Intelligent wash-and-clean solutions from Grundfos

Grundfos iSOLUTIONS can help to ensure reliable, efficient and safe operations, and this is increasingly important as industries need more than just a robust and powerful washing and cleaning solution.

ndustries in South Africa today need more than just a robust and powerful washing and cleaning solution; they need one that will support companies' efforts to conserve energy and water while protecting the environment.

This is where Grundfos iSOLUTIONS can help to ensure reliable, efficient and safe operations, according to Grant Cannon, sales engineer in industry water treatment at Grundfos South Africa. The conditions in which washing and cleaning pumps operate are often harsh, and can include humidity and high ambient temperatures. Many facilities also demand a compact physical design so that the pump and motor can be fitted into a cabinet or be mounted onto a cart to be moved around the site to where

"This means the pump design must be small enough to fit into a confined space or allow easy mobility," says Cannon. "We achieve this by using an oversized motor, which runs at 6 000 rpm, allowing use of a smaller pump size."

He highlights that if a similar pressure had to be required from a conventional pump, the pump itself would be about 1,2 m in height. In Grundfos's design, the pump height can be reduced to less than 40 cm.

"In addition to delivering high pressure reliably and efficiently, our solutions are also intelligent, so they can easily be integrated into an existing SCADA system," he says. "The system is closely monitored, intelligently adapting to changing production demands and reducing excessive energy use."

This monitoring and optimising of performance saves energy, water and chemicals, while also generating the required operational data for the customers' purposes.

The pump solutions are fully assembled and tested before delivery, so no on-site wiring or programming is required. All that is needed is for the water and electricity supply to be connected, and the system is ready for action.

"The result is a compact and robust system that is customised to the application, saving the customer considerable installation and engineering time," Cannon says.

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Grundfos iSOLUTIONS enables Grundfos pumps, sensors and monitoring and control products to intelligently communicate with customers through seven different BUS protocols.





A Grundfos three pump booster set with a cascade function: when flow varies across the plant the booster set can maintain constant pressure with varying flows depending on wash-and-clean demand.