

TALYROND® 150 PRO

High speed roundness measurement systems for
the bearings, automotive and precision industries



TALYROND® 150 PRO

High speed roundness measurement system **Bearings, automotive & precision industries**

This unique roundness instrument is robust enough for the shop floor, and accurate enough for any inspection room.

The Talyrond® 150 PRO offers a flexible solution for roundness and form requirements with a variety of application specific software and accessories.

Powered by Metrology 4.0 – The icon-based software provides simple measurement and advanced analysis. With just a few taps, you can generate professional measurement reports effortlessly.



World's highest throughput roundness system...



Increase manufacturing output



Ensure part traceability



Reduce part scrappage

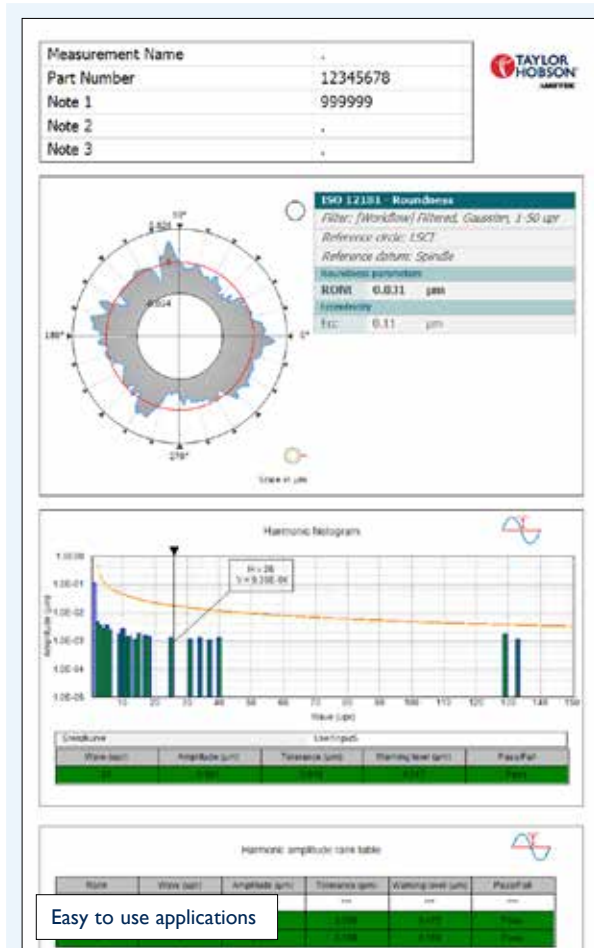
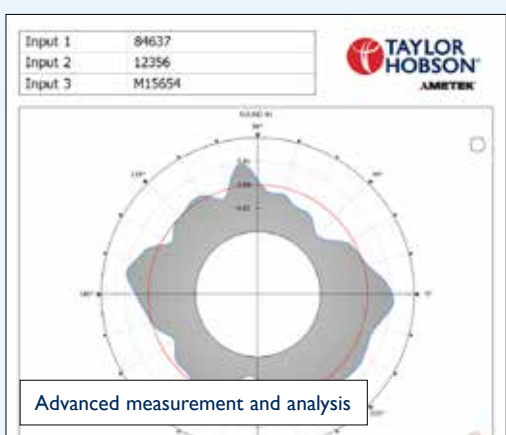


Improve 'right first time'

What can it measure...

The Talyrond® 150 PRO is ideally suited to measuring high volume production parts across a wide variety of industries including:

- **Bearings** – Races, Balls, Needles and Rollers
- **Automotive** – Valves, Con Rods, Pins and Brake discs
- **Process Control** – Grinding, Turning, Milling and Honing
- **Other** – Aerospace, Hydraulics, Industrial, Medical and Dental



High speed roundness measurement

Key features

Speed - 3 parts/min. including set-up

The most important benefit these systems offer is speed. In precision industries as manufacturing volumes increase all too often the bottleneck is metrology.

High measurement throughput systems ensure higher sampling rates are achieved while also supporting increased manufacturing volumes.

