



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board/AClass
500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

NSL Central Testing, LLC.
5265 Transportation Boulevard
Cleveland, OH 44125

has been assessed by AClass
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field(s) of

TESTING

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1495

Certificate Number

AClass Approval

Certificate Valid: 10/29/2010-10/29/2012
Version No. 001 Issued: 10/29/2010



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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 January 2009*).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

NSL Central Testing, LLC.

5265 Transportation Boulevard, Cleveland, OH 44125
Kevin Holland Phone: 216-475-9000

TESTING

Valid to: October 29, 2012

Certificate Number: AT - 1495

Table with 5 columns: FIELD OF TEST, ITEMS, MATERIALS OR PRODUCTS TESTED, SPECIFIC TESTS OR PROPERTIES MEASURED, SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED, *DETECTION LIMIT/ RANGE/ EQUIPMENT. Rows include Mechanical tests for Metallic Materials, Metallic Fasteners, and Bend Testing.





FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*DETECTION LIMIT/ RANGE/ EQUIPMENT
Mechanical	Metallic Materials	Hardness – Rockwell Hardness	ASTM E18, NASM 1312-6	Wilson & LECO
Metallography	Metallic Materials	Macroetch, steel bars, billets, blooms, and forgings	ASTM E381	n/a
Metallography	Metallic Materials	Metallography (Macro)	ASTM E340	n/a
Metallography	Titanium Alloys	Metallography – Alpha Case	ASTM E3, ASTM E407, PWA E142, AMS T9046	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Ferrous Alloys	Decarburization	ASTM E3, ASTM E384	Wilson Tukon 300 FM ≤ 1000 g
Metallography	Metallic Fasteners	Decarburization	SAE J121	Wilson Tukon 300 FM ≤ 1000 g
Metallography	Metallic Materials	Effective Case Depth	ASTM E18, ASTM E384	Wilson Tukon 300 FM ≤ 1000 g
Metallography	Metallic Materials	Delta Ferrite	AMS 2315	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Metallic Materials	Grain Size	ASTM E112, E930	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Metallic Materials	IGA/IGO	ASTM E3, F2111	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Metallic Materials	Inclusion Rating / Cleanliness	ASTM E45	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X





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Metallography	Metallic Materials	Macroetching	ASTM E3, ASTM E340, ASTM E381	n/a
Metallography	Metallic Materials	Measurement of Metallic and Oxide Coating Thickness by Microscopical Examination of a Cross Section	ASTM B487	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Ferrous Alloys	Measuring Case Depth	SAE J423	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Corrosion	Metallic Materials	Intergranular Attack in Austenitic Stainless Steels	ASTM A262 Practice E	n/a
Metallography	Metallic Materials	Microetching	ASTM E407	n/a
Metallography	Ferrous Alloys	Microscopic Determination of Inclusions in Steels	SAE J422	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Metallic Materials	Sample Preparation	ASTM E3	n/a
Metallography	Steel Screws	Steel Self-Tapping Screws Case Depth	SAE J78	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X
Metallography	Metallic Materials	Microhardness - Alloy Depletion	ASTM E1077 / ASTM F2328	Wilson Tukon 300 FM ≤ 1000 g
Metallography	Metallic Materials	Microhardness - Knoop	ASTM E384	Wilson Tukon 300 FM ≤ 1000 g





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Metallography	Metallic Materials	Microhardness - Vickers	ASTM E384	Wilson Tukon 300 FM ≤ 1000 g
Metallography	Metallic Materials	Plating Thickness / Thickness of Metallic Coatings	ASTM B487 NASM 1212-12	Nikon Optiphot 50X – 1,250X Unitron Unimet 50X – 1,000X

Notes:

- * = As Applicable
- This scope is part of and must be included with the Certificate of Accreditation No. AT-1495

Vice President

