Table Rotating Type Roundness・Cylindrical Profile Measuring Instruments

Semi-Automatic Unit with Superior Operating Ease and Cost Performance

RONDCOM 47A

RONDOM 47A

* Vibration isolation stand, system rack and printer are options.

Features

●TIMS New-Concept Integrated Program

TIMS provides a full range of functions, including power spectrum, load curve and other surface characteristic analysis functions, as well as contour line, shading and other visualization functions. Flexibility for mutual access of measuring systems has also been enhanced.

●Easy Operation

A variety of incorporated functions reduce operator load, such as the centering/tilting support function to simplify alignment, magnification calibration function to facilitate easy detector calibration, and the ability to rearrange the icons to suit each operator.

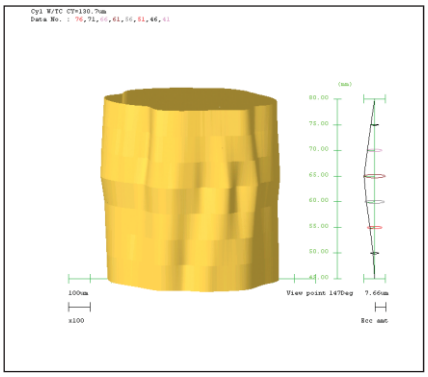
●Enhanced Safety

The detector has a standard emergency stop function. In the event the detector tip is subjected to an overload, the emergency stop mechanism is tripped.

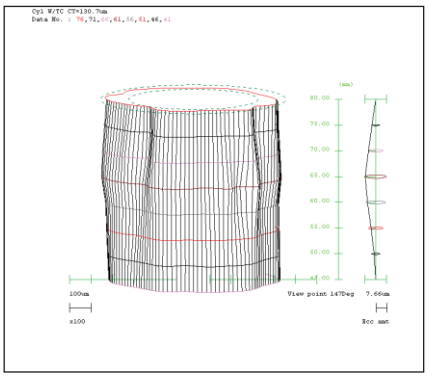
●Easy Analysis and Higher Efficiency

The roundness judgment method, filter value, display magnification, measuring standard and other analysis conditions can be freely changed and reanalysis performed.

In addition, a maximum of 40 contour sections can be freely combined at a time for analysis.



Shading diagram



3D display diagram

Specifications

Model		RONDCOM 47A
Measuring range	Max. measuring diameter	ϕ350 mm
	Left/right feed (R axis)	191 mm
	Up/down feed (Z axis)	350 mm
	Max. load diameter	ϕ600 mm
	Max. measuring height	Outer diameter: 350mm, 675mm for roundness/coaxiality measurement, Inner diameter: 300mm
Rotation accuracy	JIS B7451 - 1997	(0.02 + 6H / 10000) μm H: Height from table surface to measuring point (mm)
	Max. deviation from min. square circle	(0.01 + 3H / 10000) μm
Straightness accuracy	Up/down direction (Z axis)	0.15μm/100mm, 0.3μm/350mm
Parallelness accuracy	Up/down direction (Z axis)	1.5μm/350mm
Rotation speed		6/min
Up/down speed (Z axis)	Measuring speed	0.6, 1.5, 3, 6 mm/s
	Movement speed	15 mm/s
Radial speed (R axis)		5 mm/s
Auto stop function	Z axis/R axis	±5μm
Rotary table	Table outer diameter	ϕ220 mm
	Centering adjustment range	±2mm
	Tilting adjustment range	±1°
	Load	60 kg
Detector (E-DT-R83A)	Linearity range	±1mm
	Measuring force	30 - 100 mN (variable)
	Stylus shape (EM46000-C302)	ϕ1.6mm carbide ball, Length: 53mm
Roundness evaluation of profile error		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	Roundness, flatness, parallelness, concentricity, coaxiality, cylindricity
		Diameter deviation, squareness, non-uniformity, run-out
	Rectilinear	Straightness, taper, cylindricity, squareness, parallelness
Functions		Centering/tilting support function, shading processing function,
		Notch processing function (level, cursor), simplified automatic measuring function,
		real-time display, combination of roundness evaluation methods, design value collation
Types of filters		Digital filters (2RC, Gaussian)
Cut-off value	Rotation (Low pass)	Select 15, 50, 150, 500 peaks/rotation or 15 - 500 peaks/rotation
	(Band pass)	15 - 150, 15 - 500, 50 - 500 peaks/rotation
	Rectilinear (Low pass)	0.025, 0.08, 0.25, 0.8, 2.5 or 8mm, set in 0.0001mm units
Display		Color monitor (15 inch)
Display items		Measuring conditions, measuring parameters, profile drawing (expansion plan, 3D plan)
		Printer output conditions, comments, error message, etc.
Recording method		Select color printer or laser printer
Measuring magnification		50, 100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k, 100k
Power source		AC 100 - 240V, 50/60 Hz (set at factory when shipped)
Power consumption		Approx. 600 VA (not including printer)
Air source		Supply pressure: 0.5 - 0.7 MPa, Usage pressure: 0.4 MPa
Air consumption		30 ℓ/min. (standard conditions)
Installation dimensions		2000 (W) × 1000 (D) × 1950 (H) mm *
Weight		600 kg

* Space occupied when optional vibration isolation stand (E-VS-S21A) and system rack (E-DK-S24A) are used.