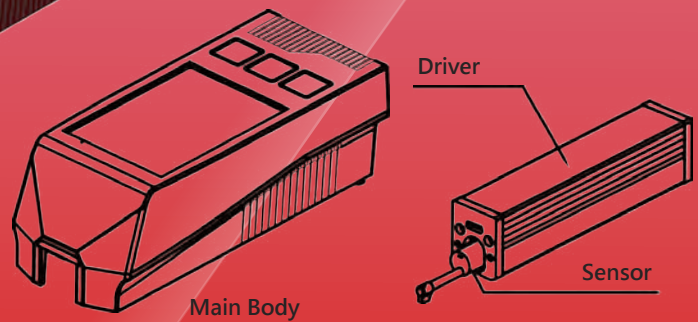


# METROLOGY®

## Surface Roughness Tester



Separate Type



*SRT-9000S is a high accuracy instrument for measuring surface roughness. It can be used on variety of machining parts and operates on various surfaces, not only flat but also outer cone, outer cylinder, curved, pinholes, grooves, recesses grooves and axle etc.*

*SRT-9000S allows surface roughness measurement both on metal and non-metal work-pieces. It is suitable for machining and manufacturing, quality control, inspection departments, especially for measurement on large and heavy workpiece, assembly line on site.*

*SRT-9000S roughness parameter is according to various national standards and ANSI B46.1, DIN 4768, JIS B601, ISO 4287 international standard.*

■ Surface roughness tester (Separate Type)



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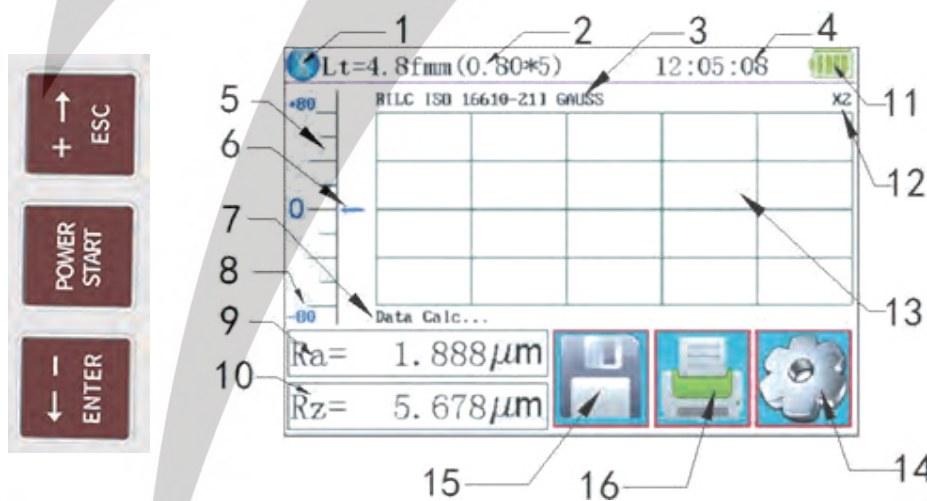
FEATURE

Operation promotion :

- Composite structure of main display unit ,driver unit and Sensor. Electromechanical integration design, small size, light weight, easy to operation.
- The stylus drive unit can be stored within the main unit for normal measurement, or separated driver from the display unit by using the supplied cable which allows more flexible measurement in any orientation.



- 3.5 inches color graphic TFT touch screen, wide viewing angle, excellent readability and an intuitive rich display, it includes a backlight to improve visibility in dark environments.



1 Bluetooth Mark 2 Assess length 3 Filter 4 Working Time 5 Start key area 6 Pickup position  
7 Information area 8 Measuring range 9 Main parameter 10 Secondary parameter 11 Battery level  
12 Profile scale 13 Profile display area 14 Menu touch key 15 Save touch key 16 Print touch key

- It can measure side walls, upwards and other directions, can be equipped with accessories such as height gauge and measuring stands to perform various posture adjustment and positioning measurements of complex workpiece.



