

#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### ANTON PAAR USA, INC. 10215 Timber Ridge Drive Ashland, VA 23005

Darren Wilson Phone: 804 550 1051

#### **CALIBRATION**

Valid To: June 30, 2026 Certificate Number: 2697.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with A2LA's Calibration Program Requirements), accreditation is granted to this laboratory and to the noted satellite locations to perform the following calibrations<sup>1</sup>:

#### I. Fluid Quantities

Parameter/Equipment	Range	CMC <sup>2, 4</sup> (±)	Comments
Viscosity <sup>3</sup> –			
Kinematic (SVM) (20 to 40) °C	< 10 mm <sup>2</sup> /s (10 to 100) mm <sup>2</sup> /s (> 100 to 1000) mm <sup>2</sup> /s (> 1000 to 10 000) mm <sup>2</sup> /s (> 10 000 to 100 000) mm <sup>2</sup> /s	0.25 % 0.33 % 0.42 % 0.55 % 0.63 %	USQ04AW04 or USQ04AW05 — internal calibration procedure  Note: calibration typically performed at 40 °C
Dynamic (MCR) 20 °C	(1350 to 1650) mPa·s	13 mPa·s	USQ04AW03 – note: calibration typically
25 °C	(990 to 1210) mPa·s	12 mPa·s	performed at 20 °C.
Dynamic (ViscoQC) (15 to 30) °C	(450 to 600) mPa·s (4400 to 6200) mPa·s (27 000 to 36 000) mPa·s	4.2 mPa·s 42 mPa·s 220 mPa·s	USQ04AW06 internal calibration procedure

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Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Density with U-Tube Technology <sup>3</sup> –	(650 - 1000) 1 / 3	0.071 / 3	
(15 to 40) °C	(650 to 1800) kg/m <sup>3</sup>	0.05 kg/m <sup>3</sup>	USQ04AW01 or USQ04AW02 – internal calibration procedure
			Note: calibration typically performed at 20 °C

#### ANTON PAAR USA, INC. South Region 3955 World Houston Pkwy, Ste I-70 Houston, TX 77032

Darren Wilson Phone: 804 550 1051

## I. Fluid Quantities

Parameter/Equipment	Range	CMC <sup>2, 4</sup> (±)	Comments
Viscosity <sup>3</sup> –			
Kinematic (SVM) (20 to 40) °C	< 10 mm <sup>2</sup> /s (10 to 100) mm <sup>2</sup> /s (> 100 to 1000) mm <sup>2</sup> /s (> 1000 to 10 000) mm <sup>2</sup> /s (> 10 000 to 100 000) mm <sup>2</sup> /s	0.25 % 0.33 % 0.42 % 0.55 % 0.63 %	USQ04AW04 or USQ04AW05 – internal calibration procedure
			Note: calibration typically performed at 40 °C
Dynamic (MCR) 20 °C	(1350 to 1650) mPa·s	13 mPa·s	USQ04AW03 – note: calibration
25 °C	(990 to 1210) mPa·s	12 mPa·s	typically performed at 20 °C.
Dynamic (ViscoQC) (15 to 30) °C	(450 to 600) mPa·s (4400 to 6200) mPa·s (27 000 to 36 000) mPa·s	4.2 mPa·s 42 mPa·s 220 mPa·s	USQ04AW06 internal calibration procedure
Density with U-Tube Technology <sup>3</sup> –			
(15 to 40) °C	(650 to 1800) kg/m <sup>3</sup>	$0.05 \text{ kg/m}^3$	USQ04AW01 or USQ04AW02 – internal calibration procedure
			Note: calibration typically performed at 20 °C

ANTON PAAR USA, INC.
Central Region
50 Lakeview Pkwy
Suites 116 – 117
Vernon Hills, IL 60006

