

Roundtest RA-220

Series 211 - Form Measuring Instrument

The RA-220 is a small, manual type form measuring instrument, e.g. cylindricity.

FEATURES

- Exceptional analysis capabilities and easy operation
- Equipped with X- and Z-axis fine adjustment
- Scale is incorporated in the Z axis
- Equipped with inside/outside diameter continuous measurement function
- Equipped with DAT function
- Employs a wide range detector
- Compact and highly accurate (equipped with premium quality air-bearing)



Specifications

Rotational accuracy	Radial : (0,04+6H/10000)μm H: Probing height (mm) Axial: (0,04+6X/10000)μm X: Probing radius (mm)
Turntable diameter	150 mm
Rotational speed	6 rpm
Centering range	±3 mm
Leveling range	±1°
Max. probing diameter	280 mm (380 mm in reverse position)
Max. workpiece diameter	470 mm
Max. turntable loading	25 kg
Vertical travel	280 mm
Straightness (over entire range)	0,5 μm/ 100 mm
Straightness (over narrow range)	0,2 μm/ 20 mm
Parallelism to rotation center	0,5 μm / 100 mm
Max. probing height	280 mm from turntable top
Max. probing depth	100 mm (minimum ID : ø 30 mm)

Horizontal arm (X-axis)

Horizontal travel	165 mm (- 25 mm to 140 mm)
Standard stylus	12AAB681, carbide ball, ø1,6 mm
Measuring direction	Bi-directional
Stylus angle adjustment	±45° (with graduations)

Data analysis unit

Processing unit	Built-in
Data analysis items	Roundness, Coaxiality, Concentricity, Flatness, Runout (radial), Runout (axial), Perpendicularity (plane/axis), Thickness deviation, Parallelism, Cylindricity
Type of roundness evaluation	LSC, MZC, MIC, MCC
Printer	Built-in thermal line printer
Recording magnification	X5, X10, X20, X50, X100, X200, X500, X1k, X2k, X5k, X10k, X20k, X50k, X100k, X200k
Filter	Low pass filter, Band pass filter
Filter types	2CRPC75, 2CPC50 (phase corrected), 2CR50 (not phase corrected), Gaussian, filter OFF
Cutoff values	15upr, 50upr, 150upr, 500upr, 15-50upr, 15-500upr, 50-500upr
Measuring force	70 to 100mN
Measuring range	± 1000 μm (±30%)
Air pressure	390 Kpa
Air consumption	30 L/min

Power supply

100-240VAC, 50/60 Hz

Dimensions (WxDxH)

450x360x636 mm

Mass

151 kg (main unit), 2 kg (air regulator)