



SCOPE OF ACCREDITATION

IAS Accreditation Number	CL-142
Accredited Entity	OMKA-OMEGA OLCME KONTROL SISTEMLERİ KALIBRASYON LABORATUVAR CIHAZLARI SAN. TIC. LTD. STİ
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Accreditation Standard	ISO/IEC 17025:2005

CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	TECHNIQUE. REFERENCE STANDARD. EQUIPMENT
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<i>Electrical/DC/ Low Frequency</i>			
DC Voltage - Measure	20 mV to 200 mV	41 μ V	M140 Meatest Multifunction
	>200 mV to 2 V	93 μ V	Calibrator Multimeter Function
	>2 V to 20 V	870 μ V	
	>20 V to 240 V	11 mV	
	>240 V to 1000 V	120 mV	
DC Volts - Measure High Voltage	Up to 20 kV	0.6 kV	High Voltage Probe. Multimeter
DC Current Measure	200 μ A to 2 mA	3.4 μ A	M140 Meatest Multifunction
	>2 mA to 20 mA	3.4 μ A	Calibrator Multimeter Function
	>20 mA to 200 mA	35 μ A	
	>200 mA to 2 A	750 μ A	
	>2 A to 20 A	8 mA	
DC Resistance Measure	1 to 400 Ω	170 m Ω	M140 Meatest Multifunction
	>400 Ω to 2 k Ω	370 m Ω	Calibrator Multimeter Function
	>2 k Ω to 10 k Ω	1.9 Ω	
	>10 k Ω to 40 k Ω	9.4 Ω	
	>40 k Ω to 200k Ω	37 Ω	
	>200 k Ω to 1 M Ω	590 Ω	
	>1 M Ω to 4 M Ω	4.7 k Ω	
	>4 M Ω to 20 M Ω	47 k Ω	
>20 M Ω to 50 M Ω	290 k Ω		
AC Voltage Measure	200 mV to 2 V		M140 Meatest Multifunction
	20 Hz to 10 kHz	1.1 mV	Calibrator Multimeter Function
	10 kHz to 50 kHz	1.7 mV	
	>50 kHz to 100 kHz	6 mV	



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	>2 V to 20 V		
	20 Hz to 10 kHz	12 mV	
	>10 kHz to 50 kHz	22 mV	
	>50 kHz to 100 kHz	59 mV	
	>20 V to 240 V		
	20 Hz to 10 kHz	128 mV	
	>240 V to 1000 V		
	20 Hz to 10 kHz	805.0 mV	
High Voltage 1kHz	Up to 5 kV	0.6 kV	High Voltage Probe. Multimeter
AC Current Measure	2 mA to 20 mA		M140 Meatest Multifunction Calibrator
	20 Hz to 1 kHz	17 µA	Multimeter Function
	>1 kHz to 5 kHz	59 µA	
	>5 kHz to 10 kHz	132µA	
	>20 mA to 200 mA		
	20 Hz to 1 kHz	139 µA	
	>1 kHz to 5 kHz	581 µA	
	>5 kHz to 10 kHz	1.4 mA	
	200 mA to 2 A		
	20 Hz to 1 kHz	1.7 mA	
	2 A to 10 A		
	20 Hz to 1 kHz	20 mA	
	10 A to 20 A		
	20 Hz to 1 kHz	33 mA	
Sound Level – Generate	94 dB at 1 kHz	0.35 dB	
	114 dB at 1 kHz	0.35 dB	
Inductance – Generate	0.1 to 1111 mH	0.01 mH	Inductance Box
Capacitance – Generate	0.001 to 0.01 µF	1.2 nF	Capacitance Box
	>0.01 to 0.1 µF	5.1 nF	
	>0.1 to 1 µF	50 nF	
	>1 to 50 µF	0.55 µF	
Power Analyzers and Power Meters – Generate	Up to 2000	1.28x10 ⁻⁴	M140 Meatest Multifunction Calibrator.
	>2000 to 5000	1.28x10 ⁻¹	Resistance Box
Electricity One Phase to Three Phase – kW. kVA. kVAr. kWh	>5000 to 50000	1.55x10 ⁻¹	



