

Hellenic Accreditation System



Annex F2/6 to the Certificate No. **738-2**

SCOPE of ACCREDITATION

of the

Volumetric Vessel and Meter Calibration Laboratory

of

METRON S.A.

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Volume measurements			
Liquid volume / Steel fixed tanks	2,5 m ³ ... 100 m ³	0,050 % of nominal tank volume	Volumetric method using volumetric vessels. Calibration medium: potable water. Standards followed: ISO 8222: 2002 ISO 12917-1: 2002/cor1: 2009 OIML R71: 2008 NIST SP 250-72: 2006 EURAMET cg-19 & 21 Calibration can also be performed on site.
	2,5 m ³ ... 200 m ³	0,070 % of nominal tank volume	Volumetric method using volume meter. Calibration medium: potable water. Standards followed: ISO 8222: 2002 ISO 12917-1: 2002/cor1: 2009 OIML R71: 2008 NIST SP 250-72: 2006 ISO 4269: 2001 EURAMET cg-19 & 21 Calibration can also be performed on site.

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Liquid volume / Steel fixed tanks	2,5 m ³ ... 30 m ³	0,14 % of nominal tank volume	<p>Volumetric method using volume meter. Calibration Medium: Liquid refined products and lubricant oils according to API MPMS Standards followed ISO 4269:2001 EURAMET cg-19 & 21</p> <p>Calibration can also be performed on site.</p>
Liquid volume / Steel fixed tanks	>30 m ³ ... 200 m ³	0,09 % of nominal tank volume	<p>Volumetric method using volume meter. Calibration Medium: Liquid refined products and lubricant oils according to API MPMS Standards followed ISO 4269:2001 EURAMET cg-19 & 21</p> <p>Calibration can also be performed on site.</p>

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Liquid volume / Steel volumetric vessels of types "to contain" and "to deliver"	0,01 m ³ ... 0,1 m ³	0,069%	Volumetric method using volumetric vessels. Calibration medium: potable water Standards followed: API MPMS CHAPTER 4: Proving Systems SECTION 4: Tank provers (May 1998) SECTION 7: Field Standard Test Measures (April 2009) SECTION 8: Operation Of Proving Systems (Sept 2013) Calibration can also be performed on site.
	>0,1 m ³ ... 10 m ³	0,037 %	
Volumetric flow measurements			
Liquid Flow / Volume meters	2,5 m ³ /h ... 120 m ³ /h	0,089 %	Volumetric method using volumetric vessels Calibration medium: Liquid refined products and lubricant oils according to API MPMS Standards followed: API MPMS CHAPTER 4: Proving Systems SECTION 5: Master Meter Provers (Nov 2011) SECTION 8: Operation Of Proving Systems (Sept 2013) SECTION 4: Tank provers (May 1998) SECTION 7: Field Standard Test Measures (April 2009) Calibration can also be performed on site.

Measurand / Calibration item	Range of measurement	Calibration & Measurement Capability (k=2)*	Remarks
Liquid Flow / Positive displacement volume meters	3,5 m ³ /h ... 120 m ³ /h	0,130 %	Volumetric method using positive displacement master meter Calibration medium: Liquid refined products and lubricant oils according to API MPMS Standards followed: API MPMS CHAPTER 4: Proving Systems SECTION 5: Master Meter Provers. (Nov 2011) SECTION 8: Operation Of Proving Systems (Sept 2013) Calibration can also be performed on site.
Liquid Flow / Positive displacement volume meters	4,5 m ³ /h ... 120 m ³ /h	0,1%	Volumetric method using volumetric vessels. Calibration medium: potable water Standards followed: ISO 8222:2002 ISO 4269:2001 Calibration can also be performed on site.

*Where uncertainty is accompanied by the corresponding unit, it is absolute, while where it is not accompanied by a unit, is relative.

Site of assessment: **Permanent laboratory premises, 45 D. Rigou Str. 19018 Magoula, Greece.**

Approved Signatories: **Sokratis Valsamos, Athanasios Boutos, Panagiotis Atzarakis, Dimitrios Papaspyros, Ioannis Filiopoulos, Michael Neroutsopoulos.**

This Scope of Accreditation replaces the previous one dated 15.05.2015.

The Accreditation Certificate No. **738-2**, to ELOT EN ISO/IEC 17025: 2005, is valid until 26.05.2019.

Athens, 24th November 2016

