American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

ALPHA STAMPING CO.

Livonia, MI

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 23rd day of July 2013.

President & CEO
For the Accreditation Council
Certificate Number 1215.01
Valid to July 31, 2015

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

SCOPE OF ACCREDITATION TO ISO 17025:2005

ALPHA STAMPING CO.
33375 Glendale Avenue
Livonia, MI 48150
Bill Bovenza Phone 734 466 8815

MECHANICAL

Valid To: July 31, 2015 Certificate Number: 1215.01

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

Test	Test Methods
Mechanical Testing	
Hardness	
Rockwell, Rockwell Superficial – A, B, C, 15N, 30N, 15T, 30T	ASTM E18
DTI Compression Testing	ASTM F959, F959M, F606, F606M
Torque Twist-off Testing	SOP 1212
Push out/Pull out	SOP 1027
Chemical Testing	
LECO GDS500A Spectrometer (C, Cu, Mn, Mo, Ni, S, Si)	ASTM E415

I. Dimensional Testing[1]:

Parameter	Range	CMC[2] (±)	Technique / Method
Linear			
- 1D	(0.028 to 1.00) in	0.0016 in	Pin gages / MIL-STD-120
	Up to 1.0000 in	0.0003 in	Ball micrometer / MIL-STD-120
	Up to 3.0000 in	0.0003 in	Flat micrometer / MIL-STD-120
	Up to 1.000 in	0.0008 in	Point micrometer / MIL-STD-120
	Up to 6.000 in	0.0007 in	Caliper / MIL-STD-120
	Up to 1.000 in	0.0004 in	Dial indicator / MIL-STD-120
- 2D	Up to 7.5000 in	0.0005 in	Optical comparator / MIL-STD-120
- 3D	Up to 16.000 in	0.00014 in	CMM machine / MIL-STD-120

5301 Buckeystown Pike, Suite 350 | Frederick, Maryland 21704-8373 | Phone: 301 644 3248 | Fax: 301 662 2974 | www.A2LA.org

Parameter	Range	CMC[2] (±)	Technique / Method
Angle	Up to 360° Up to 360°	0.1° 0.01°	Optical comparator / MIL-STD-120 CMM machine / MIL-STD-120
Radii	(0.02 to 0.7600) in (0.02 to 0.7600) in	0.001 in 0.00032 in	Optical comparator / MIL-STD-120 CMM machine / MIL-STD-120

[1] This laboratory does not offer commercial dimensional testing/calibration services. These tests are not equivalent to that of a calibration.

[2]Calibration and Measurement Capability (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. Calibration and Measurement Capabilities 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.