

Laboratory Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2786 **Page** 1 of 6

Validity 25.07.2018 to 24.07.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>MECHANICAL CALIBRATION</u>				
1.	DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)			
1.	Height Gauge ^s L.C.: 0.01 mm	0 to 600 mm	15 μ m	Using Caliper Checker by Comparison Method
2.	Caliper ^s Vernier/Dial/Digital L.C.: 0.01 mm L.C.: 0.02 mm L.C.: 0.03 mm	0 to 600 mm	15 μ m 23 μ m	Using Caliper Checker by Comparison Method
3.	External Micrometer ^s L.C.: 0.001 mm L.C.: 0.01 mm	0 to 50 mm 0 to 150 mm 150 mm to 300 mm	1.8 μ m 8 μ m 9 μ m	Using Slip Gauge Set by Comparison Method Using Accessories Set by Comparison Method
4.	Internal Micrometer ^s	50 mm to 300 mm	8 μ m	Using Slip Gauge Set by Comparison Method Using Accessories Set by Comparison Method
5.	Plunger Dial Gauge ^s L.C.: 1 μ m L.C.: 10 μ m	0 to 1 mm 0 to 50 mm	2.5 μ m 2.9 μ m	Using Slip Gauge Set with Dial Comparator Stand and Dial Calibration Tester by Comparison Method
6.	Lever Dial Gauge ^s L.C.: 1 μ m L.C.: 10 μ m	0 to 0.14 mm 0 to 0.80 mm	1.9 μ m 2.5 μ m	Using Slip Gauge Set with Dial Comparator Stand and Dial Calibration Tester by Comparison Method

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

Laboratory Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2786 **Page** 2 of 6

Validity 25.07.2018 to 24.07.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
7.	Depth Caliper/ Gauge [§] L.C.: 0.02 mm	0 to 300 mm	13.4 μ m	Using Slip Gauge Set by Comparison Method
8.	Snap Gauge / Dial Snap Gauge [§]	Upto 100 mm	2 μ m	Using Slip Gauge Set by Comparison Method
9.	Plain Plug Gauge [§]	0.10 mm to 100 mm	3.3 μ m	Using Dial Comparator Stand with Slip Gauge Set by Comparison Method
10.	Measuring Pin Gauge [§]	0 to 25 mm	1.8 μ m.	Using Dial Comparator Stand with Slip Gauge Set and Digital Micrometer by Comparison Method
11.	Dial Thickness Gauge [§] L.C.: 0.01 mm	0 to 10 mm	7.4 μ m	Using Slip Gauge Set by Comparison Method
12.	Filler Gauge [§]	0 to 1 mm	1.9 μ m	Using Digital Micrometer by Comparison Method
13.	Dial Bore Gauge [§] (Transmission Only)	0 to 2 mm	2.0 μ m	Using Dial Calibration Tester and Dial Gauge by Comparison Method
14.	Depth Micrometer [§] L.C.: 0.01 mm	0 to 150 mm	10 μ m.	Using Slip Gauge Set by Comparison Method
15.	Steel Scale [§]	0 to 3000 mm	$0.12 \sqrt{\frac{L(mm)}{1000}}$ (L in mm)	Using Scale/Tape Calibration System By Comparison Method

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

Laboratory Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2786 **Page** 3 of 6

