EA MLA Signatory
Český institut pro akreditaci, o.p.s.
(Czech Accreditation Institute)
Hájkova 2747/22, Žižkov, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products and on changes and amendments to some Acts, as amended

CERTIFICATE OF ACCREDITATION

No. **162/2026**

Centrum výzkumu Řež s.r.o.
with registered office Hlavní 130, Řež, 250 68 Husinec
Company Registration No. 26722445

for the Calibration Laboratory No. **2246**
VZU Calibration Laboratory

Scope of accreditation:

Calibration of meters of geometrical quantities (length and plane angle) and calibration of meters of force, torque, mechanical motion and vibrations to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the abovementioned Accredited Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited conformity assessment body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 318/2023 of 15/06/2023, and/or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **01/02/2027**

Prague: 01/04/2026

Český institut pro akreditaci, o.p.s. «CAI»

Signed in the Czech original:
Jan Velíšek on 01/04/2026

Jan Velíšek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute

This translation of the Czech original has been issued by: Eliška Frycová

The Appendix is an integral part of
Certificate of Accreditation No.: 162/2026 of 01/04/2026

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

Centrum výzkumu Řež s.r.o.
CAB number 2246, VZU Calibration Laboratory
Tylova 1581/46, Jižní Předměstí, 301 00 Plzeň

Calibration laboratory locations:

1. **Length and Angle Laboratory** Domažlická 2928/3, 301 00 Plzeň
   Correspondence address: Tylova 1581/46, 301 00 Plzeň
2. **Vibration Laboratory** Orlík 266/15, Bolevec, 316 00 Plzeň
   Correspondence address: Tylova 1581/46, 301 00 Plzeň
3. **Force Laboratory** Orlík 266/15, Bolevec, 316 00 Plzeň
   Correspondence address: Tylova 1581/46, 301 00 Plzeň

CMC for the field of measured quantity: Length

Ord. Num-ber[1]	Calibrated quantity / Subject of calibration	Nominal range min. unit		Nominal range max. unit	Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work -place
1	Gauge blocks	0.3 mm	to	0.9 mm		0,3µm	Measurement on a comparator	KALP-KL/55/101	1
		0.5 mm	to	100 mm		(0,9·L + 0,09) µm	Comparative measurements with standards of II. order (gauge blocks)		
		100 mm	to	1,000 mm		(1,8·L+ 0,18) µm	Comparative measurements with standards of III. order (gauge blocks)		
		1,000 mm	to	3,000 mm		(5·L+ 2) µm	Measurements on a length measuring machine		
2	Setting rings	3 mm	to	300 mm	diameter roundness	(3·D+ 0,7) µm	Measurements on a length measuring machine	KALP-KL/55/102	1
		0 µm	to	100 µm		(0,06·V+ 0,1) µm	Measurements on a roundness tester		
3	Inside micrometers	0 mm	to	1,000 mm		(3·L+ 0,5) µm	Measurements on a length measuring machine	KALP-KL/55/103	1
		1,000 mm	to	6,000 mm		(5·L+ 2) µm			

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Ord. Num-ber[1]	Calibrated quantity / Subject of calibration	Nominal range min.	unit		max.	unit	Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work -place
4	Limit gauges								Measurements on a length measuring machine	KALP-KL/55/104	1
	- plain plug gauges	0	mm	to	300	mm		(3·L+ 0,5) µm			
	- thread plug gauges	1	mm	to	300	mm		(3·L+ 1,9) µm			
	- thread ring gauges	3	mm	to	180	mm		(3·L+ 1,9) µm			
5*	Slide gauges	0	mm	to	3,000	mm		(13·L+ 12) µm	Comparative measurements with standards of IV. order (block gauges)	KALP-KL/55/105	1
	Slide weld gauges	0	mm	to	200	mm		(13·L+ 12) µm	Comparative measurements with standards of IV. order (block gauges)		
	Height gauges	0	mm	to	1,000	mm		(7·L+ 2) µm	Comparative measurements with standards of IV. order (block gauges)		
	Displacement sensors	0	mm	to	500	mm		(15·L + 15) µm	Linear scale measurement		
6	Micrometer gauges									KALP-KL/55/106	1
	- internal (folding)	0	mm	to	6,000	mm		(7·L+ 1,5) µm	Measurements on a length measuring machine		
	- external (snap)	0	mm	to	1,000	mm		(7·L+ 1,5) µm	Comparative measurements with standards of IV. order (block gauges)		
	- internal (inside)	2	mm		200	mm		(7·L+ 1,5) µm	Comparative measurements with setting rings		
7	Indicators	0	mm	to	100	mm	0.001 mm	(3·L+ 0,5) µm	Measurements on a length measuring machine	KALP-KL/55/107	1
		0	mm	to	100	mm	0.01 mm	(3·L+ 2) µm			

