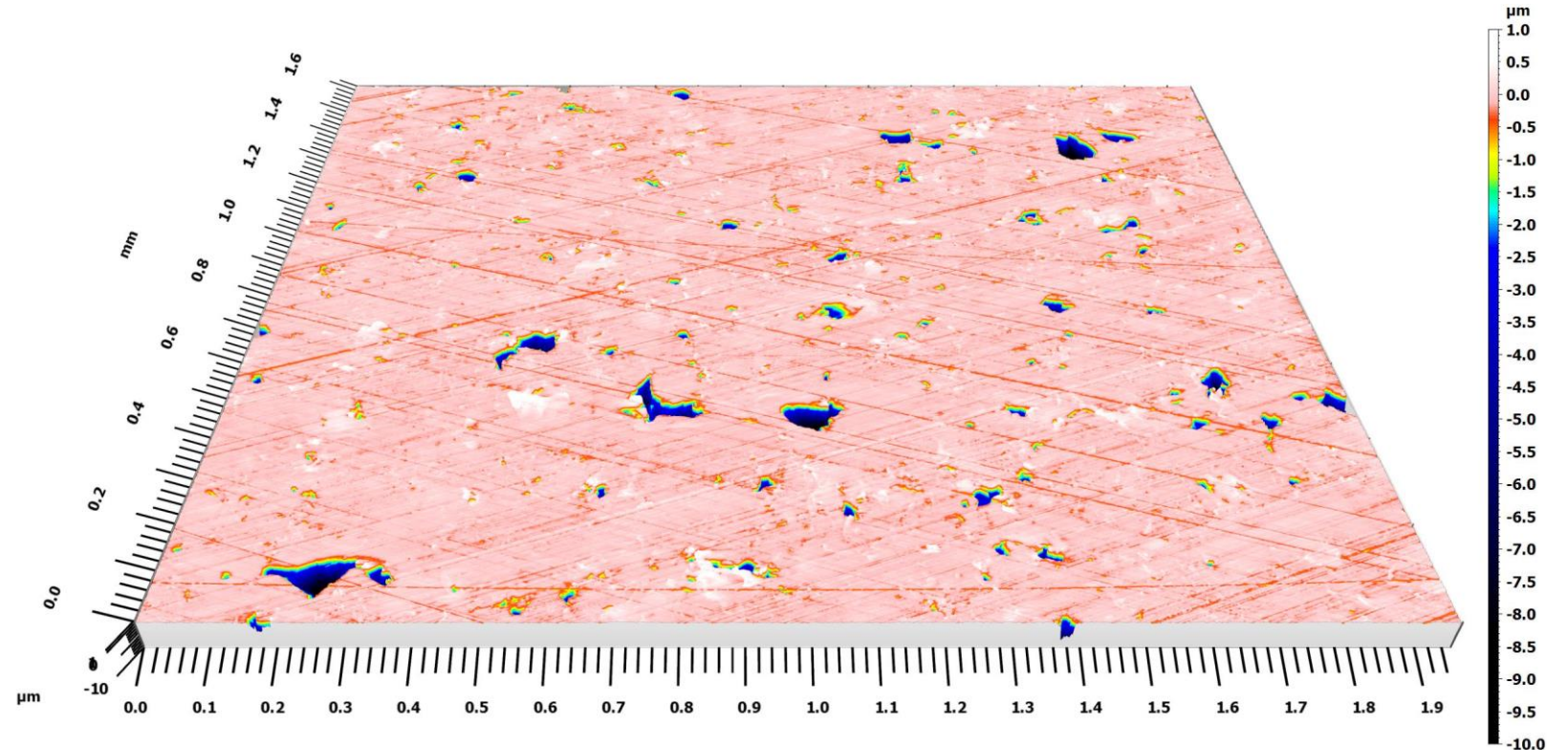




*now with higher resolution and high-performance camera to scan more details in shorter time*



*honings structures  
pore ratio and statistical classification  
marbling (protruding plateaus)*



## components

industrial 19" rack with 6 height units including housing

### PC

- Windows10
- measuring software smartVIS3D
- evaluation software MountainsMap®
- 3 height units

### scanning device controller

- Piezo positioning system (capacitive)
- closed loop control for positioning
- 3 height units

### LED light controller

motorized insertion axis controller (optional)



general specification	
<b>cylinder diameter</b>	70 ... 125 mm (standard configuration)
<b>standard insertion axis</b>	max. cylinder depth approx. 188 mm
<b>extended insertion axis</b>	max. cylinder depth approx. 270 mm
<b>motorized insertion axis</b>	max. cylinder depth approx. 200 mm / stitching

high resolution camera	
<b>measuring points</b>	2000 x 2000
<b>scanning speed full resolution</b>	88 Hz
<b>scanning speed ROI</b>	up to 2 kHz



## variable configuration for multiple tasks:

- 5x objective for larger structures and pores
- 10x standard objective for multiple tasks
- 20x objective for more details measuring honing and small pores
- 50x objective for detailed inspection of cracks and marbling
- 100x objective for high resolution confirmation of results

objective magnification	5x	10x	20x	50x	100x
working distance	9.3	7.4	4.7	3.4	2
measuring field / mm <sup>2</sup>	2.8 x 2.8	1.4 x 1.4	0.7 x 0.7	0.28 x 0.28	0.14 x 0.14
point spacing / μm	1.4	0.7	0.35	0.14	0.07

smartWLI CylinderInspector3D	
measurement technique	white-light interferometry
measurement software	smartVIS3D
evaluation software	MountainsMap® with optional GBS add-on modules
scanning device	Piezo positioning system
scan range	up to 200 µm
scanning speed / full resolution	5.9 µm/s
max. scanning speed	approx. 148 µm/s
digitalization	up to 0.01 µm
topography reproducibility*	< 1 nm
1-σ reproducibility 12 µm step height	< 5 nm
sensor weight	approx. 16 kg
relative humidity, non-condensing	up to 80%
operation temperature	10 °C to 35 °C
power supply	100 to 240 VAC, 50/60 Hz

\*Sq/√2 – profile difference of 2 scans, EPSI, single scan, without profile averaging, laboratory conditions, 1 million points after 3x3 denoising filter

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