Calibration & Testing Laboratory, USUI Susira International Pvt. Ltd., G- 16, 1<sup>st</sup> Main Road, Ambattur Industrial Estate, Chennai, Laboratory

**Tamil Nadu** 

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** Page 1 of 2 TC-5247 (in lieu of T-1229)

Validity 29.01.2017 to 28.01.2019 Last Amended on --

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

## **MECHANICAL TESTING**

I.	MECHANICAL PRO	OPERTIES 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/	Radius & Length Measure		
	Machined Components	Measuring spherical dimension Radius Measurement Length Measurement	Instruction Manual & MTP- 01 (Metrology Testing procedure) Issue A Dated 14.08.2016	0 to 50 on Z to axis & 0 to 100 on X to axis
		Roundness Tester Measuring roundness Measuring Cylindricity	IS 15372 : 2003	10 mm Ø to 100mm Ø 1.0m Ø to 100mm Ø

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Surface Roughness Tester 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