

WLICyl

Optical Cylinder Profilometer

breitmeier
A NanoFocus Company

nanofocus
see more

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



Wireless




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 data subject to change without notice. Breitmeier is a registered Trademark of Breitmeier Messtechnik GmbH. The Breitmeier MiniProfiler products are protected by patent law.



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

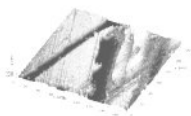
Size of measurement area, magnification, lateral resolution and slope angle depend on the selected objective lens.

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

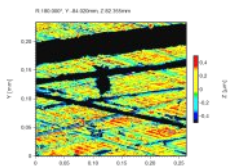
Dimensions and Measurement Environment

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

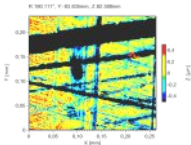
* Customizable



Torn and folded metal (TFM)



New object



Wear of honed cylinder surface



Wear of honed surface with pores