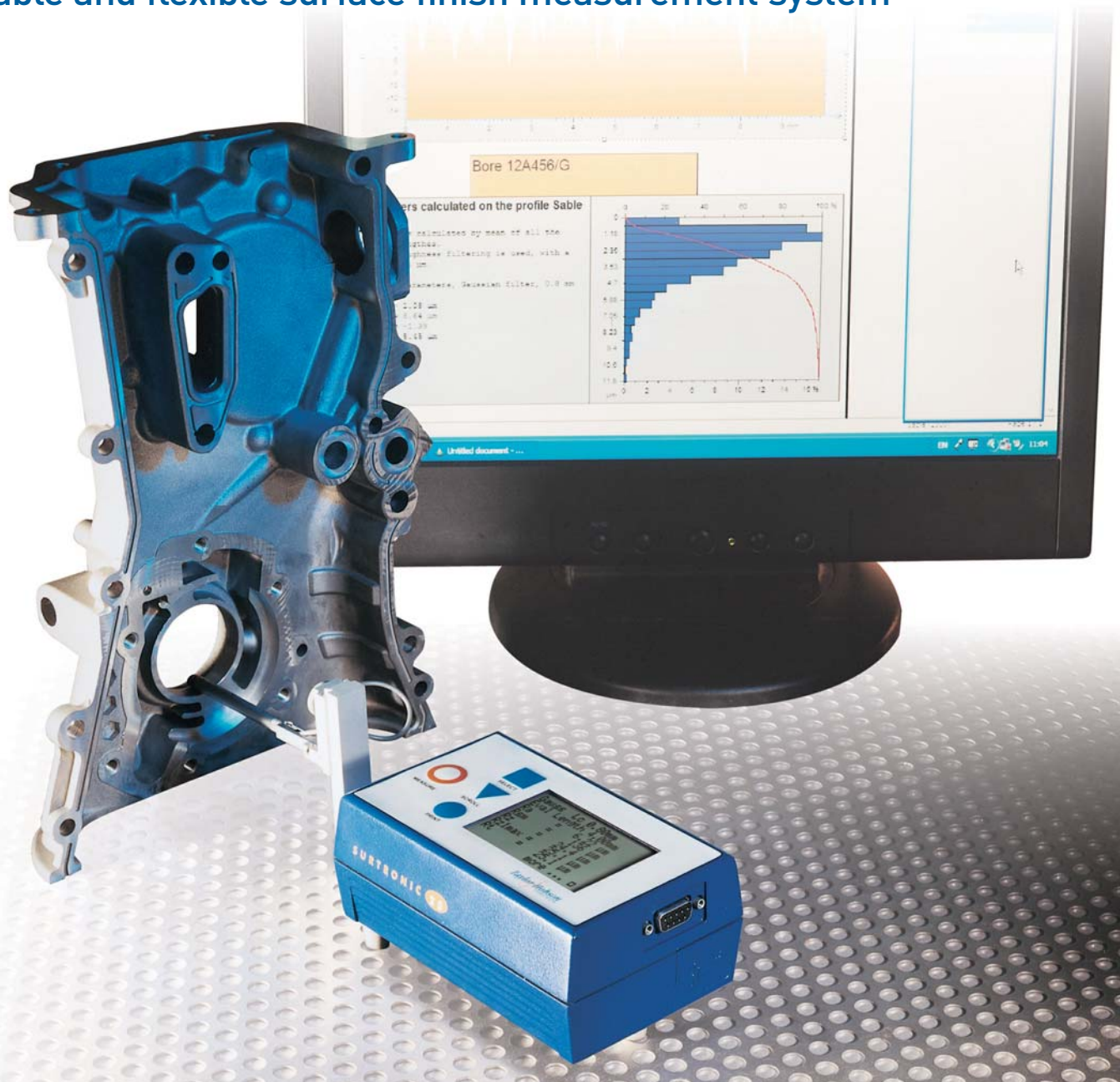


## Portable and flexible surface finish measurement system



Ideal for measuring a wide range of components

- ✓ Unique stylus lift mechanism for total flexibility
- ✓ Parameter options to suit your application
- ✓ Fast measurement cycle
- ✓ Long traverse length and extended pick-up reach
- ✓ Powerful software option



