



INTERNATIONAL ACCREDITATION PROGRAM

CERTIFICATE OF ACCREDITATION

This is to certify that the Laboratory Management System of

M/S. SINGH & COMPANY LLC

P.O. Box 2138, PC 111, CPO SEEB, Muscat, Sultanate of Oman

UNDER THE CALIBRATION LABORATORIES PROGRAM IN ACCORDANCE WITH

ISO 17025:2017

THIS CERTIFICATE IS APPLICABLE TO THE FOLLOWING PRODUCT RANGES:

Calibration of Guages, Valves, Measuring and Monitoring Instruments,
Thermodynamic Instruments, Electrical & Mechanical Instruments

PERIOD OF ACCREDITATION IS - APRIL 20, 2023 TO APRIL 19, 2026

CERTIFICATE NUMBER : OM20230402

Authorized signatory for the EA-JAS International Accreditation Program

STEVEN HILL

Director Registrar Programs

Euro American Joint Accreditation Services

Initial EA-JAS Accreditation: March 2015

The accreditation is subject to continuing conformity with EA-JAS accreditation requirements. The absence of a schedule on the EA-JAS website indicates that the accreditation is no longer in force.



www.ea-jas.com



EA-JAS
INTERNATIONAL ACCREDITATION PROGRAM

ISO 17025 Scope Range

Parameter/ Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*			
Dimensional			
Digital / Vernier Caliper	0 mm to 2000 mm	0.015 mm	Comparison method using Gauge Block Set (Grade 0) & Ring Gauges
Outside Micrometer	0 mm to 500mm	0.002 mm	Comparison method using Gauge Block Set (Grade 0)
Dial / Digital Indicator	0 mm to 25 mm	0.006 mm	Comparison method using Calibration Tester
Feeler Gauge	0 mm to 2 mm	0.002 mm	Comparison method using Digital Micrometer
Force			
Force / Compression	0 to 5000kN	0.35%	Compression testing Machine
Mechanical			
Pressure Gauge / Digital	0 bar to 20 bar	0.06 bar	Using Digital Pressure Calibrator
	1 bar to 35 bar	0.01 bar	Using Dead Weight Tester
	35 bar to 1200 bar	0.18 bar	Using Dead Weight Tester
Vacuum Gauge	minus 0.80 bar to 0 bar	0.01 bar	Using Digital Pressure Calibrator
Weighing Balance	1 mg to 220 g	0.048 mg	Comparison method using Precision Test Weights (F1)
	220 mg to 6200 g	0.018 g	
	6200 g to 20 kg	0.34 g	
	20 kg to 500 kg	30 g	Comparison method using Test Weights (M1)
Test Weights	1 mg	0.09 mg	Comparison method using Test Weights (F1)
	2 mg	0.09 mg	
	5 mg	0.09 mg	
	10 mg	0.09 mg	
	20 mg	0.09 mg	
	50 mg	0.10 mg	
	100 mg	0.10 mg	
200 mg	0.11 mg		



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

	500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 5 kg	0.11 mg 0.12 mg 0.12 mg 0.13 mg 0.13 mg 0.14 mg 0.14 mg 0.26 mg 0.26 mg 95 mg	Comparison method using Test Weights (F1)
Thermal			
Sensor with Indicator	minus 10 to 100 °C 100 to 300 °C 300 to 500 °C 500 to 650 °C	0.19 °C 0.29 °C 0.55 °C 0.65 °C	Euramet CG-08 Version 01
Digital / Dial Thermometer	minus 25 °C to 150 °C	0.05 °C	Comparison method using Digital Thermometer & Field metrology well
	150 °C to 400 °C	1.1 °C	Comparison method using Digital Thermometer & Dry Block Calibrator
Temperature char recorder	minus 10 to 140 °C	1.51 °C	Comparison method using Digital Thermometer & Dry Block Calibrator
Dry Block Calibrator	minus 10 to 100 °C	0.13 °C	Euramet CG-13 Version 03
	100 to 300 °C	0.24 °C	
	300 to 500 °C	0.47 °C	
	500 to 650 °C	0.58 °C	
Heat Enclosures	25 to 50 °C	0.25 °C	Euramet CG-20 Version 05
	50 to 100 °C	0.59 °C	
	100 to 650 °C	0.87 °C	
Infrared (IR) Thermometer	50 °C to 500 °C	1.2 °C	Comparison method using Infrared Calibrator and Digital Thermometer
	>500 °C to 1200 °C	3.3 °C	Comparison method using Infrared Calibrator and Digital Thermometer
Temperature Installations – Ovens, Incubators, Stirred Water baths, Fridges and Freezers	minus 20 °C to 250 °C	1.0 °C	Comparison method using Digital Thermometer