■ Surface roughness tester (Separate Type)

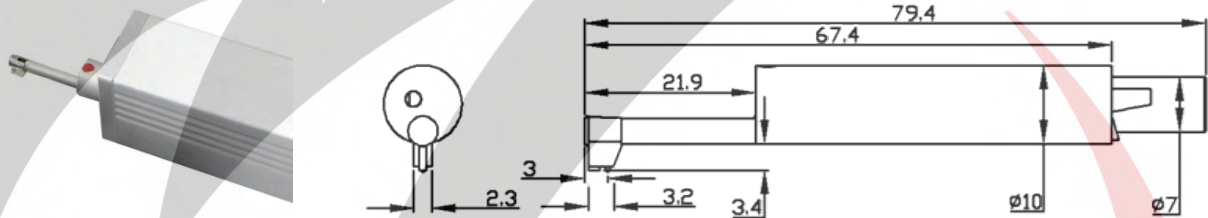


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FEATURE

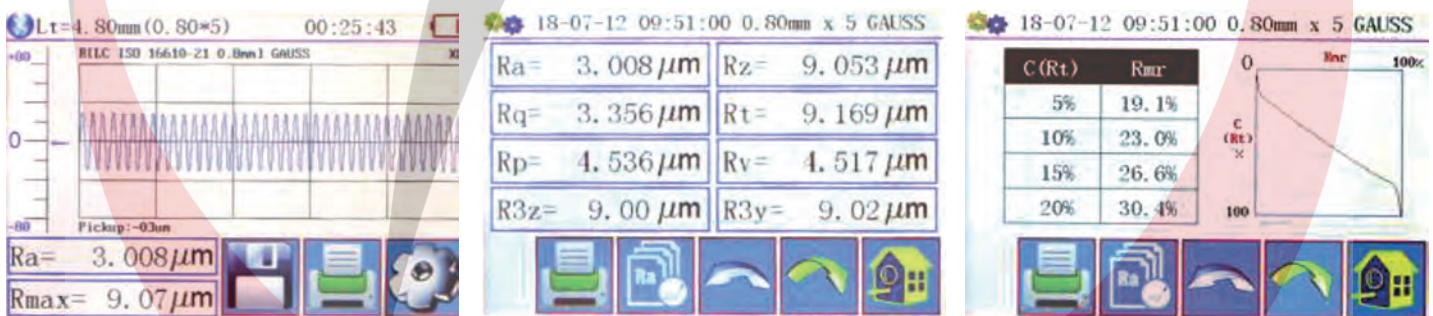
Performance improvement :

- Large capacity data storage, 100 item of raw data and curves can be stored
- Measuring range : X axis : 17.5mm ; Z axis : 320um · resolution : 0.001um
- Built-in lithium-ion rechargeable battery and control circuit, high capacity, no memory effect, it works over 50 hours while fully charged, and there is remaining charge indicator, charging hint
- Real-time clock setting and display for easy data recording and storage with auto sleep, auto power off, power-saving features
- Reliable circuit and software design to preventing the motor stuck
- Optional : Extending & L type Extending Rod, Curved Surface, Small hole and Deep Groove Sensor
- With standard groove sensor, can meet more than 95% of measurement needs

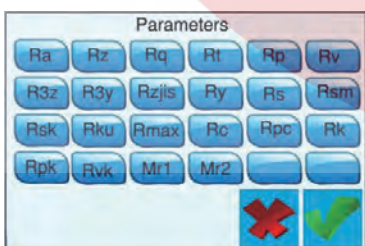


Functional enhancement :

- The main interface can display the values of two parameters, or you can convert the values you need to know with one click
- It can expand or reduce the curve display function such as evaluation curve etc.can also display the calculation result evaluation curve, load curve and amplitude distribution curve of each section



- 22 groups of parameters and profile display, support Bluetooth printing and mobile APP wireless operation. USB interface, SD card date store.



