



Corporate presentation



Your points of contact



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WEENSURE YOUR QUALITY

Because the trained eye sees more

Our areas of operation



Claims



Outsourcing



Difficult to verify characteristics



Capacity bottlenecks



Follow-ups of pseudo rejections



Customer requirements



Process optimization



Automation



Safe-Launch-Phase

Facts & figures

testing facilities

100

Zeiss technoscopes

>150

employees

500K

pieces visually inspected by hand per day

200 M

inspected pieces per year

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TESTED ACCORDING TO

DIN EN ISO 9001 DIN EN ISO 14001 EN 9100



Our service portfolio



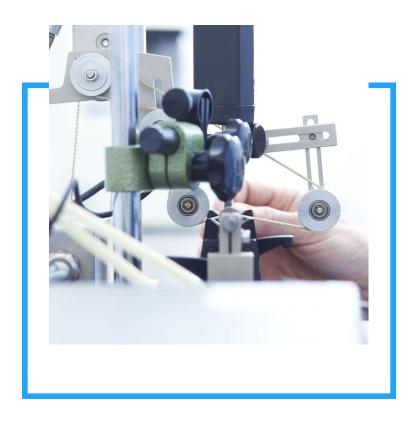
Manual visual inspection

- Technoscope testing
- Magnifier inspection
- Purely optical inspection
- Endoscope inspection
- Videoscope inspection



Fully automated camera inspection

- Geometry testing
- Defect testing
- Surface inspection
- Crack inspection
- Dimensional inspection





Dimensional inspection

- Length inspection
- Surface inspection
- Concentricity
 inspection
- Micrometer inspection
- Gauge testing
- Angle testing

Material inspection

- Non-destructive eddy current testing
- Microstructural testing
- Crack testing
- Vickers destructive hardness testing



Full service at Technomix



Assembly

- Screwing
- Plugging
- Mounting
- Glueing
- Clipping
- Adjusting



Rework

- Grinding
- Drilling
- Deburring
- Brushing
- Cleaning
- Painting





Packaging

- Packing
- Blister belt packaging
- Bagging
- Welding
- Vacuum packaging
- Shrinking
- Labeling

