

VSD cost saving in pumping systems

WEG variable speed drives (VSDs) offer the agricultural sector reduced operating costs on automated water collection and irrigation systems with a reduction in energy consumption during periods when the pump motor speed can be reduced.

The WEG VSD monitors pumping operations functions, including special functions that not only save operating costs but optimise, control and protect the entire irrigation system. Just as significant is the VSD's ability to automatically send commands to the electric motor, thereby facilitating optimum control of the pumping installation's speed and irrigation volumes. This allows greater effectiveness when irrigating and more optimal water use.

The WEG CFW 700 frequency inverter or VSD provides accurate speed variation for the electric motor ensuring it operates according to the irrigation system's pressure needs. With all the necessary field telemetry, it can also take different land inclinations into account. Another important benefit is the VSD's ability to detect low pressure, which may indicate leakage in a pipeline. With this early warning from the WEG VSD, end-users can eliminate the need for specialised equipment and can take remedial action as soon as possible.

Where water is being pumped from a river to a dam for further irrigation, use of the WEG VSD allows optimum control of the water level. It prevents overflow situations and dry pumping can be set up without the addition of flow sensors. The drive can be used to facilitate sleep and wake modes in the pump operation. This facilitates significant cost savings as pumping can then be automatically done on a demand driven basis.

In addition, where there are multiple pumps in use at the same pump station, WEG Pump Genius Software and the WEG CFW11 VSD make it possible to automatically alternate motor usage to ensure that each motor/pump combination has equal operating time. This avoids one pump being subjected to excessive wear, regulates the wear across all the pumps in the system and results in the lowest total cost of ownership for the installation.

Optimisation of water use in the agribusiness undoubtedly improves product quality and production between harvests and enables optimum land use. WEG VSDs are a valuable tool for achieving this. □



Above: WEG CFW 11 used in the Pump Genius configuration for agricultural market.

Left: The WEG CFW 700 variable speed drive (VSD) is ideally suited to the agricultural market.



Proven knife gate valves withstand harsh slurries

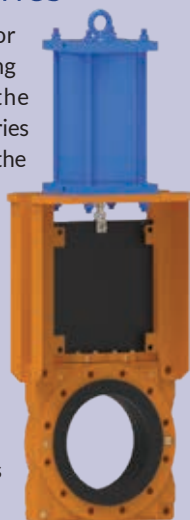
Designed as a space saving option for heavy duty applications, the long-lasting replaceable elastomer sleeves of the FLSmidth Krebs® Technequip™ TGW series offer a reliable sealing solution using the latest technology.

Wafer-style knife gate slurry valves are ideal for the harsh and abrasive slurries encountered in the mineral processing and power industries. These industries often deal with minerals ranging from cement, sand and gravel to coal, phosphate, ash and alumina.

The valve's reliable operation is based on its full port design, which allows the gate to be fully isolated by the sleeves from the process in the open position.

As the gate closes it pushes between the two sleeves, discharging a small amount of material out of the bottom of the valve. This prevents material build-up in the seat area ensuring full gate closure, and preventing damage to the gate. When the gate is in the open or closed position, there is a 100% bi-directional bubble-tight seal and zero downstream leakage.

Founded in Toronto, Canada in 1957, Technequip was acquired in 1993 and integrated into FLSmidth in 2007. With installations across the globe, these slurry valves have proved themselves worldwide with features such as their fluorocarbon gate coating for reduced friction during actuation; the high strength stainless steel gate clevis; and two-coat epoxy paint. The valves also contain no packing gland – as this can jam the gate – and have machined gate guides so no spacer bars are required. □



CORROSION SOLUTIONS FOR PUMP SYSTEMS



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