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

Electrical-DC/LF			
DC Voltage Generate	1 mV to 1V	0.2 %	Direct Method using Fluke 5522A
	1 V to 100 V	0.002 %	
	100 V to 1000 V	0.002 %	
AC Voltage Generate (@ 50Hz)	1 mV to 1V	0.72 %	Direct Method using Fluke 5522A
	1 V to 100 V	0.03 %	
	100 V to 1000 V	0.04 %	
DC Current Generate	100 μ A to 100 mA	0.71 %	Direct Method using Fluke 5522A and current coil
	100 mA to 1 A	0.03 %	
	1 A to 3 A	0.07 %	
	3 A to 20 A	0.13 %	
	20 A to 1000 A	0.21 %	
AC Current Generate	100 μ A to 100 mA	0.71 %	Direct Method using Fluke 5522A and current coil
	100 mA to 1 A	0.03 %	
	1 A to 3 A	0.07 %	
	3 A to 20 A	0.13 %	
	20 A to 1000 A	0.21 %	
AC Current Generate	10 mA to 200 mA	0.07 %	Direct Method using Fluke 5522A
	200 mA to 3 A	0.2 %	
	3 A to 20A	0.2 %	
	20 A to 1000 A	1.0 %	
AC I Source	0.1 to 100 mA	0.65%	Euramet CG-15, Version 3.0
DC I Source @ 50Hz	up to 100 μ A	0.58 %	Euramet CG-15, Version 3.0
	0.0001 to 1A	0.21 %	
	1 to 10 A	0.13 %	
	10 to 20 A	0.45 %	
	20 to 100 A	0.48 %	
	100 to 500 A	0.29 %	
Resistance Source	≥ 1 to 10 Ω	0.73 %	Euramet CG-15, Version 3.0
	10 to 30 Ω	0.046 %	
	30 to 100 Ω	0.019 %	
	100 to 300 Ω	0.013 %	
	0.3 to 1 k Ω	0.015 %	
	1 to 3 k Ω	0.011 %	
	3 to 10 k Ω	0.015 %	
	10 to 30 k Ω	0.011 %	
	30 to 100 k Ω	0.017 %	
	100 to 300 k Ω	0.014 %	
	0.3 to 1 M Ω	0.021 %	
	1 to 3 M Ω	0.017 %	
	3 to 10 M Ω	0.066 %	
	10 to 30 M Ω	0.10 %	
	30 to 100 M Ω	0.51 %	
100 to 300 M Ω	0.51 %		



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

Resistance Source @50Hz	up to 3Ω >3 to 10Ω 10 to 100Ω 0.1 to 1 kΩ 0.001 to 1 MΩ 1 to 10 mΩ 10 to 100MΩ	1.9 % 0.60 % 0.081 % 0.065 % 0.024 % 0.06 % 0.27 %	Euramet CG-15, Version 3.0
Capacitance Generate	50 nF to 100 nF 100 nF to 1 μF 1μF to 100 μF 100 μF to 9 mF	0.24 % 0.41 % 0.20 % 0.58 %	Direct Method using Fluke 5522A
Frequency Source	1 to 10 Hz 0.01 Hz to 100 kHz	0.0025 % 0.0023 %	Direct Method using Fluke 5522A
Temperature Simulation Temperature Indicator/ Controller/Recorder/ Test Kit / universal calibrators	minus200 °C to 1300 °C	0.6 °C	Simulation Method using Fluke 5522A
Temperature (Electricla Simulation) Type-J Type-K Type-R Type-S Type-T PT-100	minus 100 °C to 1200 °C minus 100 °C to 1200 °C 0 °C to 1760 °C 0 °C to 1760 °C minus 100 °C to 400 °C minus 200 °C to 0 °C 0 to 300 °C 300 to 630 °C 630 to 800 °C	0.27 °C 0.48 °C 0.50 °C 0.56 °C 0.18 °C 0.06 °C 0.10 °C 0.14 °C 0.27 °C	Simulation Method using Fluke 5522A
Temperature (Electricla Simulation) Type-J Type-K Type-R Type-S Type-T PT-100	minus 200 °C to 600 °C minus 200 °C to 1370 °C 0 °C to 1750 °C 0 °C to 1750 °C minus 250 °C to 400 °C minus 100 °C to 0 °C 0 to 800 °C	0.33 °C 0.60 °C 1.2 °C 1.2 °C 0.26 °C 0.36 °C 0.59 °C	Simulation Method using Fluke 5522A
AC Power 1 phase @ 50Hz 30 to 500 V 0.05 to 60 A	6 to12 w 0.012 to 14 kW	0.040 % 0.020 %	Fluke 5522A
AC Power 3 phase @ 50Hz 30 to 500 V 0.05 to 60 A	0.04 to 43 kW	0.020 %	Fluke 5522A