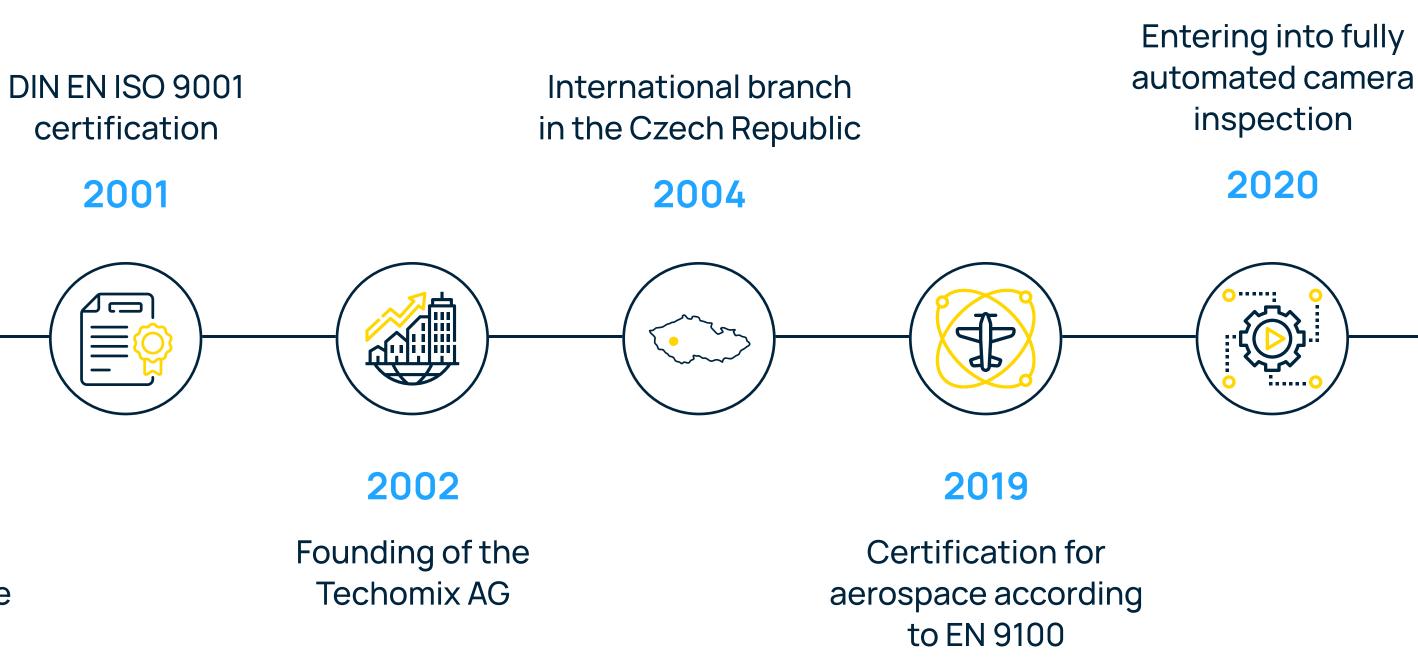
Consulting

- Consulting
- Process adaptation
- Process optimization

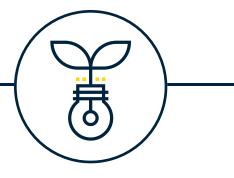
Company history



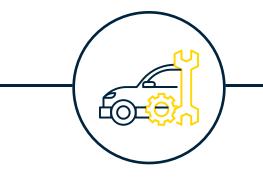
1993













1987

Founding of the sole proprietorship Breuer

1994

Acquisition of first major customers in the automotive industry



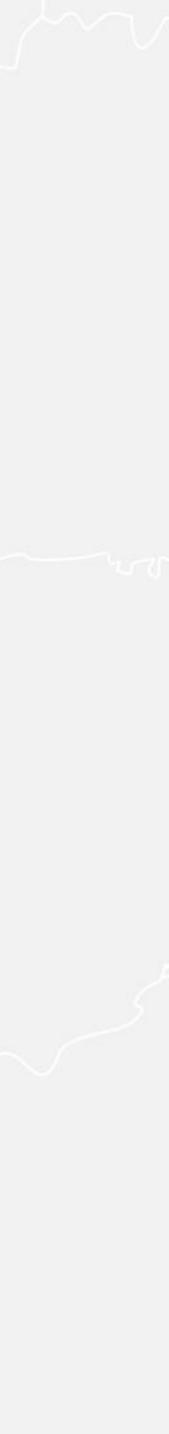


TECHNOMIX AG

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TECHNOMIX S.R.O

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Our customers













SCHERDEL

















ELECTRONICS

AEROSPACE

AUTOMOTIVE



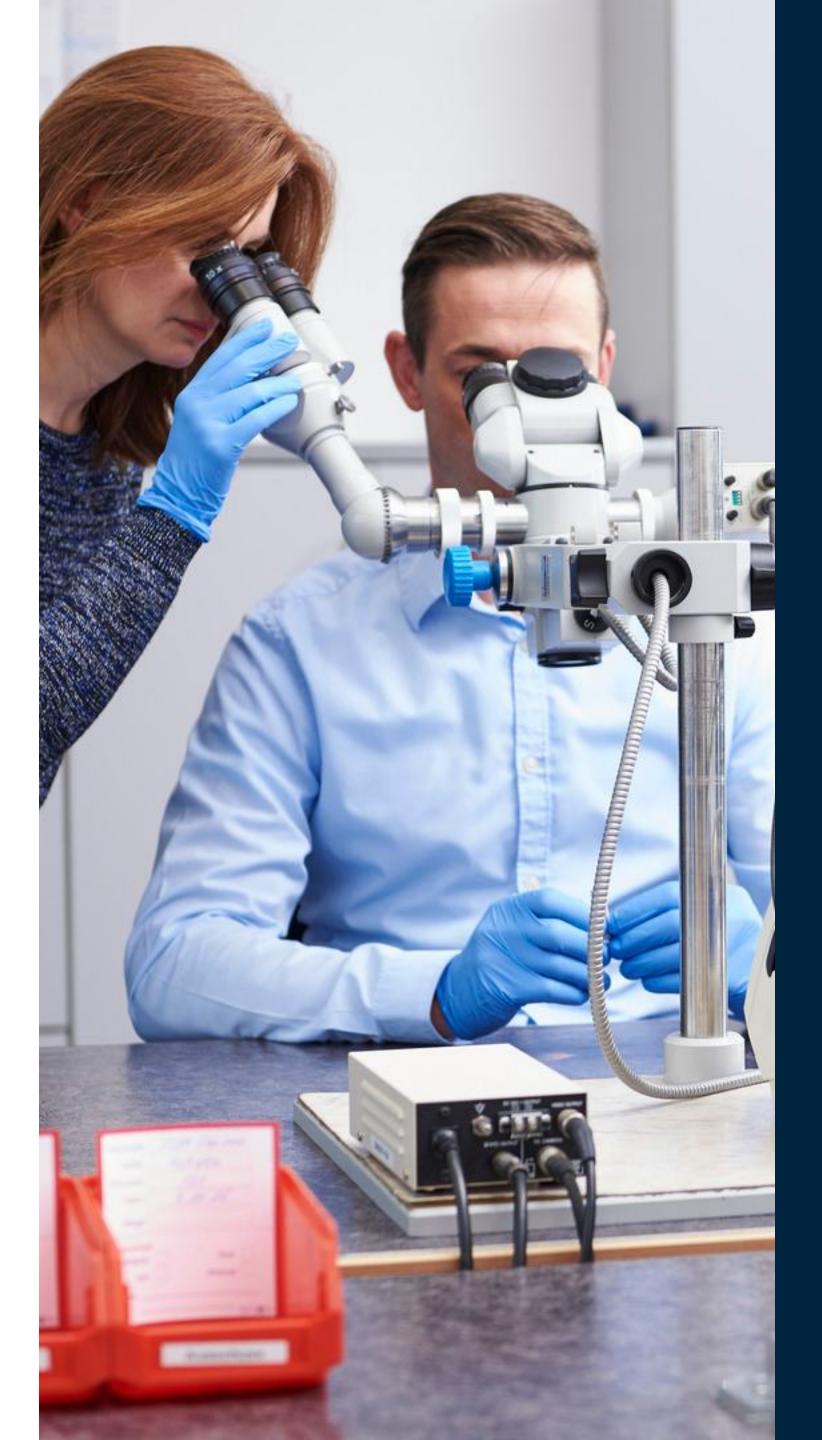
Our quality assurance:

