

ACCREDITATION CERTIFICATE

No. LA.177-02

Lithuanian National Accreditation Bureau hereby certifies that

complies with the requirements of

JSC „Metmatus“ laboratory

LST EN ISO/IEC 17025:2018

legal entity: UAB „Metmatus“
legal entity code: 136000640

and is competent to perform:

calibration of measuring equipment

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: **2020-03-06**

Certificate issued / valid since: **2025-03-06**

Version of: **2025-02-27**

Expiry date: **2030-03-05**

Director



DALIA BALEŽENTĖ

The certificate may be changed, its validity suspended or withdrawn by the decision of the National Accreditation Bureau.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



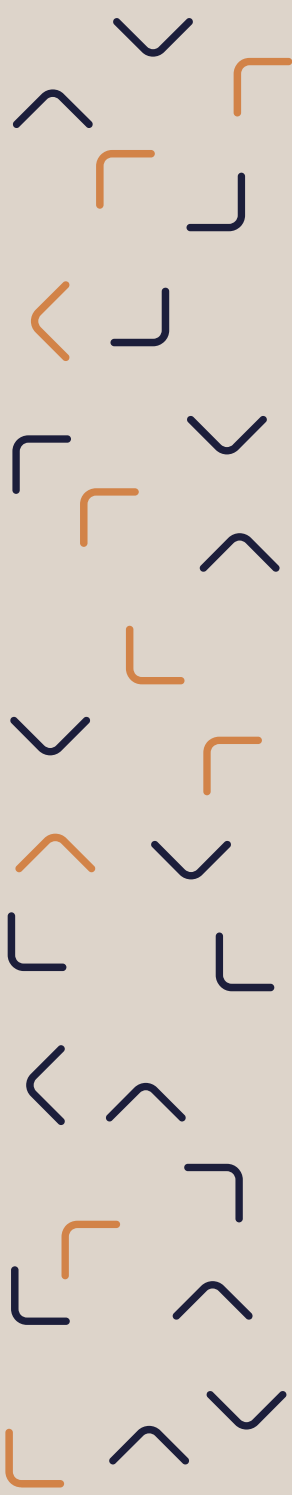
JSC „Metmatus“ laboratory, accredited in accordance with **LST EN ISO/IEC 17025:2018**

Location of the conformity assessment body:

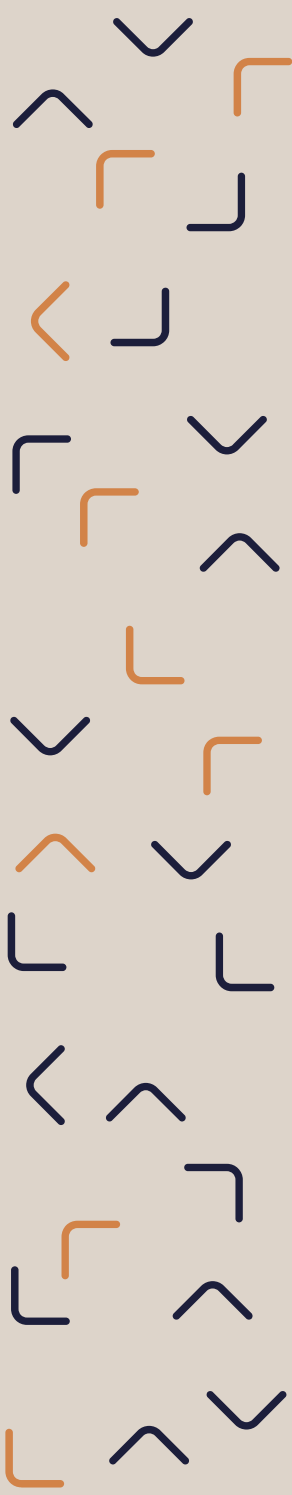
Žiemgalių St. 8, LT-48230 Kaunas

Calibration and measurement capability (CMC), expressed as:

Measured quantity	Method	Calibration object	Range	Measurement uncertainty
Length	KP-01:2024	calipers, depth gauges, vernier height gauges, digital height gauge and marking-out system	$L \leq 500$ mm, when scale division:	
			0,01 mm	$(5 \cdot 10^{-6} \cdot L + 0,016)$ mm
			0,02 mm	$(14 \cdot 10^{-6} \cdot L + 0,016)$ mm
			0,05 mm	$(10 \cdot 10^{-6} \cdot L + 0,026)$ mm
			0,1 mm	$(6 \cdot 10^{-6} \cdot L + 0,043)$ mm
			$500 < L \leq 2000$ mm, when scale division:	
			0,01 mm	$(13 \cdot 10^{-6} \cdot L + 0,012)$ mm
			0,02 mm	$(30 \cdot 10^{-6} \cdot L + 0,008)$ mm
			0,05 mm	$(26 \cdot 10^{-6} \cdot L + 0,018)$ mm
			0,1 mm	$(24 \cdot 10^{-6} \cdot L + 0,034)$ mm
			$L \leq 1000$ mm, when scale division:	
			0,005 mm	$(12 \cdot 10^{-6} \cdot L + 0,008)$ mm
Length	KP-02:2024	external micrometers, lever micrometers (micrometric part)	$L \leq 600$ mm, when scale division:	
			≥ 1 μ m (analog)	$(0,009 \cdot L + 0,17 \cdot PV + 0,62)$ μ m
			$\geq 0,1$ μ m (digital)	$(0,009 \cdot L + PV + 0,2)$ μ m