Darren Wilson Phone: 804 550 1051

## I. Fluid Quantities

Parameter/Equipment	Range	CMC <sup>2, 4</sup> (±)	Comments
Viscosity <sup>3</sup> –  Kinematic (SVM) (20 to 40) °C	< 10 mm <sup>2</sup> /s (10 to 100) mm <sup>2</sup> /s (> 100 to 1000) mm <sup>2</sup> /s (> 1000 to 10 000) mm <sup>2</sup> /s (> 10 000 to 100 000) mm <sup>2</sup> /s	0.25 % 0.33 % 0.42 % 0.55 % 0.63 %	USQ04AW04 or USQ04AW05 — internal calibration procedure Note: calibration typically performed at 40 °C
Dynamic (MCR) 20 °C 25 °C Dynamic (ViscoQC) (15 to 30) °C	(1350 to 1650) mPa·s (990 to 1210) mPa·s (450 to 600) mPa·s (4400 to 6200) mPa·s (27 000 to 36 000) mPa·s	13 mPa·s 12 mPa·s 4.2 mPa·s 42 mPa·s 220 mPa·s	USQ04AW03 — note: calibration typically performed at 20 °C.  USQ04AW06 internal calibration procedure
Density with U-Tube Technology <sup>3</sup> – (15 to 40) °C	(650 to 1800) kg/m <sup>3</sup>	0.05 kg/m <sup>3</sup>	USQ04AW01 or USQ04AW02 – internal calibration procedure Note: calibration typically performed at 20 °C

#### ANTON PAAR USA, INC. West Region 2824 Columbia St Torrance, CA 90503

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## I. Fluid Quantities

Parameter/Equipment	Range	CMC <sup>2, 4</sup> (±)	Comments
Viscosity <sup>3</sup> –			
Kinematic (SVM) (20 to 40) °C	< 10 mm <sup>2</sup> /s (10 to 100) mm <sup>2</sup> /s (> 100 to 1000) mm <sup>2</sup> /s (> 1000 to 10 000) mm <sup>2</sup> /s (> 10 000 to 100 000) mm <sup>2</sup> /s	0.25 % 0.33 % 0.42 % 0.55 % 0.63 %	USQ04AW04 or USQ04AW05 — internal calibration procedure  Note: calibration
			typically performed at 40 °C
Dynamic (MCR) 20 °C	(1350 to 1650) mPa·s	13 mPa·s	USQ04AW03 – note: calibration
25 °C	(990 to 1210) mPa·s	12 mPa·s	typically performed at 20 °C.
Dynamic (ViscoQC)	(450 to 600) mPa·s	4.2 mPa·s	USQ04AW06 internal
(15 to 30) °C	(4400 to 6000) mPa·s (4400 to 6200) mPa·s (27 000 to 36 000) mPa·s	42 mPa·s 220 mPa·s	calibration procedure
Density with U-Tube Technology <sup>3</sup> –			
(15 to 40) °C	(650 to 1800) kg/m <sup>3</sup>	0.05 kg/m <sup>3</sup>	USQ04AW01 or USQ04AW02 – internal calibration procedure
			Note: calibration typically performed at 20 °C

## ANTON PAAR Canada 2920 Rue de Miniac Montreal, Quebec, H4S 1N5

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## I. Fluid Quantities

Parameter/Equipment	Range	CMC <sup>2, 4</sup> (±)	Comments
Viscosity <sup>3</sup> –			
Kinematic (SVM) (20 to 40) °C	< 10 mm <sup>2</sup> /s (10 to 100) mm <sup>2</sup> /s (> 100 to 1000) mm <sup>2</sup> /s (> 1000 to 10 000) mm <sup>2</sup> /s (> 10 000 to 100 000) mm <sup>2</sup> /s	0.25 % 0.33 % 0.42 % 0.55 % 0.63 %	USQ04AW04 or USQ04AW05 – internal calibration procedure
			Note: calibration typically performed at 40 °C
Dynamic (MCR) 20 °C	(1350 to 1650) mPa·s	13 mPa·s	USQ04AW03 – note: calibration
25 °C	(990 to 1210) mPa·s	12 mPa·s	typically performed at 20 °C.
Dynamic (ViscoQC)			
(15 to 30) °C	(450 to 600) mPa·s (4400 to 6200) mPa·s (27 000 to 36 000) mPa·s	4.2 mPa·s 42 mPa·s 220 mPa·s	USQ04AW06 internal calibration procedure
Density with U-Tube Technology <sup>3</sup> –			
(15 to 40) °C	(650 to 1800) kg/m <sup>3</sup>	0.05 kg/m <sup>3</sup>	USQ04AW01 or USQ04AW02 – internal calibration procedure
			Note: calibration typically performed at 20 °C

<sup>1</sup> This laboratory offers commercial calibration service and field calibration service.

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<sup>&</sup>lt;sup>2</sup> Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs 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 calibration 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 calibration.

<sup>&</sup>lt;sup>3</sup> Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g., resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

<sup>&</sup>lt;sup>4</sup> In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.



# **Accredited Laboratory**

A2LA has accredited

## ANTON PAAR USA, INC.

Ashland, VA

for technical competence in the field of

## Calibration

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 laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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 26th day of September 2024.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 2697.01

Valid to June 30, 2026