

Roundtest Extreme RA-2200CNC

SERIES 211 – CNC Roundness/Cylindricity Measuring System

- Mitutoyo offers innovative roundness/cylindricity measuring systems capable of automated measurement with independent/simultaneous multi-axis CNC control. In addition to high measuring accuracy and reliability, these CNC models provide excellent inspection productivity.
- Roundness and surface roughness measurements are both available from a single measuring system so workpiece resetting for roughness measurement is not required.
- Roughness measurement is possible in the axial and circumferential directions.



Roundtest RA-2200CNC and
vibration isolator with side table

Technical Data

Turntable	
Rotational accuracy	
Radial:	(0.02+3.5H/10000) μ m
H: Probing height (mm)	
Axial:	(0.02+3.5X/10000) μ m
X: distance from the turntable axis (mm)	
Rotational speed:	2, 4, 6, 10 rpm
Table diameter:	235 mm
Centering range:	$\pm$ 3 mm
Levelling range:	$\pm$ 1°
Max. probing diameter:	256 mm
Max. workpiece diameter:	580 mm
Max. table loading:	30 kg
Vertical column (Z-axis)	
Vertical travel:	300 mm (500 mm)*
Straightness (λ c2.5):	0.10 μ m/100 mm, 0.15 μ m/300 mm (0.25 μ m/500 mm)*
Parallelism with turntable axis:	
	0.7 μ m/300 mm (1.2 μ m/500 mm)*
Positioning speed:	Max. 50 mm/s
Measuring speed:	0.5, 1, 2, 5 mm/s
Max. probing height:	300 mm (OD), 300 mm (ID) [500 mm (OD / ID)]*
Max. probing depth:	104 mm (ϕ 32 mm or more) 26 mm (ϕ 12.7 mm or more)
Horizontal arm (X-axis)	
Horizontal travel:	175 mm (from table axis -25 mm ~ +150 mm)
Straightness (λ c2.5):	0.7 μ m/150 mm
Squareness with turntable axis:	
	1.0 μ m/150 mm
Positioning speed:	Max. 30 mm/s
Measuring speed:	0.5, 1, 2, 5 mm/s
Probe and stylus	
Measuring range:	$\pm$ 400 μ m ($\pm$ 5 mm: tracking range)
Measuring force:	40 mN
Standard stylus:	12AAE301, carbide ball, ϕ 1.6 mm
Measuring direction:	Bi-directional
Stylus angle adjustment:	Fixed
Air supply	
Air pressure:	0.39 MPa
Air consumption:	30 L/min.
Power supply:	100V AC - 240V AC, 50/60 Hz
Dimensions (WxDxH):	940 x 510 x 900 mm (940 x 510 x 1100 mm)*
Mass:	180 kg (200 kg)*
*Tall-column type	



SPECIFICATIONS

Model	RA-2200CNC	
Code No. (with vibration isolation stand)	211-517E	211-518E
Column travel	300 mm (standard column)	500 mm (tall column)