



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

STURBRIDGE METALLURGICAL SERVICES INC.

8 Picker Road  
Sturbridge, MA 01566  
Susan Jett Phone: 508-347-5288

MECHANICAL

Valid to: January 31, 2025

Certificate Number: 3929.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on metals, coatings, wire, and other components.

<b><u>Test Technology:</u></b>	<b><u>Test Method(s):</u></b>
Bend Testing	ASTM E290
Rockwell Hardness (B, C, E, 15N, 30N, 45N, 15T, 30T, 45T, Scales)	ASTM E18
Micro-Hardness  Knoop: (10, 25, 50, 100, 200, 300, 500, 1,000 gm)  Vickers: (10, 25, 50, 100, 200, 300, 500, 1,000 gm)	ASTM E92, E384, B578
Salt Fog	ASTM B117; MIL-PRF-8625, MIL-DTL-5541
Humidity	ASTM D1735
Tensile (20 – 60,000) lbf	ASTM A370, E8/E8M, C633
Taber Abrasion	ASTM D4060; MIL-PRF-8625
Wet Tape Adhesion	MIL-PRF-8625, MIL-DTL-5541; FED-STD-141
Coating Weight	MIL-PRF-8625, MIL-DTL-5541; ASTM B137
Electrical Contact Resistance of Class 3 Coatings	MIL-DTL-5541, MIL-DTL-81706
Metallography <sup>1</sup> (Using Optical and Keyence Digital Microscopy)	ASM Handbook Volume 9

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<b><u>Test Technology:</u></b>	<b><u>Test Method(s):</u></b>
Sample Preparation	ASTM E3, E1920
Field Metallography Replicas <sup>1</sup>	ASTM E1351
Grain Size	ASTM E112 (Comparison and Intercept Methods), E930, E1181, E1382; GE E50TF133
Inclusion Content	ASTM E45 (Method A)
Systematic Point Count	ASTM E562
Coating Thickness by Microscopical Examination	ASTM B487
Non-Conventional Machining Analysis	PWAE167, P29TF73, P1TF10
Microetching	ASTM E407
Macroetching	ASTM E340; P4TF8
Alloy Depletion	SOP 1017
Alpha Case	SOP 1024
Carburization	ASTM E1077; SAE J423;
Decarburization	ASTM E1077
Intergranular Attack	ASTM F2111
Thermal Spray Coatings	ASTM E2109, E562
SEM / EDS	SOP 1200 – 1205; ASTM E1508; ASM Handbook Volume 12 (Scanning Electron Microscope Section)
Weld Procedure/Welder Qualification	Using the methods listed above in accordance with AWS 17.1/D17.1M
Failure Analysis	Using the methods listed above in accordance with ASM Handbook Volume 11
Near Surface Examination Chord Method	ARP1820
Weld Evaluations	AWS D17.1
Hardness Testing for Fasteners	ASTM F606

<b><u>Test Technology:</u></b>	<b><u>Test Method(s):</u></b>
<b>Chemical</b>	
X-ray Fluorescence (XRF) <sup>1</sup>	ASTM E1476; SOP 1022
Optical Emission Spectroscopy (OES)  Fe-base: (Al, Co, Cr, Cu, Mn, Mo, Nb, Ni, P, Si, Sn, Ti, V, W)  Ti-base: (Al, Cr, Fe, Mn, Mo, Si, Sn, V, Zr)	ASTM E1086, E415, E2994
Determination of Carbon and Sulfur	ASTM E1019, E1941
Determination of Oxygen, Nitrogen, and Hydrogen	ASTM E1019, E1409, E1447

<sup>1</sup> This laboratory performs field testing activities for these tests.



## Accredited Laboratory

A2LA has accredited

### STURBRIDGE METALLURGICAL SERVICES INC.

*Sturbridge, Massachusetts*

for technical competence in the field of

### Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. 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).



Presented this 7<sup>th</sup> day of February 2023.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 3929.01  
Valid to January 31, 2025

*For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.*