

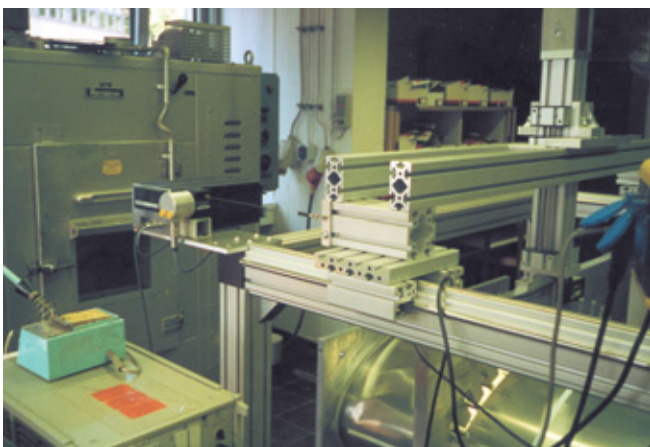
## Deformation measurement on lightweight structures

Specially designed measurement systems, which record the surface contours without reactive effects on the lightweight structures, are employed for the examination of component deformations under load. To achieve this, two laser-based optical displacement measurement systems can be mounted on a movable subframe subdivided with nineteen fixed reference points.

The frame position is acquired with a draw-wire displacement sensor over a displacement of one meter. Consequently, the component deformation can be recorded at all loading stages in that the high precision measurement data from the individual sensors is acquired via a PC for the purpose of further processing.

### Technical details optoNCDT / WDS

- Measuring range 50 mm / 1000 mm
- Accuracy 0.2 mm / 1 mm
- Resolution 0.1 mm / 0.1 mm
- Bandwidth quasi static



### Ambient conditions

- Temperature room temperature
- Medium air
- Interference fields none

### System setup

- 2x LD1605-50
- 1x PS 1605
- 1x WDS-1000-P60-SR-U

### Reasons for the system selection

- opto/WDS: High accuracy  
Rugged system construction  
Easy fitting and operation  
Excellent price/performance ratio
- optoNCDT: Non-contact measurement  
Visible laser  
Laser Class 2  
High spatial resolution

