

Surftest Extreme SV-M3000CNC

SERIES 178 – CNC Surface Roughness Testers

Technical Data

X1 axis

Traverse straightness: 0.5 μm /200 mm
 0.7 μm /200 mm (long-type detector)
 0.5 μm /200 mm (rotary-type detector,
 up/down direction)
 0.7 μm /200 mm rotary-type detector,
 forward/backward direction)

α axis

Inclination angle: -45° to $+10^\circ$
 Resolution: 0.000225°
 Rotation speed: 1 rpm

Y axis

Measuring range: 800 mm
 Resolution: 0.05 μm
 Scale: Reflective-type linear encoder
 Traverse straightness: 0.5 μm /50 mm, 2 μm /800 mm
 0.7 μm /50 mm, 3 μm /800 mm (long-
 type detector)
 0.7 μm /50 mm, 3 μm /800 mm
 (rotary-type detector, up/down
 direction)

Base unit

Loading capacity: 300 kg

Detector

Range / resolution: 800 μm /0.01 μm , 80 μm /0.001 μm ,
 8 μm /0.0001 μm (up to 2400 μm with
 an optional stylus)

Measuring force:

4 mN (178-397-2)
 0.75 mN (low force type 178-396-2)

Stylus tip:

Diamond, 90° / R5 μm
 (60° / R2 μm : low force type)

Type:

Differential inductance

MiCAT

Mitutoyo Intelligent Computer Aided Technology

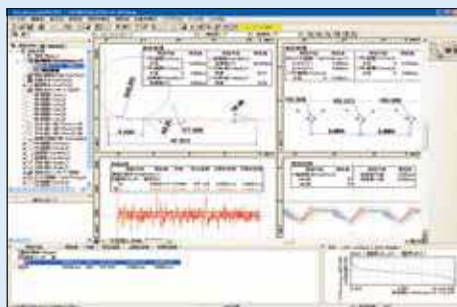
the standard in world
metrology software

FORM

Standard Software

FORMTRACEPAK

Enables control of the optional motor-driven Y-axis table and rotary table for realizing efficient measurement automation. You can also perform contour evaluation that allows free analysis of level differences, angle, pitch, area and other characteristics based on surface roughness data. In addition, you can create an original inspection certificate by setting the print format to suit your particular requirements.



Surftest Extreme SV-M3000CNC

SPECIFICATIONS

Model	SV-M3000CNC		
Code No. (100V - 120V)	178-549-1E		
Code No. (200V - 240V)	178-549-2E		
X1-axis measuring range	200 mm		
Detector holder type (essential option)	Standard S-3000 178-071	Long-type S-3000L 178-072	Rotary-type S-3000 178-073
Resolution	0.05 μm		
Scale	Reflective-type linear encoder		
Drive speed	Max. 200 mm/s (CNC), 0 - 50 mm/s (joystick)		
Measuring speed	0.02 - 2 mm/s		
Z2-axis vertical travel	500 mm		
Y-axis travel range	800 mm		
α -axis inclination angle	-45° (CCW), $+10^\circ$ (CW)		
Steel base size (WxD)	600 x 1500 mm		
Dimension (WxDxH)	1085 x 1695 x 1922 mm		
Mass (main unit)	1600 kg (including vibration isolation unit)		