

Evaluation Capability: FORMTRACEPAK

Assessed profiles: P (primary profile), R (roughness profile), WC, WCA, WE, WEA, DIN4776 profile, envelope residual profile, roughness motif, waviness motif

Evaluation parameters: Ra, Rq, Rz, Ry, Rz(JIS), Ry(DIN), Rc, Rp, Rpmax, Rpi, Rv, Rvmax, Rvi, Rt, Rti, R3z, R3zi, R3y, S, Pc (Ppi), Sm, HSC, mr, δc, plateau ratio, mrd, Rk, Rpk, Rvk, Mr1, Mr2, Δa, Δq, λa, λq, Sk, Ku, Lo, Lr, A1, A2

Roughness motif parameters: Rx, R, AR, SR, SAR, NR, NCRX, CPM

Waviness motif

parameters: Wte, Wx, W, AW, SW, SAW, NW

Analysis graphs: ADC, BAC1, BAC2, power spectrum chart, auto-correlation chart, Walsh power spectrum chart, Walsh auto-correlation chart, slope distribution chart, local peak distribution chart, parameter distribution chart, digital filter 2CR-75%, 2CR-50%, 2CR-75% (phase corrected), 2CR-50% (phase corrected), Gaussian-50%

Cutoff length*: λc: 0.025, 0.08, 0.25, 0.8, 2.5, 8, 25 mm

fl: 0.08, 0.25, 0.8, 2.5, 8, 25 mm

fh: 0.08, 0.25, 0.8, 2.5, 8 mm

Sampling length*: 0.025, 0.08, 0.25, 0.8, 2.5, 8, 25 mm

Data compensation functions: Tilt compensation, R-plane (curved surface) compensation, ellipse compensation, parabola compensation, hyperbola compensation, quadric curve automatic compensation, polynomial compensation, polynomial automatic compensation

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

Optional Accessories

Styli refer to pages L-15 to L-16.

Fixture and stage accessories refer to pages L-33 to L-36.

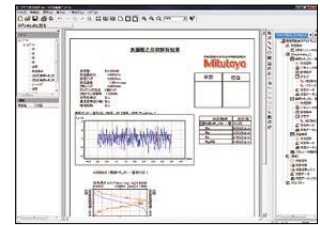
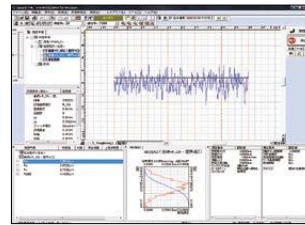
Surftest SJ-500P

SERIES 178 – Surface Roughness Tester with PC

- High-precision/performance surface roughness tester that runs under the FORMTRACEPAK sophisticated analysis software package.
- Software icons enable easy control of machine function.
- Feed-knobs on the main unit allow 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.

MeasurLink ENABLED
Data Management Software by Mitutoyo

Surftest SJ-500P



Specifications

Model	SJ-500P	
Code No. (mm)	178-530-01E	178-530-02E
Code No. (inch/mm)	178-531-01E	178-531-02E
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	±1.5° (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	PC	
Display magnification	Horizontal: X0.5 to X10,000 auto, vertical: X10 to X500,000 auto	
Mass	6.5 kg (main unit 2.7 kg; PC interface unit 3.8 kg)	

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