

NEW

Surface Texture and Contour  
Integrated Measuring Instruments

# SURFCOM CREST

ACCTee



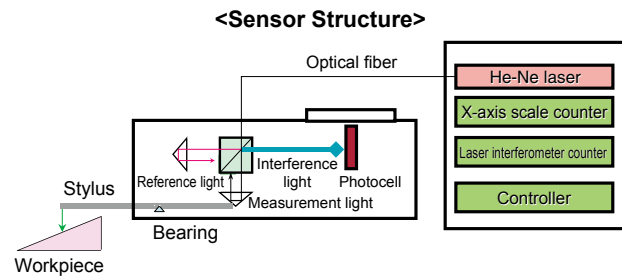
# SURFCOM CREST



**World No.1 Class of high accuracy, high speed and wide range.**

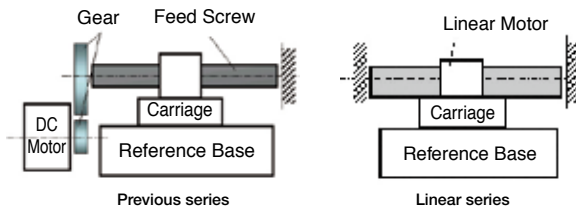
## Highly stable optical path type laser interferometer

- This measuring machine adopts an optical fiber-based laser interferometer, one of Tokyo Seimitsu's constituent technologies, and incorporates a newly developed highly stable optical path laser interferometer having a resolution of 0.31 nm.
- This system features a dynamic range as well as a resolution ratio of 42,000,000:1. This means that in a single trace you can evaluate contour profiles in wide ranges and also hidden fine surfaces.



### • Linear Motor Drive (Patented)

- Linear motor drive ensures high accuracy and high-speed movement.
- Also, low vibration ensures more stable measurement at high magnifications.



### • Roughness and Contour Analyzed in a Single Measurement

- Measurement efficiency improved and high accuracy is maintained at the same time.

### • Wide Range

- Wide measuring range of 200 mm (horizontal direction) and 13 mm (vertical direction)
- Motorized tilting unit capable of tilting to 45° also available. (SURFCOM CREST-T)

## Software



## ACCTee

**New Measurement Style with New Concept  
All Measurements and Analyses Available in a Document**

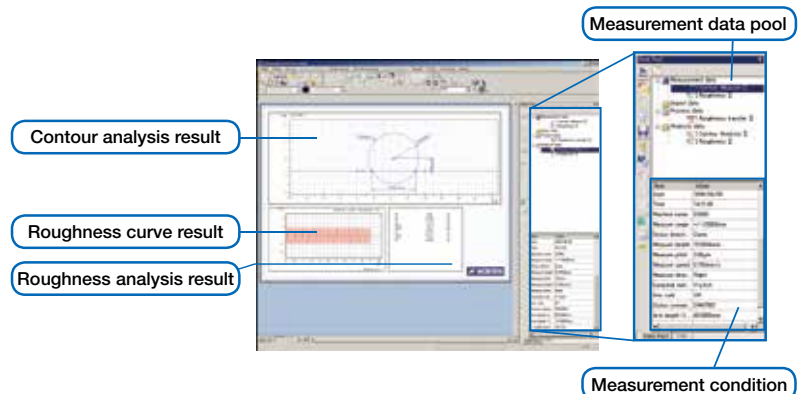
### Integrated Analysis Software ACCTee

Our newly developed ACCTee software represents the next generation of integrated TMS software. Based on a new concept in measurement that combines document-based measurement and analysis with leading-edge operability and an intuitive work environment, AccTee makes all operations available in the document (measurement result sheet), and it also enables all the information to be saved with the related data.

