

ROUNDTEST EXTREME RA-H5000/2000A CNC

Bulletin No. 1695-211



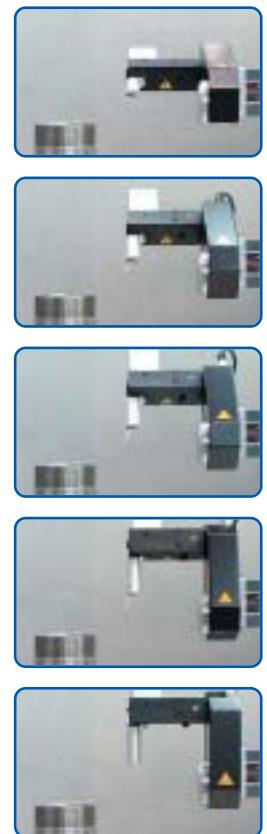
**Roundtest Extreme RA-H5000 CNC
and RA-2000A CNC
CNC Control Adds Productivity and
Automation to Your Roundness Measuring
Activities**

Mitutoyo

CNC control means productivity increases and efficiency goes up!

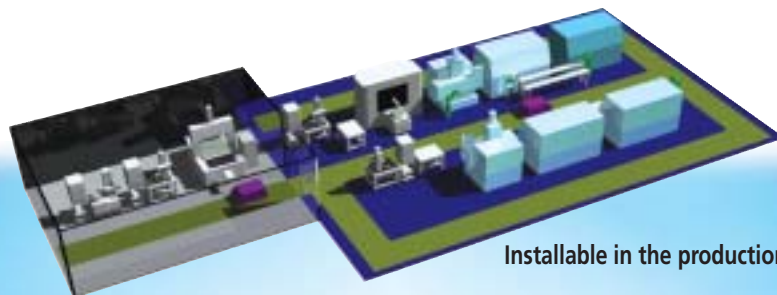
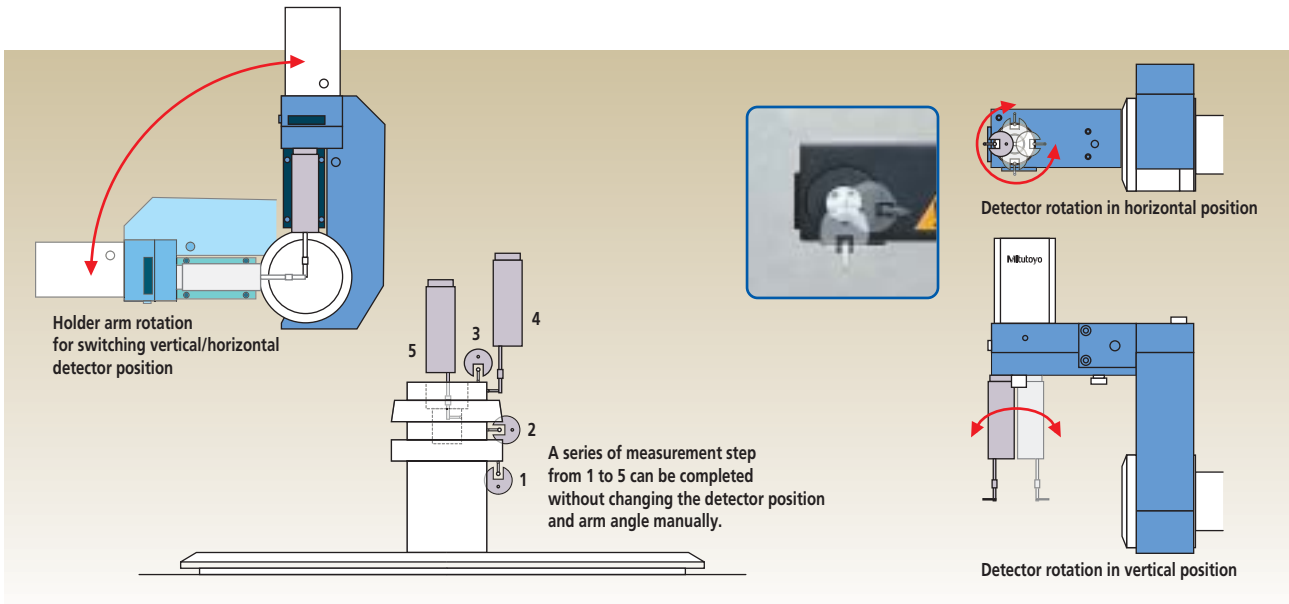


