


# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

 <b>UKAS CALIBRATION</b> <b>0026</b>  Accredited to <b>ISO/IEC 17025:2005</b>	<b>Taylor Hobson</b>	
	<b>Issue No: 029    Issue date: 10 February 2012</b>	
	<b>Calibration Laboratory</b> New Star Road Leicester LE4 9JQ	<b>Contact: Mr C J Phillips</b> Tel: +44(0)116- 2763771 Fax: +44 (0)116-2463058 E-Mail: calibration-uk.lei@ametec.co.uk Website: www.taylor-hobson.com
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
<b>Address</b> Calibration Laboratory New Star Road Leicester LE4 9JQ	<b>Local contact</b> Mr C J Phillips	Dimensional  A

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

Location Details	Activity	Location code
<b>Address</b> At customer's premises	<b>Local contact</b> Mr C J Phillips	Dimensional  B



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DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ( $k = 2$ )	Remarks	Location Code
RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
<b>LENGTH</b>				
Balls (Steel Ceramic and Tungsten carbide)	1 to 50 diameter	0.50 on diameter (0.40 on derived radius) 0.025 on form	NOTES:  1. The uncertainty quoted is for the distance separating the two parallel plane lines which just enclose the profile under consideration.  2. All linear calibrations may be given in inch units.  3. Machine tools calibrated to the manufacturers specification.  4. Measurement ranges as specified below for surface texture measurement standards.	A
Plain plug gauges (parallel)	1 to 50 diameter 50 to 100 diameter 100 to 200 diameter 200 to 600 diameter	0.50 0.80 1.0 2.0 ] on diameter		A
Plain ring gauges (parallel)	10 to 50 diameter 50 to 100 diameter 100 to 150 diameter 150 to 200 diameter 200 to 300 diameter	0.80 1.0 1.5 2.0 3.0 ] on diameter		A
<b>ANGLE</b>				
Angle gauges Polygons	0° to 360° 4 to 36 sides	0.50 seconds of arc. 0.050 flatness of faces (see note 1)		A
Constant deviation prisms Optical squares (specific value)	90°	0.60 seconds of arc		A
Rotary tables and dividing heads (including inclinable tables)	0° to 360° Capacity 0 to 1000	Linear dimensions 1.0 + (10 x length in m) Overall performance 1.0 second of arc		A
Indexing tables	0° to 360°	0.30 seconds of arc		A
<b>FORM</b>				
Roundness reference standards	12 to 50 diameter	0.0050 radial		A
Cylindrical roundness magnification standards	Radial displacement 1 µm to 500 µm	0.10		A
Surface texture measurement standards	As BS EN ISO 5436-1:2001			
	Depth measurement standards (Type A) 0.025 µm to 2.5 µm	0.0040 to 0.015		



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RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
Surface texture measurement standards (cont'd)	As BS EN ISO 5436-1:2001			A
	Depth measurement standards (Type A) 2.5 $\mu\text{m}$ to 100 $\mu\text{m}$	0.015 to 0.060		
	Stylus tip condition standards (Type B) 0.8 $\mu\text{m}$ to 250 $\mu\text{m}$ Sm	(2.0 % + 4.0 nm) Ra of the stated value over the calibration area		A
	Spacing measurement standards (Type C) 0.8 $\mu\text{m}$ to 250 $\mu\text{m}$ Sm	0.60 $\mu\text{m}$		A
	Roughness measurement standards (Type D) 0 $\mu\text{m}$ to 12 $\mu\text{m}$ Ra	(2.0 % + 4.0 nm) Ra of the stated value over the calibration area		A
	Profile coordinate measurement standard (Type E) Radius/form type: 80 to 110 Prism type: 0° to 30°	2.0 1.0 second of arc		A
Roughness comparison specimens	As BS 2634:Part 1:1987, BS 2634:Part 2:1987 and BS 2634:Part 3:1980 0 $\mu\text{m}$ to 12 $\mu\text{m}$ Ra	3.0 % of the stated value over the calibration area		A
Optical flats	10 to 100 diameter	0.050		A
Optical straightedges	1 to 500	0.10		A
Cylindrical straightedges	1 to 1000	0.10		A
Surface Plates and Tables Granite Cast Iron	As BS 817: 2008 160 x 100 to 2500 x 1600	1.5 + (0.80 x diagonal in m) See Note 1		A, B
<b>MEASURING INSTRUMENTS</b>				
Small step height (recording type)	0.0005 $\mu\text{m}$ to 10 $\mu\text{m}$	4.0 nm		A
Optical alignment telescopes also targets and collimators	1.2 displacement	Alignment at $\infty$ 2.0 seconds of arc Targets 4.0 Line of site 10.0		A A



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RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
MEASURING INSTRUMENTS (cont'd)				
Auotcollimators Optical Photo-electric Digital	60 minutes of arc 10 minutes of arc 15 minutes of arc	0.5 seconds of arc 0.5 seconds of arc 0.5 seconds of arc		A
Spirit levels	BS 3509:1962 and BS 958:1968 5 seconds of arc to 60 minutes of arc nominal sensitivity	Mean sensitivity: 10% of nominal Minimum 0.50 seconds or arc		A
Electronic indicating levels	0 minutes of arc to 60 minutes of arc	1.0 second of arc		A
Clinometers	0° to 360°	Mechanical instruments: 10 seconds of arc Optical instruments: 1.0 second of arc		A
Fineness of grind gauges (Hegman type)	As BS EN ISO 1524:2002, BS 3900-C6:2000 BS 3900:Part C6:1989 0 µm to 100 µm	2.0		A
Rotary axis	0° to 360°	2.0 seconds of arc		B
Roundness measuring machines	Internal 1 to 350 diameter	0.050		B
	External 0.05 to 350 diameter	0.050		
	Straightness 0 to 1000	0.10		
Surface texture measuring machines	As BS EN ISO 12179:2001 See Note 4	0.020		B
Talyrond precision cylinder	Parallelism 0 to 100	0.3	In-house procedure 1302	A
END				