Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

9152

Accredited to ISO/IEC 17025:2017

S M Gauge Company Ltd

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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
PRESSURE			Calibration of instruments with an electrical output can also be undertaken Methods consistent with EURAMET CG17
Gas Pressure (Gauge)			
Calibration of pressure indicating instruments and gauges	-100 kPa to -40 kPa -40 kPa to -10 kPa -10 kPa to 10 kPa 10 kPa to 40 kPa 40 kPa to 100 kPa 100 kPa to 250 kPa 250 kPa to 400 kPa 400 kPa to 700 kPa 700 kPa to 1 MPa 1 MPa to 1.6 MPa 1.6 MPa to 2.5 MPa 2.5 MPa to 4 MPa 4 MPa to 7 MPa 7 MPa to 10 MPa 10 MPa to 16 MPa 16 MPa to 20 MPa	88 Pa 20 Pa 8 Pa 20 Pa 79 Pa 107 Pa 149 Pa 237 Pa 363 Pa 521 Pa 784 Pa 1.1 kPa 1.9 kPa 5.8 kPa 5.3 kPa 14 kPa	Calibration by comparison with indication from a reference instrument.
Hydraulic Pressure (Gauge)			
Calibration of pressure indicating instruments and gauges	0 kPa to 100 kPa 100 kPa to 250 kPa 250 kPa to 400 kPa 400 kPa to 700 kPa 700 kPa to 1 MPa 1 MPa to 1.6 MPa 1.6 MPa to 2.5 MPa 2.5 MPa to 10 MPa 10 MPa to 300 MPa 300 MPa to 500 MPa	62 Pa 107 Pa 237 Pa 237 Pa 257 Pa 521 Pa 857 Pa Q [0.028 %, 1.4 kPa] 0.032 % 0.040 %	Calibration by comparison with indication from a reference instrument up to 2.5 MPa. Above 2.5 MPa pressure is generated by dead weight tester.
END			

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 $1.5 \times 0.01 \times q$, where q is the quantity value.

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