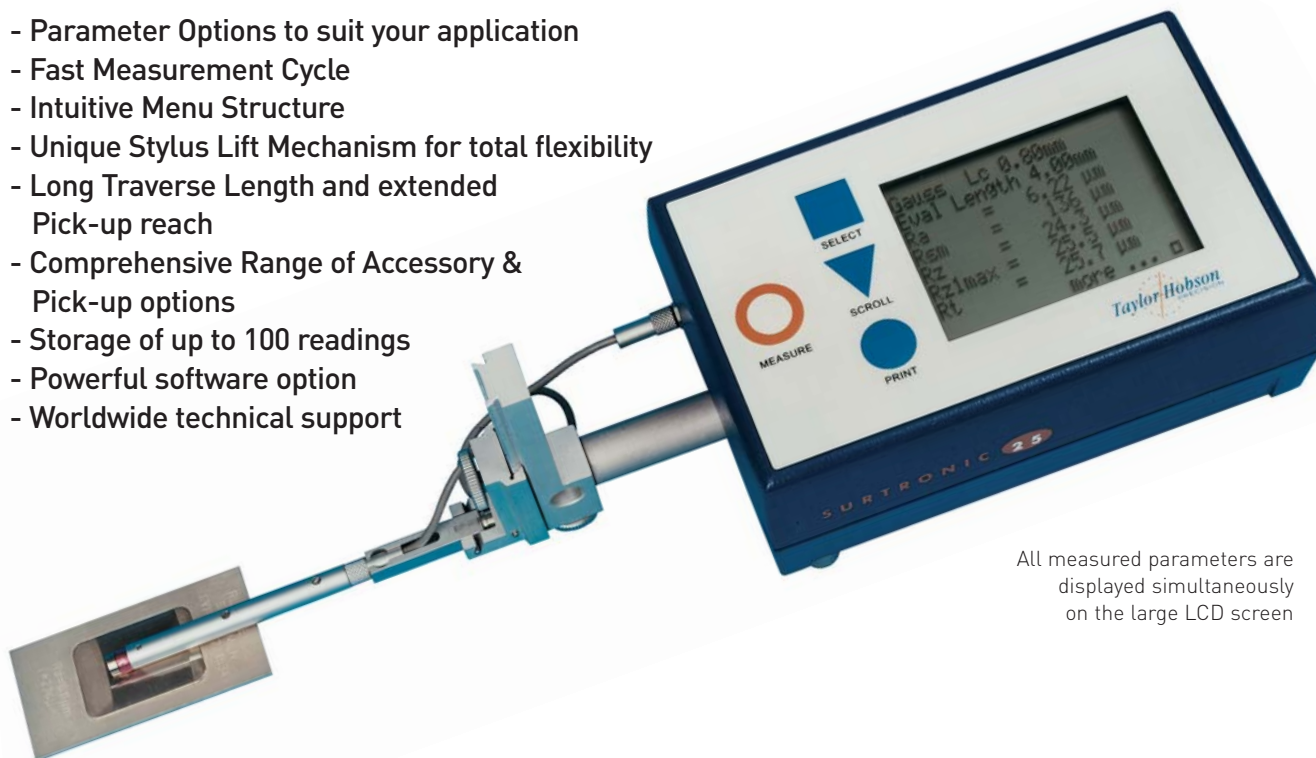
# Surtronic 25

This new edition of the long-standing Surtronic range brings a large display with the simplest of menu structures and the most up-to-date parameters. Its mechanical rigidity and styli have a firm reputation for reliable and repeatable surface finish measurements across a wide range of applications.

The Surtronic 25 is battery powered and offers total portability with a built-in memory capacity (holds up to 100 readings). The instrument can be used either freestanding (on horizontal, vertical or even inverted surfaces) or bench mounted with fixturing for batch measurement and laboratory applications.

