

## Visual inspection systems

Visual inspection systems are used to detect defects in products. They are used in a wide range of industries, from automotive to food processing. The systems use cameras and software to identify defects that are not visible to the human eye.

The systems are used to inspect products for defects such as scratches, dents, and discoloration. They can also be used to inspect products for missing components or incorrect assembly.

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## Smile, you're on camera

### CASE STUDY

Technology based on aerospace principles has enabled Germany's Allvig Technology to meet a customer request for an optical system to inspect its shrink-sleeves.

The challenging request required Allvig's system to find a defect 'smile' (a distorted label appearance that can occur when a sleeve is shrunk onto a container) on the upper edge of the shrink-sleeve. It was made

more difficult by the fact that both the sleeve and the plastics cup were transparent.

A perfect shrink-sleeve touches the top of the cup but a 'smile' leaves a space that makes it unusable. Allvig said that its system could detect such defects due to a technology said to have cognitive abilities similar to humans. It is therefore able to inspect different products including plastics, metals and glass.

"On top of that our technology ensures the detection of low-contrast and intricate defects, for example white compounds on white surfaces. This intelligent approach reduces the number of defects by finding them in the beginning phase of the production process," said a company spokesman.

Allvig has developed universal software (including the proprietary P<sup>2</sup>-inspection method) that can adapt the necessary hardware components (cameras, lighting, and industrial computer) to accommodate specific customer needs. This means the systems can be used for a wide array of products.

"Due to the proprietary P<sup>2</sup>-method, Allvig systems are the answer to one of the biggest challenges that manufacturers face today: false rejects and their costs," added the company. "The main goal of image processing is reached: to reduce false-positive rejects to a minimum while ensuring the highest defect detection rate."

Web: [allvig.de](http://allvig.de)