

When three pumps are better than one

Engineers at Wanner have designed a high flow rate skid that incorporates three of the Company's Hydra-Cell G35 pumps operating in parallel.

The system can pump up to 420 litres per minute at 83 bar pressure or up to 200 litres per minute at 100 bar pressure. Installing three Hydra-Cell pumps means three times the flow as they are true positive displacement pumps. This is not the case in a centrifugal pump system. With Hydra-Cell pumps the flow is maintained but the friction losses manifest themselves in increased system pressure.

The multiple pump system where all three pumps take suction from a common manifold and discharge into a common header is reported to be ideal in situations where some flow needs to be maintained continuously and system shutdown is not an option. Minimal routine maintenance requirements can be easily accommodated while maintaining up to 60% of the rated flow and should a pump or motor go down it can be replaced while the rest of the system is still functioning.

The system produces a virtually pulseless flow and is extremely accurate, exceeding the performance requirements of API 675 in terms of flow repeatability, steady state accuracy and linearity.

Some users choose the three pump option using two pumps to achieve service while keeping one for back-up. In many instances, where footprint is not an issue, the three pump approach can save on acquisition costs and energy costs while improving the overall reliability and efficiency of the system.

Further information from:

Nick Herrington, Wanner International.
Tel +44 (0)1252 816847
Email: NHerrington@wannerint.com
www.hydra-cell.eu

Notes:

Wanner is the world's leading manufacturer of seal-less, high-pressure, diaphragm pumps. These Hydra-Cell pumps are highly efficient, heavy duty pumps used for liquid transfer, metering, injection, spraying and dosing of the widest range of liquids including chemicals, solvents, acids, hydrocarbons, natural gas liquids, alkalis, polymers, aqueous ammonia, resins, slurries, wettable powders recycled or dirty liquids etc.

Hydra-Cell positive displacement, unique multi-diaphragm, seal-less pumps can handle corrosive, non-lubricating and abrasive liquids and slurries and can even run dry without suffering damage.