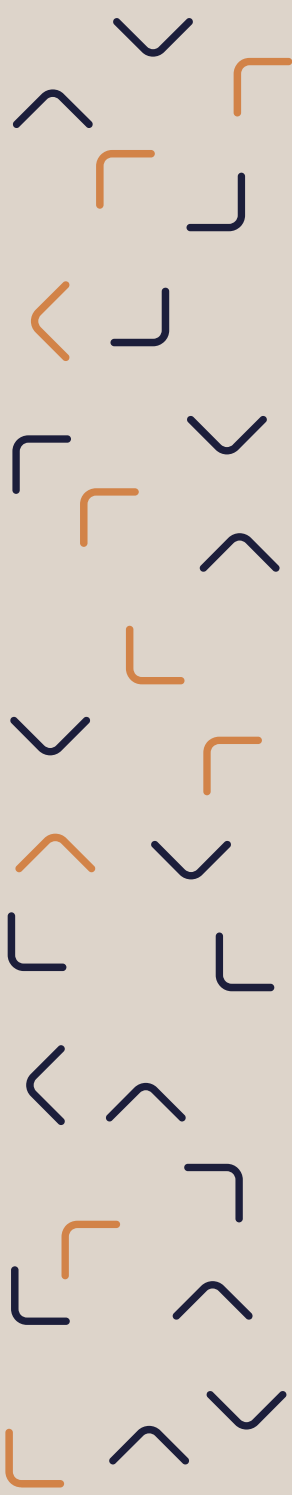
Calibration and measurement capability (CMC), expressed as:				
Measured quantity	Method	Calibration object	Range	Measurement uncertainty
Length	KP-03:2024	external thread micrometers	$L \leq 100$ mm, angle 60 ° ir 55 °, when scale division :	
			10 µm (analog)	2,5 µm
			1 µm (digital)	1,5 µm
		lever micrometers (indicator-comparator part)	$L \leq 10$ mm, when scale division:	
			≥ 1 µm (analog)	(0,35·PV+0,35) µm
			$\geq 0,5$ µm (digital)	(1,12·PV+0,07) µm
		micrometer heads	$L \leq 100$ mm, when scale division:	
			≥ 1 µm (analog)	(0,2·PV+1,3) µm
			$\geq 0,1$ µm (digital)	(0,002·L+0,44·PV+1,2) µm
		depth micrometers	$L \leq 100$ mm, when scale division :	
			10 µm (analog)	(0,01·L+2,6) µm
			1 µm (digital)	(0,013·L+1,7) µm
		internal micrometers	$L \leq 200$ mm (3-point), $L \leq 600$ mm (2-point), kai padalos vertė:	
			$\geq 2,54$ µm (analog)	(0,01·PV+1,8) µm
			1 µm (digital)	2,0 µm
		indicators, comparators, length measuring gauges, lever indicators,	$L \leq 200$ mm, when scale division:	
			$\geq 0,1$ µm (analog)	(0,025·PV+0,004·L+0,6) µm
			≥ 1 µm (analog)	(0,23·PV+0,004·L+0,3) µm
			$\geq 0,01$ µm (digital)	(0,11·PV+0,004·L+0,6) µm
			$\geq 0,5$ µm (digital)	(1,15·PV+0,004·L+0,25) µm
		depth gauges, internal quick calipers, external quick calipers, thickness gauges, indicating snap gauges	$L \leq 200$ mm, when scale division :	
			$\geq 0,1$ µm (analog)	(0,025·PV+0,009·L+0,61) µm
			≥ 1 µm (analog)	(0,23·PV+0,01·L+0,4) µm
			$\geq 0,01$ µm (digital)	(0,33·PV+0,009·L+0,6) µm



