



RONDCOM 65A

On Track to Become No. 1 in the World

Our customers want the best and at ACCRETECH we are committed to giving it to them, always striving to achieve the world's highest level of accuracy. The RONDCOM 65A, our flagship model, is a table-rotating type roundness measuring instrument that features reference guideways made of gabbro with minimal susceptibility to age-related deterioration. In addition, a sliding surface with air bearings to lessen friction resistance and advanced correction technology enable this precision instrument to realize nanometer-level accuracy.



RONDCOM 65A
* CNC detector holder is optional.

Highest Rotation Accuracy In its Class: 0.01 μm

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

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

World's Highest Throughput

within 60 seconds for alignment.

Air Type Anti-Vibration Table Provided as Standard

Detector with All Orientation Safety Function

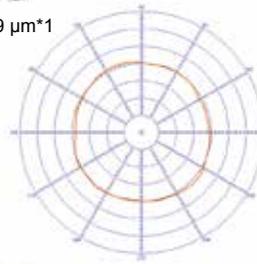
If stylus overload is detected, the emergency stop function is automatically activated to prevent damage to stylus and detector.

Offset Type Detector Holder Available as an Option **patented**

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

World's Top Class Accuracy for Each Axis

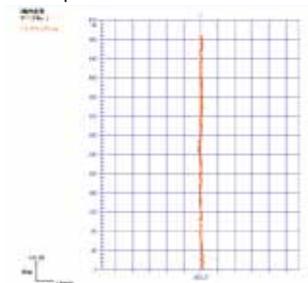
0.019 μm^*1



Roundness (Using a master ball)
*1 Value after separation of master ball accuracy

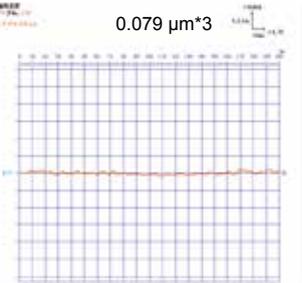


0.073 μm^*2



Vertical direction straightness
(Using a straight edge)
*2 Value after separation of straightedge accuracy

0.079 μm^*3



Horizontal direction straightness
(Using an optical flat)
*3 Data including optical flat errors.

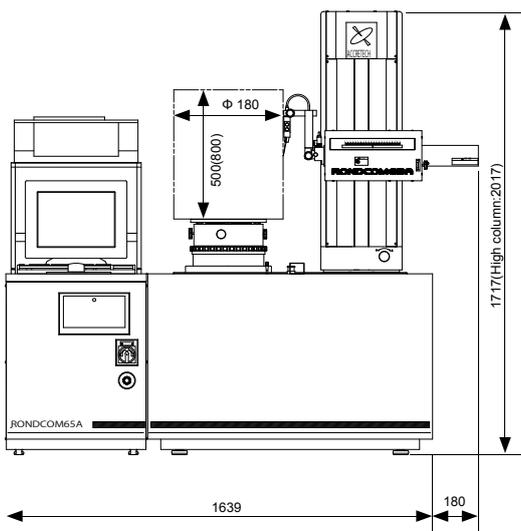
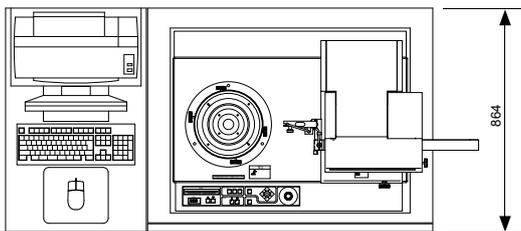


Sample of roundness measurement using a non-contact detector (option)

Specifications

Model		RONDCOM 65A		
		R65A		
		High column model		
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	800 mm	
Max. measuring depth (Throat height)	150 mm			
	(Limited by size of measuring diameter and combination of detector and stylus)			
Rotation accuracy	Radial direction JIS B 7451-1997	(0.01 + 6H/10,000) μm		
		(H: Height from table top to measuring point mm)		
Straightness accuracy	Up/down (Z-axis) direction	Narrow range	0.05 μm/100 mm	
		Wide range	0.2 μm/500 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/220) μm L: Moving length (mm)		
Measuring speed	Rotational speed (θ-axis)	2 to 10/min (At moving: Max20/min)		
	In automatic centering/tilting	2, 4, 6, 10, 20/min		
	Up/down speed (Z-axis)	0.6 to 6 mm/s (At moving: Max30 mm/s)		
	Radial direction speed (R-axis)	0.6 to 6 mm/s (At moving: Max20 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		
Number of sampling	3600 points/rotation			
Type of filter	Digital filter	Gaussian/2RC/Spline/Robust (Spline)		
Measurement magnification	50 to 100 k			
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)	
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 CNC 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 240V ±10%, 50/60Hz (grounding required)		
	Power consumption	Approx. 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	
		Air supply connecting nipple to main unit	One-touch pipe joint for outer diameter Φ 8 mm hose	
Installation dimensions (W x D x H) mm	1900 x 950 x 1800	1900 x 950 x 2100		
Weight (except options)	790 kg	910 kg		

External view



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