



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.

<u>Test Technology:</u>	<u>Test Method(s):</u>
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 ¹ (Using Optical and Keyence Digital Microscopy)	ASM Handbook Volume 9

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<u>Test Technology:</u>	<u>Test Method(s):</u>
Sample Preparation	ASTM E3, E1920
Field Metallography Replicas ¹	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

<u>Test Technology:</u>	<u>Test Method(s):</u>
Chemical	
X-ray Fluorescence (XRF) ¹	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

¹ 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 7th day of February 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

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.