2016	20HRC to 70HRC
		Vickers Hardness Test	ASTM E92 - 2016 IS 1501 : 2013	400HV5 to 800HV5 200 HV10 to 400 HV10
		Brinell Hardness Test	IS 1500 : 2013	200 HBW to 400HBW (2.5 Ø / 187.5kg)
		Microstructure	ASTM E3-2011a ASM Handbook Vol - 9	50X,100X, 200X,500X,1000X
		Estimation of Grain Size	ASTM E112- 2013 (Comparison method)	100X
		Micro Hardness 1kgf	ASTM E384- 2016 e1	100 HV to 1000 HV1
2.	Push rod/ Machined Components	Radius & Length Measurement		
		Measuring spherical dimension	Instruction Manual & MTP-01 (Metrology Testing procedure)	0 to 50 on Z to axis & 0 to 100 on X to axis
		Radius Measurement		
		Length Measurement	Issue A Dated 14.08.2016	
		Roundness Tester Measuring roundness Measuring Cylindricity	IS 15372 : 2003	10 mm Ø to 100mm Ø 1.0m Ø to 100mm Ø

Jitendra B. Vispute
Convenor

N. Venkateswaran
Program Director

Laboratory

**Calibration & Testing Laboratory, USUI Susira International Pvt. Ltd.,
G- 16, 1st Main Road, Ambattur Industrial Estate, Chennai,
Tamil Nadu**

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5247 (in lieu of T-1229)

Page 2 of 2

Validity 29.01.2017 to 28.01.2019

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		<u>Surface Roughness Tester</u> Surface Roughness (Ra) Surface Roughness (Rz) Surface Roughness (Rt) Surface Roughness (Rmax)	IS 3073 : 1967	Travel Length 30mm, 0.08 mm to 8.0 mm Stylus 2microns

Jitendra B. Vispute
Convenor

N. Venkateswaran
Program Director