Contour Measuring Instruments

Enhanced Operational Ease

CONTOURECORD 1600D

CONTOURECORD 1600D-12

* Printer is option.

Auto Element Judgment (AI Function)

● The 1600D automatically determines the type of element (point・line・circle).

Dimension Display Function

● The actual measured values for parameters and geometric deviation can be displayed on the diagram.

Profile Synthesis Function

● The limitations on the analysis range due to the angle of the stylus are addressed with the synthesis function.

Peak and Valley Function

● This function enables the maximum workpiece point to be detected by tracing with the stylus, simplifying alignment.

Calculation Point Repeat Function

● Overall workpiece analysis can be executed after completing only one pattern analysis for workpieces where certain shapes are repeated.

Workpiece Trace Function

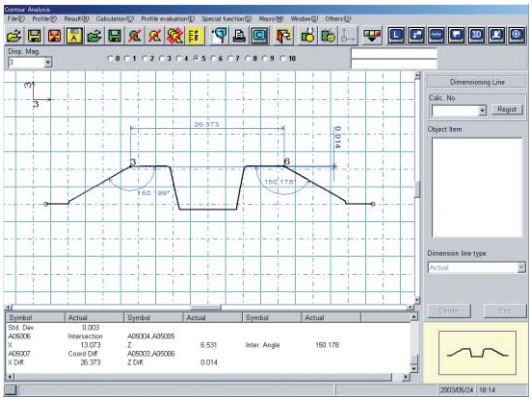
● The measuring range can be determined by tracing the workpiece once. This is effective for measurement of minute profiles.

Easy Evaluation of Part Contour

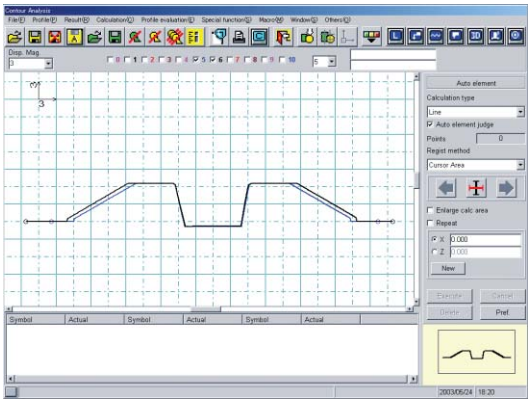
● Exact data on parts that were previously evaluated with a projector or tool microscope can be obtained in a short period of time. The measured results can be used as is for inspection reports.

High Efficiency Measurement

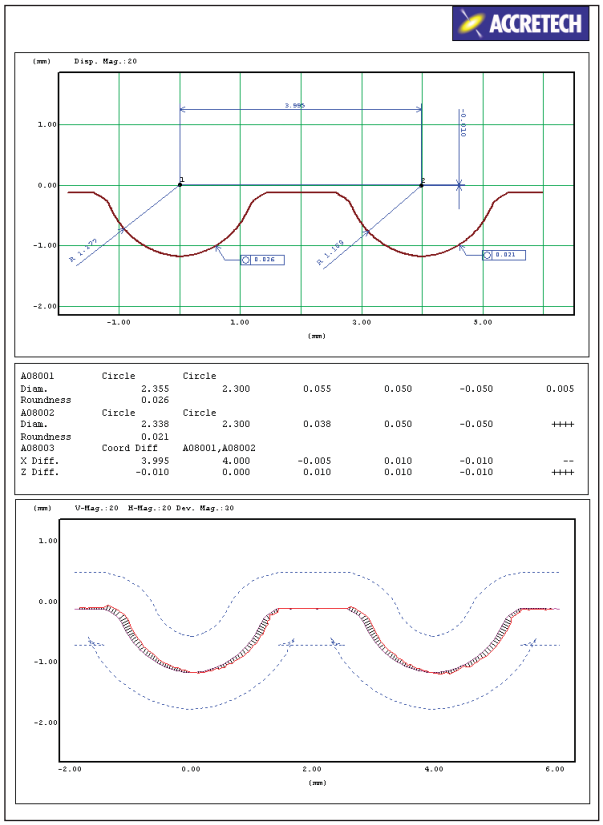
● The teaching/playback function automates the entire process, from measurement to pasting of the data into an inspection report.



Dimension line display function



Overlap display



Printed data sheet

Specifications

Model		CONTOURECORD 1600D
Measuring range	Z axis (vertical)	50 mm
	X axis (horizontal)	100 mm (200 mm on –22 system)
Accuracy	Z axis indication accuracy	±0.25% / full scale (±4 μm or less for 5mm range)
	Measuring resolution	0.1 μm / ±2.5mm, 0.4 μm / ±10mm, 1 μm / ±25mm
	X axis indication accuracy	± (1 + 2L / 100) μm L: Measuring length [mm]
	Measuring resolution	0.1 μm
Straightness accuracy		1 μm / 100 mm
Sensing method	Z axis	Differential transducer (trans)
	X axis	Moiré striped scale
Recording	Vertical magnification	0.01 – 10,000,000 (Possible for any or automatic value)
	Horizontal magnification	0.01 – 10,000,000 (Possible for any or automatic value)
Speed	Column up/down (Z axis)	3 mm/s
	Measuring speed (X axis)	0.03, 0.06, 0.15, 0.3, 0.6, 1.5, 3, 6 mm/s
Min. measuring pitch		1 μm
Max. measuring points		100,000 (Max. 10 profiles)
Radius of stylus		0.025 mm R
Measuring force		30 mN or less
Measuring feed direction		Push/pull, both directions
Measuring orientation		Up/down, both directions
Processing functions		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/nominal 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
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

* Printer is not included in power consumption.