

*Перевод с русского языка на английский язык
Translated from Russian into English*

/QR code/

SCOPE OF ACCREDITATION

LEGAL ENTITY, INDIVIDUAL ENTREPRENEUR
PERFORMING WORK AND/OR PROVIDING SERVICES
IN THE FIELD OF MEASUREMENT ASSURANCE

**Federal Budgetary Institution “State Regional Centre of Standardization,
Metrology and Testing in Rostov Region”**

name

RA.RU.311615

Number in the register of accredited entities

1. Sokolova Ave. 58/173, city of Rostov-on-Don, Rostov Region, RUSSIA, 344000

addresses of places of business

2. Dovatora Str. 265, city of Rostov-on-Don, Rostov Region, RUSSIA, 344103

addresses of places of business

For compliance with the requirements of

GOST ISO/IEC 17025-2019 General requirements for the competence of testing and calibration laboratories. GOST ISO/IEC 17025-2019

name and details of the interstate or national standard

Sokolova Ave. 58/173, city of Rostov-on-Don, Rostov Region, RUSSIA, 344000

addresses of places of business

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1. Calibration of measuring instruments								
1.1.	Measurements of geometric quantities; Metal measuring scales;	length	Measuring scales	from 0 to 1000 mm	-	$U_{0,95} = (0.036 - 0.062) \text{ mm}$ *	MK 05-101-23	* - uncertainty values are given in the table (Appendix A MK 05-101-23)