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

DC V Measure	up to 100 mV 0.1 to 1 V 1 to 10 V 10 to 100 V 100 to 1000 V	0.0086 % 0.0038 % 0.0034 % 0.0051 % 0.0059 %	Fluke 5522A
AC V Measure	up to 100 mV 0.1 to 1000 V 50 Hz to 20 kHz 20kHz to 50 kHz 50 kHz to 100 kHz 100kHz to 300 kHz	0.12 % 0.10 % 0.12 % 0.10 % 0.20 % 0.20 % 0.79 % 0.79 % 5.2 % 5.2 %	Fluke 5522A
DC I Measure	up to 100 uA 0.1 to 1 mA 1 to 10 mA 10 to 400 mA 0.4 to 1 A 1 to 3 A 3 to 10 A	0.061 % 0.061 % 0.081 % 0.064 % 0.081 % 0.14 % 0.18 %	Fluke 5522A
AC I Measure	up to 100 uA 0.1 to 1 mA 1 to 10 mA 10 to 100 mA 100 to 400 mA 0.4 to 1 A 1 to 10 A 50 kHz to 1 kHz	0.24 % 0.16 % 0.24 % 0.16 % 0.24 % 0.16 % 0.24 % 0.24 % 0.16 % 0.24 %	Fluke 5522A
DC Resistance Measure	up to 10Ω 10 to 100Ω 0.0001 to 1 MΩ 1 to 10 MΩ 10 to 100 MΩ	0.047 % 0.016 % 0.013 % 0.048 % 0.94 %	Fluke 5522A
Frequency Measure	5 to 10 Hz 10 to 40 Hz 0.04 Hz to 900 kHz	0.058 % 0.035 % 0.012 %	Direct Method using Fluke 5522A



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

Temperature (Electricla Measurement) Type-J Type-K Type-R Type-S Type-T PT-100	minus 100 °C to 1100 °C minus 190 °C to 1300 °C 0 °C to 1700 °C 0 °C to 1500 °C minus 150 °C to 300 °C minus 200 °C to 100 °C 100 to 700 °C	0.27 °C 0.47 °C 0.47 °C 0.53 °C 0.17 °C 0.17 °C 0.21 °C	Simulation Method using Fluke 5522A
Insulation Resistance Source	100 kΩ 200 kΩ 500 kΩ 1 MΩ 2 MΩ 5 MΩ 10 mΩ 0 MΩ 30 MΩ 40 MΩ	0.027 kΩ 0.026 kΩ 0.051 kΩ 0.0012 MΩ 0.00061 MΩ 0.000077 MΩ 0.020 mΩ 0.020 MΩ 0.023 MΩ 0.027 MΩ	Euramet CG-15, Version 3.0
Insulation Resistance Source	50 MΩ 60 MΩ 70 MΩ 80 MΩ 90 MΩ 100 MΩ 200 mΩ 300 MΩ 400 MΩ 500 MΩ 600 MΩ 700 MΩ 800 MΩ 900 MΩ 1 GΩ 2 GΩ 3 GΩ 4 GΩ 5 GΩ 6 GΩ 7 GΩ 8 GΩ 9 GΩ 10 GΩ 20 GΩ 30 GΩ 40 G Ω 50 G Ω 60 G Ω 70 G Ω 80 G Ω 90 G Ω 100 G Ω	0.031 MΩ 0.036 MΩ 0.042 MΩ 0.048 MΩ 0.065 MΩ 0.13 MΩ 0.25 mΩ 0.45 MΩ 0.76 MΩ 1 MΩ 1.5 MΩ 1.8 MΩ 2.5 MΩ 0.99 MΩ 0.0012 GΩ 0.0022 GΩ 0.0034 GΩ 0.0045 GΩ 0.0057 GΩ 0.0078 GΩ 0.0077 GΩ 0.0089 GΩ 0.010 GΩ 0.059 GΩ 0.074 GΩ .15GΩ 0.18 GΩ 0.33 G Ω 0.62 G Ω 0.81 G Ω 0.75 G Ω 1.3 G Ω 0.89 G Ω	Euramet CG-15, Version 3.0



EA-JAS

INTERNATIONAL ACCREDITATION PROGRAM

Low Resistance Source	50 $\mu\Omega$	0.21 $\mu\Omega$	Euramet CG-15, Version 3.0
	100 $\mu\Omega$	0.22 $\mu\Omega$	
	150 $\mu\Omega$	0.26 $\mu\Omega$	
	200 $\mu\Omega$	0.31 $\mu\Omega$	
	0.5 M Ω	0.00021 M Ω	
	1 M Ω	0.00063 M Ω	
	1.5 M Ω	0.0024 M Ω	
	2 M Ω	0.00034 m Ω	
	5 M Ω	0.0017 M Ω	
	10 M Ω	0.0029 M Ω	
	15 M Ω	0.027 M Ω	
	20 M Ω	0.052 M Ω	
	50 M Ω	0.012 M Ω	
	100 M Ω	0.0077 M Ω	
	150 M Ω	0.014 M Ω	
	200 M Ω	0.023 M Ω	
	0.5 Ω	0.031 M Ω	
	1 Ω	0.000050 Ω	
	1.5 Ω	0.00010 Ω	
		0.00016 Ω	

