



# HEYE

## Smart Plant strategy for sustainable and efficient glassmaking

**B**ased 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. Its three sub-brands HiPERFORM, HiSHIELD and HiTRUST form the Heye Smart Plant portfolio, address the glass industry's hot end, cold

end and service requirements respectively.

### **COLD-END INSPECTION FOR ARDAGH**

Industry 4.0 technology is entering Ardagh's production site in Neuenhagen: After the furnace repair the company now runs two Heye 12 Section 5 1/2" DG SpeedLines, as well as Heye inspection equipment at the cold end. The two lines started production with 750 ml Bordeaux bottles and 500 ml wide neck

jars. "This major furnace repair is an important step towards future and secures production success for the next two decades," says Plant Manager Hartmut Treichel.

The implemented closed-loop technologies include the latest Smart Plant features, such as the Heye Process Control, that monitors the pressing processes of all plunger mechanisms of the IS-Machine and enables the machine operator to recognize beginning malfunctions at the earliest moment.



This article looks at two recent projects from Heye, at the Ardagh plant in Germany, with inspection equipment at the cold end, and with automated swabbing technology on a 10-section triple gob IS Machine producing NNPB bottles for Thai Glass Industries.

Less critical defects are produced due to self-optimizing invert end position cushioning.

This Ecomotion equipment automatically adapts to different containers, weights and pressure ratio. Reduced oil consumption is achieved by the implemented multi-zone central lubrication. This patented temperature-guided lubrication interval control considers temperature deviations at the lubrication point and allows automatic adaption and optimization of the lubrication demand. All these installations,

merged into a smart closed-loop strategy, ensure high yields for the plant. This is also thanks to the good cooperation between the committed Ardagh people on site and the comprehensive installation service of the Heye team, that trained the production team to reliably operate the hot-end and cold-end equipment.

### **THAI GLASSMAKERS INVEST IN SWABBING ROBOT**

One of South East Asia's premier glass container manufacturers is among the world's





first to successfully embrace automated swabbing technology under production conditions. With more than 60 years' experience of high speed, high volume production, Thai Glass Industries (TGI) has installed a Heye swabbing robot on a 10-section triple gob IS Machine producing NNPB bottles in Thailand. This is the first installation of its type in the country and in the ASEAN region.

The robot is a cornerstone of Heye Smart Plant strategy, as manual swabbing is one of the most important work steps for an IS machine operator. The robot provides precise and constant swabbing of the glass containers. Benefits include zero rejects from swabbing, avoidance of section stops, substantial savings on lubrication and – of course – improved operator safety.

TGI personnel were very open-minded about this important change to hot-end working practices, embracing the swabbing robot innovation enthusiastically. Full training for IS Machine operations was provided at TGI, where a dedicated IS training section from Heye was available.

Installed in 2017, the Heye triple gob IS Machine on which the swabbing robot is fitted is the 13th IS Machine installed by the specialist German supplier in Thailand during the last six years. The country's first swabbing robot is operating successfully and is generating a lot of interest. Stable and equal distribution of lubricants in the process has been realised, with more time for operators to focus on optimisation and defect correction.

"The swabbing robot is a

great innovation and we are very proud to have installed the first one in Thailand," said Pongdej Chamsawat, Assistant Vice President – Group Technical Service at TGI. "We are satisfied with its performance on the Heye IS Machine." ■



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