



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

FME MATERIALS LABORATORY  
701 White Avenue  
Beloit, WI 53511  
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MECHANICAL

Valid To: May 31, 2023

Certificate Number: 3417.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the physical testing, mechanical testing, metallography, and spectroscopy on metallic materials including fasteners as well as chemical testing on ferrous alloys, aluminum alloys, copper alloys, nickel alloys, and cobalt alloys:

**Test(s):**

**Test Methods(s):**

Physical:

Bend Test (Up to 300 000 lbf)	ASTM A370, E290
Compression (Up to 300 000 lbf)	ASTM E9
Tensile / Yield / ROA (Up to 300 000 lbf)	ASTM A48/A48M, B557, E8/E8M
Axial Tensile (Up to 300 000 lbf)	ASTM F606/F606M
Flattening Test of Metallic Material	ISO 8492

Hardness:

Brinell Hardness (500 kg and 3000 kg)	ASTM E10
Leeb Hardness (HV80 to HV940)	ASTM A956/A956M
Rockwell Hardness (A, B, C, E, 15N, 15T, 30N, 30T, 45T, and 45N)	ASTM E18
Hardness Testing of Welds	ISO 9015-1*

Microhardness:

Knoop (100 g and 500 g)	ASTM E384
Vickers (100 g and 500 g)	ASTM E384; ISO 6507-1

Metallographic Evaluation:

Preparation	ASTM E3
Graphite Microstructure	ASTM A247; ISO 945-1
Macroetching	ASTM E340
Photomicrograph	ASTM E883
Decarburization	ASTM E1077
Effective Case Depth	SAE J423
Grain Size	ASTM E112
Temper Etch Inspection	ISO 14104

**Test(s):**

**Test Methods(s):**

**Chemical:**

Optical Emission Spectroscopy –  
Ferrous Alloys (Al, As, B, C, Ca, Cr,  
Co, Cu, Fe, Mn, Mo, Nb, Ni, P, S, Si,  
Sn, Ti, V, W, Zr)

ASTM E415, E1476 (Section 7.2), E1086

*\*This lab is only accredited to perform Vickers microhardness for the Hardness Testing of Welds per the specifications outlined in ISO 9015-1.*



# Accredited Laboratory

A2LA has accredited

## FME MATERIALS LABORATORY

*Beloit, WI*

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 23<sup>rd</sup> day of June 2021.

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

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 3417.01  
Valid to May 31, 2023

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