

# CERTIFICATE OF ACCREDITATION

This is to attest that

### **DURAT AL JUBAIL CO.LTD**

ALRASHID INDUSTRIAL AREA, P.O. BOX 1514 AL JUBAIL, 31951, SAUDI ARABIA

#### **Calibration Laboratory CL-290**

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 September 18, 2024 Expiration Date October 1, 2026



President

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

### **DURAT AL JUBAIL CO.LTD**

www.djcinspection.com

**Contact Name** Syed Tasneem Shah

**Contact Phone** 966-501920842

Accredited to ISO/IEC 17025:2017

Effective Date September 18, 2024

#### CALIBRATION AND MEASUREMENT CAPABILITY (CMC)\*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY <sup>1,2</sup> (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)			
Mechanical						
Hydraulic Pressure <sup>5</sup> - Pressure Gauges/ Pressure Transmitter/ Pressure Records	10 bar to 650 bar	0.8 bar	Comparison method by using Pressure Module & Pressure Hydraulic Pump			
Vacuum Gages	0 inHg to 27 inHg	0.06 inHg	Comparison method by using Pressure Module & Pressure Pneumatic Pump			
Pneumatic Pressure <sup>5</sup> - Pressure Gauges/ Pressure Transmitter/ Pressure Records	1 bar to 20 bar 20 bar to 40 bar	0.06 bar 0.13 bar	Comparison method by using Pressure Module & Pressure Pneumatic Pump			
Torque Wrench	50 N·m to 600 N·m	0.65 N·m	Torque Wrench Calibrator CM1000 by Direct Method			
Thermal						
Infrared Thermometers <sup>5</sup>	-15 °C to 120 °C	0.2 °C	Direct method by using Precision Infrared Calibrator			
Temperature Sensors with or Without Indicator <sup>5</sup> (RTD/TC) / Temp Transmitter <sup>5</sup> /Temp recorders <sup>5</sup>	-20 °C to 100 °C 100 °C to 700 °C	1.7 °C 1.1 °C	Comparison method by using RTD/ TC and Field Metrology Well			
Oven/ Water Bath/ Dry well <sup>5</sup> (Single sensor method)	-20 °C to 100 °C 100 °C to 700 °C	1.7 °C 1.1 °C	Direct method by using RTD/ TC (single sensor)			
Electrical – DC/LF						
DC Voltage Generate <sup>3</sup>	200 mV to 500 mV 500 mV to 2 V 2 V to 1000 V	0.02 mV 0.02 V 0.12 V	Direct Method by using Clamp Type Multimeter Calibrator			
DC Voltage Measure <sup>4,5</sup>	1 mV to 100 mV 100 mV to 10 V 10 V to 100 V	5 μV 1 mV 5 mV	Direct Method by using 6.5 Digit Precision Multimeter			

