

Technical Specifications Roundtest CNC

Measuring instrument		RA 2100 S CNC	RA 2100 H CNC	RA H5100 S CNC	RA H5100 H CNC
Rotary table					
Rotational accuracy	Radial	(0,02+5H/10000) μ m		(0,02+4H/10000) μ m	
	Axial	(0,02+6R/10000) μ m		(0,02+6R/10000) μ m	
Rotation speed		2, 4, 6, 10 U/min		2, 4, 6, 10 U/min	
Table diameter		235mm		300mm	
Centering / leveling		AAT		AAT	
Centering range		\pm 3mm		\pm 5mm	
Leveling range		\pm 1°		\pm 1°	
Max. Workpiece mass		30 Kg		65Kg	
Max. measurable diameter		256mm		356mm	
Max. Workpiece diameter		580mm		680mm	
Vertical axis (Z column)					
Column moving range		300mm	500mm	350mm	550mm
Straightness		0,15 μ m / 100mm		0,05 μ m / 100mm	
		0,25 μ m / 300mm	0,4 μ m / 500mm	0,14 μ m/350mm	0,2 μ m/550mm
Parallelism		1,0 μ m / 300mm	1,7 μ m / 500mm	0,2 μ m/350mm	0,32 μ m/550mm
Speed	positioning	bis 35mm/s		bis 60mm/s	
	measuring	0,5, 1, 2, 5mm/s		0,5, 1, 2, 5mm/s	
Max. measuring height	outside / inside	300mm	500mm	350mm	550mm
		$\varnothing \geq 12,7$ mm depth 26mm		$\varnothing \geq 12,7$ mm depth 26mm	
Max. measuring depth		$\varnothing \geq 32$ mm depth 79mm		$\varnothing \geq 32$ mm depth 79mm	
		$\varnothing \geq 32$ mm depth 79mm		$\varnothing \geq 32$ mm depth 79mm	
Horizontal axis (X axis)					
Straightness		1,0 μ m / 150mm		0,4 μ m / 200 mm	
Squareness		1,0 μ m / 150mm		0,5 μ m / 200 mm	
Travel range		200mm		225mm	
Speed	positioning	up to 20mm/s		up to 50mm/s	
	measurement	0,5, 1, 2, 5 mm/s		0,5, 1, 2, 5 mm/s	
Detector for form deviation					
Measuring force		40mN		40mN	
Stylus tip carbide		ball \varnothing 1,6mm		ball \varnothing 1,6mm	
Measuring range	Standard	\pm 400 μ m		\pm 400 μ m	
	Tracing	\pm 5mm		\pm 5mm	
Powered positioning		(inside, outside, top, bottom) in 90° increments		(inside, outside, top, bottom) in 90° increments	
		0 bis 270° in 1° increments		1 bis 270° in 1° increments	
Vibration damping system		Option		Standard	
Mass		-		170Kg	
Air pressure		0,39MPa		0,39MPa	
Air consumption		30L/min		45L/min	

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Main unit mass	180Kg	200Kg	650Kg	670Kg
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Products of this series come equipped with a safety system for the detection of potential function-impairing vibration to the measuring system. Activation of the security system leads to a time-delayed system shut-off. Uninterrupted functioning of the measuring device may be secured with a timely release of the security system by Mitutoyo service personnel.