Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

UKAS CALIBRATION **0332** **Accredited to ISO/IEC 17025:2017**	**Mitutoyo (UK) Limited** **Issue No:** 042 **Issue date:** 09 March 2026	
	6 Banner Park **Wickmans Drive** **Coventry** **CV4 9XA**	**Contact: Gary Adams** **Tel: +44 (0)2476 426 336** **Fax: +44 (0)2476 426 339** **E-Mail: calibration@mitutoyo.co.uk** **Website: www.mitutoyo.co.uk**

Calibration performed by the Organisations at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address 6 Banner Park Wickmans Drive Coventry CV4 9XA	**Local contact** Gary Adams	Dimensional	A

Site activities performed away from the locations listed above:

Location details		Activity	Location code
At customers premises	Gary Adams	Dimensional	B

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
LENGTH			**Class C** uncertainties apply to the measurement of length of gauges by comparison with grade K standards of length of a similar material. Class C uncertainties apply to grade 0, 1 and 2 gauges to BS EN ISO 3650:1999 and BS 4311-1:2007.	
Gauge Blocks		Class (See notes)		A
Inch	BS 4311-1:2007	C		
(Steel, Ceramic and Tungsten Carbide protectors)	0.010 to 0.4 in.	3.0		
	0.4 to 1 in.	4.0		
	Size 2 in	5.0 µ in		
	3 in	6.0		
	4 in	7.0		
	Flatness	7.0		
	Variation in length	2.5		
Millimetre	BS EN ISO 3650:1999		1 All linear calibrations may be given in inch units.	
(Steel Ceramic and Tungsten Carbide protectors)	0.2 to 10	0.080		
	10 to 25	0.10		
	Sizes 30, 40, 50	0.12		
	60, 70, 75	0.15		
	80, 90, 100	0.18		
	Flatness	0.18		
	Variation in length	0.06		
Gauge Block Accessories	0.1 to 35		BS 4311-2:2009	A
	Flatness, parralelism and length:	0.30		
	Centrality of centre point:	2.0		
Step Gauges (Check Masters Gauges)	0 to 1000	1.0 + (1.0 x length in m)	In house procedure CP051	A
Length Gauges, Flat and Spherical-ended (excluding length bars)	0 to 1000	1.0 + (5.0 x length in m)	In house procedure CP029	A
Thread Measuring Cylinders	0.1 to 5	0.50	BS 3777:1964 and BS 5590:1978	A
Plain Plug Gauges (parallel) cylindrical setting standards and rollers	1 to 50 diameter	0.80	In house procedures CP063, CP067, CP104	A
	50 to 100 diameter	1.0		
	100 to 150 diameter	1.5		
	150 to 200 diameter	2.0		
	200 to 300 diameter	3.0		
Plain Ring Gauges (parallel) and setting standards	2 to 10 diameter	1.0 on diameter	In house procedures CP042	A
	10 to 25 diameter	0.80		
	25 to 50 diameter	1.0		
	50 to 100 diameter	1.5		
	100 to 150 diameter	2.0		
	150 to 200 diameter	2.5		
	200 to 300 diameter	3.0		

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
LENGTH (cont'd)				
Precision Spheres (Metal and Ceramic)	0 to 50 diameter	0.50	In house procedures CP074	A
Feeler Gauges	0.025 to 1	1.0	BS 957: 2008.	A
Gap Gauges	0.5 to 100 100 to 200	3.0 5.0	In house procedures CP069	A
Optical Parallels	0 to 50 diameter	0.30 (See Note 2)	In house procedure CP007	A
Parallels (Engineers)	5 to 50 x 10 x 400	1.5 to 5.0	BS 906:1972	A
Vee Blocks	20 to 150		BS 3731:1987	A
	Flatness:	1.5		
	Parallelism:	2.5		
	Squareness:	3.6		
	Centrality of vee:	3.0		
	Matching:	4.4		
	Equality of semi-angle:	15 Seconds of arc		
ANGLE			Note 2 The uncertainty quoted is for the departure from flatness, straightness, or squareness, it the distance separating the two parallel planes which just enclose the surface under consideration.	
Squares				
Blade type	Squareness of blade to stock:		BS 939:2007	A
	50 to 300	3.0		
	300 to 600	5.0		
	Straightness of blade:	1.5		
	Flatness:	1.5		
	Parallelism:	3.0		
	Lateral squareness:	10		
Cylindrical	75 to 900	2.0 (See Note 2)	BS 939:2007	A
Right Angle and Box Angle Plates	50 to 600	Squareness: 3.0 + (1.0 per 100 mm) Parallelism: 1.0 + (1.0 per 100 mm) (See Note 2)	BS 5535:1978	A

