



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

LABORATORY TESTING, LLC.  
2331 Topaz Drive  
Hatfield, PA 19440  
Jonathan Faia Phone: 800 219 9095  
JFaia@labtesting.com

MECHANICAL

Valid To: March 31, 2027

Certificate Number: 0117.02

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following metal and fastener tests:

| <u>Test:</u>                                                                         | <u>Test Method(s):</u>                                                                          |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Mechanical Property<sup>1</sup>:</b>                                              |                                                                                                 |
| Tensile and Proof Load<br>(Up to 600klb, Up to 2100 °F)                              | ASTM E8/E8M, A370, B557, F606/F606M, F835; NASM-1312-8; EN 2002-1, 10002-1, 1025-02; ISO 6892-1 |
| Elevated Temperature Tensile (-320 to 2100 °F)                                       | ASTM E21                                                                                        |
| Compression Testing                                                                  | ASTM E9                                                                                         |
| Impact (Charpy)                                                                      | ASTM A370, E23; ISO 148                                                                         |
| Bend Testing Load capacity (0.5 to 600 000) lbs                                      | ASTM E290, E190, A370, MAS-BEND                                                                 |
| Flattening Load capacity (0.5 to 600 000) lbs                                        | ASTM A999, A530, MAS-FLATTENING                                                                 |
| Flare Testing Load capacity (0.5 to 600 000) lbs                                     | AMS 5557, 5576; ASTM A370, A999, A1016, A530, MASFLARE                                          |
| Jominy Hardenability                                                                 | ASTM A255                                                                                       |
| Expansion (Pin Test) of Copper and Copper Alloy Piping and Tubing                    | ASTM B153                                                                                       |
| Compressible-Washer-Type Direct Tension Indicators for use with Structural Fasteners | ASTM F959                                                                                       |
| Conductivity                                                                         | BAC 5946                                                                                        |
| Creep Rupture (ambient to 2100 °F)                                                   | ASTM E139                                                                                       |
| Stress Rupture (ambient to 2100°F)                                                   | ASTM E139, E292; NASM-1312-10                                                                   |
| Stress Durability (Hydrogen Embrittlement)                                           | NASM-1312-5A                                                                                    |
| Shear Testing of Aluminium                                                           | ASTM B831                                                                                       |
| Shear Testing of Aluminium (Double Shear)                                            | ASTM B769                                                                                       |
| Pin-Type Bearing Testing of Metallic Materials                                       | ASTM E238                                                                                       |
| Double Shear                                                                         | NASM-1312-13                                                                                    |
| Drop Weight                                                                          | ASTM E208                                                                                       |
| Dynamic Tear                                                                         | ASTM E604                                                                                       |
| Magnetic Permeability                                                                | ASTM A342, Test method 3 Low-Mu Permeability indicator method                                   |
| Heat Treatment of Specimens                                                          | AMS 2750                                                                                        |