Your partner from A-Z

O1 Exchange of information on product and error patterns

02 Clarification of general conditions

03 Development of tailored solutions



04 Offer preparation

05

Preparation of test instructions, error catalogs and training of test personnel

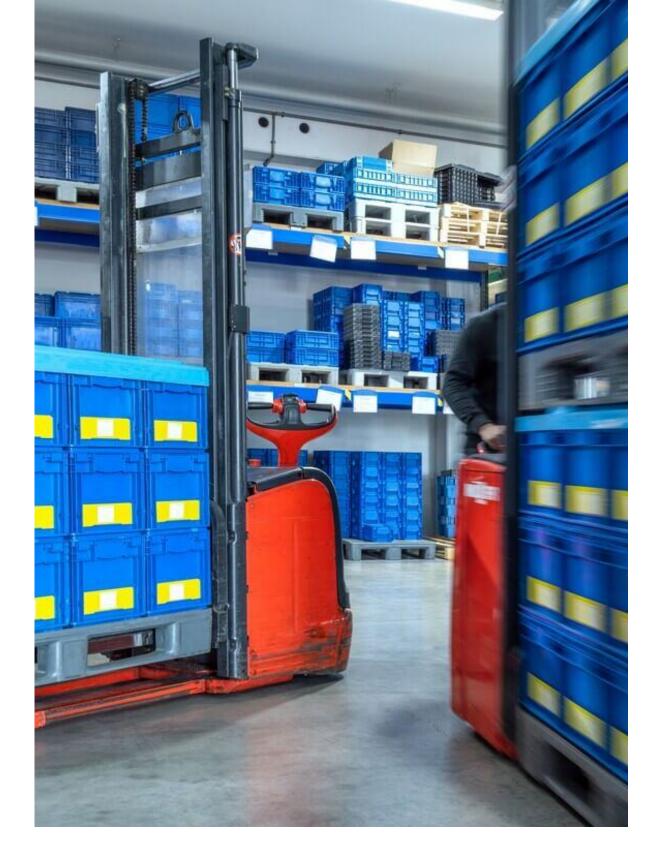
06 Accompanying your product inhouse

Our logistics:

Agility is the name of the game

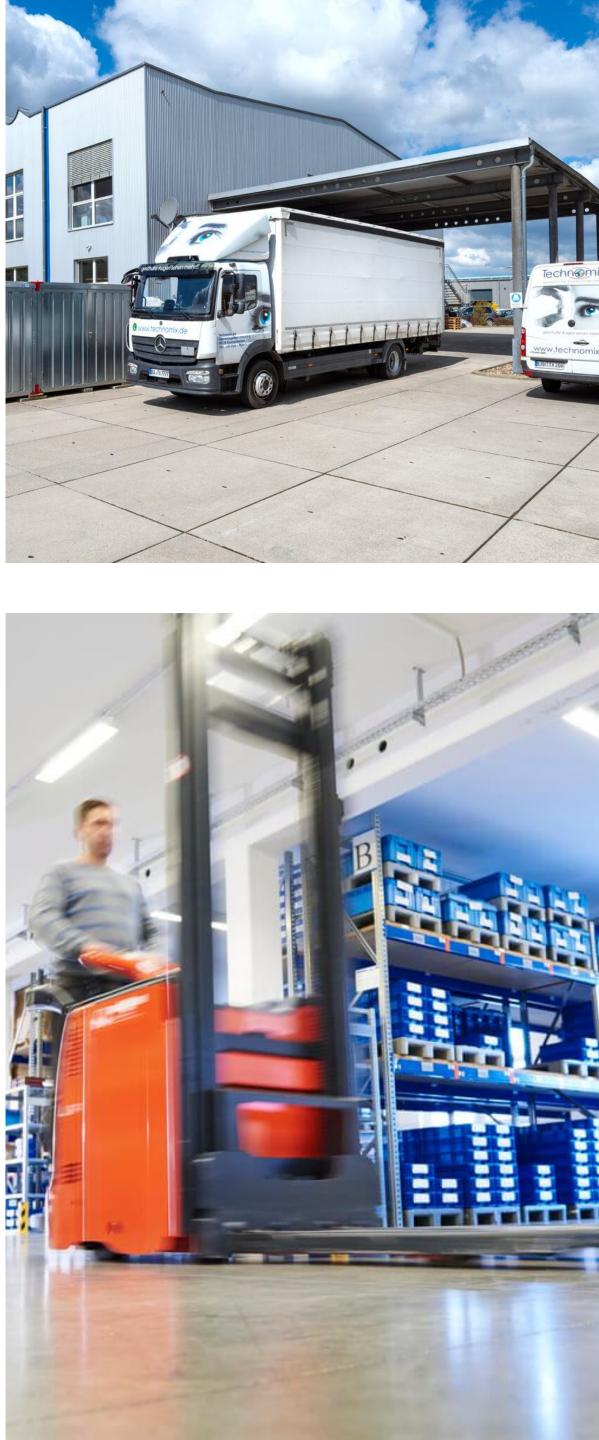


- Roofed delivery of goods with room for semitrailers of up to 40 tons
 - Just-in-time pickup and delivery of your
- products with in-house fleet or freight carriers
- Flexible adaptation to your individual delivery schedules (Web EDI)
- Complete customs clearance for international movement of goods
- Packaging according to your specifications









Our inspection staff:

