## **Schedule of Accreditation**

issued by

**United Kingdom Accreditation Service** 

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## DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
$\begin{array}{c} \label{eq:GEARS, SPLINES} \\ \hline \textbf{External and internal (1D measurement)} \\ (see notes 1 to 5) \\ \hline \textbf{Profile total deviation (F_{\alpha})} \\ \hline \textbf{Profile slope deviation (f_{H\alpha})} \\ \hline \textbf{Profile form deviation (f_{H\alpha})} \\ \hline \textbf{Profile crown (C_{\alpha})} \\ \hline \textbf{Profile twist (S_{\alpha})} \\ \hline \textbf{Tip and root relief (C_{\alpha a} and C_{\alpha f})} \\ \hline \textbf{Helix (alignment) total deviation (F_{\beta})} \\ \hline \textbf{Helix (alignment) form deviation (f_{H\beta})} \\ \hline \textbf{Helix (alignment) form deviation (f_{H\beta})} \\ \hline \textbf{Helix (alignment) form deviation (f_{H\beta})} \\ \hline \textbf{Helix cown (C_{\beta})} \end{array}$	measured/Range of measurement           Helix angle 0 to 55°           0.15 to 25 mm Module           Measurement uncertainties (U <sub>95</sub> )           1.50           1.20           0.90           1.20           1.20           0.90           1.20           1.20           0.90           1.20           1.30	Equipment/Techniques used RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES UNLESS OTHERWISE STATED NOTES 1. Measured by CNC GMM or CMM, verified by comparison with reference artefacts, using a tactile probe. 2. Maximum diameter 850 mm, Maximum length 1000 mm, Max Weight 500 kg. 3. The uncertainties stated assume that journal diameters or reference surfaces have been used to define the measurement axis.
Helix twist $(S_{\beta})$ End relief $(C_{\beta I} \text{ and } C_{\beta I})$	1.30 1.50	<ol> <li>All 1D measurements are reported as deviations from nominal geometry.</li> </ol>
Single pitch (fp) Single pitch difference (f <sub>u</sub> )	0.90 0.90	5. All 1D measurements are measured and evaluated in accordance with ISO 1328-1 and ISO 21771, unless stated otherwise in
Cumulative pitch $(F_p)$	1.30	the calibration certificate.
Radial runout of tooth space (F <sub>r</sub> ) External and Internal gear surface areal	1.60	b. Areal involute surface measurements are reported as deviations from nominal geometry, using robustly fitted Chebyshev surface polynomial coefficients to evaluate
measurement. (see notes 1 and 6 to 8)		all surface parameters.
Profile slope deviation $(f_{H\alpha}^{A})$ Profile crown $(C_{\alpha}^{A})$ Helix slope deviation $(f_{H\beta}^{A})$ Helix crown $(C_{\beta}^{A})$ Surface form deviation $(f_{\alpha\beta}^{A})$ Surface twist $(S_{\alpha\beta}^{A})$ Surface tip and root relief $(C_{\alpha1}^{A} \text{ and } C_{\alpha1}^{A})$ Surface helix end relief $(C_{\beta1}^{A} \text{ and } C_{\beta11}^{A})$ Dimension over/under pins or balls (Mdr or Mdk)	1.80 1.80 1.80 1.80 1.90 1.80 1.80 1.85 1.85 5 to 600 diameter, Measurement uncertainty U <sub>95</sub> 2.20	<ul><li>7. Tip and root relief and helix end relief are evaluated using the same method for 1D parameters, using the residual deviations from the surface fit.</li><li>8. Surface form deviation is the residual deviation after fitting the polynomials and micro geometry.</li></ul>
END		