Ease of use - Touchscreen software

Metrology 4.0 software is an intuitive platform that utilises icons to run measurement programs. Default programs are already preloaded onto the interface and customers can make their own bespoke ones to suit their individual needs.

Robustness - Suitable for 24/7 operation

All systems are designed for constant 24 hour, 7 days a week use in demanding shop floor environments; manufactured using only the most durable and hard wearing materials.

Precision - ± 25 nm spindle accuracy

Although many times faster than traditional benchtop roundness systems there is no loss of precision or accuracy.

Full ISO compliant measurements can be taken with ± 25 nm accuracy and 6 nm gauge resolution.

MEASUREMENT CAPABILITY

More than a measurement instrument...

A new measurement concept

Talyrond® R-150 PRO powered by Metrology 4.0 Smart Software

The Talyrond® 150 PRO with Windows® 11 allows for wireless data transfer to networks.

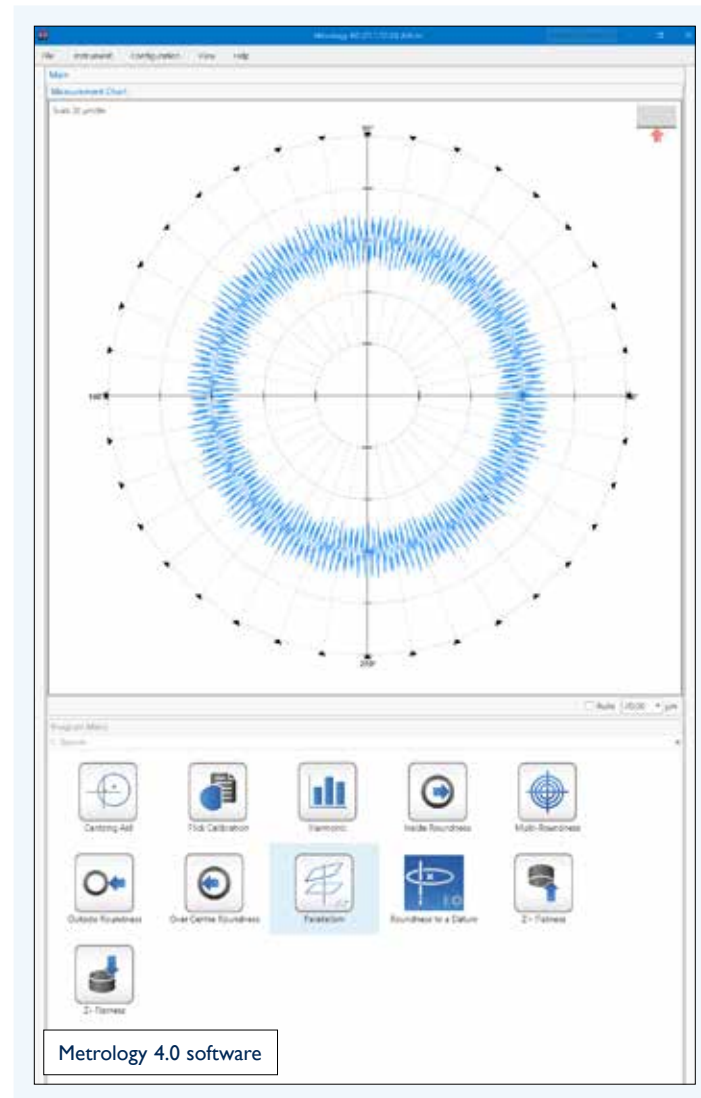
All measurement data can be saved with filetypes including PDF and PNG by using the easy to use software interface.

Generate professional measurement reports with ease. Personalise them with your logo, user details, and specified tolerances. Metrology 4.0 gives you the tools to achieve your desired task.

Easy to use software

The icon-based user interface provides simple measurement and analysis.

- Developed in collaboration with key bearings, automotive and precision engineering companies
- Large colour display, easy viewing of results
- Touch screen operation means every feature at your fingertips
- Easy analysis setup with single button recall
- Advanced analysis packages for bearings and automotive applications



Patented RapidCentre™

RapidCentre™ avoids valuable cycle time being lost on manual part centring. On most parts precision results are achieved following a very simple and fast loading procedure. Now roundness measurements can be made in less than 30 seconds including part loading, centring, measurement, analysis and results display!

