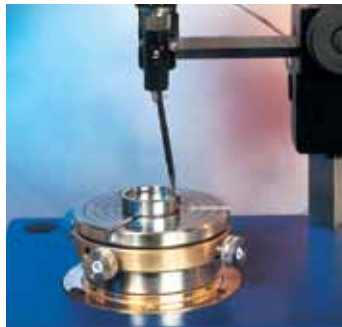


# Talyrond 131 and 130



# Talyrond 131 and 130

For economical, high precision inspection of roundness and circular geometry.

**Process control** right at the point of manufacture is cost effective and convenient. Correlation between multiple units is assured thanks to exacting specifications.

**Quality control** at a central inspection station or in the gauge room is comprehensive and in full accordance with international metrology standards.

## Measuring excellence

The degree of excellence for any gauging device is its range to resolution. Taylor Hobson gauge heads, with wide range and selectable resolution, vastly improve the measure of precision in your manufacturing process.

- Wide range - 2mm (0.078") - simplifies initial set-up of the component and eliminates the need for special fixtures
- Normal resolution - 30nm (1.18μ") - is ideal for most measurement requirements
- High resolution - 6nm (0.24μ") - used when component deviations are less than 0.40mm (0.016")



wide range gauge with wrist assembly provides high resolution in any attitude or orientation



Talyrond 131 shown with optional connecting rod loading platform which allows for comparison of the pin bore axis to the crank bore axis. Customized workholding devices can be used to expand capability (as above) or simply increase throughput.

## Powered by ultra Roundness software

ultra software provides comprehensive analysis and programmable measurement capabilities for the Talyrond 131 and 130 instruments. It is the ideal tool for any environment where rapid component inspection is desired.

# World leading performance

Both Talyrond 130 and Talyrond 131 incorporate a number of industry leading features that combine to deliver high accuracy, repeatability and ease of use.

## Mechanical excellence throughout the measuring loop

### Diamond turned air bearing spindle

Spindle accuracy is crucial to the performance of any roundness instrument. Radial limit of error is a constant value measured at the table top. Coning error, how well the spindle rotates on its axis, increases relative to distance above the table top. Although radial error can be improved through software correction, coning error can be minimized only through meticulous construction. Taylor Hobson's ultra high precision spindle provides the best combination of precision and "stiffness" in the world. The result is coning error less than  $0.00025\mu\text{m}/\text{mm}$  ( $0.25\mu"/\text{inch}$ ).

### Versatile gauging

The measuring gauge is carried in a "wrist" assembly for rapid changeover between vertical and horizontal attitudes while maintaining the exact center point of the stylus contact ball. Vertical for internal and external surfaces; horizontal for surfaces which may be upper or lower, external, angled or conical.

### High density zinc alloy base

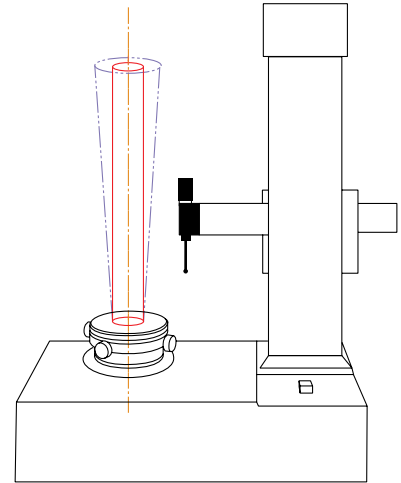
Compact design is important for the workshop where tabletop space is always at a premium. Taylor Hobson uses a special zinc alloy casting to assure that small size does not compromise performance. This dense material is extremely stable even under typical production floor conditions.

### Integrated vibration isolation

As a further guarantee that laboratory grade metrology is attained on the shop floor, vibration isolation pads are built into both the Talyrond 130 and 131 instruments. In all but extreme circumstances no additional anti-vibration materials are required.

### Engineering assisted center and leveling

The centering and leveling knobs are differentiated by look and feel, allowing operators to view the screen while setting the component to the spindle axis. In addition, the neutral tilting plane is at a height above the tabletop that facilitates the leveling of both short and tall components.



tall components can be measured with confidence and accuracy because coning error is minimized to a remarkable  $0.00025\mu\text{m}/\text{mm}$  ( $0.25\mu"/\text{inch}$ )



gauge arm in horizontal attitude with orientation downward to measure top face



gauge arm in vertical attitude with orientation retracted to measure an inside diameter



## 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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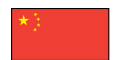
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