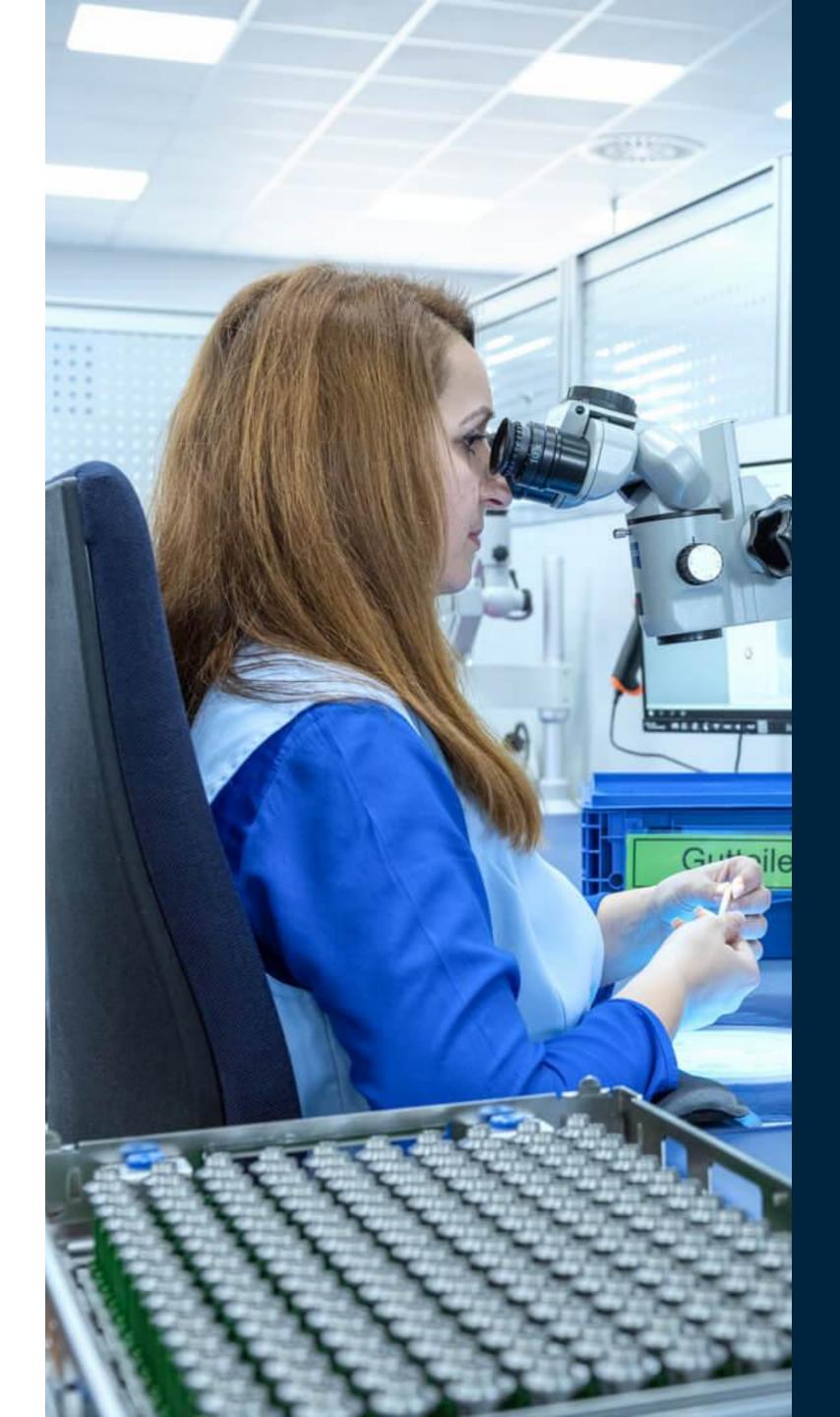
The trained eye sees more

Focus and performance test as a prerequisite for employment

02 Sample work

03

Familiarization and training with assigned mentor (4-6 weeks)



04 Routine ophthalmologic vision tests

05

06

Approval procedure of the testing personnel for products by internal MSA

Regular validation tests and determination of an individual PPM rate

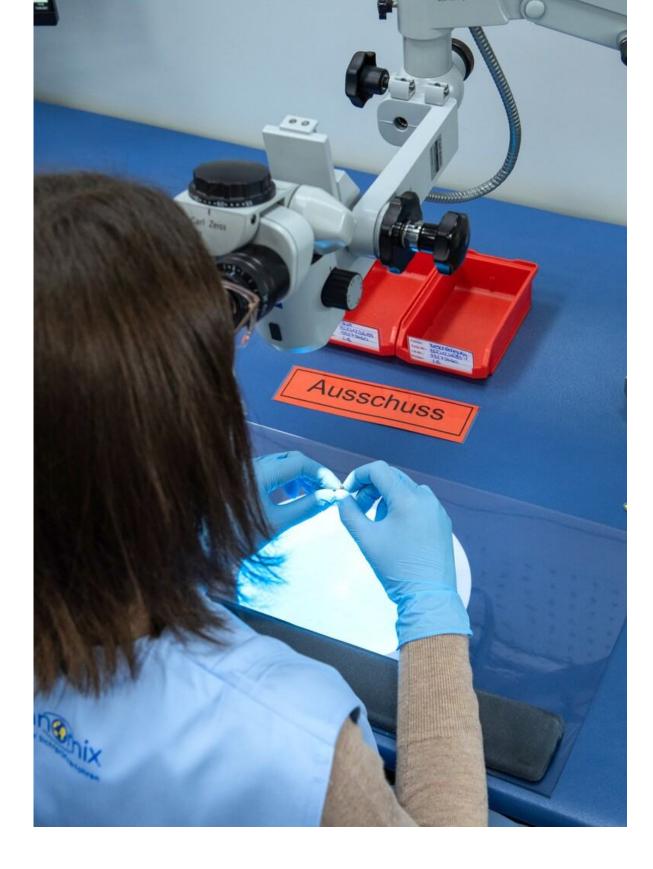


Our testing equipment:

