## **Schedule of Accreditation**

issued by

## **United Kingdom Accreditation Service**

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



0583

**Birmingham** 

**B33 0LG** 

Accredited to ISO/IEC 17025:2017

### Western Pegasus Ltd

Issue No: 018 Issue date: 28 July 2025

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#### Calibration performed at the above address only

#### **DETAIL OF ACCREDITATION**

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ( <i>k</i> =2)	Remarks	
RANGE IN MILLIMETERS AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
INVOLUTE GEARS, INVOLUTE SPLINES (internal and external and including Taper Masters)				
Bore Diameter	11 to 50 50 to 100	1.0 2.5	Horizontal measuring machine and reference setting standards.	
Tip Diameter/Major dia (external)	25 to 100 100 to 200	1.0 3.5	Horizontal measuring machine and reference setting standards.	
Minor diameter (internal)	12 to 100 100 to 200	Even teeth Odd teeth 2.5 3.5 5.0		
Dimension Over/Pins (Mdr)	25 to 100 100 to 200	5.0 7.5	Horizontal measuring machine or floating carriage micrometer and reference	
Dimension between pins- spur (Mdk)	12 to 100 100 to 200	2.7 5.0	setting standards.	
Dimension between balls- helical (Mdr)	12 to 100 100 to 200	5.0 7.5		
Profile total deviation( $F_{\alpha}$ ) Profile slope deviation ( $f_{H\alpha}$ ) Profile form deviation ( $f_{f\alpha}$ )	Overworking length of tooth	1.7 1.1 1.3	CNC gear measuring machine	
Helix (Lead) total deviation( $F_{\beta}$ ) Helix slope deviation ( $f_{H\beta}$ ) Helix form deviation ( $f_{\beta f}$ )	0 to 100 face width	2.1 1.6 1.4	CNC gear measuring machine (with a maximum of 45° helix angle)	
Radial Runout of Tooth Space (F <sub>r</sub> )	25 to 200	2.0	CNC gear measuring machine	
Single pitch (f <sub>p</sub> )	25 to 200 diameter	1.0	CNC gear measuring machine	
Pitch difference (f <sub>u</sub> )	25 to 200	1.0	CNC gear measuring machine	
Cumulative pitch (F <sub>p</sub> )	25 to 200 reference circle diameter	3.5	CNC gear measuring machine	

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RANGE IN MILLIMETERS AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED				
SPLINE GAUGES, STRAIGHT SIDED AND SERRATIONS				
Plugs and rings				
Major diameter (plug)	10 to 100 diameter 100 to 200 diameter	1.0 3.5	Horizontal measuring machine and reference setting standards.	
Minor diameter (plug)	10 to 100 diameter 100 to 200 diameter	1.0 3.5	Horizontal measuring machine and reference setting standards.	
Major Diameter (ring)	12 to 50 diameter 50 to 100 diameter 100 to 200 diameter	Even Teeth Odd Teeth 2.5 3.5 3.5 5.0 5.0 7.5	Horizontal measuring machine and reference setting standards.	
Minor Diameter (ring)	12 to 50 diameter 50 to 100 diameter 100 to 200 diameter	2.5 3.5 3.5 5.0 5.0 7.5	Horizontal measuring machine and reference setting standards.	
Spline Width	2 to 20	1.0	Gauge blocks	
Helix (Lead) total deviation( $F_{\beta}$ ) Helix slope deviation ( $f_{H\beta}$ ) Helix form deviation ( $f_{\beta f}$ )	0 to 200 face width	2.1 1.6 1.4	CNC gear measuring machine	
Single pitch (f <sub>p</sub> )	30 to 200	1.0	CNC gear measuring machine	
Pitch difference (f <sub>u</sub> )	30 to 200	1.0	CNC gear measuring machine	
Cumulative pitch (Fp)	30 to 200	3.5	CNC gear measuring machine	
Serrations only				
Serration angle (profile)	13 to 200 diameter	2.5	CNC gear measuring machine	
Radial Runout of Tooth Space (F <sub>r</sub> )			CNC gear measuring machine	
Dimension over pins (Mdk)	6 to 75 diameter 75 to 150 diameter	1.0 3.5	Horizontal measuring machine and reference setting standards.	
Dimension under pins (Mdk)	6 to 100 diameter 100 to 150 diameter	2.5 5.0	Horizontal measuring machine and reference setting standards.	
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  $1.5 \times 0.01 \times q$ , 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] =  $[a^2 + b^2]^{1/2}$ 

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