

HEYE INTERNATIONAL

High-speed ware handling - complete safety



smart plant

ONE MILLION BOTTLES A DAY – ON ONE IS LINE

One million bottles per day on one IS line. This benchmark has become reality recently on a beer-

line with high-speed ware handling from Heye. Often underestimated, fast and smooth ware handling is a decisive factor to reach high speeds and high Pack-To-Melt (PTM) ratios. In this case, the belt-speed



High-speed ware handling - considering high precision and safety - is now a regular demand of container glass manufacturers. Heye International has launched a series of innovations ensuring high speed in container glass production.

WARE HANDLING

Ware handling



Stable bottle position on fast machine belt

of the 20 sections tandem machine reaches 72 m/min.

The advanced handling equipment from Heye International combines precision with latest closed-loop functions for dead plate cooling control, ware spacing and a unique automatic ware transfer synchronization. It becomes the ultimate solution for high speed in container glass production.

ADDITIONAL INNOVATIONS

In addition to closed loop solutions for the blow side, Heye has launched a couple of new products for the blank side. Closed loops for cooling and press duration/glass distribution are available. The swabbing robot eliminates one of the most important manual working steps, at the same time being the basis for precise, infrared-based temperature measurement on the blank side. The Heye robot is able to swab on-the-fly even at high cavity rates.

SWABBING ROBOT

The Swabbing Robot is the latest in a series of equipment developments from Heye International, aimed at optimising the glass container production process. In combination with the company's Multilevel Safety Concept, the SpeedLine IS-Machine increases work safety, in addition to providing higher product quality and improved productivity.

Depending on local conditions, as well as the production process and container type, many advantages can be realised:

- zero rejects from swabbing;
- avoidance of section stops;
- up to 75 percent saving on lubrication;
- improved operator safety;
- stable and repeatable volume, thickness and location of swabbing.

Consequently, more time is

available for operators to focus on production optimization.

OPERATING PRINCIPLE

The robot runs on a rail in the overhead beam. This means that the floor is free from obstructions and mould changes can be performed as before. All new Heye IS machines are prepared for the installation of the robot. The robot sprays into the opened moulds on the blank side. 'Swabbing on the fly' is the key advantage, which means that a production stop is unnecessary. Short spraying cycles with a small amount of lubricant avoid bottles having to be rejected after swabbing. A special program allows spraying of the neck ring, within the same time an operator swabs the blow moulds by hand. Heye uses a compact six axes robot. The spraying head employed depends on the size and type of containers produced.

Set-up

Another unique advantage is the robot set-up procedure. This can be performed by a zero-station in front of the IS machine. While one job is running, the settings for the next article can already be adjusted. The user sets the trajectory points and movement speeds. Once stored in the control system's article database, the settings can be reused if the article is produced again. Running the robot is easy. The advanced control with an easy-to-use touch screen helps the operator to do his job.

Safety

Safety is guaranteed by several equipment features. First of all, a safety cage avoids operator contact with the moving robot arm. The whole unit (hanging on the overhead rail) is equipped with sensors, including a bumper on the cage and a scanner near the base. If people come too

close, the whole unit stops moving, including the robot arm. The robot can be combined with the Heye blank side protection grid. This results in a maximum of work safety combined with high productivity and flexibility.

THE COMPANY

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 knowhow. 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. ■



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