

# MicroGlider® 500R

The **MicroGlider® 500R** is specifically suited to the non-contact measuring of rotationally symmetrical components. The system is based on FRT's tried and tested multi-sensor technology and is suitable for use in research and development just as much as it is for in-production inspections. Thanks to the optical chromatic measuring technique, samples such as valve seats and seals can be inspected quickly and without being destroyed.

The excellent repeatability and reproducibility of the measuring results are ensured by a precision rotation table on air bearings equipped with an innovative, self-centering sample holder. The MicroGlider® 500R allows for large and heavy parts (up to 20 kg) to be measured quickly and with a high level of accuracy. Both interactive and automatic measuring and evaluation modes are available for which the preconfigured testing programs can be started at the touch of a button.

## MEASURING TASKS

*Flatness Waviness Step Height Topography*  
*Roughness Defect Inspection Profile Measurement*  
*Area Measurement Wear Edge Profile Film Thickness ...*

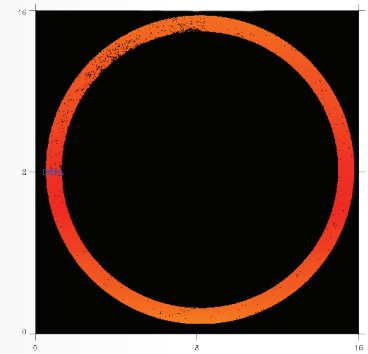


## SYSTEM CHARACTERISTICS

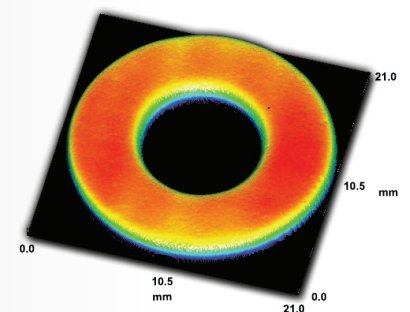
- Multi-sensor capability
- Integrated CCD camera with add-on illumination
- Motorized sensor approach with high-precision axis
- Highly precise positioning table on air bearings with excellent running accuracy, even for difficult samples
- Self-centering sample holder can be adapted infinitely to the diameter of the sample by means of an adjustment wheel (optional)
- Simple and efficient control with FRT Acquire Software
- User-friendly FRT Mark III evaluation software with numerous evaluation and display options according to DIN-ISO and SEMI standards

## BENEFITS

- Surface measuring instrument for the highest demands in industry and research
- High performance and economical measuring tool
- Durable, minimal servicing and low maintenance
- Highly sophisticated hard- and software
- Excellent repeatability due to solid construction and high-quality components
- Application specific consulting and service from skilled FRT experts

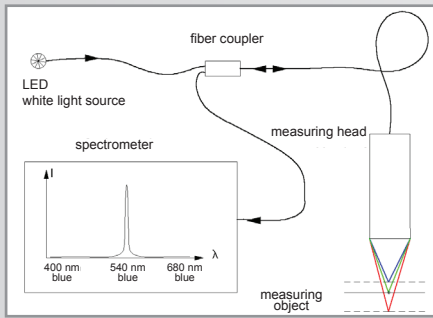


Valve seat (top view)



Area measurement of a teflon seal to determine the flatness, topography and roughness

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## Measuring Principle

The **MicroGlider® 500R** uses the principle of chromatic distance measurement. White-light is focused on the surface by a measuring head with a strongly wavelength-dependent focal length. The spectrum of the light scattered on the surface generates a peak in the spectrometer.

The wavelength of this peak is used to determine the height on the sample. The measuring tool handles transparent, highly reflective or even light absorbing surfaces and materials

System	
Assembly	Gantry Design
Sensor	Multi-Sensor
Scanning Stage	
Travel	360° / 300 mm
Drive Type	Direct Drive
Bearing Type	Air Bearing
Encoder Resolution	50 nm / 0.000024°
Flatness	< 1 µm
Max. Speed	100 mm / s
Load Capacity	20 kg
z-Axis	Motorized Axis
z-Axis Travel	100 mm
System Requirements	
Environmental Requirements	Clean, Vibration Free, Stable Temperature
Input Voltage	110V/220V AC, 1 Phase
Footprint (L x W x H)	1000 mm x 900 mm x 1600 mm
Weight	approx. 800 kg
Measuring Characteristics (Measuring Head)	
	<b>CWL 600 µm</b>
Measuring Range xy	500 mm (Diameter)
Measuring Range z	600 µm
Resolution (lateral)	2 µm
Resolution (vertical)	6 nm

## Questions? Talk to an expert!

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