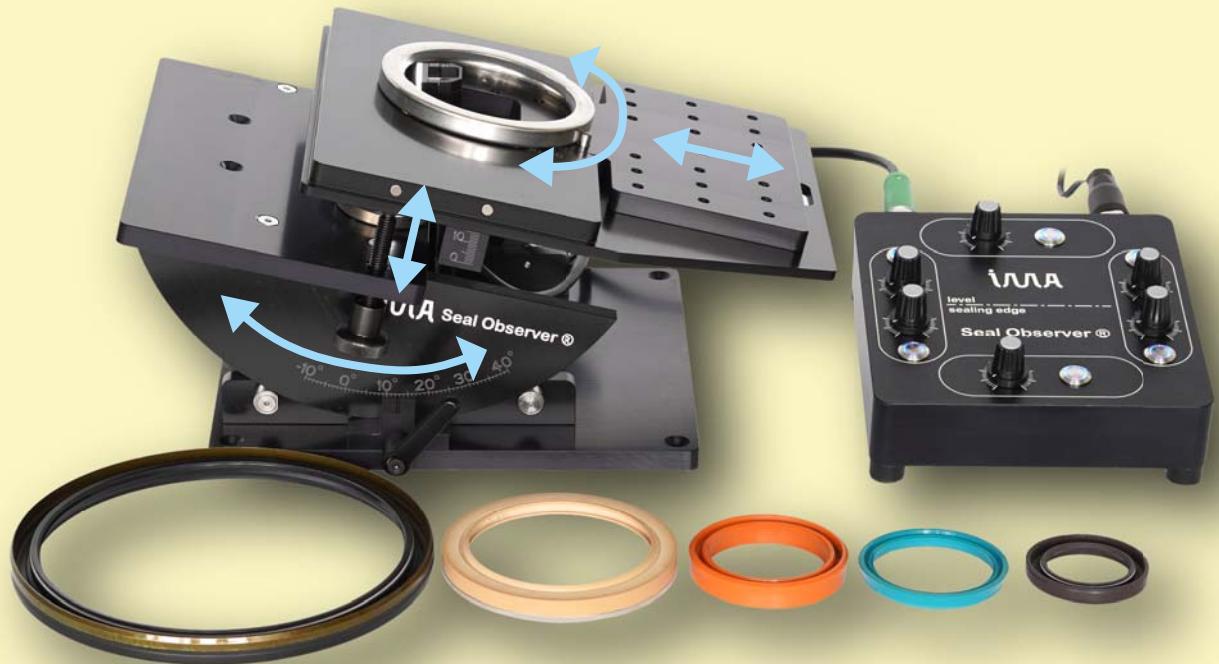


iVVA - Sealobserver®

This device allows to inspect, to measure and to illuminate the inner side of seal rings



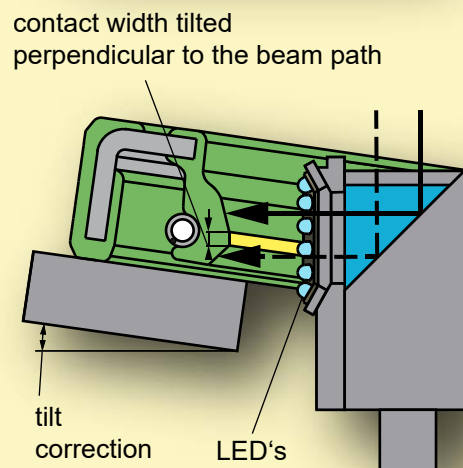
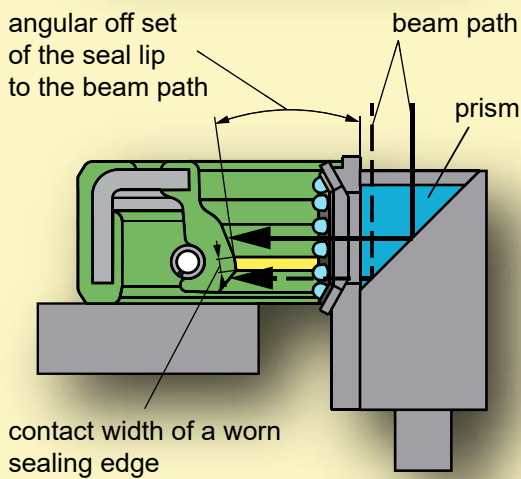
seal rings can be easily positioned and are reproducibly illuminated for precise photo documentation



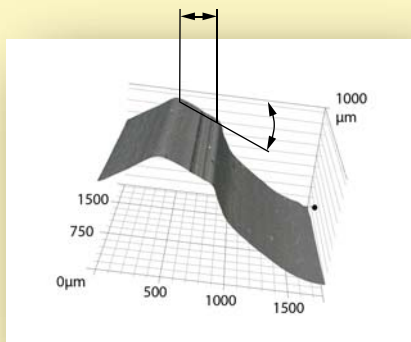
converts any microscope (not included) into an unique sealing edge inspection tool

