

Verder advances dosing product range

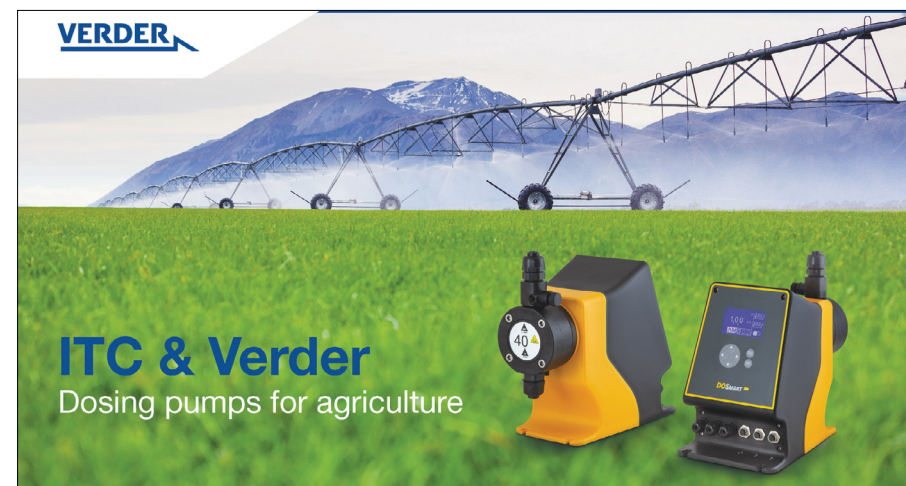


Darryl MacDougall, MD of Verder Pumps South Africa, talks to MCA about the latest advancement to the company's dosing, metering and transfer duty products range, which includes the Verderflex Dura 80; the ITC and Microdos range of dosing pumps; Vantage 5000 and Ds500 digital and IoT-enabled dosing and dispensing pumps; and the PACKO range of rotary lobe pumps.

Having released the Dura 65 into South Africa a few years ago, Verder has now also introduced its Verderflex Dura 80 hose pump which, like the Dura 65, is an upgrade of the VF 80 from the VF series of hose pumps. "With the same basic construction and footprint, the new geometry of the Dura 80 delivers a higher swept volume from the same set of hoses used in the VF 80, making it a better than ever option for applications such as metering and transfer duties of sludges and dense and abrasive slurries," says Verder's Darryl MacDougall. In terms of flow rate, this peristaltic hose pump can now deliver up to 42 000 l/h or 42 m³/hr, and a maximum discharge pressure of 16 bar – and particle sizes of up to 20 mm can be accommodated. "This has been achieved by rearranging the geometry of the casing to make the shoe stay in contact with the peristaltic hose over a longer sweep length," MacDougall explains.

On the other end of the dosing spectrum, Verder's acquisition strategy, led by Verder Group CEO Andries Verder, has brought the innovative ITC dosing pump into its product range. The ITC pump, characterised by its stepper motor and variable speed drive (VSD) controlled diaphragm mechanism, complements the existing Microdos offerings, enhancing Verder's capability in delivering precision dosing solutions. The ITC brand's capability to dose up to 3 200 l per hour, extendable to 7 000 l per hour with a double-headed pump configuration, positions it as an ideal solution for applications requiring precise dosing, such as fertigation and water treatment," he says.

"For fertigation, a liquid fertiliser must be accurately c



The ITC precision dosing pump is characterised by its stepper motor and variable speed drive (VSD) controlled diaphragm mechanism. It is ideal for dosing in fertigation and water treatment applications.

an irrigation line to maximise crop yields," says MacDougall, adding that the latest development using this technology is a world-first integrated dosing pump that combines the ITC dosing system into an irrigation controller to enable pH and a whole suit lot of other data to be monitored, with dosing accuracy continuously monitored and automatically regulated," he explains.



The new Verderflex Dura 80 delivers a higher swept volume from the same set of hoses used in the VF 80, making it a better than ever option for metering and transfer duties of sludges and dense and abrasive slurries.