Accurate gauging

All systems incorporate Taylor Hobson's accurate and reliable Talymin gauge technology, delivering 6 nm resolution.

Accessories and standards

A full range of accessories and standards are available to support the instrument. These include Magnetic chuck, RapidCentre™, Glass hemisphere, Calibration set, Precision test cylinder, Cresting standard, Stylus kit, Flick standard (20 µm or 300 µm) and replacement air filter modules.

Patented gauge orientation

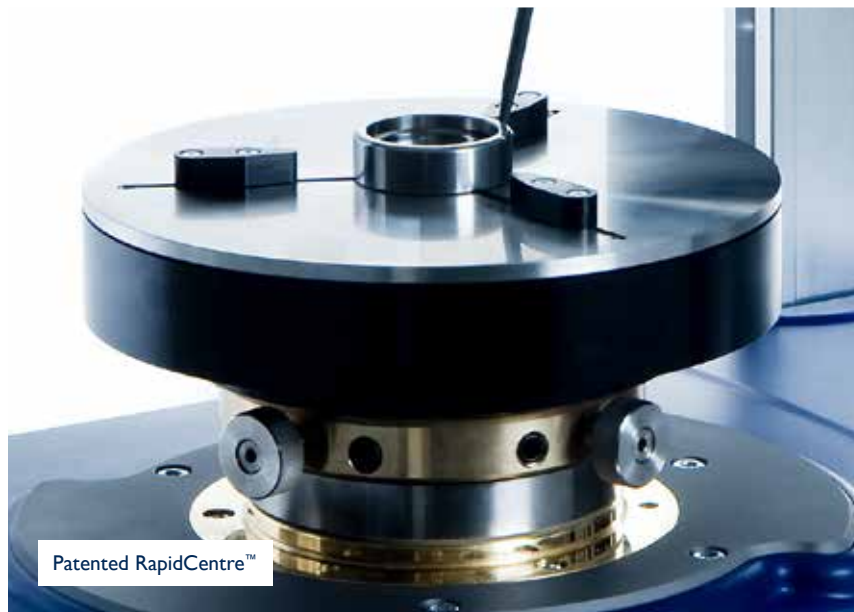
Using Taylor Hobson's patented gauge orientation with its robust locking mechanism changing orientation from roundness to flatness or internal to external only takes a few seconds.

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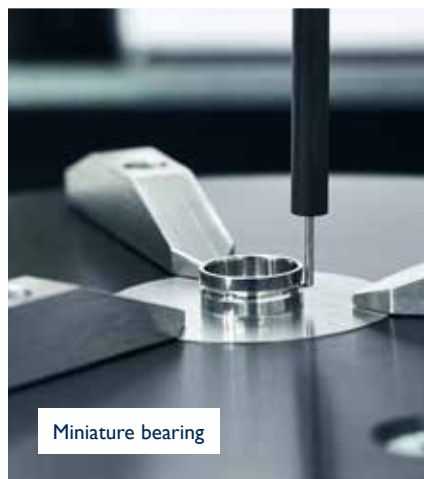
We have 15 Taylor Hobson roundness measuring instruments that help us maintain high throughput and the accuracies we require to ensure every one of our bearings is of the highest quality

Measurement Q/A Coordinator | Leading Global Bearings Manufacturer

”



