

**FIELDS OF CALIBRATION : HEAT & TEMPERATURE, MASS, FORCE, HARDNESS
 PRESSURE, VOLUME, VISOSCITY, OPTICAL, DIMENSIONAL,
 TIME & FREQUENCY**

SCOPE OF CAPABILITY : DIMENSION

INSTRUMENT CALIBRATED	RANGE	REMARK
Thickness Gauge (Dial/Digimatic)	0 mm to 25 mm	ISO/IEC 17025
Coating Thickness Gauge	0 µm to 3000 µm	
Non Metallic Thickness Foil	0 µm to 3000 µm	
Caliper	0 µm to 150 µm	
Ultrasonic Thickness Gauge	0 mm to 100 mm	
Gauge Block	0 to 10 mm	ISO TRACEABLE
Micrometer	0 to 25 mm	
Micrometer Head/ Calibration Tester	0 to 50 mm	
Height Gauge	0 to 300 mm	
Stainless Steel Ruler	0 to 2000 mm	
Measuring Tape	0 to 100 m	
Dial Test Indicator	up to 10 mm	
Square, L-Square	0 to 1000 mm	
Angle (Angle Block, Protractor)	0 to 360 °	
Precision Level / Spirit Level / Water Level	0.02 mm/m to 0.1 mm/m	
Glass Scale / Peak Lupe Scale	0 to 400 mm	
MU checker	0 to 10 mm	
Feeler Gauge	0.01 mm to 10 mm	
Pin Gauge	0.0001 mm to 10 mm	
Thread Plug Gauge	up to 50 mm	
Thread Ring Gauge	up to 50 mm	
Radius Gauge	please call for confirm	
Laser Distance Meter	0.1 m to 30 m	
Length Counter	up to 100 m	
Welding Gauge	please call for confirm	
Taper Gauge	up to 20 mm	
Jigs	Length	
Combination Set	Angle, Length & Flatness	
Roughness Measuring Machine / Tester	please call for confirm	
SITE – CATEGORY 1		
Microscope	0 to 100 mm	
Profile Projector	0 to 300 mm	

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SCOPE OF CAPABILITY : TEMPERATURE

INSTRUMENT CALIBRATED	RANGE	REMARK
Temperature Sensor	-80 °C to 650 °C	ISO TRACEABLE
Temperature Measuring Device – Stimulation, Thermocouple		
R	0 °C to 1700 °C	
B #	600 °C to 1800 °C	
K	-100 °C to 1300 °C	
E	-100 °C to 850 °C	
J	-100 °C to 1050 °C	
T	-100 °C to 390 °C	
S	0 °C to 1700 °C	
Liquid-In-Glass Thermometer	-80 °C to 650 °C	
Temperature & Humidity Indicator or Recorder Thermohygrograph, Thermohyrometer, Data Logger	-40 °C to 60 °C 10 %RH to 90 %RH	
Temperature Block Calibrator (Dry Block)	-80 °C to 1200 °C	
Infrared Thermometer	-80 °C to 650 °C	
SITE – CATEGORY 1		
Temperature Controller Enclosure (Exp: chiller, freezer, oven, incubator, furnace)	-80 °C to 1200 °C	
Temperature Measuring Device – Stimulation, Thermocouple		
R	0 °C to 1700 °C	
B #	600 °C to 1800 °C	
K	-100 °C to 1300 °C	
E	-100 °C to 850 °C	
J	-100 °C to 1050 °C	
T	-100 °C to 390 °C	
S	0 °C to 1700 °C	
Liquid-In-Glass Thermometer	0 °C to 400 °C	
Temperature Block Calibrator (Dry Block)	-80 °C to 1200 °C	
Temperature Liquid Bath/ Water Bath/ Oil Bath	-80 °C to 250 °C	
Humidity Chamber	-40 °C to 60 °C ; 20 %RH to 95 %RH	

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SCOPE OF CAPABILITY : MASS & MASS RELATED

