

Hellenic Accreditation System



Annex F2/1 to the Certificate No. 1062

SCOPE of ACCREDITATION of the Calibration Laboratory MED CONTROL SERVICES O.E. PAPANIKOLAS ANTONIS & CO O.E.

Measurand / Calibration item	Range of measurement	Uncertainty * (Confidence level 95%)	Remarks										
Volume Measurements													
Liquid Volume/ - Fixed Storage Tanks - Road Tankers	0.5 m ³ to 10 m ³	0.13% of nominal tank volume	Volumetric method using flow meter Calibration according to: ISO 4269:2001 (Incremental method using volumetric meters) OIML R 63:1994 "Petroleum measurement tables" OIML R 80-1:2009 "Road and rail tankers with level gauging. Part 1: Metrological and technical requirements"										
	10 m ³ to 200 m ³	0.08% of nominal tank volume	Calibration medium: Liquid hydrocarbons (gasoline, diesel oil, bio-diesel, JET A1) Calibration performed on site										
Liquid Volume/ - Vertical Cylindrical Tanks	50 m ³ to 10000 m ³ Maximum tank diameter: 32m	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Volume (m³)</th> <th>Uncertainty (%)</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>0.17</td> </tr> <tr> <td>200</td> <td>0.12</td> </tr> <tr> <td>2000</td> <td>0.12</td> </tr> <tr> <td>10000</td> <td>0.11</td> </tr> </tbody> </table> of nominal tank volume	Volume (m ³)	Uncertainty (%)	50	0.17	200	0.12	2000	0.12	10000	0.11	Geometric method using strapping tape Calibration according to: ISO 7507-1:2003 (Strapping Method) Calibration performed on site
Volume (m ³)	Uncertainty (%)												
50	0.17												
200	0.12												
2000	0.12												
10000	0.11												

Measurand / Calibration item	Range of measurement	Uncertainty * (Confidence level 95%)		Remarks
Volume Measurements				
Liquid Volume/ - Vertical Cylindrical Tanks	Above 250 m ³ Minimum tank diameter: 8m	Volume (m ³)	Uncertainty (%)	Geometric method using total station Calibration according to: ISO 7507-3:2006 (Optical triangulation method with reference circumference) ISO 7507-1:2003 (Remaining measurements) Calibration performed on site
		250	0.19	
		500	0.13	
		2000	0.09	
		10000	0.07	
		30000	0.06	
		75000	0.06	
		120000	0.06	
		of nominal tank volume		
Liquid Volume/ - Vertical Cylindrical Tanks	Above 200 m ³ Minimum tank diameter: 5m	Volume (m ³)	Uncertainty (%)	Geometric method using total station Calibration according to: ISO 7507-4:2010 (Internal electro-optical distance ranging method) ISO 7507-1:2003 (Remaining measurements) Calibration performed on site
		200	0.16	
		2000	0.09	
		10000	0.07	
		40000	0.06	
		75000	0.06	
		130000	0.06	
Liquid Volume/ - Horizontal Cylindrical Tanks	Up to 400 m ³ Maximum tank diameter: 4m Maximum tank length: 30m	0.065% of nominal tank volume		Geometric method using strapping tape Calibration according to: ISO 12917-1:2002 (External strapping method) ISO 7507-1:2003 (Remaining measurements) Calibration performed on site

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

Site of assessment: **Permanent laboratory premises, 2 P. Georgaki Street, Megara, 19100, Greece**

Approved Signatories: **N. Papanikolas, S. Papanikolas**

The Accreditation Certificate No.1062, to ELOT EN ISO/IEC 17025:2005, is valid until 29.09.2020.

Athens, September 29th, 2016

I Sitaras
Laboratories Accreditation Division Manager