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (*k* = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
LENGTH (cont'd)				
Sine Bars	0 to 500 length		BS 3064:1978	A
	Overall performance: Flatness of working faces Centre distance of rollers Common plane/parallelism	3.0 seconds of arc 1.0 1.0 2.0		
	Equality of roller diameter	0.8		
Spirit Levels	4 seconds of arc to 60 minutes of arc nominal sensitivity	Mean sensitivity 10% of nominal Minimum 0.84 seconds of arc	BS 3509:1962 and BS 958:1968	A
MEASURING INSTRUMENTS AND MACHINES				
Micrometers				A
External	0 to 600		BS 870:2008	
	Heads	2.0		
	Zero setting 0 to 25	1.0		
	Zero setting 25 to 600	1.3 + (6.0 x length in m)		
		0.20		
	Flatness of anvils	0.70		
	Parallelism of anvils			
Internal	0 to 900	Heads: 2.0 Setting and extension rods 1.5 + (5.0 x length in m)	BS 959:2008	
Depth micrometer			BS 6468:2008	A
	0 to 300			
	Heads: Setting and extension rods: Base flatness: Measuring face flatness: Parallelism of Type S:	2.0 1.5 + (5.0 x length in m) 1.5 0.20 1.5		
External Micrometers (indicating, digital and electronic)	0 to 600 0 to 25 and 25 to 50 50 to 600	Heads / Traverse: 1.5 Setting: 0.90 Setting: 1.0 + (6.0 x length in m) Flatness of anvils: 0.20 Parallelism of anvlis: 0.70	In house procedures CP004	A
Height Setting Micrometers	0 to 1000	Heads: 1.2 between any two points Stepped column: 1.0 + (6.2 x length in metres)	In house procedures CP010	A

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
MEASURING INSTRUMENTS AND MACHINES (cont'd)				
Riser Blocks for Above Item	150 300 600	1.7 2.5 4.0	In house procedures CP010	A
Micrometer Heads	0 to 50 Traverse: Flatness: Squareness:	 1.0 0.20 0.80	BS 1734:1951	A
Three Point Bore Micrometer	6 to 100 100 to 200	3.0 4.0	In house procedures CP076	A
Cartesian co-ordinate measuring machines (CMM)	0 to 1530 (longest diagonal using end standards) E_L	0.40 + 0.80 x length in m	ISO 10360-2:2009	A, B
	Single stylus probing test: $P_{Form.Sph.1×25:SS:Tact}$ $P_{Size.Sph.1×25:SS:Tact}$	 0.11 0.60	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_{FTU} P_{STU}	 0.11 0.52	ISO 10360-5:2010 (Withdrawn). Using a 10 mm to 50 mm diameter test sphere.	
Co-ordinate measuring machines (CMM)	CMMs with the axis of a rotary table as the fourth axis. Radius 150 mm to 400 mm FR, FT, FA	 0.38	BS EN ISO 10360-3:2001	A, B
	CMMs used in scanning measuring mode. PForm.Sph.Scan:k:Tact PSize.Sph.Scan:k:Tact ƮSph.Scan:k:Tact	 0.11 0.60 0.21 seconds	ISO 10360-5:2020. Using a 24.9 mm to 25.5 mm diameter test sphere. Test value uncertainties calculated for Pform and Psize in line with ISO/TS 17865:2016	
	CMMs used in scanning measuring mode Tij Ʈ	 0.28 0.21 seconds	BS EN ISO 10360-4:2001 (withdrawn). Using a 25 mm diameter test sphere.	
Toolmakers Microscopes	0 to 200	3.2 + (10 x length in m) 13 minutes of arc	In house procedures CP066	A, B

