

SmartLine 2 from HEYE: Where special becomes normal

Heye's SmartLine 2nd generation starwheel inspection successfully combines speed, reliability and flexibility to deliver accurate results. Special operations like mini-ware and non-round containers are now standard with SmartLine 2. Customers award top marks for Heye's SmartLine 2 with the camera based check inspection system Ranger 2.



Hans Renders -
Head of Product Management
HEYE INTERNATIONAL

SmartLine 2 is the latest generation of Heye's starwheel inspection machine series.

Developed and manufactured at Heye International's dedicated Cold End Centre in Nienburg, Germany, SmartLine 2 glass container inspection equip-

SmartLine 2

CONTAINER INSPECTION

Ranger 2 ("Robot")



ment can be configured in several different ways, with up to six inspection stations available. The Nienburg facility employs a team of experts and features a modern production layout. Importantly, the Centre is close to the Ardagh Group's Nienburg glassworks to undertake essential testing work.

CAMERA CHECK INSPECTION BY RANGER 2

Equipped with the best in market camera based check inspection system Ranger 2, customers all over the world have confirmed the SmartLine 2 robustness and reliability. Proved in multiple cases, Heye's Ranger 2 detects more than 99.8 per cent of all critical defects.

Ranger 2 is now able to inspect pharmaceutical mini-ware. With this evolution the system can fulfil all customer requirements to container sizes and shapes.

HOW RANGER 2 WORKS

Each system inspects independently and does not have to be synchronized with others. This means that there is no influence between the systems and there is no need to compromise one system in favour of another. This allows an individual optimisation of all settings, e.g. lighting, camera position etc., on the respective type of crack. If one system is not available or is not optimally adjusted, the others are still fully functional.

Every container produced must be considered as a unique object and every concept of a crack test must take this into account. Therefore, the Ranger 2 uses the concept of 'Intelligent Cloud Masking', which makes any kind of 'teaching' superfluous after a job change.

Assuming that each container is unique, the Ranger 2 inspects each container for itself and

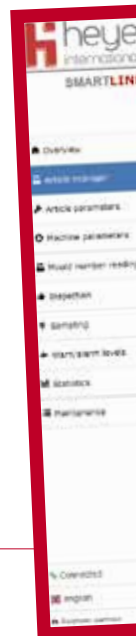
sets one mask for each single container. Therefore, each container is its own reference and has no negative influence on the following ones. So the zones are subject inspection of high dynamics and can immediately adapt to changes that occur during production.

NON-ROUND – HEYE'S CORE COMPETENCE

Container shapes, which differ from the standard round container, are one of the most common tasks in the glass container inspection industry. Heye masters this 'non-round' with consolidated excellence.

The range of inspectable container sizes and shapes is above the average, inspection is possible with almost all imaginable shapes, whether angular, oval or simply round.

With this huge range of testable container sizes and forms, the SmartLine 2 match-



es the market approach to be a real universal check inspection machine.

IMPROVED JOB-CHANGE TIMES

The application of servo technology results in a high degree of flexibility. Fast and easy changes to an item's indexing positions and optimal use of the servo torque for up to four rotation stations are possible. Optimised motion sequences allow faster reactions to changing process parameters. The equipment's innovative design and its large and easy-to-open hood provide more working space between the inspection stations. Job changes become much easier.

The maximum article height accommodated is up to 450mm, with angular, oval and round containers processed. Thanks to the servo-driven starwheel, indexing positions from six to 48 are possible.

STATE-OF-THE-ART USER INTERFACE

The new design of the graphical user interface of SmartLine 2 has been conceptualised in cooperation with a specialised engineering service provider. The main goal of the development was a practicable and fast operating interface. Orientation for the development amount is coming

HEYE INTERNATIONAL

Based at Obernkirchen, Germany, Heye International GmbH is one of the international glass container industry's foremost suppliers of production technology, high performance equipment and production know-how. Its mechanical engineering has set industry standards for more than five decades. Extensive industry expertise, combined with the positive attitude and enthusiasm of Heye International employees is mirrored by the company motto 'We are Glass People'. Its three sub-brands HiPERFORM, HiSHIELD and HiTRUST form the Heye Smart Plant portfolio, addressing the glass industry's hot end, cold end and service requirements respectively.



from our customers. The two-click-management is only one of many advantages next to smart configuration and a great overview over all statistics an operator needs for easy-to-use handling.

Easy configuration of known containers with the Job history

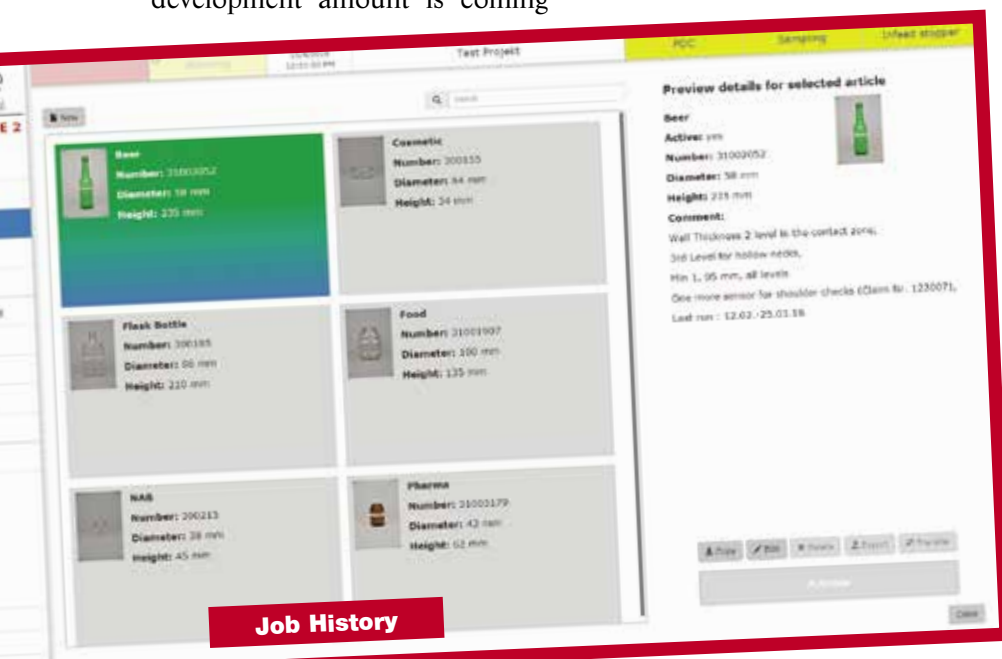
Job history is even customised for:

- quality requirements;

- setups;
- reproducibility data.

POSITIVE FEEDBACK

Feedback generated from Heye International customers has confirmed the SmartLine equipment's robustness and reliability. The mechanical design and drive system in particular are highlighted for their robust design, while the control system is praised for its reliable operation. ■





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