

EvoInspect Vision: NIR Inspection System



Non-destructive weld seam inspection for 100% quality control

Overview

Intego develops and produces customized inspection systems for the plastics processing industry. Specifically for the quality enhancement in the laser plastic welding process Intego developed various inspection techniques and systems to check the weld seam for deviations and defects. Intego's systems can be individually customized to special inspection requirements.

Application

The infrared based inspection technology of Intego can be used to check the quality of flat and radial laser welding seams. Table-top tools (Fig. 1) as well as fully automated inline systems, suitable for integration in your production line, are available. The inspection wavelength, the resolution and the cycle time may be adjusted to fit your needs, as well as the interface to your automation in case of an inline inspection. To increase the efficiency of your production process, Intego's EvoInspect systems provide you with extensive data and statistics.

weld seam enables the manufacturer to control and improve the laser transmission welding process.

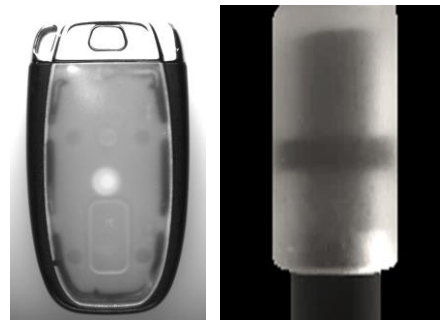


Fig. 2: NIR images of a welded car key (left) and a radial tube-connector coupling (right)



Fig. 1: EvoInspect Vision - NIR plastic inspection system for laboratory use.

Figure 2 illustrates a typical flat and round weld seam. Both are clearly visible with NIR illumination and can be automatically detected and assessed. Knowing the characteristics of the

Summary

Category	Specification <i>EvoInspect Vision</i>
Inspection Part	Flat or round plastic parts
Tool design	Table-top or inline
Illumination	NIR, SWIR, or MWIR (standard 940 nm)
Camera	Single or multi camera setups
Inspection of	Weld seams (e.g., position, gaps, width) Insertion depths (e.g., connectors) Surface quality (e.g., dirt, inclusions)
Software	Inspector, customer specific GUI
Other tools	<i>EvoInspect</i> Planar and Radial transmission measurement system Inline solutions for Evosys Laser GmbH

Contact

Intego GmbH
Henri-Dunant-Straße 8
D-91058 Erlangen
Fon +49 9131 61082-0
Email info@intego.de
Web www.intego.de

Evosys Laser GmbH
Felix-Klein-Straße 75
D-91058 Erlangen
Fon +49 09131 4088-0
Email info@evosys-laser.com
Web www.evosys-group.com