SRT-PT bluetooth printer



SD card connector

■ Surface roughness tester (Separate Type)



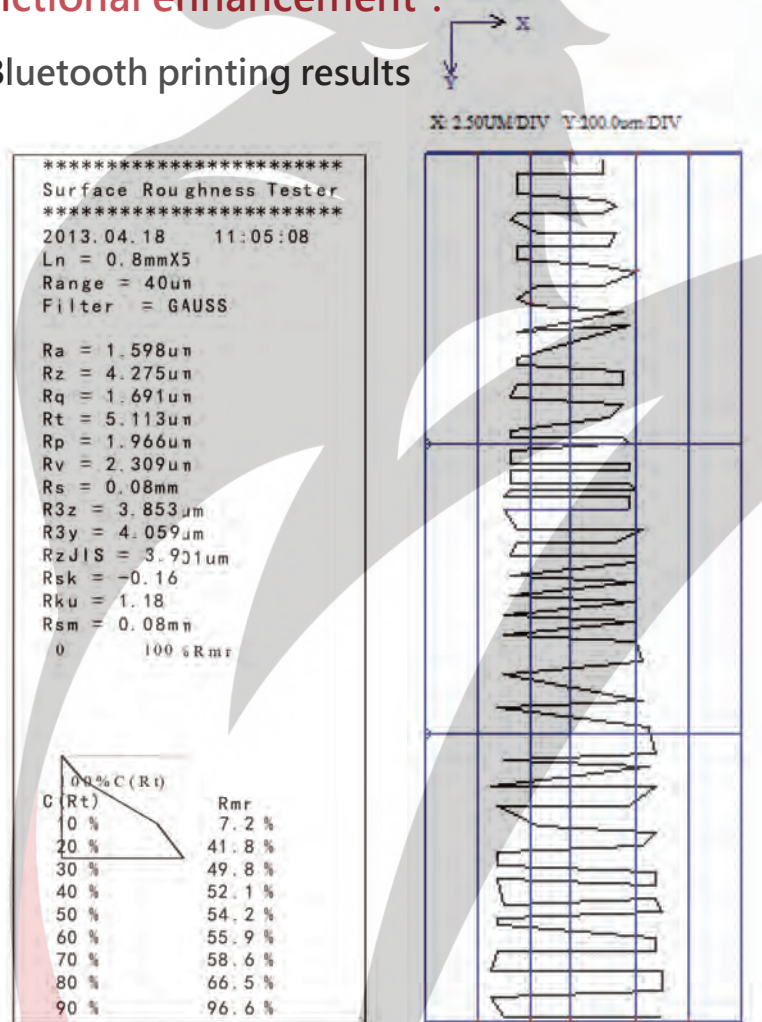
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FEATURE

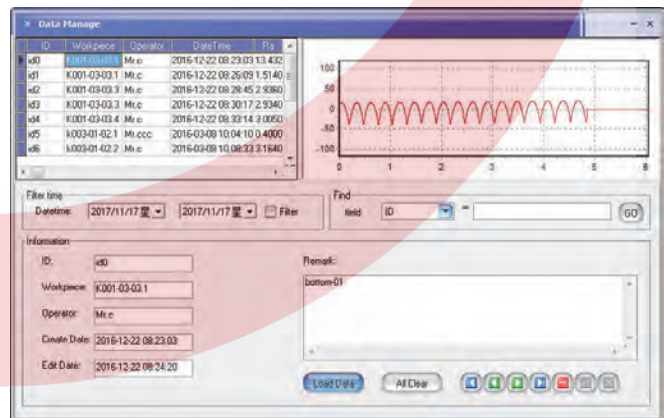
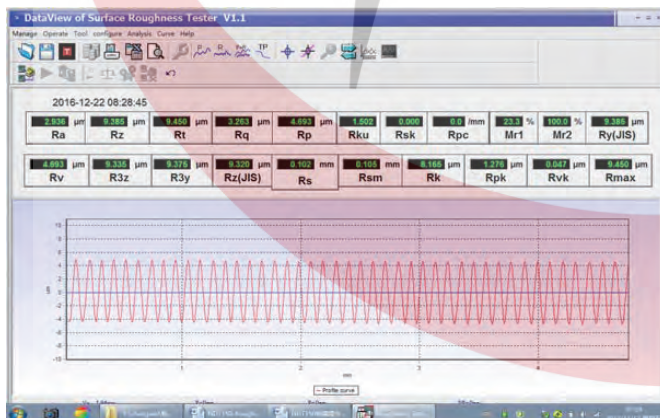
Functional enhancement :

