



RONDCOM 43C/43C-S/41C/31C

Compact Desktop Roundness Measuring Instruments with High-End Analysis Functions Offer Superior Cost Performance



RONDCOM 43C
* 2:1 sensitivity stylus and detector, printer are optional.
RONDCOM 43C-S
* Printer is optional.



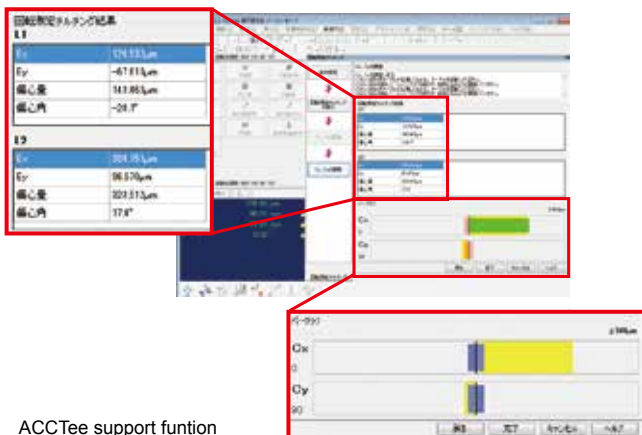
RONDCOM 41C
* Printer is optional.



RONDCOM 31C
* Printer is optional.

Centering/Tilting/Leveling Support Functions patented

Easily adjust eccentricity and tilt between the center of rotation and the center of the workpiece simply by adjusting the displacement to zero as indicated on the bar graph in the alignment display.



ACCTec support function

Semi-Automatic Measuring Function with Specification of Measuring Height

R-axis Scale for Small, High-Accuracy Workpieces (R43C-S)

R41C Supports High Column: Z = 500 mm (option)

All Orientation Detector (optional) May Be Provided

The detector expands the measuring range to ±1000µm and enables measuring force and front travel (stylus drop) adjustment.

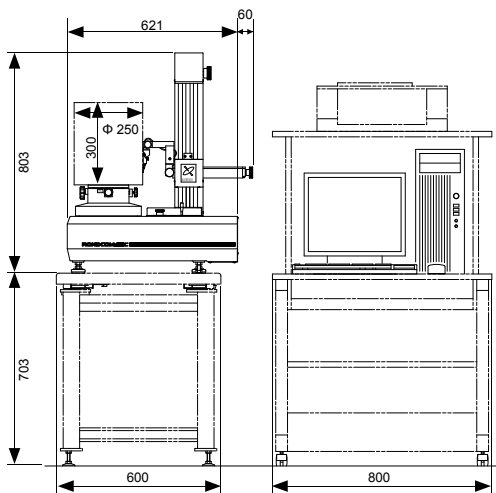
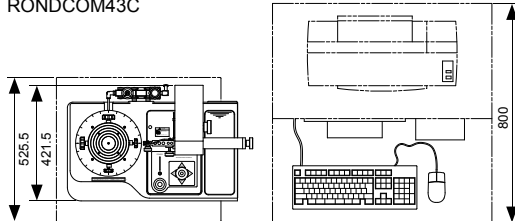
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Why RONDCOM 31C can measure coaxially and concentricity without cylindrical and roundness measuring functions

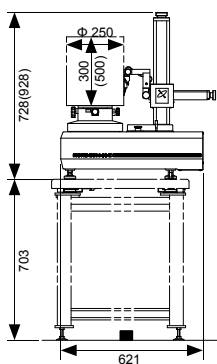
RONDCOM 31C is not equipped with a Z-axis column that supports measurement of roundness and parallelism. Though this means that it is not equipped with cylindricity and straightness measuring functions, coaxiality and concentricity evaluation data is only the circle center data (center point) calculated from the roundness profile of each section. Since circle center data does not fluctuate in accordance with the size of or variations in the circumference, this means that the R31C also is capable of coaxiality and concentricity measurements of center point deviation.

External view

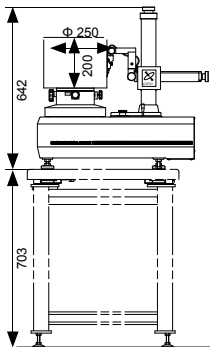
RONDCOM43C



RONDCOM41C



RONDCOM31C



* Unspecified dimensions are the same as R43C

Options

Desktop anti-vibration table: E-VS-S57B

Bench for desktop anti-vibration table: E-VS-S13A

System rack: E-DK-S24A

Specifications

Model		RONDCOM series			
		RONDCOM 43C-S	RONDCOM 43C	RONDCOM 41C	RONDCOM 31C
Measuring system		Manual			
Measuring range	Max. measuring diameter	Φ 200 mm	Φ 250 mm		
	Right/left feed range (R-axis)	100 mm	125 mm		
	Up/down feed range (Z-axis)	Standard	300 mm		200 mm
		High column	—	500 mm	—
	Max. loading diameter	Φ 400 mm			
Max. measuring height (OD/ID* measurement)	Standard	300 mm		200 mm	
	High column	—	500 mm	—	
Rotation accuracy	Radial direction JIS B 7451-1997	(0.02+6H/10,000) μm		(0.04+6H/10,000) μm	
		(H: Height from table top to measuring point mm)			
Straightness accuracy	Up/down direction (Z-axis)	Standard	0.25 μm/100 mm, 0.8 μm/300 mm	0.5 μm/100 mm, 1.5 μm/300 mm	—
		High column	—	0.5 μm/100 mm, 2.5 μm/490 mm	—
	Radial direction (R-axis)	0.2 μm/10 mm	—		
Parallelism accuracy	Up/down direction (Z-axis)	Standard	1.5 μm/300 mm	3 μm/300 mm	—
		High column	—	1 μm/100 mm	—
Radial direction (R-axis)	(0.3+0.1L/10) μm				
Rotational speed (θ-axis)		6/min			
Up/down speed (Z-axis)		0.6, 1.5, 3, 6 mm/s (Max 15 mm/s) (At moving: 15 mm/s max.)			5 mm/s
Radial direction speed (R-axis)		0.6, 1.5, 3, 6 mm/s	5 mm/s		
Auto stop accuracy		Z-axis/R-axis ±5 μm			
Rotary table	Table outside diameter	Φ 148 mm			
	Adjustment range of centering/tilting	±2 mm/±1°			
	Load	15 kg	25 kg		
Detector	Detection range, Measuring force	±400 μm/70 mN			
	Stylus shape	Φ 1.6 mm carbide ball			
	Stylus length	L54.5 mm	L15.5 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)		—
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, parallelism, concentricity, coaxiality, squareness, thickness variation, run-out			—
	Rectilinear direction	Straightness (Z), taper ratio, cylindricity, squareness, parallelism			—
Analysis processing functions		Centering/tilting support function, 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), semiautomatic measuring function			
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 120 V ±10%, AC220 to 240 V ±10%, 50/60 Hz (grounding required)		
	Power consumption		600 VA (except printer)		
	Air supply	Supply pressure	0.35 to 0.7 MPa		
		Working pressure	0.3 MPa		
		Air consumption volume	30 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	Standard	1800 x 1000 x 1800	1800 x 1000 x 1700	1800 x 1000 x 1700	
	High column	—	1800 x 1000 x 1900	—	
Weight (except options)	Standard	130 kg	120 kg		
	High column	—	140 kg	—	