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, 2027 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.

Test Technology:	**Test Method(s):**
Bend Testing	ASTM E290
Rockwell Hardness (B, C, 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 E384, B578
Salt Fog	ASTM B117; MIL-PRF-8625, MIL-DTL-5541
Accelerated Corrosion Testing by Humidity	SOP-1087
Room temperature Tensile Test (20 – 60,000) lbf	ASTM A370, E8/E8M, ~~C633~~, B557
Bond Strength of Thermal Spray Coatings	ASTM C633
Abrasion Resistance of Organic Coatings by Taber Abrasion	ASTM D4060; MIL-PRF-8625
Wet Tape Adhesion	MIL-PRF-8625, MIL-DTL-5541; FED-STD-141
Coating Weight on Anodically Coated Aluminum	MIL-PRF-8625, MIL-DTL-5541; ASTM B137
Electrical Contact Resistance of Class 3 Coatings	MIL-DTL-5541, MIL-DTL-81706

Test Technology:	**Test Method(s):**
~~(~~Micro and Macro Imaging Using Optical and Keyence Digital Microscopy~~)~~	ASM Handbook Volume 9
Metallographic Sample Preparation	ASTM E3, E1920
Production and Evaluation of 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)
Coating Thickness by Microscopical Examination	ASTM B487
Non-Conventional Machining Analysis	PWAE167, P29TF73, P1TF10
Micro etching	ASTM E407
Macro etching	ASTM E340; P4TF8
Alloy Depletion	SOP 1017
Alpha Case	SOP 1024
Carburization	ASTM E1077; SAE J423;
Decarburization	ASTM E1077
Intergranular Attack on metals	ASTM F2111, SOP-1018
Microstructural Evaluation of Thermal Spray Coatings	ASTM E2109, E562, SOP-1102
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 by Chord Method	SAE ARP1820
Weld Evaluations	AWS D17.1

Test Technology:	**Test Method(s):**
Hardness Testing for Fasteners	ASTM F606/F606M
Chemical	
Positive Material Identification using X-ray Fluorescence (XRF)[1]	ASTM E1476; SOP 1022
Spark Atomic ~~Optical~~ Emission Spectroscopy (Spark AES) 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 ASTM E2994
Determination of Carbon and Sulfur by combustion in in Steel, Iron, Nickel, Cobalt Alloys in Refractory and Reactive Metals & Alloys	ASTM E1019, ASTM E1941
Determination of Oxygen, Nitrogen by fusion in • Steel, Iron, Nickel, and Cobalt Alloys • Titanium and Titanium Alloys	ASTM E1019 ASTM E1409
Determination of Hydrogen in Titanium and Titanium Alloys by Inert Gas Fusion and Thermal Conductivity/ Infrared Detection Method	ASTM E1447

[1] This laboratory performs field testing activities for these tests.

Accredited Laboratory

A2LA has accredited

STURBRIDGE METALLURGICAL SERVICES INC.

Sturbridge, MA

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 5th day of February 2025.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3929.01
Valid to January 31, 2027

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