■ Bluetooth printing results

■ APP operation results



■ The instrument is equipped with data processing software, which can upload the measurement results to the computer for waveform analysis and printing



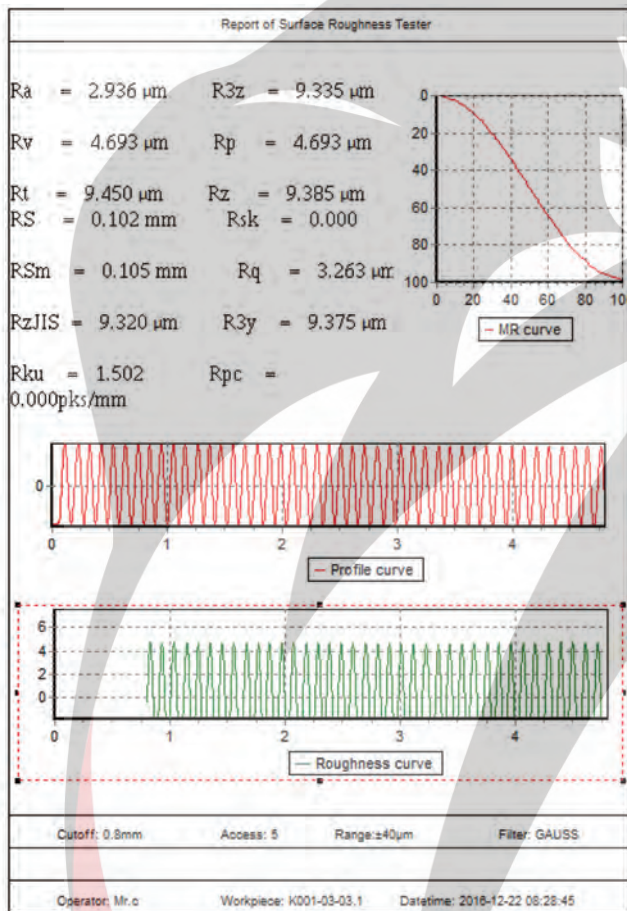
■ Surface roughness tester (Separate Type)



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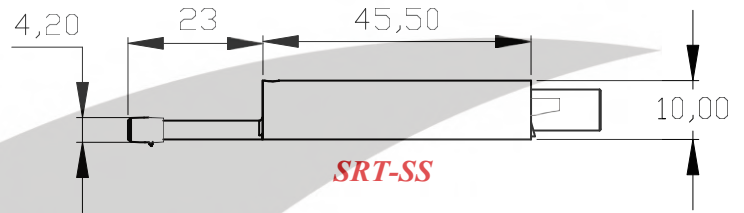
FEATURE

■ Measurement data report

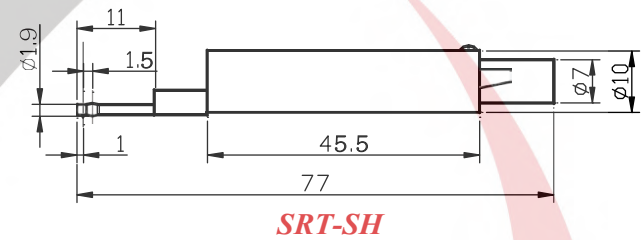


■ Optional special sensor

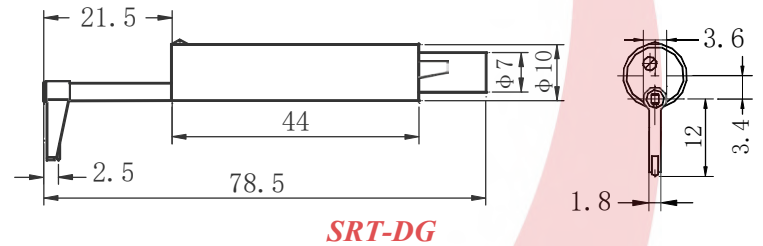
Small hole sensor :  
Inner dia. > 5mm · Depth ≤ 20mm



