SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

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CALIBRATION

Valid To: February 28, 2011 Certificate Number: 1707.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1]:

I. Fluid Quantities

Parameter/Equipment	Range ($atm \cdot cm^3/s$)	CMC[2, 3] (±)	Comments
Gas Flow Rate –			
All gases	(1×10^{-9} to 3×10^{-5})	4.5 %	Primary calibration system
	(1×10^{-6} to 100)	5 %	Large leak calibration system
	(1×10^{-10} to 2×10^{-3})	5 %	Automated mass spectrometer comparison calibration system
Helium and Hydrogen only	(1×10^{-5} to 1×10^{-1})	10 %	Sniffer leak detector
	(1×10^{-10} to 1×10^{-3})	12 %	Manual mass spectrometer comparison calibration system
Nitrogen only	(1×10^{-9} to 3×10^{-5})	3.5 %	Primary calibration system

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Vacuum Gauges –			
All Gases	1×10^{-3} torr to 3000 psig	2.5 %	VGMS w/ capacitance manometer static comparison
	(1×10^{-7} to 1×10^{-3}) torr	5 %	VGMS w/ spinning rotor gauge dynamic comparison
Volume –			
Nitrogen	10 cc to 25 L	2.5 %	Large leak calibration system with gas expansion method

[1] This laboratory offers commercial calibration service.

[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 calibrations 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 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.

[3] In the statement of CMC, percentages are to be read as percent of reading, unless otherwise noted.