



THE AMERICAN ASSOCIATION FOR  
LABORATORY ACCREDITATION

## 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 18 June 2005*).

Presented this 26<sup>th</sup> day of October 2007.

A handwritten signature in black ink, appearing to read "Peter Abney", written over a horizontal line.

President  
For the Accreditation Council  
Certificate Number 0234.01  
Valid to August 31, 2009



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

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

BBC FASTENERS, INC.  
4210 Shirley Lane  
Alsip, IL 60803  
David Cronin Phone 708 597 9100

MECHANICAL

Valid To: August 31, 2009

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, B18.18.3M, B18.18.4M
<u>Hardness</u>	
Brinell (<450 HB)	ASTM A370 (Sections 16 & 17), E10
Rockwell (HRB, HRC, 30N)	ASTM A370 (Section 18), E18
<u>Tension (300,000 lbs max)</u>	
Axial	ASTM F606 (Sections 3 & 4), F606M (Sections 3 & 4)
Wedge (4°, 6°, 10°)	ASTM F606, F606M; SAE J82, J429, J1199, J1216
Yield, Elongation & Reduction of Area	ASTM A370 (Sections 5-13), E8, E8M, F606 (Sections 3 & 4), F606M (Sections 3 & 4); SAE J1216
Shear: Single (5/8 in, 3/4 in)	ASTM A394, F606; MIL-STD-1312-20
<u>Miscellaneous</u>	
Proof (external threads)	ASTM F606, F606M; SAE J995, J1216
Discontinuities (visual)	ASTM F788, F788M, F812, F812M; SAE J123, J1061
Plating Thickness	ASTM B499

Dimensional Testing

Parameter	Range	Best Uncertainty* (±)	Technique	Standards
Radius	(0.005 to 0.5) in	0.01 in	Comparator	MIL-STD-120
Threads –  Pitch Micrometer	(0.5 to 3) in	0.0005 in	Pitch micrometer	ASME: B1.2, B1.3M
Go/No-Go gages	(0.5 to 3) in	N/A	Go/No-Go gages	
Length	(0.001 to 6) in  (0.001 to 24) in  (0.001 to 8) in	0.001 in  0.01 in	Micrometer  Caliper  Comparator	MIL-STD-120
Bolt Straightness	(0.002 to 0.100) in  (0.002 to 0.100) in	0.01 in  N/A	Indicator  Straightness gage	ASME B18.2.1
Angle	(0 to 180) degrees	2 degrees	Comparator	MIL-STD-120

\*“Best Uncertainty” is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine inspections of nearly ideal measurement standards with nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The best uncertainty of a specific test performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer’s test piece, to the environment (if the dimensional inspection is performed in the field) and to influences from the circumstances of the specific test.