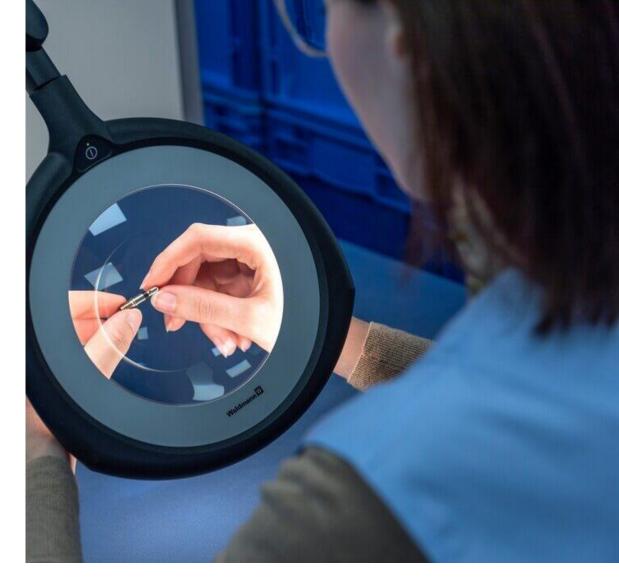
Manual visual inspection

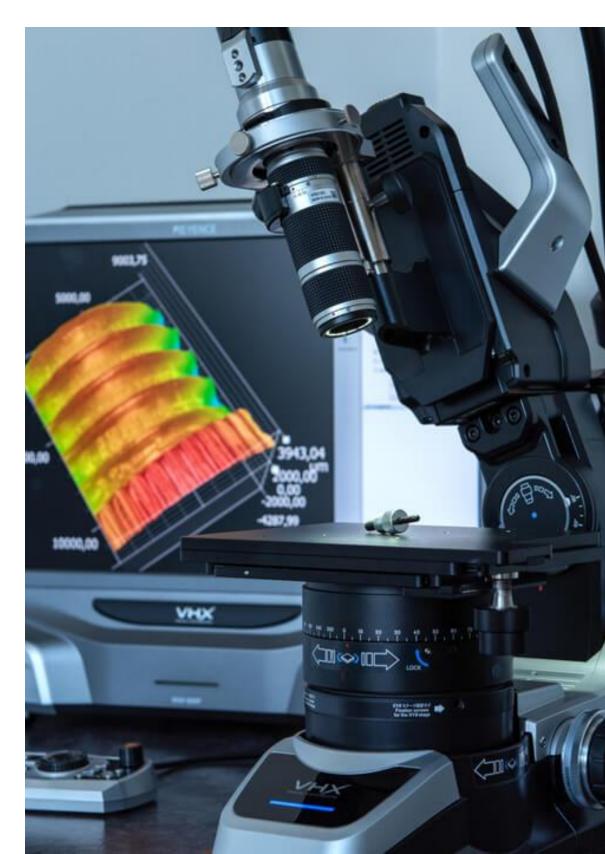


- State-of-the-art precision equipment
- (technoscopes) from Zeiss and Leica
 (surgical microscopes)
- Adjustable 2x to 50x magnification available
- Magnifying glasses and testing without auxiliary tools
- Innovative equipment (backlight panels, touch screens)









The test space:

Ideal conditions for our manual visual inspection



- Ergonomic workplace design
- Optimal illumination of workstations with up to 1000 lux
- Air-conditioning of the test room

Error minimization and continuous

optimization through the Poka-Yoke approach and a QM system





Prüfraum 03-

PGT 120.COM Pressreet Beller Beller Press Press Press

ACHTUNG ESD-GESCHÜTZTER BEREICH

57



BUNG HER ITEN

The test space: ESD-shielded area



- Specially equipped ESD test room
- Full ESD protection zone (EPA)
- Airlock area with personal grounding tester
- Special personnel training

Automated inspection:

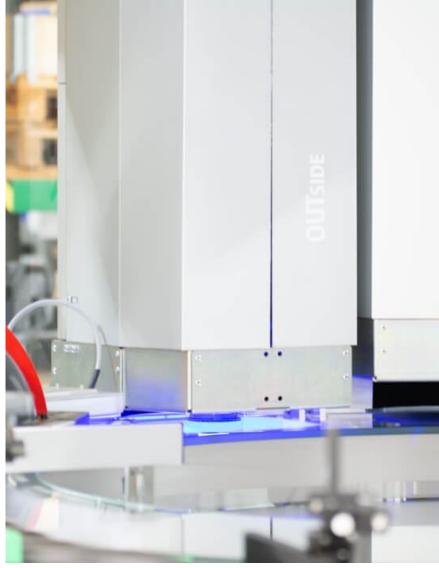
Optical monitoring at the highest level



- High-speed double glass plate systems with turning unit
- Conducting geometry, defect, and thread inspections with maximum precision
 - State-of-the-art inspection sensor
- technology, in particular Shape from Shading (SFS) technology
- Feeding via spiral conveyor (bulk material) or turntable (set material)













Advantages of automated inspection machines



Fully automated non-destructive inspection and sorting without manual handling



Cheaper, faster and more accurate optical inspection



Wide range of configuration options for the system in accordance with customer requirements



Testability of a wide range of materials



Highest processing speeds for large production batches



Fully automated sorting of parts into the categories "good", "bad" and "undefined"

