

Powerful software for the analysis of cylindrical form

Designed and written specifically for use on Windows XP, Ultra software provides a powerful and easy-to-use environment for controlling the measuring instrument and producing high-quality results that can be tailored to meet the needs of the user. With integral tolerance checking and output for SPC, Ultra can be readily integrated in to the production process.

Operation and control

- Full instrument control
- Ease of use through extensive use of icons
- Built-in tolerance checking giving simple pass/fail indication
- User programmability – allowing repetitive tasks to be automated
- Simplified User Interface capability to allow programs to be executed from a simple push-button interface.
- Automated data exclusion enabling most difficult analyses to be made without user interaction
- Support for the latest ISO standards (e.g. ISO 12181 and ISO 12781)

Extensive analysis

- Roundness
- Concentricity
- Flatness
- Multiplane Flatness
- Squareness
- Coaxiality
- Runout
- Harmonics
- Straightness
- Parallelism
- Cylindricity

Filtering

- 2CR or Gaussian
- Polar filters up to 1500upr including bandpass filters
- Linear filters from 0.25mm to 25mm

Presentation of results

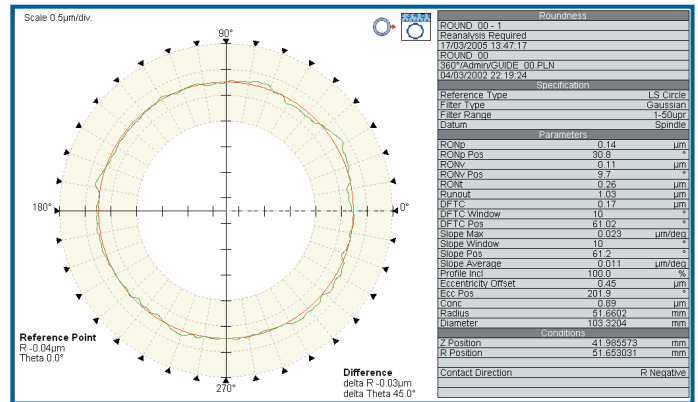
- Comprehensive single page layouts
- Custom layout capability
- Multiplot feature enabling several results to be printed on a single page
- Export to SPC or spreadsheet

Optional analyses

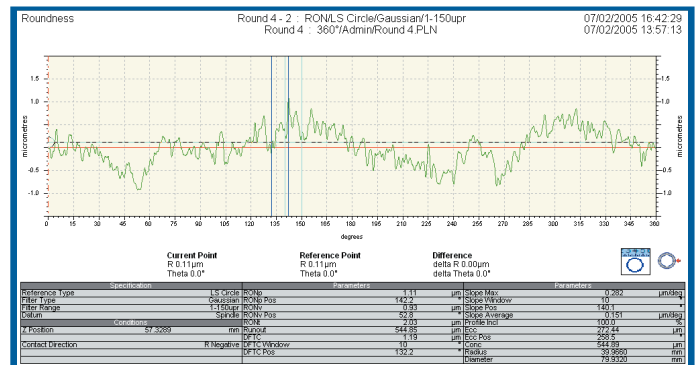
- Groove analysis – for hydro-dynamic bearings
- Velocity analysis – for high precision bearings

Languages

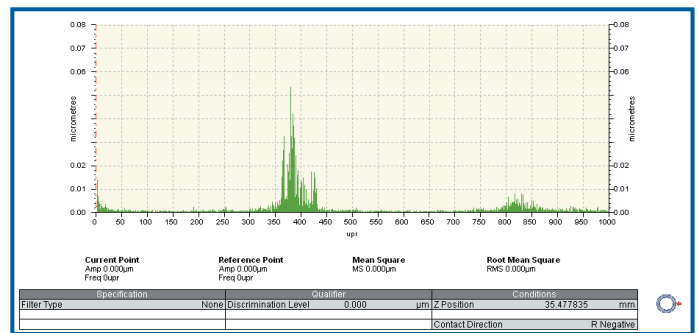
Brazilian Portuguese, Chinese, Czech, English, French, German, Italian, Japanese, Polish and Spanish.



Polar format - Roundness and flatness results can be presented in both polar (as shown in this example) and linear formats



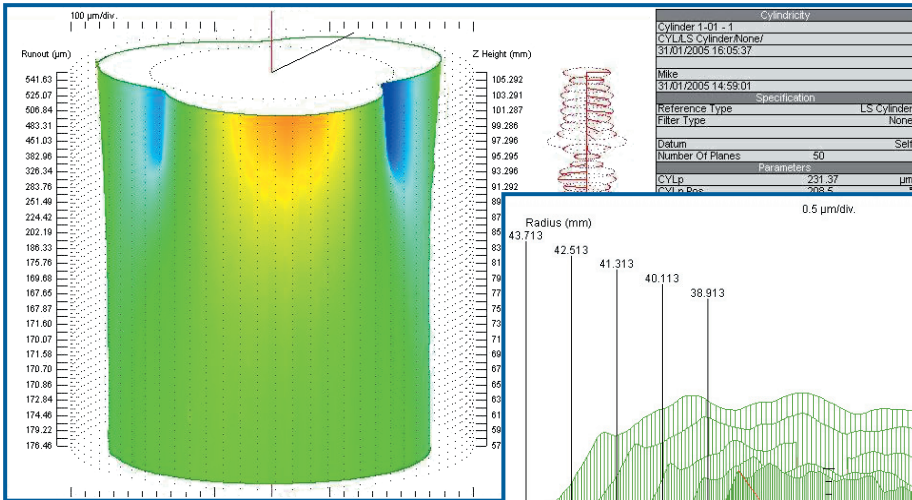
Linear format - A roundness result presented in linear format; the table of results for any measurement format can be configured to include only essential results



