xylem
Let's Solve Water

Case Study
Bottle washing systems • Klinger

A clean job for Klinger bottle washing systems

Presented by: Xylem Applied Water Systems

Introduction

Klinger Flaschenwaschsysteme GmbH (www.klinger.at) is a company based in Langenlois, Austria that manufactures bottle washing systems able to handle up to 20,000 bottles per hour.

Industrial washing systems for boxes, pallets, crates and bottles operate under harsh conditions. High-temperature water and acid-containing cleaning agents have a strong corrosive effect on equipment. In addition, water use varies throughout the washing cycle, requiring versatile and reliable equipment.

Klinger has been producing washing equipment for the beverage industry for more than 50 years, and it is known for its tailor-made solutions able to meet their customers' diversified needs. Quality, reliability, flexibility and functionality are key for Klinger, as well as - efficient customer service.

The project

Constantly looking for higher efficiency, performance and reliability of their systems, Klinger decided to equip its machines with a new pump system. In addition to being resistant against the aggressive liquid used – a three percent, pH 11 Caustic Soda (NaOH) Solution – and the high temperature of 85 degrees Celsius, the pumps had to run in a continuous operation every day on an eight-hour shift. In such cases where downtime is not an option, most systems feature a back-up pump that can take over if the master pump fails. This was not possible for Klinger's machines due to the limited space available: another issue for the customer, and for Xylem's engineers.

"After the first briefing with Klinger, it was clear that we had a big challenge in front of us," said Damien Galzin, Global Product Manager, Centrifugal Pumps at Xylem. "Aggressive liquids, continuous operation and tight installation spaces are three variables that one usually wouldn't want to see together. But this is the kind of challenges that we love. We work hard to solve water, and provide the best solutions to our customers' needs."

CLIENT:
Klinger Flaschenwaschsysteme GmbH

XYLEM SCOPE:
The Lowara Vogel Series e-SHS stainless steel, LSB single stage and e-NSCS cast iron end suction pumps were the right solution for moving water and corrosive liquids in Klinger's bottle washing machines. The equipment provided combines high efficiency with flexibility and can easily be mounted in small spaces.

MAIN CUSTOMER ADVANTAGES:

- Reliable products at competitive price
- Low lifecycle cost
- Flexible and responsive aftersales service

The solution

Xylem Austria team selected three different pumps for this application: the Lowara Vogel Series e-SHS, e-NSCS, and LSB, all allowing for an easy installation and assembly even in small spaces.

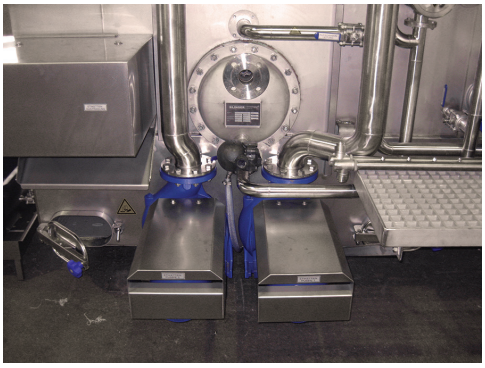
The Lowara Vogel Series **e-SHS** end suction pump with stub shaft is made in AISI 316 stainless steel, making it the ideal choice for use in aggressive environments or for pumping of mildly aggressive fluids. Its compactness and reliability allows for use in various OEM applications. Newly designed high efficiency hydraulics and - IE3 motors set the basis for low operation costs. Equipped with a Xylem HYDROVAR variable speed drive, the motor can adjust its speed to match the variable system demand, with energy savings up to 70 percent compared to fixed speed pumps.

The Lowara Vogel Series **e-NSCS** cast iron end suction pump combines high efficiency with high flexibility. The robust design, different bearing frame sizes and stainless replaceable wear rings ensure a long service life. The e-NSCS pump is designed for ease of maintenance, with all service points easily reachable to reduce downtime. For this particular application, Xylem Austria specified a stainless steel housing for enhanced durability, and a close-coupled configuration for compact installation.

The Lowara Vogel Series **LSB** single stage end suction pump in close coupled (block) design features a delivery up to 450 cubic meter per hour (m^3/h) and a maximum operating pressure of 16 bar. The selected model has a delivery of 200 m^3/h with an operating pressure of 1-2 bar, and is sized for the correct operation of Klinger's equipment.

"Xylem offered the best solution: a flexible and reliable system and a good quality of products and services, but even more important to us was the proximity of Xylem Austria to our plant in Langenlois," commented Hr. Ing. Gerhard Allinger, head of technical procurement at Klinger Flaschenwaschsysteme GmbH. "This guarantees a quick reaction time and a closer relation, which means peace of mind for us, and most important, for our customers."

Lowara Vogel Series e-SHS end suction pump with stub shaft, made in AISI 316 stainless steel



Lowara Vogel Series LSB single stage end suction pump in close coupled (block) design

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