This accurate and reliable instrument offers complete flexibility and simplicity:

- Parameter Options to suit your application
- Fast Measurement Cycle
- Intuitive Menu Structure
- Unique Stylus Lift Mechanism for total flexibility
- Long Traverse Length and extended Pick-up reach
- Comprehensive Range of Accessory & Pick-up options
- Storage of up to 100 readings
- Powerful software option
- Worldwide technical support



All measured parameters are displayed simultaneously on the large LCD screen

## Parameter Options to suit your application

The Surtronic 25 can calculate up to 10 parameters according to your measurement application:

**Amplitude Parameters** (measures the vertical characteristics of the surface deviations):

- Ra (Arithmetic Mean Deviation)
- Rsk (Skewness)
- Rz (Average peak to valley height)
- Rt (Total height of profile)
- Rp (Max profile peak height)
- Rz1max (Max peak to valley height)

**Spacing Parameters** (measures the horizontal characteristics of the surface deviations):

- RPC (Peak count)
- RSm (Mean width of profile elements)

**Hybrid Parameters** (combinations of spacing and amplitude parameters):

- Rmr (Material Ratio)
- Rda - R Delta a (Arithmetic Mean Slope)

**The above parameters cover the most common requirements to check lubrication, feed rates, stresses, friction and wear properties.** Additional parameters can be analysed with the addition of Talyprofile software (see next page).

## Fast Measurement Cycle

The Surtronic 25 incorporates the latest electronics for very fast analysis - results are calculated and displayed even before the traverse unit returns. This fast processing, combined with intuitive menu buttons, greatly reduces measurement cycles.

## Intuitive Menu Structure

The Surtronic 25 incorporates a large LCD screen which allows full menu and measurement results to be displayed. Using only two buttons the user can scroll through the menus and make selections intuitively before pressing the MEASURE key. All selections are saved for future measurements. All the measurement criteria and results are displayed clearly on the screen ready to print or export to a PC.

# Surtronic Accessories

**1** Precision Vice  
code 112/2694-01  
High quality precision vice ideal for holding finished components.  
Jaw width 70mm, jaw opening 80mm

**2** Thermal Printer  
code B112/3469-01  
Outputs measuring conditions such as cut-off, traverse length, filter and parameter results, plus optional graph.

**3** Support Stand  
code 112/1517  
With swivel platform for rotation and tilting to keep the pick-up traverse parallel to the surface.

**4** Roll and Bore Fixture  
code 112/1509  
This fixture allows the Surtronic 25 to be mounted on cylindrical components.

**5** Datum Support Stand  
code 112/865  
Provides an independent straight datum when used with pick-ups fitted with the detachable skid.

**6** Detachable Skid  
code 112/1191  
Clamped to the pick-up body, this accessory is required for use with the Datum Support Stand.

**7** Ball Joint Vice  
code 112/2695-01  
Comprising a surface mounted swivel base and a wide jaw vice. Suitable for holding irregular shaped components.

Overall length     280mm  
Jaw Width            54mm  
Jaw Opening        160mm

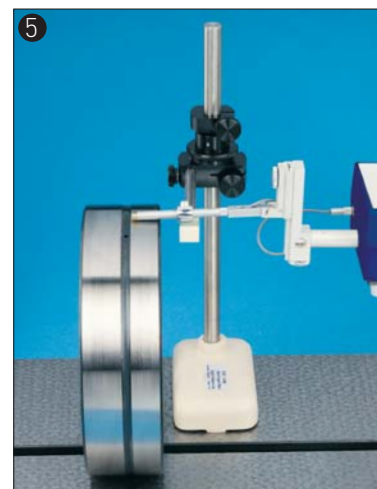
**8** Pick-up Lift  
code 112/1525  
For lifting the stylus clear of the workpiece to prevent the arm falling and damaging the surface or stylus.

**9** Portable Base  
code 137/1734  
Provides a support when used on machine tool applications.

Column and Stand (see page 3)  
code 112/2693  
Granite base (400x250mm) and manually operated column with adjustment height of 260mm.

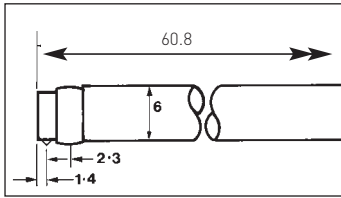
Mains Adaptor  
code US -110V - B112/1594  
UK -240V -112/1551  
Euro-230V -112/1595 (2 pin)  
Enables instrument to be powered from the mains supply.

Extension Rod  
code 112/1533 100mm length  
112/1510 200mm length  
Provides extension to pick-up for measurements in deep holes.  
Longer extension rods can be made to order.

