

ROUNDNESS TESTER CV-EC1550™

PC controlled roundness measuring instrument

- Manual centering and tilting support function
- Geometrical features:
Roundness, straightness, cylindricity, spiral cylindricity, co-axiality, concentricity, parallelism, flatness, squareness, circular runout, thickness deviation, radius deviation, knife-edge analysis
- Powerfull data processing software
- Static air bearing
- Very high rotating accuracy of $(0.04+0.0006H)\mu\text{m}$
- Max. workpiece diameter 368mm
- Max. probing height (OD): 420mm for outer diameter
- Max. probing height (ID): 270mm for inner diameter
- 12 interchangeable styli available for all kinds of special applications



ROUNDNESS TESTER CV-EC1600W™

PC controlled roundness measuring instrument

- Manual centering and tilting support function
- Geometrical features:
Roundness, straightness, cylindricity, spiral cylindricity, co-axiality, concentricity, parallelism, flatness, squareness, circular runout, thickness deviation, radius deviation, knife-edge analysis
- Powerfull data processing software
- Static air bearing
- Very high rotating accuracy of $(0.04+0.0005H)\mu\text{m}$
- Max. workpiece diameter 368mm
- Max. probing height (OD): 545mm for outer diameter
- Max. probing height (ID): 320mm for inner diameter
- 12 interchangeable styli available for all kinds of special applications



ROUNDNESS TESTER CV-EC1550/CV-EC1600W™

PC controlled roundness measuring instrument

Technical specifications

Turntable

Rotating method	Static air bearing
Rotating accuracy	(0.04+0.0006H)µm H: Probing height (mm) (CV-EC1550) (0.04+0.0005H)µm H: Probing height (mm) (CV-EC1600W)
Rotating speed	1 to 10rpm (adjustable)
Table size	160mm (CV-EC1550), 180mm (CV-EC1600W)
Centering adjustment range	±2mm
Leveling adjustment range	±1.0°
Min. angle indication	0.1
Max. workpiece load	20kg
Max. workpiece diameter	368mm

Column unit

Straightness	0.6µm/100mm (1.2µm/250mm) (CV-EC1550) 0.4µm/100mm (0.8µm/300mm) (CV-EC1600W)
Parallelism	0.75µm/100mm (1.5µm/200mm) (CV-EC1550) 0.5µm/100mm (1.0µm/200mm) (CV-EC1600W)
Vertical travel	250mm (CV-EC1550), 300mm (CV-EC1600W)
Travelling speed	0.5, 1, 2, 5mm/s at measuring
Max. probing height (OD)	420mm (CV-EC1550) for outer diameter, 545mm (CV-EC1600W) for outer diameter
Max. probing height (ID)	270mm (CV-EC1550) for inner diameter, 320mm (CV-EC1600W) for inner diameter

Radial arm unit

Radial travel	130mm (CV-EC1550), 160mm (CV-EC1600W)
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Pick up unit

Measuring force	100mN or less (adjustable)
Measuring range	1800µm
Stylus	Radius 0.8mm, Tungsten carbide

Analysis unit

Measuring magnification	100, 200, 500, 1.000, 2.000, 5.000, 10.000, 20.000, 50.000X
Digital filter	
Roundness	2CR N15, N50, N150, N500, N15-500, non-filter Gaussian D15, D50, D150, D500, D15-500, non-filter
Straightness	2CR fh0.025, 0.08, 0.25, 0.8, 2.5, 8mm, non-filter Gaussian fh0.025, 0.08, 0.25, 0.8, 2.5, 8mm, non-filter
Determination method	MZC, LSC, MCC, MIC
Geometrical features	Roundness, flatness, cylindricity, co-axiality, concentricity, runout, squareness, straightness, parallelism, thickness deviation

Utilities

Power supply	AC100V-220V, ±10%, 50/60Hz
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Analysis unit

Air supply	4.5 to 9.9kgf/cm ² (440 to 970KPa), dry air
Air pressure	4 to 5kgf/cm ² (390 to 490KPa), 30Nl/min

Analysis unit

Measuring unit	590mm x 332mm x 918mm, 130kg (WxDxH)
Amplifier	406mm x 342mm x 270mm, 20kg (WxDxH)
PC and printer	Local supply

Operating environment	10°C to 30°C, RH 80% or less
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Standard delivery

- Measuring unit
- Standard probe
- Controller
- Programm software

Optional accessories

- PC with monitor
- Interchangeable styli for different applications:
Ask for separate overview
- Chucks ø 0.8 ~ 56mm used for clamping small diameter workpieces
- Reference hemisphere for checking accuracy
- Printer