INSTRUMENT CALIBRATED	RANGE	REMARK
Force Measuring Device (Compression)	0 N to 10 kN	ISO/IEC 17025
Belt Tension	0 N to 1 kN	ISO TRACEABLE
Adhesion Tester	0 N to 50 kN	
Standard Weight/ Dead Weight	up to 30 kg	
SITE – CATEGORY 1		
Universal Testing Machine	0.5 kN to 300 kN	ISO/IEC 17025
Standard Weight/ Dead Weight	up to 30 kg	ISO TRACEABLE
Weighing Balance	up to 600 kg	
Tanker	1 ton	
Volume Tank	10000 liter	

INSTRUMENT CALIBRATED	RANGE	REMARK
Pressure Measuring Device	0 bar to 700 bar	ISO TRACEABLE
Pressure Gauge, Pressure Transducer, Test Gauge & etc...		
Manometer	-1 bar to 2 bar	
Vacuum Measuring Device	-1 bar to 0 bar	
Vacuum Gauge, Vacuum Transducer & etc...		
Deadweight Tester	0 bar to 700 bar	
SITE – CATEGORY 1		
Pressure Measuring Device	0 bar to 700 bar	ISO TRACEABLE
Pressure Gauge, Pressure Transducer, Test Gauge & etc...		
Manometer	-1 bar to 2 bar	
Vacuum Measuring Device	-1 bar to 0 bar	
Vacuum Gauge, Vacuum Transducer & etc...		

SCOPE OF CAPABILITY : VOLUMETRIC

INSTRUMENT CALIBRATED	RANGE	REMARK
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Burette	up to 1000 ml	ISO TRACEABLE
Dispenser / Digital Burette	up to 1000 ml	
Measuring Cylinder/ Beaker	up to 5000 ml	
One Mark Volumetric Flask	up to 5000 ml	
POVA – Pipette / Micropipette	up to 50 ml	
Zahn Cup	Cup 2, 3, 4	
Ford Cup	Cup 3, 4, 5	
Refractometer : Sucrose Mass Fraction Refractive Index	0 % to 90 %	
Salinity Meter	0 % to 90 %	
Hydrometer	up to 1.850 g/ml	
pH Meter	pH 4 ~ 10	
Conductivity Meter	0.05 ~ 12880 µS/cm	

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SCOPE OF CAPABILITY : TIME & FREQUENCY

INSTRUMENT CALIBRATED	RANGE	REMARK
Tachometer	60 rpm to 40000 rpm	ISO TRACEABLE
Stroboscope	60 rpm to 40000 rpm	
Stopwatch	up to 3 hours	
Timer	up to 3 hours	
SITE – CATEGORY 1		
RPM Measuring Instrument (Contact, Non-Contact)	60 rpm to 40000 rpm	ISO TRACEABLE
Stopwatch	0 to 3 hours	
Timer (relay/countup/countdown)	0 to 3 hours	

SCOPE OF CAPABILITY : OTHERS

INSTRUMENT CALIBRATED	RANGE	REMARK	
Hardness Durometer (Type A, B, C, D, E, O, DO, OO)	0 to 100 shore hardness index	ISO TRACEABLE	
Hardness Block	HRA, HRB, HRC, HD & etc...		
Elmendorf Tearing Tester	0 to 100 scale		
Anemometer (Vane, Hot Wire, Pitot)	0 to 20 m/s		
Laminar Flow	0 to 20 m/s		
Fume Hood	0 to 20 m/s		
Lux Meter	0 to 1200 Lux		
Sound Level Meter, Sound Level Calibrator	94 & 114 dB		
Moisture Meter	6 %MC to 27 %MC		
Gas Detector	H ₂ S (Hydrogen Sulfide) O ₂ (Oxygen) N ₂ (Nitrogen) NH ₃ (Ammonia)		
Vibration Meter	up to 30 mms-1 up to 30 ms-2		
SITE – CATEGORY 1			
Rockwell Hardness Tester	HRA, HRB, HRC, HD & etc...		