ADCOLE OptiShaft S135

OPTICAL SHAFT MEASURING MACHINE

The Adcole OptiShaft S135 is a large capacity precision optical shaft measuring instrument designed for shop floor environments but is equally suited for the measurement laboratory. Rugged and reliable, OptiShaft systems use a completely telecentric, large field of view optical system that measures parts with diameters up to 135 mm, and lengths up to 1.2-meters.

Measure Within Seconds

Fast measurements on part lengths up to 1.2 meters and diameters up to 135mm.

Collimated LED Illumination

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

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 & 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 measurement
- 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

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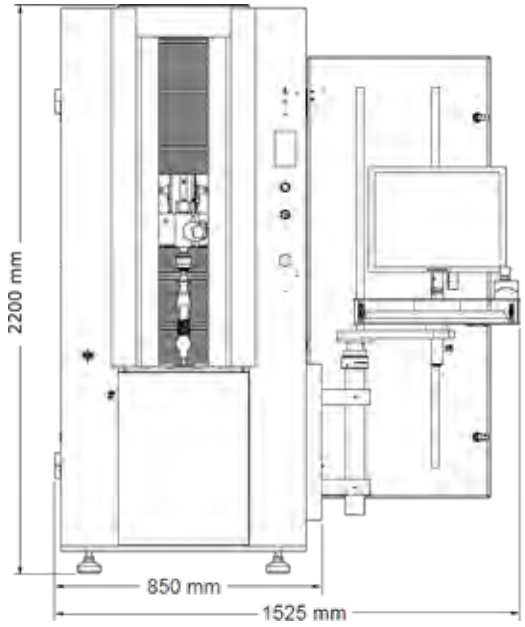
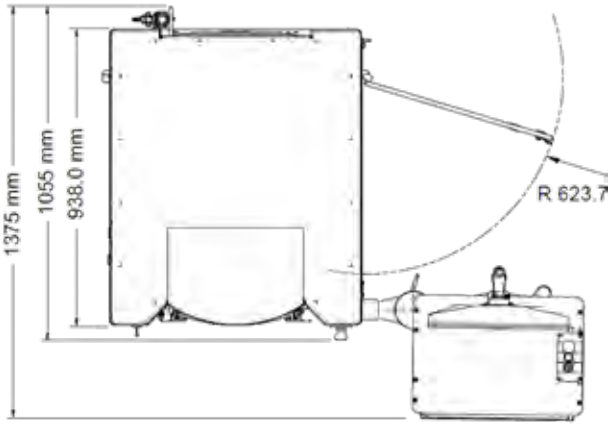
OptiShaft S135 Specifications

Measurement Capacity & Machine Size [i]	S135/10	S135/12
Vertical Measuring Range	1000mm	1200mm
Maximum Diameter Measuring Range	135mm	135mm
Maximum Part Size	Ø 175mm x L 1000mm	Ø 175mm x L 1200mm
Machine Size	850mm x 1055mm x 2200mm	
Machine Size w/ Optional Workstation	1525mm x 1375mm x 2200mm	
System Performance		
Vertical Spinning Speed	100mm/sec	
Rotational Scanning Speed	60 RPM	
Vertical Scale Resolution	0.1 µm	
Video Edge Resolution	0.5 µm	
Rotational Scale Resolution	0.001º	
Rated Spindle Load	120 kg	
Accuracy [ii]		
Diameter Measurement	1.8 + D/100 µm	
Diameter Repeatability	1.0 µm	
Length Measurement	3.0 + L/150 µm	
Length Repeatability	2.0 µm	
Rated Environment & Facilities		
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1-Phase, 650 W	
Compressed Air Requirements	Air pressure: 0.4 MPa; Minimum Flow capacity: 175 l/min; Air quality ISO 8573-1:2010 Class 4.3.4 or better	
Safe Operating Environment	15-30ºC, non-condensing	
Rated Environment Temperature	18-22ºC, 30-80% humidity, vibration <0.001g below 15 Hz or better	





System Weight: approx. 740 kg
Shipping Weight: approx. 860 kg

i Between standard centers
ii Where D, L = measuring length in mm. Applier to thermally stable system in rate environment. Maximum rate of temperature change: 1ºC/hour. Maximum vertical temperature gradient: 1ºC/meter.

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