



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

MODERN INDUSTRIES, INC.

Erie, PA

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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 8 January 2009*).

Presented this 3rd day of November 2009.



A handwritten signature in black ink, appearing to read "Peter Abney".

President & CEO
For the Accreditation Council
Certificate Number 2949.01
Valid to January 31, 2012

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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

MODERN INDUSTRIES, INC
613 West 11th Street
Erie, PA 16501
Kevin Polito Phone: 814 455 8061
kevin@modernind.com

MECHANICAL

Valid To: January 31, 2012

Certificate Number: 2949.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on steel, stainless steel, cast iron, copper alloys, aluminum, nickel & cobalt alloys, titanium, miscellaneous metals, forgings, castings, machined components, billets, bars, ingot, powdered metals, fasteners, chain, and cable:

<u>Test:</u>	<u>Test Methods:</u>
Bend Testing (Less tubing)	ASME Sec IX, ASTM A370, A489; AWS D1.1
Compression	ASTM E9-89a(2000)
Hardness Testing	
Brinell Hardness (500 kgf, 3000 kgf)	ASTM E10
Rockwell (A, B, C, F, G, 15N, 30N, 30T)	ASTM E18
Impact	ASTM E23
Jominy	ASTM A255
Proof, nut and bolt	ASTM F606, F606M; SAE J429
Shear, single & double	ASME QW196; NASM 1312-13
Tensile (Tension, Yield Modules)	
Ambient Temperature to 1800 °F	ASTM A370, E8/E8M, E21, F606, F606M; AWS D1.1
Wedge Tensile	ASTM A370, F606, F606M
Stress Rupture	ASTM E139, E292
Metallographic Evaluation:	
Decarburization	ASTM E1077
Effective Case Depth	ASTM J423
Ferrite Rating	AMS 2315

Test:

Metallographic Evaluation (continued):

Grain Size
Inclusion Rating / Cleanliness
Intergranular Attack
Macroetch
Microhardness
Microstructure in Cast Iron Graphite Evaluation
Pitting and Crevice Corrosion and Intergranular
Corrosion
Weld Examination (less Radiography)
Coating Thickness

Physical Properties:

Density

Nondestructive Testing Methods:

Conductivity
Liquid Penetrant Examination
Magnetic Particle Examination

Test Methods:

ASTM E112
ASTM E45 Methods A & D, MIL-DTL-23229
ASTM A262 Methods A & E
ASTM A561, A604, E340, E381; AWS D1.1
ASTM E384
ASTM A247
ASTM G28, G48

ASME Sec IX; AWS D1.1; QW 184
ASTM B487

ASTM B328-96(2003)e1

AMS 2658
ASTM E165, E1417; MIL-STD-6866,
MIL-STD-271F
ASTM E709, E1444; MIL-STD-271F



World Class Accreditation

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Accredited Laboratory

A2LA has accredited

MODERN INDUSTRIES, INC.

Erie, PA

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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 8 January 2009*).

Presented this 3rd day of November 2009.



A handwritten signature in black ink, appearing to read "Peter Abney".

President & CEO
For the Accreditation Council
Certificate Number 2949.02
Valid to January 31, 2012

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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Modern Industries, Inc
613 West 11th Street
Erie, PA 16501
Kevin Polito Phone: (814) 455-8061
kevin@modernind.com

CHEMICAL

Valid To: January 31, 2012

Certificate Number: 2949.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on steel, stainless steel, cast iron, copper alloys, aluminum, nickel & cobalt alloys, titanium, miscellaneous metals, forgings, castings, machined components, billets, bars, ingot, powdered metals, fasteners, chain, and cable: Aircraft components, automotive components, metals and alloys:

Test and Technology:

Test Methods:

Elemental Analysis (Combustion or Fusion)

Carbon in Steel, Iron Nickel & Cobalt Alloys	ASTM E1019
Oxygen in Steel, Iron Nickel & Cobalt Alloys	ASTM E1019
Oxygen in Copper & Copper Alloys	ASTM B170
Oxygen in Titanium and Titanium Alloys	ASTM E1409
Nitrogen in Steel, Iron Nickel & Cobalt Alloys	ASTM E1019
Nitrogen in Titanium and Titanium Alloys	ASTM E1937
Sulfur in Steel, Iron Nickel & Cobalt Alloys	ASTM E1019

OES Analysis

Carbon and Low Alloy Steel	ASTM E415
Stainless Steel	ASTM E1086
Cast Iron	ASTM E1999
Aluminum and Aluminum Alloys	ASTM E1251
Cobalt Alloys	E-2 SM 5 – 26 (ASTM 8 th Edition)
Nickel Alloys	E-2 SM 5 – 27 (ASMT 8 th Edition)

X-Ray Fluorescence Analysis

Low Alloy Steels	ASTM E1085
Ni-Base Alloys	ASTM E2465
Titanium 6A14V Alloys	ASTM E539
Stainless Steels and Alloy Steels	ASTM E572
Low Carbon and Cast Irons	ASTM E322

Flame AA Analysis

ASTM E663-86