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.2.	Measurements of geometric quantities; Vernier instrument;	length	Callipers	from 0 to 250 mm		$U_{0,95} = 0.0058$ mm	MK 05-41-21	-
1.3.	Measurements of geometric quantities; Vernier instrument;	length	Microcalipers, micrometer heads	from 0 to 100 mm	-	$U_{0,95} = 0.58$ μ m	MK 05-45-21	-
1.4.	Measurements of geometric quantities; Length measuring instruments. Line standards;	length	Measuring magnifiers	from 0 to 1 mm over 1 to 10 mm	-	$U_{0,95} = 0.0012$ mm $U_{0,95} = 0.0017$ mm	MK 05-90-21	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.5.	Measurements of geometric quantities; Engineer universal measuring microscopes;	length	Measuring microscopes	from 0 to 1 mm over 1 to 200 mm	-	$U_{0,95} = 0.34 \mu\text{m}$ $U_{0,95} = 1.2 \mu\text{m}$	MK 05-91-21	-
1.6.	Measurements of geometric quantities; MIR-type reading microscopes;	length	Reading microscopes	from 0 to 9 mm	-	$U_{0,95} = 0.0053 \text{ mm}$	MK 05-102-23	-
1.7.	Measurements of geometric quantities; Engineer microscopes;	length	Metallographic microscopes	from 0.005 to 1 mm over 1 to 10 mm	-	$U_{0,95} = 0.03 \mu\text{m}$ $U_{0,95} = 1.11 \mu\text{m}$	MK 05-103-23	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.8.	Measurements of geometric quantities; Checking jigs;	length	Testing sieves	from 0.020 to 5.00 mm over 5.00 to 250 mm	-	$U_{0,95} = 0.012$ mm $U_{0,95} = 0.035$ mm	MK 05-100-23	-
1.9.	Measurements of geometric quantities; Profilographs-profilometers;	roughness parameters	Profilographs-profilometers	$R_a = (0.001 - 0.25) \mu\text{m}$ $R_a = (0.25 - 0.40) \mu\text{m}$ $R_a = (0.40 - 250) \mu\text{m}$	-	$U_{0,95} = 0.0027$ μm $U_{0,95} = 0.005$ μm $U_{0,95} = 0.028$ μm	MK 05-97-21	-
1.10.	Measurements of mechanical quantities; Reference weights;	weight	Reference weights, commercial weights, special weights	from $1 \cdot 10^{-6}$ to 2000 kg	-	$U_{0,95} = 0.001$ mg	MK 03-04-12 GOST OIML R111-1-2009 MK 03-60-23	-
1.11.	Measurements of mechanical quantities; Reference scales;	weight	Reference scales, laboratory scales, weighing devices	from $1 \cdot 10^{-6}$ to 50 kg	-	$U_{0,95} = 1 \cdot 10^{-2}$ mg	MK 03-03-12 MK 03-53-19	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
			Mass comparators	from $1 \cdot 10^{-6}$ to 50 kg		$U_{0,95} = 1 \cdot 10^{-4}$ mg	MK 03-54-19	
1.12.	Measurements of mechanical quantities; Scales;	weight	Non-automatic scales, comparators	from $1 \cdot 10^{-2}$ to 5000 kg	-	$U_{0,95} = 4 \cdot 10^{-4}$ kg	MK 03-52-19 MK 03-54-19 MK 03-57-19 MK 03-53-19	-
1.13.	Measurements of mechanical quantities; Mass measuring instruments;	mass of grain in one litre	Litre grain-unit scales	from 720 to 820 g/L	-	$U_{0,95} = 0.6$ g/L	MK 03-51-19	-
1.14.	Measurements of mechanical quantities; Force gauges;	force	Force gauges	from 10 to $2 \cdot 10^6$ N	-	$U_{0,95} = 0.012\%$	GOST R 55223-2012	-
1.15.	Measurements of mechanical quantities;	force	Testing machines, presses and installations	from 1 to $1 \cdot 10^5$ N from $1 \cdot 10^5$ to $2 \cdot 10^6$ N	-	$U_{0,95} = 0.23\%$ $U_{0,95} = 1.16\%$	MK 03-10-15 ISO 7500-1:2018	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
	Testing machines, presses and installations;							
1.16.	Measurements of mechanical quantities; Force gauges and force sensors;	force	Force sensors	from 10 to 2 10 ⁶ N	-	$U_{0,95} = 0.11\%$	MK 03-55-19	-
1.17.	Measurements of mechanical quantities; Scale and control torque wrenches;	torque	Torque wrenches	from 0.2 to 3000 N m	-	$U_{0,95} = 2.31\%$	MK 03-15-16	-
1.18.	Measurement of flow, consumption, level, volume parameters of substances;	volume	Pipettes	from 1 to 50,000 μL	-	$U_{0,95} = (0.06 - 58.0) \mu\text{L}$	MK 06-06-12 MK 6/029-17	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
	Dispensers, syringes;							
1.19.	Measurement of flow, consumption, level, volume parameters of substances; Burettes and pipettes, first-grade;	volume	Glass calibrated measure	from 0.1 to 2000 mL	-	$U_{0,95} = (0.001 - 11.6) \text{ mL}$	MK 06-08-14	-
1.20.	Measurement of flow, consumption, level, volume parameters of substances; Dispensers;	volume	Bread porosity testers	27 cm ³	-	$U_{0,95} = 0.011 \text{ cm}^3$	MK 05-30-19	-
1.21.	Measurement of flow, consumption, level, volume parameters of substances;	volume	Vertical cylindrical tanks,	from 100 to 3000 m ³ from 3000 to 4999 m ³	-	$U_{0,95} = 0.2\%$ $U_{0,95} = 0.15\%$	GOST R 8.996-2020 cl. 5.1.2	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
	Metal vertical cylindrical tanks;		horizontal cylindrical tanks	from 5000 to 160000 m ³ from 25 to 1000 m ³		U _{0,95} = 0.1% U _{0,95} = 0.1%	GOST R 8.994-2020 cl. 4.1.1.b)	
