



Advanced Functions and Superior Operational Ease

SURFCOM 2800E

SURFCOM 2800E-3DF



SURFCOM 2800E-12
* Printer is optional.



SURFCOM 2800E-3DF
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TIMS Integrated Measuring System (Roughness/Contour)

- Simply touch the icon to change between the roughness and contour measuring modes. Measured data can be combined when printed.

AI Function (Roughness) (patented)

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

Automatic Operation Log/Playback Function (Roughness/Contour)

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

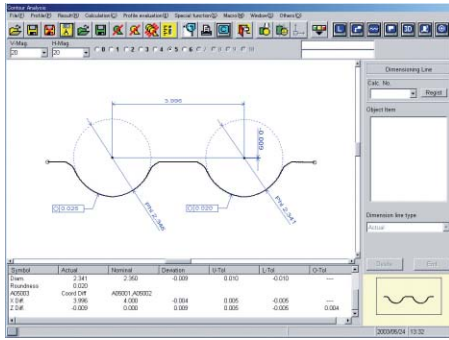
Dimension Line Display Function (Contour)

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

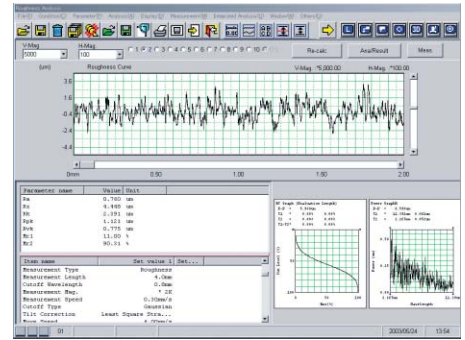
Profile Synthesis Function

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

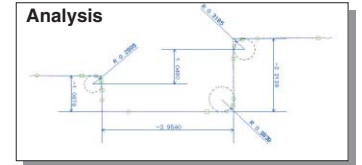
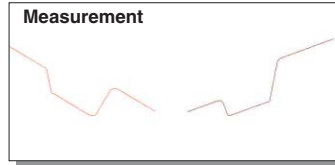
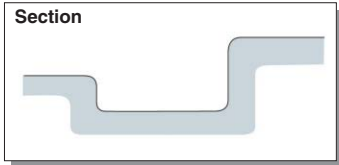
Dimension line display function



Roughness analysis function



Profile synthesis function



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.

Specifications

Model		SURFCOM 2800E	
		Surface Texture Evaluation	Contour Evaluation
Measuring range	Z axis (vertical)	800 μm	50 mm
	X axis (horizontal)	100 mm (200 mm with -22 system)	100 mm (200 mm with -22 system)
Accuracy	Z axis indication accuracy (vertical)	-	± (0.8 + 4H / 100) μm (H: Measuring height [mm])
	Resolution	-	0.025 μm
	X axis indication accuracy (horizontal)	-	± (1 + 2L / 100) μm (L: Measuring length [mm])
	Resolution	-	0.1 μm
Straightness accuracy		(0.05 + 1.5L / 1000) μm (L: Measuring length [mm])	1 μm / 100 mm
Sensing method	Z axis (vertical)	Differential transducer	Laser beam diffraction scale
	X axis (horizontal)	Moiré striped scale	Moiré striped scale
Processing functions	Parameters / calculation processing	Complies with JIS, ISO, DIN, ASME & CNOMO Ra, Rq, Ry, Rp, Rv, Rc, Rz, Rmax, Rt, Rz.J, R3z, Sm, S, RΔa, RΔq, Rλa, Rλq, TILT A, Ir, Pc, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, VO, K, tp, Rmr, tp2, Rmr2, Rδc, Hmax, Hmin, AREA, NCRX, R, Rx, AR, NR, CPM, SR, SAR	Point, line, circle, partial circle, ellipse, max. point/min. point, distance, coordinate difference, polar coordinate difference, orthogonal/polar coordinate difference display, intersecting elements (point-line, line-line, circle-line, circle-circle, line-ellipse), symmetric elements (point-point, point-circle, point-ellipse, line-line, circle-circle, circle-ellipse, ellipse-ellipse), coordinate control (zero point setting, X axis setting, parallel movement, rotary movement), surface calculation, over-pin calculation, dimension line display function, calculation result/design value collation, mirror reversal, profile synthesis function, macro function, automatic element discrimination, calculation point repeat function, workpiece trace function, peak and valley function, auto operation log/playback function, profile design value collation, best fit, design value generation, IGES/DXF conversion
	Evaluation curves	Section profile curve, roughness curve, filtered waviness curve, filtered center line waviness curve, rolling circle waviness curve, rolling circle center line waviness curve, DIN4776 special curve, roughness motif curve, waviness motif curve, envelope waviness curve	Zero point setting, X axis setting, parallel movement, rotary movement
	Surface characteristic graph	Surface characteristic graph, load curve graph, power graph, amplitude distribution (ADF) graph	-
	Tilt correction / standard setting	Tilt correction, linear correction, round surface correction, first half correction, latter half correction, both end correction, spline curve correction (linear, round surface and both end correction possible at arbitrary range)	-
Recording	Vertical magnification	Set desired value or automatic: 0.1, 1, 2, 5, 10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 50K, 100K, 200K*, 500K*	0.01 – 10,000,000 (arbitrary or automatic) 0.01 – 10,000,000 (arbitrary or automatic)
	Horizontal magnification	Set desired value or automatic: 1, 2, 5, 10, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K	-
Type of filter		Standard filter (2RC), phase compensation filter (2RC), phase compensation filter (Gaussian)	-
Cut-off value		Set: 0.025, 0.08, 0.25, 0.8, 2.5, 8, 25 mm (7 stages)	-
Speed	Column up/down (Z axis)	3 mm/s	
	Measuring (X axis)	0.03, 0.06, 0.15, 0.3, 0.6, 1.5, 3, 6 mm/s	
Sensor unit	Stylus	Replaceable	Replaceable
	Measuring force	0.7 mN	30 mN or less
	Stylus radius	2 μm R	25 μm R
	Stylus material	Diamond	Carbide alloy
Power source		Single phase AC 100 V ±10%, 50/60 Hz	
Power consumption		380 VA	
Installation dimensions		1850 (W) × 800 (D) × 750 (H) mm	
Weight		150 kg	