

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):

Electrical and Mechanical Calibration (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:

Tracy Szerszen President

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

 Initial Accreditation Date:
 Issue Date:

 June 03, 2003
 January 22, 2024

 Accreditation No.:
 Certificate No.:

 29291
 L24-64

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: <u>www.pjlabs.com</u>

Expiration Date:

January 31, 2026



Certificate of Accreditation: Supplement

Mass Flow Technology, Inc.

3523 North Highway 146, Baytown, TX 77520 Contact Name: Mr. Eddie Dailey Phone: 281-802-7967

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,	3.18 kg/min to 113 kg/min (7 lb/min to 250 lb/min) 3.18 1/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				
Turbine, Rotameters, Paddle Wheels ^F	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				
	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) OM40z				
	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				
	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				
	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				
	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				



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Mechanical						
RANGE OR NOMINAL DEVICE SIZE AS	CALIBRATION AND	CALIBRATION				
APPROPRIATE	MEASUREMENT	EQUIPMENT				
	CAPABILITY EXPRESSED	AND REFERENCE				
	AS AN UNCERTAINTY (\pm)	STANDARDS USED				
113 kg/min to 1 130 kg/min	0.1 % of Reading	TSM-4K Transfer Standard Flow				
(250 lb/min to 2 500 lb/min)		Calibration System – Dynamic				
113 l/min to 1 130 l/min		Comparison Method				
(30 gal/min to 300 gal/min)		TSM1: MMI CMF200 OM 400				
227 kg/min to 2 270 kg/min	0.1 % of Reading	TSM-4K Transfer Standard Flow				
(500 lb/min to 5 000 lb/min)		Calibration System – Dynamic				
2 27 1/min to 2 270 1/min		Comparison Method				
(60 gal/min to 600 gal/min)		TSM1: MMI CMF300 OM 400				
454 kg/min to 4 540 kg/min	0.1 % of Reading	TSM-4K Transfer Standard Flow				
(1 000 lb/min to 10 000 lb/min)	_	Calibration System – Dynamic				
454 l/min to 4 540 l/min		Comparison Method				
(120 gal/min to 1 200 gal/min)		TSM1: MMI CMF400 OM 400				
0.00 35 bar to 2.07 bar	0.001 bar	Fluke 744 w/700P05				
(0.05 psi to 30 psig)	(0.015 psig)	Pressure module				
		OM 400				
1.7 bar to 690 bar	0.55 bar	Fluke-744 w/700P31				
(24 psi to 10 000 psig)	(8 psig)	Pressure module				
		OM 400				
0.69 bar to 207 bar	0.17 bar	Fluke-744 w/700P29				
(10 psi to 3 000 psig)	(2.4 psig)	Pressure module				
		OM 400				
0.89 bar to 13.8 bar	0.01 bar	Fluke 744 w/700PD7				
(-13 psi to 200 psig)	(0.14 psig)	Pressure module				
		OM 400				
	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE 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) 227 kg/min to 2 270 kg/min (500 lb/min to 5 000 lb/min) 2 27 l/min to 2 270 kg/min (60 gal/min to 5 000 lb/min) 2 27 l/min to 2 270 l/min (60 gal/min to 600 gal/min) 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) 0.00 35 bar to 2.07 bar (0.05 psi to 30 psig) 1.7 bar to 690 bar (24 psi to 10 000 psig) 0.69 bar to 207 bar (10 psi to 3 000 psig) 0.89 bar to 13.8 bar (-13 psi to 200 psig)	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATECALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm) 113 kg/min to 1 130 kg/min (250 lb/min to 2 500 lb/min)0.1 % of Reading113 l/min to 1 130 l/min (30 gal/min to 300 gal/min)0.1 % of Reading227 kg/min to 2 270 kg/min (500 lb/min to 5 000 lb/min)0.1 % of Reading2 27 l/min to 2 270 kg/min (60 gal/min to 600 gal/min)0.1 % of Reading454 kg/min to 4 540 kg/min (1000 lb/min to 10 000 lb/min)0.1 % of Reading454 l/min to 4 540 l/min (120 gal/min to 1 200 gal/min)0.001 bar (0.015 psi to 30 psig)0.7 bar to 690 bar (24 psi to 10 000 psig)0.55 bar (2.4 psig)0.89 bar to 13.8 bar (-13 psi to 200 psig)0.01 bar (0.14 psig)				

Electrical

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

Issue: 01/2024

This supplement is in conjunction with certificate #L24-64



Certificate of Accreditation: Supplement

Mass Flow Technology, Inc.

3523 North Highway 146, Baytown, TX 77520 Contact Name: Mr. Eddie Dailey Phone: 281-802-7967

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

- 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.
- 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.
- 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.