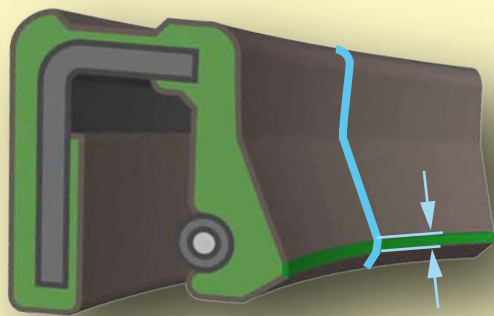


IMA -Sealscanner®

Measurement of the seal geometry and sealing wear within seconds

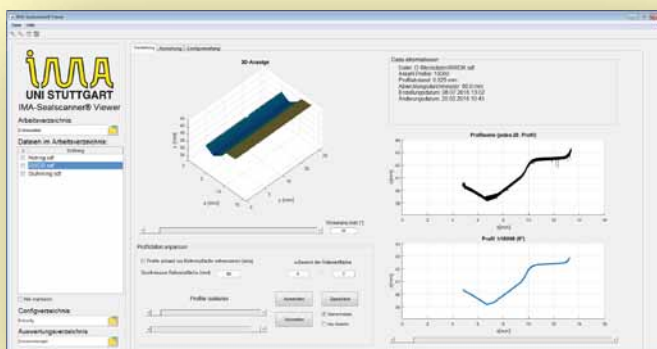


measurement of the sealing edge

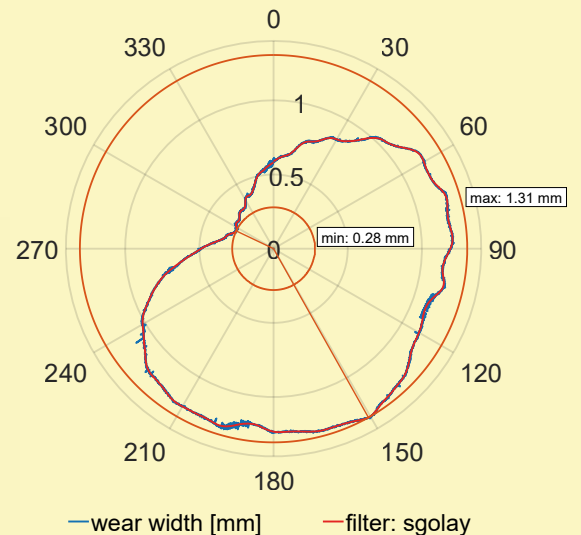


Automatic Wear Evaluation:

- evaluation with the IMA-program IMA-Sealscanner® Viewer
- complete wear width plot with min. + max. identification