| <b>Test:</b>                                        | <b>Test Method(s):</b>                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hardness<sup>1</sup>:</b>                        |                                                                                                                                                                                                                                                                                                                                                     |
| Brinell (500, 1000, 1500 & 3000 kg)                 | ASTM E10                                                                                                                                                                                                                                                                                                                                            |
| Rockwell (A, B, C, E, F)                            | ASTM E18; NASM-1312-6                                                                                                                                                                                                                                                                                                                               |
| Superficial (15, 30, 45 N & T)                      | ASTM E18; NASM-1312-6                                                                                                                                                                                                                                                                                                                               |
| Vickers (5kg, 10kg, 20kg)                           | ASTM E92                                                                                                                                                                                                                                                                                                                                            |
| <b>Microhardness<sup>1</sup>:</b>                   |                                                                                                                                                                                                                                                                                                                                                     |
| Knoop (25, 50, 100, 200, 500, 1000gf)               | ASTM E92/E384; NASM-1312-6                                                                                                                                                                                                                                                                                                                          |
| Vickers (10, 25, 50, 100, 200, 300, 500, 1000gf)    | ASTM E92/E384; NASM-1312-6                                                                                                                                                                                                                                                                                                                          |
| <b>Metallographic Examination<sup>1</sup>:</b>      |                                                                                                                                                                                                                                                                                                                                                     |
| Preparation of Specimens                            | ASTM E3                                                                                                                                                                                                                                                                                                                                             |
| Grain Size                                          | ASTM E112, E930, E1181, E1382; GE E50TF133                                                                                                                                                                                                                                                                                                          |
| Micro Exam                                          | ASTM E407, ASTM E1268, ASTM A247, ASM Handbook Vol. 9, MO-MICROMET GENERAL, MO-MICROMET SURFACE                                                                                                                                                                                                                                                     |
| Alpha Case                                          | GE P3TF19, GE P3TF32, PWA E-142, MO-ALPHA CASE                                                                                                                                                                                                                                                                                                      |
| Alloy Depletion                                     | MO-MICROMET SURFACE                                                                                                                                                                                                                                                                                                                                 |
| IGA / IGO                                           | BSS 7219, ASTM F2111, AMS 2759, MO-MICROMET SURFACE                                                                                                                                                                                                                                                                                                 |
| Volume Fraction Determination (Point Count)         | ASTM E562                                                                                                                                                                                                                                                                                                                                           |
| Macro Exam                                          | ASTM E340, E381, A604                                                                                                                                                                                                                                                                                                                               |
| Intergranular Corrosion Susceptibility              | ASTM A262 (Practices A & E (micro)) MO-MET CORROSION (A262)                                                                                                                                                                                                                                                                                         |
| Case Depth                                          | SAE J423, MO-DECARBCARB, MO-MHRD                                                                                                                                                                                                                                                                                                                    |
| Ferrite / Delta Ferrite Determination (Point Count) | AMS 2315, ASTM E562                                                                                                                                                                                                                                                                                                                                 |
| Microhardness of Electroplated Coatings             | ASTM B578, MO-MHRD                                                                                                                                                                                                                                                                                                                                  |
| Chord Method                                        | ARP 1820                                                                                                                                                                                                                                                                                                                                            |
| Inclusion Content                                   | ASTM E45; SAE J422                                                                                                                                                                                                                                                                                                                                  |
| Plating/Coating Thickness Determination             | ASTM B487; NASM-1312-12, ISO 1463                                                                                                                                                                                                                                                                                                                   |
| Depth of Decarburization                            | ASTM E1077, E384; SAE J121, F2328, ISO 898-1, MO-DECARBCARB                                                                                                                                                                                                                                                                                         |
| Detrimental Intermetallic Attack                    | ASTM A923 (Method A)                                                                                                                                                                                                                                                                                                                                |
| Ferrite Determination (Scope)                       | MO-FERRITESCOPE                                                                                                                                                                                                                                                                                                                                     |
| Surface Condition Tubing                            | MO-SURCON                                                                                                                                                                                                                                                                                                                                           |
| Non-Conventional Machining (Recast / Remelt)        | CPW 425; PWA E167, PWE-54, GEP29TF73, MO-MICROMET SURFACE                                                                                                                                                                                                                                                                                           |
| Weld Evaluation                                     | ASME IX; API 1104; AWS D1.1/1.1M, 1.2/1.2M, D1.3, D1.4, D1.5, D1.6, D9.1/9.1M, D14.1/14.1M, D14.3/14.3M, D14.4, D14.6, D15.1, D17.1; ISO 15614-1; BS EN 287-1, 2872, 910, 288-4; New York State Steel Construction Manual; AMS-STD-1595; ASTM A488; MIL-STD-248D; NAVSEA S9674-AQ-GIB-010; ANSI/AASHTO, MO-MET EXAM WELD GEN, MO-MET WELD TUBESHEET |
| Braze Evaluation                                    | AWS C3.14, MO-BRAZE                                                                                                                                                                                                                                                                                                                                 |
| Failure Analysis                                    | ASTM G161, Using the methods listed on this and other scopes in accordance with the AMS Handbook Volume 11                                                                                                                                                                                                                                          |
| SEM/EDS                                             | ASTM E1508                                                                                                                                                                                                                                                                                                                                          |

| <b>Test:</b>                                                                                                | <b>Test Method(s):</b>          |
|-------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Fatigue / Fracture<sup>1</sup>:</b>                                                                      |                                 |
| High Cycle/Axial Fatigue (HCF):<br>(-323 to 1800) °F, (200 to 100 000) lb, 100 Hz                           | ASTM E466; NASM-1312-11; EN6072 |
| Low Cycle Fatigue (LCF)<br>Ambient to 1800 °F, (200 to 20 000) lb, 5 Hz, (0 to 20) % Strain                 | ASTM E606                       |
| Fracture Toughness<br>(-323 to 1800) °F, (200 to 100 000) lb, 30 Hz<br>(pre-crack only), (0 to 0.250)" CODG | ASTM E1820, E399, E740, E1921   |
| Fatigue Crack Growth<br>(-323 to 1800) °F, (200 to 100 000) lb, 50 Hz, (0 to 0.250)" CODG                   | ASTM E647                       |

<sup>1</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.



# Accredited Laboratory

A2LA has accredited

**LABORATORY TESTING, LLC.**

*Hatfield, PA*

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 25<sup>th</sup> day of April 2025.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 117.02  
Valid to March 31, 2027

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