

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

#### FASTENAL COMPANY LABORATORY – CZECH REPUBLIC

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### **MECHANICAL**

Valid To: September 30, 2016 Certificate Number: 1046.07

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on metallic fasteners and machined specimens:

<u>Test Method(s)</u>

Hardness ASTM A370, A956, E18, E566, F606, F606M;

Rockwell (B, C, 30N, 30T) ISO 898-1, 898-2; ISO 6508-1; SAE J417, J429, J995

Micro Hardness ASTM E384; ISO 6507-1

Vickers Hardness (300, 500) g

Tensile (Axial, Wedge) ASTM A370, F606, F606M; DIN 267-11; ISO 898-1,

Yield Strength 3506-1; SAE J429

Elongation

Reduction of Area

Proof (Internal/External Threaded)

Bolts ASTM A370, F606, F606M; ISO 898-1; SAE J429

Nuts ASTM A370, A962, F606, F606M;

DIN 267 Part 4; ISO 898-2; SAE J995

Case Depth SAE J78, J81, J423, J933

Decarburization ASTM A574, A574M, F835, F835M, F912, F912M,

F2328; ISO 898-1, 898-5; SAE J121, J419

Stress Durability (Hydrogen Embrittlement) ASME B18.6.3; SAE J78; SAE J81; ASTM F606 / F606M;

ISO 15330

Torsional Strength SAE J78; SAE J81; SAE J933; ISO 898-7; ISO 7085

Prevailing Torque ASMEB18.16.6; IFI 100-107; ISO 2320

Discontinuities ASTM F788; ISO 6157-1; ISO 6157-3

Driveability test ISO 7085

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I. Dimensional Testing<sup>1</sup>:

Parameter	Range	CMC <sup>2</sup> (±)	Technique / Method
Threads <sup>3</sup>	#5 to 2½ in M2.5 to M27 Up to 1 in	N/A N/A 0.0006 in	Rings, plugs / ASME B1.1, B1.3 Rings, plugs / ASME B1.1, B1.3, ISO 965 Pitch micrometer / ASME B1.1
Linear <sup>3</sup> - 1D	Up to 12 in Up to 6 in Up to 1 in	0.0015 in 0.0016 in 0.00025 in	Length gage / MIL-STD-120 Digital caliper / MIL-STD-120 Digital V anvil micrometer / MIL-STD-120
2D	X axis: Up to 8 in Y axis: Up to 4 in	0.0006 in 0.0005 in	Optical comparator / MIL-STD-120
Angle <sup>3</sup>	0° to 360°	6.2 ′	Optical comparator / MIL-STD-120
Radii <sup>3</sup>	Up to 0.675 in	0.0039 in	Optical comparator / MIL-STD-120
Flat Head <sup>3</sup>	Up to 1 in	0.0019 in	Protrusion gage/ ASME B18.6.3
Recesses	Up to 5/8" (17 mm)	0.0019 in	ASME B18.6.3
3D <sup>3</sup>	X axis: Up to 11.8 in Y axis: Up to 7.8 in Radii Angle	0.0068 in 0.0029 in 0.0039 in 15 ′	ACRS machine / MIL-STD-120
Linear <sup>3</sup>	Length (0.158 to 6) in Diameter (0.158 to 1.75) in Threads #8 to 1 1/4 in	0.00027 in 0.00027 in 0.00027 in	Laser lab / MIL-STD-120

<sup>&</sup>lt;sup>1</sup> This laboratory offers commercial dimensional testing services.

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<sup>&</sup>lt;sup>2</sup> Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine measurements of nearly ideal measurement standards or nearly ideal measuring equipment. CMC's represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of k = 2. The actual measurement uncertainty of a specific measurement performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific measurement.

<sup>&</sup>lt;sup>3</sup> This test is not equivalent to that of a calibration.



# Accredited Laboratory

A2LA has accredited

## FASTENAL COMPANY LABORATORY-CZECH REPUBLIC

MORDICE, CZECH REPUBLIC

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 2<sup>nd</sup> day of April, 2014.

President & CEO

For the Accreditation Council Certificate Number 1046.07 Valid to September 30, 2016