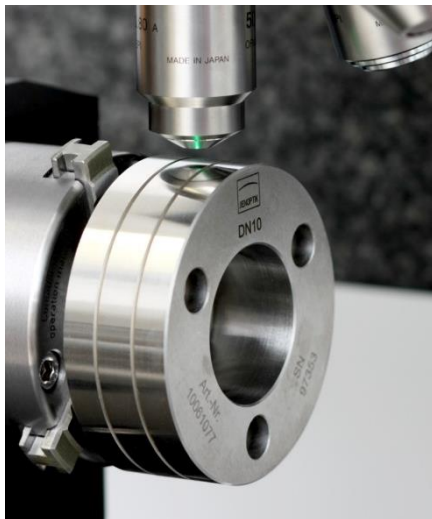
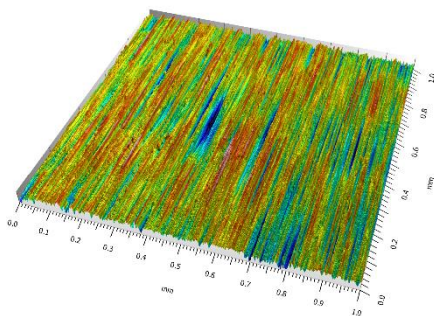




Confovis Surface and Lead Measuring Station



Optical measurement of shaft surfaces



3D surface topography

Description:

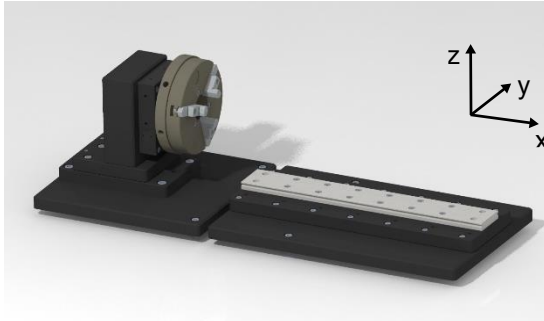
The Confovis surface and lead measuring device is an optically confocal topography measuring system, developed especially for applications in sealing technology. It measures technical surfaces with high spatial and vertical resolution. Part of the equipment is a rotation unit, which enables the measurement of rotationally symmetric sealing counterfaces. The Lead-Inspect software module is optimally adapted to the needs of sealing technology applications and enables the measurement of macro and micro lead, as well as the measurement of 2D and 3D surface parameters.

Technical Data:

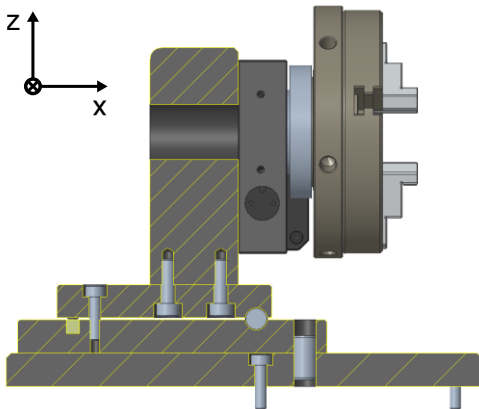
Vertical Resolution:	Down to 3 nm (VDI 2655)
Spatial Resolution:	267 nm (Rayleigh)
Measurement Principle	Structured Illumination, confocal

Available Test Methods:

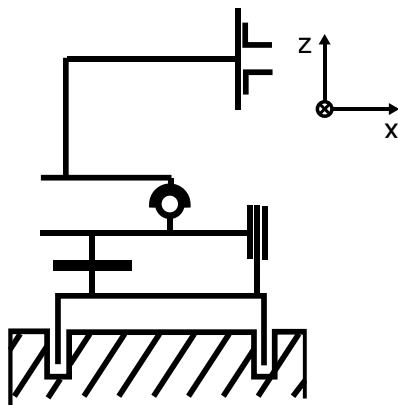
- 2D roughness parameters for evaluation according to DIN EN ISO 4287 and procedure according to 4288 and VDA 2006
- 3D roughness parameters according to DIN EN ISO 25178
- Macro lead evaluation according to MBN 31007-7
- IMA-Microlead® Analysis
- 3D representation of surfaces
- Measurement of distances, depths, volumes and geometries
- 2D and 3D volume and functional parameters
- Damage analysis, scratches, defects, etc.
- Wear measurements, running track wear of a RWDR on a shaft, etc.



Adjustment-device for the analysis of rotationally symmetric components



Cross section of the adjustment-device



Schematic of the adjustment-device

Details:

The adjustment-device is used for the surface analysis of rotationally symmetrical components. The rotary drive is iteratively adjusted by rotating two joints - the z-axis (yaw) and the y-axis (pitch) - to match the coordinate system (x, y, z) of the surface measuring device. Precision washers are used for the height adjustment (z-axis). After fine adjustment, screws are clamped to achieve high rigidity. This allows the rotary axis of the device to be aligned with high precision and relative to a coordinate system or camera/sensor. In addition, a tail-stock can be aligned relative to the rotary drive, which is required for surface measurements of heavy components.

The alignment device simplifies the handling and speeds up lead measurements or the determination of surface parameters on counter surfaces of sealing rings (e.g. shafts, rods).

Technical Data:

Rotation around x:	rotary drive > 360°
Rotation around y:	fine adjustmend < 0.01°
Rotation around z:	fine adjustmend < 0.01°

Available Analysis Methods:

- 2D roughness parameters for evaluation according to DIN EN ISO 4287 and procedure according to 4288 and VDA 2006
- 3D roughness parameters according to DIN EN ISO 25178
- Macro lead evaluation according to MBN 31007-7
- IMA-Microlead® Analysis
- Wear measurements, dimensions of a running track on a shaft, etc.