



SCIGATE AUTOMATION (S) PTE LTD

No.1 Bukit Batok Street 22 #01-01 Singapore 659592

Tel: (65) 6561 0488

Fax: (65) 6562 0588

Email: sales@scigate.com.sg

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

Form Talysurf Intra

Precision solutions for surface finish and
contour measurement



Form Talysurf Intra

The original Form Talysurf, launched in 1984, was the first instrument ever to measure texture, form and contour simultaneously. Now, our newly developed Form Talysurf Intra measurement system has reinforced Taylor Hobson's leadership position and created a new global standard for the assessment of surface finish and form. With a full millimetre of range, a wide selection of interchangeable styli and a patented calibration routine, the Intra system is ideal for almost all high precision applications.

Form Talysurf Intra System Features and Benefits

- 1mm vertical range / 16nm resolution**
 Delivers form (contour) as well as surface finish measurement capability for precision metal forming and other applications.
- 50mm horizontal traverse**
 Ideal for the majority of shop floor applications. The unit combines both accuracy and portability.
- 0.40um / 50mm straightness error**
 The high accuracy traverse datum makes possible skidless measurement of waviness, form and contour, even on large components.
- 0.5um horizontal data spacing**
 Small components and features can be measured more effectively than ever before. Reduced run-up and run-down length further improve usability.
- Manual column**
 For large or tall components the available manual column provides a stable, dedicated work station for improved throughput.

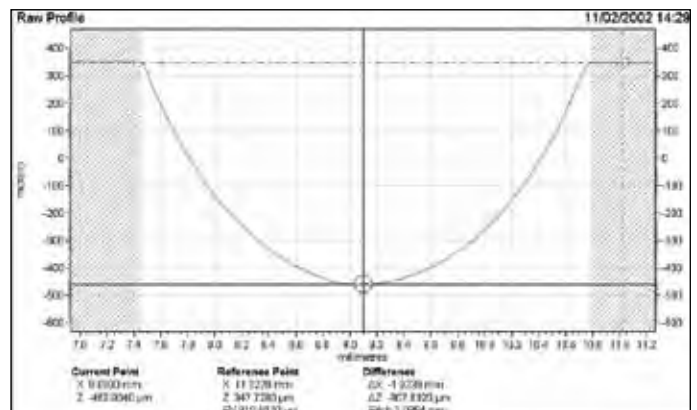


Ultra Software - comprehensive surface finish analysis

The Form Talysurf Intra System include everything important to the measurement of surface finish. Fundamental roughness and waviness parameters are included, plus form error analysis, feature exclusion, zoom tool and full programmability for shopfloor applications.

- Form Analysis***
 Measure and evaluate Radius, Angle (Slope) and Dimension
- Simple User Interface***
 Combines with system programmability to deliver a true shopfloor solution; custom designs available.
- Dual Profile Analysis***
 Allows comparison of measurements for wear, tolerancing, etc.
- Ultra Contour Analysis**
 Separate software utility for dimensional applications, allowing design data and measurements to be directly compared, and error results obtained. Special hardware is also available for wide-range applications.
- Talymap 3D Analysis**
 Separate software utility for topography applications; special hardware is also required.

*Ultra Software Licence Options



Taylor Hobson delivers an excellent investment

- Save money with flexible, modular system configurations
- Improve accuracy with our patented calibration routine
- Save time with multi-tasking measurement systems
- Increase productivity with automatic, unattended operation
- Prevent mistakes with programmed measurement routines

Choosing the right product

Simple roughness parameters like Ra can be checked with our Surtronic series instruments. If you need advanced analysis, higher levels of accuracy or greater flexibility, Form Talysurf Intra is the perfect choice. It combines industry leading specifications with simplicity of operation for unbeatable practicality and value.

Analysis fundamentals

The measurable elements of a surface are dimension, form, roughness and waviness. Many high specification components require analysis of all four.

Dimension - the functional shape of a surface as defined by radius, angle, distance, and the linear relationship between features.

Form - deviations from the intended shape of a surface (flat, spherical, tapered, etc.); often caused by machine tool inaccuracies.

Roughness - a deliberate, controllable element of the component design produced by the action of the cutting tool or machining process.

Waviness - an undesirable machine tool effect resulting from vibration, lack of stiffness or other instabilities in the machining process.

Skidless measuring system

Many roughness checkers use skidded pick-ups to guide the stylus over the workpiece, with the workpiece itself forming the datum for measurement.

Because the skid also acts as a mechanical filter, removing or altering general form and waviness characteristics, the collected data is not suitable for advanced analysis.

Intra is the right choice

For correct data collection the gauge must pass over the component in a straight line such that only the stylus tip comes in contact with the surface under test.

Vertical stylus movement is relative to the traverse datum, a reference bar that has been lapped or precision ground to an extremely high flatness and straightness tolerance.

Form Talysurf Intra is skidless and can be used for waviness, profile and other parameters such as Material Ratio with absolute confidence in the measurement results.

