

TESTING & INSPECTION

MoveInspect DPA



MEASURE THE ADVANTAGE



MoveInspect DPA



Industrial 3D metrology is an important part of modern production processes and used for both production control and monitoring and as a tool in product development. It is often necessary to perform an error analysis on the spot, without long production downtime or time-consuming transport to the measuring machine. The portable coordinate measuring machine DPA with hand-held digital camera offers exactly this opportunity.

RANGE OF USE

3D Process Analysis

- Deformation analysis
- Motion analysis
- Strain analysis
- Positioning

3D Inspection

- Tolerance analysis
- Geometric dimensioning
- CAD comparison
- Nominal-actual value comparison

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3D coordinate measurement with hand-held digital camera



“Thanks to AICON’s DPA system we can guarantee the highest accuracy level possible, assuring the customer’s glass will fit like a glove. Furthermore, we are able to reproduce every single glass ever made.”

Markus Schulze, Yachtglass GmbH & Co. KG, Dersum/Germany

Industrial 3D Metrology

Measurement of a satellite antenna with DPA (photo: sigma3d GmbH)



System configuration

- High-resolution digital camera
- Certified scales
- Adapter for signaling of geometric features
- Coded and non-coded targets
- Intuitive software

Areas of application

- Fixture inspection
- On-site measurement of large steel constructions
- Deformation analysis in climate chamber
- Positioning of large components
- Torsion tests in car body engineering
- Analysis of material tests



DPA test measurement at particle accelerator (photo: CERN)

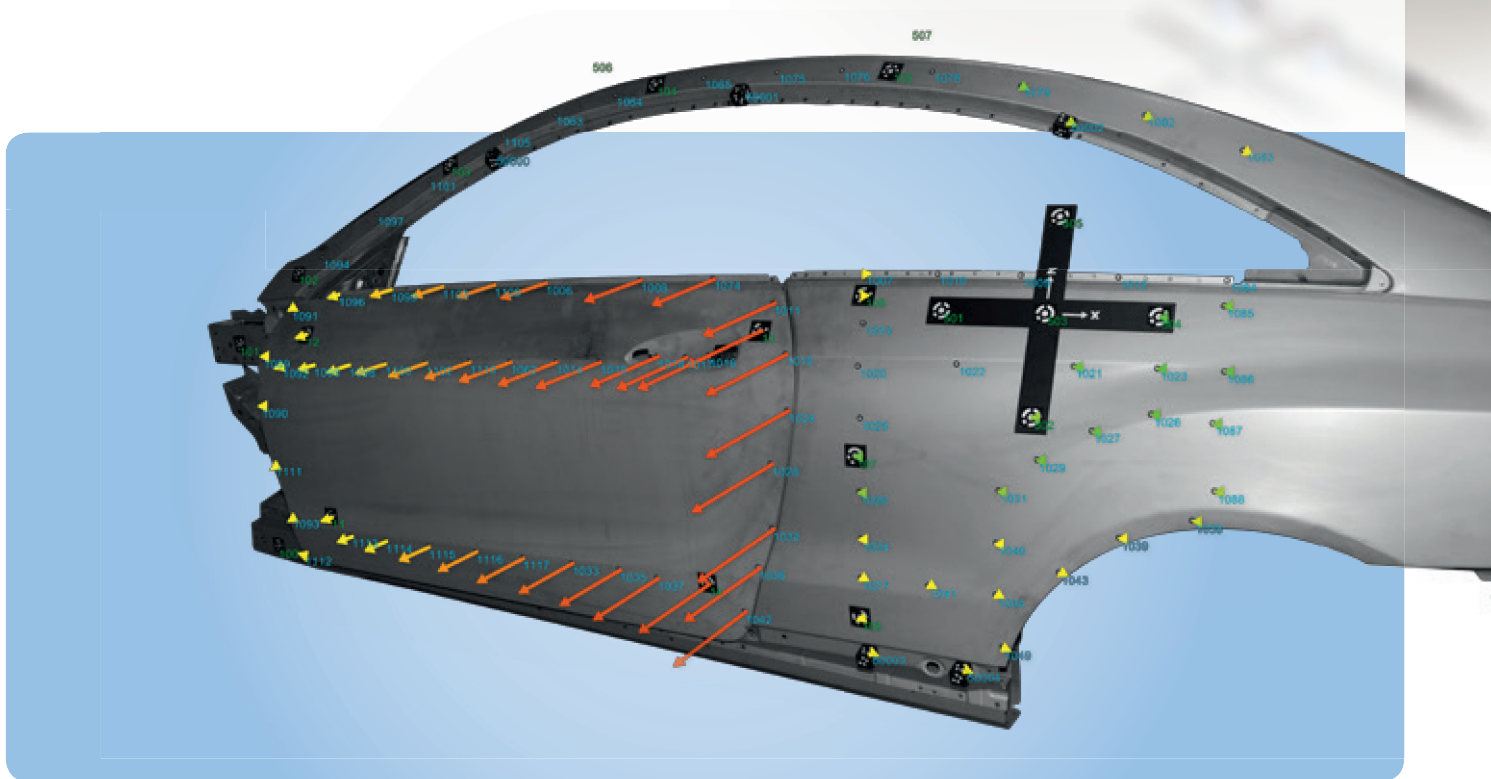


Maximum flexibility – fast results

The hand-held digital camera offers maximum flexibility in spatially confined or hard-to-reach areas. The DPA does not require a stable instrument position, which is a huge advantage for measurements in unstable environments. Even if results are required within a short time, the DPA is exactly the right system. The measurement results are available within a few minutes after the completion of image acquisition.

Expandable

The DPA is part of AICON's powerful modular system concept MoveInspect Technology. Different measurement technologies are combined therein. This gives the user a tremendous advantage: For future measurement tasks, the system can easily be expanded by adding individual components and software modules from the MoveInspect Technology. Follow-up investments for additional complete systems are no longer necessary.



Workflow

Measurements with the DPA are very easy and carried out in two steps. In the first step, the object to be measured is signalized by reference marks and adapters. With the help of certified scale bars, the measurement results are traceable. Then, the images are captured from different angles.

After that, the evaluation and adapter correction of the determined 3D coordinates take place automatically and generate a useful measurement protocol.

ADVANTAGES

- ✓ Measurements in narrow or hard-to-reach areas
- ✓ Measurements in unstable environment
- ✓ Measurement results are available in the shortest possible time
- ✓ Objects from a few centimeters up to many meters measurable
- ✓ Highest precision even at large objects
- ✓ Portable, thanks to carry-on size

Our Philosophy

Efficient and high-precision production monitoring, quality control, inspection and reliable reverse engineering are absolutely essential to be competitive in a global market.

In the field of industrial metrology and beyond, optical and portable non-contact 3D measuring systems become more and more important. We offer optimized solutions around your inspection and digitization tasks to keep the quality of your products always at the maximum level.



MEASURE THE ADVANTAGE



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