FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.

CERTIFICATE OF ACCREDITATION

(AS PER ISO/IEC 17025:2017)

This is to attest that

M/s MEASUREXPERT TECHCOM CALIBRATION SYSTEMS (OPC) PVT. LTD.

Plot 334, Sector-4, Rajasthan Housing Board, Bhiwadi-301019,
Alwar Rajasthan, India

Calibration Laboratory

has demonstrated compliance with ISO/IEC Standard 17025:2017, General requirements for the competence of testing and calibration laboratories and supplementary criteria for calibration laboratories.

Certificate Number: CL-115

Issue Date: 12-12-2023 **Valid Until:** 11-12-2025

The certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard and the relevant requirements of FDAS. (for scope of accreditation visit website www. fdasindia.org).

DEVI SARAN TEWARI
Director

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.

SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 115)

Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
Dimension				
1	Caliper LC: 0.01 mm	Using Slip Gauge Blocks & Caliper Checker by Direct Method as per IS 16491 : Part 1 : 2016 (Reaffirmed Year : 2021)	0-600mm	16 µm
2	External Micrometer LC: 0.001 mm	Using Slip Gauge set by Direct Method as per IS 2967 : 1983 (Reaffirmed Year : 2019)	0-100mm	2.1 µm
3	Height Gauge LC: 0.01 mm	Using Caliper Checker & Slip Gauge Set by Direct Method as per IS 2921 : 2016 (Reaffirmed Year : 2021)	0-600 mm	16 µm
4	Plunger Type Dial Gauge LC: 0.001 mm	Using Slip Gauge set & Comparator Stand by Direct Method as per IS 2092 : 1983 (Reaffirmed Year : 2019)	0-25 mm	4.6 µm
5	Plunger Type Dial Gauge LC: 0.01 mm	Using Slip Gauge set & Comparator Stand by Direct Method as per IS 2092: 1983 (Reaffirmed Year: 2019)	0-100 mm	6.5 µm
6	Lever Type Dial Gauge LC: 0.001 mm	Using Slip Gauge set & Comparator Stand by Direct Method as per IS 11498: 1985 (Reaffirmed Year: 2020)	0-0.2 mm	4.6 µm

Dealing Officer

SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 115)

Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
7	Lever Type Dial Gauge LC: 0.01 mm	Using Slip Gauge set & Comparator Stand by Direct Method as per IS 11498: 1985 (Reaffirmed Year: 2020)	0-1.5 mm	6.2 µm
8	Dial Thickness Gauge / Pistol Caliper Gauge LC: 0.001 mm	Using Slip Gauge set by Direct Method as per IS 2092 : 1983 (Reaffirmed Year : 2019)	0-25 mm	7.2 µm
9	Plain Plug Gauge	Using Slip gauge set, Comparator stand & Dial Gauge by Comparison Method as per IS 3455 : Part 1 : 1985 (Reaffirmed Year : 2020) & IS 7859 : 1975 (Reaffirmed Year : 2020)	3-100 mm	4.8 µm
10	Snap Gauge	Using Slip Gauge set by Direct Method as per IS 8023 : 1991 (Reaffirmed Year : 2020)	1-100 mm	2.7 µm
11	Micrometer Setting Rod	Using Slip Gauge set, Comparator Stand & Dial Gauge by Comparison Method as per IS 2967 : 1983 (Reaffirmed Year : 2019)	25-150 mm	5.7 µm
12	Coating Thickness Gauge (Ferrous & Non-Ferrous Type) LC 0.1µm	Using Std. Foils by Direct Method as per IS 12554: Part 2: 1999 (Reaffirmed Year: 2013)	0-1200 µm	5 µm

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Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
13	Feeler Gauge	Using Digital Micrometer by Comparison Method as per IS 3179: 1990 (Reaffirmed Year: 2020)	0.05-1 mm	2.3 µm
14	Comparator Stand - Flatness of Base	Using Lever Type Dial Gauge by Direct Method as per IS 12937: 1990 (Reaffirmed Year: 2020)	Up to 300×300 mm	3.2 µm
15	Ultrasonic Thickness Gauge LC: 0.001 / 0.01 mm	Using Slip Gauge set by Direct Method as per IS 15468: 2004 (Reaffirmed Year: 2020)	0-250 mm	58 µm
16	Depth Gauge /Depth Caliper (L.C.:0.01 mm)	Using Slip Gauge Block Set & Surface Plate by Direct Method as per IS 2921 : 2016 (Reaffirmed Year : 2021)	0-200 mm	15 µm
17	Depth Micrometer (L.C.: 0.001 mm)	Using Slip Gauge Block Set & Surface Plate by Direct Method as per IS 2921 : 2016 (Reaffirmed Year : 2021)	0-25mm	3 µm
Acceleration and Speed				
1	Tachometer- Non Contact Type	Using Digital Tachometer and RPM source by Comparison method as per IS 12508 : 2013 (Reaffirmed Year : 2018) & SANAS TR-45-01	50 rpm –8000 rpm 8000 rpm-20000 rpm	15% to 0.12% 0.12%