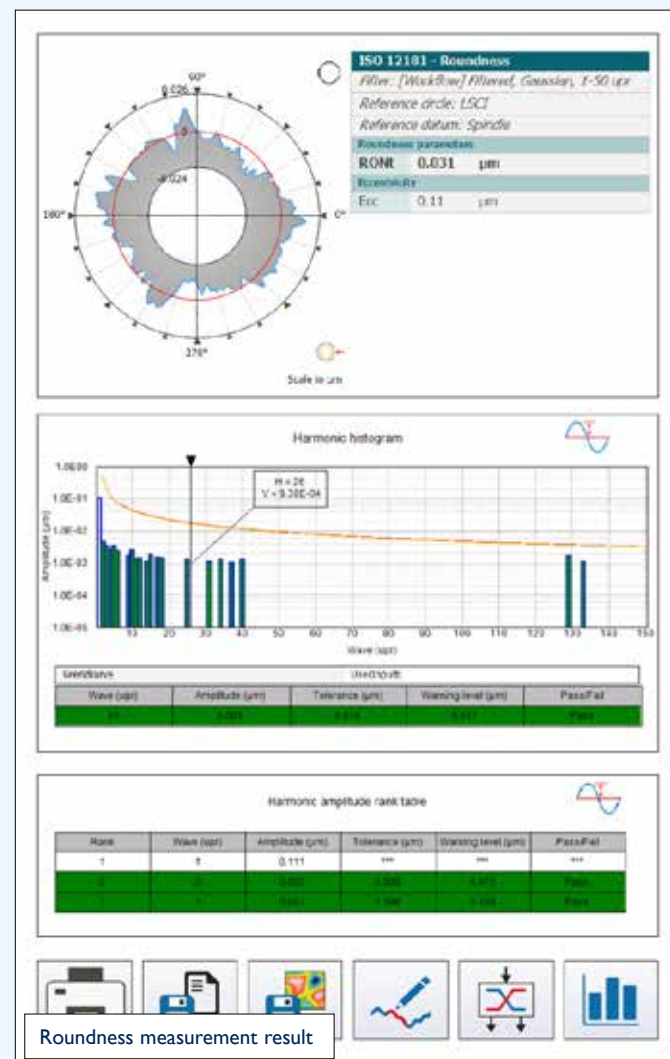
Patented RapidCentre™



Miniature bearing



Glass hemisphere



Precision measurement

Ultra precision bearings are produced to the highest standards available.

They are used in industries with a necessity for critical tolerances, high speeds and reliable performance under demanding operating conditions. Ultra precision bearings are also used in safety-critical and harsh environment applications and industries such as:

- Automotive
- Aerospace
- Bearings
- Hydraulics
- Optics
- Industrial
- Medical
- Dental



POWERFUL SOFTWARE

Simple user interface with icon driven display **Designed with the operator in mind**

Metrology 4.0 Smart Software

The icon-based user interface provides simple measurement and advanced analysis.

Metrology 4.0 workflow has been designed to be quick to use whilst reducing operator mistakes.

Simple workflow

- Simple icon interface for various measurement types
- Create bespoke apps with pre-saved settings
- Spindle speed indicator
- Gauge indicator
- Intuitive workflow in 4 easy steps:
 - Load Part, Contact Stylus, Spin Table, and Click Measure

Guided measurement routines

Operators can be walked through a procedure with guided measurement prompts in the form of pictures or videos. These ensure measurements are done correctly and reduce operator errors.

