

# 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 <a href="https://www.anab.org">www.anab.org</a>.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 04 February 2022 Certificate Number: AC-2847





#### 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, 2022** Certificate Number: **AC-2847** 

#### **Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Force/Length Measurement Instrument <sup>1</sup>	(0 to 13) in	320 µin	Gage Blocks
	(13 to 25) in	490 μin	
	(25 to 36) in	680 μin	
	(36 to 48) in	900 μin	

#### **Mass and Mass Related**

Version 002 Issued: March 11, 2021

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Force Measurement <sup>1</sup>	(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

ANSI National Accreditation Board



#### **Mass and Mass Related**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Torque <sup>1</sup>	(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 % 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. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2847.



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