



Automated with SIGMATEK technology, the B12 offers the flexibility required for **frequent format changeovers and small batches**. Glass and PET bottles, cylindrical, conical, amphora-shaped, triangular and shaped bottles from 100 ml to 2,000 ml can be filled.

# INTELLIGENT AUTOMATION FOR BOTTLE FILLING

The filling lines developed by Polaris Automazioni are designed for maximum flexibility in bottle format. They have exclusive features that are realized using advanced control and automation components from SIGMATEK and the support of Sigma Motion.

Since its founding, Polaris Automazioni's focus on machine development has been on making format changeovers as simple and economical as possible. This philosophy has been pursued for more than half a century, and anyone who owns or takes a closer look at a filling line from this company today will recognize its superiority in terms of flexibility and adaptability in operation. In recent years, the understanding of flexibility has become even more extreme, and many adjustments that used to be made manually by operators are now carried out automatically by servomotors. In addition, the recipes for each individual product are becoming more and more complex, and the precision required for applying a cap or label or even filling at product level is becoming increasingly important.

## Automation Comes Into Play

The degree of automation in Polaris Automazioni's filling lines is constantly increasing, which requires an

even more powerful control system. At the same time, it is important to reduce software development time and thus achieve a faster time to market. To fulfill these requirements, Polaris Automazioni relies on SIGMATEK's end-to-end automation system with scalable hardware with ever-increasing performance: CPUs, I/Os and integrated functional safety with safety controllers and I/Os combined in a user-friendly, end-to-end software engineering environment are available. Added to this is the know-how and commitment of Sigma Motion, SIGMATEK's long-standing sales partner in Italy. Polaris has successfully utilized their expertise and supported the further development of the internal technical department during development.

## Programmable Controls and Automation Components

The SIGMATEK platform has made it possible to overcome the structural limitations of the traditional PLC. Additional peripheral devices are no longer required to



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**Davide Ugoletti, Technical Director at Polaris Automazioni**

control stepper motors or brushless motors. Furthermore, there is no need to set up complicated interfaces to exchange variables between the different components – everything now takes place in the control CPU: Every function is implemented simply, efficiently and with maximum integration. Another advantage of this integrated architecture is the possibility of remote maintenance of all automation components both in the control cabinet and in the field. SIGMATEK has been the exclusive supplier of programmable controls and automation components to Polaris Automazioni for several years. The Austrian complete solution provider also proved that it has the perfect components for the latest version of the filling machines, the modern and automated B12, and was able to deliver them on time via Sigma Motion – despite supply bottlenecks on the global market.

## From Process Optimization to Predictive Maintenance

Polaris Automazioni's mission is to keep its systems up to date. The Industry 4.0 approach has revolutionized the way companies analyze their production results: Production data is combined and analyzed with operational data from ERP, supply chain, customer service and other enterprise systems, leading to process optimization and predictive maintenance. "For this reason," says Davide Ugoletti, Technical Director of Polaris Automazioni, "it is essential that our systems are connected to the company LAN and are in constant communication with the management software." The CPUs used are therefore not limited to process and motion management, but also take over the continuous exchange of files via FTP for the start of orders and the subsequent creation of reports. The production data is also made available via LAN or VPN for the system engineers working on Industry 4.0. This means Polaris always has its finger on the pulse.

[www.sigmatek-automation.com](http://www.sigmatek-automation.com)

### User



Polaris Automazioni, based in Reggio Emilia, Italy, is an established player in the world of bottling processes. The bottling experts' target market is the spirits and liqueur industry as well as the food and especially the olive oil industry. In recent years, the company, which has its roots in Italy, has greatly expanded its business activities beyond the country's borders. The export quota is currently higher than the national turnover.

#### **Polaris Automazioni**

Via Adige, 10, I-42124 Reggio Emilia

Tel. +39 0522-308873

[www.polarisautomazioni.com](http://www.polarisautomazioni.com)