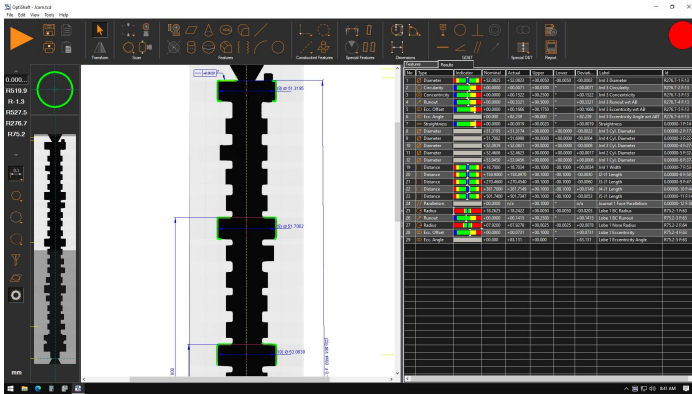


## OptiShaft™ S100

Optical Shaft Measuring Machine  
100mm Field of View



Intuitive user interface for gage programming, data collection, and reporting

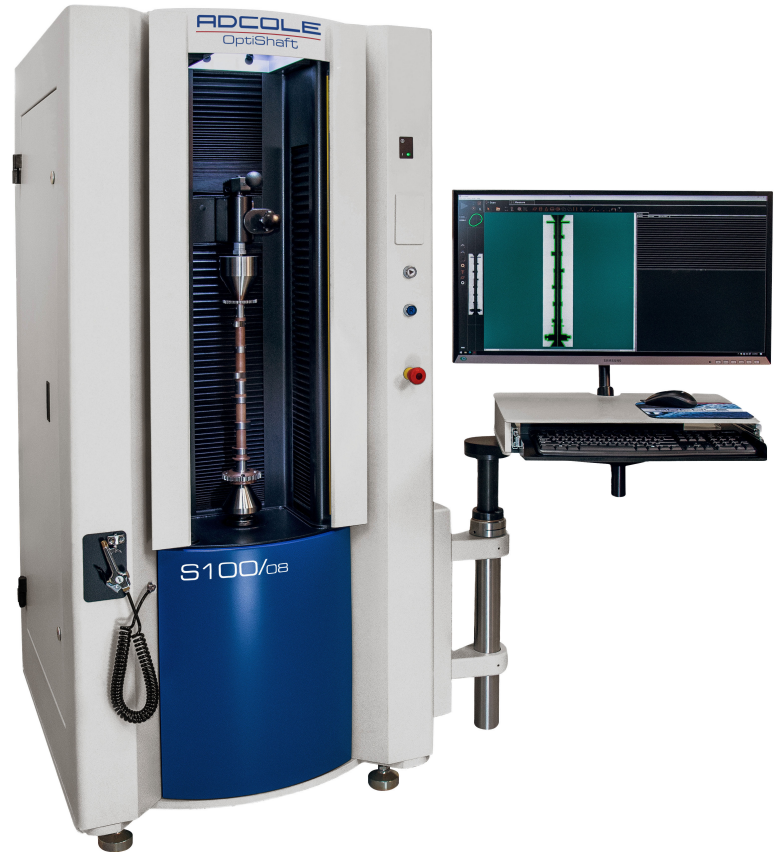
Adcole OptiShaft systems are precision optical shaft measuring instruments designed for shop floor environments. Rugged and reliable, OptiShaft systems use a completely telecentric, large field of view optical system that measures parts with diameters up to 100 mm.

### Measure Within Seconds

Fast measurements on part lengths up to 1.2 meters and diameters up to 100mm.

### Collimated LED illumination

Reduces distortion to provide superior image quality and improved measurement of critical dimensions of all feature types



Adcole OptiShaft S100/os with workstation

### Engineered for Shop-Floor Use

The granite base supports the rotary table providing a rigid base and vibration isolation.

Optics drop down below the stage for protection when machine is not in use.

Convenient air blow-off mounted to the front of the machine for cleaning parts prior to measurement.

