

Highly Reliable, Easy to Operate Unit for Internal Sections

CONTOURECORD 600D



Easy Measurement of Profile

The 600D facilitates easy and quick measurement of contour profiles with relatively large undulations, such as thread ridges, hole taper, mold profile and gauge contour profile.

High Precision

The unit has unique position detection mechanisms in the vertical (Z) and horizontal (X) directions, enabling very accurate and reliable enlarged drawing of profiles with a high-precision X-Y recorder.

Facilitates Difficult Measurements

- This unit can measure internal sections and other profiles that cannot be measured with a projector or tool microscope unless the work-piece is cut.

Outstanding Operational Ease

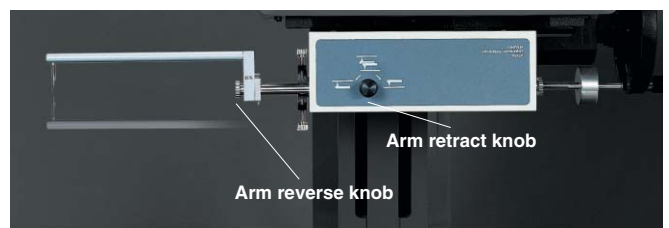
- The X axis and Y axis can be motor fed with a joystick or manually fed, enhancing the efficiency of measurements.

Select Optimum Measuring Magnification/Speed

- The optimum measuring magnification between 1 and 2,000 times can be selected according to individual requirements. (500 to 2000 magnification are optional.)

Arc Distortion Correction Function

- This function automatically corrects for arc distortion caused by the lever type detector. The function even works when using a special long arm, reversing the arm or other special method, ensuring accurate recording.



Measure Long Holes/Large Workpieces

- Long holes can be measured by using a special arm that is longer than the standard arm.

Various Safety Mechanisms

The 600D incorporates a variety of safety mechanisms, including an electric retract mechanism to prevent breakage of the stylus tip and an overload auto-stop function to protect the detector by monitoring for overscale or sticking of the stylus.

Low Measuring Force Adjustment Function (option)

This function enables measurements to be performed on easily deformed workpieces with a low measuring force of 2 mN.

Low measuring force adjustment weight (0102406)

Min. measuring force: 2mN

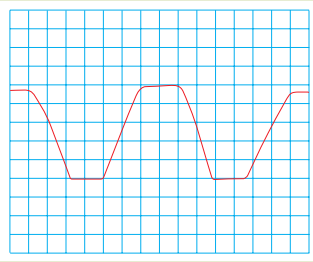
Measuring force range: 2 – 10 mN

Adjustment: 1 mN / graduation

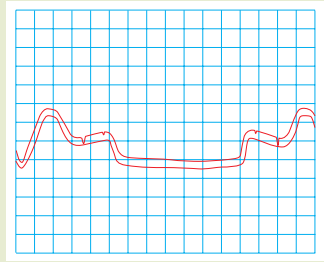


Sample Data Sheet

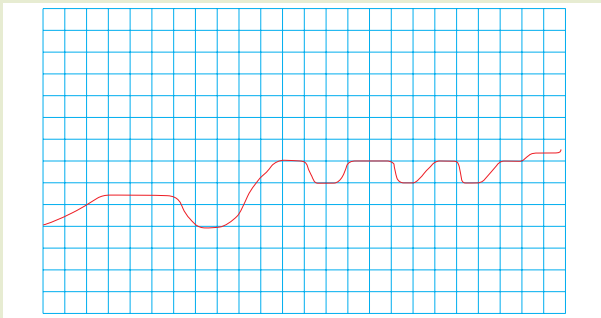
Plastic gear measurement



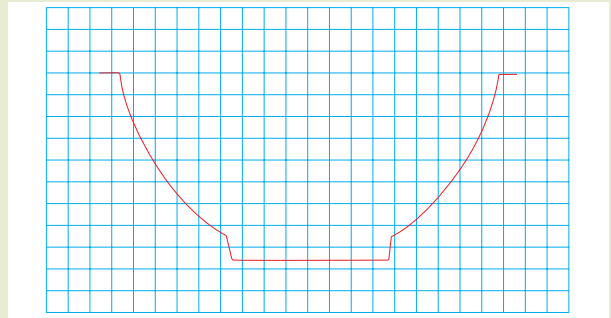
Pull-top measurement



Plastic bolt profile measurement



Flashlight mirror measurement



Specifications

Model		CONTOURECORD 600D
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
	X axis indication accuracy	$\pm (1 + 2L / 100) \mu\text{m}$
Straightness accuracy		1 μm / 100 mm
Sensing method	Z axis	Differential transducer (trans)
	X axis	Moiré striped scale
Recording	Vertical magnification (Z axis)	1, 2, 5, 10, 20, 50, 100, 200, 500*, 1000*, 2000*
	Horizontal magnification (X axis)	1, 2, 5, 10, 20, 50, 100, 200, 500*, 1000*, 2000*
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
Min. measuring pitch		1 μm
Stylus	Tip radius	25 μm R
	Material	Carbide alloy
Measuring force		30 mN or less
Measuring feed direction		Change between push measurement and pull measurement
Measuring orientation		Change between upward measurement and downward measurement
Stylus follow angle	Up	Max. 77° (smooth surfaces)
	Down	Max. 87° (smooth surfaces)
Power source		Single phase AC 100 V $\pm 10\%$, Specify 50 or 60 Hz
Power consumption		300 VA
Installation dimensions		1200 (W) \times 450 (D) \times 717 (H) mm**
Weight		120 kg**
Standard accessories		Stylus (DT45502), recording paper (A3 leaf), ceramic pen (red, HC503P-RD), set of tool consumables, instruction manual, inspection certificate

*: Indicates high-magnification detector. **: Specifications for -12 system