Working principle

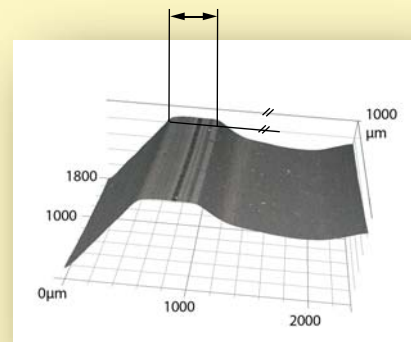
- the beam path is deflected by a prism, so the inner surface of a seal ring can be inspected without the need to cut it open.
- the seal ring can be tilted which allows to adjust the sealing edge perpendicular to the beam path. Therefore there are no problems with shallow depth of field at high magnifications and correct determination of the contact width is guaranteed.
- once adjusted the unique design of the Seal Observer keeps the sealing edge in focus while tilting or rotating, so the whole seal ring can be inspected accurate and fast.



wrong determination of contact width and problems with depth of focus without focus stacking

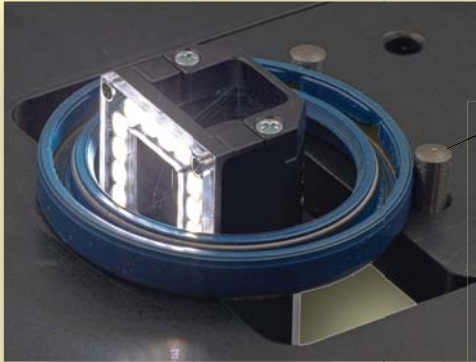


correct determination of contact width and **no** problems with depth of focus without focus stacking



Adjustable to seal diameter

ø35mm seal ring from Flender Test



positioning pins allow to rotate the ring while staying in focus

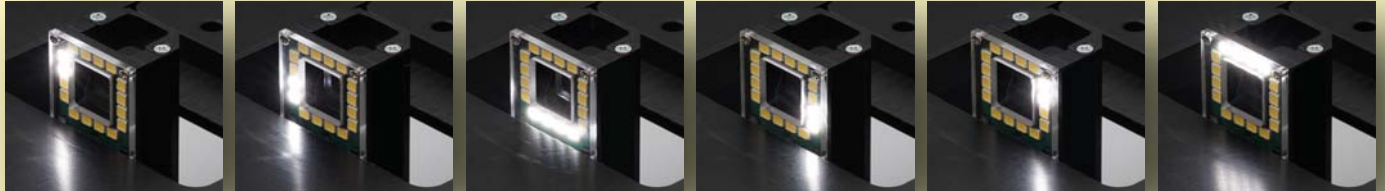


height adjustment

ø155mm seal ring

Light Control

- the LED array can be individual controlled in 6 sectors
- white light LED (6500K) with a CRI >90 allow high color accuracy
- adjustable settings give the same results again and again



a

b

c

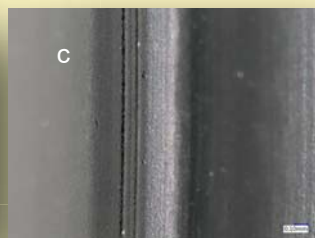
d

e

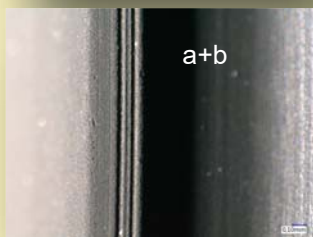
f



f



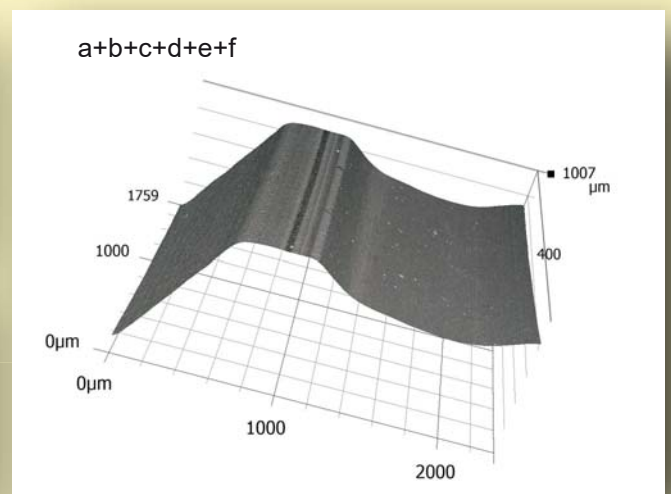
c



a+b



d+e



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

Technical Data

IMA-Seal Observer ®

smallest seal inner diameter	ø35 mm
biggest seal inner diameter	ø200 mm
tilting range	± 45°
hight adjustment	25 mm
required working distance of microscope	25 mm
LED illumination	6500K, CRI 90
6 individual controllable LED segments	
power supply	230 V / 110 V
material	anodised aluminium
dimensions (H x W x D)	150 x 250 x 330 mm
weight	4 kg
no microscope included	

Contact / Sales:



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

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

IMA-TechSheet #102070 V2