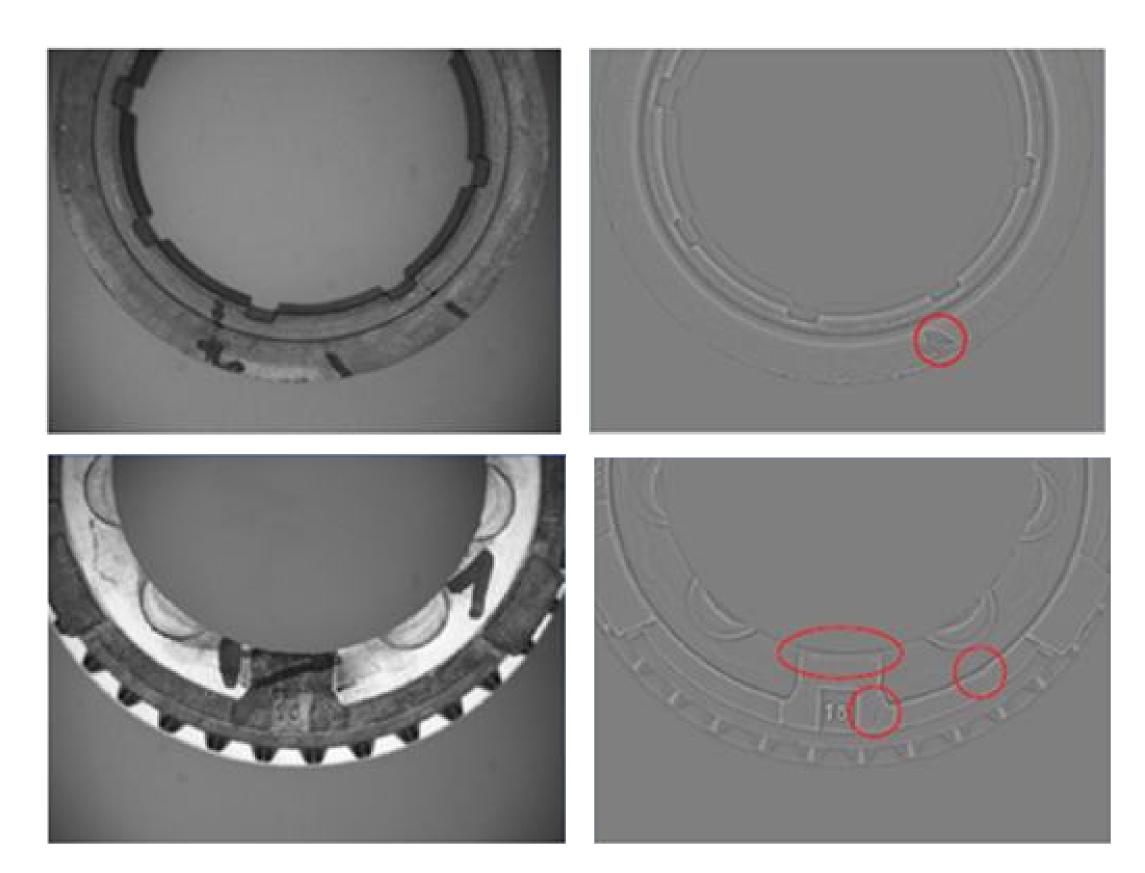
Facts and figures about the automated inspection machines

For rotationally symmetrical goods, our inspection systems offer a wide range of different sensors and configuration options:

- SFS sensor technology "top-side"
- SFS sensor technology "bottom-side"
- Interior sensor technology (inside of component)
- Exterior sensory technology (outside of component)
- Dimensional sensor (Outer and inner diameter)
- Sonic testing unit (crack testing)
- Inspection range (diameter in mm): 5-82 mm
- Inspection range (height in mm): 1-20mm
- Cycle time (parts per second): 0.5-1



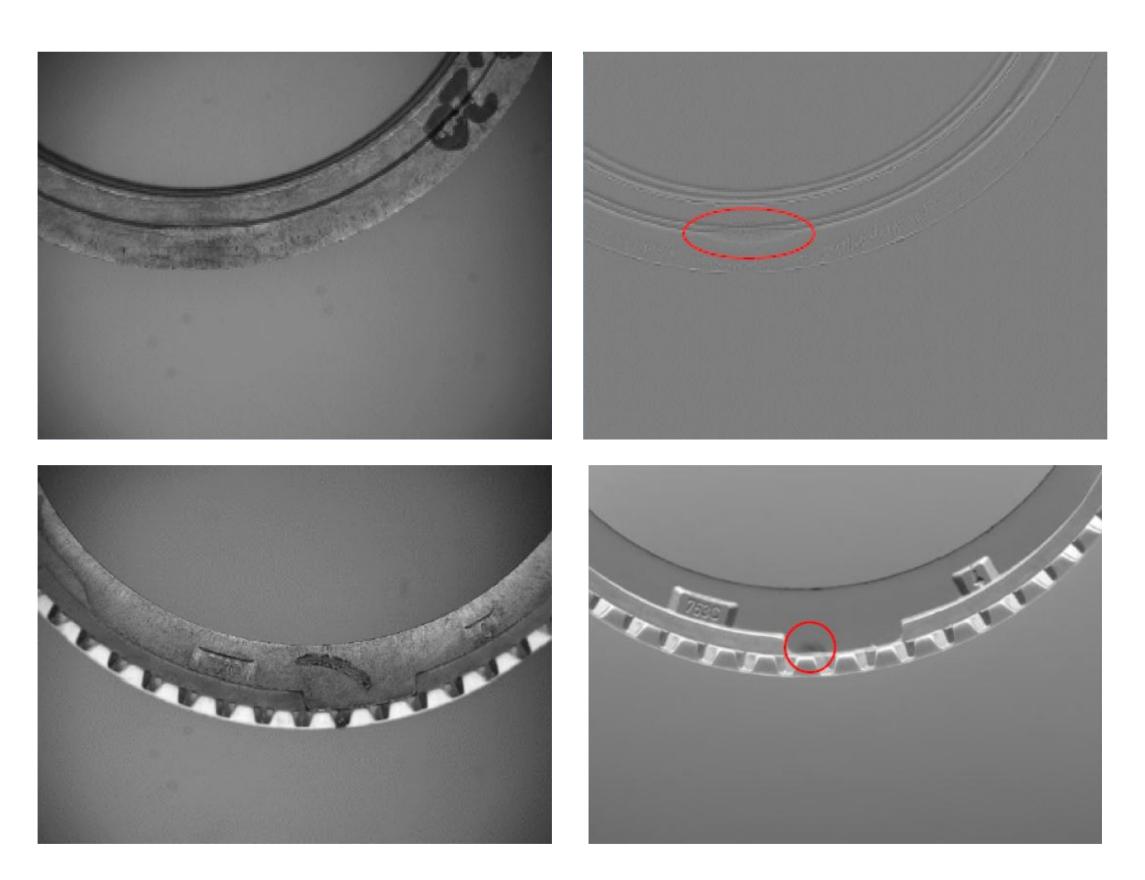
Latest Shape from Shading (SFS) technology



