



COLD END INSPECTION SOLUTIONS

HiSHIELD



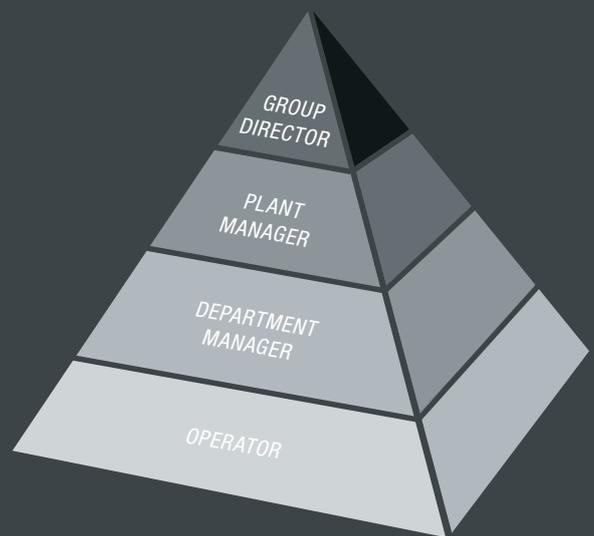
WE ARE GLASS PEOPLE

 **heye**
international



PRODUCTION QUALITY AND PRODUCT SAFETY

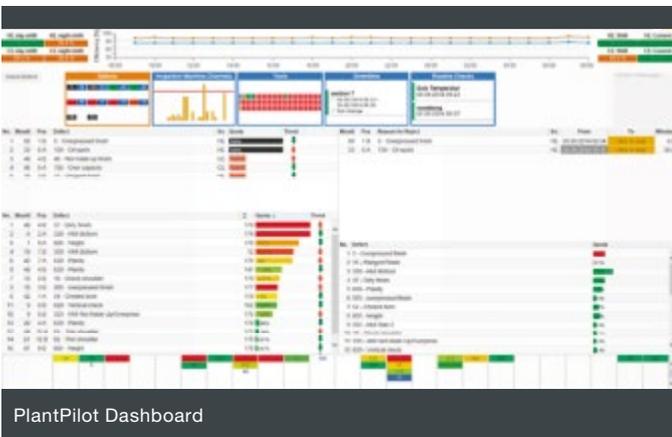
The quality and consistency of products sold to customers is what makes or breaks a glass container producer's reputation as a reliable supplier. For this reason, Heye International has invested a huge amount of time perfecting its solutions. Apart from developing an extensive range of advanced inspection equipment, the Heye PlantPilot information system provides an overview of results at the Hot End and at the Cold End.



INFORMATION MANAGEMENT

"How is our efficiency, what problems do we have and why?"
"Where do we lose production and which defects are produced?"

These are the key questions for today's glass plant managers. Heye offers comprehensive know-how and equipment to meet these challenges. Heye PlantPilot is an information technology solution that has been specially developed for glass container production. It helps to centralise, structure and display all relevant data from the Hot End (where the bottles are produced), from the Cold End (where the bottles are inspected and packed), from the laboratory (in the form of statistical measurements) and from the mould shop. All of this data is aggregated to obtain a complete overview of production. The operator can comment on every event in the system and the next shift can see what happened and why in the previous shift. In addition, the group director can compare the performance of different plants.



The SmartLine 2 can be configured in different ways, with up to six inspection stations available. Depending on the customer's requirements, various attributes of a container can be inspected:

- Planity (flatness) and tightness
- LOF - Line over Finish
- Finish diameter
- Wall thickness inspection (non-contact, single- and multi-point)
- Dimension and ovality (DOM)
- Container height
- Checks of finish, shoulder, base and heel
- Dark check detection
- Mould number reader (dot and digital)



SOLUTION EXPERTISE

The quality and consistency of global brands is increasingly important to producers of consumer goods. Product safety and purity are major issues but Heye offers the solutions to ensure glass container production quality. At the beginning of a partnership, everybody needs to get to know one another. This is why Heye often starts with line audits and a consultation of the plant's lines. The result is efficient planning of a new set-up, respecting both the brand owner's requirements and the budget requirements of the customer.

