



# CERTIFICATE OF ACCREDITATION

## ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

**Midwest Testing Laboratories, Inc.**  
**1072 Wheaton Avenue**  
**Troy, MI 48083**

has been assessed by ANAB  
and meets the requirements of international standard

## ISO/IEC 17025:2005

while demonstrating technical competence in the field of

## TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1503  
Certificate Number

  
ANAB Approval

Certificate Valid: 03/01/2018-12/23/2018  
Version No. 003 Issued: 03/01/2018



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



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Midwest Testing Laboratories, Inc.**

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**TESTING**

Valid to: **December 23, 2018**

Certificate Number: **AT-1503**

**Mechanical**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Dynamic Performance Dynamic Strength Static Strength Activation Force Arrest Force Arrest Distance Elongation	ANSI/ASSE Z359.1 ANSI/ASSE Z359.12 ANSI/ASSE Z359.13 ANSI/ASSE Z359.14 ANSI/ASSE Z359.18 ANSI/ASSE A10.32 CAN/CSA Z259.12 CSA Z259.2.1 CSA Z259.10-M90 CSA Z259.11 ANSI A14.3 OSHA 1926.502 (D) OSHA 1910.66 App C OSHA 1910.27 OSHA 1926.502	Fall Protection Devices, Materials and Components	Certified Drop Tower Mechanical Release Mechanism Load Cell and Data Acquisition System Test Lanyards Test Dummy Test Weights Protractor / Angle Meter Winch Tape Measure Timer
Dynamic Performance Static Strength	ANSI A10.14	Safety Belts	Certified Drop Tower Mechanical Release Mechanism Load Cell and Data Acquisition System Test Lanyards Test Dummy Test Weights Protractor / Angle Meter Winch Tape Measure Timer

**Mechanical**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Dynamic Performance Static Strength	ASTM F887 (all but 15.3.1, 22)	Personal Climbing Equipment	Certified Drop Tower Mechanical Release Mechanism Load Cell and Data Acquisition System Test Lanyards Test Dummy Test Weights Protractor / Angle Meter Winch Tape Measure Timer
Ductility / Bend	Customer Specification / ASTM E190	Metal	Tinius Olsen Testing Machine
Flaring	Customer Specification	Metal	Tinius Olsen Testing Machine
Proof Load External Internal	ASTM A370, ASTM F606, F606M, SAE J429, J1216, J995	Metal	Tinius Olsen Testing Machine Dial Indicator
Tension Strength	ASTM A370, ASTM E8	Metal	Extensometer Tinius Olsen Testing Machine
Compression Strength	ASTM E9	Metal	Extensometer Tinius Olsen Testing Machine
Tensile Strain-Hardening Exponents (n -Values)	ASTM E646	Metal	Extensometer Tinius Olsen Testing Machine
Plastic Strain Ratio r	ASTM E517	Metal	Extensometer Tinius Olsen Testing Machine
Axial/Wedge Tension Strength	ASTM A370, ASTM F606, F606M, SAE J82, SAE J429, SAE J1216	Metal	Tinius Olsen Testing Machine
Breaking Strength and Elongation	FEDSTD 191A, Test Method 4108	Textile Webbing	Tinius Olsen Testing Machine
Rockwell Hardness (HRBW, HRC, HR15N, HR30N, HR30T)	ASTM E18, ASTM E140, SAE429	Metal	Rockwell Hardness tester
Brinell Hardness	ASTM E10 SAE J417	Metal	Brinell Hardness Tester
Vickers and Knoop Microindentation Hardness	ASTM E384 SAE J121	Metal	Vickers and Knoop Hardness Tester

**Mechanical**

<b>Specific Tests and/or Properties Measured</b>	<b>Specification, Standard, Method, or Test Technique</b>	<b>Items, Materials or Product Tested</b>	<b>Key Equipment or Technology</b>
Plating Adhesion	ASTM B571 GMW 14829 SAE J207	Metal	Grind saw, Hack saw
Hydrogen Embrittlement	USCAR 5 and 7	Metal	Torque wrench Test Plates
Simultaneous Thickness and Electrode Potential (STEP) Determination	ASTM B764, ASTM B604	Plating	Kocour Thickness and Electrode Potential (STEP) tester
Case Depth / Decarburization / Depth	ASTM A574, ASTM A574M, ASTM E1077 SAE J78, J121, J121M, J419, J423, J429	Metal	Vickers and Knoop microindentation hardness tester
Discontinuities Surface external threaded Surface internal threaded	ASTM A490, A574, A574M, F788, F788M, F835, F835M, F912, F912M; SAE J123, J1061; ASTM F812, F812M; SAE J122	Metal	Microscope Measuring device and software
Grain Size	ASTM E112, E930, E1181; SAE J418	Metal	Microscope
Inclusion Content	ASTM E45 (Method A, C)	Metal	Microscope
Macroetching	ASTM E340	Metal	Etchant
Microetching	ASTM E407	Metal	Etchant
Preparation of Metallographic Specimens	ASTM E3	Metal	Polishing Wheels Polishing paste
Fusion and Spot Weld Evaluation	Customer Specification	Metal	Etchant
Oxalic Intergranular Susceptibility	ASTM A262 (Practice A)	Metal	Microscope
White Layer (microstructure)	Customer Specification, ASTM Metals Handbook	Metal	Microscope
Failure Analysis	ASTM Metals Handbook	Metal	Microscope
Coating Weight	ASTM A90	Metal	Balance Caliper
Plating Thickness	ASTM B487, B764, B504, B556; GMW14829, ISO 1463, 2177, ASTM B604	Metal	Microscope