## Features and Benefits:

- Innovative telecentric optics enabling a large depth of field with minimal distortion
- Advanced edge-detection technology providing sub-pixel resolution for superior accuracy and repeatability
- Automatic data point generation and simple feature extraction
- Exceptional image analysis software allows for simple feature extraction and measurements
- Program using DXF CAD models
- True high definition of part image display
- Optional SmartProfile® software for 3D analysis and advanced GD&T
- Easy loading – one-handed tailstock operation
- Built-in light curtain to safeguard the operator during automatic measurement
- Additional optional workholding kits available for parts that do not have centers
- User-friendly interface that makes it easy to quickly integrate the system into a factory or audit room workflow

# OptiShaft S100

Measurement Capacity & Machine Size <sup>i</sup>	S100/04	S100/06	S100/08	S100/12
Vertical Measuring Range	400 mm	600 mm	800 mm	1200 mm
Maximum Diameter Measuring Range	100 mm	100 mm	100 mm	100 mm
Maximum Part Size	Ø 175 mm x L 400mm	Ø 175 mm x L 600mm	Ø 175 mm x L 800mm	Ø 175 mm x L 1200 mm
Machine Size	850 mm x 1055 mm x 1870 mm			850 mm x 1055 mm x 2200 mm
Machine Size with Optional Workstation	1525 mm x 1055 mm x 1870 mm			1525 mm x 1055 mm x 2200 mm

## System Performance

Vertical Scanning Speed	100 mm/sec
Rotational Scanning Speed	60 RPM
Vertical Scale Resolution	0.1 µm
Video Edge Resolution	0.5 µm
Rotational Scale Resolution	0.001 degrees
Rated Spindle Load	80 kg

## Accuracy <sup>ii</sup>

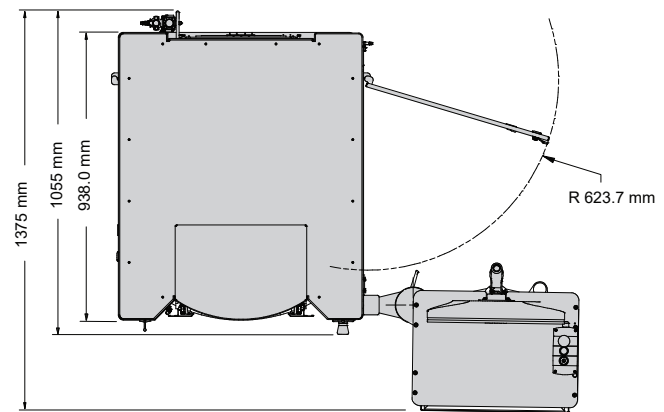
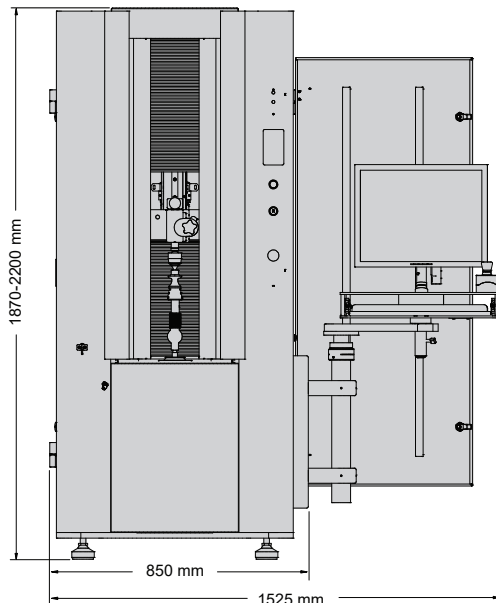
Diameter Measurement	1.0 + D/200 µm
Diameter Repeatability	0.5 µm
Length Measurement	3.0 + L/200 µm
Length Repeatability	1.2 µm

## Rated Environment & Facilities

Power Requirements Power:	100-120 VAC or 200-240 VAC, 50/60 Hz, 1-Phase, 650 W
Compressed Air Requirements	Air supply pressure: 0.4 MPa; Minimum Flow capacity: 175 l/min; Air quality ISO 8573-1:2010 Class 4.3.4
Safe Operating Environment	15-30 °C, non-condensing
Rated Environment Temperature	18-22 °C; 30-80% humidity; vibration <0.001g below 15 Hz or better

<sup>i</sup> Between standard centers

<sup>ii</sup> Where D, L = measuring length in mm. Applies to thermally stable system in rated environment. Maximum rate of temperature change: 1 °C/hour. Maximum vertical temperature gradient: 1 °C/meter.



System Weight: approx. 530 - 740 kg depending on model  
Shipping Weight: approx. 630 - 860 kg depending on model

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