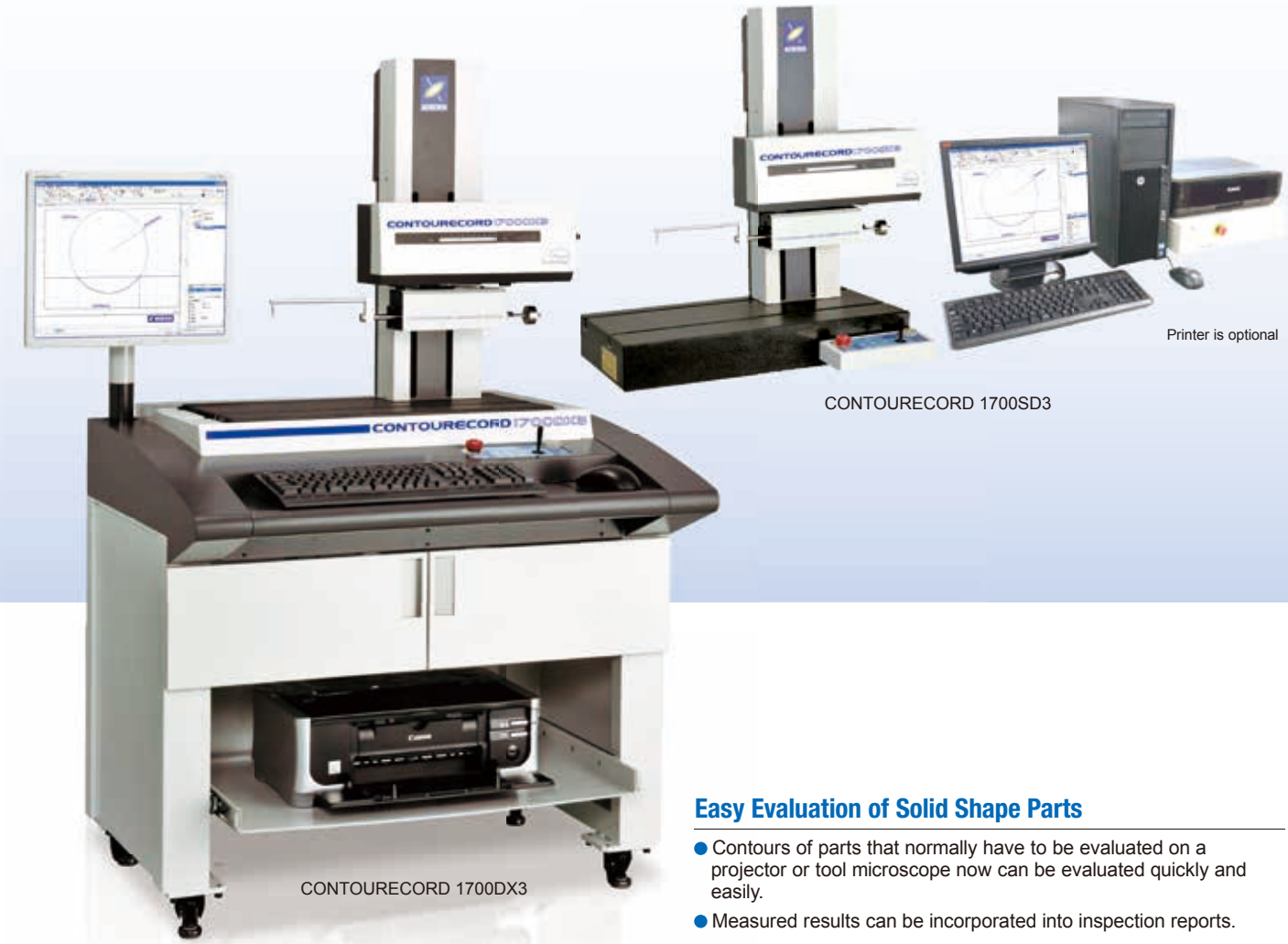
Linear series

CONTOURECORD 1700DX3/SD3

Cutting-Edge Linear Motor Dramatically Boosts Precision
Setting A New Standard in Contour Measurement



Printer is optional

CONTOURECORD 1700SD3

CONTOURECORD 1700DX3

Higher Precision

- CONTOURECORD 1700 provides measuring accuracy precise enough for molds and other precision components.
- Measuring accuracy at a level normally associated with high-end machines greatly expands the range of possible applications.

Linear Motor Drive (Patented)

- A linear motor drive ensures high accuracy and high-speed movement.
- Low vibration ensures more stable measurement at high magnifications.

*See page 8 for the details of the linear drive.

High Efficiency Measuring

- Teaching and playback functions automate the entire process, from multiple location measurements to creation of an inspection report, which can be generated simply by pasting data into it.
- A maximum measuring speed of 20 mm/s and a maximum moving speed of 60 mm/s dramatically enhance measuring efficiency.

