

Surftest SJ-500

SERIES 178 – Surface Roughness Tester with Dedicated Control/Display Unit

- High-precision/performance surface roughness tester with a dedicated control unit, achieving user-friendly display and simple operation.
- Equipped with a 7.5-inch, colour TFT LCD with backlight, large colour icons and touch panel controls, the display unit is easy to read and simple to operate.
- A built-in joystick in the control unit allows quick and easy positioning. The manual knob allows fine positioning of a small stylus for measuring small holes.
- Simple setup for surface roughness measuring conditions.
- A simple input function is used to calculate according to ISO/JIS roughness standard drawing instruction symbols. Complicated setups can easily be entered by selecting a drawing instruction symbol from the surface roughness menu.
- Built-in thermal printer.

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SPECIFICATIONS

Model	SJ-500	
Code No. (mm)	178-532-01E	178-532-02E
Code No. (inch/mm)	178-533-01E	178-533-02E
Measuring range	50 mm	
Resolution	0.05 μm	
Scale	Linear encoder	
Drive speed	0 - 20 mm/s	
Measuring speed	0.02 - 5 mm/s	
Traverse direction	Backward	
Traverse straightness	0.2 μm / 50 mm	
Positioning	$\pm 1.5^\circ$ (tilting, with DAT function) 30 mm (up/down)	
Detector range/resolution	800 μm / 0.01 μm , 80 μm / 0.001 μm , 8 μm / 0.0001 μm	
Measurement method	Skidless/skidded	
Stylus tip	Angle	60°
	Radius	2 μm
Detector measuring force	0.75 mN	4 mN
Skid radius of curvature	40 mm	
Detector type	Differential inductance	
Drive unit control	Joystick operation with manual adjustment knob	
Display magnification	Horizontal: X0.5 to X10,000 Auto, Vertical: X10 to X500,000 Auto	
Mass	6.7 kg (drive unit: 2.7 kg, control unit: 4 kg)	

Evaluation Capability

Assessed profiles:	P (primary profile), R (roughness profile), WC, WCA, WE, WEA, envelope residual profile, roughness motif, waviness motif
Evaluation parameters:	Ra, Rc, Ry, Rz, Rq, Rt, Rmax, Rp, Rv, R3z, Sm, S, Pc, mr(c), δc , mr, tp, Htp, Lo, Ir, Ppi, HSC, Δa , Δq , Ku, Sk, Rpk, Rvk, Rk, Mr1, Mr2, A1, A2, Vo, λa , λq
Roughness motif parameters:	R, AR, Rx
Waviness motif parameters:	W, AW, Wx, Wte
Analysis graphs:	ADC, BAC, power spectrum chart
Digital filter:	2CR-75%, PC-75%, gaussian, robust spline
Cutoff length:	λ_s : 0.25 μm , 0.8 μm , 2.5 μm , 8 μm , 25 μm , 80 μm , 250 μm , no filter λ_c *: 0.025 mm, 0.08 mm, 0.25 mm, 0.8 mm, 2.5 mm, 8 mm, 25 mm λ_f : 0.08 mm, 0.25 mm, 0.8 mm, 2.5 mm, 8 mm, 25 mm, no filter
Sampling length*:	0.025 mm, 0.08 mm, 0.25 mm, 0.8 mm, 2.5 mm, 8 mm, 25 mm
Data compensation functions:	Parabola compensation, hyperbola compensation, ellipse compensation, R-plane (curved surface) compensation, conic compensation, tilt compensation

*An arbitrary length can also be specified in the range from 0.025 mm to the maximum traverse length.



Optional Accessory

12AAA876: Durable printer paper (25 m, 5 rolls/set)
£17.00



The SJ-500 can also be mounted on a manual column stand.