

# ROUNDTTEST EXTREME RA-H5000/2000A CNC

CATALOG NO.E4256-211



Roundtest Extreme RA-H5000 CNC  
and RA-2000A CNC innovate on the existing  
roundness/cylindricity measurement.

**Mitutoyo**

# Contributing to productivity improvements and efficiency-enhancement

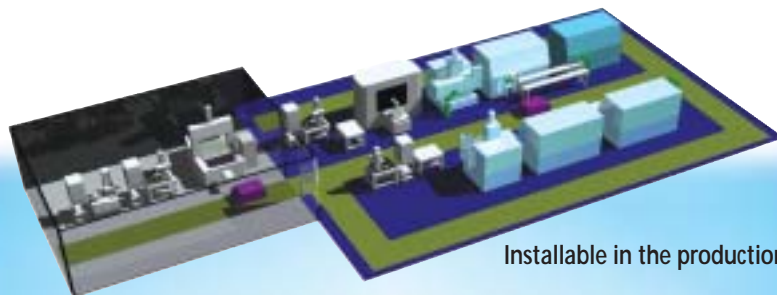
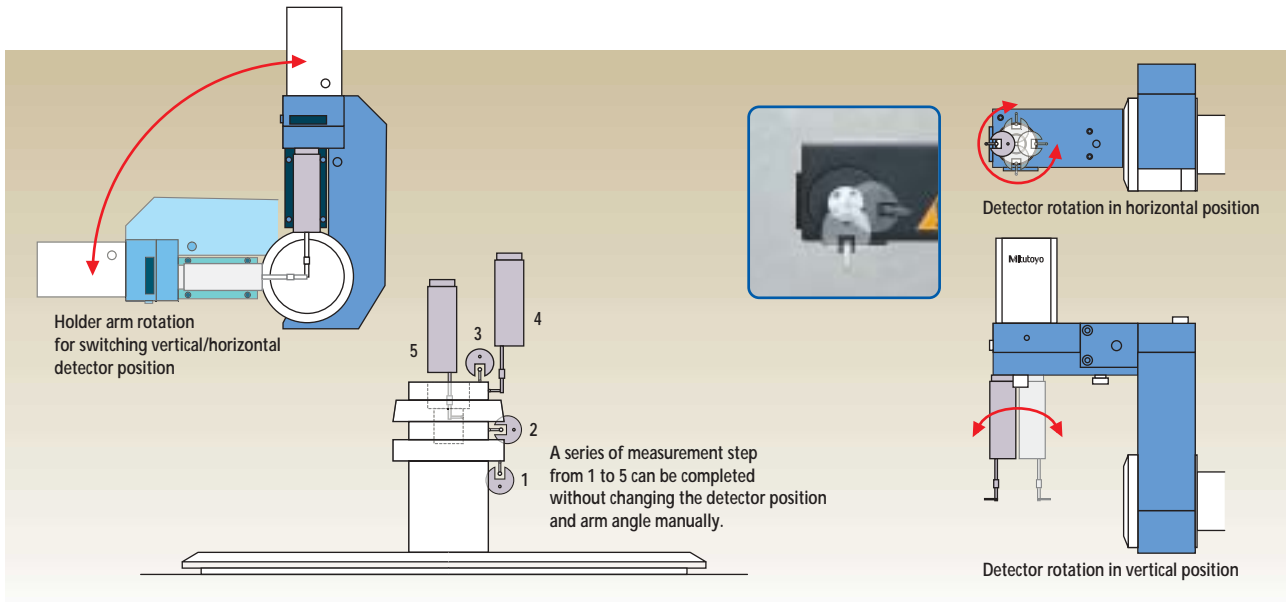
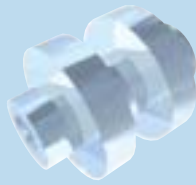


Mitutoyo offers innovative roundness/cylindricity measuring system capable of automated measurement with independent/simultaneous multi-axis CNC control. In addition to the high measuring accuracy and reliability, these CNC models provide high throughput in measurement and productivity.



