The Appendix is an integral part of
Certificate of Accreditation No. 586/2024 of 04/11/2024

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

AKL ZÁLEŠÁK s.r.o.
CAB number 2230, Calibration Laboratory
Korejská 27, 616 00 Brno

Calibration laboratory locations:

1. **Laboratory Brno** Korejská 27, 616 00 Brno
2. **Laboratory Traplice** Traplice 60, 687 04 Traplice

CMC for the field of measured quantity: Length

Ord. number [1]	Calibrated quantity / Subject of calibration	Nominal range min	unit		max	unit	Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty[2]	Calibration principle	Calibration procedure identification[3]	Location
1*	Strain gauges as a part of tensile testing machines and presses	0 mm		to	10 mm			1.3 µm	Direct measurement by a strain gauge calibrator	KP-AKL-04-01, ČSN EN ISO 9513, ASTM E83	1
		10 mm		to	100 mm			4.7 µm			
2*	Calibration of crossbar movement of tensile testing machines and presses, force measuring devices	0 mm		to	50 mm			2.3 µm	Direct measurement by length standards	KP-AKL-03-03	1
		50 mm		to	1,000 mm			(0.15·L + 0.015) mm			
3*	Length gauges, indicators	0 mm		to	100 mm			(5·L + 0.7) µm	Direct measurement by length standards	KP-AKL-03-03	1

[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 a 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 measured value. 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] 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).

Explanatory notes:
ASTM American Society for Testing and Material (US Technical Standard)
L nominal length (m)

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

AKL ZÁLEŠÁK s.r.o.
CAB number 2230, Calibration Laboratory
Korejská 27, 616 00 Brno

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 measurand	Lowest stated expanded measurement uncertainty[2]	Calibration principle	Calibration procedure identification[3]	Location
1*	Rotation angle / Torque wrenches	0 °		to	120 °			0.21°	Comparison with a rotation angle sensor	KP-AKL-13-02, VDI/VDE 2648 Blatt 1	2
		120 °		to	300 °			0.33°			

[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 a 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 measured value. 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] 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).

Explanatory notes:
VDI/VDE Verien Deutscher Ingenieure / Verband der Elektrotechnik Elektronik Informationstechnik

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

AKL ZÁLEŠÁK s.r.o.
CAB number 2230, Calibration Laboratory
Korejská 27, 616 00 Brno

CMC for the field of measured quantity: Volume

Ord. number [1]	Calibrated quantity / Subject of calibration	Nominal range min	unit		max	unit	Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty[2]	Calibration principle	Calibration procedure identification[3]	Location
1*	Equipment for the determination of air content in fresh concrete and mortar	0 %		to	20 %			0.025 %	Direct measurement of weight using scales	KP-AKL-06-11, ČSN EN 12350-7	1

[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 a 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 measured value. 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] 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).

The Appendix is an integral part of
Certificate of Accreditation No. 586/2024 of 04/11/2024

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

AKL ZÁLEŠÁK s.r.o.
CAB number 2230, Calibration Laboratory
Korejská 27, 616 00 Brno

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

Ord. number[1]	Calibrated quantity / Subject of calibration	Nominal range				Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty[2]	Calibration principle	Calibration procedure identification[3]	Location
		min	unit		max unit					
1*	Force measuring devices, dynamometers	0 kN	to	100 kN		Tension, pressure	0.007 %	Comparison with a force standard	KP-AKL-01-02, ČSN EN ISO 7500-1, ČSN EN ISO 376	2
2*	Tensile testing machines and presses, force measuring devices, dynamometers, adhesion testers, tensile creep machines	0 kN 0.2 MN	to to	200 kN 1.0 MN		Tension	0.07 % 0.2 %	Comparison with a force standard	KP-AKL-01-02, ČSN EN ISO 376, ČSN EN ISO 7500-1, ČSN EN ISO 7500-2, ASTM E4	1
3*	Tensile testing machines and presses, force measuring devices, dynamometers	0 kN 0.2 MN 1.0 MN	to to to	200 kN 1.0 MN 5.0 MN		Pressure	0.07 % 0.1 % 0.2 %	Comparison with a force standard	KP-AKL-01-02, ČSN EN ISO 376, ČSN EN ISO 7500-1, ASTM E4	1
4*	Testing presses – loading plates	0 kN/kN	to	0.8 kN/kN		Self-setting of the upper pressure plate and limitation of movement of the upper press plate	0.00026 kN/kN	Comparison with a force standard	AKL-01-05-01, ČSN EN 12390-4	1
5*	Pendulum hammers	0.1 J	to	20,000 J			0.25 %	Indirect measurement	AKL-01-02-01, ČSN EN ISO 148-2, ASTM E23, part A2	1
6*	Torque / Torque tools, equipment for the calibration of torque tools, torque sensors, tightening systems	0.01 Nm 20 Nm 100 Nm	to to to	20 Nm 100 Nm 1,000 Nm			0.08 % 0.11 % 0.23 %	Comparison with a torque standard	KP-AKL-13-02, ČSN EN ISO 6789-1, BS 7882	1, 2

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

AKL ZÁLEŠÁK s.r.o.
CAB number 2230, Calibration Laboratory
Korejská 27, 616 00 Brno

Ord. number[1]	Calibrated quantity / Subject of calibration	Nominal range				Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty[2]	Calibration principle	Calibration procedure identification[3]	Location
		min	unit	max	unit					
7*	Calibration of force increase over time in force measuring devices	0.001 kN/s	to	50 kN/s			3.15 %	Comparison with a force standard	KP-AKL-01-24, ČSN EN 12390-3, ČSN EN 196-1	1

[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 a 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 measured value. 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] 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).

Explanatory notes:
ASTM American Society for Testing and Material (US Technical Standard)
BS British Standard

"This document is an appendix to the certificate of accreditation. In case of any discrepancies between the English and Czech versions, the Czech version shall prevail, both for the certificate appendix and the certificate itself. "