



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

FEMA Corporation

**1716 Vanderbilt Ave.
Portage, MI 49024**

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 20 December 2025

Certificate Number: AT-3051



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
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 17025:2017

FEMA Corporation
 1716 Vanderbilt Ave.
 Portage, MI 49024
 Scott Frisk SFrisk@fema-corp.com
 269 492 6003

TESTING

Valid to: **December 20, 2025**

Certificate Number: **AT-3051**

Electrical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Insulation Resistance	ATP-29288 Customer Parameters 0.1 to 5KVAC RMS @ 60Hz 0.5 to 19.5mA AC @ 60Hz 0.1 to 6KVDC 0.5 to 7mA DC 2 to 45,000 MΩ	Hydraulic Components	Megohm/Hipot Tester
Electrical Current and Voltage	ATP-29288 Customer Parameters Voltage: 330mV to 1,000 VAC 33mV to 1,000 VDC Current: 330 ACmA to 10 ACA 330 DCmA to 10 DCA		Digital Multimeter, Oscilloscope, Data Acquisition
Resistance	ATP-29288 Customer Parameters 101.5 mΩ to 50MΩ		Digital Multimeter, LCR Meter
Inductance	ATP-29288 Customer Parameters 100nH to 1kH		LCR Meter

Environmental

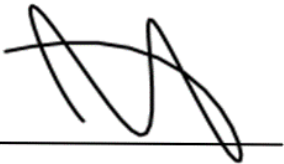
Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Salt Water / Water Immersion	ATP-29295 Customer Parameters -40 to 130°C Ambient	Hydraulic Components	Environmental Chamber Thermocouple
Humidity	ATP-29306 Customer Parameters 32.5% to 97.3%		Environmental Chamber
Thermal Shock (Air-Air and Liquid-Liquid)	ATP-29301 Customer Parameters Air to Air: -40 to 130°C Liquid-Liquid: -75 to 130°C		Thermal Shock Chamber
Thermal Cycle	ATP-29306 Customer Parameters -75 to 180°C		Environmental Chamber
Thermal Endurance	ATP-29306 Customer Parameters -75 to 180°C		Environmental Chamber, Data Acquisition, Power Supply
Random Vibration	ATP-29303 Customer Parameters 10 to 2,700 Hz 3300lbs RMS 1" Stroke		Vibration Table
Sinusoidal Vibration	ATP-29303 Customer Parameters 10 to 2,700 Hz 4000lbs Peak 1" Stroke		Vibration Table
Sine on Random Vibration	ATP-29303 Customer Parameters 10 to 2,700 Hz 4000lbs Peak 1" Stroke		Vibration Table
Shock	ATP-29303 ATP-29307 Customer Parameters 100G 1" Stroke		Vibration Table, Drop Shock Fixture

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Hydraulic Fatigue	ATP-29300 NFPA/T2.6.1 R2-2001 (R2019), Customer Parameters Up to 10,000psi	Hydraulic Components	Hydraulic Fatigue Stand
Hydraulic Burst	ATP-29269 NFPA/T2.6.1 R2-2001 (R2019), Customer Parameters Up to 60,000 psi		Hydraulic Burst Chamber
Compression Force	ATP-29305 Customer Parameters Up to 10,000 lbf Compression		Load Cell/Hydraulic Press
Flow versus Pressure	ATP-29319 Customer Parameters Up to 155 gpm Up to 10,000 psi		Flowmeter, Pressure Transducer

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2402.



Jason Stine, Vice President