NACIONALINIS
AKREDITACIJOS BIURAS

Lithuanian National Accreditation Bureau is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (for accreditation of testing, calibration, medical examinations, certification of products, persons and management systems and inspection) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (for accreditation in the fields of testing, calibration, medical examinations and inspection)

ACCREDITATION CERTIFICATE
No. LA.01.036

Lithuanian National Accreditation Bureau hereby certifies that

complies with the requirements of

Lithuanian energy institute Laboratory of heat-equipment research and testing

LST EN ISO/IEC 17025:2018

legal entity: Lietuvos energetikos institutas
legal entity code: 111955219

and is competent to perform:

testing of solid fuel heating boilers and burners, domestic gas appliances, stationary pollution sources, solid biofuel and solid recovered fuel, water and therman energy meters

The scope of accreditation below is an integral part of this certificate. Locations of the conformity assessment body are specified in the scope of accreditation

Initial accreditation date: **2001-03-01**

Certificate issued / valid since: **2025-08-06**
Version of: **2025-08-07**
Expiry date: **2030-08-05**

Deputy Director, acting as Director

TADAS JUODELIS

The certificate may be changed, its validity suspended or withdrawn by the decision of the National Accreditation Bureau. Information on the actual data of accreditation certificates may be verified at nab.lrv.lt

NACIONALINIS AKREDITACIJOS BIURAS

Bandymai / tyrimai ISO/IEC 17025

SCOPE OF ACREDITATION
(flexible)*

Lithuanian energy institute Laboratory of heat-equipment research and testing, accredited in accordance with **LST EN ISO/IEC 17025:2018**

Location of the conformity assessment body:

Breslaujos str. 3, 44403 Kaunas, Lithuania

Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
1. Water meters:	Performance tests:	LST EN ISO 4064-2 / OIML R 49-2	
– with permanent flow rate $Q_3 \leq 125$ m³/h, maximum admissible pressure (MAP) ≤ 16 bar, temperature classes T30, T50, T70, T90, T30/70, T30/90 and environmental class B	Static pressure test	7.3 p. / 7.3 p.	Hydraulic method
	Determination of intrinsic errors (of indication)	7.4 p. / 7.4 p.	Gravimetric or volumetric method
	Water temperature test	7.5 p. / 7.5 p.	Respond to impact testing principle
	Overload water temperature test	7.6 p. / 7.6 p.	Respond to impact testing principle
	Water pressure test	7.7 p. / 7.7 p.	Respond to impact testing principle
	Reverse flow test	7.8 p. / 7.8 p.	Respond to impact testing principle
	Pressure loss test	7.9 p. / 7.9 p.	Hydrodynamic pressure measurement
	Flow disturbance tests	7.10 p. / 7.10 p.	Respond to impact testing principle
	Tests of ancillary devices of a water meter	7.13 p./7.13 p.	Respond to impact testing principle
	Static magnetic field	8.16 p./8.16 p.	Respond to impact testing principle
	Performance tests for meters with electronic devices	LST EN ISO 4064-2 / OIML R 49-2 from 8.2 to 8.18 p./ from 8.2 to 8.18 p.	Respond to impact[1] testing principle
	Tests for initial verification	LST EN ISO 4064-2 / OIML R 49-2 10.1 p./10.1 p.	Gravimetric or volumetric method
			impact[1] – impact 8.4 p., from 8.6 p.to 8.15 p. and 8.18 p. is determined by the subcontractor's accredited testing laboratory
– with permanent flow rate $Q_3 \leq 16$ m³/h, maximum	Durability tests	LST EN ISO 4064-2/ OIML R 49-2 7.11.2, 7.11.3 p. / 7.11.2, 7.11.3 p.	Method of determining durability

Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
admissible pressure (MAP) ≤ 16 bar, temperature classes T30, T50, T70, T90, T30/70, T30/90 and environmental class B			
2. Thermal energy meters and their sub-assemblies:	Performance tests	LST EN 1434-4 / OIML R 75-2 7.4. p. / 6.4. p.	Gravimetric or volumetric method. Simulation of temperature difference with thermostats or reference resistors
- complete meters and flow sensors with maximum admissible temperature $\Theta_{max} \leq 130$ °C, maximum admissible working pressure $p_{max} \leq 25$ bar, permanent flow rate $q_p \leq 125$ m³/h, environmental classes A and C - calculators	Dry heat* Cold* Static deviation in supply voltage* Durability test*** Damp heat cyclic* Short time mains voltage reduction* Fast transients (bursts)* Surge transients* Electromagnetic fields* Electromagnetic field specifically caused by wireless equipment* Radio frequency amplitude modulated* Electrostatic discharge* Static magnetic field Mains frequency magnetic field* Internal pressure*** Pressure loss*** Electromagnetic emission* 24 h interruption in the mains power supply voltage ** Flow disturbances*** *- the tests are applied to flow sensors with electronic devices and for calculators **- the test only applies to calculators ***- the test only applies to flow sensors and complete meters	7.5. p. / 6.5. p. 7.6. p. / 6.6. p. 7.7. p. / 6.7. p. 7.8.2.1, 7.8.2.2, 7.8.2.3 p. / 6.8.1. p. 7.9.1 p. / 6.9. p. 7.10 p. / 6.10. p. 7.11.1 p. / 6.11.1. p. 7.11.2 p. / 6.11.2. p. 7.12 p. / 6.12. p. 7.13 p. / -- 7.14 p. / -- 7.15 p. / 6.13. p. 7.16 p. / 6.14. p. 7.17 p. / 6.15. p. 7.18 p. / 6.16. p. 7.19 p. / 6.17. p. 7.20 p. / -- 7.21 p. / -- 7.22 p. / --	Respond to impact testing principle Respond to impact testing principle Respond to impact testing principle Method of determining durability Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact [1] testing principle Respond to impact testing principle Respond to impact testing principle Hydraulic method Hydrodynamic pressure measurement Respond to impact [1] testing principle Respond to impact testing principle Respond to impact testing principle impact[1] – impact is determined by the subcontractor's accredited testing laboratory
- temperature sensor pair	Performance test Durability test (the high temperature test)	LST EN 1434-4 / OIML R 75-2 7.4.4, 7.4.3.2.3.1 p. / 6.4.3 p. 7.8.3 p. / 6.8.2 p.	Direct measurement method and calculated method: resistance measurement of temperature sensors in thermostats and conversion to temperature Method of determining durability

Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
- thermal energy meters and their sub-assemblies	Initial verification tests	LST EN 1434-5 / OIML R 75-2, 6 p. (except 6.8 p.) / 7 p.	Gravimetric or volumetric method. Calculation method: Simulation of temperature difference with thermostats or reference resistors
3. Water heating boilers for solid fuel with a nominal heat output of up to 500 kW		LST EN 303-5	
	Pressure test	5.4, 5.5 p.	Hydraulic method
	Heat output	5.6; 5.7.1-5.7.5 p.; 5.9.1-5.9.2 p. (LST EN 304 A.5; A.6 annexes)	Direct measurement method
	Efficiency	5.7.6; 5.9.3.1-5.9.3.6 p.; F.1-F.2 annexes (LST EN 304 6.10 p.; A.8 and A.10 annexes)	Direct balance method
	Electrical consumption	5.7.7 p.	Direct measurement method
	Emissions	5.6; 5.8; 5.9.4.1-5.9.4.4 p.; A and F.3 annexes (LST EN 304 A.2-A.3 annexes, LST EN 13284-1, CEN/TS 15883)	Infrared absorption, chemiluminescence and flame ionization detection method
	Waterside resistance	5.10 p., (LST EN 304 6.6 p.)	Pressure difference method
	Surface temperature	5.11 p.	Direct measurement method
	Verification of condensate	5.12 p., D ir E annexes, (LST EN ISO 11885)	Optical emission spectrometry method
	Function check of the temperature controller and safety temperature limiter	5.13 p.	Direct measurement method
	Function test for the rapidly disconnectable firing system	5.14 p.	Direct measurement method
	Function test on the device for dissipating excess heat	5.15 p.	Direct measurement method
	Safety of automatically loaded boilers	5.16.2, 5.16.3, 5.16.4 p.	Direct measurement of parameters
	Test for gas side leakage	5.16.6 p.	Hydraulic method
	Check of safety for condensing operation	5.17 p.	Visual control and direct measurement of parameters
	Checks of the safety for boilers with outside combustion air supply	5.18 p.; G annex	Visual control and direct measurement of parameters
4. Stationary pollution sources	Determination of particulate matter concentration	LST EN 13284-1	Gravimetric and isokinetic methods
5. Pellet burners for small heating boilers		LST EN 15270	
	Safety tests	6.6.1.1 – 6.6.1.10 p.	Visual control and direct measurement of parameters
	Maximum heat input	6.6.2.2 p.	Direct measurement method
	Reduced heat input	6.6.2.3 p.	Direct measurement method
	Testing at start-up phase	6.6.2.4 p.	Visual control and direct measurement of

Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
			parameters
	Determination of the proportion of unburned fuel in the residue	6.6.3 p.	Gravimetric method
	Excess air ratio	6.6.4 p.	Experimental calculation method
	Electrical consumption	6.6.5 p.	Direct measurement method
	Start and ignition test	6.6.6 p.	Visual control
6. Domestic gas cooking appliances with a heat input not exceeding 4.28 kW per burner		LST EN 30-1-1	
	Verification of construction characteristics	7.2 p.	Visual control and direct measurement of parameters
	Soundness	7.3.1.1 p.	Hydraulic method
	Obtaining the rates	7.3.1.2 p.	Experimental calculation method
	Flame supervision device	7.3.1.3 p.	Visual control
	Safety of operation	7.3.1.4 p.	Visual control
	Limiting temperatures	7.3.1.5 p.	Direct measurement method
	Overheating	7.3.1.6 p.	Direct measurement method
	Total input rate of the appliance	7.3.1.7 p.	Direct measurement method
	Regulator performance	7.3.1.8 p.	Direct measurement method
	Ignition, cross-ignition, flame stability	7.3.2.1 p.	Visual control
	Resistance to draught	7.3.2.2 p.	Visual control
	Resistance to liquid spillage	7.3.2.3 p.	Visual control
	Emissions	7.3.2.4 p.	Infrared absorption method
	Specific tests for oven and grills	7.3.3 p.	Visual control
7. Solid biofuels	Sampling and sample preparation	LST EN ISO 14780 LST EN ISO 18135	Sampling method. Quartering and shredding of samples
	Determination of moisture content	LST EN ISO 18134-1	Gravimetric method
	Determination of moisture in general analysis sample	LST EN ISO 18134-3	Gravimetric method
	Determination of calorific value	LST EN ISO 18125 except annex A and annex B	Calorimetric method
	Determination of total content of carbon, hydrogen and nitrogen	LST EN ISO 16948	Gas chromatography method
	Determination of total content of sulfur and chlorine	LST EN ISO 16994, 8.1.1 chap., annex A	Ion chromatography method
	Determination of major elements	LST EN ISO 16967	Optical emission spectrometry method
	Determination of minor elements (except for Hg)	LST EN ISO 16968	Optical emission spectrometry method
	Determination of ash content	LST EN ISO 18122	Gravimetric method
8. Solid recovered fuels	Sampling and sample preparation	LST EN ISO 21645 LST EN ISO 21646	Sampling method. Quartering and shredding of samples
	Determination of moisture content	LST CEN/TS 15414-1	Gravimetric method
	Determination of moisture in general analysis sample	LST EN ISO 21660-3	Gravimetric method
	Determination of calorific value	LST EN ISO 21654, except annex A and annex B	Calorimetric method

Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
	Determination of total content of carbon, hydrogen and nitrogen	LST EN ISO 21663	Gas chromatography method
	Determination of total content of sulfur and chlorine	LST EN 15408	Ion chromatography method
	Determination of elements (except Hg and S)	LST EN ISO 3884, except method D	Optical emission spectrometry method
	Determination of ash content	LST EN ISO 21656	Gravimetric method

* One degree of flexibility is defined and applicable for the whole accreditation scope:
Flexibility case 1 – application of new or replacement editions or equivalent documents for testing methods submitted in the accreditation scope.

Actual accreditation scope is published on the website at: http://www.lei.lt

Note. In case of any discrepancies, ambiguities or disputes regarding the subject matter content between the English and Lithuanian versions of the document, the Lithuanian version shall prevail.

The accreditation certificate is signed with a qualified electronic signature as an attachment to the order of the Director of the National Accreditation Bureau, by which it was approved