LABORATORY ACCREDITATION BUREAU a division of A-S-B

Certificate of Accreditation

ISO/IEC 17025:2005 **Certificate Number L2128**

Secat, Inc.

1505 Bull Lea Road
Lexington KY 40511

has met the requirements set forth in L-A-B's policies and procedures, all requirements of ISO/IEC 17025:2005 "General Requirements for the competence of Testing and Calibration Laboratories".*

The accredited lab has demonstrated technical competence to a defined "Scope of Accreditation" and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

Accreditation valid through: December 12, 2017

R. Douglas Leonard, Jr., President, COO
Laboratory Accreditation Bureau
Presented the 12th of December 2014

*See the laboratory's Scope of Accreditation for details of accredited parameters
**Laboratory Accreditation Bureau is found to be in compliance with ISO/IEC 17011:2004 and recognized by ILAC (International Laboratory Accreditation Cooperation) and NACLA (National Cooperation for Laboratory Accreditation).
Form 28.1 – Rev 1 7/3/13

LABORATORY ACCREDITATION BUREAU

Certificate # L2128

Scope of Accreditation For Secat, Inc.

1505 Bull Lea Road
Lexington, KY 40511
Shridas Ningileri
859-514-4989

In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **Secat, Inc.** to perform the following tests:

Accreditation granted through: **December 12, 2017**

Testing - Mechanical

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Yield Strength, Ultimate Tensile Strength, Elongation	up to 20 000 lbs uniaxial	ASTM E8 / E8M ASTM B557 ASTM A370 AWS B2.1 ASTM E345	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Tensile Strain Hardening Exponent (n)	up to 20 000 lbs uniaxial	ASTM E646	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Plastic Strain Ratio (r) for Sheet Metal	up to 20 000 lbs uniaxial	ASTM E517	Requires Sheet Geometry	
Poisson's Ratio	up to 20 000 lbs uniaxial	ASTM E132	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	Room Temperature

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Young's Modulus	up to 20 000 lbs uniaxial	ASTM E111	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Microhardness	Knoop, Vickers	ASTM E384	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Rockwell	HRC HRB W HRH	ASTM A370 ASTM E18	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Superficial Rockwell	HR 30N HR 30T W	ASTM A370 ASTM E18	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Electrical Conductivity	Aluminum Aluminum Alloys	ASTM E1004	Al based Alloys	Eddy Current
Forming Limit Curves	up to 4 mm for Al up to 2 mm for Steel	ASTM E2218	Sheet Materials	
Failure Analysis		WI-MC-27	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	

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Testing - Chemical

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Optical Emission Spectroscopy (OES)		ASTM E1251	Al based Alloys in Chill Cast Disk, Casting, Foil, Sheet, Plate, Extrusion or some other Wrought Form or Shape	Aluminum Aluminum Alloys
Scanning Electron Microscopy with Energy Dispersive X-Ray Analysis (SEM-EDS)	Max Sample Size: 5 in x 5 in High Vacuum Low Vacuum	WI-MC-1	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	Back Scattered Secondary Electrons EDS

Notes:

1) This laboratory offers commercial testing service.

Approved by: _____ Date: April 3, 2017

R. Douglas Leonard
Chief Technical Officer

Re-Issued: 12/12/14 Revised: 1/4/16 Revised: 4/3/17