1.22.	Pressure measurements, vacuum measurements; Instruments for measuring excess pressure up to 250 MPa;	excess pressure	Instruments for measuring excess pressure	from 0.04 to 60 MPa from -0.095 to 0.25 MPa	-	U _{0,95} = 0.023% (approx.) U _{0,95} = 0.061% (approx.)	MK 01-07-12 MK 01-50-19 MK 01-21-19	-
1.23.	Pressure measurements, vacuum measurements; Instruments for measuring absolute pressure in the range of 10 ⁻⁸ ...10 ³ Pa;	absolute pressure	Instruments for measuring absolute pressure	from 0.133 to 1000 kPa from 0.5 to 200 kPa	-	U _{0,95} = 23 Pa U _{0,95} = 0.58 kPa	MK 01-21-19 MK 01-83-19 MK 01-07-12	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.24.	Measurements of physicochemical composition and properties of substances; Density measuring instruments (density gauges, pycnometers);	density	Density gauges	from 650 to 1840 kg/m ³	-	$U_{0,95} = 0.05$ kg/m ³	MK 6/013-15	-
1.25.	Measurements of physicochemical composition and properties of substances; High-precision laboratory moisture meters;	moisture	Relative humidity measuring instruments	from 5 to 95%	-	$U_{0,95} = 0.60\%$ (abs.)	MK 6/010-15	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.26.	Measurements of physicochemical composition and properties of substances; Instruments for measuring the specific electrical conductivity (SEC) of liquids in the range of $10^{-8} \dots 2 \cdot 10^2$ S/m;	specific electrical conductivity	Instruments for measuring electrolytic conductivity	from $1 \cdot 10^{-4}$ to 100 S/m	-	$U_{0,95} = 0.3\%$	MK 6/012-15	-
1.27.	Measurements of physicochemical composition and properties of substances; Liquid and solid substance composition analyzers;	mass concentration	Analyzers of the composition and properties of substances	from $1 \cdot 10^{-8}$ to 100 g/dm ³	-	$U_{0,95} = 1.2\%$	MK 6/019-15	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.28.	Measurements of physicochemical composition and properties of substances; Water and solution composition analyzers;	mass fraction	Analyzers of the composition and properties of substances	from $1 \cdot 10^{-8}$ to 100%	-	$U_{0,95} = 0.7\%$ (rel.)	MK 6/019-15	-
1.29.	Measurements of physicochemical composition and properties of substances; Gluten quantity and quality analyzers;	gluten deformation	Gluten deformation gauges	from 0 to 150.7 c.u. With washed-out gluten 0.1 c.u. With washed-out gluten 1.0 c.u. With color and other properties 2.5 c.u.	-	$U_{0,95} = 0.12$ c.u. $U_{0,95} = 1.15$ c.u. $U_{0,95} = 2.89$ c.u.	MK 05-99-23	-
1.30.	Thermophysical and temperature measurements; Contact temperature measuring instruments;	temperature	Contact temperature measuring instruments	from -80 to 300 °C from 300 to 1200 °C	-	$U_{0,95} = (0.050 - 0.10)$ °C $U_{0,95} = (0.10 - 1.0)$ °C	MK 06-05-12 MK 06-14-15 MI 3090-2007 MK 06-02-13	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.31.	Optical and optical-physical measurements; Instruments for measuring colour coordinates and chromaticity coordinates;	colour coordinates	Instruments for measuring colour coordinates	from 2.5 to 109.0 (X) from 1.4 to 98.0 (Y) from 1.7 to 107.0 (Z)	-	$U_{0,95} = 0.4$ (abs.) $U_{0,95} = 0.4$ (abs.) $U_{0,95} = 0.4$ (abs.)	MK 6/006-15	-
1.32.	Optical and optical-physical measurements; Gloss meters;	gloss	Gloss meters	from 0.5 to 70 gloss units	-	$U_{0,95} = 0.40$ gloss units	MK 6/002-15	-
1.33.	Optical and optical-physical measurements; Instruments for measuring spectral, integral and reduced regular transmission factors	spectral, integral and reduced regular transmission factors	Instruments for measuring spectral, integral and reduced regular transmission factors	from 0.1 to 100%	-	$U_{0,95} = (0.3 - 0.6) \%$ (abs.)	MK 6/001-15 MK 6/005-15	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
	in the wavelength range of 0.2...50 μm , and diffuse and specular reflection factors in the range of 0.2...20 μm ; (in the wavelength range of 0.2...2.5 μm);							
1.34.	Optical and optical-physical measurements; Instruments for measuring the optical density of materials, luminance coefficient, transmission coefficient (in white), and refraction index;	optical density	Instruments for measuring optical density	from 0.01 to 4.00 B	-	$U_{0,95} = 0.008$ B	MK 6/027-15 MK 6/026-15 MK 6/030-17	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.35.	Optical and optical-physical measurements; 1st-category refractometers;	refraction index	laboratory refractometers	from 1.2 to 1.7	-	$U_{0,95} = 0.00004$ (abs.)	MK 6/003-15	-
1.36.	Optical and optical-physical measurements; 1st-category polarimeters;	angle of rotation of the plane of polarization	Polarimeters, saccharimeters	from -41° to $+41^{\circ}$	-	$U_{0,95} = 0.008^{\circ}$	MK 6/004-15	-
1.37.	Optical and optical-physical measurements; Luxmeters;	illumination	Illuminance meters	from 1.15 to 105840 lux	-	$U_{0,95} = 4.71\%$	MK 05-104-23	-