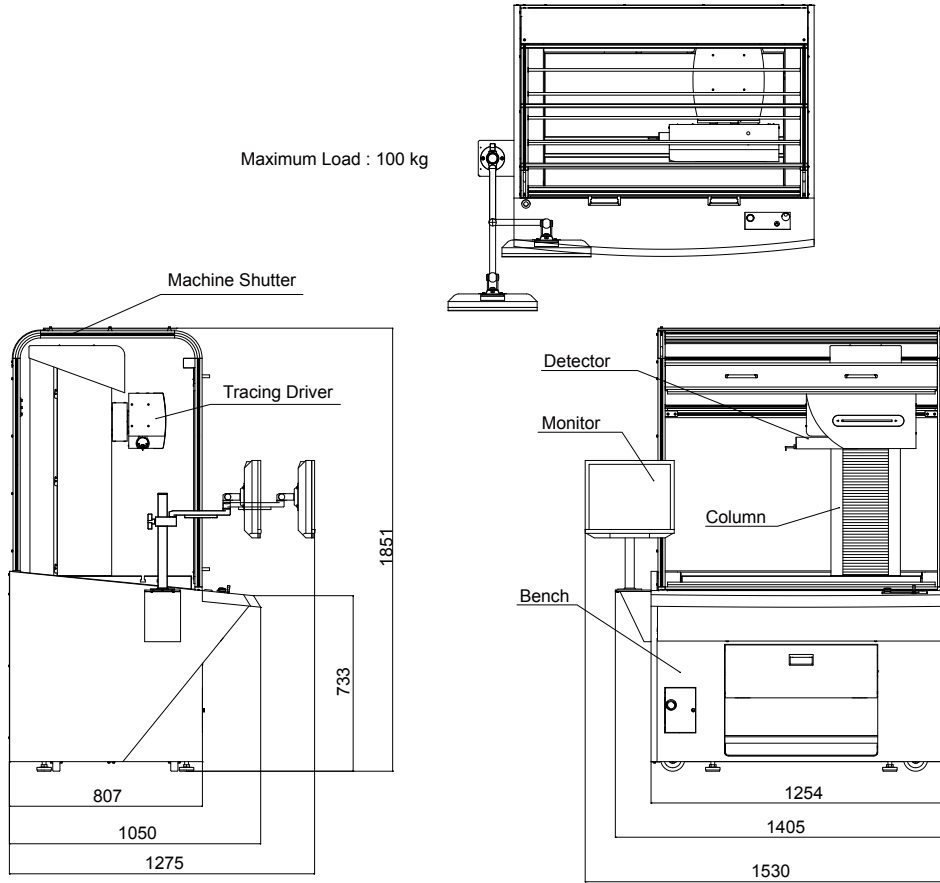
This is the "All in the Document", next generation integrated software, ACCTee.

### Easy-to-Use Interface for Leading-Edge Operability

ACCTee is equipped with a Windows style user interface that is easy for anyone to understand and use. User-friendly and intuitive icons guide you through a series of operations from measurement to the printing of the analysis results.



## External View



## Specifications

Item		SURFCOM CREST	
Measuring range	Z-axis (vertical)	13 mm/50 mm arm, 26 mm/100 mm arm	
	X-axis (horizontal)	200 mm	
Accuracy	Z-axis indication accuracy (vertical)	$\pm 0.2 + \text{IHI}/1000 \mu\text{m}$ H: Measuring height (mm)	
	Resolution	0.31 nm/50 mm arm	
	X-axis indication accuracy (horizontal)	$\pm 0.2 + \text{L}/1000 \mu\text{m}$ L: Measuring length (mm)	
	Resolution	0.54 nm	
Straightness accuracy <sup>*1</sup>		$0.05 + 3 \text{ L}/10000 \mu\text{m}$ L: Measuring length (mm)	
System accuracy <sup>*1</sup>	System noise <sup>*2</sup>	Ra $\leq 2 \text{ nm}/0.4 \text{ mm}$ Rz $\leq 10 \text{ nm}/0.4 \text{ mm}$	
	Form error <sup>*3</sup>	Pt $\leq 0.1 \mu\text{m}$ ( $\phi 30\text{mm}$ or smaller)	
	Maximum Permissible error	Radius measurement <sup>*4</sup>	$\leq \pm 1.0 \mu\text{m}$ ( $\phi 30\text{mm}$ or smaller)
		Distance measurement <sup>*5</sup>	$\leq \pm (1 + \text{L}/150) \mu\text{m}$ L: Measuring length (mm)
	Angle measurement <sup>*6</sup>	$\leq \pm 0.5 \text{ min}$ (-45 -+45 deg.)	
Sensing method	Z-axis (vertical)	Highly stable optical path type laser interferometer	
	X-axis (horizontal)	Optical diffraction scale	
Drive speed	Column up/down speed (Z-axis)	to 200 mm/s	
	Drive unit measuring speed (X-axis)	0.03 to 3 mm/s (during roughness measurement), 0.03 to 20 mm/s (during contour measurement)	
	Drive unit movement speed (X-axis)	0.02 to 60 mm/s	
Drive unit tilt		$\pm 45^\circ$ (option)	
Sensor unit	Stylus	Replaceable	
	Measuring Force	0.75 mN	
	Stylus radius	2 $\mu\text{mR}$ standard accessory (50 mm arm)	
	Stylus material	Diamond	
	Functions	Retract function	
Dimensions and weight	Power Requirements	Single-phase AC100 to 240 V $\pm 10\%$ , 50/60 Hz	
	Air Source	Supply Pressure: 0.45 to 0.7MPa, Working Pressure: 0.4MPa, Air Consumption Volume Max: 8 L/min	
	Installation dimensions	1405 (W) $\times$ 1050 (D) $\times$ 1851 (H)	
	Weight	700 kg	

