

ROUNDNESS TESTER CV-EC1800™

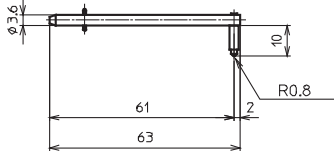
PC controlled roundness measuring system

- Motorized auto centering and tilting support function
- Large stage size of 230mm
- 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): 545mm for outer diameter
- Max. probing height (ID): 320mm for inner diameter
- 12 interchangeable styli available for all kinds of special applications

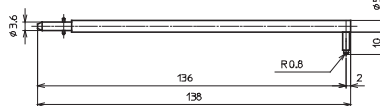


Styli for roundness testers

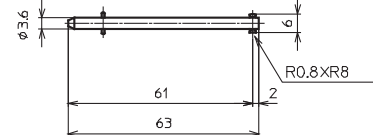
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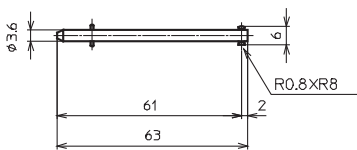
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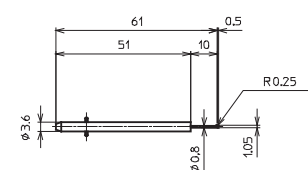
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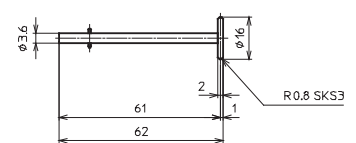
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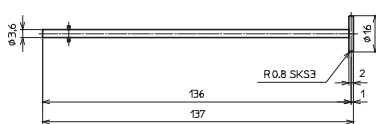
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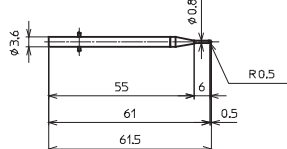
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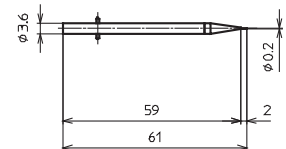
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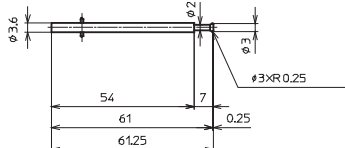
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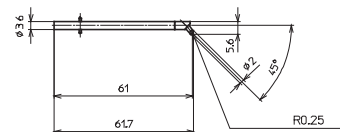
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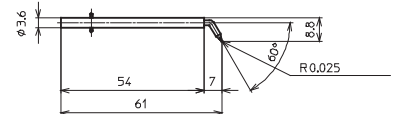
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Type: SA-160



Type: SA-161



ROUNDNESS TESTER CV-EC1800™

PC controlled roundness measuring system

Technical specifications

Stage

Rotating method	Porus static air bearing / stage rotation
Rotating accuracy	(0.04+0.0006H)µm H: Height from stage (mm)
Rotating speed	1 to 6rpm
Stage size	230mm dia
Centering adjustment range	±5mm (Motorized)
Leveling adjustment range	±1° (Motorized)
Max. workpiece load	25kg
Max. workpiece diameter	368mm

Column unit

Straightness	0.4µm/100mm (1µm/300mm)
Parallelism	0.7µm/100mm (1.5µm/200mm)
Vertical travel	300mm
Travelling speed	0.5, 1 and 2mm/s at measuring, 5mm/sec at positioning
Max. measuring height	545mm for outer, 320mm for inner
Radial arm unit	Radial travel: 160mm

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, 1K, 2K, 5K, 10K, 20K, 50K
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
Analysis items	Roundness, flatness, cylindricity, co-axiality, concentricity, run-out, squareness, straightness, parallelism, thickness deviation

Utilities

Power Supply	AC100V, ±10%, 50/60Hz, 1KVA
Air pressure at bearing	4 to 5kgf/cm ² G (390 to 490KPa), 30Nl/min
Air Supply	4.5 to 9.9kgf/cm ² G (440 to 970KPa), Dry air

Dimensions

Measuring unit	600mm x 400mm x 910mm (WxDxH), 150kg
Amplifier	406mm x 342mm x 270mm (WxDxH), 20kg
PC and printer	Local supply

Operating environment

10°C to 30°C, RH 80% or less

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