Standard sensor technology

SFS sensor technology





Standard sensor technology

SFS sensor technology

Examples of possible inspection items (1)

UNIT TAVI.02-XL

















UNIT TAVI.02



Examples of possible inspection items (2)





UNIT TAVI.01

Inspection automation of your products:

The process

а

01 Delivery of scrap and good components

02 Feasibility check of the respective product

Walking test based on the geometric properties of the product

b Programming the automated inspection machine to test your part

C Preparing an application report based on the collected data





03 Acceptance by the customer using MSA

04 Start of serial testing

Conceptual design of customized units:

Supporting you with our network



Consulting in the field of automated inspection



Creating tailored solutions



Evaluating appropriate technology



Procuring the right manufacturing partners



Conceptualizing automated inspection machines

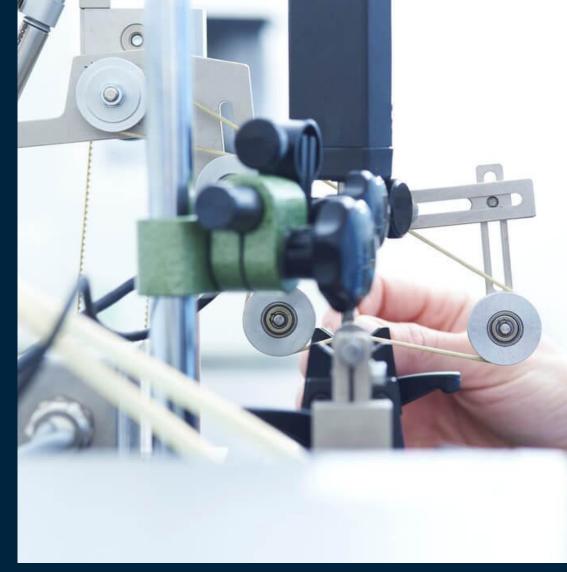


Project monitoring / project management











Dimensional inspection: Quality with proper proportions



- Length inspection
- Surface inspection
- Concentricity inspection
- Micrometer inspection
- Gauge testing
- Angle testing

Materials testing:

It's the inner values that count

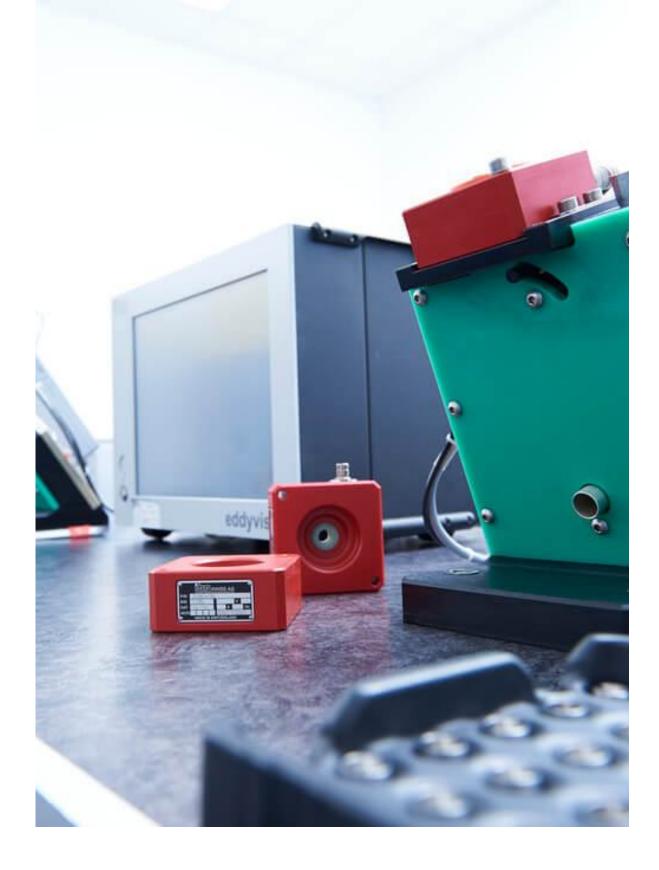


Non-destructive eddy current testing

- Microstructural inspection
- Hardness inspection
- Crack testing
- Grind burn inspection