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DC Current - Generate	20 to 100 mA	0.8 mA	M140 Meatest Multifunction Calibrator.
	>100 to 200 mA	1.3 mA	50 Turn Coil
	>200 mA to 1 A	5.8 mA	
	>1 to 10 A	231 mA	
AC Current - Generate	20 to 200 mA	1.3 mA	M140 Meatest Multifunction Calibrator.
	50 Hz to 1 kHz	6.5 mA	50 Turn Coil
	>200 mA to 1 A		
	50 Hz to 1 kHz	87.6 mA	
	>1 to 10 A		
	50 Hz to 1 kHz	50 mΩ	
	1 to 100 Ω		
	>100 to 400 Ω		
>400 to 2 kΩ			
Resistance - Generate	>2 to 10 kΩ	10.1 Ω	M140 Meatest Multifunction Calibrator
	>10 to 40 kΩ	40.6 Ω	
	>40 to 200 kΩ	106 Ω	
	>200 to 1 MΩ	590 Ω	
	>1 to 4 MΩ	4.7 kΩ	
	>4 to 20 MΩ	47 kΩ	
	>20 to 50 MΩ	290 kΩ	
Luxmeter	0-5000 lux	0.50% lux	Reference
<i>Dimensional</i>			
Dial Indicator	0 to 100 mm/0.001 mm	1.7 μm	ULM 300 Universal Length Measurement
Calipers	0 to 450 mm/0.01 mm	15.8 μm	Gauge Blocks
	>450 to 900 mm/0.01 mm	20 μm	
	>900 to 2000 mm/0.01 mm	33.5 μm	
Height Gauges	0 to 450 mm/0.01 mm	15.8 μm	Gauge Blocks
	>450 to 900 mm/0.01 mm	20 μm	
	>900 to 2000 mm/0.01 mm	33.5 μm	
Micrometers	0 to 25 mm/0.001 mm	3.6 μm	Gauge Blocks
	>25 to 175 mm/0.001 mm	4.9 μm	
	>175 to 1000 mm/0.001 mm	14.8 μm	
Rules	1 to 1000 mm/0.5 mm	111 μm	Linear Standard
Tapes	0 to 1000 mm	178 μm	Steel Ruler. Dino Lite
	1000 to 5000 mm	250 μm	
	5000 to 10000 mm	394.2 μm	
	10000 to 20000 mm	726 μm	



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	20000 to 30000 mm	1071 µm	
	30000 to 40000 mm	1419 µm	
	40000 to 50000 mm	1769 µm	
Snap Gauges	10 to 150 mm	2.4 µm	ULM 300 Universal Length Measurement
Ring Gauges	Φ 10 to 150 mm	2.4 µm	
Plug Gauges	Φ .5 to 100 mm	1.7 µm	ULM 300 Universal Length Measurement
Thread Plug Gauges (only Pitch Φ)	Up to M100	4.1 µm	ULM 300 Universal Length Measurement
Thread Ring Gauges (only Pitch Φ)	M14 to M150	4.1 µm	
Block Gauge	0 to 125 mm	880 nm	ULM 300 Universal Length Measurement
Depth Caliper	0 to 300 mm/0.001 mm	9.23 µm	ULM 300 Universal Length Measurement
Depth Micrometer	0 to 175 mm/0.001 mm	3.54 µm	Block Gauge
Feeler Gauge	0 to 6 mm	800 nm	Block Gauge
Micrometer Setting Bar	0 to 125 mm	640 nm	ULM 300 Universal Length Measurement
Miter	0 to 300 mm	2.4 µm	Reference Calibrator
Thickness Meter	0 to 2 mm	820 nm	Thickness Foil
Radius Gauge	6.5 mm (R1) to 50 mm (R25)	9.02 µm	Glass Rule – Dino Lite
Sieve	0 to 200 mm	9.01 µm	Reference Calibrator
Spirit Level. Angle Meter	0 to 90°	0.26°	Angle Gauge
Thickness Comparator	0 to 25 mm	820 nm	Thickness Foil. Block Gauge
Thickness Foil	0 to 6 mm	800 nm	ULM 300 Super Micrometer
Passometer	0 to 2 mm	800 nm	Thickness Foil. Block Gauge
Thickness Gauge	0 to 10 mm	1.47 µm	Thickness Foil. Block Gauge
	10 to 50 mm	1.93 µm	
	50 to 100 mm	2.93 µm	
Two Dimensional Measurement Device	0 to 200 mm	9.37 µm	Glass Ruler
Profile Projector	0 to 200 mm	9.37 µm	Glass Ruler
Levels - Mira	0 to 1000 mm	178 µm	

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	1000 to 5000 mm	250 µm	Steel Ruler. Dino Lite
	5000 to 10000 mm	394.2 µm	
	10000 to 20000 mm	726 µm	
	20000 to 30000 mm	1071 µm	
	30000 to 40000 mm	1419 µm	
	40000 to 50000 mm	1769 µm	
<i>Chemical/Gas</i>			
pH Meter	Up to 14 pH	0.09 pH	Reference Buffer Solutions
Conductivity Meter	84 to 12.880 µS/cm	1.7% µS/cm	Reference Buffer Solutions
Alcohol Meter	0 to 100%	1.17% Alcohol	Reference Solution
Aero. Baume. Density Meters	0.8 to 2 g/cm ³	1.17% g/cm ³	Reference Solution
Viscosity Meter	100 to 23000 cPs	0.78 cPs	Reference Solution
Refractometer	0 to 100% brix	1.17% brix	Reference Solution
Din Cup	8 to 2000 mm ² /s	0.78 mm ² /s	Reference Solution
<i>Mechanical</i>			
Torque Wrench	0 to 1.000 Nm	2.5% indicated value	Reference Torque Calibrator
Tachometer	10 rpm to 1.000 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
	>1.000 to 10.000 rpm	0.06 rpm	
	>10.000 to 99.999 rpm	0.6 rpm	
Centrifuge	10 rpm to 1.000 rpm	1.6 rpm	Tachometer
	>1.000 to 10.000 rpm	11 rpm	
	>10.000 to 99.999 rpm	76 rpm	
Pipettes - Gravimetric Method	Up to 100 µL	0.17 µL	Balance. Distilled Water
	>100 to 200 µL	0.17 µL	
	>200 µL to 500 µL	0.17 µL	
	>500 µL to 1 mL	0.18 µL	
	>1 to 2 mL	0.18 µL	
	>2 to 5 mL	0.19 µL	
	>5 to 10 mL	0.20 µL	
	>10 to 25 mL	0.28 µL	
	>25 to 50 mL	0.41 µL	
>50 to 100 mL	1.78 µL		
Burettes - Gravimetric Method	Up to 500 µL	0.17 µL	Balance. Distilled Water
	>500 µL to 1 mL	0.18 µL	
	>1 to 2 mL	0.18 µL	
	>2 to 5 mL	0.19 µL	



