



Standard series

# SURFCOM 2800G

Advanced Functions and Superior Operational Ease



Printer is optional

SURFCOM 2800G

## SURFCOM 1800G

Surface Texture and Contour Analysis Integrated Measuring Instrument



Printer is optional

SURFCOM 1800G

### AI Function (Roughness) (Patented)

The AI function automatically sets the measurement conditions and executes measurement.

### Automatic Operation Teaching/Playback Function (Roughness/Contour)

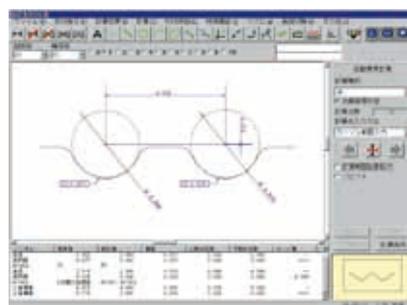
This function automatically stores measurement and analysis procedures in the memory, including tracing driver and column movements. This enables CNC measurements to be performed.

### Dimension Line Display Function (Contour)

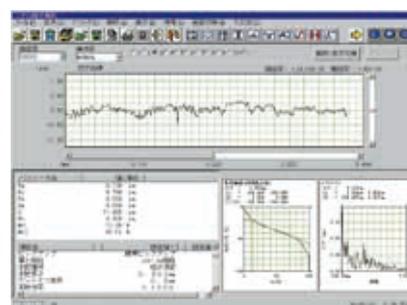
This enables dimension lines to be drawn on the diagram along with actual measured values for parameters and geometric deviation.

### Built-in Shape Merge Function

The profile synthesis function eliminates the analysis range limitation created by the stylus angle (contour).



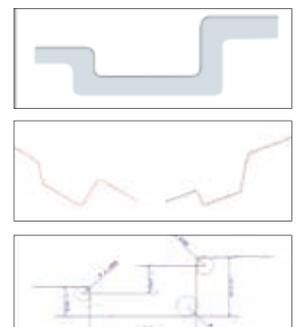
Dimension line display function (TIMS)



Roughness analysis function (TIMS)



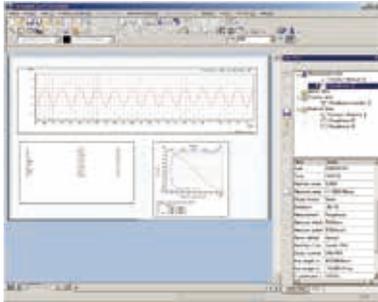
With normal measuring systems, limits are imposed on the measuring angle by the detector stylus angle. ACCRETECH has solved this problem by synthesizing the data for two profiles.



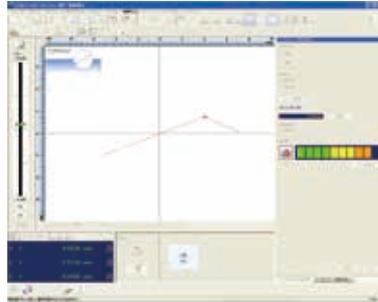
Shape merge function

## ACCTee Measurement & Analysis Software

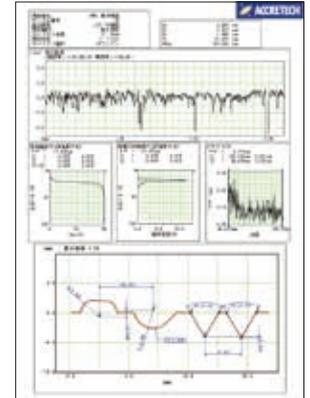
ACCTee is surface texture and contour profile measurement and analysis software with enhanced operability. Provided with wizard modes for easier operation, as well as a variety of support functions such as "AI function", "self-diagnosis function" and "peak and valley detection function", ACCTee makes all measurement tasks easier and more efficient.



