

Highlight

Lappeenranta,
May 02, 2011

New machine vision concept for static machine auto calibration

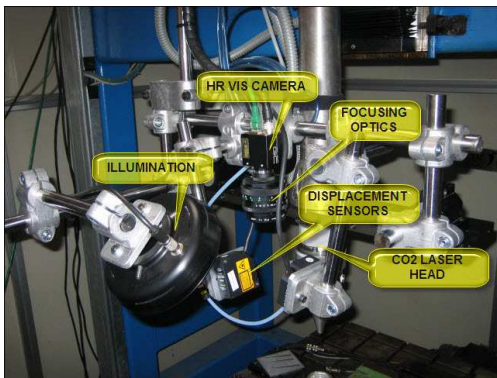


Figure 1: Vision System Integration

In polymer welding one big challenge is the positioning of the weld in relation to the part. With this first prototype Tecnia is showing concept which can be used for off axis applications. The next prototype will be based on scan head and the camera will be coaxially aligned with the laser beam. These prototypes are different concepts of the global supervision system. This system has also the auto calibration function which is essential for the concept.

This global supervision system, under development, will incorporate pre-, and post process control activities. Pre-process will consist of scanner calibration, material and fixture supervision and also welding procedure specification fulfillment. Post process quality supervision system will have machine vision inspection of processed workpieces and also all-round solution for quality control.

For any further questions our experts will be pleased to provide you assistance:

Contacts at Tecnia

Dr. Zelmar Echegoyen
Tecnia Research & Innovation - Transport Unit
Parque Tecnológico, Edificio 202
48170 Zamudio (Bizkaia), Spain
Phone +34 94 600 22 66
zelmar.echegoyen@tecnia.com

Contacts at Fraunhofer ILT

Dipl.-Ing. Andrei Lucian Boglea
Phone +49 241 8906-217
andrei.boglea@ilt.fraunhofer.de

Dr. Alexander Olowinsky
Phone +49 241 8906-491
alexander.olowinsky@ilt.fraunhofer.de

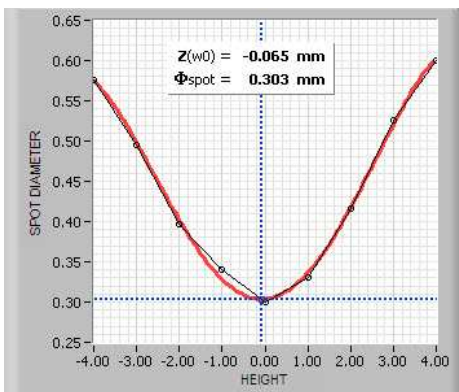
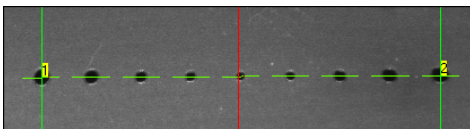


Figure 2 and 3: Laser Spot Position Calibration