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	>5 to 10 mL	0.20 µL	
	>10 to 25 mL	0.28 µL	
	>25 to 50 mL	0.32 µL	
	>50 to 100 mL	1.78 µL	
Cylinders - Gravimetric Method	>2 to 5 mL	0.19 µL	Balance. Distilled Water
	>5 to 10 mL	0.20 µL	
	>10 to 25 mL	0.28 µL	
	>25 to 50 mL	0.41 µL	
	>50 to 100 mL	1.78 µL	
	>100 to 250 mL	3.58 µL	
	>250 to 500 mL	6.39 µL	
	>500 to 1.000 mL	24.49 µL	
	>1.000 to 2.000 mL	26.37 µL	Balance. Distilled Water. OIML R-120. Clause 3
	>2000 to 10000 mL	1245 µL	
	>10000 to 20000 mL	2134 µL	
	>20000 to 30000 mL	3125 µL	
	>30000 to 40000 mL	3692 µL	
	>40000 to 50000 mL	4542 µL	
Pycnometers - Gravimetric Method	Up to 1 mL	0.18 µL	Balance. Distilled Water
	>1 to 2 mL	0.18 µL	
	>2 to 5 mL	0.19 µL	
	>5 to 10 mL	0.20 µL	
	>10 to 25 mL	0.28 µL	
	>25 to 50 mL	0.41 µL	
	>50 to 100 mL	0.50 µL	
Scales and Balances	0 to 300 g/10 µg	0.8 mg	E2 Class Weights
	0 to 40 kg/1 mg	0.9 g	F1 Class Weights
	0 to 600 kg/0.1 g	39 g	M1 Class Weights
	600 to 1000 kg	62.5 g	M1 Class Weights
	1000 to 2000 kg	125.1 g	M1 Class Weights
	2000 to 3000 kg	187.6 g	M1 Class Weights
Pressure	-0.85 to 10 bar/0.001 bar	0.0016 bar	Pressure/Vacuum Calibrator
	10 to 700 bar/0.1 bar	0.37 bar	Pressure Calibrator
Pressure Transmitter	0 to 20 mA	3.4 µA	Reference Pressure Calibrator.
	-0.85 to 10 bar	0.0016 bar	Reference Multimeter. Beamex
	10 to 700 bar	0.37 bar	

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Shore Meter A (Durometer)	0 to 96 Shore	2.09 Shore	Shore Test Block
Shore Meter D (Durometer)	0 to 88 Shore	2.09 Shore	Shore Test Block
Hardness Tester-Rockwell Scale	24 HRC to 64 HRC	0.6 HRC	Reference Block
Hardness Tester-Vickers Scale	HV 0.2 to HV 434	0.93%	
Hardness Tester-Brinell Scale	HB 2.5/62.5 to HB 10/3000	0.94%	
Hardness Tester-Rockwell Gauge	24 HRC to 64 HRC	1.03%	Reference Gauge & Reference Calibrator
Rockwell intender	$119^\circ \leq \alpha \leq 121^\circ$	0.06 °	
Rockwell Axial Deflection Angle α	$0^\circ \leq \alpha \leq 1^\circ$	0.06 °	
Hardness Tester-Vickers Gauge	HV 0.2 to HV 434	0.93%	
Vickers intender	$135^\circ \leq \alpha \leq 137^\circ$	0.06 °	
Vickers Axial Deflection Angle α	$0^\circ \leq \alpha \leq 1^\circ$	0.06 °	
Hardness Tester-Brinell Gauge	HB 2.5/62.5 to HB 10/3000	0.94%	
Intender Diameter. R	$0 \text{ mm} \leq R \leq 10 \text{ mm}$	0.4 μm	Reference Gauge & Reference Calibrator
Intender Linearity. S	$0 \text{ mm} \leq S \leq 1\text{mm}$	0.4 μm	
Intender Length . L	$0 \text{ mm} \leq L \leq 0.2 \text{ mm}$	0.4 μm	
Load cell - Dinamometer	1 N to 50 KN	0.23%	Reference Dead Weight-load Cell
Pull Push Force Gauge	1 N to 2 MN	0.97%	Reference Load Cell
Concrete Pressure Testing	2 N to 2 MN	1.22%	Reference Load Cell
Notch Impact Tester	1 J to 300 J	1.25%	Reference calibrator
Izod Impact Tester	2 J to 300 J	1.28%	Reference calibrator
F1 Mass	1 mg	0.008 mg	E2 MASS SET

