

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT CHARLOTTE 1200 Westinghouse Blvd., Suite A Charlotte, NC 28273

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MECHANICAL

Valid To: December 31, 2026 Certificate Number: 2335.01

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following tests on <u>metals and metal products</u>:

<u>Test Method(s)</u>

Bend ASME Sec. IX; ASTM A370, E290; AWS D1.1,

D1.5; ISO 5173

Coating Weight ASTM A90/A90M; Fed-Spec TT-C-490

Corrosion Testing

Intergranular Corrosion Susceptibility ASTM A262 (Practice A and E only); ISO 3651-2

Creep Testing ASTM E139, E292

Stress Rupture ASTM E139, E292

SEM/EDS

Qualitative Analysis ASTM E1508

Fasteners

Hardness ASTM A370, F606/F606M; AIA/NAS NASM

1312-6

Tensile

Ambient ASTM A370, B557, E8/E8M; ISO 6892-1

Elevated Temperature (400 to 1800)°F ASTM E21; ISO 6892-2

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Test Test Method(s)

Hardness/Microhardness

Rockwell (A, B, C, F, 15N, 30N, 45N, 15T, ASTM E18; ISO 6508-1

30T)

Brinell (500, 3000) Kg ASTM E10

ASTM E92, E384 Vickers (100, 200, 300, 500, 1000) gf Knoop (100, 200, 300, 500, 1000) gf ASTM E92, E384

Impact (Charpy / (-320 to 450)°F) ASTM A370, E23; ISO 148-1

Metallography/Micrography on Ferrous and **Nonferrous Materials**

Alpha Case GE P3TF19, P3TF32; SOP 50.75

Case Depth ASTM F2328: SAE J423

ASTM E1077, F835, F912, F2328; SAE J419 Decarburization

Grain Size ASTM E112, E930, E1181; GE E50TF133

Macroscopic Examination ASTM A561, A604, E340, E381

Microstructure SOP 50-35; GE E50TF133; ASM Handbook Vol. 9

ASTM E45 (Methods A, B, and D) Non-metallic Inclusion

Plating Thickness ASTM B487, B499, E376

Sample Preparation ASTM E3. E407

ASM 27501; SOP 60.10 Specimen Heat Treatment

Volume Fraction Determination ASTM E562, E1245

Magnetic Permeability ASTM E342; SEV-ENG-96040.1; SOP 55.00

Welder/Weld Procedure Qualification AWS D1.1, D1.4 (Sections 6 and 7), D1.5

(Sections 1, 5, 6, 7), D1.6, D17.1; AMS-W-6858;

ASME Section IX

Failure Analysis Using the methods listed above on the mechanical

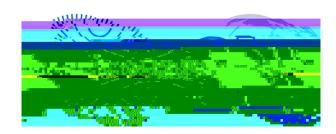
scope of accreditation, in accordance with the

ASM Handbook Volume 11

Density Testing ASTM B311

¹ Please note that this is not a test method but rather a heat treatment specification covering the pyrometric requirements for sample and specimen preparation





Accredited Laboratory

A2LA has accredited

ELEMENT CHARLOTTE

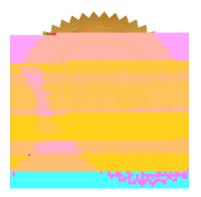
Charlotte, NC

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Stan dard 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 nd day of December 2024.



Mr. Trace McInturff, Vice President, Accr editation Services For the Accreditation Council Certificate Number 2335.01 Valid to December 31, 2026