# CERTIFICATE OF ACCREDITATION

## ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

## Larson Systems, Inc.

**13847 Aberdeen St. NE**
**Ham Lake, MN 55304**

has been assessed by ANAB and meets the requirements of international standard

# ISO/IEC 17025:2017

while demonstrating technical competence in the field of

## CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AC-2847
Certificate Number

ANAB Approval

Certificate Valid Through: 02/04/2022
Version No. 001 Issued: 02/04/2020

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).

ANSI National Accreditation Board

# 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 | (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**

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---|---|---|---|
| Force Measurement | (2 to 250) lbf | 0.013% of reading | Dead weight |
| | (250 to 1 000) lbf | 0.015% of reading | Dead Weights w/ Fixture |
| | (1 000 to 11 500) lbf | 0.013% of reading | Dead Weight w/ Fixture |
| | (11 to 200) lbf | 0.034 lbf | 200 lb Force Meter |
| | (200 to 750) lbf | 0.18 lbf | 750 lb Force Meter |
| | (750 to 2 000) lbf | 0.51 lbf | 2000 lb Force Meter |
| | (200 to 10 000) lbf | 0.035% of reading | 10K Force Meter |
| | (10 000 to 50 000) lbf | 0.035% of reading | 50K Force Meter |

**Mass and Mass Related**

| Parameter/Equipment | Range | Expanded Uncertainty of Measurement (+/-) | Reference Standard, Method, and/or Equipment |
|---|---|---|---|
| Torque | (0.09 to 3) lbf•in | 0.031% of Reading | Dead Weight and Torque Arm |
| | (3 to 500) lbf•in | 0.031% 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.

Vice President