

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Larson Systems, Inc. 13847 Aberdeen St. NE Ham Lake, MN 55304

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>.





R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 04 February 2024 Certificate Number: AC-2847

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

Larson Systems, Inc.

13847 Aberdeen St. NE Ham Lake, MN 55304 Tim Larson 763-780-2131

CALIBRATION

Valid to: February 4, 2024

Certificate Number: AC-2847

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Force/Length Measurement Instrument ¹	(0 to 13) in	150 μin	
	(13 to 25) in	600 µin	
	(25 to <mark>36) in</mark>	1 200 μin	Gage Blocks
	(36 to 48) in	1 800 µin	
	(48 to 88) in	3 800 µin	

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Force Measurement ¹	(2 to 250) lbf	0.013 % of reading	Dead weight
	(250 to 1 000) lbf	0.014 % of reading	Dead Weights w/Fixture
	(1 000 to 11 500) lbf	0.013 % of reading	Dead Weight w/ Fixture
	(11 to 200) lbf	0.029 lbf	200 lb Force Meter
	(200 to 750) lbf	0.16 lbf	750 lb Force Meter
	(750 to 2 000) lbf	0.4 lbf	2000 lb Force Meter
	(200 to 10 000) lbf	0.035 % of reading	10K Force Meter
	(10 000 to 50 000) lbf	0.037 % of reading	50K Force Meter



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Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Torque ¹	(0.09 to 3) lbf•in	0.03 % of Reading	Dead Weight and Torque Arm
	(3 to 500) lbf•in	0.03 % of Reading	
	(500 to 3 120) lbf•in	0.031 <mark>% of</mark> 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. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2847.



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