**Mechanical**

<b>Specific Tests and/or Properties Measured</b>	<b>Specification, Standard, Method, or Test Technique</b>	<b>Items, Materials or Product Tested</b>	<b>Key Equipment or Technology</b>
Dry Film Thickness	ASTM B499, D1186, D7091-05, ISO 2178, 2808	Coatings	Coating Thickness Gauge
Chip Resistance	ASTM D310, FLTM BI 157-05; GMW14700 (METHOD B/C), SAE J400	Coatings	Gravelometer
Cure (Solvent Rub)	GMW15891	Coatings	M.E.K or specified solvent Cheese cloth
Corrosion Resistance (Creepback)	GM 4350M GMW15282	Coatings	Environment Chambers, scribe tool
Humidity	ASTM D2247, D1735 GMW14729 DIN EN ISO 6270-2	Coatings	Environment Chambers
Salt Spray	ASTM B117, GMW3286, ISO 9227, FMVSS209, FORD BI 103-01, NISSAN NES M0140, NES M0007	Coatings	Environment Chambers
Copper-Accelerated Acetic Acid-Salt Spray Fog (CASS)	ASTM B368, GMW14458, ASTM B604	Coatings	Environment Chambers
Micro Porosity (Active Sites)	ASTM B456 ASTM B604	Coatings	Environment Chambers, microscope
Water Immersion / Adhesion	FLTM BI 104-01	Coatings	Aquariums, pumps, bubblers, thermometers, heaters
Corrosion (including Cyclic)	ASTM B456, D2933-84, G85(A5), FLTM BI 123-03; GMW14124 GMW15288 GMW14668, GMW14872, HES D2021***, NES M0007(automated), SAE J1563, J2334, Ford DVM-0042-SM	Coatings	Environment Chambers
Temperature Cycle	GMW14668 DVM-0008-RG	Coatings	Environment Chambers
Temperature and Humidity	Chrysler – LP-463PB-22-01	Coatings	Environment Chambers
Chloride Resistance (Russian Mud Resistance)	ASTM B995-15	Coatings	Environment Chambers

**Mechanical**

<b>Specific Tests and/or Properties Measured</b>	<b>Specification, Standard, Method, or Test Technique</b>	<b>Items, Materials or Product Tested</b>	<b>Key Equipment or Technology</b>
Corrodkote Corrosion Resistance	ASTM B380; FORD BQ-004-01	Coatings	Environment Chambers, scribe tool
Filiform Corrosion	ASTM D2803, D3322, FLTM BI 124-01	Coatings	Environment Chambers, ruler
Pencil Hardness	ASTM D3363 FLTM BI 151-01	Coatings	Hardness pencils
Car Wash Simulation	GM 9600P	Coatings	Car wash brush tester
SWAAT (Sea Water Acetic Acid Test)	ASTM G85*** GMW14193*** PNAR 00682	Coatings	Environment Chambers
Adhesion and Mar Resistance	ASTM D2197, D5178 GMW3097	Coatings	Tape, crosscutter, knife, brush
Flammability	FMVSS 302 GM 9070P	Coatings	Flammability chamber
Tape Adhesion	FLTM BI 106-01 GMW14829 ASTM D3359	Coatings	Tape, crosscutter, knife, brush
Peel Strength	ASTM B533, ASTM B604	Coatings	Motorized UTS
Mandrel Bend	GM 9503P	Coatings	Mandrels
Gasoline Drip/Puddle Resistance	GMW14333	Coatings	Gasoline
Oil Resistance	GMW14671	Coatings	Oil, Environment Chambers
Etch Susceptibility of Stainless Steel	GMW15284	Metal	Alconox, Solution
Dye Penetrant	ASTM E165	Metal	Dye
Surface Roughness	JIS B0601-1982, B0601-1994, DIN 4768/4768-1, DIN/ISO 4287, ISO 4288, ANSI B46.1	Metal	Profilometer

**Chemical**

<b>Specific Tests and/or Properties Measured</b>	<b>Specification, Standard, Method, or Test Technique</b>	<b>Items, Materials or Product Tested</b>	<b>Key Equipment or Technology</b>
Chemical Composition Analysis (C, Mn, P, S, Si, Cr, Ni, Mo, V)	ASTM E415	Metals	Optical Emission Spectrometer

Note:

1. \*\*\*=Portions of test methods only related to test technologies listed
2. Also using customer supplied methods utilizing any combination of test equipment parameters listed above.
3. Corrosion Testing: Salt Spray, Salt Fog, Humidity, CASS and cyclic corrosion
4. Temperature Testing: -70 °C to 1 200 °C
5. Humidity Testing: (20 to 100) %RH condensed and non-condensed
6. Compression Testing: 1200 lbf to 120,000 lbf
7. Tensile Testing: 1200 lbf to 120,000 lbf
8. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1503.



Vice President