Holder arm position and detector rotation are automatically controlled (CNC). It allows continuous measurement of ID/OD and upward/downward surfaces.





### Roundpak, data analysis software

- 3-D graphic measurement simulation
- Easy part programming and editing
- Interference check of detector and workpiece
- Powerful layout functions for easy-to-read report



Joystick control box



3-D graphic measurement simulation



Simulation of arm holder rotation



Simulation of ID measurement



Reference gage

# ROUNDTEST EXTREME RA-H5000 CNC



High accuracy automatic centering/leveling turntable with the complete restrictor air bearing

## Technical data: RA-H5000 CNC

Rotating accuracy	(radial):	$(0.02+4H/10000)\mu\text{m}^*$
	(axial):	$(0.02+6X/10000)\mu\text{m}^*$
Rotating speed:		2, 4, 6, 10rpm
Centering/leveling range:		$\pm 5\text{mm}/\pm 1^\circ$
Max. workpiece dia.:		356mm
Max. workpiece weight:		80kg
Column straightness:		$0.05\mu\text{m}/100\text{mm}$
Column parallelism:		$0.2\mu\text{m}/350\text{mm}, 0.32\mu\text{m}/550\text{mm}^{**}$
Max. workpiece height:		$350\text{mm}/550\text{mm}^{**}$
Arm straightness:		$0.5\mu\text{m}/200\text{mm}$
Arm perpendicularity:		$0.5\mu\text{m}/200\text{mm}$
Detector range:		$\pm 300\mu\text{m}$
Measuring force:		7mN

\*: H=Probing height (mm), X=Distance from the rotation center \*\*: High-column model

**Mitutoyo**

# ROUNDTTEST EXTREME RA-2000A CNC



High-speed automatic centering/leveling turntable

## Technical data: RA-2000A CNC

Rotating accuracy	(radial): (axial):	$(0.02+6H/10000)\mu\text{m}^*$ $(0.02+6X/10000)\mu\text{m}^*$
Rotating speed:		2, 4, 6, 10rpm
Centering/leveling range:		$\pm 3\text{mm}/\pm 1^\circ$
Max. workpiece dia.:		256mm
Max. workpiece weight:		30kg
Column straightness:		$0.25\mu\text{m}/100\text{mm}$
Column parallelism:		$1\mu\text{m}/280\text{mm}$ , $1.7\mu\text{m}/480\text{mm}^{**}$
Max. workpiece height:		$280\text{mm}/480\text{mm}^{**}$
Arm straightness:		$1\mu\text{m}/150\text{mm}$
Arm perpendicularity:		$1\mu\text{m}/150\text{mm}$
Detector range:		$\pm 300\mu\text{m}$
Measuring force:		7mN

\*: H=Probing height (mm), X=Distance form the rotation center \*\*: High-column model



New holder arm and detector system with 2 degrees of freedom



Coordinate Measuring Machines	=====
Vision Measuring Systems	=====
Surface-, Form- and Contour Measurement	=====
Digital Scale and DRO Systems	=====
Optical Measuring	=====
Sensor Systems	=====
Hardness Measuring	=====
Small Tool Instruments and Data Management	=====

### Mitutoyo Corporation

20-1, Sakado 1-Chome,  
Takatsu-ku, Kawasaki-shi,  
Kanagawa 213-8533, Japan  
Phone (044) 813-8230  
Fax (044) 813-8231  
<http://www.mitutoyo.co.jp>



Note: All information regarding our products, and in particular the illustrations, drawings, dimensional and performance data contained in this pamphlet, as well as other technical data are to be regarded as approximate average values. We therefore reserve the right to make changes to the corresponding designs, dimensions and weights. The stated standards, similar technical regulations, descriptions and illustrations of the products were valid at the time of printing. In addition, the latest applicable version of our General Trading Conditions will apply. Only quotations submitted by ourselves may be regarded as definitive.