Calibration and measurement capability (CMC), expressed as:				
Measured quantity	Method	Calibration object	Range	Measurement uncertainty
Length	KP-05:2024	internal bore gauges thickness standards, setting standards (except for micrometers), feeler gauges	$\geq 0,5 \mu\text{m}$ (digital)	$(1,15 \cdot PV + 0,009 \cdot L + 0,27) \mu\text{m}$
			measuring rod travel $\leq 10 \text{ mm}$	$1,5 \mu\text{m}$
			$L \leq 100 \text{ mm}$ (metal)	$(0,02 \cdot L + 0,6) \mu\text{m}$
			$L \leq 10 \text{ mm}$ (plastic)	$(0,2 \cdot L + 1,4) \mu\text{m}$
Length	KP-09:2020, except chapter 9 and 11	weld seam gauges	$L \leq 100 \text{ mm}$, when scale division:	
			without scale	$0,026 \text{ mm}$
			$\geq 0,01$ (digital)	$(PV + 0,018) \text{ mm}$
			$\geq 0,05$ (analog)	$(0,57 \cdot PV + 0,01) \text{ mm}$
Length	KP-13:2023, except chapter 7 and 9	measuring microscopes, portable measuring microscopes, measuring projectors, measuring video microscopes, pocket comparators	$L \leq 300 \text{ mm}$	$(0,001 \cdot L + 0,69) \mu\text{m}^*$
Length	KP-17:2022	plain gauges of external dimensions: plug gauges, test pins, setting gauges for external micrometers, groove width gauges, ball gauges, diameter gauges, standards for setting the length (except gauge blocks)	$L \leq 600 \text{ mm}$	$(0,6 \cdot 10^{-3} \cdot L + 0,6 +$ $+ 2,5 \cdot 10^{-3} \cdot L) \mu\text{m}^{**}$
		plain gauges of internal dimensions: setting rings, diameter gauges	$L \leq 125 \text{ mm}$	$(1,3 + 2,5 \cdot 10^{-3} \cdot L) \mu\text{m}^{**}$
		plain gauges of external dimensions :	$L \leq 200 \text{ mm}$	

Calibration and measurement capability (CMC), expressed as:

Measured quantity	Method	Calibration object	Range	Measurement uncertainty
		gap gauges, standards for length setting		
		thread gauges (metric, inch and trapezoidal): plug gauges, ring gauges	pitch diameter for external thread $L \leq 200$ mm $P=(0,3...6)$ for internal thread $L \leq 125$ mm $P=(0,5...6)$	$(2,7+2,5 \cdot 10^{-3} \cdot L) \mu\text{m}^{**}$
Angle	KP-06:2020	building angle gauges, protractors with nonius, coarse reading protractors, digital protractors, digital clinometer	$\alpha \leq 360^\circ$, when scale division: $\geq 1'$ (digital) $\geq 2'$ (analog)	$(0,57 \cdot PV + 0,9)'$ $(0,3 \cdot PV + 0,85)'$
Angle	KP-07:2022	spirit levels with scale	horizon for length $L \leq 1000$ mm, when scale division: $\geq 0,01$ mm/ m (analog) $\geq 0,002$ mm/ m (digital)	$(0,27 \cdot PV + 0,0008)$ mm/m $(1,16 \cdot PV + 0,001)$ mm/m
		spirit levels without scale	horizon for length $L < 250$ mm horizon for length $250 \leq L \leq 1000$ mm	$(-0,001 \cdot L + 0,29)$ mm/m $(-5 \cdot 10^{-5} \cdot L + 0,13)$ mm/m
		laser spirit levels	horizon for length $L = 1000$ mm	0,23 mm/m
Angle	KP-09:2020, except chapter 8 and 10	weld seam gauges	$\alpha \leq 360^\circ$, when scale division: $\geq 1^\circ$ (digital) $\geq 1^\circ$ (analog)	$1,1 \cdot PV + 0,5 (^\circ)$ $0,5 \cdot PV + 0,8 (^\circ)$
Angle	KP-13:2023, except chapter 6 and 8	measuring microscopes, portable measuring microscopes, measuring projectors,	$\alpha \leq 90^\circ$	$0,69'^{***}$



Calibration and measurement capability (CMC), expressed as:

Measured quantity	Method	Calibration object	Range	Measurement uncertainty
Torque	KP-10:2022, LST EN ISO 6789-2:2017	measuring video microscopes, pocket comparators		
		hand torque screwdrivers and wrenches	(0,2 ... 1) Nm	1 %
		hand torque screwdrivers and wrenches	(1...1000) Nm	0,5 %

L – measured length, mm

α – measured angle, °

PV – scale division in units of the measurement uncertainty

P – pitch

* uncertainty items are excluded from the CMC due to the influence of the positioning and temperature of the reference equipment,

** for adjustable gauges with a divisible, the CMC does not include an uncertainty item due to their reading

*** the CMC does not include an uncertainty item on the reading of the reference equipment

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