

# Talyrond 450

Heavy duty roundness



# Talyrond 450

For high precision inspection of roundness and cylindrical geometry on large, heavy or complex components.

The world's first roundness measuring instrument was produced by Taylor Hobson in 1949. We continue to lead the industry with innovative products developed to suit the most difficult requirements for roundness, form and circular geometry measurement.

## Large or small parts

Although it is the obvious choice for heavyweight components, Talyrond 450 can also accommodate small, delicate components as well. Accuracy and repeatability are assured no matter how big or small the parts may be.



## Big not clumsy

This instrument can handle the heaviest loads with ease, yet still provide accuracies better than those available on many ordinary measuring systems.

The Talyrond 450 with rotating gauge head is especially well suited for the measurement of non-symmetrical components such as cylinder blocks

## Geometric analysis

- RONt Roundness
- STRt Vertical Straightness
- FLTt Flatness
- ECC Eccentricity
- SQR Squareness
- Parallelism
- CONC Concentricity
- COAX Coaxiality (ISO/DIN)
- CYLc Cylindricity
  - Run-out (radial and axial)
  - Total run-out (radial and axial)
  - Harmonics
  - Partial Arc
  - Interrupted surfaces
  - Slope analysis

## Optional software

- Piston analysis
- Wall thickness analysis



# Industry leading mechanical features deliver accuracy and stability

## Stable construction

The main base and column of the Talyrond 450 is constructed of high grade cast iron for optimal metrology performance. No material, not even machined granite, provides the same level of stability and stiffness when measuring moving loads.

## Stress relief

Taylor Hobson uses two stress relieving procedures, one after casting and one prior to finish machining. This ensures that cast iron elements incorporated into the super-structure of the instrument remain stable as to dimension as well as geometry.

## Patented three point kinematic levelling

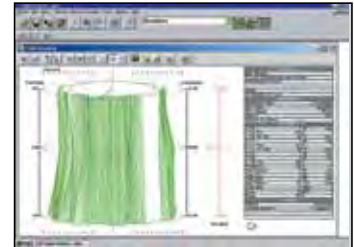
In manufacturing, a surface is always levelled by three points. Taylor Hobson adheres to this fundamental principle by using one fixed and two moving points for levelling of components.

## Accurate positioning

Axis moves are programmable to maximise correlation of results between operators and minimise the possibility of operator induced errors. Precision linear scales and reading heads are used to ensure that the exact location of the gauge head is always known.

## Powered by µtra roundness software

µtra software provides comprehensive analysis and automated measurement capabilities. It is the ideal tool for any environment where rapid component inspection is desired.



## Serving a global market

Taylor Hobson is world renowned as a manufacturer of precision measuring instruments used for inspection in research and production facilities. Our equipment performs at nanometric levels of resolution and accuracy.

To complement our precision manufacturing capability we also offer a host of metrology support services to provide our customers with complete solutions to their measuring needs and total confidence in their results.

Contracted Services from Taylor Hobson

- **Inspection services**  
measurement of your production parts 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 and Testing**  
certification for artifacts or instruments in our laboratory or at customer's site

For the above services, contact our Center of Excellence:  
email: [taylor-hobson.cofe@ametek.com](mailto:taylor-hobson.cofe@ametek.com)  
or call: **+44 116 276 3779**

- **Design engineering**  
special purpose, dedicated metrology systems for demanding applications
- **Precision manufacturing**  
contract machining services for high precision applications and industries
- **Preventative maintenance**  
protect your metrology investment with a Talycare service cover plan

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