

Surftest Extreme SV-M3000CNC

Series 178 - Surftest Extreme SV-M3000CNC

- A CNC Surface Roughness Tester that handles measurement of large/heavy workpieces such as engine blocks, crankshafts, etc.
- Combined with the surface roughness detector swiveling unit, S-3000AR (optional), continuous measurement over the bottom, top and side surface of a workpiece is possible.
- With an optional large table for supporting a load of 100 kg or a large Ø2 table continuous automatic measurement of large workpieces is possible.
- Suitable for automatic surface roughness measurement and/or large an heavy workpieces.
- An 800 mm Y-axis stroke makes measurement of multiple profiles on large workpieces possible.
- The load table has a self-contained structure ensuring that various size workpieces, and stand-ard and custom jigs, auto-feed devices, etc., are easily accommodated.



No.	Detector hold type (Essential option)		
	Standard	Long type	Rotation type
178-549-2*	S-3000 178-071	S-3000L 178-072	S-3000AR 178-073



Specifications

X1 axis	
Measuring range	200 mm
Resolution	0,05 µm
Scale	Reflective-type linear encoder
Drive speed	200 mm/s (max. CNC) 0-50 mm/s (joystick)
Measuring speed	0,02 - 2 mm/s
Traverse straightness	0,5 µm
α axis	
Inclination angle	-45° (CCW) to +10° (CW)
Resolution	0.000225°
Rotational speed	1 rpm
Z2 axis (column)	
Vertical travel	500 mm
Resolution	0,05 µm
Scale	Reflective-type linear encoder
Drive speed	200 mm/s (max., CNC) 0-50 mm/s (joystick)
Detector	
Range / resolution	800/0,01 µm, 80/0,001 µm, 8/0,0001 µm (up to 2400 µm with an optional stylus)
Measuring force	0.75 mN (178-396-2) 4 mN (178-397-2)
Stylus tip	Diamond, 60° / 2 µmR (178-396-2) 90° / 5 µmR (178-397-2)
Type	Differential inductance
Y-axis	
Measuring range	800 mm
Resolution	0,05 µm
Scale	Reflective-type linear encoder
Drive speed	200 mm/s (max., CNC) 0-50 mm/s (joystick)
Measuring speed	0,02 - 2 mm/s
Traverse straightness	0,5 µm/50 mm, 2 µm/800 mm (standard), 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	
Size (WxD)	600 x 1500 mm
Material	Steel
Loading capacity	300 kg
Dimensions (WxDxH)	1085 x 1695 x 1922 mm
Mass	1600 kg (including vibration isolation unit)
Software	
FORMTRACEPAK (multi-language)	
Enables control of all axes and rotary table for realizing efficient measurement automation. You can also perform contour evaluation that allows free analysis of level differences, angles, pitch, area and other characteristics as well as surface roughness evaluation. In addition, you can create an original inspection certificate by setting the print format to suit your particular requirements.	