

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Northern Gauge LLC

#202 Tideland Rd. Broussard, LA, USA 70518

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <u>www.anab.org</u>.



Jason Stine, Vice President

Expiry Date: 25 March 2027 Certificate Number: L2350.01

> This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Northern Gauge LLC

#202 Tideland Rd. Broussard, LA, USA 70518 Peter Laurensse 780-628-0844

CALIBRATION

Valid to: March 25, 2027

Certificate Number: L2350.01

Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Plain Plug Gauges	(0. <mark>06 to 7) in</mark>	(62 + 9.1 <i>D</i>) μin	ANSI/ASME B89.1.5 Trimos Horizon Premium
Plain Ring Gauges	(0.50 to 7) in	(65 + 6.7 <i>D</i>) μin	ANSI/ASME B89.1.6 Trimos Horizon Premium
Thread Plug Gauges (4-80TPI): Pitch Diameter Major Diameter	Diameter: (0.16 to 7.125) in (0.16 to 7.125) in	(99 + 12D) μin (78 + 13D) μin	ANSI/ASME B1.1-B1.2, ANSI/ASME B1.5-B1.8 Trimos Horizon Premium
Thread Ring Gauges (4-80 TPI): Pitch Diameter Major Diameter	Diameter: (0.25 to 7) in (0.25 to 7) in	(81 + 20D) μin (82 + 20D) μin	ANSI/ASME B1.1-B1.2, ANSI/ASME B1.5-B1.8 Trimos Horizon Premium
NPT/NPTF Tapered Threads: Standoff	(0.062 5 to 6) in	0.000 5 in	ASME B1.20.1:2013 TRIMOS V5-400
API 5B/7-2 Tapered Threads: Standoff	(1 to 10.75) in	0.000 7 in	API 5B/API 7-2 TRIMOS V5-400
Length Standards	(0 to 38) in	(46 + 16 <i>L</i>) μin	Measurement using Trimos Horizon Premium
Calipers: OD, ID and Depth	(0 to 40) in	(580 + 26 <i>L</i>) μin	Comparison to Grade 0 Gauge Blocks Caliper Checker
	(0 to 24) in	(590 + 3.1 <i>L</i>) µin	Comparison to Grade 0 Gauge Blocks Trimos Horizon Premium
Micrometers	(0 to 24) in	(85 + 14 <i>L</i>) μin	Comparison to Grade 0 Gauge Blocks Length Bars





Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Dial/Digital Indicators	(0 to 1) in	(<mark>70</mark> + 26 <i>L</i>) μin	Comparison to Trimos Horizon Premium
Thread Profile Gauges	(2 to 20) pitch	500 µin	API 7-2 / API 5B ANSI B1.5, B1.8, B1.9 Thread Profile Overlays using Optica Comparator
Surface Plates ¹ :	Length/Width/Diameter:		ISO 8512-2 using:
Flatness Overall	Up to 48 in	90 μin	Wyler Electronic Blue
Flatness Local Area	Any (250 mm x 250 mm)	39 µin	Level System

Mass and Mass Related

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Pneumatic Pressure Gages	(0 to 1 000) psig (0 to 3 000) psig (0 to 10 000) psig (0 to 15 000) psig (0 to 40 000) psig	0.6 psig 0.9 psig 2.4 psig 10 psig 53 psig	API/ISO 14313:10.2.3 ADDITEL Digital Pressure Modules & ADT223A Process Calibrator
Pressure Transducers	(0 to 30 000) psig	39 psig	EURAMET CG-17 ADDITEL Digital Pressure Modules & ADT223A Process Calibrator
Torque Wrenches	(50 to 150) lbf·in	1.2 % of Reading	ISO 6789:2003 using NORBAR Torque Transducers & Readout
	(20 to 100) lbf·ft	2 % of Reading	
	(50 to 250) lbf·ft	2 % of Reading	
	(200 to 1 000) lbf·ft	2.9 % of Reading	

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.







Notes:

- 1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
- 2. L =length in inches, D = diameter in inches.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. L2350.01.

Jason Stine, Vice President





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