Super small hole sensor :  
Inner dia. > 2mm · Depth ≤ 10mm



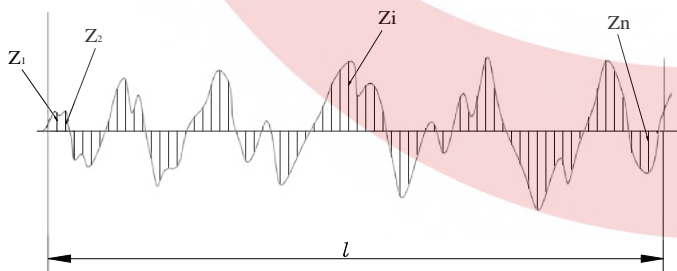
Deep groove sensor :  
Groove width > 2mm · Depth < 10mm



■ Parameter definition

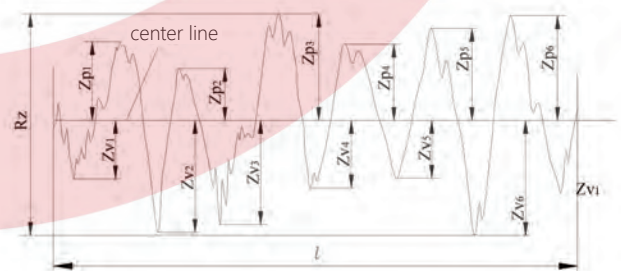
Arithmetical Mean Deviation of Profile Ra

Ra is arithmetic mean of the absolute values of profile deviation Z ( x ) from mean within sampling length.



Maximum Height of Profile Rz

Rz is The sum of height Zp of the highest profile peak from the mean line and depth Zv of the deepest profile valley from the mean line within sampling length



■ Surface roughness tester (Separate Type)



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Technical parameter :

| Name                            |   | Content  |
|---------------------------------|---|--|
| Measurement range               | Z axis  | 320μm (±160μm)   |
|                                 | X axis  | 17.5mm (0.69 inch)   |
| Resolution                      | Z axis  | 0.002μm/±20μm  |
|                                 |   | 0.004μm/±40μm  |
|                                 |   | 0.008μm/±80μm  |
|                                 |   | 0.020μm/±160μm   |
| Measurement item                | Evaluation Parameter                            | Ra Rz Rq Rt Rc   |
|                                 |   | Rp Rv R3z R3y Rz(JIS) Ry   |
|                                 |   | Rs Rsk Rku Rmax Rsm  |
|                                 | Standard  | ISO4287 ; ANSI B46.1 ; DIN4768 ; JIS B601  |
| Graphic                         | Primary profile, Roughness profile, load curves |  |
| Filter                          |   | RC,PC-RC,Gauss,D-P   |
| Sampling length ( <i>lr</i> )   |   | 0.25,0.8,2.5mm   |
| Assessment length ( <i>ln</i> ) |   | $L_n = l_r \times n$ n=1~5   |
| Sensor                          | Principle                                       | The displacement differential inductance   |
|                                 | Stylus tip                                      | Natural Diamond, 90° cone angle, 5μm tip radius  |
|                                 | Measuring force                                 | <4mN   |
|                                 | Skid  | Ruby · Longitudinal radius 40mm  |
|                                 | Measuring speed                                 | $l_r=0.25,$ $V_t=0.135\text{mm/s}$   |
|                                 |   | $l_r=0.8,$ $V_t=0.5\text{mm/s}$  |
| $l_r=2.5,$ $V_t=1\text{mm/s}$   |   |  |
| Return $V_t=1\text{mm/s}$       |   |  |
| Resolution                      |   | 0.001μm  |
| Accuracy                        |   | ≤ ±10%   |
| Repeatability                   |   | ≤ 6%   |
| Power supply                    |   | Built-in 3.7V Lithium battery · Charger:DC5V   |
| Display unit size (L×W×H)       |   | 160×64×53mm  |
| Drive unit size (L×W×H)         |   | 23×27×115mm  |
| Mass                            |   | About 400g   |
| Working environment             |   | Temperature : - 20°C ~ 40°C Humidity : < 90% RH  |
| Store and Transportation        |   | Temperature : - 40°C ~ 60°C Humidity : < 90% RH  |
| Optional accessories            |   | Extending rod · L type extending rod · Curved surface Sensor · Small hole sensor · Super small hole sensor · Deep groove sensor · Mini printer · Granite measurement stand |