



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

METALLURGICAL ENGINEERING SERVICES, INC.

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MECHANICAL

Valid To: September 30, 2024

Certificate Number: 3065.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on metals, polymers, fasteners, aerospace components, and coatings:

**Test Technology:**

**I. Mechanical Tests**

Metallography/Microscopy

Metallographic Preparation

Grain Size

Inclusion Rating

Graphite in Cast Iron

Plating Coating Thickness

Case Depth

Macroetching

SEM

Hardness/Microhardness

Rockwell (HRBW, HRC, HR15N, HR30N, HR15TW, HR30TW)

Brinell – 3000kg

Microhardness Knoop – 500g, Vickers 500g

Durometer Hardness (Shore A, D, and M)

**Test Methods:**

ASTM E3

ASTM E112, E1382

ASTM E45, Method A

ASTM A247

ASTM B487, B748

SAE J423

ASTM E340, E381

ASTM B748, E766

ASTM E18

ASTM E10

ASTM E384

ASTM D2240

**Test Technology:**

**Test Methods:**

**I. Mechanical Tests Continued**

Uniaxial

Tensile	ASTM A370, B557, D412, D638, E8/E8M, E21
Compression Testing of Metallic Materials at Room Temperature	ASTM E9
Flexural Properties of Reinforced Polymers	ASTM D790
Tensile Properties of Polymer Matrix Composite Materials	ASTM D3039
Compressive Properties of Polymer Matrix Composite Materials Using Combined Loading Compression (CLC) Fixture	ASTM D6641
Flexural Properties of Polymer Matrix Composite Material	ASTM D7264
Pressure Vessels	ASME, Section IX
Standard Methods for the Mechanical Testing of Welds	AWS B4
Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators, and Rivets	ASTM F606/F606M

Corrosion

Salt Spray	ASTM B117
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Drop Weight Tear Test

ASTM E436; API RP 5L3

Failure Analysis (Using the methods listed above and below)

ASM Handbook, Vol. 11

**II. Chemical Tests**

Portable X-Ray Fluorescence (XFR via XL-PMI): (Cr, Cu, Fe, Mg, Mo, Mn, Nb/Cb, Ni, Pb, Sn, V, W, Zn)	ASTM E572, E1476
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OES

Aluminum Alloys (Al, B, Be, Bi, Ca, Cr, Cu, Fe, Ga, Li, Mg, Mn, Na, Ni, P, Pb, Sb, Si, Sn, Sr, Ti, V, Zn, Zr)	ASTM E1251
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Steel Alloys (Al, As, B, Bi, C, Ca, Ce, Co, Cr Fe, La, Mn, Mo, Nb, Ni, P, Pb, S, Si, Sn, Ti, V, W, Zn, Zr)	ASTM E415, E1086
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EDS	ASTM E1508
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FTIR	ASTM E1252
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Combustion Analysis of Carbon	ASTM E1019
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Proportion of Phases in Portland Cement Clinker	ASTM C1365
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## Accredited Laboratory

A2LA has accredited

# METALLURGICAL ENGINEERING SERVICES, INC.

Richardson, TX

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 2<sup>nd</sup> day of August 2022.

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 3065.01  
Valid to September 30, 2024

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