



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

SEMBLEX CORPORATION - QA LABORATORY
Elmhurst, 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 2nd day of April 2009.

Peter Abney

President

For the Accreditation Council

Certificate Number 0794.01

Valid to April 30, 2011

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

SEMBLEX CORPORATION
QUALITY ASSURANCE LABORATORY
388 Carol Lane
Elmhurst, IL 60126
Guy West Phone: 630 617 2612

MECHANICAL

Valid To: April 30, 2011

Certificate Number: 0794.01

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

Hardness (Rockwell)

A, B, C, & N (15 & 30)

ASTM E18;

CHRYSLER MS-4515 (Section 2.41.2);

FORD WD/950 (Section 3.1), WD/951 (Section 4.1), WD/953 (Section 2.2/2.3);

GM 6010M (Section 4.1-4.3), 6109M and 6177M (Section 3.2), 6170M (Section 4.1);

SAE J417, J429 (Section 5.1/5.2), J1216 (Section 3.1/3.2)

Microhardness (Knoop)

ASTM E384 (Knoop); DIN 50-133, 50 150;

GM 6109M and 6177M (Section 3.1), 6170M (Section 4.2/4.3); SAE J423

Stress Durability (Hydrogen Embrittlement)

SAE J81 (Section 4.9)

Decarburization

FORD WD/952 (Section 4.1); ISO 898-5 Section 6.2.2/6.2.2.1/6.2.2.2; GM 6104M;

SAE J121, J419

Torsional Strength

ANSI B18.6.4 and 2.9.1.2; DIN 7513 Section 5.2.2, DIN EN ISO 2702 Section 6.2.2;

FORD WD/950 (Section 4.2), WD/951 (Section 4.4), WD/953 (Section 2.6);

GM 6010M (Section 3.5/4.4), 6170M (Section 4.5), 6171M (Section 3.6 and 4.5);

SAE J81 (Section 3, Table 5A); WI ENG 007

Sample Preparation

ASTM E3

Test**Test Methods**

Wedge Tensile

ASTM F606, F606M; EN20-898-1 Section 8.5;
SAE J429, J1216

Axial Tensile

ASTM F606, F606M; DIN 7513 Section 5.2.3;
SAE J429, J1216

Tension

ASTM E8, A370, F606, F606M

Ductility

FORD WD/951 (Section 3.3 and 4.5);
GM 6170M (Section 3.8), 6171M (Section
3.8/4.6); SAE J81 (Section 3.3.7 and 4.8)

Salt Spray

ASTM B117; ISO-9227; GMW 3286; USCAR-1

Plating Thickness

ASTM B568

Case Depth

CHRYSLER MS415 (Section 2.4.1.1/2.4.2.2);
DIN 50 190-1; GM 6010M (Section 4.2/4.3),
6171M (Appendix A); SAE J78

Drill Drive Testing

ANSI/ASME B18.6.4 and 2.91.1;
CHRYSLER MS415 (Section 2.6); DIN 7513
Section 5.2.1, DIN EN ISO 2702 Section 6.2.1;
FORD WD/952 (Section 4.3), WD/953 (Section
3.2); GM 6010M (Section 3.6), 6170M (Section
4.6), 6171M (Section 4.6)

Dimensional Testing

Parameter	Range	Best Uncertainty* (\pm)	Technique	Standards
Angle	0° to 360°	0.01' 14"	Optical Comparator	MIL-STD-120
Radius	(0 to 0.75) in	0.002 in	Optical Comparator	MIL-STD-120
External Threads – Thread Pitch Die Thread Accept	(0.17 to 0.28) in	0.0002 in	Tri-Rolls Ring Gages	MIL-STD-120

Dimensional Testing (continued)

Length	(0 to 1) in	0.0002 in	Micrometers	MIL-STD-120
	(0.2 to 1) in	0.0002 in	Tri-micrometer	
	(0.2 to 1) in	0.002 in	Penta - Micrometer	
	(0 to 1) in	0.002 in	Pitch Micrometer	
	(0 to 1) in	0.001 in	Digital Caliper	
	(0 to 6) in	0.001 in	Dial Caliper	
	(0 to 2) in	0.002 in	Dial Indicator	
	(0 to 0.5) in	0.0002 in	Depth Gage	
	(0 to 2) in	0.001 in	Digital Head Height	
	(0 to 7) in	0.0006 in	Optical Comparator X- Axis	
	(0 to 4) in	0.0006 in	Y-Axis	

*“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 testing is performed in the field) and to influences from the circumstances of the specific test.