Easy Evaluation of Solid Shape Parts

- Contours of parts that normally have to be evaluated on a projector or tool microscope now can be evaluated quickly and easily.
- Measured results can be incorporated into inspection reports.

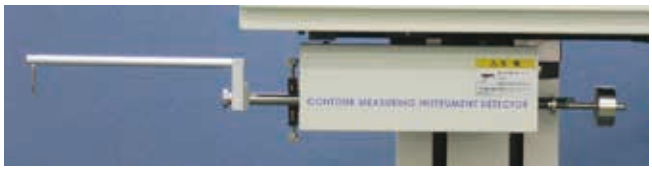
Superior ACCRETECH Functions

- **Automatic Element Discrimination (AI Function)**
  Elements such as points, straight lines, and circles are determined automatically without having to be specified by the operator.
- **Dimension Display**
  Actual measured values such as parameters and geometric deviation can be displayed in the measurement drawing.
- **Automatic Crowning**
  Workpiece maximum values and minimum values are detected automatically.
- **Calculation Point Repeat**
  General analysis of a workpiece that includes repeating profiles can be performed by analyzing a single pattern.
- **Workpiece Trace**
  A single manual trace can be used to determine the measuring range without setting values. This function is ideal for measuring intricate profiles.
- **Import and Export**
  Image data can be pasted into measurement results and measurement waveform data can be pasted into commercially available software files.

High Accuracy Analog Detector

The contour detector, CONTOURECORD 1700, is an analog detector that uses the differential motion inductance method. Born of our efforts to develop high accuracy products that focus on this analog high resolution characteristic, the CONTOURECORD 1700 is a high-accuracy analog contour detector featuring a world-exclusive software correction technique, as well as an improved inner structure.

- Simple inner structure allows high resolution depending on measuring ranges.
- Low measuring force leads to less friction between stylus and a workpiece. The shape of the workpiece can be accurately incorporated.
- Shock resistant and stable measurement.
- Various contour measuring styli for a wide variety of workpieces from small holes to deep grooves.



Adjustment Weight for Low Measuring Force

Support for 2 mN low measuring force enables measurement of easily deformed workpieces.

Adjustment Weight
for Low Measuring Force (0102406)

Measuring Force Adjustment Range:
2 mN to 10 mN

Roughness Pickup for Large Magnification (Option)

- A roughness measurement range of 1000 µm enables provision of minute contour and rough alignment measurement.
- To support large magnification measurement of high-precision processed parts, magnification of up to 500,000x is provided.
- Roughness pickup can be added after delivery to upgrade to an integrated measuring instrument.

Specifications

Model			CONTOURECORD 1700DX3/SD3							
			-12	-13	-14	-15	-22	-23	-24	-25
Measuring range		Z-axis (vertical)	50 mm							
		X-axis (horizontal)	100 mm				200 mm			
Accuracy	Detector	Z-axis indication accuracy (vertical)	± (1.8 + |2H|/100) µm (H: Measuring height mm)							
		Resolution	0.1 µm/5 mm range, 0.4 µm/20 mm range, 1 µm/50 mm range							
	Tracing driver	X-axis Indication accuracy (horizontal)	± (1.0 + L/100) µm (L: Measuring length mm)							
		Resolution	0.016 µm							
Straightness accuracy			1 µm/100 mm				2 µm/200 mm			
Sensing method		Z-axis (vertical)	Differential inductance							
		X-axis (horizontal)	Linear scale							
Speed		Column up/down speed (Z-axis)	10 mm/s							
		Measuring speed (X-axis)	0.03 mm/s to 20 mm/s							
		Moving speed (X-axis)	60 mm/s max.							
Detector		Stylus, measuring force	Replaceable, 10 mN to 30 mN or less, and stepless(retract) function							
		Stylus radius (stylus 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	244 mm	444 mm		644 mm	244 mm	444 mm		644 mm
Granite table		Dimensions	600 × 317 mm		1000 × 450 mm		600 × 317 mm		1000 × 450 mm	
		Permissible loading weight★	37 kg	28 kg	93 kg	84 kg	31 kg	22 kg	87 kg	78 kg
Other	Installation dimensions★	Width	1250 mm		1650 mm		1250 mm		1650 mm	
		Depth	800 mm		900 mm		800 mm		900 mm	
		Height	1480 mm	1680 mm		1880 mm	1480 mm	1680 mm		1880 mm
	Weight★		225 kg	235 kg	420 kg	430 kg	230 kg	240 kg	425 kg	435 kg
	Power supply, frequency, consumption		Single phase AC 100 V ±10% (grounding required), 50 Hz/60 Hz, 670 VA							

★Dimensions and weight are for the DX type.

This product shall be controlled by the Foreign Exchange and Foreign Trade Act and required an export license by the Japanese Government. Regarding exporting this product and/or providing technologies with a non-resident, please consult Tokyo Seimitsu.