

DIOP TIC
creating optical solutions

Optical Inspection Systems

CUSTOM INSPECTION AND
ALIGNMENT SYSTEMS
FOR INDUSTRIAL HIGH END
APPLICATIONS

Custom inspection systems

UNDERSTANDING YOUR APPLICATION

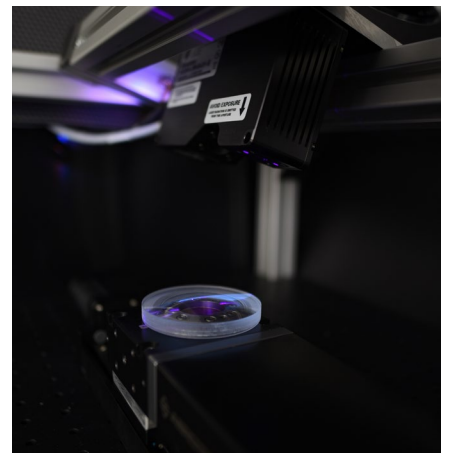
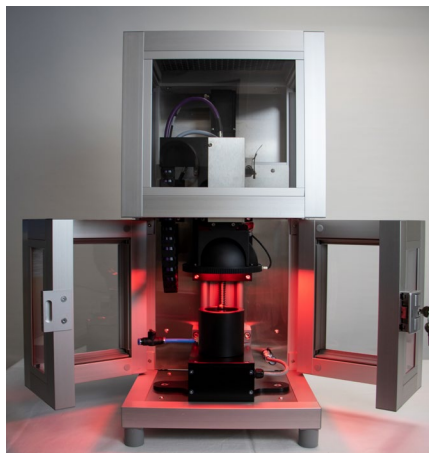
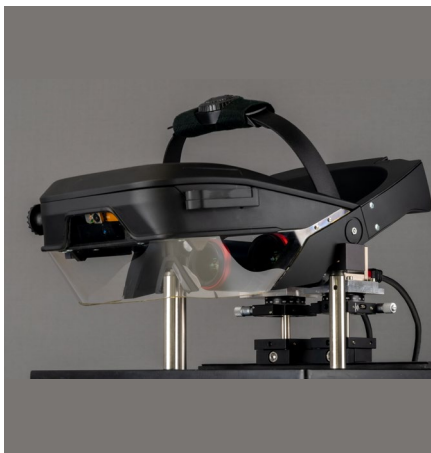
Our experts analyse and understand your application to its physical limits and create innovative solutions.

- Feasibility study and concept development
- System analyses and consulting
- Fast project launch times

CREATING YOUR INSPECTION

Inspection systems at limits of physics, exclusive for your application

- Optical and geometrical alignment
- Form and surface inspection
- Imaging quality, MTF measurement
- Spectrum and wave front analyses



Products and Prototypes

- Design and development of functional prototypes
- Setup and analyses

Standalone Systems

- Turn-key systems with CE conformity
- Software implementation and algorithm testing

Inline systems

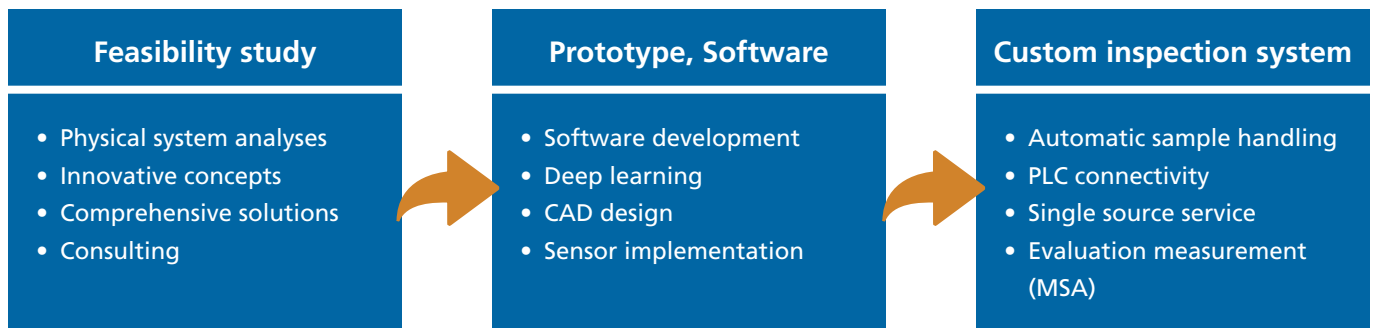
- PLC connectivity
- Automatization
- Active optical alignment

IMPROVING YOUR PRODUCT

Our qualified optical inspection systems improve the quality and the yield of your product.