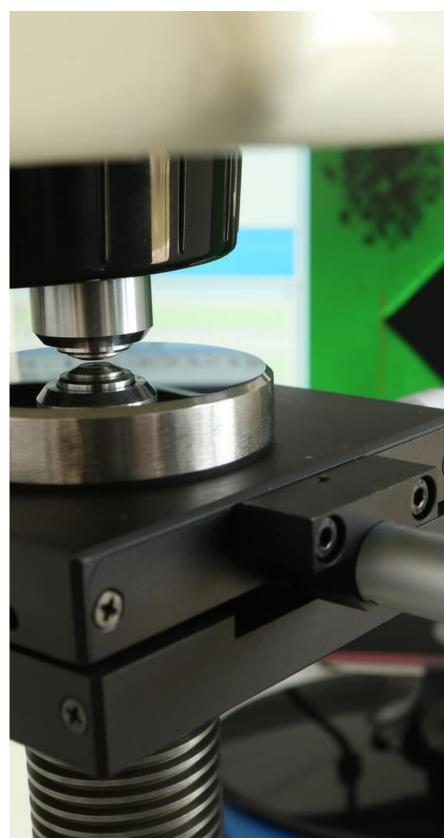
Destructive hardness testing

Vickers destructive hardness testing





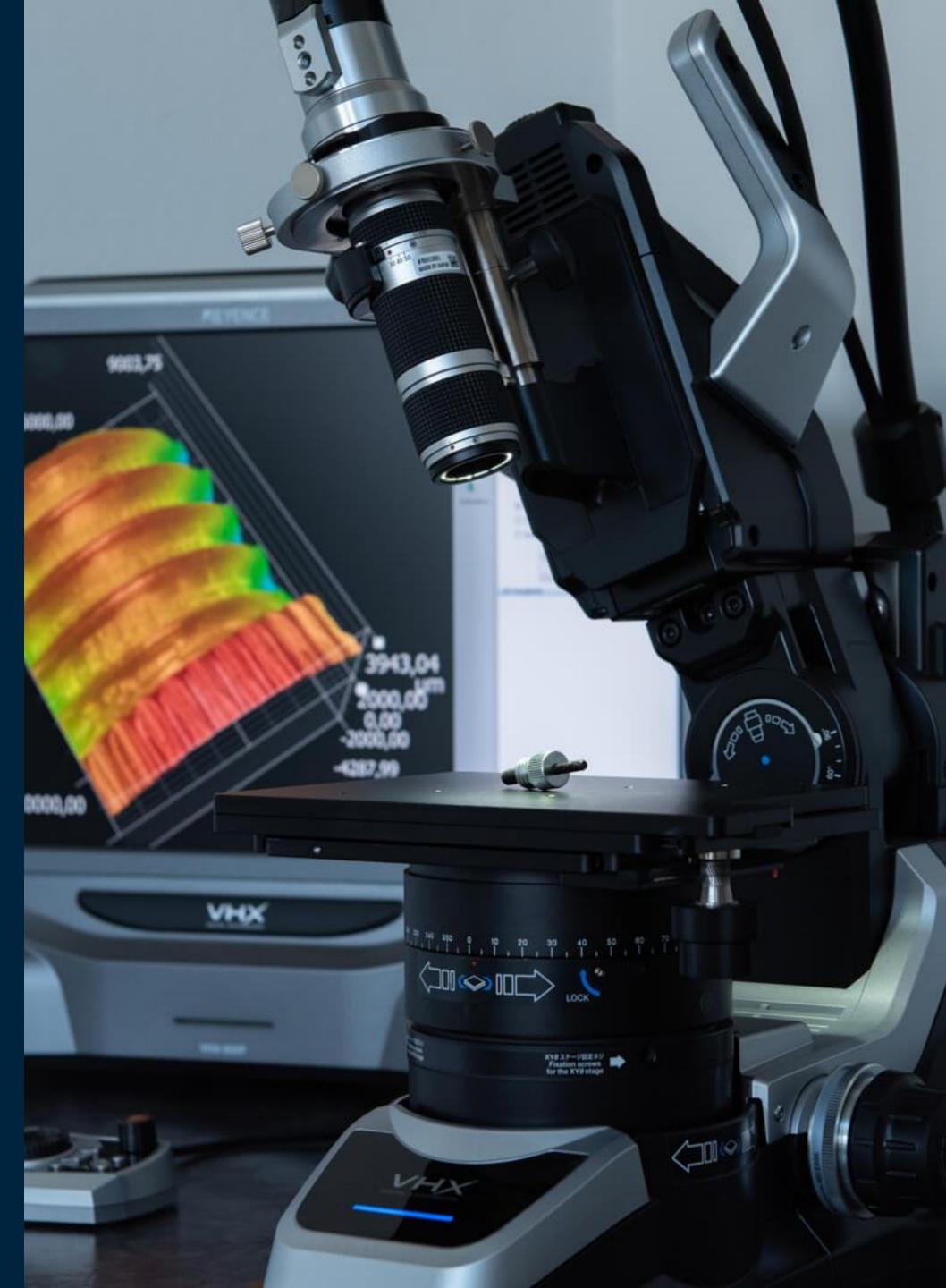






During the inspection: Reporting & documentation

- Regular interaction and exchange with you
- Conducting pareto and ABC analyses
 - In case of abnormalities: image
- documentation & measurement of profiles for immediate coordination
- Regular follow-up training of our staff
- Extensions / modifications to the error catalog
- Sampling of the scrap and preparation of error detection cards for each order





WE ENSURE YOUR QUALITY

Because the trained eye sees more





Short-term and swift order processing

<u> </u>

Quick damage analysis through precise documentation

Your reasons for choosing Technomix



Automation possibilities



Specially selected and trained inspection staff





Early discovery of new defects



Universally applicable also for small batches