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.38.	Elements of measuring systems (MS); Resistance;	In accordance with the scope of accreditation	Measuring channels of measuring systems and measuring and computing systems, measuring and information systems, control systems, diagnostic systems, testing equipment, as well as automatic process control systems	In accordance with the scope of accreditation	In accordance with the scope of accreditation	In accordance with the scope of accreditation	In accordance with the scope of accreditation	-

Dovatora Str. 265, city of Rostov-on-Don, Rostov Region, RUSSIA, 344103

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No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1. Calibration of measuring instruments								
1.1.	Measurements of geometric quantities; Measuring tapes KT 2; 3;	length	measuring tapes	from 0 to 20 m	-	$U_{0,95} = (0.029 - 0.15) \text{ mm}$ *	MK 05-98-23	* - uncertainty values are given in the table (Appendix A MK 05-98-23)
1.2.	Measurement of flow, consumption, level, volume parameters of substances; Tachometric liquid meters;	liquid flow rate and volume	Liquid meters, flowmeters, variable area flowmeters and liquid (steam) volumetric and mass flow rate converters	from 0.01 to 700 m ³ /h from 0.2 to 2000 m ³ /h	-	Mass of liquid in the flow $U_{0,95} = 0.041\%$ Mass flow rate $U_{0,95} = 0.051\%$ Volume of liquid in the flow $U_{0,95} = 0.045\%$ Volumetric flow rate $U_{0,95} = 0.049\%$ Volume and volumetric flow rate of liquid in the flow $U_{0,95} = 0.24\%$	MK 01-19-17 MK 01-20-17	-

No.	Measurements	Measured unit	Item calibrated	Measurement range	Additional parameters	Expanded uncertainty of measurement	Calibration method / procedure	Note
1.3.	Elements of measuring systems (MS); Control of unified signals of MS elements;	In accordance with the scope of accreditation	Measuring channels of measuring systems and measuring and computing systems, measuring and information systems, control systems, diagnostic systems, testing equipment, as well as automatic process control systems	In accordance with the scope of accreditation	-	In accordance with the scope of accreditation	In accordance with the scope of accreditation	-

Director General
position of the authorized person

Electronically signed
signature of the authorized person

A.V. Krasavin
name of the authorized person

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ПЕРЕВОД С РУССКОГО ЯЗЫКА НА АНГЛИЙСКИЙ ЯЗЫК ВЫПОЛНИЛА ПЕРЕВОДЧИК СЫЧЁВА ЕВГЕНИЯ АЛЕКСАНДРОВНА
TRANSLATED FROM RUSSIAN INTO ENGLISH BY THE TRANSLATOR EVGENIA ALEKSANDROVNA SYCHEVA

Сычёва Евгения Александровна