SMARTLINE 2 INSPECTION MACHINE

HiSHIELD SmartLine 2 has been developed as an inspection and sorting machine for the hollow glass production industry. Ongoing integration of the latest technology, combined with robust electrics and an electronic control system are key characteristics of the SmartLine 2 equipment. Downtimes are reduced to a minimum. Additional features include a graphic interface with touchscreen, servo drive technology and machine speed of up to 400 BPM.

RANGER 2 CAMERA CHECK DETECTION

Check detection is one of the most important quality inspections during the production of glass containers. The HiSHIELD Ranger 2 has been developed to give you the opportunity to fulfill the quality expectations of your customers.

A Ranger 2 system consists of one camera, collecting five images simultaneously via five lenses and fiber optic light guides, the illumination unit and the control unit with the software for image processing, including the decision "container okay or not okay".

Based on your budget and needs, you can start with one system and add any number of parallel systems whenever you want. A typical and recommended configuration would be four parallel systems, each dedicated to and optimized for one of the following types of checks:

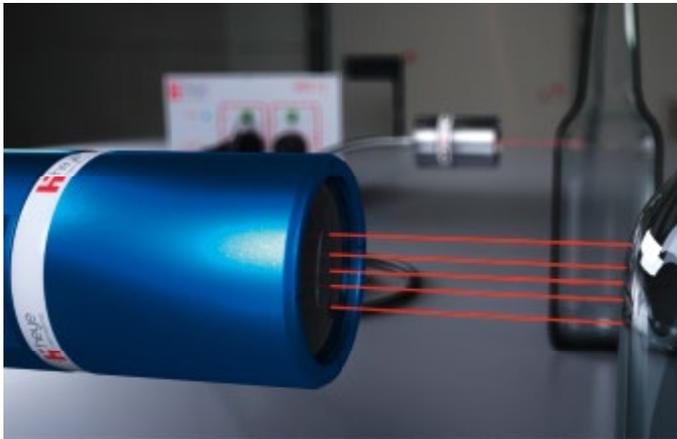
- horizontal
- vertical
- shoulder
- bottom

Each system runs independently and does not need to be synchronized with the others. So there is no influence or need

to compromise between the systems. This allows an individual optimization of all settings (illumination etc.) for the respective type of check. If one system is not available or not adjusted optimally, the others are still fully operational.

SUPERIOR WALL THICKNESS MEASUREMENT

Quality issues should be avoided by all means possible. For this reason, the wall thickness of every bottle should be checked carefully during the glassmaking process. Heye's new MTE electronic module can handle the standard single-point, as well as the new MTS multi-point sensor with 5 measuring points in a length of 10 mm. A flexible combination of the sensors is possible. In total, 12 measuring points can be processed. Of course, Heye uses the precise chromatic-confocal measuring method. The solution is available for the SmartLine 2 and also as a stand alone version.



SAFETY & HACCP-READY WITH HEYE RETROFIT SOLUTIONS

Retrofitting of existing machines is often a good alternative to buying a new one. Heye offers a special kit to lift your existing starwheel machine to the next certification level. This may involve the installation of specially fabricated hoods and other safety-related features to ensure full HACCP compliance. In addition, the old control units can be replaced with the latest Heye control system, combining unparalleled reliability with ease-of-use. Heye Cold End experts in Nienburg, Germany have comprehensive experience with many variants of starwheel machines.



COMPREHENSIVE PORTFOLIO

In addition to SmartLine 2 inspection machines, other cold end inspection solutions available from Heye include different single and multi case units, such as the Heye Mould Number Reader, the Sealing Surface Inspector and the FITTI Finish Twin Task Inspector. These inspection modules can be combined in a flexible way. Depending on the specific requirements, Heye is working together with other suppliers to solve every inspection challenge in the industry.



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