



TRIOPTICS

See the Difference.

At a Glance

OptiCentric® 100

Highly Precise Lens Centering Measurement,
Alignment and Assembly Systems



Advantages of OptiCentric® Systems

- Highest absolute accuracy of 0.1 μm and highest resolution of the measurement head
- Lens centering measurement of all types of optics, in UV, VIS and IR: spherical, aspherical and cylindrical lenses and lens assemblies
- Testing of complex lens assemblies with the MultiLens software module
- Fast and precise alignment processes, thanks to the OptiCentric® software module SmartAlign
- Exchangeable head lenses for virtually unlimited measurement range
- Measurement in reflection and transmission
- Modular and integrated OptiCentric® accessories
- Large diameter range from 0.5 mm to 800 mm: OptiCentric® systems are available in the sizes OptiCentric® 100, OptiCentric® 300 and OptiCentric® 300 & 600 UP



Overview of OptiCentric® 100 Systems



OptiCentric® 100

The industry standard for centering testing and manual lens alignment and assembly



OptiCentric® 100 IR

Assemble and test IR lens systems



OptiCentric® 3D 100

Centering testing and center thickness/air gap measurement in one system



OptiCentric® 100 Dual

Centering testing of lenses and complex optical systems



OptiCentric® Cementing

Significant increase in efficiency and accuracy when cementing

- to the optical axis
- on an arbor



MultiCentric® Cementing

For the shortest cycle times and very high accuracy when cementing with the optical axis as reference

The following combinations of the systems presented above are also available:



OptiCentric® 3D 100 Dual



OptiCentric® 3D 100 IR



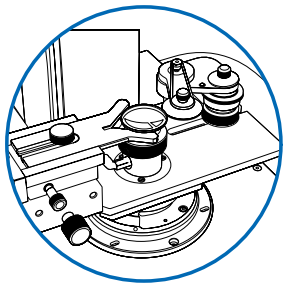
OptiCentric® 100 Dual IR



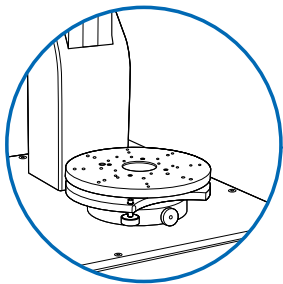
OptiCentric® 3D 100 Dual IR

System Overview

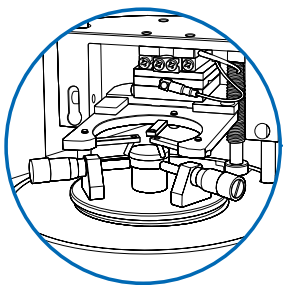
Modular Structure of the OptiCentric® Systems



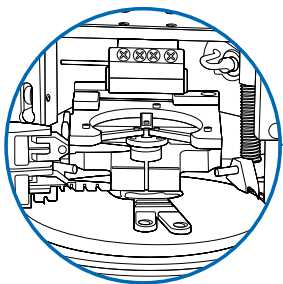
Lens rotation device



Tilt and translation table



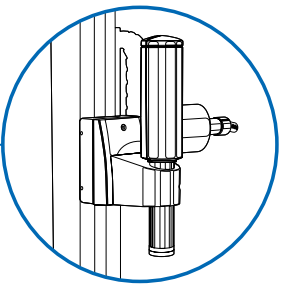
Automated lens alignment with respect to the optical axis



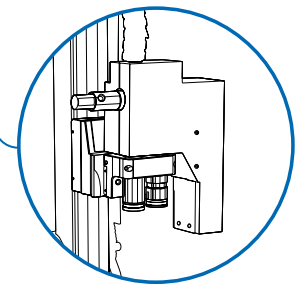
Automated lens alignment with respect to the arbor axis