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Ord. Num-ber[1]	Calibrated quantity / Subject of calibration	Nominal range min.	unit		max.	unit	Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work -place
8	Graduated gauges									KALP-KL/55/108	1
	- rigid, microscopic	0	mm	to	3,000	mm		(10·L+ 5) µm	Measurement on a microscope		
	- tape, extendable, digital, folding	0	mm	to	5,000	mm		(0,08·L+ 0,15) µm	Comparison with length gauge measuring machine		
	- band	0	m	to	100	m		(0,06·L+ 0,13) µm	Comparison with length gauge measuring machine		
9*	Surface plate	100	mm	to	5,000	mm	flatness	(2·L+ 1) µm	Measurements with electrical level	KALP-KL/55/110	1
	Surface rule	100	mm	to	5,000	mm	straightness	(2·L+ 1) µm			
10	Atypical gauges and linear length gauges	3	mm	to	300	mm	diameter	(3·D+ 0,7) µm	Measurements on a length measuring machine	KALP-KL/55/111	1
		0	mm	to	1,000	mm	length	(3·L+ 0,5) µm			
11	Radius, profile and thread gauges, plain taper gauges internal and external, cone type diameter gauge, penetration needle and atypical templates	0	mm	to	1,000	mm	X-axis	(7·L+ 5,7) µm	Measurement on a microscope with SW M2D	KALP-KL/55/112	1
		0	mm	to	300	mm	Y-axis	(7·L+ 5,7) µm			
12	Measuring cylinders of squareness	100	mm	to	1,000	mm	angle deviation	(1,2·L+ D/4+ 0,14) µm	Measurements on a roundness tester	KALP-KL/55/201	1
13	Angles	0	mm	to	1,000	mm		(7·L+ 5,7) µm	Measurement on a microscope with SW M2D	KALP-KL/55/202	1
14	Sine bars	0	mm	to	300	mm		(3·L+ 0,9) µm	Measurements on a length measuring machine	KALP-KL/55/205	1
15	Film thickness gauges	0	mm	to	2	mm		(20·L+ 1,7) µm	Measurement by a thickness standard	KALP-KL/55/113	1
	Ultrasonic thickness gauges	0	mm	to	50	mm		(0,02·L + 0,03) mmm	Measurement using parallel gauge blocks		

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[1] Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

[2] The expanded measurement uncertainty is in accordance with ILAC-P14 and EA-4/02 M, part of CMC, and it is the lowest value of the respective uncertainty. If not stated otherwise, its coverage probability is approx. 95%. If not stated otherwise, the uncertainty values stated without a unit are relative to the value measured. The uncertainty value stated herein is based on the best conditions achievable by the laboratory; the uncertainty value of a specific calibration may be higher depending on the conditions of such a calibration. For identical extreme values of adjacent ranges, the lower uncertainty value always applies.

[3] For dated documents identifying calibration procedures, only those specific procedures are used. For undated documents identifying calibration procedures, the most recent edition of that procedure (including any changes) is used.

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CMC for the field of measured quantity: Plane angle

Ord. number[1]	Calibrated quantity / Subject of calibration	Nominal range min.	unit		max.	unit	Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work place
1	Angle gauges	0 °		to	360 °			1.2 ‘	Comparative measurement with standard of angle gauges	KALP-KL/55/204	1
		-180 °		to	180 °			1.2 ‘	Measurement on a sine bar		
2	Liquid and electronic levels	-10 mm/m		to	10 mm/m			2.5 µm/m	Measurement on a small angle generator	KALP-KL/55/203	1
	Builder's level	-10 mm/m		to	10 mm/m			16 µm/m			

[1] Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

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[3] If the document identifying the calibration procedure is dated, only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes).

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

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CMC for the field of measured quantity: Mechanical motion (vibrations)

Ord. number[1]	Calibrated quantity / Subject of calibration	Nominal range min.	unit		max.	unit	Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work-place
1*	Acceleration of linear harmonic mechanical vibrations[4] / Vibrometers and control standards[5]	0.1	$m \cdot s^{-2}$	to	1,100	$m \cdot s^{-2}$		2 %	Comparative measurement with a vibration standard	KALP-KL/56/001 (ČSN ISO 16063-21)	2
2*	Sensitivity of vibration sensors / Vibration sensors	0.01	mV/ $m \cdot s^{-2}$	to	10,000	mV/ $m \cdot s^{-2}$	in the frequency band 3 to 5,000 Hz	2 %	Comparative measurement with a vibration standard	KALP-KL/56/002 (ČSN ISO 16063-21)	2

[1] Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

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[3] For dated documents identifying calibration procedures, only those specific procedures are used. For undated documents identifying calibration procedures, the most recent edition of that procedure (including any changes) is used

[4] By calculating the measurements, the velocities and displacements of mechanical vibrations are evaluated

[5] Portable vibrators intended for operational use

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CMC for the field of measured quantity: Force, mechanical tests (torque)

Ord. number[1]	Calibrated quantity / Subject of calibration	Nominal range				Parameter(s) of the meas. quantity	Lowest expanded measurement uncertainty specified[2]	Calibration principle	Calibration procedure identification[3]	Work place
		min.	unit	max.	unit					
1*	Torque / Torque wrench and other devices[4]	0.2	N·m	to 1,500	N·m		0.91 %	Comparative measurement with a standard torque device	KALP-KL/55/302 (ČSN EN ISO 6789)	1
2*	Force (compression, tension) / Working load cells of testing systems	10	kN	to 20	kN		0.036 %	Comparison measurement with a standard load cell	KALP-KL/54/001	3
		20	kN	to 100	kN		0.021 %			
		100	kN	to 150	kN		0.11 %			
		150	kN	to 250	kN		0.092 %			
		250	kN	to 500	kN		0.060 %			

[1] Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

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[3] If the document identifying the calibration procedure is dated, only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes).

[4] Torque wrenches and screwdrivers, torque transducers, pneumatic and electric tighteners, tightening systems