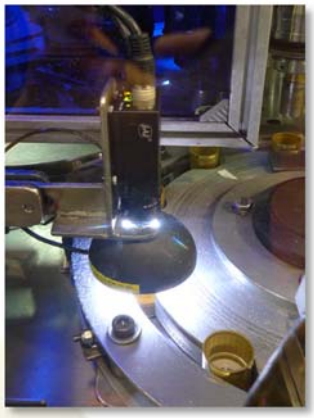
Machine Vision System for the Detection of Defects on plastic parts

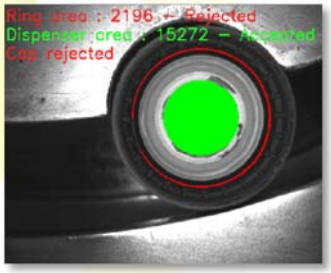
InesOptics, has developed the machine vision system for the detection of defects of plastic parts in industrial production lines. The machine vision system, developed by ***InesOptics*** is composed of high-performance industrial cameras, diffuse DOMO LED lighting, industrial PC, 15" touch screen for a simple and flexible interface developed to the customer's need, own software for image processing and for the management of configurations, data and statistics. The system is modular and easily adaptable to any type of machinery



Optical Design

The rigorously studied optical design ensures optimum image quality in industrial environment conditions, high speeds and variable lighting and temperature conditions, using high quality and sturdy components, (INES Optics only works with top brands).

Image Processing



Powerful software developed by ***InesOptics*** for the detection of defects in plastic parts allowing the user to visualize the processed images, as well as the different phases of the analysis, the statistics of the results and the adjustments made. It is a flexible and easy-to-configure application that allows the user to adjust up to 6 different inspection tools for different specific parts areas and different types of defects. It has 3 levels of access for the different types of users (specialist ***InesOptics***, client specialist and machine operator). Allows you to make settings in static or dynamic with direct camera images or images saved on hard disk. The user has up to 64 models of different configurations stored in memory for a quick adjustment of the system.

Technical Data

- **Defects detected**: Circularity index, ruptures, absence of internal parts, spots or discolorations, presence or absence of burrs, marks, injection points
- **Tolerances**: + - 2.5% in relation Defect Size/ Part Size
  + - 0.05 at the circularity index in range of [0.0 - 1.0]
- **Processing speed** of 8 pieces / sec.
- Up to 6 different **inspection tools** working in real time
- Control of 2 **ejection outlets**
- Quick adaptation to other types of products (containers or pieces of plastic, metal, glass, etc.)
- Possibility of **multi-camera** system
- 64 different configurations in **memory**
- **Interface** available in Spanish and English (possibility of other languages)

** Specifications higher than those indicated are possible but must be subject to a previous feasibility study by InesOptics*

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