



TurnCheck™ Series-14

TurnCheck Series-14 systems are precision optical shaft measuring instruments designed for shop floor environments. Rugged and reliable, TurnCheck Series-14 has a completely telecentric, large field of view optical system that accommodates parts with shaft diameters up to 135 mm. The granite base support for rotary provides a rigid base and isolates vibration.

- **Measure Within Seconds –**
Shaft lengths up to 1000 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.

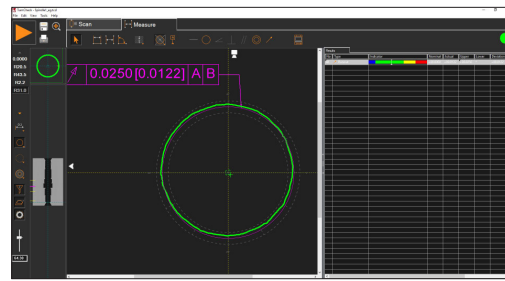
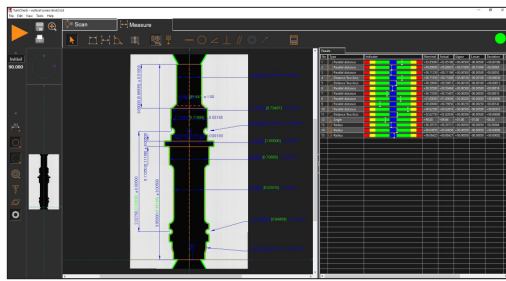
Large Capacity Shaft Measuring Machine



TurnCheck 14100 model with optional workstation shown.



TurnCheck™ Series-14

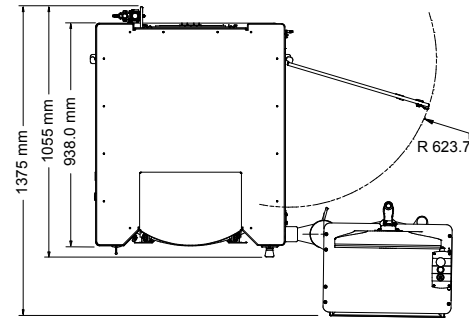
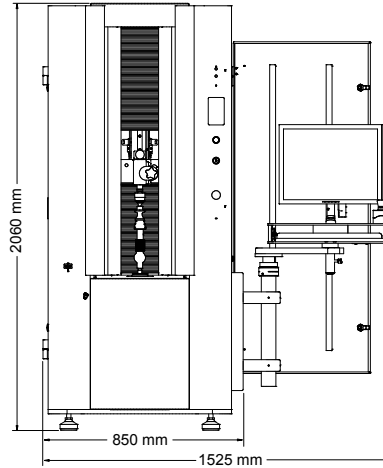


Measurement & Analysis Capabilities:

- 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: 640 kg
Shipping Weight: 760 kg

Series-14	14 100
Measurement Capacity & Machine Size*	
Vertical Measuring Range	1000 mm
Maximum Diameter Measuring Range	135 mm
Maximum Part Size	175 \varnothing mm x 1000L mm
Machine Size	850 mm x 1055 mm x 2060 mm
Machine Size with Optional Workstation	1525 mm x 1055 mm x 2060 mm
* Between standard centers.	
System Performance	
Vertical Scanning Speed	100 mm/sec
Rotational Scanning Speed	60 RPM
Vertical Scale Resolution	0.1 μ m
Video Edge Resolution	0.5 μ m
Rotational Scale Resolution	0.001 degrees
Rated Spindle Load	120 kg
Accuracy**	
Diameter Measurement	3.0 + D/100 μ m
Diameter Repeatability	1.5 μ m
Length Measurement	5.0 + L/150 μ m
Length Repeatability	3.8 μ m
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

This equipment complies with EMC directive EN IEC 61326-1, Class A.

**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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