

CERTIFICATE OF ACCREDITATION

This is to attest

AKNAN ENGINEERING CONTRACTING COMPANY

AL SHARJAH STREET DAMMAM, 32437, SAUDI ARABIA

Calibration Laboratory CL-287

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 January 28, 2025



International Accreditation Service
Issued under the authority of IAS management

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

AKNAN ENGINEERING CONTRACTING COMPANY

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Accredited to ISO/IEC 17025:2017

Effective Date January 28, 2025

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEACURED DANCE UNCERTAINTY/2 CALIBRATION METUCE						
MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)			
Dimensional						
Calipers – Vernier, Dial & Electronic (Only External Jaws)	Up to 300 mm	13 µm	Gauge Blocks - 0 Grade using Direct Method			
External Micrometers	Up to 100 mm	6 μm	Gauge Blocks - 0 Grade using Direct Method			
Dial Indicator/Gauges (Plunger)	Up to 10 mm	0.02 mm	Dial calibration tester using Direct method			
Mechanical						
Pneumatic Pressure Indicating Devices - Pressure Gauge / Switch/Transmitter / Transducer/ Pressure Relief Valve / Recorder	0 bar to 20 bar	0.05 bar	Using Pressure / Process Calibrator by comparison method (DKD-R-6-1)			
Vacuum Gauge	0 bar to -0.8 bar	0.05 bar	Using Pressure / Process Calibrator by comparison method (DKD-R-6-1)			
Hydraulic Pressure Indicating Devices - Pressure Gauge/ Switch/Transmitter/ Transducer/ Pressure Relief Valve/Recorder	0 bar to 700 bar 700 bar to 1000 bar	2.5 bar 3.5 bar	Using Pressure / Process Calibrator by comparison method (DKD-R-6-1)			
Weighing Scale and Balances	1 g to 100 g 100 g to 1000 g 1 kg to 5 kg 5 kg to 100 kg	58 mg 64 mg 5.8 g 13 g	By using standard weight of F1 and M1 Class (OIML R76)			
Compression Machines	5 kN to 50 kN 300 kN to 3000 kN	1 kN 1.3 kN	Reference Load Cell with indicator by direct method			

^{*} 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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Nuclear Density Gauges	1120 kg/m³ to 2723 kg/m³	9.6 kg/m ³	Nuclear Validator by direct method				
	Thermal						
RTD/Thermocouple Sensor with Indicators/ Transmitter/ Temperature Gauges/ Mercury Filled Glass Thermometer/Switch	35 °C to 630 °C	0.5 °C	Temp Calibrator Jofra Model RTC-700A by comparison method				
	Electrical –						
DC Voltage – Measure ³	100 mV to 1 V 1 V to 100 V 100 V to 1000 V	0.002 V 0.006 V 0.06 V	Direct method using Fluke 8846 Precision Multimeter				
DC Current – Measure ³	100 μA to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 3 A 3 A to 10 A	0.6 μA 8 μA 0.07 mA 0.8 mA 5.2 mA 6.7 mA	Direct method using Fluke 8846 Precision Multimeter				
AC Voltage – Measure ³	100 mV to 1 V (50 Hz) (60 Hz) (400 Hz) 1 V to 10 V (50 Hz) (60 Hz) (400 Hz) 10 V to 100 V (50 Hz) (60 Hz) (400 Hz) 100 V to 750V (50 Hz) (60 Hz) (60 Hz) (400 Hz)	0.12 mV 0.12 mV 0.12 mV 0.005 V 0.005 V 0.005 V 0.11 V 0.11 V 0.11 V 0.72 V 0.72 V 0.72 V	Direct method using Fluke 8846 Precision Multimeter				
AC Current – Measure ³	(50 Hz to 1 kHz) 10 mA to 100 mA 100 mA to 1 A 1 A to 3 A (50 Hz) 3 A to 10 A	0.16 mA 1.6 mA 7.3 mA	Direct method using Fluke 8846 Precision Multimeter				
DC Resistance – Measure ³	100 Ω to 10 kΩ 10 kΩ to 100 MΩ	0.04 kΩ 3 kΩ	Direct method using Fluke 8846 Precision Multimeter				





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DC High Voltage - Measure ³	Up to 35 kV	3.2 %	Fluke high voltage probe and multimeter
DC High Current - Measure ³	Up to 40 A 40 A to 400 A	0.9 A 1.3 A	Fluke AC/DC clamp Meter 355 & ESAB Check master 9000
	400 A to 600 A Time and Free	1.8 A	
Frequency – Measure ³	10 Hz to 40 Hz	0.035 %	Direct method using Fluke
rrequency – weasure	40 Hz to 300 kHz	0.033 % 0.012 %	8846 Precision Multimeter
Stopwatches and Timers	1 min to 5 min	1s	Stopwatch by comparison
-	5 min to 1 h	2 s	method
Tachometer (Non-contact type)	50 rpm to 10,000 rpm	6.6 rpm	Standard Stroboscope and RPM Source 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.

³Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.