PRESS RELEASE

Service

All-round service for returnable glass lines: KHS breathes new life into existing equipment

- Conversion instead of new investment: targeted modernization of existing lines
- Holistic concept from line audit and conversion to smart app
- Digital solutions for transparent machine states and maintenance requirements

Dortmund, November 10, 2026 – A reliable returnable glass line shapes production for many years. With its broad portfolio of services that cover the entire system, KHS helps its customers to react flexibly to various challenges and changes in market conditions. The program ranges from line audits through conversions and overhauls to digital services for existing setups.

When beverage producers decide on the future of their returnable glass line, space, operating costs and market development play a central role. With alcohol consumption on the decline and established products losing their market share, more and more new beverages are appearing on the market. This diversity of products is also boosting the diversity of design. It's very hard to predict which beverage varieties and container styles will be in demand in a few years' time. Instead of investing in new plant engineering, bottlers are therefore increasingly turning to modernization of their existing line. A targeted upgrade can lengthen their machinery's service life and delay the necessity for cost-intensive

investment in new equipment. On machines with high consumption, specific modernization measures can also help to lower energy costs.

Confined production areas and the threat of downtime also considerably hamper the replacement of individual system components. “Some machines are so heavily integrated into the line that the shop roof would have to be opened for replacement, calling for several weeks of production downtime and a huge amount of logistical effort,” reports Torben Brill, service product manager at KHS. “Conversion, on the other hand, can usually be carried out in situ, bringing the machine back up to date in a much shorter period of time.”

Holistic service starts with individual requirements

The specific requirements of the customer dictate which measures make sense. While regular overhauls, such as the replacement of worn components, primarily serve to maintain operation, a line audit provides information as to where a targeted upgrade would prove useful. Here, the Dortmund specialist examines the entire filling line and analyzes the machines and their adjacent processes to identify any loss in productivity, shortfalls and reasons for downtime. Working with the operator, KHS derives concrete optimization measures from the audit and supports the implementation thereof.

One key lever is to modernize energy-intensive processes. This includes bottle washers in particular: for the cleaning process, they heat up several cubic meters of liquid to up to 80°C. Retrofits like the KHS Innoclean ECO carrier reduce the carryover of heat and liquid between the process zones. The LESS (Liquid Efficiency Spraying System) option, on the other hand, addresses the electricity requirement: frequency converters automatically regulate the spray pumps on each line or machine stop down to low power consumption while the bottles continue to be kept damp. Compared to operation without LESS, this retrofit option cuts spray pump energy consumption by up to 40% – with the same cleaning performance.

In the subsequent filling process, focus turns to the KHS Innofill Glass filler. Here, the maxim is to keep downtime during necessary overhauls as short as possible. “During rolling maintenance, we replace an individually specified number of filling valves with a spare set at plannable intervals instead of removing them all at once,” Brill explains. “This significantly lowers downtime to around ten hours, with this number reducible to almost zero when scheduled maintenance windows are used to this end.” The KHS Innopas SX tunnel pasteurizer also holds retrofit potential: flexible speed control keeps the product flow constant, thus reducing the number of machine stops. This necessitates fewer heating and cooling processes that in turn can lower heat and cold consumption, the latter frequently used in the form of fresh water. Installation of a cooling tower can also help to lessen the amount of fresh water needed.

Besides energy consumption and downtime, flexibility is becoming more important as the variety of products grows. Where bottle shapes and sizes are more frequently rotated, standard conveying stars need to be laboriously converted and readjusted during format changeovers. This procedure is eased by the tyrolon Star® that can be retrofitted during modernizations of the KHS Innoket Neo labeler and KHS Innofill Glass filler. The universal conveying star from KHS partner Tyrolon-Schulnig handles various bottle diameters and geometries without the star wheels having to be exchanged when formats are switched over. This shortens setup and conversion times and keeps line downtime during the same at a low. In addition, outmoded cold glue aggregate stations currently in use can be replaced by overhauled units with a minimum of downtime.

Digital services for operation and maintenance

KHS’ classic modernization measures are supplemented by its range of digital services that can be applied depending on the age and technical makeup of the control unit. Digital task management application KHS ConnectApp Guide assists operating personnel with their daily routines and as a cloud solution can be used

directly at the machine without the need for any additional requirements – also on older equipment.

The app now proactively prompts employees through the required tasks with no more need for the paper lists of the past. Moreover, the KHS Connect customer portal supplies spare parts packages and KHS' Augmented Reality Service (ARS) provides visual remote support in the event of disruption. The options become more expansive following conversion of the controller that makes the system state of the art and can boost line availability. Upgraded data interfaces permit the use of KHS ConnectApp Access. In conjunction with KHS ConnectApp Guide, maintenance tasks can be dynamically triggered according to the actual number of operating hours instead of sticking to a rigid schedule. "Maintenance work can be carried out more effectively based on the number of system operating hours, for operating personnel only have to become active when a task actually needs performing," says Brill.

According to Brill, plant equipment engineered by KHS is perfectly suitable for modernization. "Our machine frames are robust. It's the control units and software that usually reach their limits as the years go by. This is precisely where our services come in to breathe new life into the line."

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Pictures and captions

(Sources: Frank Reinhold and Joerg Schwalfenberg)

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Picture captions

Torben Brill (source: Frank Reinhold)

“Our machine frames are robust. It’s the control units and software that usually reach their limits as the years go by,” explains Torben Brill, service product manager at KHS.

KHS Innoclean (source: Frank Reinhold)

The KHS Innoclean bottle washing machine can be retrofitted with ECO carriers and the LESS (Liquid Efficiency Spraying System) option.

KHS ConnectApp Guide (source: Joerg Schwalfenberg)

Right where it’s needed: KHS ConnectApp Guide prompts personnel through all necessary maintenance tasks.

About the KHS Group

The KHS Group is one of the world's leading manufacturers of filling and packaging systems for the beverage and liquid food industries. Besides the parent company (KHS GmbH), the group includes various subsidiaries outside Germany, with production sites in Ahmedabad (India), Waukesha (USA), Zinacantepec (Mexico), São Paulo (Brazil) and Kunshan (China). It also operates numerous sales and service centers worldwide. KHS manufactures modern filling and packaging systems for the high-capacity range at its headquarters in Dortmund, Germany, and at its factories in Bad Kreuznach, Kleve, Worms and Hamburg. The KHS Group is a wholly owned subsidiary of the SDAX-listed Salzgitter AG corporation. In 2025 the KHS Group and its 5,769 employees achieved a turnover of around €1.649 billion.

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