



CERTIFICATE OF ACCREDITATION

This is to attest that

ACCURA CALSERV PTE LTD

NO.16, AYER RAJAH CRESCENT, # 04-05 D, TEMPCO TECHNOMINIUM
SINGAPORE 139965, SINGAPORE

Calibration Laboratory CL-262

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date February 7, 2024

Expiration Date February 1, 2025



A handwritten signature in black ink that reads 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

ACCURA CALSERV PTE LTD

www accuracalserv.com

Contact Name K. Jai

Contact Phone +65-68722920

Email sales@accuracalserv.com

Accredited to ISO/IEC 17025:2017

Effective Date February 7, 2024

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Mechanical			
Pressure Instruments – Differential (Lab & Site)	20 Pa to 2500 Pa (d)	0.5 Pa (d)	Using Differential Pressure Calibrator by comparison method
	2500 Pa to 6000 Pa (d)	1.4 Pa (d)	
	6000 Pa to 10000 Pa (d)	1.7 Pa (d)	
	10000 Pa to 15000 Pa (d)	14 Pa (d)	
Pressure Instruments – Absolute (Lab & Site)	910 mbar to 1050 mbar (a)	2.4 mbar (a)	Using Barometer in closed chamber by comparison method
	40 mbar to 20 bar (a)	12 mbar (a)	Using Absolute Pressure Indicator by comparison method
Pressure Instruments – Pneumatic (Lab & Site)	0.2 bar to 35 bar (g)	0.03 % (g)	Using Pneumatic Deadweight Tester by direct method
Pressure Instruments – Hydraulic (Lab & Site)	30 psi to 15000 psi (g) 15000 psi to 40000 psi (g)	0.03 % (g) 0.05 % (g)	Using Hydraulic Deadweight Tester by direct method
Vacuum Instruments (Lab & Site)	-0.95 bar to -0.03 bar (g)	0.03 % (g)	Using Pneumatic Deadweight Tester by direct method
Torque Wrenches/Meters/Multipliers (Lab only)	100 N·m to 300 N·m	0.96 %	Using Torque Calibrator by comparison method
	300 N·m to 2000 N·m	0.71 %	
	2000 N·m to 3000 N·m	0.59 %	
Thermal			
RTD/Thermocouple with or without indicator/controller, Temp Gauge, Capillary Thermometer, Temperature Switch, Data logger with Sensor (Lab & Site)	-80 °C to 0 °C	0.09 °C	Using Platinum Resistance Thermometer by comparison method.
	0 °C to 200 °C	0.10 °C	
	200 °C to 550 °C	0.45 °C	

* If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.

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MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Humidity Instruments (Fixed Points) (Lab & Site)	11.3 %RH @ 23 °C 35 %RH @ 23 °C 50 %RH @ 23 °C 60 %RH @ 23 °C 75.3 %RH @ 23 °C	0.3 %RH 0.4 %RH 0.6 %RH 0.6 %RH 0.7 %RH	Using Humidity Standards by direct method
Humidity Instruments (Lab & Site)	10 %RH to 75 %RH @ 15 °C to 40 °C	0.94 %RH	Using reference humidity sensor and Humidity & Temperature Generator by comparison method.
Non-contact Thermometer/ Pyrometer (Lab only)	50 °C to 200 °C 200 °C to 525 °C 525 °C to 900 °C	2.2 °C 3.9 °C 5.1 °C	Using Infrared Meter and blackbody source by comparison method
Electrical – DC/LF			
Temperature Indicating Instruments (RTD) (Simulation Method) (Lab & Site)	-200 °C to -100 °C -100 °C to 0 °C 0 °C to 50 °C 50 °C to 100 °C 100 °C to 150 °C 150 °C to 200 °C 200 °C to 400 °C 400 °C to 600 °C 600 °C to 850 °C	0.02 °C 0.03 °C 0.04 °C 0.05 °C 0.06 °C 0.07 °C 0.09 °C 0.13 °C 0.18 °C	Using Precision Decade Resistance Box by direct method
Chemical/Gas			
pH Instruments (Lab & Site)	2.000 pH 4.005 pH 7.000 pH 10.001 pH 12.000 pH	0.02 pH 0.01 pH 0.01 pH 0.01 pH 0.02 pH	Using Buffer Solutions by Direct method
Conductivity Instruments (Lab & Site)	10 µS/cm 100 µS/cm 1413 µS/cm 10 mS/cm 100 mS/cm 200 mS/cm	0.1 µS/cm 2.1 µS/cm 4.6 µS/cm 0.04 mS/cm 0.36 mS/cm 2.0 mS/cm	Using Standard Solutions by Direct method
TDS Instruments (Lab & Site)	6.6 ppm 66 ppm 939 ppm 6.65 ppt 66.7 ppt 133.4 ppt	1.1 % 2.1 % 0.32 % 0.39 % 0.35 % 0.99 %	Using Standard Solutions by Direct method
Total Suspended Solids Instruments (Lab & Site)	5 mg/L 10 mg/L 20 mg/L 50 mg/L	0.44 mg/L 0.61 mg/L 1.7 mg/L 3.8 mg/L	Using Standard Solutions by Direct method

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Turbidity Instruments (Lab & Site)	5 NTU 50 NTU 100 NTU	0.37 NTU 3.7 NTU 7.4 NTU	Using Standard Solutions by Direct method
Oxidation - Reduction Potential (ORP) instruments (Lab and Site)	200 mV 476 mV	3.1 mV 4.4 mV	Using Standard Solutions by Direct method

¹The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

²When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

(d) = differential pressure

(a) = absolute pressure

(g) = gauge pressure

ppm = parts in 10⁶

ppt = parts in 10³

NTU = Nephelometric Turbidity Unit