

# WLIcyl

## Optical Cylinder Profilometer

### Contactless 3D Surface Profilometer for Cylinders & Liners

- Profile + Roughness**  
 Honed structures, coatings and wear
- Ultra High Resolution**  
 Vertical < 1 nm  
 Lateral = 1 µm
- 3D Imaging**  

- Customizable**  

- Low Maintenance**  

- Portable or Semi-automatic**
- 3-jaw chuck**  

- Q-Das qs-STAT**  

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WLIcyl semi-automatic stand alone station



WLIcyl Portable unit

The WLIcyl is a **high-precision optical profilometer** based on the principle of **white light interferometry** and designed for post-process and statistical process control. The measurement head can be moved either manually, or by entering coordinates in the software.

An adapter plate or a variable 3-jaw chuck for base frame 60-150 ensures the positioning reference of the WLIcyl on the measured object for **repetitive measurements**. Unlimited measurement programs can be saved and automated. This design allows comparisons at the exact same position before and after running a tribology test.

The WLIcyl belongs to the product line of Breitmeier Messtechnik GmbH. Since 2001 the company has been designing, developing and building cutting-edge measurement devices and systems in Germany.

### for Quality Control in Laboratories & on Shop Floors





## Technical Specification

Measurement principle		White light interferometry
Bore diameter	[mm]	72 - 136; *
Vertical travel range (head)	[mm]	180; *
Vertical resolution	[nm]	< 1
Camera resolution	[pix]	2448 x 2048; 12 Bit; *
Measuring range	[µm]	± 120
Z, Y positioning uncertainty	[µm]	± 3
R positioning uncertainty	[°]	0,2; *
Data acquisition rate	[µm/s]	max. 4; *
Dead range, bottom	[mm]	28; *
Software		Q-Das; qs-STAT

## Measurement Areas

Size of measurement area, magnification, lateral resolution and slope angle depend on the selected objective lens.

Objective lens type:	Measurement area [mm]:
10x	1,3 x 1,1 *
20x	0,6 x 0,5 *
50x	0,2 x 0,2 *

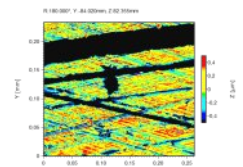
## Dimensions and Measurement Environment

Measuring head (D x h)	[mm]	Ø 230 x 440
Weight	[kg]	16
Operating temperature	[°C]	10 - 35
Vibration damping		Not necessary; available upon request for specific environments

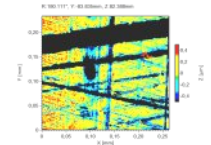
\* Customizable



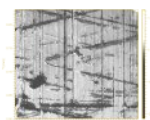
Torn and folded metal (TFM)



New object



Wear of honed cylinder surface



Wear of honed surface with pores