

Talyrond 565/585

A revolutionary concept in automated roundness inspection



The Talyrond 500 series

A new concept in roundness measurement



Measure three critical performance elements...

Roundness,
Surface finish,
and now **Contour**

...exactly as they were produced

High precision emulation of your manufacturing process

The all-new Talyrond 500 roundness instruments use rotary, vertical and horizontal measuring datums to duplicate your machine tool's movement and exactly reproduce the workpiece shape. This ultra high precision simulation of the cutting tool path enables precise control of your manufacturing process.

Reproducible measurement results

Decades of experience, ultra precision machining expertise and FEA optimized design combine to provide low noise and near flawless mechanical execution of the measuring axes. Further enhancement via the use of traceable standards and exclusive algorithms effectively eliminates instrument influence from the measurement results.

Monitoring manufacturing



Grinding



Turning



Milling



Honing

On-axis profile measurement

Profile measurement with respect to the component axis allows adjustment for taper as well as shape and dimension.



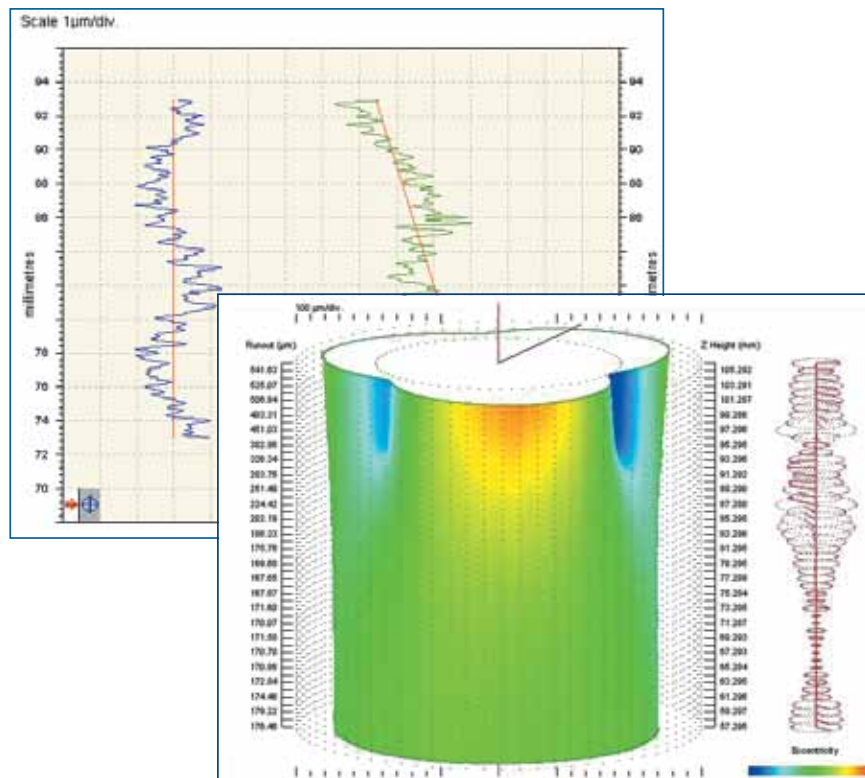
Multi-disciplined measurement

Understanding the manufacturing process means understanding the measurement process

Made on axis, measured on axis

Machine tool spindles constrain the work piece or tool movement to rotate about a fixed axis, while the tool path is controlled by slide ways set parallel or square to this axis. This allows the manufacture of profiled parts that are cylindrical or round in nature and have a functional axis. By the same philosophy, the Talyrond 500 range of instruments can measure profiled parts that are cylindrical or round by tracing a stylus along the same rotational axis, allowing reproduction and subsequent adjustment to the machine tool path, thereby controlling the process and improving product quality.

“We measure it the same way you make it.”

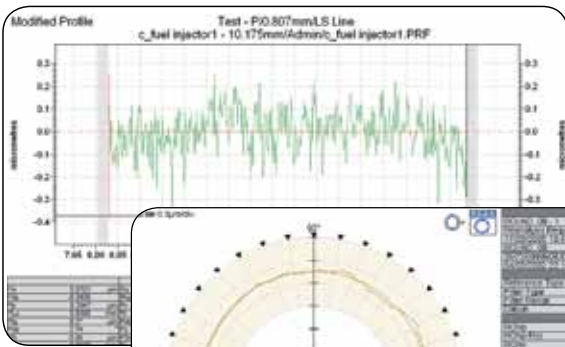


Made on axis, measured on axis

Unparalleled measurement capability

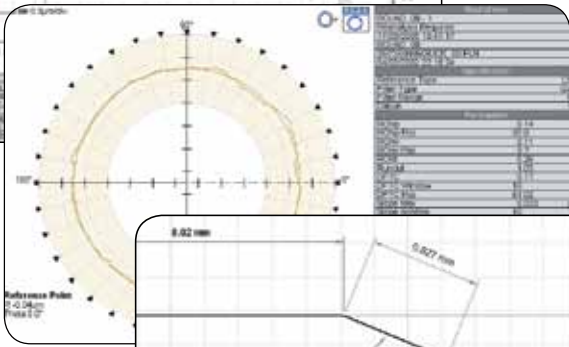
Three measurements in one

Emulating the manufacturing process with a higher degree of precision allows all features to be measured on one instrument.



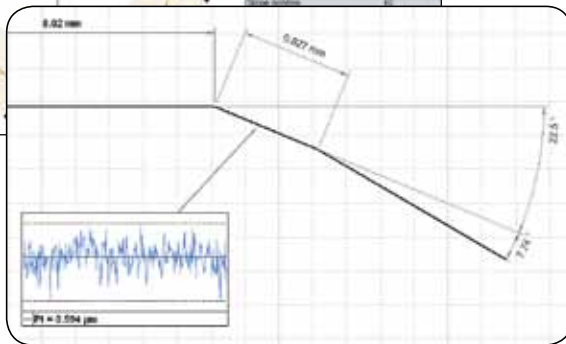
1 Roughness

High resolution gauge and low axis noise enables linear or circumferential surface roughness measurement.



2 Roundness

Frictionless air bearing spindle and precision column for roundness, cylindricity and straightness measurements.



3 Contour

Our patented calibration technique enables measurement of radius, angle, height, length, distance and more.

Sophisticated data analysis – automatically

Whether in research or production there are many advantages to having a multi-disciplined instrument. The 500 series of instruments have a wide range of measurement and analysis capability, some of which are listed below.

Example measurement and analysis capabilities:

Roundness	Contour	Surface Texture
Roundness	Length	Roughness
Cylindricity	Radius	Waviness
Straightness	Distance	Primary profile
Parallelism	Angle	
Co-axiality	Diameter	
Concentricity		
Run-out		

Crankshaft measurement

For complex or simple inspection requirements, full automatic operation saves time, prevents operator error and improves reproducibility



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
 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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