



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Accu-Test Labs

6722 Guhn Rd., Houston, TX 77040

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Chemical, Mechanical, Metallurgical, and Non-destructive Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Initial Accreditation Date:

October 12, 2015

Issue Date:

October 11, 2021

Expiration Date:

January 31, 2024

Revision Date:

September 30, 2022

Accreditation No.:

87082

Certificate No.:

L21-608-R1

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjllabs.com.



Certificate of Accreditation: Supplement

Accu-Test Labs

6722 Guhn Rd., Houston, TX 77040
 Contact Name: Ashley Shelfer Phone: 713-460-3655

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Chemical ^F	Carbon and Alloy, Stainless Steel, Nickel Alloy, Aluminum, Cast Iron, Cobalt Alloy	Elemental Composition by Optical Emission Spectroscopy	ASTM A751	C, Mn, P, S, Si, Cr, Mo, Ni, Cu, Co, Nb, V, Al, Ti, Pb, B, Fe, Sn, W, Mg, Ca
	Steel, Iron, Nickel, and Cobalt Alloy	Elemental Composition by Combustion	ASTM E1019	C: 0.005 % to 4.5 %
				S: 0.000 4 % to 0.011 %
				N: 0.001 % to 0.4 %
				O: 0.001 % to 0.012 1 %
H: 0.000 1 % to 0.001 %				
Mechanical ^F	Metallic Materials - Charpy Impact	Energy Absorbed (Ft•lbs) Percentage Shear Fracture Lateral Expansion	ASTM A370	270 lb
				400 lb
	Metallic Materials - Hardness	Brinell Hardness Vickers Hardness Rockwell Hardness	ASTM E10 ASTM E384 ASTM E18	3 000 kgf 178 HBW to 400 HBW
				107 HV to 940 HV
				22 HRC to 63 HRC 46 HRBW to 92 HRBW 74 HR15N to 90 HR15N
	Metallic Materials - Tensile	Tensile Strength, Yield Strength, Elongation Reduction of Area	ASTM A370	Load Cell Capacity: 18 000 lbf
				Load Cell Capacity: 60 000 lbf
				Load Cell Capacity: 120 000 lbf
				Load Cell Capacity: 200 000 lbf
	Load Cell Capacity: 400 000 lbf			
Metallic Materials - Bend	Bend Test	API 1104, ASME IX, ABS Rules, DNV Rules, ISO 15614-1, ASTM A370, AWS B4.0, AWS D1.1, AWS D1.2, AWS D1.5, AWS D1.6, ISO 5173	½" to 3 ½" Mandrel	



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Mechanical ^F	Fracture Toughness	Crack Tip Opening Displacement (CTOD)	BS 7448 Part 1 & Part 2, ISO 12135 & 15653, ASTM E1820	Specimen Geometry: SEN(B), C(T) Test Temperatures: -40°F to +72°F Loads: 400 lbf to 100 000 lbf	
		J-Integral (J _{IC})			
	Metallic Materials – Fracture Toughness	KIC	ASTM E399	Specimen Geometry: SEN(B), C(T) Test Temperatures: -40 °F to +72 °F Loads: 400 lbf to 100 000 lbf	
Mechanical (Metallurgical) ^F	Metallic Materials	Grain Size (Comparison),	ASTM E112	Visual Evaluation	
		Inclusion Content,	ASTM E45		
		Microstructure,	ASTM E407		
		Macrostructure,	ASTM E340		
		Sample Preparation, and	ASTM E3		
		Ferrite Point Count	ASTM E562		
	Susceptibility to Intergranular Attack in Austenitic Stainless Steels			ASTM A262 Practice A	Visual Evaluation
				ASTM A262 Practice B	Weight loss to the nearest .0 001g
				ASTM A262 Practice C	
				ASTM A262 Practice E	Visual Evaluation
	Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels			ASTM A923 Method A	Weight loss to the nearest .0 001g
				ASTM A923 Method C	
	Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution			ASTM G48 Method A	
Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys			ASTM G28 Method A		



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Non-Destructive ^F	Metallic Materials	Ultrasonic Testing	API 6A, API 17D, ASTM A388, ASTM E114, ASTM E127, ASTM E213, ASME V – Article 5	Detection limits are based on method used, type and grade of material to be examined.
		Magnetic Particle Testing	API 6A, API 17D, ASTM E709, ASTM E1444, ASME V – Article 7	D.L. = 1/64 in minimum
		Liquid Penetrant Testing	API 6A, API 20E, API 20F, API 16C, ASTM E165, ASTM E1417, ASTM A962, ASME V – Article 6	D.L. = 1/64 in minimum

- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this testing at its fixed location.