Linear stage

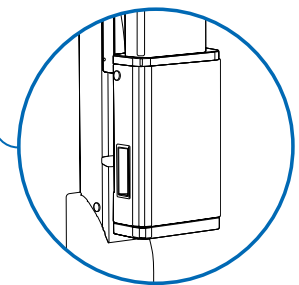
Low-coherence interferometer



Visual measurement head

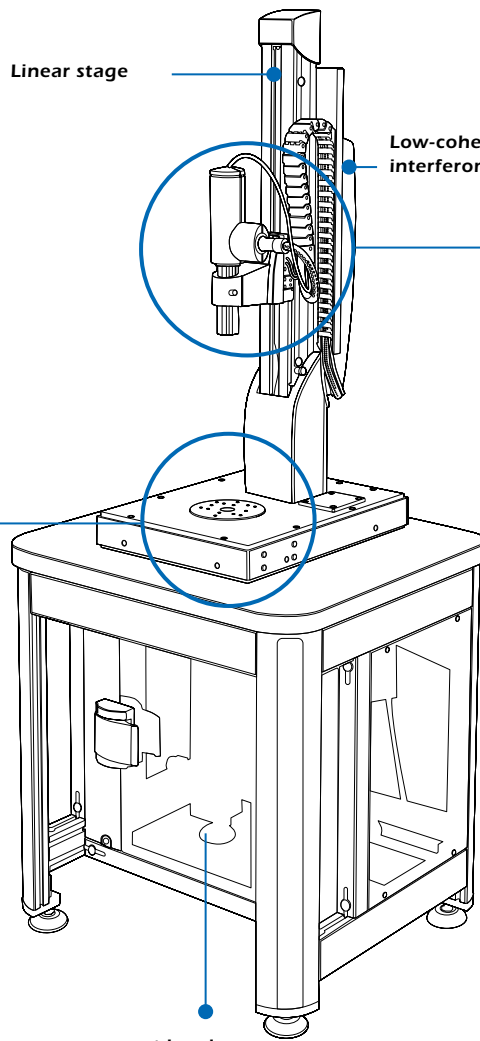


IR measurement head



MultiCentric® measurement head

Lower measurement head



Technical Data

OptiCentric® 100

Legend: Standard configuration Optional configuration

| | OptiCentric® 100 | OptiCentric® 100 IR | OptiCentric® 3D 100 | OptiCentric® 100 Dual | OptiCentric® MultiCentric® Cementing |
|---|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| Measurement accuracy ¹ | 0.1 µm | 1 – 2 µm | 0.1 µm | 0.1 µm | 0.1 µm |
| Maximum sample weight | Air bearing 20 kg Lens rotation device 2 kg | | | | |
| Maximum sample diameter | Air bearing 0.5 – 225 mm Lens rotation device 0.5 – 200 mm | | | | |
| Optimal sample diameter | 0.5 – 120 mm | | | | |
| Lens rotation | | | | | |
| Air bearing | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Lens rotation device | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Motorized stages² | | | | | |
| 450 mm | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 250 mm, 550 mm oder 990 mm | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Reflection Transmission | | | | | |
| Measurement in reflection | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Measurement in transmission | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Measurement head | | | | | |
| Visual measurement head | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| IR measurement head (VIS-MWIR or VIS-LWIR) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MultiCentric® measurement head | | | | | <input type="checkbox"/> |
| Additional upgrades | | | | | |
| Center thickness and air gap measurement | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Dual upgrade (2nd measurement head) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Effective focal length, flange focal length, radius, on-axis MTF (OptiSpheric® upgrade) | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| Asphere axis measurement, AspheroCheck | <input type="checkbox"/> | | | <input type="checkbox"/> | |
| Cylinder lens measurement, CylinderCheck | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Angle measurement, OptiAngle | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| Workstation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| Upgrade for lens alignment and cementing - on mandrel or with respect to the optical axis | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

¹ Under stable environmental conditions at 100 mm height above the surface of the air bearing

² Manual stages upon request

TRIOPTICS worldwide



Locations

Germany

TRIOPTICS Headquarters

Strandbaddamm 6
22880 Wedel, Germany
Tel.: +49 4103 18006 0
sales@trioptics.com
www.trioptics.com

TRIOPTICS Wetzlar Branch

sales@trioptics.com
www.trioptics.com

TRIOPTICS Berlin

support@trioptics-berlin.com
www.trioptics-berlin.com

China

TRIOPTICS China

info@trioptics-china.com
www.trioptics-china.com

France

TRIOPTICS France

contact@trioptics.fr
www.trioptics.fr

India

HP Instruments

hpi@hpinstruments.com
www.hpinstruments.com

Israel

Prolog Optics

info@prologltd.com
www.prologoptics.com

Japan

TRIOPTICS Japan

info@trioptics.jp
www.trioptics.jp

Korea

TRIOPTICS Korea

info@trioptics.co.kr
www.trioptics.co.kr

Russia

URAN

info@uran-spb.ru
www.uran-spb.ru

Singapore

TRIOPTICS Singapore

danny.ng@trioptics.com.sg
www.trioptics.com.sg

Taiwan

TRIOPTICS Taiwan

info@trioptics.tw
www.trioptics.com.tw

Turkey

Optomek

info@optomek.com.tr
www.optomek.com.tr

United Kingdom

Armstrong Optical

info@armstrongoptical.co.uk
www.armstrongoptical.co.uk

USA

TRIOPTICS USA

sales@trioptics-usa.com
www.trioptics-usa.com

Vietnam

TECOTEC

hanoi@tecotec.com.vn
www.tecotec.com.vn