

Surtronic® Duo



Portable surface roughness testers

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What it does

The Surtronic Duo is superior portable surface roughness tester that measure multiple roughness parameters with a 1-button click. Roughness measurement parameters such as Ra, Rz, Rp, Rv and Rt are displayed on a brightly lit intuitive 2.4" LCD colour display. Its rechargeable battery operation makes it a convenient way of performing fast, easy and precise on-the-spot measurements in almost any environment and surface.

How it does it

The hard-wearing diamond stylus is drawn across the part with a precision motorised traverse mechanism to ensure that the correct horizontal distance is travelled. Vertical movement of the stylus is detected by a high quality piezo-electric pick-up as it travels across peaks and valleys which converts mechanical movement into electrical signals. The electrical signal is digitised and sent to a microprocessor for instant calculation of surface parameters using standardised algorithms.



USB Mini charging

The mini USB port can be used for charging with the included mains charger (or with any standard USB charger).



Bluetooth technology

Quick, reliable communication between traverse and display/control unit.

Measure

Tactile measurement button great for challenging orientations

Separates

The Duo splits into a display/control unit and traverse unit via a slide and lock mechanism.

Diamond stylus and piezoelectric pick-up

The hard wearing, robust piezo-electric pick-up stylus with diamond tip assures very reliable measurement.

Li-Poly battery

Most advanced rechargeable battery technology for unrivalled reliability and battery life.



Keeping it simple

The Surtronic philosophy keeps the process simple. It is the perfect tool for any inspector to check surface roughness even in the most demanding applications.

- Incoming inspections
- Final inspection before shipment
- Process control on the production line
- Checking large components or structures

Standards and traceability

The reference standard supplied can be used both to calibrate the instrument and check for stylus wear to ensure the most accurate results are always being achieved.

Measurement	Best capability
Roughness standards (Ra)	$\pm(2\% + 0.004 \mu\text{m})$
Workpiece or component surface texture (Ra)	$\pm 3\%$ of measured value per trace

UKAS calibration and testing

Taylor Hobson provides full certification for artefacts and instruments in our purpose built ISO graded clean room UKAS facility. Our UKAS laboratory is able to measure all of the parameters associated with surface texture, including French, German, USA and Japanese derivatives.



Surtronic® product range

Surtronic® S100-series offers high speed roughness with a large display and simple menu structure. Battery powered and offering total portability with a built-in memory for up to 100 readings.

- Unique stylus lift for total flexibility
- Long traverse length & extended pick-up reach
- Powerful PC software included

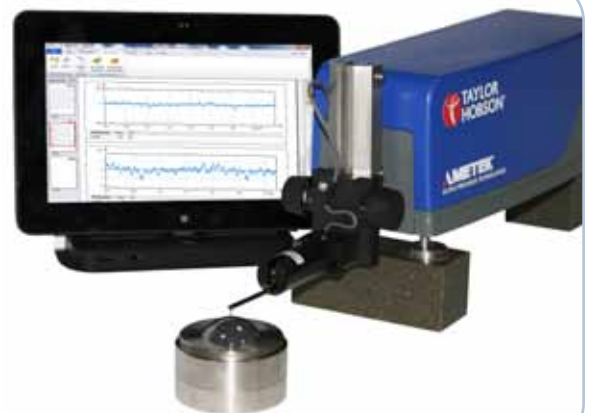
Features	
Gauge range / resolution	400 µm (0.012 in) / 0.01 µm (0.4 µin)
Accuracy (5 µm diamond tip)	1% of reading + LSD µm



IntraTouch measures roughness, waviness and contour. A low cost, portable system for high level surface texture analysis on the shop floor.

- 50mm (1.97in) traverse with straightness datum
- Automatic calibration over a sphere ensures that radius and form measurements are correct

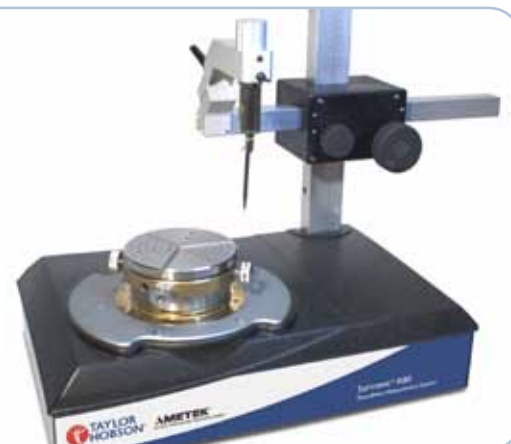
Features	
Gauge range / resolution	16 nm @ 1mm range (0.63 µin @ 0.04 in) / 3 nm @ 0.2 mm range (0.12 µin @ 0.008 in)
Straightness accuracy	0.2 µm over any 20 mm (8 µin over any 0.78 in)



The Surtronic® R-50/R-80 is robust enough for the shop floor but accurate for any inspection area, giving a flexible solution for all roundness and form measurements.

- Patented gauge orientation
- Robust enough for 24/7 operation
- Easy-to-use touchscreen software

Features	
Gauge resolution	30 nm (1.18 µin)
Spindle accuracy	±25 nm (0.98 µin)



Surtronic® R-100 Series builds on the robustness and ease-of-use of the R-50/R-80, offering a higher throughput and improved feature set that includes advanced harmonic analyses and a higher gauge resolution.

- Robust, fast and easy-to-use
- Includes Rapid Centre™ *
- Throughput 3 parts/minute including set-up

Features	
Gauge resolution	6 nm (0.24 µin)
Spindle accuracy	±25 nm (0.98 µin)



* Centering attachment is supplied as standard with R-120/R-125 models, or available to purchase as an accessory on other models.

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

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

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

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Centre of Excellence department

Email: 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

Sciengate Automation (M) Sdn Bhd

No 17-3, Blk E1, Dataran Prima, Jalan PJU 1/42, 47301

Petaling Jaya, Selangor.

Tel : 03-7804 7522



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2624



Taylor Hobson UK

(Global Headquarters)

PO Box 36, 2 New Star Road
Leicester, LE4 9JQ, England

Tel: +44 (0)116 276 3771 Fax: +44 (0)116 246 0579

email: taylor-hobson.uk@ametek.com



Taylor Hobson France

Rond Point de l'Epine 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-china.sales@ametek.com.cn



Taylor Hobson China Shanghai Office

Part A1, A4, 2nd Floor, Building No. 1, No. 526 Fute 3rd Road East,

Pilot Free Trade Zone, Shanghai, China 200131

Tel: +86 21 5868 5111-110 Fax: +86 21 5866 0969-110

taylor-hobson-china.sales@ametek.com.cn



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