

Advanced full-field Displacement and Strain Analysis Digital 3D Image Correlation System Q-400

Applications

- Component and Material testing (Displacements, Strains, Young's Modulus, Poisson Ratio, Elastic-Plastic Behaviour...)
- FEA validation
- Failure investigation
- Fracture mechanics
- High speed measurements & Vibration analysis (Dynamic applications, transient events)
- All shapes
- Advanced materials (CFRP, wood, fiber injected PE, metal foam, rubber...)

Features

- Real-time correlation
- Multi camera system
- In-field handheld solution
- Extended export and import options
- 3D display of measured values
- Fast and easy automated calibration procedure
- Online feedback of accuracy and quality
- Programmable triggering functions
- Different coordinate systems



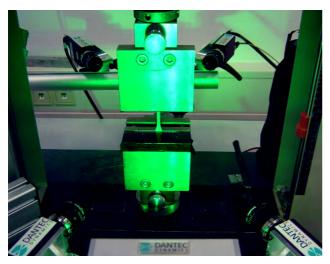
User-friendly System

The software offers convenient data handling in a very intuitive way, reliable evaluation and extensive postprocessing and analysis capabilities (e.g. determination and visualisation of principal strain).

The unique HiLis light source is a standard part of the system and provides cold and homogeneous illumination for the most accurate measurements. An easy calibration procedure reduces measurement time.

Multi Camera System

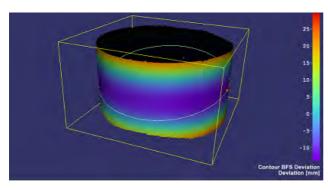
An simple extension of the Q-400 is from a 2 Camera to a 3 Camera system, increasing the field of measurement, improving the results on curved objects and increasing the accuracy. The multi camera system supports any number of cameras.



Sample thinning.

The system uses a cluster approach combining images without stitching and using a single global axis system.

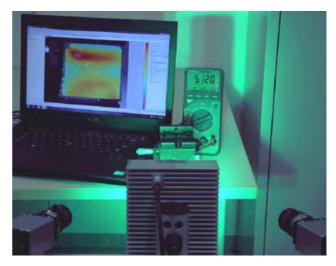
A multi camera system with 8 cameras can cover 360° of a cylinder and 4 cameras can measure both sides of a specimen to accurately determine thinning.



360° Measurement of a cylindrical object.

Real-time Correlation and Analog Output

The Q-400 is capable of evaluating data in real-time and the results can be exported as an analog voltage signal.



Real-Time Correlation.

Handheld DIC for point and shoot measurement

The handheld Q-480 is designed for industrial use on large structures with multiple areas of interest. No calibration or setup is needed. Data from many measurement locations are required on each loading step.

The system is repositioned using a novel hardware and software repositioning solution. The results can be instantly seen using the real-time functionality.



The Q-480 Handheld DIC for 'Point and Shoot' measurements.

Additional information

For additional information please contact your Dantec Dynamics representative.

The specifications in this document are subject to change without notice.

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