

kolibri Flex 1500

Optical 3D measuring machine for big parts

Conceptual design

- Optical 3D-digitizer for measuring big and heavy parts
- Automatic whole body measurement by movable x-y-stage and a free sensor position on a circular path
- MULTview technology using simultaneous measuring moved and fixed cameras
- Complete record of object surface without marking or matching procedures
- Very robust against environmental influences (long term shifts) because of self-calibration
- High ability for reproduction because of predefined measuring schemes
- Easy handling

Fields of application

- Quality inspection
3D-variance-comparison with CAD-data
3D- and 2D-dimensioning
Determination of form and positional tolerance
- Reverse Engineering
Rapid technologies
Digital mock-up
- 3D-visualization and virtual reality

Measuring principle

- Triangulation with the help of digital fringe projection in combination with photogrammetric methods
→ Phasogrammetry

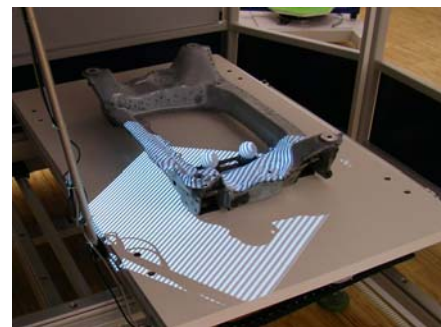
Technical parameter

- Measurement volume: 1500 x 1000 x 50-300 mm³
- Measurement time: 2-40 min (dep. on object volume)
- Measuring uncertainty σ : 20 μ m
- Point distance: 0.3-0.4mm
- Number of cameras : 6-10
- Dimensions: 3.5 x 2.4 x 2.2 m³

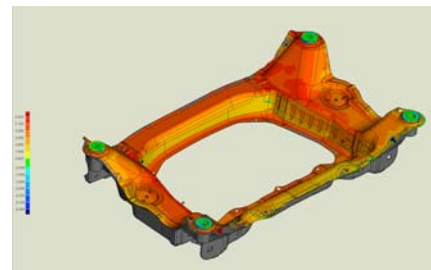
Competence in optical measuring technology



3D measuring system kolibri 1500



x-y-stage with automotive steel frame



3D deviation analysis to CAD data



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