For your industry

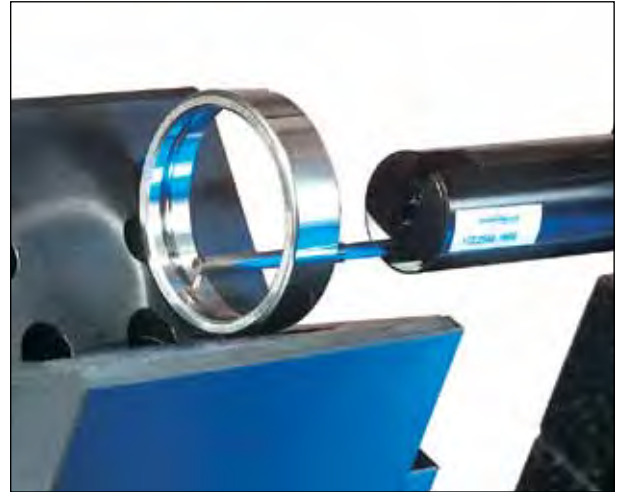
Form Talysurf Intra offers exceptional productivity for a wide range of industries and applications.

For your budget

For general purpose or for solving a specific application problem, Form Talysurf Intra can be configured to perform within your budget.

For your future

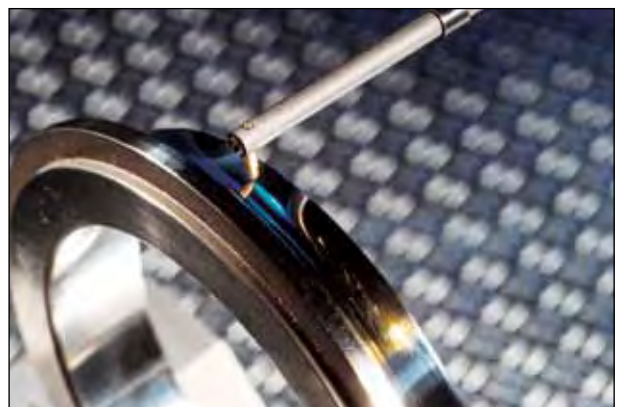
Unlike closed end systems that will be obsolete when your requirements change, Form Talysurf Intra can be expanded to meet whatever the future brings.



skidless tracing arms provide access to internal features such as ball tracks and ring grooves



high resolution skidless pick-up is necessary for straightness and waviness measurements



measurable form features may be spherical, aspherical, concave, convex, internal or external

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 Tallycare service cover plan

For the above services, contact our Sales Department:
email: taylor-hobson.sales@ametek.com
or call: **+44 116 246 2034**



Taylor Hobson UK

(Global Headquarters)
PO Box 36, 2 New Star Road
Leicester, LE4 9JQ, England
Tel: +44 116 276 3771 Fax: +44 116 246 0579
email: taylor-hobson.uk@ametek.com



Taylor Hobson France

Rond Point de l'Épine Champs
Batiment D, 78990 Elancourt, France
Tel: +33 130 68 89 30 Fax: +33 130 68 89 39
taylor-hobson.france@ametek.com



Taylor Hobson Germany

Postfach 4827, Kreuzberger Ring 6
65205 Wiesbaden, Germany
Tel: +49 611 973040 Fax: +49 611 97304600
taylor-hobson.germany@ametek.com



Taylor Hobson India

1st Floor, Prestige Featherlite Tech Park
148, EPIP II Phase, Whitefield, Bangalore – 560 006
Tel: +91 1860 2662 468 Fax: +91 80 6782 3232
taylor-hobson.india@ametek.com



Taylor Hobson Italy

Via De Barzi
20087 Robecco sul Naviglio, Milan, Italy
Tel: +39 02 946 93401 Fax: +39 02 946 93450
taylor-hobson.italy@ametek.com



Taylor Hobson Japan

3F Shiba NBF Tower, 1-1-30, Shiba Daimon Minato-ku
Tokyo 105-0012, Japan
Tel: +81 (0) 3 6809-2406 Fax: +81 (0) 3 6809-2410
taylor-hobson.japan@ametek.com



Taylor Hobson Korea

#310, Gyeonggi R&DB Center, 906-5, Iui-dong
Yeongtong-gu, Suwon, Gyeonggi, 443-766, Korea
Tel: +82 31 888 5255 Fax: +82 31 888 5256
taylor-hobson.korea@ametek.com



Taylor Hobson China Beijing Office

Western Section, 2nd Floor, Jing Dong Fang Building (B10)
No.10, Jiu Xian Qiao Road, Chaoyang District, Beijing, 100015, China
Tel: +86 10 8526 2111 Fax: +86 10 8526 2141
taylor-hobson.beijing@ametek.com



Taylor Hobson China Shanghai Office

Part A, 1st Floor, No. 460 North Fute Road
Waigaoqiao Free Trade Zone, Shanghai, 200131, China
Tel: +86 21 5868 5111-110 Fax: +86 21 5866 0969-110
taylor-hobson.shanghai@ametek.com



Taylor Hobson Singapore

AMETEK Singapore, 10 Ang Mo Kio Street 65
No. 05-12 Techpoint, Singapore 569059
Tel: +65 6484 2388 Ext 120 Fax: +65 6484 2388 Ext 120
taylor-hobson.singapore@ametek.com



Taylor Hobson USA

1725 Western Drive
West Chicago, Illinois 60185, USA
Tel: +1 630 621 3099 Fax: +1 630 231 1739
taylor-hobson.usa@ametek.com



www.taylor-hobson.com