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (*k* = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
MEASURING INSTRUMENTS AND MACHINES (cont'd)				
Profile Projectors	10x to 100x magnifications	125 at the screen	In house procedures CP064	A, B
	0 to 200 mm	3.5 + (11 x length in m)		
	0 to 360 degrees	5.0 minutes of arc		
Vernier Caliper Gauges,	0 to 1000	Overall performance 10 + (30 x length in m)	BS 887:2008	A
		Flatness: 1.5		
		Parallelism: 2.5		A
		Squareness: 4.0		
		Co-Planer: 10		
		Width of internal jaws: 4.0		A
Vernier Height Gauges	0 to 1000	Overall performance 10 + (30 x length in m)	BS 1643:2008	
Vernier Depth Gauges	0 to 600		BS 6365:2008	
	Overall performance:	10 + (30 x length in m)		
	Flatness / Straightness:	1.5		
	Parallelism:	2.5		
Depth Gauges (digital and dial)	0 to 600		In house procedure CP044	
	Overall performance:	10 + (30 x length in m)		
	Flatness / Straightness:	1.5		
	Parallelism:	2.5		
Calipers (digital and dial)	0 to 1500	10 + (15 x length in m) Flatness: 1.5 Parallelism: 2.5 Squareness: 4.0 Co-Planer: 10 Width of internal jaws: 4.0	In house procedures CP024	A
Height gauges (digital and electronic)	0 to 1000	10 + (15 x length in m)	In house procedures CP035	A
Dial Gauges and Dial Test Indicators	0 to 50		BS 907:2008 and BS 2795:1981	A
	Scale interval measurements:	1.0		
	Discrimination:	0.70		
External and Internal Dial Callipers	0 to 100	3.6	In house procedure CP108	A
	100 to 180	7.0		

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
MEASURING INSTRUMENTS AND MACHINES (cont'd)				
Bevel Protractors	0° to 360°		BS 1685:2008	A
	Accuracy of scale Parallelism of blade Straightness of blade	5.0 minutes of arc 3.0 1.5		
Electronic comparators / Displacement transducers (linear)	0 to 2.0	0.20	In house procedure CP 053	A
Bench Centres	0 to 500	1.0 + (10 x length in m)	In house procedures CP011	A
Rules - Steel	0 to 1000 1000 to 2000	15 + (10 x length in m) 30 + (10 x length in m)	BS 4372:1968	A
Scales - linear	0 to 600	2.0 + (10 x length in m)	In house procedures CP078	A
FORM			2 The uncertainty quoted is for the departure from flatness, straightness, or squareness, it the distance separating the two parallel planes which just enclose the surface under consideration.	
Surface Plates Granite and Cast Iron	160 x 100 to 2500 x 1600		BS 817:2008	A, B
	Flatness of working surface	1.5 + (0.80 x diagonal in m) See Note 2		
	Local variation of working surface	1.8		
Straightedges Cast Iron, Steel and Granite	0 to 1500	1.0 + (2.0 x length in m) See Note 2	BS 5204:Part 1:1975 and BS 5204:Part 2:1977	A
Roundness				
External	0 to 350 diameter	0.050 on radius	BS 3730:Part 2:1982	A
Internal	3 to 350 diameter			
Surface texture (excluding measurement standards and roughness comparison specimens)	Ra 0.02 µm to 80 µm	7.0 % of measured value (0.16 µm Ra minimum)	BS 1134:2010	A
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: $Q[a, b] = [a^2 + b^2]^{1/2}$