Desktop publishing & quick analysis

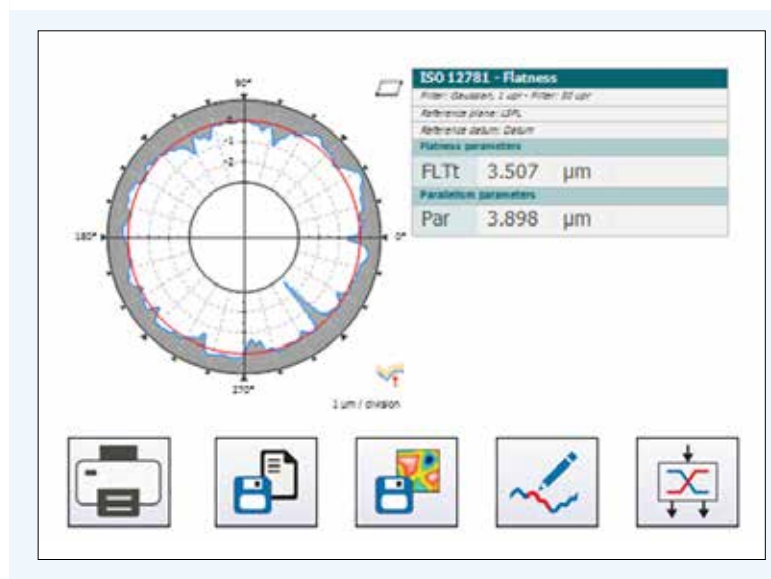
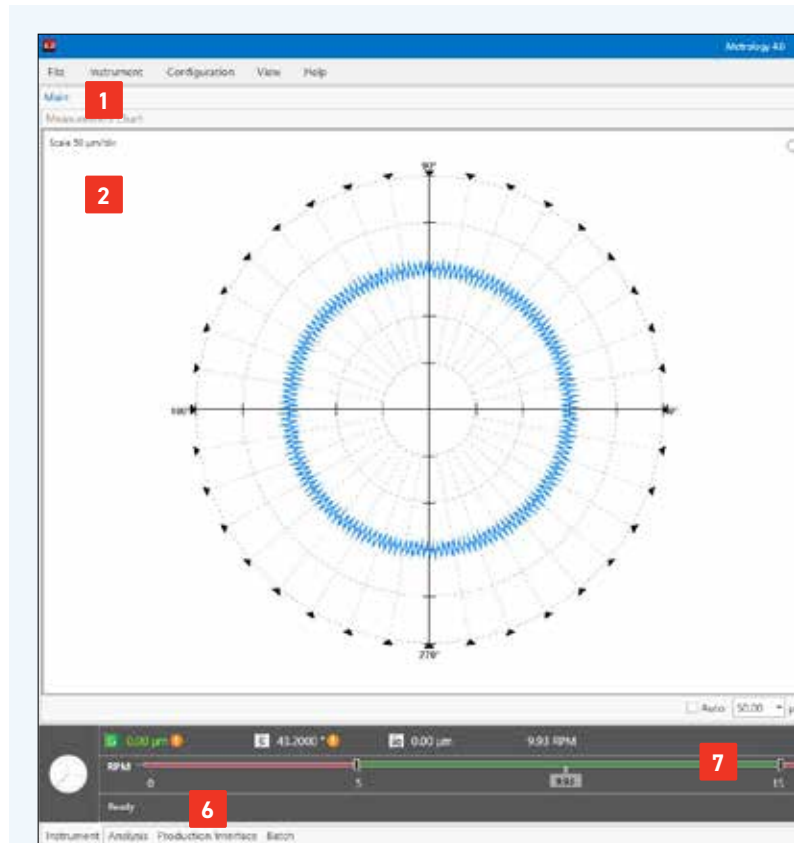
Users can tailor their analysis to suit them. Fully flexible and professional with tolerancing and company logos.