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	2 mg	0.008 mg	
	5 mg	0.008 mg	
	10 mg	0.0083 mg	
	20 mg	0.0086 mg	
	50 mg	0.0093 mg	
	100 mg	0.0106 mg	
	200 mg	0.0121 mg	
	500 mg	0.0144 mg	
	1 g	0.0168 mg	
	2 g	0.0208 mg	
	5 g	0.0260 mg	
	10 g	0.0314 mg	
	20 g	0.0403 mg	
	50 g	0.0493 mg	
	100 g	0.1063 mg	
	200 g	0.1524 mg	
	500 g	0.7712 mg	
	1kg	2.6007 mg	
	2 kg	8.5916 mg	
	5 kg	14.3733 mg	
F2 Mass	1 mg	0.0121 mg	E2 MASS SET
	2 mg	0.0121 mg	
	5 mg	0.0714 mg	
	10 mg	0.0718 mg	
	20 mg	0.0168 mg	
	50 mg	0.0208 mg	
	100 mg	0.0260 mg	
	200 mg	0.0314 mg	
	500 mg	0.0403 mg	
	1 g	0.0493 mg	
	2 g	0.0814 mg	
	5 g	0.0796 mg	
	10 g	0.0979 mg	
	20 g	0.1253 mg	
	50 g	0.1529 mg	
	100 g	0.2601 mg	
	200 g	0.4931 mg	
	500 g	1.4373 mg	
	1 kg	2.6007 mg	
	2 kg	8.5916 mg	
	5 kg	14.3733 mg	



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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
M1 Mass	10 kg	75.0091 mg	E2 -F1 MASS SET
	20 kg	85.9155 mg	
	1 mg	0.0314 mg	
	2 mg	0.0314 mg	
	5 mg	0.0314 mg	
	10 mg	0.0634 mg	
	20 mg	0.0493 mg	
	50 mg	0.0615 mg	
	100 mg	0.0982 mg	
	200 mg	0.0979 mg	
	500 mg	0.1253 mg	
	1 g	0.1529 mg	
	2 g	0.1953 mg	
	5 g	0.2504 mg	
	10 g	0.3056 mg	
	20 g	0.3967 mg	
	50 g	0.4881 mg	
	100 g	0.7964 mg	
	200 g	1.5292 mg	
	500 g	4.0288 mg	
	1 kg	7.9640 mg	
2 kg	16.8325 mg		
5 kg	40.2883 mg		
10 kg	106.2666 mg		
20 kg	168.3251 mg		
M2 Mass	100 mg	0.2569 mg	E2-F1 MASS SET
	200 mg	0.3056 mg	
	500 mg	0.3967 mg	
	1 g	0.4881 mg	
	2 g	0.6111 mg	
	5 g	0.7933 mg	
	10 g	0.9760 mg	
	20 g	1.2514 mg	
	50 g	1.5275 mg	
	100 g	2.5037 mg	
	200 g	4.8806 mg	
	500 g	12.5337 mg	
	1 kg	25.0374 mg	
	2 kg	49.3101 mg	
	5 kg	125.3366 mg	
10 kg	260.0712 mg		



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M3 Mass	20 kg	493.1005 mg	E2 -F1 MASS SET
	1 g	1.5275 mg	
	2 g	1.9520 mg	
	5 g	2.5027 mg	
	10 g	3.0551 mg	
	20 g	3.9663 mg	
	50 g	4.8800 mg	
	100 g	7.9329 mg	
	200 g	15.2754 mg	
	500 g	39.6692 mg	
	1 kg	79.3290 mg	
	2 kg	152.9161 mg	
	5 kg	396.6923 mg	
	10 kg	796.4040 mg	
	20 kg	1529.1610 mg	
Anemometer	0 to 1 m/s	2.25% m/s	Reference Anemometer
	1 to 20 m/s	1.20% m/s	
<i>Thermal</i>			
RTD Temperature Measure	-80 to 20 °C	0.07 °C	SPRT and Calibration Baths
	20 to 90 °C	0.06 °C	
	90 to 230 °C	0.06 °C	
	230 to 420 °C	0.1 °C	
Liquid In Glass	-80 to 20 °C	0.08 °C	SPRT and Calibration Baths
	20 to 90 °C	0.08 °C	
	90 to 230 °C	0.08 °C	
	230 to 420 °C	0.1 °C	
Thermocouples (S-T-R-B-E-J-K-N)	-80 to 20 °C	0.08 °C	SPRT and S Type Thermocouples and Calibration Baths
	20 to 90 °C	0.08 °C	
	90 to 230 °C	0.11 °C	
	230 to 420 °C	0.11 °C	
	420 to 700 °C	2.02 °C	
Thermometers	700 to 1200 °C	2.52 °C	SPRT and S Type Thermocouples and Calibration Baths
	-80 to 20 °C	0.07 °C	
	20 to 90 °C	0.08 °C	
	90 to 230 °C	0.1 °C	
	230 to 420 °C	0.1 °C	
	420 to 700 °C	2.02 °C	
700 to 1200 °C	2.5 °C		