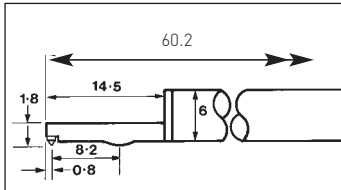


# Pick-Ups

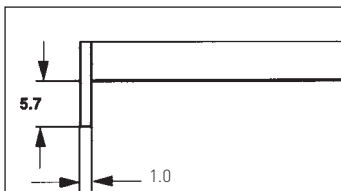
Taylor Hobson has developed an extensive range of pick-ups to suit the varied measurement needs of our customers. In addition to the pick-ups shown below our applications department regularly design and manufacture pick-ups for specific requirements.



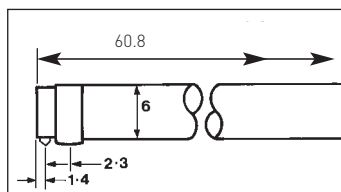
Standard Pick-up  
code 112/1502  
For general surface roughness measurement.  
Also available with 10µm (400µin) tip radius.  
(code 112/1503)



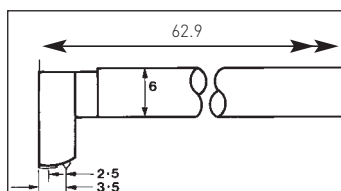
Small Bore Pick-up  
code 112/1504  
For general use in small bores, grooves and on narrow surfaces. 2µm tip radius version is also available (code 112/2673).



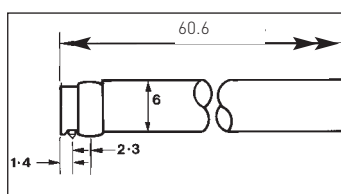
Narrow Gauge Stylus  
code 155/P11610  
For measuring in 'O' rings and narrow grooves up to a depth of 5.5mm (0.22in).



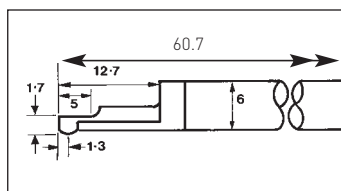
Right Angle Pick-up  
code 112/1505  
For measurement at right angles to the direction of traverse.



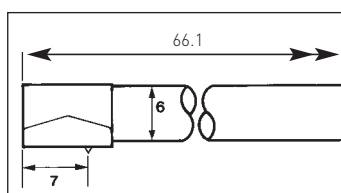
Recess Pick-up  
code 112/1506  
For recesses to a depth of 5.7mm (0.23in).  
A 2µm tip radius version is available (code 112/2672). (Also available for 25mm depth.)



Chisel Edge Pick-up  
code 112/1524  
For measuring along sharp edges or wire. Not for use on flat surfaces.



Side Skid Pick-up  
code 112/1531  
For use on curved surfaces such as gear teeth.



Shoe Pick-up  
code 112/1599  
For measuring rougher surfaces, particularly with the 2.5mm (0.1in) cut-off.

Pick-up	
Gauge range	300µm (0.012in)
Resolution	0.01µm (0.04µin)
Accuracy	2% of reading + LSD µm
Pick up type	Inductive
Gauge force	150-300mg
Diamond stylus	Tip radius 5µm (200µin) unless otherwise specified
Instrument	
Cut off value	0.25, 0.8, 2.5 (0.01, 0.03, 0.1in)
Filter	2CR or gaussian (selectable)
Traverse length	0.25-25mm (0.01-0.98in)
Traverse speed	1mm/sec (0.04in/sec)
Display units	µm / µin
Data output	RS232
Power	9V battery or mains (optional)
Parameters	
Ra, Rz, Rt, Rp, Rmr, Rpc, Rsm, Rz1max, Rsk, Rda	
Storage Capacity	
100 measurement results	
Dimensions	
Overall dimensions	127x85x60mm (5x3.35x2.4in)
Weight	450gm (1Lb)
Nominal operating conditions	
Temperature	5-40°C (41-104°F)
Humidity	0 to 80% non condensing
Storage conditions	
Temperature	0 to 50°C (32°F to 122°F)
Humidity	0 to 80% non condensing
Taylor Hobson pursues a policy of continual improvements due to technical development in all their instruments. We therefore reserve the right to depart from catalogue specifications.	

## The Surtronic 25 System Includes:

- Display and Traverse Unit
- Pick-up and Diamond Stylus
- Calibration Standard
- Carrying Case
- Battery
- Handbook

## 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

#### For the above services, contact our Sales Department:

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