

AUTO SWABBING SYSTEMS

BUCHER EMHART GLASS' latest solutions at Vidroporto

FlexRobot is Bucher Emhart Glass' (BEG) automated system for swabbing blank moulds and neck rings. The FlexRobot system is mounted on the blank side panel and swabs blank moulds 'on the fly', helping to increase output, reduce wear and tear, and prolong mould life-span. It also saves material and cost by using less swab liquid than manual intervention. Consistent swabbing by FlexRobot helps to achieve outstanding process stability, reducing the incidence of certain defects and improving pack-to-melt ratios.

By taking on a tough, repetitive task from humans, FlexRobot also means less time interacting with the machine, lower risk of accident, and fewer strain injuries. Thus, with the time they save, operators can switch their attention to processing sensor systems while trimming the process to improve output.

EFFICIENCY THROUGH INTEGRATION

FlexRobot is a first-party solution which builds upon state-of-the-art spraying and robot technology. The solution from BEG offers seamless mechanical as well as system integration with all BEG forming machines. The mechani-



cal integration ensures upgradability with other BEG products like blank side hot end sensors and safety devices such as the blank side barrier. Simplified ease of use for the FlexRobot will be facilitated through a more intelligent data exchange between the FlexIS control system and the FlexRobot system. During the setup process, BEG draws upon its proven process knowledge and provides full training and comprehensive documentation, making it quick and easy for customers to bring

FlexRobot into their production setup with minimal downtime.

ENHANCING PERFORMANCE TOGETHER

In 2019 Vidroporto, a long-standing BEG customer, expressed interest in setting up FlexRobot at both its sites. This involved BEG's 12-section AIS and 16-section AIS machines jointly running in triple gob with the narrow-neck press and blow (NNPB) process to make lightweight beer bottles in capacities of 275 ml, 330 ml

Upon installing its new FlexRobot onto two of Vidroporto's forming lines, Swiss glass manufacturing automation leader BUCHER EMHART GLASS continues with the Brazilian glassmaker to drive performance to the next level after an immediate uptick in both product quality and pack-to-melt ratio.

VIDROPORTO EMBALAGENS

is a leading glass container manufacturer in Brazil. Its headquarters is at Porto Ferreira, São Paulo. The company also has a site at Estância, northeast Brazil, which it reopened in 2018 following acquisition from Glass Industry of the Northeast (IVN). In 2020, Vidroporto made technology investments in its northern plant that increased production by 70%.

With production spanning both its sites, Vidroporto has around 20 percent of the glass container market in Brazil. It employs around 800 people and has revenues of around USD 130 million.

and 355 ml - all in high-speed, high-volume lines for which every second counts.

'These AIS machines are under constant pressure from market demand,' confirms Plant Manager Joao Cameirao. 'So, we needed the downtime for this installation to be measured in hours rather than days!'

However, the project promised a major benefit: automating a vital but repetitive task to save valuable time during production. 'Vidroporto saw straight away that FlexRobot could help them to standardize swabbing applications and improve their production,' explains Scott Neubert, Project Manager at BEG.

PROJECT MANAGEMENT

Work on the FlexRobot deployment began in December 2019. From Vidroporto's side the main players were Edson Rossi (CEO), Valdecy Cabral (IVN Plant Director), Joao Cameirao (VP Plant Director) and Allyson Ribeiro (Electrical Maintenance

Coordinator). Team members from Vidroporto's IS shop, electrical & automation and forming teams also made vital contributions.

Overseeing the project for BEG were Michael Hoffmann (Sales Director for South America) and Scott Neubert, with backup from a service engineer, a forming specialist and two technical support staff members from a third-party.

A HISTORY OF SHARED SUCCESS

'BEG has played a key role in many of our growth projects and new technologies,' confirms Joao. 'On this project, they helped us achieve a very quick and easy startup and stabilization, thanks to their diligent project preparation and careful execution.'

BEG offered full training for Vidroporto's staff throughout all phases of the project: commissioning, startup and stabilization.

SEEING THE RESULTS

With the FlexRobot system now

fully operational, Vidroporto has been able to assess its impact on performance. 'With FlexRobot, we're now lubricating the neck rings as well as the blanks,' reveals Joao. 'When we carried out our analysis following startup, we quickly saw that the deviations in performance were far smaller than they had been before. As a result, we've seen an improvement in pack-to-melt ratio of around one percent compared to the same period last year.'

'Vidroporto has come to rely on FlexRobot at both their plants,' adds Scott. 'This has allowed them to free their operators from a highly manual task so they can focus on other things.'

'So great to see FlexRobot proving its worth in the real world of glass container production,' said BEG President Matthias Kümmerle. 'By choosing BEG as a partner, top glassmakers like Vidroporto can access an unbeatable combination of state-of-the-art equipment, deep process knowledge and responsive support. We look forward to working with them for many years to come.' ■

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