



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Chromalloy-ECOE

3999 RCA Blvd.

Palm Beach Gardens, FL 33410

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

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AT-1851

Certificate Number


ANAB Approval

Certificate Valid Through: 03/19/2022
Version No. 006 Issued: 02/27/2020



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



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SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Chromalloy-ECOE

3999 RCA Blvd.

Palm Beach Gardens, FL 33410

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TESTING

Valid to: **March 19, 2022**

Certificate Number: **AT-1851**

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Rockwell Hardness	ASTM E18	All base materials / coatings	Macro hardness tester
Knoop and Vickers Hardness	ASTM E384	All base materials / coatings	Micro hardness tester
Grain Size	ASTM E112, ASTM E1382	All base materials	Optical Light Microscope Image Analysis Software
Coating Thickness	ASTM B487	All coatings	Optical Light Microscope Image Analysis Software
Failure Analysis	ASM Metal Handbook, 9 th Ed., Vol 11 Scope Listed Methods	All engine components	All metallurgy lab equipment
Preparation of Metallographic Specimens	ASTM E3	All engine components	Mounting presses Grinding/Polishing stations Etching hood
Elemental Analysis by Energy Dispersive Spectroscopy	ASTM E1508	All base materials/coatings	Scanning Electron Microscope Energy Dispersive Spectroscopy
Digital Microscope Photomicroscopy	Photometric Methods	All Components	Digital Microscope
Optical Light Photomicroscopy	ASTM E883	All base materials / coatings	Optical Light Microscope
SEM Photomicroscopy	Photometric Methods	All Components	Scanning Electron Microscope
Modal Analysis ³	Customer Specified Method	All Engine / Turbine Components	Dynamic Signal Analyzer Laser Vibrometer
Component Weight	Standard Method	All Engine / Turbine Components	Scales
Surface Roughness	ISO 1562	All Engine / Turbine Components	Surface Roughness Gauge



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Mechanical

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Airflow Testing ¹	Customer Agreed-Upon Method	All Engine / Turbine Components	Commercial Flow Benches

Dimensional Testing

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
CMM	Up to (39 x 78 x 39) in Up to (1 x 2 x 1) m	(200 + 32L) μ in	Bridge CMM, ECoE-T-751-0007
Optical Scanning ¹	100 mm Lenses set 170 mm Lenses set 320 mm Lenses set 560 mm Lenses set	(608 + 29L) μ in (450 + 34L) μ in (775 + 12L) μ in (1330 + 19L) μ in	GOM ATOS III Blue light optical scanner, ECoE-T-751-0005

Note:

1. These tests are available as field services.
2. Customers may request method modification and/or acceptance criteria other than those specified by the standards. In these cases, the test methods will be followed using the customer specified modifications and criteria. Notation of the deviations will be made on the test reports.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1851.

Vice President