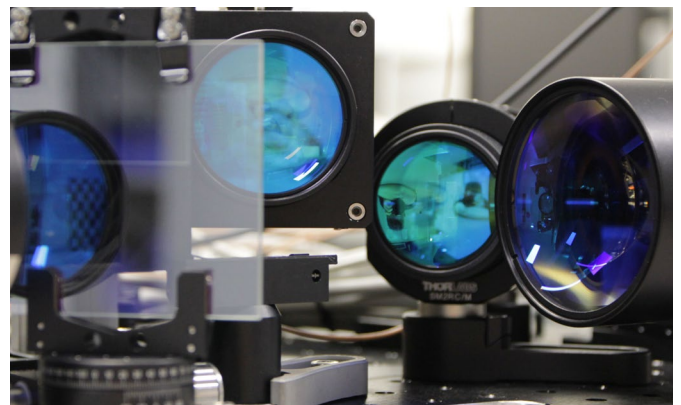
- Minimizing the rejection rate
- Improved quality management
- Speed up inspection processes
- Reducing manufacturing tolerances

Your application in focus

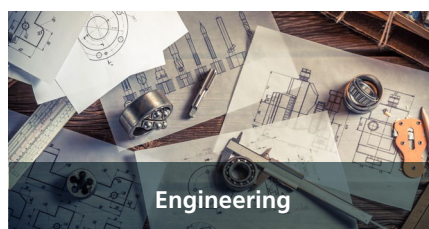
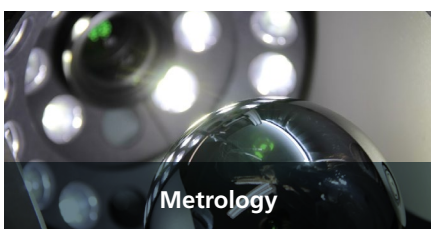


YOUR ADVANTAGE WITH DIOPTIC

- We are experts in the field of optical technologies
- We offer knowledge of a wide range of optical measurement technology
- Your task is at the center of our work
- You are the owner of all IP rights from our work
- Creative solutions resulting from our interdisciplinary experience
- Testing and characterisation based on ISO standards
- Certification to your needs, FAT, SAT



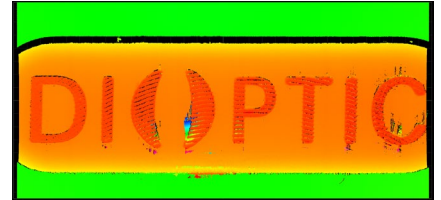
EXPERTISE IN VARIOUS INDUSTRY SECTORS



Custom Solutions

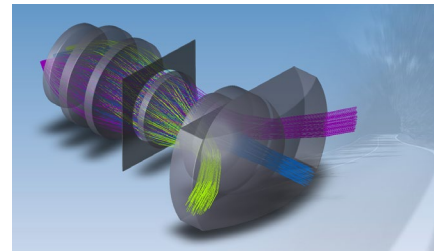
SURFACE AND SHAPE QUALITY INSPECTION

- Decorative surfaces, functional surfaces, optical surfaces
- Complex mechanical components, form deviation, scratches, digs and splints
- Testing based on ISO10110-7 and ISO16232-7



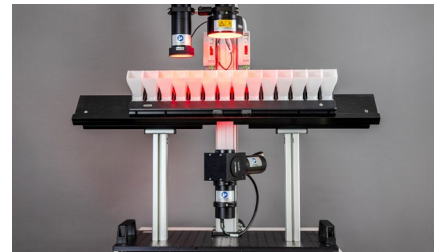
LIGHT DETECTION AND RANGING (LIDAR)

- Test and alignment of optical components: quality control, orientation of optical axis
- Testing sensor characteristics: field of view, temperature range, eye safety



CONTAMINATION INSPECTION OF OPTICAL COMPONENTS

- Contact free optical testing
- Surface stack testing of assembled lenses
- Improving your product quality



AUGMENTED REALITY (AR) CHARACTERIZATION

- Head-up displays, head-mounted displays, AR and VR glasses
- MTF characterization according to ISO12233
- „Slanted edge“ active optical alignment
- Testing of imaging lens specification (distortion, illumination, eye-box size)



Illumination

- Wave length selectivity: RGB, UV, IR
- Different light sources: thermal light, laser, LED
- Various designs: darkfield, brightfield, transmitting, coaxial

Inspection techniques

- High precision optical measurement
- Form deviation, contamination inspection
- Machine vision, laser triangulation
- Wave front analyses
- Optical lens characterization (MTF, alignment, light forming)

Software

- Image processing
- Data base connectivity
- PLC programming
- Machine learning
- Deep learning

Inspection Systems

Advantages with DIOPTIC

Automation

- Component alignment
- Inline, stand-alone systems
- Actuator technology
- Automated sample handling

Know-how of our expert team

- Solutions on a high scientific level
- Patentable results
- Efficient and professional project handling

Our Quality

- Single source solutions
- Quality standard ISO 9001
- CE conformity

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