Competing products, he says, have relied on venturi-based dosing, which is not as accurate because dosing volumes are directly linked to main line flow-rates, while the ITC pump enables these two variables to be separately controlled. The new ITC pump range has enhanced the dosing product range on the bottom end of dosing flow rates and at the higher end of line pressure.

"We have also always had a pump called the Vantage 5000, which is a smart digitally controlled peristaltic tube pump that can deliver precision dosing and data monitoring. This pump is used for dosing of hydrogen peroxide (<35%) and sodium hydroxide at water purification plants, for example. Our R&D department has now brought out a second smart pump called the Ds500 for dosing at lower pressures, up to 4.0 bar with a flow of 500 l/h. Also, for water treatment, this pump is ideally suited for dosing reagents into low pressure lines or tanks. The Verderflex Ds500 is IoT-enabled and uses stepper motors with IP66 ingress protection.

Addressing the critical need for compatibility in chemical processing, Verder has a Pure product range of diaphragm pumps for those needing to remove any possibility of a reaction between the product being pumped and materials. The Pure range is made out of



Left: Verder's Ds500 smart pump for dosing at lower pressure – up to 4.0 bar with a flow of 500 l/h – is ideally suited for dosing reagents into low pressure lines or tanks. Right: PACKO lobe pumps are widely used on liquid tankers as they are suitable for a wide range of pumped products.

pure polypropylene (PP) or pure PTFE and we have brought out an electric drive version of this to complement our air-operated range," says MacDougall.

Verder's Pure range is ideal for the chemical industry, particularly for abrasive chemical applications such as pumping raw chemicals into a pharmaceutical plant, where no contamination from the material of the pump is permitted. "When using PTFE, we can also accommodate temperatures of up to 85 °C, and we supply over-moulded diaphragms. This provides up to five times the standard diaphragm life, because it prevents abrasive materials being trapped between the actuating plate and the actual diaphragm membrane," he explains.

Another Verder development for diaphragm pumps is the new flapper valve, which replaces ball-type non-return valves inside the pump. This means they run very quietly and can also better accommodate abrasive solids, which can pass more easily through the new valves rather than being restricted when flowing around a ball. They

deliver higher flow velocity because the effective apertures are wider, which also reduces the shearing effect on the product passing through the valve area.

Following another of Andries Verder's acquisitions, Verder has now extended its PACKO rotary lobe range of pumps. Lobe pumps are ideal for pumping shear sensitive liquids that are prone to separation. PACKO lobe pumps are widely used on liquid tankers as they are suitable for a wide range of pumped products. "This is another product that is helping us to grow our market on the food and beverage side," he says.

"In South Africa, Verder is poised to capitalise on the growing demand for advanced water treatment dosing technologies. The introduction of the ITC dosing pumps, and the continued success of peristaltic tube pumps are central to Verder's strategy to address the needs of larger water treatment facilities. These facilities, which often deal with mine-affected water, require precise pH control and the addition of flocculants and lime to meet stringent water quality

standards before discharge," he explains. "Verder's innovations and market strategies are underpinned by a strong commitment to ESG standards. The conversation around access to water and the quality of discharge water is gaining momentum across industries. Verder recognises the critical importance of sustainable water management practices, especially in the mining sector, where adherence to environmental regulations is closely linked to operational licensing. The company's efforts extend to improving municipal wastewater treatment plants, many of which are in dire need of upgrades to meet current and future environmental challenges," concludes Darryl MacDougall.

Verder's advancements in dosing product technology, strategic acquisitions, and integration of innovative solutions underscore its commitment to providing comprehensive, high-quality, and environmentally responsible pumping solutions. By expanding its product range to include the Verderflex Dura 80, ITC and Microdos dosing pumps, IoT-enabled Vantage 5000 and Ds500 pumps, and the PACKO series of rotary lobe pumps, Verder is set to meet the diverse needs of industries around the globe. Furthermore, the company's focus on addressing water treatment challenges and its adherence to ESG standards reflect its dedication to sustainability and environmental stewardship. As Verder continues to innovate and expand its offerings, its contributions to the pump technology sector and environmental sustainability efforts will undoubtedly remain significant.

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