CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

AMETEK Commercial Enterprise (Shanghai) Co., Ltd.
1/F, Building No. 2, 188 Pingfu Road
Juxin Information Technology Park, Xuhui District
Shanghai 200231 China

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 25 January 2028

Certificate Number: L1147.07-1

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).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

AMETEK Commercial Enterprise (Shanghai) Co., Ltd.

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CALIBRATION

ISO/IEC 17025 Accreditation Granted: **22 January 2026**

Certificate Number: **L1147.07-1** Certificate Expiry Date: **25 January 2028**

Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM): Volumetric Performance	(0 to 2.2) m	3.5 µm	ASME B89.4.22-2004 at 5.2, 5.3 and 5.4 using Kinematic Scale Bar
Effective Diameter	(3 to 25.4) mm	1.0 µm	Test Sphere
Articulated Arm Coordinate Measurement Machine (AACMM): Probing Size Error (PSize)	Working Volume: 1.5 m 2.0 m 2.5 m 3.0 m 3.5 m 4.0 m	 2.2 µm 2.2 µm 2.8 µm 6.4 µm 7.8 µm 11 µm	ISO 10360-12:2016 at 6.2 using 25.4 mm Test Sphere
Articulated Arm Coordinate Measurement Machine (AACMM): Probing Form Error (PForm)	Working Volume: 1.5 m 2.0 m 2.5 m 3.0 m 3.5 m 4.0 m	 2.1 µm 2.1 µm 2.4 µm 3.7 µm 3.7 µm 5.3 µm	ISO 10360-12:2016 at 6.2 using 25.4 mm Test Sphere

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Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM): Articulated Location Error (LDia)	Working Volume: 1.5 m 2.0 m 2.5 m 3.0 m 3.5 m 4.0 m	 7.5 µm 7.5 µm 8.7 µm 11 µm 17 µm 18 µm	ISO 10360-12:2016 at 6.3 using 25.4 mm Test Sphere
Articulated Arm Coordinate Measurement Machine (AACMM): Length Measurement Error, Unidirectional (EUni)	(0 to 1.05) m (0 to 1.36) m (0 to 1.8) m (0 to 2.11) m (0 to 2.42) m (0 to 2.64) m	3.1 µm 3.7 µm 4.0 µm 5.7 µm 6.4 µm 8.4 µm	ISO 10360-12:2016 at 6.4 using Kinematic Scale Bar
Articulated Arm Coordinate Measuring Machines (AACMM) with Optical Distance Sensors: Articulated Location Value	 Sphere Diameter: 50.8 mm	 4.4 µm	Based on ISO 10360-08:2013 Annex D by comparison to Test Sphere
Laser Line Probe (LLP): Diameter Z Distance/Position	 Cylinder Diameter: 25.4 mm 25.4 mm 25.4 mm (75 to 360) mm (80 to 230) mm	 1.9 µm 3.8 µm 7.0 µm 1.4 µm 2.9 µm	Internal Procedure by comparison to Reference Glass Cylinder Reference Aluminum Cylinder Reference Ceramic Cylinder Reference Distance/ Position Fixture
Articulated Arm Coordinate Measurement Machine (AACMM) with the Axis of a Rotary Table (Turntable) as the 8th Axis	Sphere Diameter: 25.4 mm	5.2 µm	Center to Center Distance Measurements using Reference Sphere

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Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2]	Reference Standard, Method, and/or Equipment
Faro Laser Tracker: Ranging Length Measurement	(0.04 to 25) m	(2 + 0.4*L*) µm	ASME B89.4.19-2006 using Reference Laser Tracker
FARO Laser Tracker: Orientation Error of Six-DOF Probe	(2.5 to 10) m	2.0 µm	ISO 10360-10:2016

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. L = Length in meters, X = the perpendicular distance from the tracker to the space frame.

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