CA SERIES
ROUNDNESS & CYLINDRICITY

Cylindricity measurement
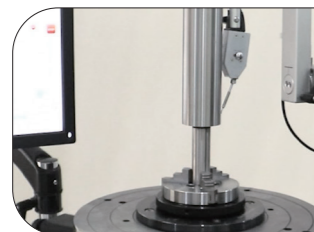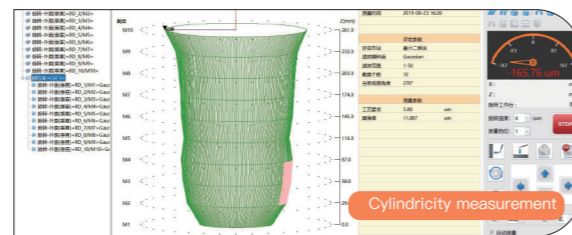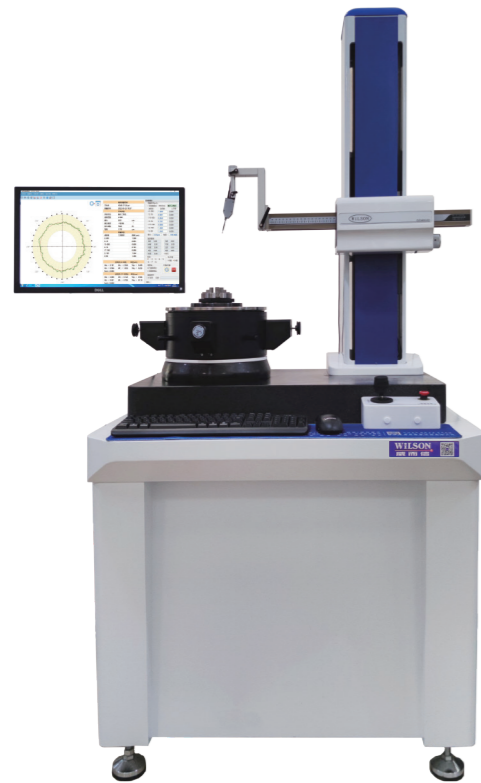
Cylindricity measurement
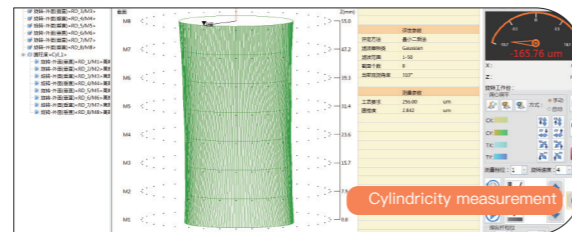
FUNCTION

It can measure the roundness (column), straightness, runout, full runout, taper, diameter, concentricity, coaxiality, flatness, parallelism, perpendicularity, eccentricity, etc. of various regular and irregular annular workpieces
Analyzed surface waviness (Wc, Wp, Wv, Wt, Wa, Wq), spectrum analysis, wave height analysis

ROUNDNESS FILTERING SECTION

1–500、1–150
1–50、1–15、15–500

DATA ANALYSIS AND PROCESSING

Spectrum analysis: analyze the amplitude of different frequency components
Removal of abnormal data: remove abnormal data manually or automatically, such as burrs, holes and bulges
File management: survey data auto save database
Result printing: it can be used for regular printing or exported to PDF file

WAVINESS FILTER BAND

3–16、17–100

ROUNDNESS EVALUATION METHOD

Minimum area method, least square method
Minimum circumscribed circle method, maximum inscribed circle method

TECHNICAL PARAMETER

item		Model		
		CA30	CA65	CA95
measuring range	Maximum workpiece rotation diameter	φ320mm	φ420mm	φ420mm
	Maximum measuring height	300mm	400mm	500mm
	Maximum measuring depth	Use standard probe: 100mm (when the aperture is less than 36mm); The maximum measurable diameter of non–standard support is 300mm (optional if the aperture is greater than 36mm)		
	Maximum bearing capacity	25Kg	50Kg	100Kg
Air floating spindle	Axial error of spindle	$\pm$ (0.025+0.0005H/) μm ※	$\pm$ (0.015+0.0003H) μm	$\pm$ (0.0125+0.0003H) μm
	Radial error of spindle	$\pm$ (0.025+0.0006X) μm ※	$\pm$ (0.0125+0.0004X) μm	$\pm$ (0.02+0.0004X) μm
workbench	Table diameter	φ150mm	φ200mm	φ200mm
	Adjustment range	Centering ± 3mm; Leveling ± 1 °		
	Straightness	0.5μm/100mm	0.4μm/100mm	
	Parallelism of rotation axis and Z–axis guide rail	1.5μm/300mm	2μm/400mm	2.5μm/500mm
	Horizontal stroke	250mm		270mm
Sensor	Range	500μm (Radius difference)		
	Probe shape	φ2mm Gem ball probe (Optional φ 1mm、 φ 0.5mm measuring probe)		

The parameters in the table above are default configurations.
If other configurations are required, they can be selected according to the order number
※ H：Measuring height from the table、X：Measuring radius