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Radiation Thermometers	-80 to 20 °C	0.07 °C	SPRT and S Type Thermocouples and Calibration Baths
	20 to 90 °C	0.08 °C	
	90 to 230 °C	0.10 °C	
	230 to 420 °C	0.10 °C	
	420 to 700 °C	2.02 °C	
	700 to 1200 °C	2.52 °C	
Furnace	200 to 900°C/0.1°C	4.0°C	S Type Thermocouple
	>900 to 1200°C/0.1°C	4.5°C	
Climatic Chambers Temperature	-80 to 420 °C	0.45 °C	K Type Thermocouples
	420 to 700 °C	2.08 °C	
	700 to 1000 °C	2.56 °C	
Climatic Chambers Humidity	%20 to %90 RH	%1.31 RH	Humidity Dataloggers
Autoclave	0 to 140°C/0.1°C	1.1°C	Data Logger EBRO
Dataloggers	-30°C to 25°C	1.04°C	Reference Thermometer. Datalogger
Humidity (RH). Thermography	20 to 90%RH	1.23%RH	Reference calibrator
Heat Meter	-30°C to 90°C	0.5°C	Reference calibrator OIML-R120. Clause 3
	50000 mL	4542 µL	
Surface Thermometer	-80 to 20 °C	0.07 °C	SPRT and S Type Thermocouples and Calibration Baths
	20 to 90 °C	0.08 °C	
	90 to 230 °C	0.1 °C	
	230 to 420 °C	0.1 °C	
	420 to 700 °C	2.02 °C	
	700 to 1200 °C	2.5 °C	
Hot Plate	0 to 20 °C	0.13 °C	Reference Thermometer
	20 to 90 °C	0.14 °C	
	90 to 230 °C	0.16 °C	
	230 to 420 °C	0.16 °C	
	420 to 700 °C	2.04 °C	
	700 to 1200 °C	2.54 °C	
Temperature Transmitter	0 to 20 mA	3.4 µA	SPRT and S Type Thermocouples.
	-80 to 20 °C	0.07 °C	
	20 to 90 °C	0.08 °C	



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	90 to 230 °C	0.10 °C	Beamex. Reference Multimeter and Calibration Baths
	230 to 420 °C	0.10 °C	
	420 to 700 °C	2.02 °C	
	700 to 1200 °C	2.5 °C	
Melt Flow - Dimensional	0 to 50 mm	15 µm	Dino Lite-Reference Micrometer
Melt Flow - Temperature	50 to 300 °C	0.1 °C	Reference Thermometer
Melt Flow - Weight	500 to 10000 g	294.8265 mg	Balance
<i>Time and Frequency</i>			
Time	0 to 10 min	0.1s	Reference chronometer
Frequency - Generate	1 to 10 Hz	5.84x10 ⁻⁴ Hz	M140 Meatest Multifunction Calibrator
	>10 to 100 Hz	5.78x10 ⁻³ Hz	
	>100 Hz to 1 kHz	5.78x10 ⁻² Hz	
	>1 to 10 kHz	5.78x10 ⁻¹ Hz	
	>10 to 100 kHz	5.78 Hz	
	>100 kHz to 1 MHz	5.78x10 ¹ Hz	
	>1 to 10 MHz	577.6 Hz	
	>10 to 20 MHz	1.155 kHz	
Textile Testing Machines and Martindale Abrasion Machines - Mass	100 g to 3000 g	0.9 g	E2. F1 Class Weights
Textile Testing Machines and Martindale Abrasion Machines - Linear	0.5 mm to 60 mm	0.1 mm	Linear Standard
Textile Testing Machines and Martindale Abrasion Machines - Speed	0 to 99 rpm	0.06 rpm	M140 Meatest multifunction Calibrator
Tumble Dryers -	30 to 80 °C	0.51 °C	SPRT and Calibration



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Temperature			Baths
Tumble Dryers - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Tumble Dryers - Speed	40 rpm to 100 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Tumble Dryers - Linear	550 mm to 1000 mm	0.111 mm	Linear Standard
Reference Washing Machines (including wascator) - Temperature	25 to 80 °C	0.51 °C	SPRT and Calibration Baths
Reference Washing Machines (including wascator) - Linear	50 mm to 200 mm	0.111 mm	Linear Standard
Reference Washing Machines (including wascator) - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest multifunction Calibrator
Reference Washing Machines (including wascator) - Mass	1 kg to 20 kg	0.9 g	E2. F1 Class Weights
Reference Washing Machines (including wascator) - Speed	at 52 rpm and 500 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Gyrowash and Washwheels - Linear	100 mm to 220 mm	0.111 mm	Linear Standard
Gyrowash and Washwheels -	30 °C to 95 °C	0.51 °C	SPRT and Calibration Baths



SCOPE OF ACCREDITATION

CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Temperature			
Gyrowash and Washwheels - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Gyrowash and Washwheels - Speed	38 rpm to 42 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Gyrowash and Washwheels - Capacity	500 ml to 600 ml	1.444 ml	Balance. Distilled Water
	1100 ml to 1300 ml	2.887 ml	
Random Tumble Pilling Testers - Linear	5 mm to 160 mm	0.111 mm	Linear Standard
Random Tumble Pilling Testers - Speed	1200 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Random Tumble Pilling Testers - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Random Tumble Pilling Testers - Pressure	0.0069 to 1.035 bar	0.0016 bar	Pressure Calibrator
Pilling Testers (Box & Drum) - Linear	5 mm to 320 mm	0.111 mm	Linear Standard
Pilling Testers (Box & Drum) - Speed	30 rpm to 60 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Pilling Testers (Box & Drum) - Linear	5 mm to 320 mm	0.111 mm	Linear Standard
Pilling Testers (Box & Drum) - Speed	30 rpm to 60 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Sample Cutters - Diameter of cut sample	20 mm to 150 mm	0.111 mm	Linear Standard
Burst Strength Testers - Linear	0 mm to 120 mm	0.111 mm	Linear Standard
Burst Strength	up to 1 Hz	8.66 E-05 Hz	M140 Meatest

