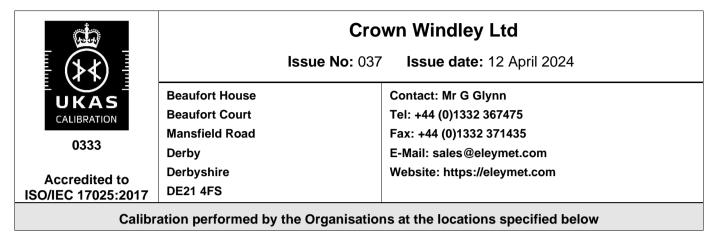
# **Schedule of Accreditation**

issued by

**United Kingdom Accreditation Service** 

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



## Locations covered by the organisation and their relevant activities

### Laboratory locations:

Location details		Activity	Location code
Address Beaufort House Beaufort Court Mansfield Road Derby Derbyshire DE21 4FS	Local contact Mr G Glynn	Dimensional	A

### Site activities performed away from the locations listed above:

Location details	Activity	Location code
At customers premises	Dimensional	В

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	Crown Windley Ltd		
0333 Accredited to ISO/IEC 17025:2017	Issue No: 037 Issue date: 12 April 2024		
Calik	pration performed by the Organisation at the locations specified		

### Calibration and Measurement Capability (CMC) Measured Quantity Range Expanded Remarks Location Instrument or Gauge Measurement Code Uncertainty (k = 2)RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED LENGTH Parallels 5 to 50 x 100 x 400 1.5 to 5.0 As BS 906:Parts 1 Dependent on size and and 2:1972 ANGLE grade. See Note 2 2.0 on squareness See Notes 2 and 3 Block Squares 50 to 750 As BS 939:2007 Α Right angle and box angle plates 50 to 600 As BS 5535:1978 А Squareness: 3.0 + (1.0 per 100 mm) Parallelism: 1.0 + (1.0 per 100 mm) Flatness: 1.0 + (1.0 per 100 mm) See Note 2 Sine bars and tables 0 to 500 As BS 3064:1978 Linear dimensions А 1.0 + (10 x length in m)Overall performance: 3.0 seconds of arc Sine centres 0 to 300 length or between As laboratory А procedure: "SINE BARS & SINE TABLES" Linear dimensions centres 1.0 + (10 x length in m)Overall performance 5.0 seconds of arc Compound sine tables 100 to 500 Tables or As laboratory А procedure: equivalent. SINE BARS & SINE TABLES" FORM Surface Plates Α, Β Granite and Cast iron 160 x 100 to 2500 x 1600 As BS 817:2008 1.5 + (0.8 x diagonal in m) Flatness of working surface: See Note 2 Local variation of working 2.0 surface: Straightedges Α, Β 300 to 5000 1.0 + (2.0 x length in m) As BS 5204:Part Cast Iron See Note 2 1:1975 Steel or Granite 300 to 2000 As BS 5204:Part 2:1977

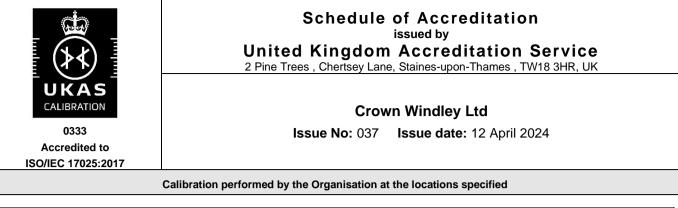
( )	Schedule of Accreditation issued by United Kingdom Accreditation Service 2 Pine Trees , Chertsey Lane, Staines-upon-Thames , TW18 3HR, UK		
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ISO/IEC 17025:2017			

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty $(k = 2)$	Remarks	Location Code
MEASURING INSTRUMENTS AND MACHINES				
Electronic Digital Height Gauges (including setting masters)	0 to 1000	Length: 3.0 + (5.0 x length in m) Squareness: 2.0 + (10 x length in m)	As laboratory procedure: "PERFORMANCE CALIBRATION OF DIGITAL ELECTRONIC HEIGHT GAUGES"	А, В
Electronic Digital Height Gauge Setting Masters	0 to 25.4	1.2	As laboratory procedure: "PROCEDURE FOR THE CALIBRATION OF A SETTING GAUGE"	A
Cartesian co-ordinate measuring machines (CMM)	Length measurement: <i>E</i> 0 to 2000 (longest diagonal)	1.2 + (1.4 x length in m)	As ISO 10360-2:2001 (Withdrawn) Using end standards	В
	Single stylus probing test: P	0.58	Using a 10 mm to 50 mm diameter test sphere	
Cartesian co-ordinate measuring machines (CMM)	Length measurement: $E_{\rm L}$ 0 mm to 2000 mm (longest diagonal)	1.2 + (1.4 x length in m)	As ISO 10360-2:2009 Using end standards	В
	Single stylus probing test: PForm.Sph.1x25:SS:Tact PSize.Sph.1x25:SS:Tact	0.42 0.64	As ISO 10360-5:2020 Using a 10 mm to 51 mm diameter test sphere. Test value uncertainties calculated in line with ISO/TS 17865:2016	
	Single stylus probing test: P <sub>FTU</sub>	0.58	As ISO 10360-5:2010 (Withdrawn) Using a 10 mm to 50 mm diameter test sphere.	

2: The uncertainty quoted is for the departure from flatness, straightness, or squareness, ie the distance separating the two parallel planes which just enclose the surface under consideration.

3: Reference squares calibrated by first principles.

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] =  $[a^2 + b^2]^{1/2}$