

Multi-axis component manipulation for high precision applications

Taylor Hobson has provided precision form and surface finish measurement solutions for many decades. The automation technology employed within manufacturing processes has evolved significantly over this period, bringing new metrology requirements which are met by the latest Form Talysurf Multi-Axis systems.



Automated measurement for high precision industries

- Increased productivity – fully automated measurement routines
- Reduced set-up error – auto-cresting and axial component alignment
- Increased Repeatability – high precision, high stability positioning
- Reduced training – simple teach/learn software programming



Form Talysurf Multi-Axis systems

Multi-axes surface finish instruments enable part manipulation with little or no operator intervention

Conventional surface finish instruments consist of a column and traverse unit designed for positioning of the stylus tip to the part. However there are many cases where it is necessary to re-align or move the component rather than the measurement axes, such as when measuring multi-featured parts.

Benefits of automated part alignment

Reduced downtime

Automated measurement routines free up operators and allow them to continue other tasks.

Reduced Part Handling

In many of cases manual part handling is undesirable and can lead to component deformation or deterioration. Excessive handling can be avoided by automated measurement routines.

Increased Repeatability

High precision positioning ensures repeatable measurement and reduces operator error. This is particularly critical when analysing features such as small angles and radii.

High Precision Stages

The following is a list of high precision stages available with the Form Talysurf range of surface finish instruments:

- Rotary stage
Range/ Resolution = $360^{\circ}/0.01^{\circ}$
- Goniometer
Range/ Resolution = $\pm 45^{\circ}/0.001^{\circ}$
- Linear Stage
Range/ Resolution = $25\text{mm}/0.1\mu\text{m}$

Possible stage Combinations:

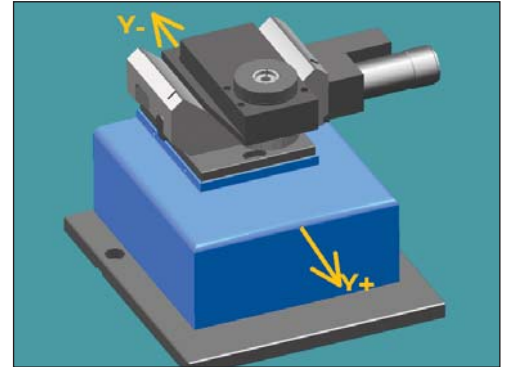
- All three stages combined (see inset)
- Any pair of stages
- Any single stage

Optional Accessories

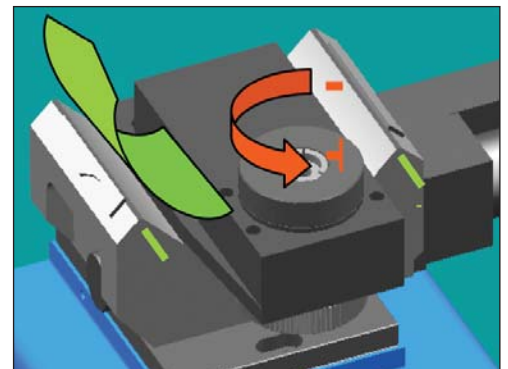
- Video monitor and camera for small components
- Environmental enclosure with active anti-vibration mounts
- Stylus lift lower mechanism (PGI only)
- Keyboard and Monitor mount

Customized solutions for special applications

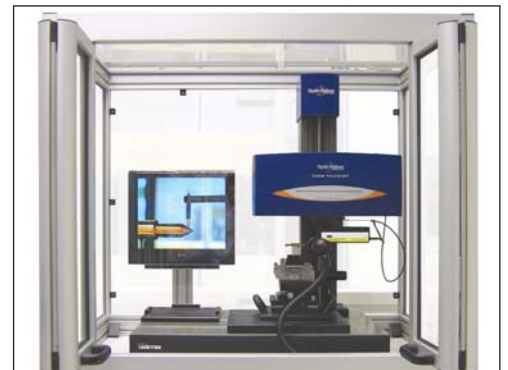
We can customize a solution to exactly match your application. This may include such elements as work holding devices or special styli. Please contact your Taylor hobson sales agent for further information.



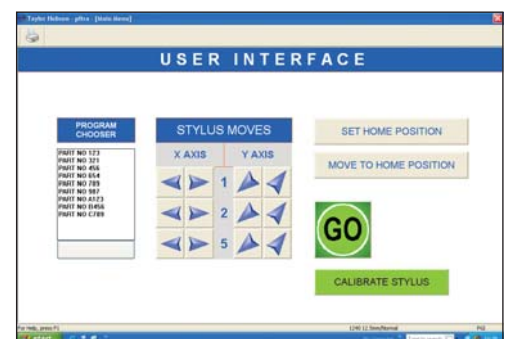
Y axis movement using linear stage



tilt and rotary movement using combined stages



video magnifier and environmental enclosure



simplified user interface

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@ametec.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

For the above services, contact our Sales Department:

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