



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

AMERICAN TESTING SERVICES, LTD.
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MECHANICAL

Valid To: July 31, 2023

Certificate Number: 2855.01

In recognition of the successful completion of the A2LA evaluation process, including compliance to R223 – Specific Requirements – GE Aviation S-400 Accreditation Program, accreditation is granted to the American Testing Services to perform the following tests on metals and metal components in Stainless Steel, Carbon Steel, Alloy Steel, Aluminum, Nickel, and Titanium Alloys:

<u>Test</u>	<u>Test Method(s)</u>
Hardness (Rockwell) A, B, C, E, F, 15N, 30N, 45N, 15T, 30T, 45T	ASTM E18
Brinell Hardness (500 kg, 3000 kg)	ASTM E10
Microhardness (Knoop, Vickers) (500 g) (100 g)	ASTM E384, E92
Tensile Testing of Metals (Room Temperature, (0.1 to 60 klbs)	ASTM A370, B557, E8
Bend Testing	ASTM E190
Welder and Weld Procedure Qualification Testing	AMS-STD-1595; API 1104; ASME IX; ASTM A488/A488M; AWS B2.1/B2.1M, B2.2/B2.2M, D1.1/D1.1M, D1.2/D1.2M, D1.3/D1.3M, D1.4/D1.4M, D1.5/D1.5M, D1.6/D1.6M, D1.7/D1.7M, D1.8/D1.8M, D1.9/D1.9M, D9.1/D9.1M, D14.1/D14.1M, D14.3/D14.3M, D14.4/D14.4M, D14.6/D14.6M, D15.1/D15.1M, D17.1/D17.1M; ISO 15614-1; BS EN287-1, 287- 1(Canceled 12/17/04) ² , 288-3(Canceled 6/22/04) ² , 288-49(Canceled 8/28/97) ² ; MIL-STD 1595A(Canceled 6/16/98) ² , 2219(Canceled 9/04/09) ² , 1261(Canceled 7/28/03) ² ; NAVSEA S9074-AQ-GIB- 010

<u>Test</u>	<u>Test Method(s)</u>
<u>Metallographic Evaluation (Metals and Alloys)</u>	
Preparation	ASTM E3
Microetch	ASTM E407
Macroetch	ASTM E340, E381
Plating Thickness	ASTM B487
Grain Size	ASTM E112, Method A
Case Depth	AMS 2759/7; SAE J423
Alpha Case Depth	GE P3TF19
Decarburization Depth	ASTM E1077; NASM 8831
Microstructure Evaluation	Metals HBK, Vol 9; ASTM E1268
Corrosion Testing	ASTM A262, Practice A, E
Flarability (Tubing)	AMS 5557
Optical Emission Spectroscopy (OES) (Al, B, C, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Nb, P, Si, S, Sn, Ti, W, V, Zn, Zr, Fe)	ASTM A751, E415, E1086, E1251
Combustion Analysis (Carbon and Sulfur)	ASTM E1019
ICP-OES) (Al, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Nb, P, Si, Ta, Sn, Ti, Zn, Co)	QP-10-830
Positive Material Identification (PMI) via Portable XRF	ASTM E1476 ² , E1916 ²
Scanning Electron Microscopy with Energy Dispersive Spectroscopy (Materials Analysis and Characterization) SEM/EDS	ASTM E1508; ATS QP-10-817
Failure Analysis (Fractography, Failure Mode Determination, Weld Integrity) using methods listed above	ATS QP-10-816, ASM Metals HBK Vol 11

¹This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

²This laboratory performs field testing activities for these tests.



Accredited Laboratory

A2LA has accredited

AMERICAN TESTING SERVICES, LTD

Miamisburg, OH

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 laboratory also meets the requirements of R223 – Specific Requirements – GE Aviation S-400 Accreditation Program. 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 August 2021.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2855.01
Valid to July 31, 2023

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