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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Testers – Timer			multifunction Calibrator
Burst Strength Testers – Pressure	0 to 10 bar	0.0016 bar	Pressure Calibrator
	10 to 15 bar	0.42 bar	
Frame Textile Flammability Testers - Linear	1 mm to 200 mm	0.111 mm	Linear Standard
	200 mm to 800 mm	0.111 mm	
Frame Textile Flammability Testers - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Frame Textile Flammability Testers - Angle	10° to 90°	0.26°	Digital Protractor. Angle Gauge
Crockmeters – Mass	0.1 to 1.1 kg	0.9 g	E2. F1 Class Weights
Crockmeters - Linear	5 mm to 110 mm (stroke)	0.111 mm	Linear Standard
	5 mm to 15 mm (peg diameter)		
Crockmeters - Speed	10 rpm to 60 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Perspirometer - Mass	100 g to 5100 g	0.9 g	E2. F1 Class weights
Hydrostatic Head Tester – Pressure	0 to 1.5 bar	0.0016 bar	Pressure Calibrator
	1.5 to 3.5 bar	0.0016 bar	Pressure Calibrator
Hydrostatic Head Tester – Linear	0 mm to 140 mm	0.111 mm	Linear Standard
Wrap Reel Tester Circumference of the Circle	200 mm to 1000 mm	0.111 mm	Linear Standard
Twist Tester - Mass	up to 10 g	0.8 mg	E2. F1 Class Weights
	10 to 100 g	0.8 mg	E2. F1 Class Weights
	100 to 1000 g	0.9 g	E2. F1 Class Weights
Slide Ruler	1 mm to 1000 mm	0.111 mm	Linear Standard
Shirley Crease Recovery – Angle	10° to 180°	0.26°	Digital Protractor. Angle Gauge
Shirley Crease Recovery –	200 g to 2000 g	0.9 g	E2. F1 Class Weights



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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Mass			
Shirley Crease Recovery - Linear	1.5 mm to 200 mm	0.111 mm	Linear Standard
Scorch / Sublimation - Surface Temperature	70°C to 250°C	0.51°C	SPRT and Calibration Baths
Scorch / Sublimation - Mass	500 g to 5000 g	0.9 g	E2. F1 Class Weights
Scorch / Sublimation - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Scorch / Sublimation - Linear	1.5 mm to 300 mm	0.111 mm	Linear Standard
Spray Rating - Linear	1.5 mm to 300 mm	0.111 mm	Linear Standard
Spray Rating - Timer	up to 1 Hz	8.66 E-05 Hz	M140 Meatest Multifunction Calibrator
Spray Rating - Volume	250 ml	0.289 ml	Balance. Distilled Water
Shirley Water Vapour Permeability - Linear	1.5 mm to 100 mm	0.111 mm	Linear Standard
Shirley Water Vapour Permeability - Speed	10 rpm to 90 rpm	0.006 rpm	M140 Meatest Multifunction Calibrator
Yarn Tension Meter Mass	up to 10 g	0.8 mg	E2. F1 Class Weights
	10 to 100 g	0.8 mg	E2. F1 Class Weights
	100 to 1000 g	0.9 g	E2. F1 Class Weights
Shrinkage Schedule -Linear	100 mm to 350 mm	0.1 mm	Linear Standard
Shrinkage Schedule -Linear	0.1% to 30%	0.02%	Linear Standard
Electronic Moisture Meter - Humidity	20% to 90 %	1.73%	Humidity Cabinet. Humidity Probe
Electrical Medical	0.1 to 5 kVA	0.000128 kVA	Electrical Reference

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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Safety - Test Load			Calibrator
Electrical Medical Safety - Insulation Resistance	1 to 150 MΩ	500 kΩ	Electrical Reference Calibrator
Electrical Medical Safety - Test Current	0.1 to 50 A	12 mA	Electrical Reference Calibrator
Electrical Medical Safety - Leakage Current	10 to 10000 μA	3.4 μA	Electrical Reference Calibrator
Electrical Medical Safety - Earth Bond Test	0.1 to 5 Ω	170 mΩ	Electrical Reference Calibrator
Pacer - Test Load	1 to 1000 Ω	370 mΩ	Electrical Reference Calibrator
Pacer - Width	10 to 100 ms	0.1ms	Electrical Reference Calibrator
Pacer - Amplitude	1 to 200 mA	3.4 μA	Electrical Reference Calibrator
Clinical Thermometer	25 to 45 °C	0.1 °C	Electrical Reference Calibrator
Ftr Ultrasound	0.5 to 10 W	0.000128 W	Electrical Reference Calibrator
Ftr Device - Pulse	1 Hz to 500 Hz	0.0578 Hz	Electrical Reference Calibrator
Ftr Device - Pulse	1 to 500 μs	0.5 μs	Electrical Reference Calibrator
Ftr Device - Current	1 mA to 500 mA	60μA	Electrical Reference Calibrator
Electrocardiography - Amplitude	0.1 to 10 mV	41μV	Electrical Reference Calibrator
Electrocardiography - High Level Output Amplitude	0.05 to 10 V	%0.01 V	Electrical Reference Calibrator
Electrocardiography - Performance Tests	0.1 to 500 Hz	0.0578 Hz	Electrical Reference Calibrator
Electrocardiography - NSR	30 to 300 BPM	1% BPM	Electrical Reference Calibrator
Patient Monitor -	0.1 to 10 mV	41μV	Electrical Reference