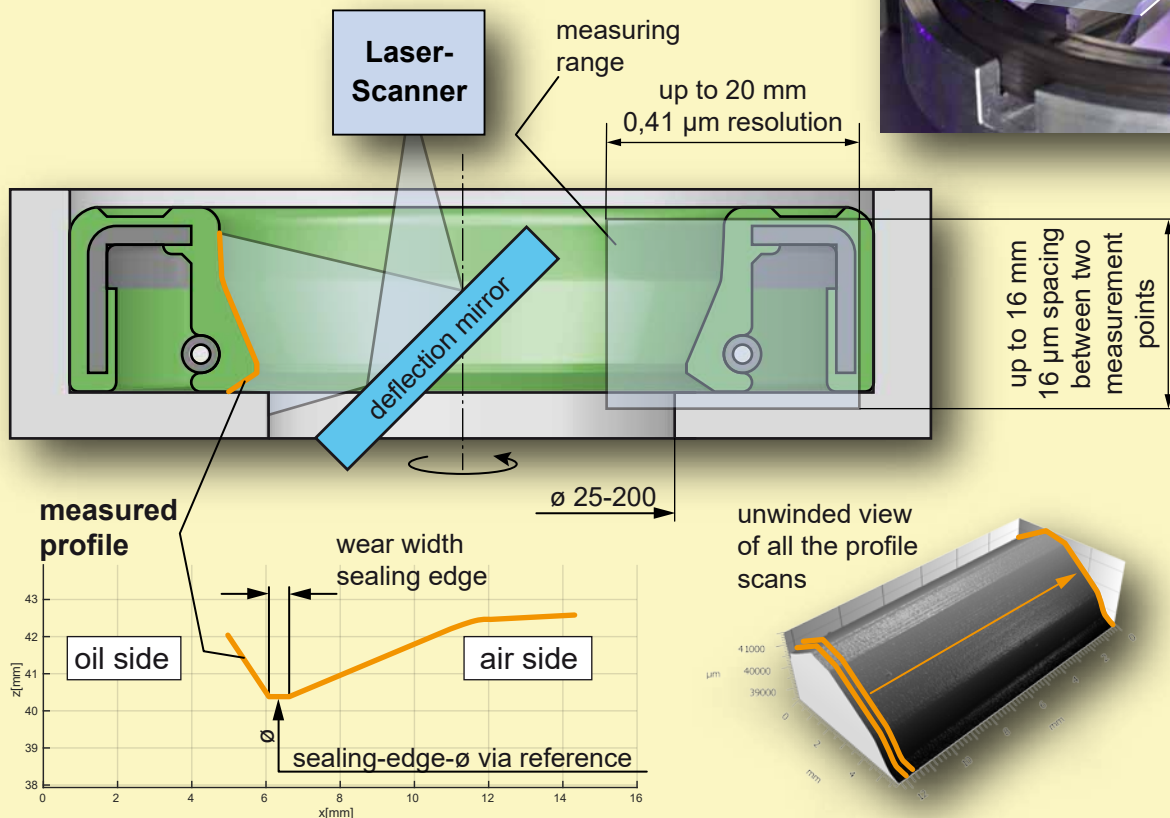
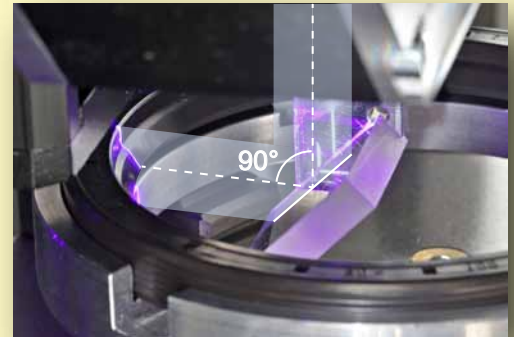


Wear Width Plot

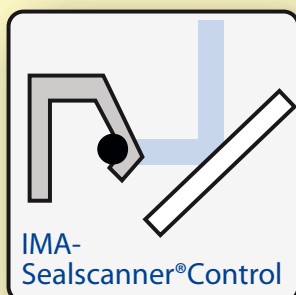


working principle:

- optical detection of the seal ring contour by means of a laser-scanner
- a deflecting mirror allows to detect the inner contour precisely
- 10.000 profiles are recorded during a 360° rotation, so the whole circumference is scanned within 10 seconds

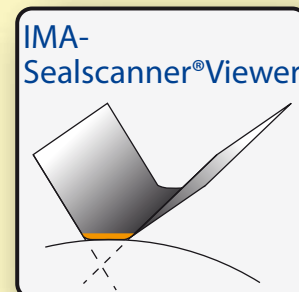


Measurement:



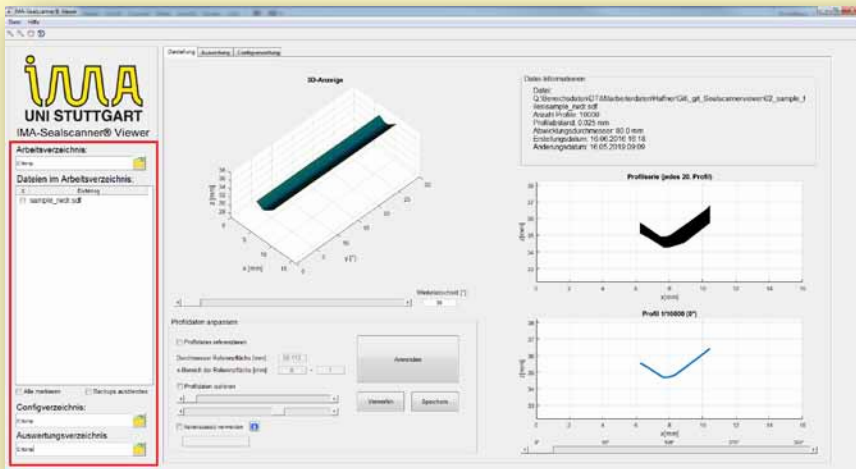
- fast set-up of measurement
- intuitive operation
- automatic functions for batch processing of a large number of seal rings

Evaluation:

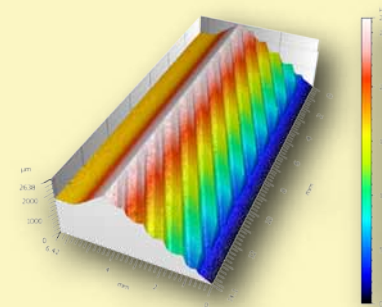
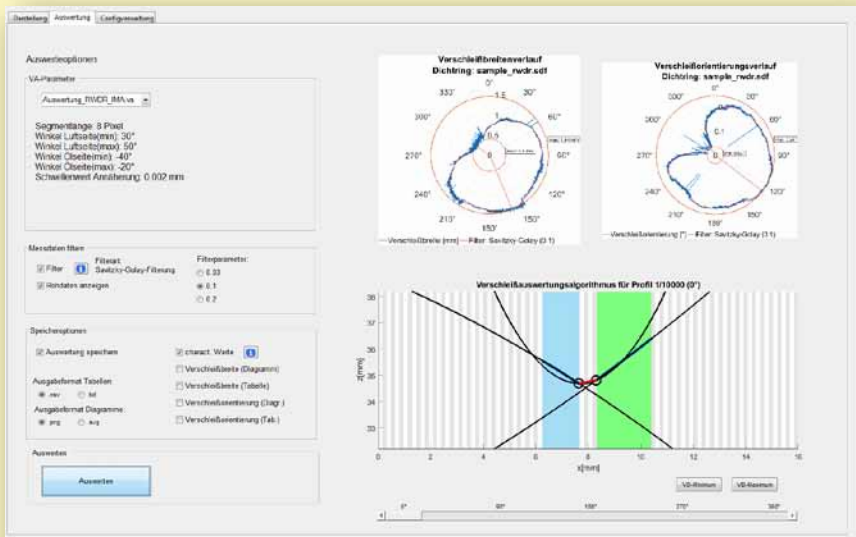


- various possibilities for analysis and visualisation of measured data
- automatic evaluation of wear width and sealing edge diameter
- definition of individual parameter sets for standardized tests procedures

Evaluation-software: IMA-Sealscanner® Viewer



- feature based software
- fast and operator independent evaluation
- protocol for each evaluation
- automatic estimation of the inner diameter by referenced seal holder
- measuring of inner diameter
- display of minimum and maximum wear width
- all types of rotationally symmetrical parts can be measured
- pumping aids can be measured (for evaluation separate software required)



Further possible Applications:



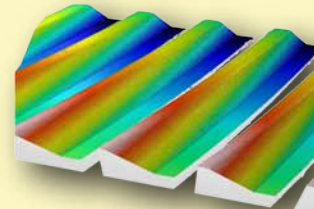
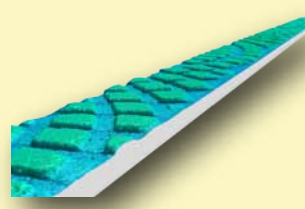
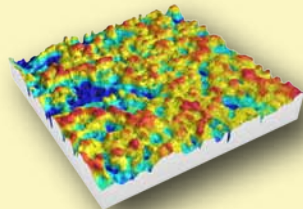
grinding wheel



clutch disc



crown wheel

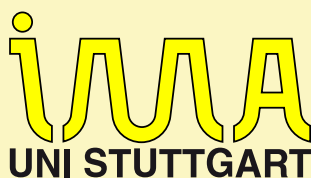


Benefit from the measurement device development driven by the research activities at the fluid sealing group at the Institute of Machine Components of University of Stuttgart

Technical Data IMA-Sealscanner®

measurement duration for a 360°-scan	10 sec.
measurement range axial	15 mm
resolution axial	16 µm
Measurement range height	20 mm
resolution height	0,41 µm
detectable inner diameter	25-200 mm
number of profiles in circumference	10.000 ... 30.000
measurement frequency	1000 Hz
measured points per profile	1024
data format	*.sdf (DIN EN ISO 25178-71)
data export:	PNG/ SVG/ CSV/ PDF
wave length	405 nm
laser class	3R
switch cabinet (H x W x D)	600 x 600 x 400 mm
weight	150 kg

A Cooperation between:



Contact:

Universität Stuttgart
Institut für Maschinenelemente (IMA)
Pfaffenwaldring 9
70569 Stuttgart
Germany

Tel: +49 711 685-66170
Mail: dicht@ima.uni-stuttgart.de

IMA-TechSheet #102051 V1



Sales:

G. Ulmer Automation GmbH
Vaihinger Straße 9
74343 Sachsenheim
Germany

Tel: +49 7147 22033-0
Mail: info@ulmer-automation.de