RONDCOM 60A

Rotation Accuracy of 0.02 μm! Alignment Within 60 Seconds!

Industry's First High-Accuracy Air Bearings for Z-axis, R-axis.
This is the CE Marked conformity goods which guarantee environmental resistance and safety with accuracy.

RONDCOM 60A
* CNC detector holder is optional.

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Assures Top Class Rotation Accuracy of 0.02 μm

Industry's First High-Accuracy Air Bearings for Z-, R-, and θ-axis.

Gabbro is used in the column, base, and R-axis which guarantees top-class high accuracy over time.

World's Highest Throughput
(within 60 seconds for alignment)

Diameter Measuring Function
(*Calibration master for R-axis is required)

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.

Teaching Function for Automatic Measurement

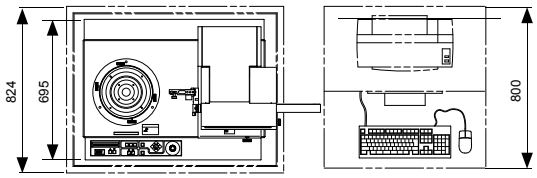
Full automatic operation is possible for everything from measuring multiple sections to printing.

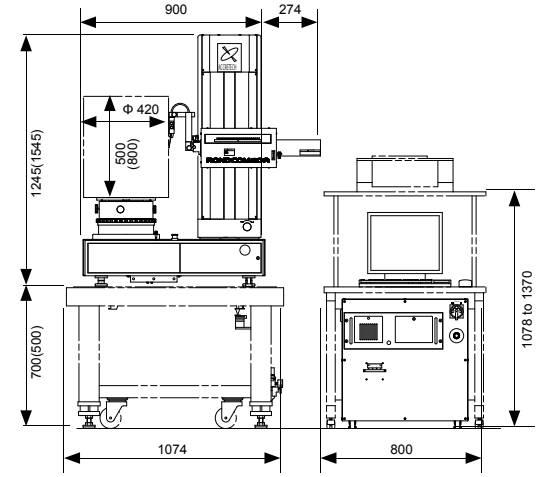
Offset Type Detector Holder Available as an Option
(patented)

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

Example of roundness measurement of uncontinuous inner diameter surface

External view





Options
Anti-vibration table: E-VS-S21B (H=700)
E-VS-R20B (H=500)
E-VA-R24A (for high column)
System rack: E-DK-S24A

Specifications

Model			RONDCOM 60A	High column
Measuring system			CNC and manual	
Measuring range	Max. measuring diameter		Φ 420 mm	
	Right/left feed range (R-axis)		220 mm	
	Up/down feed range (Z-axis)		500 mm	800 mm
	Max. loading diameter		Φ 680 mm	
	Max. measuring height		500 mm	700 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)		0.1 μm/100 mm 0.25 μm/500 mm	0.2 μm/100 mm 0.6 μm/800 mm
	Radial direction (R-axis)		0.5 μm/200 mm	
Parallelism accuracy	Up/down direction (Z-axis)		1.5 μm/500 mm	
	Radial direction (R-axis)		0.5 μm/200 mm	
Scale indication accuracy	Radial direction (R-axis)		(2 + L/200) 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 30 mm/s)	
Radial direction speed (R-axis)			0.6 to 6 mm/s (At moving: Max 15 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 100mN (steplessly variable)	
	Stylus shape		Φ 1.6 mm carbide ball, Length53 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	
		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)	
Display maginification			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, radius measurement, 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%, 50/60Hz (grounding required)	
	Power consumption		800 VA (except printer)	
	Air supply		Supply pressure: 0.5 to 0.7 MPa, Working pressure: 0.4 MPa	
	Air consumption volume		49 NL/min	
	Installation dimensions (W x D x H) mm		1974 x 924 x 1950 mm	1974 x 924 x 2250 mm
	Weight (except options)		500 kg	520 kg
			(except anti-vibration table or system rack)	

We have experience in special customization in terms of expanding strokes for each axis, load capacity, etc. Contact the sales personnel for details.