\*1 : at using DM84071 (Standard accessories)

\*2 : 0.03mm/s, Gaussian filter :  $\lambda_c=0.08 \text{ mm}$ ,  $\lambda_s=2.5 \mu\text{m}$

\*3 :  $\pm 45\text{deg.}$ , 0.3 mm/s, Least square circle, Gaussian filter :  $\lambda_s=0.08 \text{ mm}$

\*4 :  $\pm 45\text{deg.}$ , 0.3 mm/s, Gauge uncertainty is included

\*5 : 0.3 mm/s, Gauge uncertainty is included

\*6 : The length of one side sloop is 5 mm or more, 0.3mm/s, Gauge uncertainty is included

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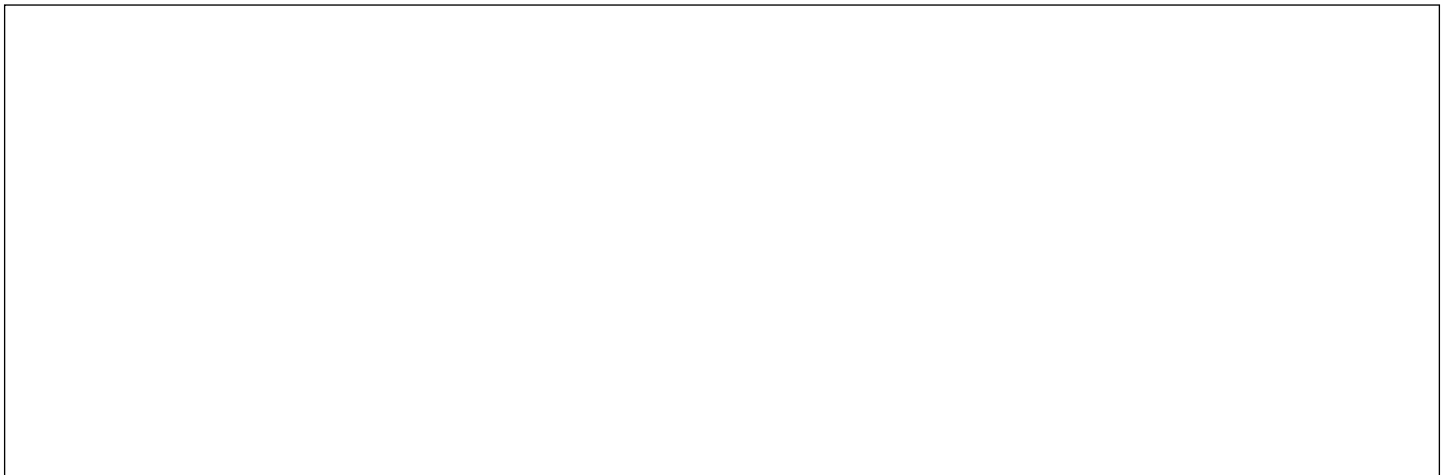
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