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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Amplitude			Calibrator
Patient Monitor - High Level Output Amplitude	0.05 to 10V	%0.01 V	Electrical Reference Calibrator
Patient Monitor - Performance Tests	0.1 to 500 Hz	0.0578 Hz	Electrical Reference Calibrator
Patient Monitor - NSR	30 to 300 BPM	1% BPM	Electrical Reference Calibrator
Patient Monitor - Temperature YSI	1000 to 7000 Ω	1.9 Ω	Electrical Reference Calibrator
Patient Monitor - Blood Pressure Specs	0.1 to 300 mm-Hg	% 0.1 mm-Hg	Electrical Reference Calibrator
Patient Monitor - Respiration Baseline Impedance Measurement	0.1 to 5000 Ω	1.9 Ω	Electrical Reference Calibrator
Patient Monitor - Spo2 Simulator Test Load	0.1 to 5000 Ω / %80-%100	1.9 Ω	Electrical Reference Calibrator
Defibrillator - Test Load	1 to 100 Ω	170 mΩ	Electrical Reference Calibrator
Defibrillator - Energy Measurement	1 to 400 J	% 1 J	Electrical Reference Calibrator
Defibrillator - Voltage Measurement	50 to 5000 V	%0.002 V	Electrical Reference Calibrator
Defibrillator - Current Measurement	1 to 100 A	20 mA	Electrical Reference Calibrator
Defibrillator - Ecg Rate	30 to 300 BPM	1%	Electrical Reference Calibrator
Defibrillator - Performance Waves	0.1 to 100 Hz	0.00578 Hz	Electrical Reference Calibrator
Defibrillator - SPO2 Simulator Test Load	0.1 to 100 kΩ	370 mΩ	Electrical Reference Calibrator

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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Electrocautery - Test Load	0.1 to 5 kVA	0.0128 kVA	Electrical Reference Calibrator
Insulation Resistance	1 to 150 MΩ	290 kΩ	Electrical Reference Calibrator
Test Current	0.1 to 50 A	16 mA	Electrical Reference Calibrator
Leakage Current	10 to 10000 μA	3.4 μA	Electrical Reference Calibrator
Earth Bond Test	0.1 to 5 Ω	170 Ω	Electrical Reference Calibrator
Sphygmomometer	0 to 300 mm-Hg	%0.1 mm-Hg	Electrical Reference Calibrator
Phototherapy	10 to 2000 μW/cm ²	%0.1 μW/cm ²	Electrical Reference Calibrator
Aspirator	-0.85 to 0 bar	0.0016 bar	Electrical Reference Calibrator
Incubator - Humidity	10% to 90% RH	% 1.13 RH	Electrical Reference Calibrator
Incubator - Temperature	5 to 70 °C	0.1°C	Electrical Reference Calibrator
Incubator - Airflow	0.1 to 1 m/s	% 0.1 m/s	Electrical Reference Calibrator
Incubator - Sound Level	30 to 90 dBA	0.35 dBA	Electrical Reference Calibrator
Pulse Oximeter - SP02 Simulator Test Load	0.1 to 100 kΩ / %80-%100	170 mΩ	Electrical Reference Calibrator
Patient Simulator - Amplitude	0.1 to 10 mV	41 μV	Electrical Reference Calibrator
Patient Simulator - High Level Output Amplitude	0.05 to 10 V	%0.01 V	Electrical Reference Calibrator
Patient Simulator - Performance Tests	0.1 to 500 Hz	0.0578 Hz	Electrical Reference Calibrator
Patient Simulator - NSR	30 to 300 BPM	%1 BPM	Electrical Reference Calibrator
Patient Simulator - Temperature YSI	1000 to 7000 Ω	1.9 Ω	Electrical Reference Calibrator
Patient Simulator	0.1 to 300 mm-Hg	%0.1 mm-Hg	Electrical Reference