Validity 25.07.2018 to 24.07.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
16.	Measuring Tape [§]	0 to 50 mtr.	$0.12 \sqrt{\frac{L(mm)}{1000}}$ (L in mm)	Using Scale/Tape Calibration System By Comparison Method
17.	Tri-Square Engineers Square [§]	Upto 200 mm Blade Length	8.7 μ m	Using Slip Gauge Set/ Precision Square Block by Comparison Method
18.	Std. Length Bar [§]	25 mm to 100 mm 100 mm to 300 mm	4.8 μ m 6.0 μ m	Using Slip Gauge Set/ Dial Gauge & Surface Plate By Comparison
19.	Standard Foils [§]	0 to 12000 μ m	1.6 μ m	Using Digital Micrometer by Comparison Method
20.	Digital Angle Protector [§] L.C.: 0.01°	0 to 180 °	0.29°	Using Angle Gauge Set by Comparison Method
21.	Bevel Protector [§] L.C.: 5'	0 to 90° 4 – Quadrant	5'	Using Angle Gauge Set by Comparison Method
22.	Angle Protector [§]	0 to 180 °	35'	Using Angle Gauge Set by Comparison Method
23.	Width/Gap/Weld/ Limit/ Cam Type Gauges [§] L.C.: 0.5 mm	Upto 50 mm	283 μ m	Using Slip Gauge Set by Comparison Method
24.	Coating Thickness Gauge / Ultrasonic Thickness Gauge [§]	Upto 1.9 mm	4 μ m	Using Standard Foils by Comparison Method
25.	Air Gauge Unit [*]	\pm 80 μ m	3 μ m	Using Std. Ring Gauge Set by Comparison Method

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

Laboratory **Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana**

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

Certificate Number **CC-2786** **Page** **4 of 6**

Validity **25.07.2018 to 24.07.2020** **Last Amended on** **-**

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
II.	PRESSURE INDICATING DEVICES			
1.	Analogue /Digital Pressure Gauge #	0-30 bar (0 to 3 MPa) 30 bar to 600 bar (0 to 60 MPa)	0.1 bar (0.01 MPa) 0.268 bar (0.0268 MPa)	Using Digital Pressure Gauge with Comparator Pump by Comparison Method

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

Laboratory Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana
Accreditation Standard ISO/IEC 17025: 2005
Certificate Number CC-2786 **Page** 5 of 6
Validity 25.07.2018 to 24.07.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>THERMAL CALIBRATION</u>				
1.	TEMPERATURE			
1.	RTD / Thermocouple PID Controller with or without indicator, Digital Controller / Data Logger / Recorder / Digital Thermometer / Temperature Transmitter / Temperature Gauge ^{\$}	(-) 30 °C to 50 °C 50 °C to 250 °C 250 °C to 1200 °C	0.95 °C 1.0 °C 2.9 °C	Using Temp. Bath (Alcohol) By Comparison Method Using Dry Block Furnace By Comparison Method
2.	Glass Thermometer ^{\$}	(-) 30 °C to 250 °C	1.15 °C	Using Temp. Bath (Alcohol) By Comparison Method
3.	RTD / Thermocouple PID Controller with or without indicator, Digital Controller / Data Logger / Recorder / Digital Thermometer / Temperature Transmitter / Temperature Gauge [*]	50 °C to 250 °C 250 °C to 1200 °C	1.0 °C 1.5 3.0 °C	Using Dry Block Furnace 50 to 650 °C by Comparison Method Using Dry Block Furnace 250 to 1200 °C by Comparison Method
4.	Indicator Of Freezer, Traulsens, Incubators, Cold Room, Centrifuge Chamber, Thermostat, Hot Air	(-) 30 °C to 250°C 250°C to 1200 °C	1.2 °C 3.3 °C	Using 4-Wire RTD Sensor With Indicator Using S-Type Thermocouple With Indicator

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

Laboratory Vaishno Calibration Services, E-405, S.G.M. Nagar, Faridabad, Haryana
Accreditation Standard ISO/IEC 17025: 2005
Certificate Number CC-2786 **Page** 6 of 6
Validity 25.07.2018 to 24.07.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
	Oven, Muffle Furnace, Industrial Furnace etc. *			(Single Position Calibration)
5.	Freezer, Deep Freezer, Cold Room, Centrifuge, Autoclave etc.	(-) 30 to 250 °C	3.4 °C	Using PT-100 sensor with Data Acquisition System (Multi Position Calibration)
	Hot Air Oven, Muffle Furnace, Industrial Furnace (Mapping) *	250 °C to 1200 °C	5.4 °C	Using N-Type Thermocouple with Data Acquisition System (Multi Position Calibration)

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

§ Only in Permanent Laboratory

^ Only for Site Calibration

The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.

Dheeraj Chawla
 Convenor

Avijit Das
 Program Manager