



Accredited Laboratory

A2LA has accredited

SOUTH HOLLAND METAL FINISHING LABORATORY

Monee, IL

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 14th day of September 2017.

A handwritten signature in black ink, appearing to be 'John...', is written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 0975.01
Valid to September 30, 2019



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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

SOUTH HOLLAND METAL FINISHING LABORATORY
26100 S. Whiting Way
Monee, IL 60449
Don Troy Phone: 708 235 0842

MECHANICAL

Valid To: September 30, 2019

Certificate Number: 0975.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following fastener and metal tests:

<u>Test Technology</u>	<u>Test Methods</u>
Adhesion of Plated Deposit	ASTM B571, Methods 4, 9, and 13
Case Depth – Macro	SAE J423
Case Depth – Micro	SAE J423
Decarburization	SAE J121 (Cancelled 2013) ¹ , J121M (Cancelled 2013) ¹
Ductility	SAE J78, J1237
Microhardness (Knoop – 500gf)	ASTM E384
pH Measurement	ASTM E70
Phosphate Coating Weight Analysis	MIL-DTL-16232G, Type Z, 4.7.3.2
Plating Thickness	ASTM B568
Rockwell Hardness (A, B, C, 15N, 30N)	ASTM E18
Salt Spray	ASTM B117; ISO 9227
Sampling	ASME/ANSI B18.18.2M ¹ , B18.18.3M ¹ , B18.18.4M ¹ , B18.18.5M ¹
Torque Tension	GMW 3044; ISO 16047; SAE/USCAR 10, 11

Wet Chemistry

<u>Test Technology</u>	<u>Tests</u>
Volumetric Chemical Analysis of Electroplating Bath: Cleaner Hydrochloric Acid Zinc Chloride Cadmium Sulfate Total Phosphate Free Phosphate Iron Total Chromium Oil Analysis	SHMF 4.1 ² SHMF 4.2.0 ² SHMF 4.3.1 ² SHMF 4.3.2 ² SHMF 4.4.1 ² SHMF 4.4.2 ² SHMF 4.5.1 ² SHMF 4.5.2 ² SHMF 4.5.3 ² SHMF 4.6.0 ² SHMF 4.5.5 ²
Metals by Atomic Absorption: Zinc Cadmium Copper Chromium Cobalt Nickel Silver Lead Iron	Standard Methods 3111B
Metals in Solution by X-Ray: Chromium Zinc	SHMF 4.6.1 ² SHMF 4.6.2 ²

On the following materials:

zinc, cadmium, or zinc alloy plated deposits, zinc phosphate coatings, dye or paint top coats, heat treated fasteners or stampings, plating process baths or waste water

¹ This laboratory's scope contains superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

² South Holland Metal Finishing internal procedure (SHMF)

