



## ***AutoGrid*<sup>®</sup> *mobileXL* – push-button strain analysis on the press shop floor**

*AutoGrid*<sup>®</sup> is the VIALUX ([www.vialux.de](http://www.vialux.de)) line of products for strain analyses in sheet metal forming industry covering the whole process chain from tooling and tryout to production run monitoring and quality assurance. The underlying principle is the 3D measurement of initially squared grid patterns on a sheet after the forming process.

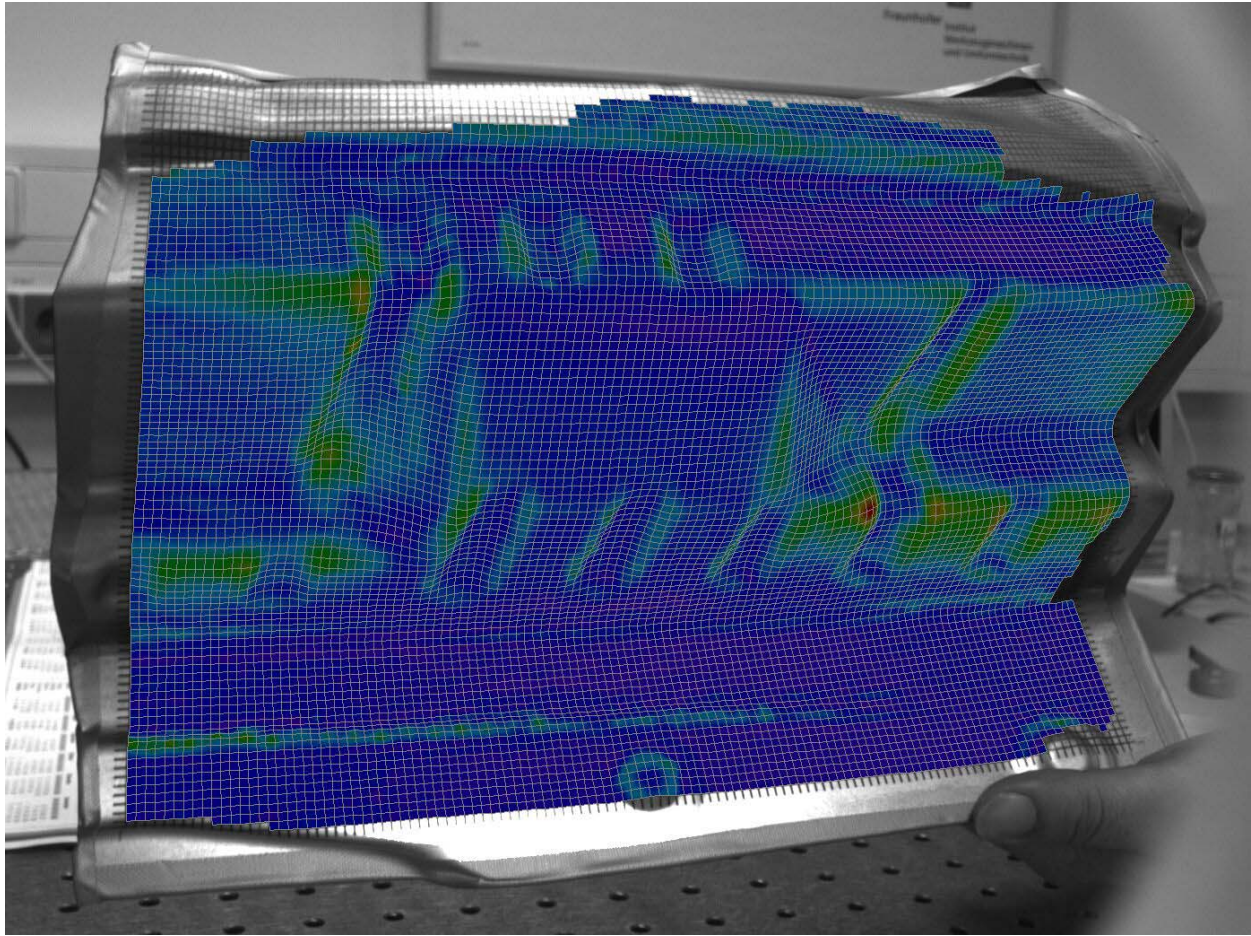


The new *AutoGrid*<sup>®</sup> *mobileXL* model of the system family has been recently developed in order to meet common user requirements for high mobility and flexibility combined with robustness and ease of use - therefore enabling full-field strain measurements on the factory floor. Employing latest camera technology, the new solution is completely based upon mobile computing, and the use of standard laptop computers provides a maximum of mobility. In addition, the measuring head has been designed to firmly fit into a box meeting the international flight-cabin case dimensions.

Four cameras are rigidly placed inside the device allowing for instant measurements without any setup and calibration stages. The operator is just pressing the REC button when pointing onto the object region of interest - and 4 CCD cameras are triggered to take the photogrammetry view. The object working distance is indicated by a pair of diode lasers and the high brightness LED illumination switches automatically on during the recording. The convenient *AutoGrid*<sup>®</sup> user interface provides software control of exposure time and camera gain settings.



The new *AutoGrid® mobileXL* system takes advantage of high-resolution cameras recording 5.7 million pixels in total per snapshot. In connection with quality optics (Schneider-Kreuznach measuring objective lenses) the system is able to take an area of up to 0.5\* 0.4 m<sup>2</sup> where 12.000 deformed squared grids can be rapidly evaluated at once.



On demand, individual measurements can be stitched together yielding the analysis of components as a whole and without size limitations.