Harmonic analysis - Particularly useful in bearing applications, harmonic analysis results can be displayed as a table or as an interactive histogram (as shown)



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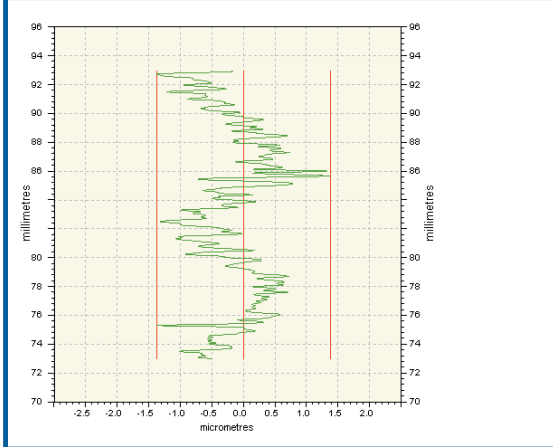
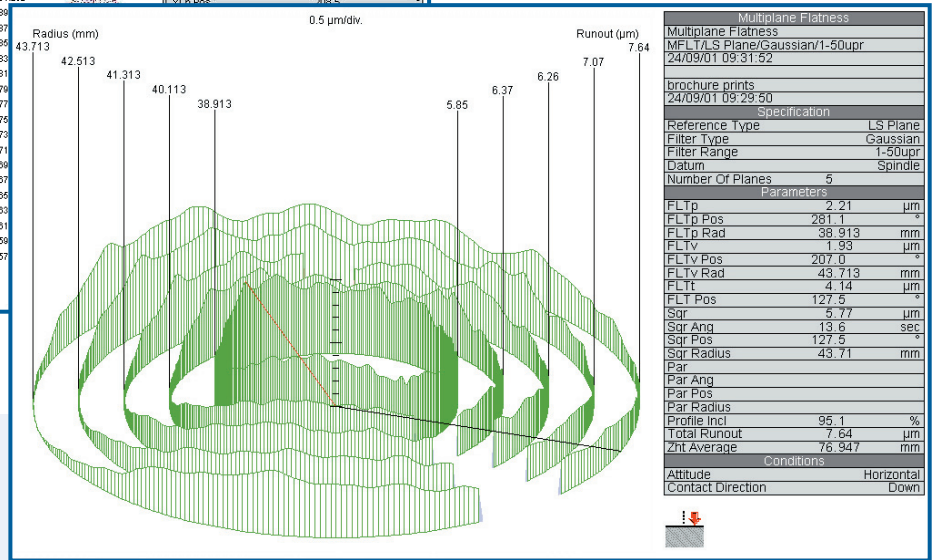


Cylindricity Analysis

In this example a fifty-plane cylinder is shown in shaded format. Cylindricity can also be displayed in wire frame format. Individual planes can be accessed directly from the cylinder display and independently analyzed.

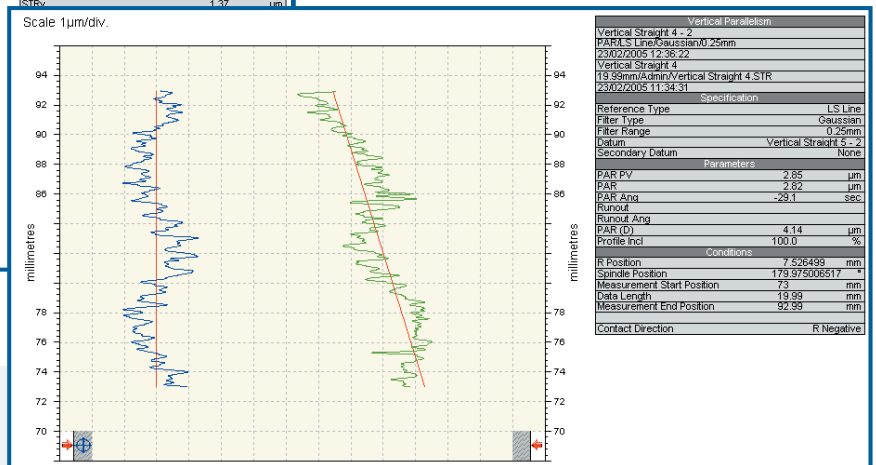
Multiplane flatness analysis

This is particularly useful for the assessment of flat surfaces. In this example six measurements have been combined and the flatness parameters calculated on the data from all of the plane measurements taken together.



Straightness

Straightness can be computed to either a Least Squares Line (LSL) or Minimum Zone (MZL) reference.



Parallelism

The parallelism of the data to the datum as well as the parallelism of the best-fit line to the datum trace are given.

User programmability

A major benefit of Ultra is user programmability. This enables users to write their own measurement sequences for repetitive measurement tasks. In production environments this can be invaluable for automating measurement procedures, reducing cycle time and operator variability. Programming modes include learn mode, program editing, single step and user breakpoints.

Custom layouts

Ultra software is supplied with a comprehensive set of pre-defined result layouts, enabling the user to produce high-quality printouts with the minimum of effort. The software also gives the user great flexibility in creating "custom" layouts, enabling them to tailor the layouts to meet their individual needs. Once a custom layout has been created it can be selected as the default layout for additional measurements of that type.

Specifications are subject to change without notice. Availability of some features is dependent on instrument type or optional licence.