

0.02 $\mu$ m Rotation Accuracy and Alignment Within 60 Seconds!

# RONDCOM 60A



Air bearings have been provided on the Z axis and R axis for the first time in the industry. In addition, the RONDCOM 60A qualifies for the CE marking, guaranteeing conformance with health and safety requirements.



\* Vibration isolation stand and system rack are options.

RONDCOM 60A



Fully Automatic Detector Holder (option)  
(Patent pending)

## ■ Features

### Ideal as Line-Side Evaluation Machine

The RONDCOM 60A has the accuracy, throughput, analysis functions, resistance to environmental elements and safety features required in a line-side measuring unit.

### Diameter Measuring Function

The R-axis scale makes it possible to measure diameter of workpiece while the machine is in operation to measure soundness.

\* Optical calibration is necessary to measure diameter.

### Teaching Function Automates Measurements

The teaching function enables the machine to run full-automatically to perform such as, auto alignment, plural section measurement by rotary / linear motion, creation of inspection certificate for measuring results.

### Measured Data Recalculation Function

The measured data for up to 40 sections can be recalculated after changing the measuring conditions and reference axis center. This enables profile analysis from a variety of viewpoints.

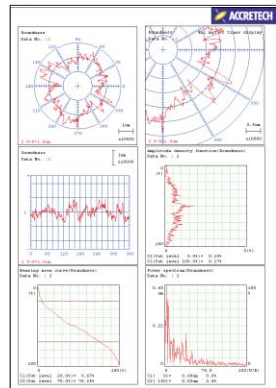
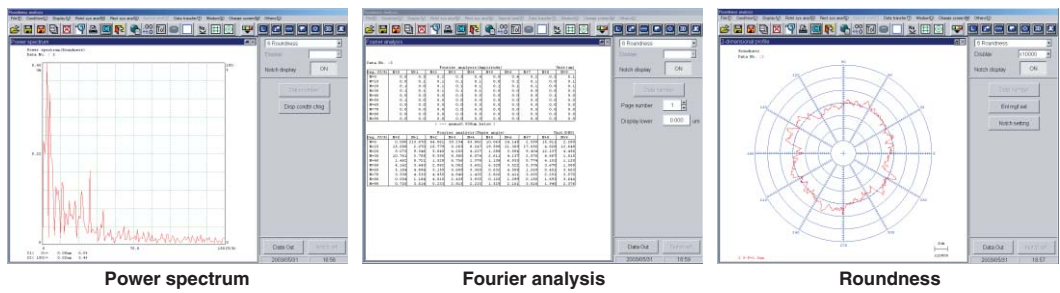
### Granite Used for Column/Base/R Axis

Each axis has air bearings that feature no contact resistance. In addition, granite is used for the guides, boasting an absolute minimum of change over time and easy maintenance.

### Ideal for Inspection of Automobile/Machine Tool Parts

The RONDCOM 60A has the precision needed for the measurement of pistons, fuel valves, ball bearings and various types of fluid dynamic bearings. It is also suitable for the non-contact measurement of photocopier drums and other components.

● Example Fourier analysis performed from roundness profile to evaluate influence on vibration



### Specifications

Model		RONDCOM 60A
Measuring range	Max. measuring diameter	φ420 mm
	Left/right feed (R axis)	220 mm
	Up/down feed (Z axis)	500 mm
	Max. load diameter	φ680 mm
	Max. measuring height	Outer diameter: 500mm (700mm for roundness/coaxiality measurement), Inner diameter: 500mm
Rotation accuracy	JIS B7451	(0.020 + 6H / 10000) μm H: Height from table surface to measuring point (mm)
	Max. deviation from min. square circle	(0.010 + 3H / 10000) μm
Straightness accuracy	Up/down direction (Z axis)	0.1 μm/100mm, 0.25 μm/500mm
	Radius direction (R axis)	0.5 μm/200mm
Parallelness accuracy	Up/down direction (Z axis)	1.5 μm/500mm
Indication accuracy	Radius direction (R axis)	(2 + L / 200) μm L: Movement distance (mm)
Rotation speed (θ axis)	Measurement	2 – 10/min
	Alignment	6, 10 or 20/min
Up/down speed (Z axis)	Measuring speed	0.6 – 6.0 mm/s
	Movement speed	0.6 – 30.0 mm/s
Radius speed (R axis)	Measuring speed	0.6 – 6.0 mm
	Movement speed	0.6 – 20.0 mm
Auto stop	Function	Z axis, R axis
	Stop accuracy	Z axis: ±5 μm, R axis: ±5 μm
Table load conditions	Table outer diameter	φ290 mm
	Centering adjustment range	±5mm (manual/automatic)
	Tilting adjustment range	±1° (manual/automatic)
Detector	Load	60 kg (for measurement and centering)
	Measuring force	70 mN
Roundness evaluation of profile error	Stylus shape	φ1.6mm carbide ball
		MZC (min. range center line method), LSC (min. square center line method), MIC (max. inscribed circle center line method), MCC (min. circumscribed circle center line method), N.C. (no correction)
Measuring items	Rotation direction (θ)	Roundness, flatness, parallelness, concentricity, coaxiality, cylindricity, diameter deviation, squareness, non-uniformity, run-out, diameter
	Rectilinear direction (Z)	Straightness, taper, cylindricity, squareness, parallelness
Functions		CNC measuring function, Notch function (level, angle, cursor), division print function, real-time display function, combination of roundness evaluation methods, parameter design value collation
Type of filter		Digital filter (2RC, Gaussian)
Cut-off value	Rotation direction (θ)	15, 50, 150, 500, 15 – 150, 15 – 500 peaks/rotation
	Rectilinear direction (Z)	0.025, 0.08, 0.25, 0.8, 2.5 or 8mm
Display	Monitor	Color monitor (15 inch)
	Content	Measuring conditions, measuring parameters, profile drawing (expansion plan, 3D plan) Printer output conditions, comments, error message, etc.
Recording unit	Method	Select color printer or laser printer
	Magnification	10 – 200 K (22 steps), auto, measuring magnification
Power source		AC 100V, 50/60 Hz
Power consumption		800 VA (not including printer)
Air source		0.5 – 0.7 MPa
Air consumption		49 ℓ/min.
Installation dimensions		2000 (W) × 950 (D) × 1950 (H) mm*
Weight		600 kg

\* When air vibration isolation stand and system rack are used.