

High-Performance Shaft Measuring Machine



TurnCheck Series-10 systems are precision optical shaft measuring instruments designed for shop floor environments. Rugged and reliable, TurnCheck Series-10 has a completely telecentric, large field of view optical system that accommodates parts with shaft diameters up to 100 mm. The granite base support for rotary provides a rigid base and isolates vibration.

- Measure Within Seconds Shaft lengths up to 800 mm.
- Collimated LED illumination Reduces distortion to provide superior image quality and improved measurement of critical dimensions of all feature types.
- Shop-Floor Debris Protection Optics drop down below the stage when machine is not in use. Convenient air blow-off mounted to the front of the machine for cleaning parts prior to measurement.





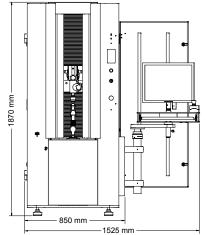
TurnCheck[™] Series-10

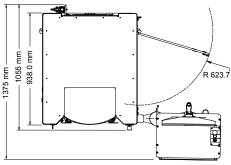
Measurement & Analysis Capabilities:

- Automatic data point generation and simple feature extraction
- · Advanced image analysis technology
- Program using DXF CAD models
- True high definition of part image display
- Optional SmartProfile[®] software for 3D analysis and advanced GD&T

Rugged, Easy To Use Design:

- · 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





System Weight: 530 kg Shipping Weight: 630 kg

Series-10	10 40	10 60	10 80	
Measurement Capacity & Machine S	ize*			
Vertical Measuring Range	400 mm	600 mm	800 mm	
Maximum Diameter Measuring Range	100 mm	100 mm	100 mm	
Maximum Part Size	175Ø mm x 400L mm	175Ø mm x 600L mm	175Ø mm x 800L mm	
Machine Size	850 mm x 1055 mm x 1870 mm	850 mm x 1055 mm x 1870 mm	850 mm x 1055 mm x 1870 mm	
Machine Size with Optional Workstation	1525 mm x 1055 mm x 1870 mm	1525 mm x 1055 mm x 1870 mm	1525 mm x 1055 mm x 1870 mm	
* Between standard centers.				
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			
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Accuracy**				
Diameter Measurement	1.8 + D/100 μm			
Diameter Repeatability	1.0 µm			
Length Measurement	3.5 + L/150 μm			
Length Repeatability	3.0 µm			
Rated Environment & Facilities				
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1-Phase, 650 W			
Compressed Air Requirements	Air supply pressure: 0.45 MPa; Minimum Flow capacity: 175 l/min; Air quality ISO 8573-1:2010 Class 4.3.4 or better			
Safe Operating Environment	15-30 °C, non-condensing			
Rated Environment	Temperature 18-22 °C; 30-80% humidity; vibration <0.001g below 15 Hz			

**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. Applies to a work piece with its center of mass located on the spindle axis.



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