Mitutoyo offers an innovative roundness/cylindricity measuring system capable of automated measurement with independent/simultaneous multi-axis CNC control. In addition to high measuring accuracy and reliability, these CNC roundness testers provide high throughput in measurement and productivity.



Arm position and detector rotation are automatically controlled (CNC). It allows continuous measurement of ID/OD and top/bottom 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

Order No.	Model	Description
211-825A	RA-H5000CNC S	Standard Column
211-825A-2	RA-H5000CNC S	w/vibration damping
211-826A	RA-H5000CNC H	High Column
211-826A-2	RA-H5000CNC H	w/vibration damping
12AAE277	Retrofit	for RA-H5000
Rotating accuracy	(radial): (0.8+0.4H) μ inch [(0.02+4H/10000) μ m*] (axial): (0.8+0.6X) μ inch [(0.02+6X/10000) μ m*]	
Rotating speed:	2, 4, 6, 10rpm	
Centering/leveling range:	$\pm 0.2''$ (± 5 mm/ $\pm 1^\circ$)	
Max. workpiece dia.:	14.0" (356mm)	
Max. workpiece weight:	176 lbs. (80kg)	
Column straightness:	2 μ inch/3.9" (0.05 μ m/100mm)	
Column parallelism:	8 μ inch/13.7", 13 μ inch/21.6" (0.2 μ m/350mm, 0.32 μ m/550mm**)	
Max. workpiece height:	13.7"/21.6" (350mm/550mm**)	
Arm straightness:	20 μ inch/7.8" (0.5 μ m/200mm)	
Arm perpendicularity:	20 μ inch/7.8" (0.5 μ m/200mm)	
Detector range:	$\pm 0.012''$ ($\pm 300\mu$ m)	
Measuring force:	0.7gf (7mN)	

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

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ROUNDTTEST EXTREME RA-2000A CNC



High-speed automatic centering/leveling turntable

Technical data: RA-2000A CNC

Order No.	Model	Description
211-845A	RA-2000CNC S	Standard Column
211-846A	RA-2000CNC H	High Column
12AAE278	Retrofit	for RA-2000A
Rotating accuracy	(radial): (0.8+0.6H μ inch) [(0.02+6H/10000) μ m*] (axial): (0.8+0.6X μ inch) [(0.02+6X/10000) μ m*]	
Rotating speed:	2, 4, 6, 10rpm	
Centering/leveling range:	$\pm 0.1''$ (± 3 mm/ $\pm 1^\circ$)	
Max. workpiece dia.:	10.08" (256mm)	
Max. workpiece weight:	66 lbs. (30kg)	
Column straightness:	9.9 μ inch/3.93" (0.25 μ m/100mm)	
Column parallelism:	39 μ inch/11.02", 67 μ inch/18.9" (1 μ m/280mm, 1.7 μ m/480mm**)	
Max. workpiece height:	11.02"/18.9" (280mm/480mm**)	
Arm straightness:	39 μ inch/5.9" (1 μ m/150mm)	
Arm perpendicularity:	39 μ inch/5.9" (1 μ m/150mm)	
Detector range:	$\pm 0.012''$ ($\pm 300\mu$ m)	
Measuring force:	0.7gf (7mN)	

*: H=Probing height (mm), X=Distance from 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

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Job No.8B-8

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