Linear series

SURFCOM 2000DX3/SD3

High-Performance Surface Texture and Contour Integrated Measuring Instrument

SURFCOM 2000DX3

Printer is optional

SURFCOM 2000SD3

High Accuracy, Wide [illegible] Built-in

- Measuring range Z-axis direction: 5 mm range (Resolution: 100 nm) to 0.05 mm range (Resolution: 1.0 nm)
- Indication Accuracy Z-axis direction ± (2.5 + |2H|/100) µm H = Measuring height (mm)

The wide range detector enables simple, automatic evaluation, analysis and printing of surface texture and contour with a single measurement.

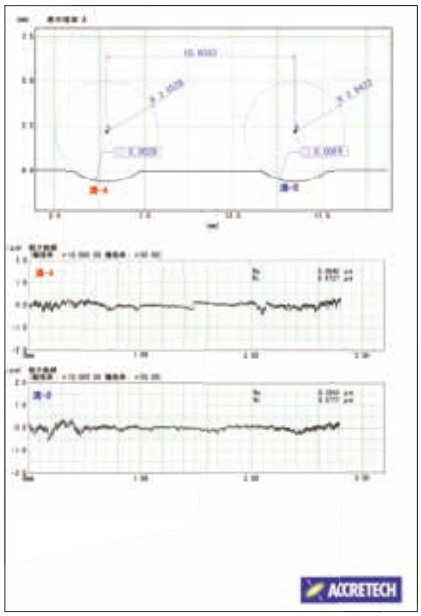
Linear Motor Drive (Patented)

- A linear motor drive ensures high accuracy and high-speed movement.
- Low vibration ensures more stable measurement at high magnifications.

*See page 8 for the details of the linear drive.

Multifunction Detector

- S2000 system enables roughness and contour measurements with a single detector.
- Optional detectors for roughness and contour meet the needs of a wide range of applications.



Texture and contour evaluation, analysis, and printout can be performed with a single measurement.
Data can be printed on a single page.

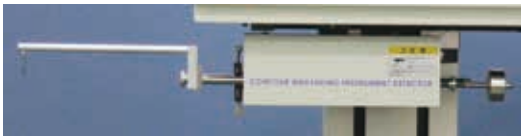
Detectors
Measuring range: 5 mm max.
Electric stylus retract function

Hybrid detector automatically performs evaluation, analysis and printing of roughness and contour measurements with a single measurement.
Since detectors specialized in roughness and contour measurements can be added, measuring ranges can be expanded in a single measuring instrument.

Roughness pickup for large magnification (Option)

A detector exclusively designed for roughness measurement can be added to the SURFCOM 2000DX3/SD3. It achieved the measuring range of 1000 µm for roughness and enables max. measuring magnification of 500,000x. It is also useful for minute contour measurement.

Wide-range pickup for contour (Option)



A detector specifically designed for contour measurement can be added to the SURFCOM 2000DX3/SD3. This detector applies the measuring range of 50 mm and enables versatile step profile analysis on contour measurements.

Specifications

Model			SURFCOM 2000DX3/SD3							
			-12	-13	-14	-15	-22	-23	-24	-25
Measuring range	Z-axis (vertical)		5 mm/Standard arm, 10 mm/2 X arm							
	X-axis (horizontal)		100 mm				200 mm			
Accuracy	Z-axis indication accuracy (vertical)		±(2.5 + |2H|/100) µm (H: Measuring height mm)							
	Resolution		1.0 nm/0.05 mm range, 4 nm/0.2 mm range, 10 nm/0.5 mm range, 20 nm/1mm range, 40 nm/2 mm range, 100 nm/5 mm range							
	X-axis indication accuracy (horizontal)		±(1.0 + L/100) µm (L: Measuring length mm)							
	Resolution		0.016 µm							
Straightness accuracy			(0.05 + L/1000) µm (L: Measuring length mm)							
Sensing method	Z-axis (vertical)		Differential inductance							
	X-axis (horizontal)		Linear scale							
Speed	Column up/down speed (Z-axis)		10 mm/s							
	Measuring speed (X-axis)		0.03 mm/s to 20 mm/s							
	Moving speed		60 mm/s max.							
Detector	Stylus		Replaceable and stepless(retract) function							
	Stylus radius (stylus material) Measuring force		2 µmR (60° conical diamond) 0.75 mN, 25 µmR (24° conical carbide) 5 mN Each stylus equipped as standard							
Operation range	Tracing driver stroke		100 mm				200 mm			
	Column up/down stroke		250 mm	450 mm		650 mm	250 mm	450 mm		650 mm
Granite table	Dimensions		600 × 317 mm		1000 × 450 mm		600 × 317 mm		1000 × 450 mm	
	Permissible loading weight★		37 kg	28 kg	93 kg	84 kg	31 kg	22 kg	87 kg	78 kg
Other	Installation dimensions★	Width	1250 mm		1650 mm		1250 mm		1650 mm	
		Depth	800 mm		900 mm		800 mm		900 mm	
		Height	1480 mm	1680 mm		1880 mm	1480 mm	1680 mm		1880 mm
	Weight★		225 kg	235 kg	420 kg	430 kg	230 kg	240 kg	425 kg	435 kg
	Power supply, frequency, consumption		Single phase AC 100 V ±10% (grounding required), 50 Hz/60 Hz, 670 VA							

★Dimensions and weight are for the DX type.