

SR100 - SURFACE ROUGHNESS TESTER

The SR100 portable surface roughness tester is powerful, accurate and easy to use. The SR100 can measure roughness almost anywhere. It is ideal for checking large components, structures, auditing batch production prior to shipment and production line process control. The innovative SR100 separates into two pieces to measure surface roughness. The bottom half of the SR100 contains the traverse mechanism and stylus pickup assembly which is placed on the surface to be measured. Its wide base ensures stability. The upper half includes a large LCD display, start button, mode and parameter buttons, comfortably hand-held for easy operation and clear viewing. A diamond stylus is drawn across the part, the motorised traverse mechanism is cam driven to ensure that the correct horizontal distance is traveled. Vertical movement of the stylus as it travels across peaks and valleys is detected by a piezo-electric pickup which converts the mechanical movement of the stylus into an electrical signal. The electrical signal is digitized and sent to a microprocessor where the parameters are calculated using standardised algorithms.

Technical Specifications		
Gauge Range	200µm / 0.008µin	
Accuracy	5% of Reading + 0.1µm / 4µin	
Pick Up Type	Piezoelectric	
Gauge Force	200mg	
Stylus	Diamond, Radius 5µm / 200µin	
Cut Off Value	0.8mm / 0.03" ±15%	
Filter	2CR	
Traverse Length	5mm / 0.2"	
Traverse Speed	2mm/Sec, 0.8"/Sec	
Display Units	µm / µin	
Battery Life	5,000 Operations Minimum	
Dimensions	125 x 80 x 38mm / 4.92 x 3.15 x 1.5"	
Weight	200gms	
Component Dimensions & Condition		
Min Bore	65mm / 2.6"	
Min Diameter	25mm / 1"	
Max Temperature	35°C / 95°F	
Nominal Operating Conditions		
Temperature	20°C / 68°F	
Humidity	0 - 80% Non Condensing	
Storage Conditions		
Temperature	0 - 50°C / 32 - 122°F	
Humidity	0 - 80% Non Condensing	
Parameter Results		
Ra, Rz, Rv, Rp, Rt		
Parameters	Range	Resolution
Ra	40µm / 1600µin	0.01µm / 0.4µin
Rz, Rv, Rp, Rt	199µm / 7800µin	0.1µm / 4µin



The SR100 uses an infra-red (IrDA) link between the upper and lower units to provide remote, cable free operation up to a distance of one metre (40").



Cat No	Description
SR100	Two Piece Surface Roughness Tester