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SCOPE OF ACCREDITATION

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Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
2	Tachometer Calibrator /Stroboscope /Centrifuge Machine /RPM Meter – Non Contact Type	Using Digital Tachometer by Comparison method as per IS 12508 : 2013 (Reaffirmed Year : 2018) & SANAS TR-45-01	50 rpm – 8000 rpm 8000 rpm-20000 rpm	15% to 0.12% 0.12%
Pressure Indicating Devices				
1	Pneumatic Digital /Analog Pressure Gauges,Transducer with Indicator, Pressure Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on DKD-R6-1 : 2014	0-10 bar	0.12 bar
2	Hydraulic Digital /Analog Pressure Gauges, Transducer with Indicator, Pressure Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on DKD-R6-1 : 2014	10 bar-700 bar	0.45 bar
3	Vacuum -Digital / Dial Vacuum Gauge, Vacuum Transducer/Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on IS 8244 : 1976 (Reaffirmed Year : 2021)	-0.9 bar to 0 bar	0.05 bar

Dealing Officer

SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 115)

Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (At Site)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
Pressure Indicating Devices				
1	Pneumatic Digital /Analog Pressure Gauges, Transducer with Indicator, Pressure Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on DKD-R6-1: 2014	0-10 bar	0.12 bar
2	Hydraulic Digital /Analog Pressure Gauges, Transducer with Indicator, Pressure Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on DKD-R6-1 : 2014	10 bar-700 bar	0.45 bar
3	Vacuum -Digital / Dial Vacuum Gauge, Vacuum Transducer/Transmitter	Using Digital Pressure Gauge by Direct / Comparison Method based on IS 8244: 1976 (Reaffirmed Year: 2021)	-0.9bar to 0 bar	0.05 bar
UTM, Tension Creep and Torsion Testing Machine				
1	Uniaxial Static Testing Machines (UTM, TTM etc.) -Tension Mode	Force Proving Instruments (Load Cells/ Proving Rings) based on IS 1828 : Part 1 : 2022 by Comparison Method	10N to 50kN	0.75%
2	Uniaxial Static Testing Machines (UTM etc.) - Compression Mode	Force Proving Instruments (Load Cells/ Proving Rings) based on IS 1828: Part 1: 2022 by Comparison Method	10N to 50kN	0.75%

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SCOPE OF ACCREDITATION

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Validity 12.12.2023 to 11.12.2025 Last Amended on N/A

Mechanical Calibration (At Site)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
Weighing Scale & Balance				
1	Weighing Balance -Class II (readability:0.01 g)	F1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	0-200 g	7.7 mg
2	Weighing Balance -Class II (readability:0.01 g)	F1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>200g to 1kg	6 mg
3	Weighing Balance -Class II (readability:0.1 g)	F1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>1kg to 10kg	1 g
4	Weighing Balance -Class III (readability:1 g)	F1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>10 kg to 100 kg	5 g
5	Weighing Balance -Class III (readability:10 g)	F1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>100 kg to 300 kg	30 g
6	Weighing Balance -Class III (readability:50 g)	M1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>300 kg to 500 kg	47 g
7	Weighing Balance -Class III (readability:100 g)	M1 Class Weights as per OIML-R-76 : 2006 by Comparison Method	>500 kg to 1000 kg	70 g

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Fluid Flow Calibration (At Site)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard	Range	Uncertainty in Measurement (±) *
1	Fluid Flow Measuring Devices	Using Ultrasonic Flow Meter by Comparison Method	1 m^3/hr to 650 m^3/hr	1.6%

Optical & Photometry Calibration (At Site)

1	Irradiance- Solar Pyranometer	Using Std. Pyranometer by Comparison Method	10 to 1000 W/m^2	1.5%

*** Expanded uncertainty expressed in coverage probability of approximately 95% (Coverage factor K=2)**

Dealing Officer