breuckmann
3D Scanner

MEASURING & DIGITIZING

smartSCAN

MEASURE THE ADVANTAGE

a company of AICON 3D Systems

smart*SCAN*

The smart*SCAN* systems capture the minutest detail at the highest level of accuracy to detail for all your scanning projects, and even under temperature fluctuations operate with consistently stable and reliable performance. Thanks to the miniaturized projection technique (MPT), Breuckmann's 3D measuring systems are characterized by very fast data acquisition; even the most complex surface geometries of fragile or deformable parts are captured within seconds at a high level of precision. The system configuration is easily customized to suit your individual project requirements and the spectrum of the 3D data acquisition ranges from the smallest injection nozzles up to full- size vehicles.

RANGE OF USE

3D measurement

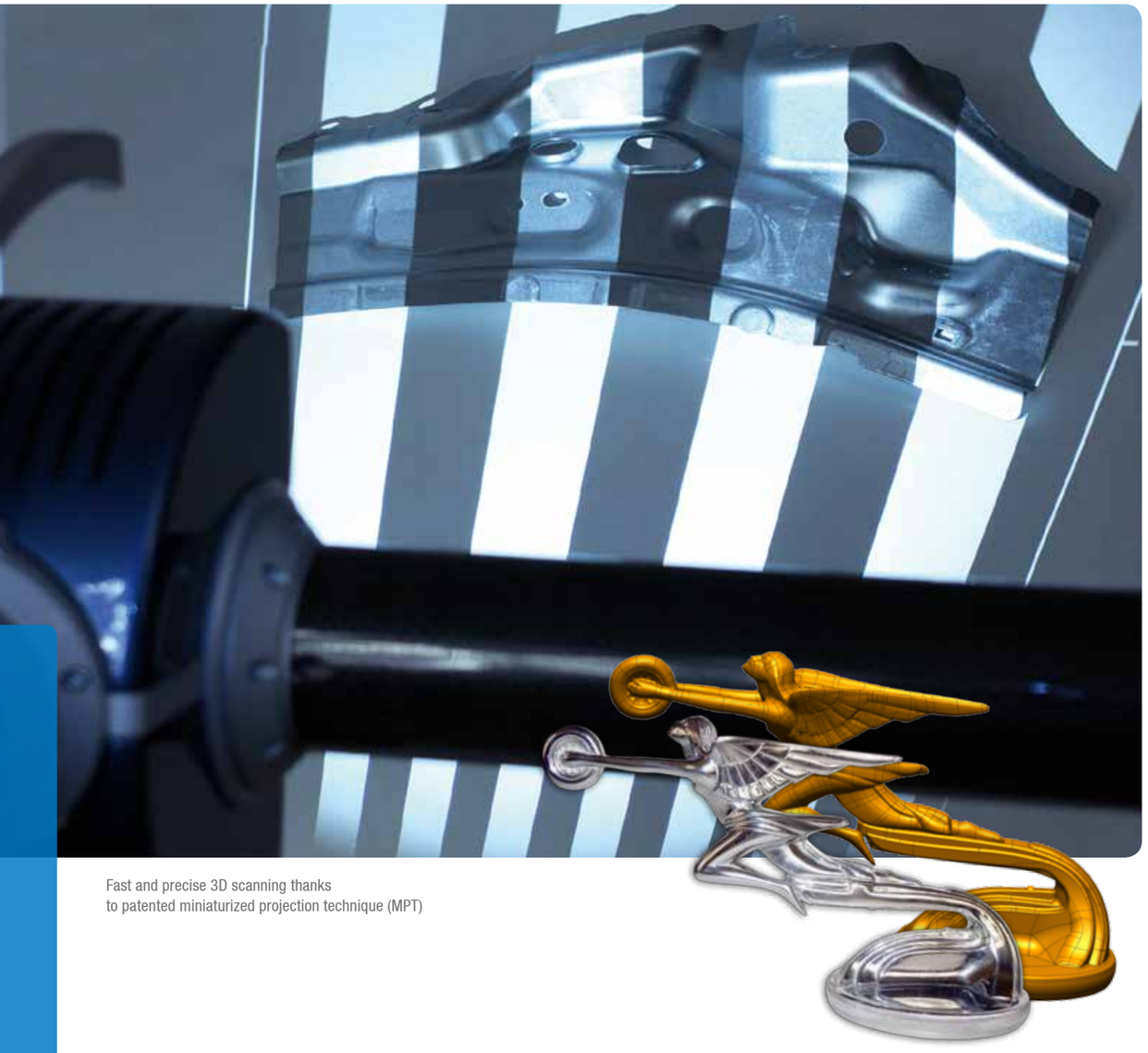
- Inspection and quality control
- Tooling inspection
- Nominal vs. actual comparison (CAD)
- Process optimization and automation

3D digitization

- Reverse engineering
- Rapid prototyping
- 3D modeling and 3D printing
- Documentation and archiving

The flexible system series for precision 3D metrology

Innovative systems for the most varied and multi-faceted 3D measuring tasks: In comparison with a high-end laser scanner, the **smart*SCAN*** *systems offer a considerably higher standard of data quality and resolution, as well as easier handling – and all that at a very attractive price.*

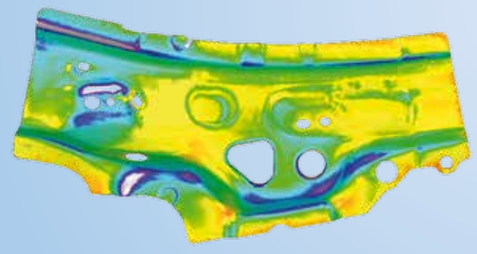


Fast and precise 3D scanning thanks
to patented miniaturized projection technique (MPT)

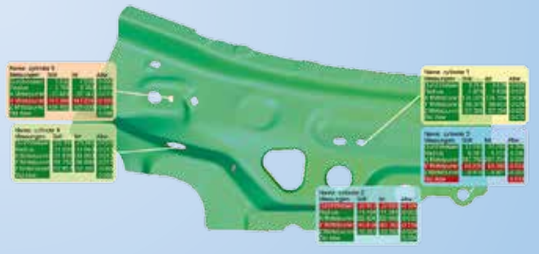
Precise, flexible and expandable

Thanks to the swiftly accomplished change of fields of view, objects are digitized within seconds irrespective of their size and complexity, and are directly available as high-precision 3D data in numerous standard formats for further processing. The measurement volume of the smart*SCAN* systems ranges from a few millimeters to meters. Aditionally, by using a combination of the scanner with photogrammetry, even very large size free-form objects are captured down to the minutest detail.

Directly available measuring results for further processing: Conclusive, easily interpretable protocols of full-surface measured component parts.



Deviations to CAD (false color representation)



Geometric tolerances (oblong holes, circles, rectangles)

Application areas

- Mobile scanning, even in harsh environments
- In-line production quality control
- Inspection of components and molds
- First and random sample inspections
- Reverse engineering for product design
- 3D documentation of cultural heritage objects

System configuration

- Broad selection of measuring fields
- Color or black-and-white cameras
- Light source: LED blue or white; optionally green or red
- Measurement and evaluation software OPTOCAT
- Certifiable in compliance with VDI/VDE 2634
- Comprehensive range of accessories: Calibration plates, turntables, work stations, and many more

ADVANTAGES

- Perfect introductory system into 3D metrology
- Modular, flexibly expandable system configuration
- Three triangulation angles (10°, 20,° 30°)
- Compact design, low weight (4 kg)
- Suitable for mobile use
- Fast and easily changeable measuring fields
- Mechanically and thermally stable