

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SMALL TUBE PRODUCTS, LLC 200 Oliphant Drive Duncansville, PA 16635 Elizabeth Malone Phone: 814 693 6024

MECHANICAL

Valid To: April 30, 2025

Certificate Number: 0372.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on <u>metals and alloys</u>:

| Test | Test Method(s) | |
|--|----------------------------------|--|
| Conductivity | ASTM E1004 | |
| Expansion | ASTM B153; ISO 8493 | |
| Flattening | ASTM B111, B968 | |
| Hardness: Vickers (500 gf) Rockwell (B, C, F, 15T, 30T) | ASTM E384; EN 6507-1 ASTM E18 | |
| Metallography: Grain Size Comparison Method Planimetric Method | ASTM E112; ISO 2624 | |
| Residual Stress | ASTM B154 | |
| Tensile Testing: Tensile Strength, Yield Strength, % Elongation | ASTM E8/E8M | |
| Chemical O.E.S. (Ag, Al, As, Bi, C, Cu, Fe, Mg, Mn, Ni, P, Pb, S, Si, Sn, Zn) | EN 15079 | |

An-

I. Dimensional Testing¹

| Parameter | Range | $\mathrm{CMC}^{2}\left(\pm\right)$ | Technique / Standard |
|--------------------------|---------------------------|------------------------------------|--------------------------|
| Length - 1D ³ | Up to 6 in Up to 40 in | 0.0018 in 0.0024 in | Caliper / MIL-STD-120 |
| | Up to 1 in (1 to 3) in | 0.0004 in 0.0014 in | Micrometer / MIL-STD-120 |
| | Up to 1 in | 0.0012 in | Plug gage / MIL-STD-120 |

¹ This laboratory offers limited commercial dimensional testing services.

² Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine measurements of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of k = 2. The actual measurement uncertainty of a specific measurement performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific measurement.

³ These tests are not equivalent to that of a calibration.

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Accredited Laboratory

A2LA has accredited

SMALL TUBE PRODUCTS, LLC

Duncansville, PA

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 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 April 2017).



Presented this 23rd day of March 2023.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 0372.01 Valid to April 30, 2025