Case | KSN industrial solutions

# Integrating intelligent pumps increases flexibility and efficiency for an OEM industrial solutions provider



Possibility in every drop

"We wanted to expand further on the core value created for customers in our parts washers; we knew that Grundfos could help us achieve this."

Michael Jacobsen, Sales Manager KSN, Denmark

# How KSN parts washer solutions benefit from Grundfos E-pumps and expertise

KSN, a global OEM industrial solutions provider based in Bjerring, Denmark, is constantly seeking to create even greater value for their customers. That's why they use Grundfos E-pumps and expertise to optimise processes, improve flexibility and increase energy savings for the lifetime of their parts washing solutions.

For more than 35 years, KSN has created customised solutions for industry within test systems, robots and automation, customer machines and parts washing systems

#### **The situation**

KSN integrates Grundfos E-pumps into their parts washing systems, where the focus is on providing optimal and consistent cleaning quality with an energy-efficient parts washing system, built with their extensive expertise and industry-leading technologies.

KSN continues to build on the long-term added value of using intelligent pumps, which extend well beyond the immediate benefits of energy savings and bring greater flexibility in parts washer processes and operations. This is to meet the increasing need facing their customers for tangible energy savings supporting their sustainability agendas.

"We've experienced that our customers increasingly need to document savings for carbon emissions, energy and water, which they also use in their sustainability reporting," explains Michael Jacobsen, Sales Manager, KSN.

## **The Grundfos solution**

KSN has chosen to work with Grundfos as a solutions supplier, drawing on their expertise and consultancy. This is because Grundfos can not only supply but also advise about flexible and intelligent pump solutions to minimise energy and water use, add intelligent pressure control, remote monitoring and optimise chemical dosing.

A Grundfos E-pump offers many possibilities from built-in controls; for example, with predefined wash programs and the regulatory functions. An intelligent industrial pumping solution for water and other liquid media can measure and control pressure to keep operations running optimally and flexibly:

- Process optimisation at every step of the washing process
- Flexibility in running modes and application
- Energy savings through the lifetime of the installation

The E-pump's built-in control of pressure, flow and temperature is essential for long-term energy and cost efficiency. An E-pump goes beyond the immediate technical demands of an installation:

"Working from the customer's specifications for their parts washer, we use Grundfos online tools and consultancy to find the best technical solution, then consult with Grundfos for the best pump to ensure the best price," says Michael Jacobsen.



With a Grundfos E-pump, pressure is managed directly from the pump's control panel, shown to the left. There is no need for an external VFD in a control cabinet, and to the right, two compact CME pumps are shown installed in a Testing System.



"We are also very aware of the concerns our customers have about ease of service. Grundfos offers global service and the logistics to back this up, and this ensures much needed peace of mind for our customers around the world."

**Michael Jacobsen,** Sales Manager KSN, Denmark



#### **About Grundfos E-pumps:**

- Electronic control combining pump, motor and drive
- High energy efficiency
- IE5-rated permanent magnet motor
- Pre-defined control modes for pressure, flow and temperature management
- Modular, reliable, and easy to integrate

#### Ideal for industrial applications:

- Pressure, flow and temperature control
- Washing and cleaning processes
- Water and other liquid media supply and transfer
- Modular, reliable, and easy to integrate

## The outcome

KSN is now in a better position to help customers achieve savings and document these in relation to their sustainability targets. This also includes advising their customers about the benefits of automatic control of pressure and the easy insights from remote data.

Because of the many components integrated into a customised parts washer, KSN documents the potential energy, water and chemical savings for each solution for OEM customers. Important in this regard is the ability



to use Grundfos online tools for calculating pump energy consumption, thereby ensuring these savings are known and documented from the start.

The customers who purchase a parts washer from KSN can expect cost-effective benefits for the entire operational lifetime of the installation.

"The value creation we offer our customers is in the quality of the build, the components and applied technologies, the ability to supply an energy optimised high performing parts washer and designed for maximum serviceability. An efficient and controllable pump contributes to ensuring that these savings continue for the duration of the cleaning system's lifetime," says Michael, and concludes:

"We continue to see great possibilities with intelligent pumps and how they can further enhance our offering in a way meaningful for our customers."

#### EXPLAINER: The importance of integrated pressure management

Managing energy consumption and pressure is important for the overall efficiency of a parts washer. This is how an intelligent E-pump with an IE5-rated permanent magnet motor works:

- An E-pump maintains the required pressure at the filter
- Energy savings build from the low start pressure to the level required for a stable production flow
- The operator can set alarms for energy and pressure, if required
- Multiple washing programs with individual spray pressure settings

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