Surftest

Performs brilliantly in many situations such as in the quality control room, on the factory floor and on the production line.

Surftest Extreme SV-3000CNC/SV-M3000CNC SERIES 178 — CNC Surface Roughness Testers

MeasurLink® ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

An inspection certificate is supplied as standard. Refer to page U-11 for details.

SV-3000CNC
(Inclinable drive unit + Y-axis table)

SV-M3000CNC
(Surface Roughness Tester with built-in Y axis.)
(The photo represents a special specification model.)

- The X1, Y and Z2 axes have a maximum drive speed of 200 mm/s.
  This permits high-speed positioning that can potentially result in a large increase in the throughput of multiple-profile/multiple-workpiece measurement tasks.
- Capable of inclined plane measurement through 2 axis simultaneous control in X and Y.
- Models equipped with the α axis allow continuous measurement on horizontal and inclined surfaces by power-tilting the X1 axis.
- It is possible to expand the measuring range for multiple workpieces through positioning in Y.
- All connecting cables are contained within the measuring instrument to eliminate any inconvenience during measurement.
- Since the Z1-axis detector incorporates an anti-collision safety device, the detector unit will automatically stop if it touches a workpiece or fixture.
- Surftest Extreme **SV-M3000CNC** (CNC Surface Roughness Tester with a movable Y-axis table) that handles measurement of large/heavy workpieces, such as engine blocks or crankshafts, is also available.
- Optional external control function (Ext I/O) through bidirectional communication (RS-232C) with the PLC (programmable logic controller) is available.

SV-3000CNC SPECIFICATIONS

Model No.			SV-3000CNC
X1 axis (drive unit)	Measuring range		200 mm
	Resolution		0.05 µm
	Scale type		Reflective-type linear encoder
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
	Measuring speed		0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0 mm/s
	Measuring direction		Backward
	Straightness		0.5 µm/200 mm
Y axis (table)	Measuring range		200 mm
	Resolution		0.05 µm
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
	Maximum table loading		20 kg
Z2 axis (column)	Travel range	Z2 axis (column, type **S**)	300 mm
		Z2 axis (column, type **H**)	500 mm
	Resolution		0.05 µm
	Scale type		Reflective-type linear encoder
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
Base unit	Base size (width×depth)		750×600 mm
	Base material		Granite

Note: While the appearance of the natural stone measuring table varies according to the source, the high stability for which this material is known can always be relied upon.

SV-M3000CNC SPECIFICATIONS

Model No.			SV-M3000CNC
X1 axis (drive unit)	Measuring range		200 mm
	Resolution		0.05 µm
	Scale type		Reflective-type linear encoder
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
	Measuring speed		0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0 mm/s
	Straightness	When using a standard detector	0.5 µm/200 mm
Z2 axis (column)	Measuring range		500 mm
	Resolution		0.05 µm
	Scale type		Reflective-type linear encoder
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
Y axis	Measuring range		800 mm
	Resolution		0.05 µm
	Scale type		Reflective-type linear encoder
	Drive speed	CNC mode	Max. 200 mm/s
		Joystick mode	0 to 50 mm/s
	Measuring speed		0.02 to 2 mm/s
	Straightness	When using a standard detector holder	Narrow range 0.5 µm/50 mm
			Wide range 2 µm/800 mm
Base unit	Base size (width×depth)		600×1500 mm
	Base material		Steel
	Maximum table loading		300 kg

Refer to the CNC Form Measuring Instrument Series Brochure (**E15021**) for more details.