



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

WURTH SERVICE SUPPLY INC.
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MECHANICAL

Valid To: June 30, 2021

Certificate Number: 2816.01

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

<u>Test</u>	<u>Test Method(s)</u>
<u>I. Mechanical Testing</u>	
Rockwell Hardness (HRBW, HRC, HR15N, HR30N)	ASTM E18, F606/F606M; SAE J78, J81, J417, J933, J995; ISO 898-1, 898-2, 898-5, 898-6 ¹ , 2320
Microhardness (Knoop and Vickers) (500g and 200g)	ASTM E384; SAE J78, J81, J933
Metallographic Evaluation	
Case Depth (Total and Effective)	SAE J423, J933
Preparation	ASTM E3
Microetching	ASTM E407
Depth of Decarburization	ASTM A574/A574M, F835, F835M, F2328; ISO 898-1, 898-5
Surface Discontinuities	ASTM F788, F812, F835, F912/F912M; SAE J122, J123 ¹ , J1061 ¹ , J1199; ISO 6157-1, 6157-2, 6157-3
Coating Thickness (X-Ray)	ASTM B568
Hydrogen Embrittlement	ASTM F606/F606M; SAE J78, J81, J773, J1237
Proof Load (Internal Threads)	ASTM F606/F606M
Salt Spray Testing	ASTM B117

Test**Test Method(s)**

Screw Test

Drill Drive SAE J78

Drive Torque SAE J81

Torque

Torsional Strength SAE J78, J81, J933, J1237;
ISO 898-1, 2320Prevailing Torque ASME B18.16M;
IFI 101, 100/107, 124, 125

Torque-Tension (k-factor) ISO 16047

X-Ray Fluorescence Spectrometry (XRF)
(Semi-quantitative) ASTM E572, E1621**II. Dimensional Testing²:**

Parameter	Range	CMC ³ (±)	Technique / Method
Length ⁴ –			
One Dimensional	Up to 3 in Up to 75 mm	0.0003 in 0.007 mm	Micrometers
	Up to 6 in Up to 8 in Up to 12 in	0.0004 in 0.0009 in 0.0008 in	Digital calipers
	Up to 12 in	0.0004 in	Dial calipers
	Up to 6 in	0.002 in	Optical comparator
	Up to 0.22 in Up to 1 mm	0.00023 in 0.0058 mm	Zeiss AX10 microscope
Three Dimensional	Z axis: up to 2.11 in Pitch M3 to M33 Diameter .125 to 1.5.0 Runout up to .002	0.0001 in 0.0003 in 0.0003 in 0.0003 in	Laser lab
Angle ⁴	(0 to 360)°	2.0°	Optical comparator
Radius ⁴	(0.005 to 3) in	0.002 in	Optical comparator
Straightness ⁴	(0.250 to 12) in	0.002 in	Cambercheck

Parameter	Range	CMC ³ (±)	Technique / Method
External Threads ⁴ –			
Pitch Diameter	(#4 to 1) in Up to 25 mm	0.002 in 0.050 mm	Pitch micrometer
	(#4 to 1) in	0.002 in	Tri-Roll gages
	(#4 to 2) in M3 to M33	---	Go/No-Go gages
Major Diameter	Up to 1 in	0.0003 in	Micrometer
	Up to 150 mm Up to 6 in	0.050 mm 0.002 in	Optical comparator
Minor Diameter	Up to 6 in	0.002 in	Optical comparator
Internal Threads ⁴ –			
Pitch Diameter	(#2 to 1.5) in M4 to M55	---	Functional threaded plug gages
Minor Diameter	(0.061 to 0.75) in	---	Go/No-Go plain plug gage
Surface Roughness ⁴	Up to 250 µin	38 µin	Profilometer
Total Indicated Runout (TIR) ⁴	Up to 1.00 in Up to 12.7 mm	0.002 in 0.050 mm	Dial/Digital indicator on bench, center or drop stand
Recess Check ⁴	(#1 to 4) Phillips (#1 to 4) Pozi Square #1, #2, #3	0.002 in	Recess penetration gage, ANSI B18.6.3

¹ This laboratory's scope contains withdrawn or 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 This laboratory does not offer commercial dimensional testing service.

³ 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. CMCs 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.

⁴ This test is not equivalent to that of a calibration.



Accredited Laboratory

A2LA has accredited

WURTH SERVICE SUPPLY INC.

Greenwood, IN

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *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 10th day of July 2019.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2816.01
Valid to June 30, 2021

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