

# Talyrond® 465/485H

A revolutionary concept in roundness inspection



# The Talyrond 400H

A new concept in roundness measurement

The Talyrond 400 series is unsurpassed in speed and position control making it the ideal system for high volume precision components



## High precision emulation of your manufacturing process

The all-new Talyrond 400 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

 <b>Gauge</b>	 <b>Roundness</b>	 <b>Roughness</b>	 <b>Contour</b>
<b>Gauge Range</b> Up to 4 mm	<b>Radial Accuracy</b> +/- 0.015;	<b>Noise</b> Less than 30 nm Rq all axes	<b>LS Arc measurement</b> 5 µm
<b>Resolution</b> Down to 0.3 nm		<b>Ra values</b> Less than 0.1µm	<b>Pt</b> 0.5 µm

# Unparalleled measurement capability

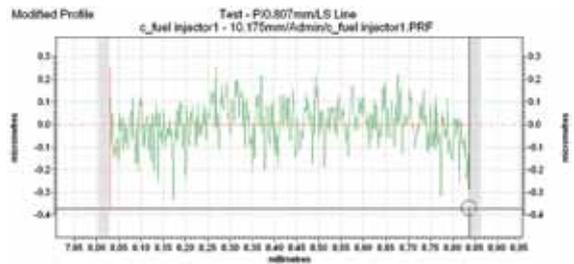
## Five measurements in one

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

# 1

### Roughness

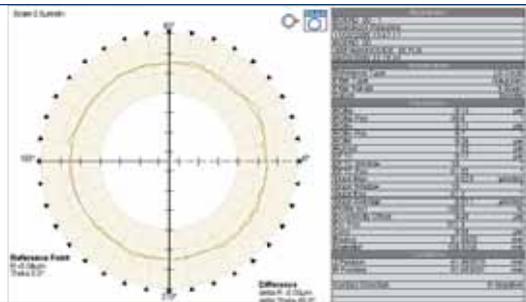
High resolution gauge and low axis noise enables linear or circumferential surface roughness measurement.



# 2

### Roundness

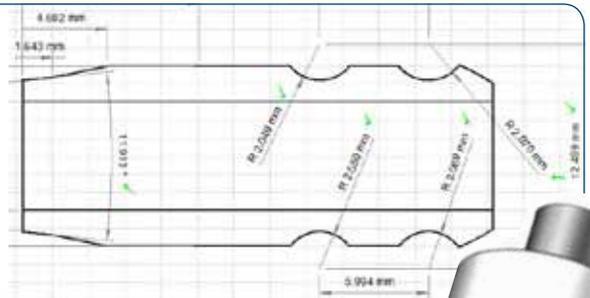
Frictionless air bearing spindle and precision column for roundness, cylindricity and straightness measurements.



# 3

### Contour

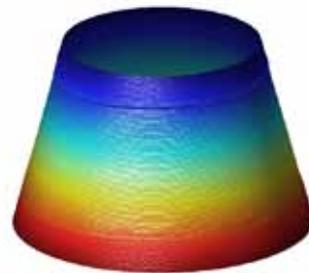
Our patented calibration technique enables measurement of radius, angle, height, length, distance and more.



# 4

### Cylindrical mapping

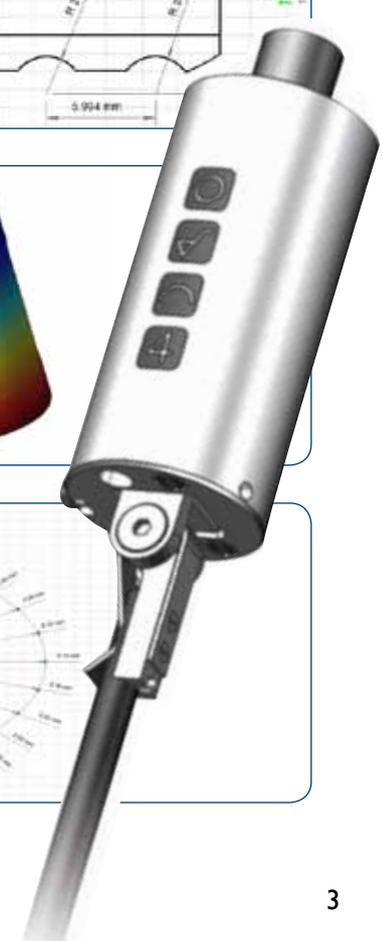
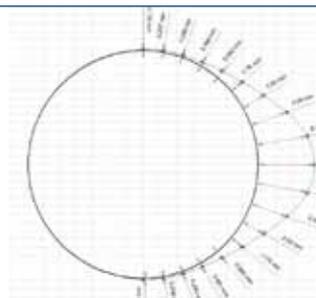
Precision control and low noise in all axes allows in depth analysis of cylindrical components including wear scars and material volume.



# 5

### Cams and pistons

A precision encoder and linear scales in all axes enables measurement of non round parts such as cams and pistons.



## 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

### Sales department

Email: [taylor-hobson.sales@ametek.com](mailto:taylor-hobson.sales@ametek.com)

Tel: **+44 (0)116 246 2034**

- **Design engineering**  
special purpose, dedicated metrology systems for demanding applications
- **Precision manufacturing**  
contract machining services for high precision applications and industries

### Service department

Email: [taylor-hobson.service@ametek.com](mailto:taylor-hobson.service@ametek.com)

Tel: **+44 (0)116 246 2900**

- **Preventative maintenance**  
protect your metrology investment with an Amecare support agreement

### Centre of Excellence department

Email: [taylor-hobson.cofe@ametek.com](mailto:taylor-hobson.cofe@ametek.com)

Tel: **+44 (0)116 276 3779**

- **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



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