



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

FASTENAL COMPANY LABORATORY – CZECH REPUBLIC

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MECHANICAL

Valid To: September 30, 2020

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</u>	<u>Test Method(s)</u>
Hardness Rockwell (BW, C, 30N, 30TW)	ASTM A370, E18, F606, F606M; ISO 898-1, 898-2, 6508-1
Micro Hardness Vickers Hardness (100, 300, 500) g	ASTM E384; ISO 6507-1
Tensile (Axial, Wedge) Yield Strength Elongation Reduction of Area	ASTM A370, F606, F606M; DIN 267-11; ISO 898-1, 3506-1
Proof (Internal/External Threaded) Bolts	ASTM A370, F606, F606M; ISO 898-1
Nuts	ASTM A370, A962, F606, F606M; DIN 267-4; ISO 898-2
Case Depth	SAE J78, J81, J423
Case Hardness	DIN 7500-1
Decarburization	ASTM F835, F835M, F2328, F2328M; ISO 898-1, 898-5; SAE J121, J419
Plating Thickness	ASTM B568
Stress Durability (Hydrogen Embrittlement)	ASME B18.6.3; SAE J78; SAE J81; ASTM F606 / F606M; ISO 15330 (5.1, 5.5)
Torsional Strength	SAE J78; SAE J81; SAE J933; ISO 898-7, 7085; ASME B18.6.3, DIN 7500-1
Prevailing Torque	ASME B18.16.6; IFI 100-107; DIN 267-15

<u>Test</u>	<u>Test Method(s)</u>
Discontinuities	ASTM F788; ISO 6157-1, 6157-3; DIN 267-19
PMI (Positive Material Identification) by XRF	ASTM E1916
Drivability test	ISO 7085; DIN 7500-1
Torsional strength test of metric tapping screws	ASME B18.6.5M
Thread gaging	ASME B1.2; ISO 1502
Torque-Tension	IFI 101
Type TRS Drive Torque test	ASME B18.6.3

I. Dimensional Testing¹:

Parameter	Range	CMC ² (±)	Technique / Method
Threads ³	#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 ³ - 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 ³	0° to 360°	6.2´	Optical comparator / MIL-STD-120
Radii ³	Up to 0.675 in	0.0039 in	Optical comparator / MIL-STD-120
Flat Head ³	Up to 1 in	0.0019 in	Protrusion gage/ ASME B18.6.3
Recesses ³	Up to 5/8" (17 mm)	0.0019 in	Penetration gages / ASME B18.6.3
3D ³	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

¹ This laboratory offers commercial dimensional testing services.

² 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.

³ This test is not equivalent to that of a calibration.





Accredited Laboratory

A2LA has accredited

FASTENAL COMPANY LABORATORY-CZECH REPUBLIC

Modrice, 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 April 2017).



Presented this 31st day of December 2018.

A blue ink signature of the Senior Director of Accreditation Services.

Senior Director, Accreditation Services
For the Accreditation Council
Certificate Number 1046.07
Valid to September 30, 2020

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