



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

BBC FASTENERS, INC.  
4210 Shirley Lane  
Alsip, IL 60803  
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MECHANICAL

Valid To: August 31, 2017

Certificate Number: 0234.01

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

<u>Test</u>	<u>Test Methods</u>
<u>Sampling</u>	ASTM A183, A193/A193M, A307, A320/A320M, A574, A574M, F835, F1470; ASME/ANSI B18.18.2M (Superseded) <sup>4</sup> , B18.18.3M (Superseded) <sup>4</sup> , B18.18.4M (Superseded) <sup>4</sup>
<u>Hardness</u>	
Brinell (<450 HB) (3000kg)	ASTM A370 (Sections 16 & 17), E10
Rockwell (HRB, HRC, 30N)	ASTM A370 (Section 18), E18
<u>Tension (300,000 lbs max, 1.75" Dia. Max)</u>	
Axial	ASTM F606/ F606M (Section 3.4), E8/E8M; SAE J82, J429, J1199; ISO 898-1
Wedge (4°, 6°, 10°)	ASTM A370 (Sections 5 thru 13), F606/F606M (Section 3.5) F606/F606M (Section 3), E8/E8M; ISO 898-1
Yield, Elongation & Reduction of Area	ASTM A394, F606/F606M (Section 3.8); MIL-STD-1312-20 (Superseded) <sup>4</sup>
Shear: Single (5/8 in, 3/4 in)	
<u>Miscellaneous</u>	
Proof (External Threads)	ASTM F606/F606M (Section 3.2.3); ISO 898-1
Discontinuities (Visual)	ASTM F788, F788M, F812, F812M; SAE J123 (Withdrawn) <sup>4</sup> , J1061(Withdrawn) <sup>4</sup>
Plating Thickness	ASTM B499
Magnetic Particle	ASTM E1444/E1444M

Dimensional Testing<sup>1</sup>

Parameter	Range	CMC <sup>2</sup> (±)	Technique/Method
Radius <sup>3</sup>	(0.005 to 0.5) in	0.01 in	Comparator/ MIL-STD-120 (Withdrawn 1996) <sup>4</sup>
Threads <sup>3</sup> –			
Pitch Micrometer	(0.5 to 3) in	0.0005 in	ASME B1.2, B1.3
Go/No-Go Gages	(0.5 to 3) in	N/A	ASME B1.2, B1.3
Length <sup>3</sup>	(0.001 to 6) in (0.001 to 12) in (0.001 to 8) in	0.001 in 0.01 in 0.002 in	Micrometer/ MIL-STD-120 (Withdrawn 1996) <sup>4</sup> Caliper/ MIL-STD-120 (Withdrawn 1996) <sup>4</sup> Comparator/ MIL-STD-120 (Withdrawn 1996) <sup>4</sup>
Bolt Straightness <sup>3</sup>	(0.002 to 0.100) in	N/A	Straightness Gage/ ASME B18.2.1
Angle <sup>3</sup>	(0 to 180) degrees	2 degrees	Comparator/ MIL-STD-120 (Withdrawn 1996) <sup>4</sup>

<sup>1</sup> This laboratory sometimes offers commercial dimensional testing service.

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

<sup>4</sup> 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.



## *Accredited Laboratory*

A2LA has accredited

**BBC FASTENERS, INC.**

*Alsip, 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 5<sup>th</sup> day of October 2015.

A handwritten signature in black ink, reading "Peter Abney".

President & CEO  
For the Accreditation Council  
Certificate Number 0234.01  
Valid to August 31, 2017

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