

Press Release

A Smart Camera Supersedes Control Cabinet for PCs

Würselen/Germany, April 3th, 2009: The company Oerlikon Enka Tecnica GmbH produces spinning nozzles for textile fibers at their site located close to Aachen (Germany). Still nowadays, the openings of spinning nozzles are often positioned manually for further processing. The first automated systems for the positioning used a PC for image processing. Not only the purchasing costs of a PC based solution are high, the operational costs are remarkable, too. If nothing else this is due to the power consumption of the active cabinet cooling.

However, Oerlikon's engineers were mainly annoyed by the complex configuration of the vision system when new product types were launched. Thus, they searched for an alternative. They found it in Caminax[®], a smart camera based vision system.

The intuitive, pure graphical operation of Caminax[®] and the large image and result visualization using any standard VGA video display fit perfectly into the concept of the new positioning and processing facility. The nozzle holes to be positioned have a maximal diameter of 0.5 mm. The tool for the next processing step is placed right above the hole. Thus, the camera must be mounted sideways at a larger distance. The Caminax[®] maker FiberVision GmbH has found a solution for this requirement. The vision solution features a resolution of 2 µm at a working distance of 110 mm by using a special telecentric measurement lens. This lens enables to implement the "telescopic microscope" needed here.

The new facility for the positioning and processing of nozzle holes is very compact. The facility is highly available since the electricians can analyze the system with simplest tools. They can repair it themselves and do not need external experts for that. The operational costs of the vision system are negligible due to low power consumption.

Images and Image Captions



imgp3182.jpg

PC-based vision system for the hole positioning



imgp3180.jpg

The vision system for the hole positioning. A special lens ensures 2 μm resolution at an extremely high working distance of 110 mm.



imgp3157.jpg

The complete facility to position and process spinning nozzles.

About FiberVision

FiberVision GmbH was founded in 1995 as a spin-off of RWTH Aachen University. First products were fiber optical sensors and vision systems for color measurements.

Today, the engineers and scientists from FiberVision develop and build optical measurement, positioning and inspection systems for industrial use. The essential feature of FiberVision systems and products is: The easy access to complex technologies by providing user interfaces for intuitive use.

To mention a few FiberVision products:

- Caminax: A smart camera which integrates a complete machine vision system into an extremely compact housing.
- LED-Check: A vision system for color control of light emitting diodes.
- 3D-Check: An inspection system for the glue application in the automotive industry.

FiberVision has well-known customers such as: Continental, Ford, Hella, Paul Hartmann, Philips and Saint-Gobain Sekurit.

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