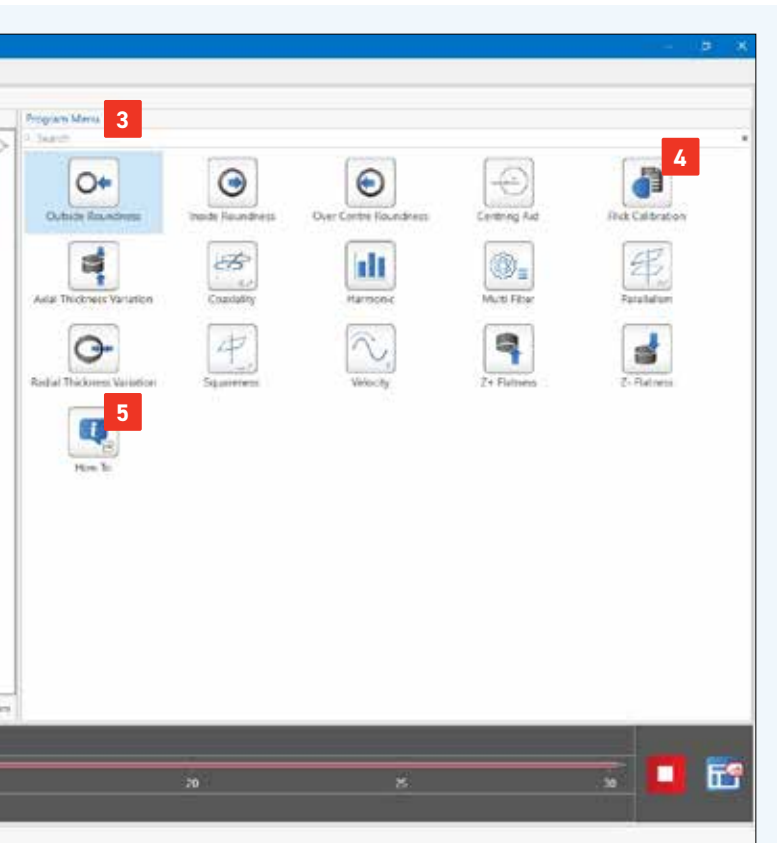
User inputs

User input information can be entered at the start of a program and is used on the report. Items such as operator name, part number, etc.

Live measurement preview

A real-time preview of the measurement is shown.





User interface

1. Portrait or landscape
2. Measurement chart
3. Program search function
4. Icon driven programs (single or double-click)
5. 'How To' videos
6. Production Interface for Q-DAS output
7. Spindle speed indicator

Taylor Hobson Advanced Modules (THAM)

Taylor Hobson offer the service to implement specialised algorithms into the standard software. Contact Taylor Hobson for more information.

Variables

Variables make programs more flexible. Variables could be used to reduce the number of programs required to measure a range of parts or further calculation on parameters.

Speed limiter

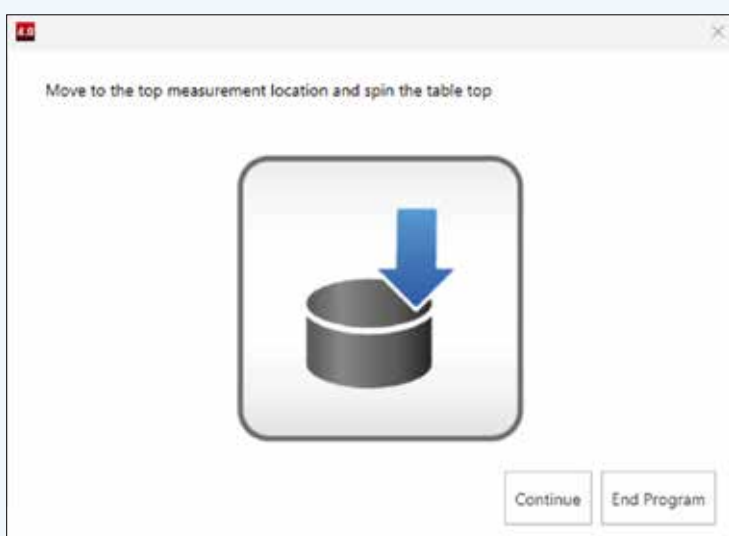
A valid speed range can be set by the admin and guarantees that all operators can only measure within the allowed band.

'How To' videos

There is a suite of 'How to' videos that are loaded with the software that are aimed at showing new users how to get the best out of the instrument.

QDAS output

Metrology 4.0 now allows statistical analysis in the form of QDAS output.



Sales

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- **Design Engineering** – Special purpose and dedicated metrology systems for demanding applications.
- **Precision Manufacturing** – Contract machining services for high precision applications and industries.

Service

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- **Preventative Maintenance** – Protect your metrology investment with an AMECare support agreement.
- **Upgrades** – Carried out by Taylor Hobson accredited service engineers and include installation and calibration to ensure your system runs at peak performance.

Metrology Support

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- **Contract Measurement** – A cost effective option to capital expenditure, simply send in first article or production components for measurement.

Measurement of your parts is carried out by skilled technicians using industry leading instruments in accord with ISO standards.

- **Metrology Training** – Practical, hands-on training courses for roundness and surface finish conducted by experienced metrologists.
- **Operator Training** – On-site instruction will lead to greater proficiency and higher productivity.
- **UKAS Calibration & Testing** – Certification for artifacts or instruments in our laboratory or at customer's site.



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World-Class Global Support

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