Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

UKAS CALIBRATION **0700** **Accredited to ISO/IEC 17025:2017**	**MPRD Ltd trading as Cerulean** **Issue No:** 032 **Issue date:** 27 June 2022

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Calibration performed at the above address only

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks
LENGTH Cylindrical setting gauges	 1 mm to 10 mm diameter	 0.002 3 mm on diameter	NOTE 1 Excludes setting standards to MOY/SCM1/61 Method to ISO 2971:2013
FLOW Gas flow rate Calibration of critical flow orifice	 17 ml/s to 50 ml/s	 0.42 % + 0.010 ml/s	Lab air consistent with requirements of ISO 3402:1999 Volume prover method
Calibration of pressure drop standards	98 Pa to 16.6 kPa At flow rates of between 17 ml/s and 18 ml/s	2.1 Pa + 0.55 %	Lab air consistent with requirements of ISO 3402:1999 Method to ISO 6565:2015
Calibration of ventilation standards	15% ventilation to 90 % ventilation At flow rates of between 17 ml/s and 18 ml/s	1.0 % of reading	Lab air consistent with requirements of ISO 3402:1999 Method to ISO 9512:2019
Calibration of sintered disc flow standards	10 ml/min to 1 l/min 1 l/min to 5 l/min 5 l/min to 37 l/min	0.59 % + 0.060 ml/min 0.59 % + 0.060 ml/min 0.68 % + 8.0 ml/min	Dry Filtered Air Method to ISO 2965:2019
MASS Weight Standards	 810 g 642 g 500 g 290 g 50 g 25 g 10 g 5.5 g to 7 g 2 g 1 g 0.5 g	 7.9 mg 7.9 mg 3.4 mg 3.4 mg 0.67 mg 0.45 mg 0.35 mg 0.40 mg 0.34 mg 0.34 mg 0.34 mg	 Substitution method

END

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Appendix - Calibration and Measurement Capabilities

Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant non-repeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k = 2. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand.
Thus, for example, a measurement uncertainty of 1.5 % means 1.5 × 0.01 × q, where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: $Q[a, b] = [a^2 + b^2]^{1/2}$