PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Mass Flow Technology, Inc.

3523 North Highway 146, Baytown, TX 77520

(Hereinafter called the Organization) and hereby declares that Organization 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
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Laboratory and Field Calibration of Flow, Pressure and Temperature Indicating and Recording Devices

(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
June 3, 2003	January 27, 2021	December 31, 2023
Revision Date:	*Accreditation No.:*	*Certificate No.:*
January 27, 2021	29291	L20-113-1-R1

Tracy Szerszen
President

Perry Johnson Laboratory Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com

Certificate of Accreditation: Supplement

Mass Flow Technology, Inc.
3523 North Highway 146, Baytown, TX 77520
Contact Name: Eddie Dailey Phone: 281-427-7284

Accreditation is granted to the facility to perform the following calibrations:

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Flow Measurement Devices – Water and Process- Mass and/ or Volume – Coriolis, Magnetic, Vortex, Turbine, Rotameters, Paddle Wheels [F]	3.18 kg/min to 113 kg/min (7 lb/min to 250 lb/min) 3.18 l/min to 113 l/min (0.84 gal/min to 30 gal/min)	0.07 % of Reading	SSF-3K Gravimetric Flow Calibration System – Static Start-Stop Method (Mettler Toledo KCC150 Scale) OM400-8, OM400-9 OM400-11
	0.16 kg/min to 3.18 kg/min (0.35 lb/min to 7 lb/min) 0.16 l/min to 3.18 l/min (0.042 gal/min to 0.839 gal/min)	0.07 % of Reading	SSF-3K Gravimetric Flow Calibration System – Static Start-Stop Method (Mettler Toledo PL3002 Scale)' OM400-8, OM400-9 OM400-11
	113 kg/min to 1 360 kg/min (250 lb/min to 3 000 lb/min) 113 l/min to 1 360 l/min (30 gal/min to 360 gal/min)	0.07 % of Reading	SSF-3K Gravimetric Flow Calibration System – Static Start-Stop Method (Mettler Toledo KE1500 Scale) OM400-8, OM400-9 OM400-11
	22.7 kg/min to 227 kg/min (50 lb/min to 500 lb/min) 22.7 l/min to 227 l/min (6 gal/min to 60 gal/min)	0.1 % of Reading	TSM-3.5K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF100 OM400-8, OM400-9 OM400-11
	227 kg/min to 2 270 kg/min (500 lb/min to 5 000 lb/min) 227 l/min to 2 270 l/min (60 gal/min to 600 gal/min)	0.1 % of Reading	TSM-3.5K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM2: MMI CMF300 OM400-8, OM400-9 OM400-11
	454 kg/min to 3 400 kg/min (1 000 lb/min to 7 500 lb/min) 454 l/min to 3400 l/min (120 gal/min to 900 gal/min)	0.1 % of Reading	TSM-15K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF400 or TSM2: MMI CMF400 OM400-13
	3 400 kg/min to 6 800 kg/min (7 500 lb/min to 15 000 lb/min) 3 400 l/min to 6 800 l/min (900 gal/min to 1 800 gal/min	0.1 % of Reading	TSM-15K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF400 plus TSM2: MMI CMF400 OM400-13

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Mechanical

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Flow Measurement Devices – Water and Process- Mass and/ or Volume – Coriolis, Magnetic, Vortex, Turbine, Rotameters, Paddle Wheels [F]	113 kg/min to 1 130 kg/min (250 lb/min to 2 500 lb/min) 113 l/min to 1 130 l/min (30 gal/min to 300 gal/min)	0.1 % of Reading	TSM-4K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF200 OM 400-11, OM 400-12
	227 kg/min to 2 270 kg/min (500 lb/min to 5 000 lb/min) 2 27 l/min to 2 270 l/min (60 gal/min to 600 gal/min)	0.1 % of Reading	TSM-4K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF300 OM 400-11, OM 400-12
	454 kg/min to 4 540 kg/min (1 000 lb/min to 10 000 lb/min) 454 l/min to 4 540 l/min (120 gal/min to 1 200 gal/min)	0.1 % of Reading	TSM-4K Transfer Standard Flow Calibration System – Dynamic Comparison Method TSM1: MMI CMF400 OM 400-11, OM 400-12
Pressure Gauges and Pressure Transmitters [FO]	0.00 35 bar to 2.07 bar (0.05 psi to 30 psig)	0.001 bar (0.015 psig)	Fluke 744 w/700P05 Pressure module OM 400-4
	1.7 bar to 690 bar (24 psi to 10 000 psig)	0.55 bar (8 psig)	Fluke-744 w/700P31 Pressure module OM 400-4
	0.69 bar to 207 bar (10 psi to 3 000 psig)	0.17 bar (2.4 psig)	Fluke-744 w/700P29 Pressure module OM 400-4
	0.89 bar to 13.8 bar (-13 psi to 200 psig)	0.01 bar (0.14 psig)	Fluke 744 w/700PD7 Pressure module OM 400-4

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Accreditation is granted to the facility to perform the following calibrations:

Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type J [FO]	0 °C to 1 200 °C	1 °C	Electrical Simulation of Thermocouple Output Fluke 744 OM 400-6
Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type K [FO]	0 °C to 1 370 °C	1 °C	
Temperature Calibration, Indication, and Control Equipment used with Thermocouple Type E [FO]	0 °C to 950 °C	1 °C	
Temperature Calibration, Indication, and Control Equipment used with 100 Ohm Pt (385) RTD[FO]	0 °C to 800 °C	1 °C	Electrical Simulation of Thermocouple Output Fluke 744 OM 400-5

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor *k* (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.

2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.

3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer[F] would mean that the laboratory performs this calibration at its fixed location.

4. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer[FO] would mean that the laboratory performs this calibration at its fixed location and onsite at customer locations.

5. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.