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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
- Blood Pressure Specs			Calibrator
Patient Simulator - Respiration Baseline Impedance Measurement	0.1 to 5000 Ω	1.9 Ω	Electrical Reference Calibrator
Fetal Simulator - ECG Rate	30 to 300 BPM	% 1 BPM	Electrical Reference Calibrator
Fetal Simulator - Amplitude	0.1 to 10 mV	% 0.1 V	Electrical Reference Calibrator
Defibrillator Analyzer - Test Load	1 to 100 Ω	170 mΩ	Electrical Reference Calibrator
Defibrillator Analyzer - Energy Measurement	1 to 400 J	% 1 J	Electrical Reference Calibrator
Defibrillator Analyzer - Voltage Measurement	50 to 5000 V	% 0.1 V	Electrical Reference Calibrator
Defibrillator Analyzer - Current Measurement	1 to 100 A	% 0.1 A	Electrical Reference Calibrator
Defibrillator Analyzer - ECG Rate	30 to 300 BPM	%0.1 BPM	Electrical Reference Calibrator
Defibrillator Analyzer - Performance Waves	0.1 to 100 Hz	0.00578 Hz	Electrical Reference Calibrator
NST - ECG Rate	30 to 300 BPM	%0.1 BPM	Electrical Reference Calibrator
NST - Amplitude	0.1 to 10 mV	41 μV	Electrical Reference Calibrator
Pacer Analyzer - Test Load	1 to 100 Ω	46.6 mΩ	Electrical Reference Calibrator
	100 to 400 Ω	96.2 mΩ	Electrical Reference Calibrator
	400 to 1000 Ω	118.2 mΩ	Electrical Reference



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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
			Calibrator
Pacer Analyzer - Width	1 to 10 Hz	8.7×10^{-5} Hz	Electrical Reference Calibrator
	10 to 100 Hz	1.73×10^{-4} Hz	Electrical Reference Calibrator
	100 to 1000 Hz	1.73×10^{-3} Hz	Electrical Reference Calibrator
Pacer Analyzer - Amplitude	1 to 20 mA	3.4 μ A	Electrical Reference Calibrator
	20 to 200 mA	30.1 μ A	Electrical Reference Calibrator
Spo2 Simulator - Test Load	0.1 to 100 k Ω / %80-%100	37 Ω	Electrical Reference Calibrator
Electrosurgery Analyzer - Test Load	1 to 1000 Ω	370 m Ω	Electrical Reference Calibrator
Electrosurgery Analyzer - Energy Measurement	5 to 500 W	1.28 W	Electrical Reference Calibrator
Electrical Medical Safety Analyzer - Test Load	0.1 to 5 kVA	0.000128 kVA	Electrical Reference Calibrator
Electrical Medical Safety Analyzer - Insulation Resistance	1 to 10 M Ω	16.1 k Ω	Electrical Reference Calibrator
	10 to 50 M Ω	29.5 k Ω	Electrical Reference Calibrator
	50 to 150 M Ω	63.8 k Ω	Electrical Reference Calibrator
Electrical Medical Safety Analyzer - Test Current	100 mA to 200 mA	1.29 mA	Electrical Reference Calibrator
	200 to 1000 mA	5.8 mA	Electrical Reference Calibrator
	1 to 50 A	6.4 mA	Electrical Reference Calibrator
Electrical Medical Safety Analyzer - Leakage Current	10 μ A to 2 mA	0.6 μ A	Electrical Reference Calibrator
	2 to 10 mA	2.1 μ A	Electrical Reference Calibrator
Electrical Medical Safety Analyzer - Earth Bond Test	0.1 to 5 Ω	170 m Ω	Electrical Reference Calibrator



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CALIBRATION AREA	RANGE & RESOLUTION	CALIBRATION & MEASUREMENT CAPABILITY ¹ (CMC) (±)	REFERENCE STANDARD/ EQUIPMENT
Phototherapy Radiometer	10 to 2000 µw/cm ²	1% µw/cm ²	Electrical Reference Calibrator
Biochemistry - Glucose	70 to 105 mg/dl	16.86%	Reference Kit
Biochemistry - Urea	10 to 50 mg/dl	14.98%	Reference Kit
Biochemistry - Creatinine	0.9 to 1.5 mg/dl	25.59%	Reference Kit
Biochemistry - AST	10 to 34 u/l	21.42%	Reference Kit
Biochemistry - ALT	9 to 43 u/l	22.03%	Reference Kit
Biochemistry - Alkaline Phosphatase	30 to 300 u/l	20.98%	Reference Kit
Biochemistry - GGT	9 to 43 mg/dl	22.57%	Reference Kit
Biochemistry - Ferro	23 to 165 mg/dl	21.09%	Reference Kit
Biochemistry - Billirubins	< 1 mg/dl	24.01%	Reference Kit
Biochemistry - Iron Binding Capacity	250 to 410 g/dl	23.59%	Reference Kit
Biochemistry - HDL	> 50 mg/dl	29.19%	Reference Kit
Biochemistry - LDL	< 155 mg/dl	29.74%	Reference Kit
Biochemistry - Calcium	8.8 to 10.2 mg/dl	33.45%	Reference Kit
Biochemistry - Cholesterol	140 to 240 mg/dl	27.52%	Reference Kit
Biochemistry - LDH	210 to 425 u/l	21.96%	Reference Kit
Biochemistry - Triglyceride	35 to 160 mg/dl	17.56%	Reference Kit
Biochemistry - Uric Acid	2.4 to 7.0 mg/dl	18.22%	Reference Kit
Biochemistry - Albumin	3.8 to 5.4 g/dl	22.54%	Reference Kit
Biochemistry - Amylase	< 82 u/l	21.70%	Reference Kit
Biochemistry - Spectrophotometer	200 nm to 900 nm	0.49% nm	Reference Solutions. Kits
	0.030 Abs to 3.500 Abs	0.0023 Abs	

*'Calibration and Measurement Capability' is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation (at a confidence level of 95% with a coverage factor of 2)