<sup>\*</sup> 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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DC Voltage Measure <sup>4,5</sup> (continued)	100 V to 1000 V	0.05 V	Direct Method by using 6.5 Digit Precision Multimeter
DC Current Generate <sup>3</sup>	10 µA to 400 µA 4 mA to 20 mA 20 mA to 40 mA 40 mA to 2 A 2 A to 10 A 10 A to 100 A	0.05 µA 1 µA 3 µA 1 mA 2 mA 0.02 A	Direct Method by using Clamp Type Multimeter Calibrator
DC Current Measure <sup>4,5</sup>	10 μA to 100 μA 100 μA to 10 mA 10 mA to 400 mA	0.006 μA 0.001 mA 0.009 mA	Direct Method by using 6.5 Digit Precision Multimeter
AC Voltage Measure <sup>4,5</sup> @ 50 Hz	10 mV to 100 mV 100 mV to 1 V 1 V to 100 V 100 V to 1000 V	0.2 µV 0.12 mV 4.2 mV 0.04 V	Direct Method by using 6.5 Digit Precision Multimeter
AC Voltage Generate <sup>3</sup> @ 50 Hz	200 mV to 2 V 2 V to 10 V 10 V to 1000 V	0.7 mV 1.2 mV 0.04 V	Direct Method by using Clamp Type Multimeter Calibrator
AC Current Generate <sup>3</sup> @ 50 Hz	2 mA to 40 mA 40 mA to 1A 1 A to 10 A 10 A to 1000 A	3 µA 0.4 mA 4.6 mA 0.09 A	Direct Method by using Clamp Type Multimeter Calibrator
AC Current Measure <sup>4,5</sup> @ 50 Hz	50 μA to 1 mA 1 mA to 100 mA 100 mA to 400 mA 400 mA to 1 A 1 A to 10 A	0.05 µA 0.05 mA 0.4 mA 1 mA 2 mA	Direct Method by using 6.5 Digit Precision Multimeter
DC Resistance Generate <sup>3</sup>	2 Ω to 1 kΩ 1 kΩ to 500 kΩ 500 KΩ to 2 MΩ	0.02 Ω 0.02 kΩ 0.03 MΩ	Direct Method by using Clamp Type Multimeter Calibrator
DC Resistance Measure <sup>4</sup>	1 $\Omega$ to 100 $\Omega$ 0.1 k $\Omega$ to 10 k $\Omega$ 10 k $\Omega$ to 100 k $\Omega$ 0.1 M $\Omega$ to 2 M $\Omega$	$\begin{array}{c} 0.5 \; \text{m}\Omega \\ 0.001 \; \text{k}\Omega \\ 0.002 \; \text{k}\Omega \\ 0.02 \; \text{M}\Omega \end{array}$	Direct Method by using 6.5 Digit Precision Multimeter
Electrical Simulation of Thermocouples – Generate <sup>3</sup> N-type J-Type K-type S-Type	-200 °C to 1300 °C -200 °C to 1200 °C -200 °C to 1372 °C -20 °C to 1767 °C	0.28 °C 0.48 °C 0.17 °C 0.17 °C	Direct method by using Document Process Calibrator
Electrical Simulation of Thermocouples – Measure <sup>4</sup> N-type J-Type K-type S-Type	-200 °C to 1300 °C -200 °C to 1200 °C -200 °C to 1372 °C -20 °C to 1767 °C	0.19 °C 0.13 °C 0.13 °C 0.11 °C	Direct method by using Document Process Calibrator





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Electrical Simulation of RTD – Generate <sup>3</sup> Pt 100 (3926)	-200 °C to 630 °C	0007 °C	Direct method by using Document Process Calibrator				
Pt 100 (385) Pt 200 (385) Pt 1000 (385)	-200 °C to 800 °C -200 °C to 630 °C -200 °C to 630 °C	0.007 °C 0.006 °C 0.007 °C					
Electrical Simulation of RTD – Measure <sup>4</sup> Pt 100 (3926) Pt 100 (385) Pt 200 (385) Pt 1000 (385)	-200 °C to 630 °C -200 °C to 800 °C -200 °C to 630 °C -200 °C to 630 °C	0.009 °C 0.011 °C 0.01 °C 0.009 °C	Direct method by using Document Process Calibrator				
Time and Frequency							
Stopwatch	60 s to 3600 s	7.3 s	Comparison method by using Reference Stopwatch				
Non-Contact Tachometer	60 rpm to 99999 rpm	1 %	Direct method by using Electrical Process Calibrator				
	Chemical/Gas						
Multi Gas Detector	O <sub>2:</sub> 18 % CH <sub>4</sub> : 2.5 % (50 % LEL) H <sub>2</sub> S: 25 ppm CO: 100 ppm	1.3 % 1.1 % 0.37 part per 10 <sup>6</sup> 5 part per 10 <sup>6</sup>	Direct method by Using Standard Gas				
pH Meters (Discrete Values)	4 pH 7 pH 10 pH	0.12 pH 0.12 pH 0.12 pH	Using Certified Reference Buffer Solutions by Direct Method				
Conductivity Meter (Discrete Values)	10 μS/cm 447 μS/cm 1413 μS/cm 2500 μS/cm 2764 μS/cm 15000 μS/cm	0.16 μS/cm 0.03 μS/cm 9.3 μS/cm 15 μS/cm 12 μS/cm 90 μS/cm	Using Certified Reference Buffer Solutions by Direct Method				

<sup>&</sup>lt;sup>1</sup>The 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.

<sup>&</sup>lt;sup>4</sup>Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.



<sup>&</sup>lt;sup>2</sup>When 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.

<sup>&</sup>lt;sup>3</sup>Capability is suitable for the calibration of measuring devices in the stated ranges.

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<sup>5</sup>Also available as site calibration. Note that actual measurement uncertainties achievable at a customer's site can normally be expected to be larger than the uncertainties listed on this Scope of Accreditation.

Notes=

ppm= parts per million LEL = Lower Explosive Limit