Roughness analysis function (ACCTee)



Peak and Valley function (ACCTee)



Print data sheet

## Specifications

Model			SURFCOM 2800G/1800G									
			-11	-12	-13	-14	-21	-22	-23	-24		
Measuring range		Z-axis (vertical)	50 mm									
		X-axis (horizontal)	100 mm				200 mm					
Accuracy	S1800G series	Roughness	Measuring range	800 μm range to 25 μm range (6.4 μm range)* <sup>3</sup>								
			Resolution	0.02 μm to 0.0004 μm (0.0001 μm)* <sup>3</sup>								
		Contour	Z-axis indication accuracy (vertical)	±0.25% (full scale)								
			Resolution	0.1 μm/5 mm range, 0.4 μm/20 mm range, 1 μm/50 mm range								
	S2800G series	Roughness	Measuring range	800 μm range to 25 μm range (6.4 μm range)* <sup>3</sup>								
			Resolution	0.02 μm to 0.0004 μm (0.0001 μm)* <sup>3</sup>								
		Contour	Z-axis indication accuracy (vertical)	± (0.8 +  2H /100) μm (H: Measuring height mm)								
			Resolution	0.025 μm/Full range								
	Common item		X-axis indication accuracy (horizontal)	± (1 + 2L/100) μm (L: Measuring length mm)								
			Resolution	0.04 μm								
Tracing driver		Straightness accuracy	Roughness	0.05 + 1.5L/1000 μm (L: Measuring length mm)								
			Contour	1 μm/100 mm				2 μm/200 mm				
		Sensing method		Moire striped scale				Linear scale				
		Measuring speed		0.03, 0.06, 0.15, 0.3, 0.6, 1.5, 3, 6 mm/s (8 speeds)								
		Column up/down speed (Z-axis)		—	10 mm/s (3mm/s)* <sup>1</sup>				—	10 mm/s (3 mm/s)* <sup>1</sup>		
Detector	Sensing method	S1800G series	Roughness	Differential transducer								
			Contour									
		S2800G series	Roughness	Laser optical diffraction scale								
			Contour									
	Roughness measurement	Stylus, measuring force		Replaceable, 0.75 mN								
		Stylus radius (material)		Roughness: 2 μmR (60° conical diamond) Waviness: 800 μmR (Ruby ball) Each stylus equipped as standard								
		Stylus, measuring force, function		Replaceable, 10 mN to 30 mN, and stepless (retraction) function								
Contour measurement	Stylus radius (material)		25 μmR (24° conical carbide) Two pieces equipped as standard									
	Measuring direction, position		Pull/push and Up/down directions, Max. following angle: 77°									
Operation range		Tracing driver stroke		100 mm				200 mm				
		Column up/down stroke		250 mm		450 mm		250 mm		450 mm		
Grinate table	Permissible loading weight	Dimensions		600 × 317 mm				1000 × 450 mm		600 × 317 mm		1000 × 450 mm
		In use of desktop anti-vibration table (E-VS-S57B/S58B)		40 kg	34 kg	25 kg	-	34 kg	28 kg	19 kg	-	
		In use of large-size desktop anti-vibration table (E-VS-S45A)		50 kg	40 kg	30 kg	90 kg	50 kg	40 kg	30 kg	84 kg	
		In use of anti-vibration table (E-VS-R16 B)		50 kg	40 kg	30 kg	40 kg	50 kg	40 kg	30 kg	34 kg	
		In use of anti-vibration table (E-VS-R21 B)		50 kg	40 kg	30 kg	100 kg	50 kg	40 kg	30 kg	100 kg	
Other	Installation dimensions* <sup>2</sup>	Width	2000 mm				2300 mm					
		Depth	1000 mm									
		Height	1700 mm				1900 mm					
	Weight		120 kg	125 kg	135 kg	240 kg	125 kg	135 kg	140 kg	245 kg		
	Power supply, frequency, consumption		Single-phase AC 100 V ±10% (grounding required), 50 Hz/60 Hz, 710 VA									

\*1: For joystick operation

\*2: The dimensions of -11,-12,-13,-21,-22,-23 include the optional stand (E-VS-S13A), desktop anti-vibration table (E-VS-S57B) and computer rack (E-DK-S24A).  
The dimensions of -14,-24 include the optional large anti-vibration table (E-VS-R16B) and computer rack (E-DK-S24A).

\*3: The value is in use of high magnification pickup.