

HEYE

SWABBING ROBOT

HiPERFORM



WE ARE GLASS PEOPLE

 **heye**
international

AUTOMATIC SWABBING PROVIDES HIGHER PRODUCT QUALITY AND EFFICIENCY



HiPERFORM is synonymous with excellent equipment and expert services during the forming process. Because every stage of the glass forming process demands meticulous attention to detail, we have analysed the complete production chain. Even minor variations in manufacturing techniques and their application can have a huge impact on overall production performance.

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 % 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 FANUC LR Mate 200iD as the compact 6 axis robot, this equipment being the approximate size and having the reach of a human arm. It combines best-in-class robot weight-load capacity with standard IP67 protection and outstanding quality. This makes the LR Mate 200iD a very reliable mini robot for process automation in the container glass industry.

The spraying head employed depends on the size and type of containers produced. For similar containers, the same head can be used. But if the containers differ significantly or if another production process or gob number is used, a different head may be necessary.



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, as well as the robot arm.

The robot can be combined with the Heye blank side protection grid. This result is a maximum of work safety combined with high productivity and flexibility.

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