RONDCOM 55B

CNC Machine for Applicable to large and heavy workpieces Offers Superior Cost Performance

RONDCOM 55B
* Anti-vibration table and
  system rack are optional.

CNC detector holder
(Option)
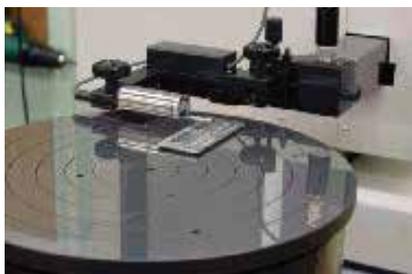
Roughness measurement function (Option)

Assures Top Class Rotation Accuracy of 0.02 μm

High Rigidity Rotary Table Supports Large and Heavy Workpieces

High-Speed Alignment for Highly Efficient Measuring

Teaching Function for Automatic Measurement

Full automatic operation is possible for everything from measuring multiple sections to printing.

Detector with All Orientation Safety Function

If stylus overload is detected, the emergency stop function is automatically activated to prevent damage to stylus and detector.

Roughness Measurement Function (option)

The addition of a roughness measurement function enables roughness measuring on the Z-and R-axis directions.

Offset Type Detector Holder Available as an Option patented

Various workpieces can be measured easily without interference from the R-axis arm.

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Sample roundness measurement of outside diameter

External view

RONDCOM 55B
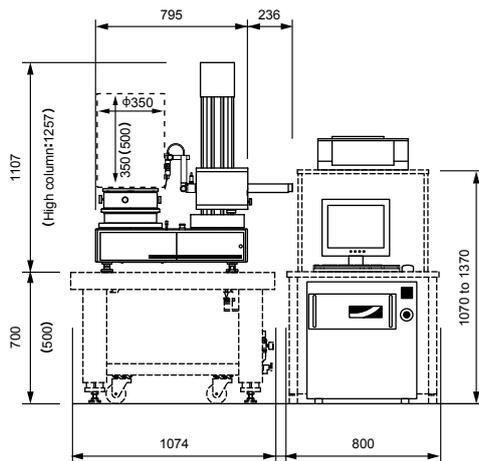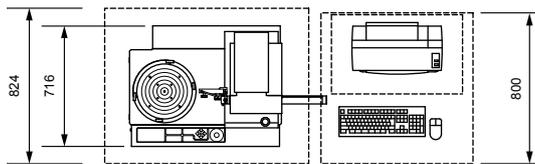
Options
Anti-vibration table: E-VS-S21B (H=700)
E-VS-R20B (H=500)
System rack: E-DK-S24A

Specifications

Model		RONDCOM 55B	
			High column
Measuring system		CNC and manual	
Measuring range	Max. measuring diameter	Φ 350 mm	
	Right/left feed range (R-axis)	190 mm	
	Up/down feed range (Z-axis)	350 mm	500 mm
	Max. loading diameter	Φ 600 mm	
	Max. measuring height	350 mm	500 mm
Rotation accuracy	Radial direction JIS B 7451-1997	(0.02 + 6H/10,000) μm (H: Height from table top to measuring point mm)	
Straightness accuracy	Up/down direction (Z-axis)	0.15 μm/100 mm	
		0.3 μm/350 mm	0.5 μm/500 mm
Parallelism accuracy	Radial direction (R-axis)	1 μm/100 mm	
	Up/down direction (Z-axis)	1.5 μm/350 mm	2 μm/500 mm
Scale indication accuracy (option)	Radial direction (R-axis)	2 μm/100 mm	
Scale indication accuracy (option)	Radial direction (R-axis)	(2 + L/185) μm L: Moving length mm	
Measurement speed	Rotational speed (θ-axis)	2 to 10/min	
	At auto centering/tilting	2, 4, 6, 10, 20/min	
Up/down speed (Z-axis)		0.6 to 6 mm/s (At moving: Max 20 mm/s)	
Radial direction speed (R-axis)		0.6 to 6 mm/s (At moving: Max 20 mm/s)	
Auto stop accuracy	Z-axis/R-axis	±5 μm	
Rotary table	Table outside diameter	Φ 290 mm	
	Adjustment range of centering/tilting	±5 mm/±1°	
	Load	60 kg	
Detector	Measuring force	30 to 100 mN (steplessly variable)	
	Stylus shape	Φ 1.6 mm carbide ball, Length: 53 mm	
Type of filter	Digital filter	Gaussian/2RC/Spline/Robust (Spline)	
Cutoff value	Rotational direction (θ-axis) — Low pass	15, 50, 150, 500 peaks/rotation, settable any value in range 15 to 500 peaks/rotation	
	Rotational direction (θ-axis) — Band pass	1 to 500 peaks/rotation	
	Rectilinear direction (Z-axis) — Low pass	0.025, 0.08, 0.25, 0.8, 2.5, 8 mm (any value in 0.0001 mm units)	
Measurement magnification		50 to 100 k	
Roundness evaluation of form error		MZC (min. zone circle method), LSC (least square circle method), MIC (max. inscribed circle method), MCC (min. circumscribed circle method), N.C. (no compensation),MULTI (multiple setting)	
Measuring items	Rotational direction	Roundness, flatness, flatness (compound), parallelism, concentricity, coaxiality, cylindricity, diameter deviation, squareness, thickness variation, run-out, partial circle	
	Rectilinear direction	Straightness (Z), straightness (R), taper ratio, cylindricity, squareness, parallelism, diameter deviation, axis straightness	
Analysis processing functions		Notch function (level, angle, cursor), combination of roundness evaluation methods, nominal value collation, cylinder 3D profile display (line drawing, shading, contour line), real-time display, profile characteristic graph display (bearing area curve, amplitude distribution function, power spectrum), CNC automatic measuring function, automatic centering/tilting adjustment function	
Special function		Offset type detector holder (option)	
Display (color monitor)		17" LCD	
Display items		Measuring conditions, measuring parameters, comments, printer output conditions, profile graphics (expansion plan, 3D plan), error messages, etc.	
Recording system		Color or laser printer can be selected	
Other	Power supply (Voltage to be specified), frequency	AC100 to 240 V ±10%, 50/60 Hz (grounding required)	
	Power consumption	800 VA (except printer)	
	Air supply — Supply pressure	0.5 to 0.7 MPa	
	Air supply — Working pressure	0.4M Pa	
	Air supply — Air consumption volume	30 NL/min	
	Air supply — Air supply connecting nipple to main unit	One-touch pipe joint for outer diameter Φ 8 mm hose	
Installation dimensions (WxDxH)		1974 x 924 x 1950 mm	1974 x 924 x 2000 mm
Weight (except options)		400 kg	420 kg

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