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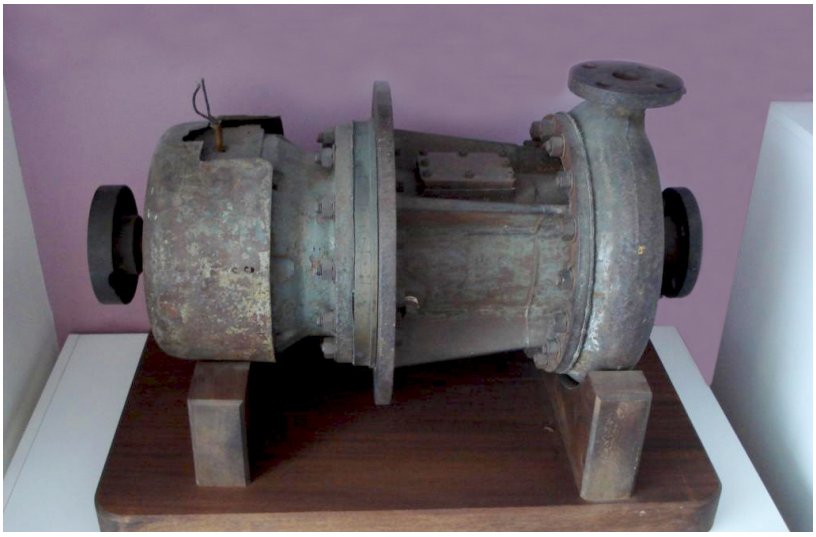
BPMA 75th Anniversary

70 years of sealless magnetic drive pump technology

As the BPMA reaches its 75th year, Sundyne HMD Kontro is preparing to celebrate 70 years since pioneering the very first sealless pump. The two organisations have a mutual objective to promote the development of cutting-edge pump technologies, environmental responsibility, operational safety and through-life cost efficiency.



One of the very first sealless pumps now on display in the reception area at Sundyne HMD Kontro.

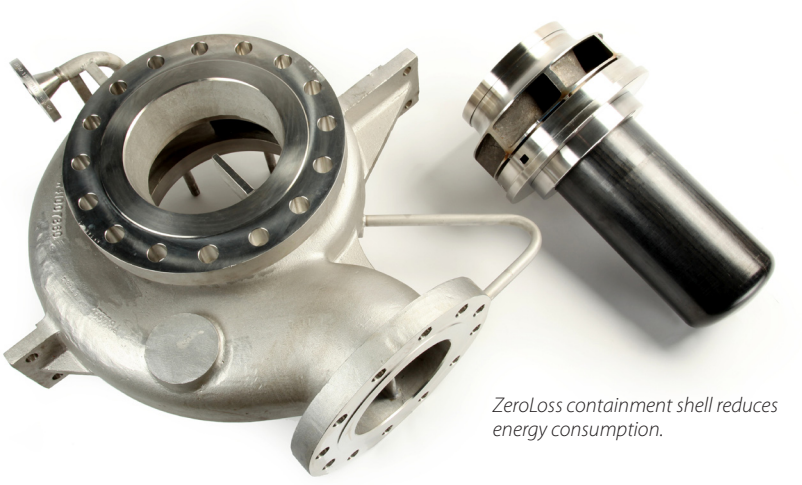
Pump manufacturer Sundyne HMD Kontro was the first to develop the concept and supply the first ever sealless pump, thus pioneering zero leakage pumps. Founded by Geoffrey and Charles Howard as Hydraulic & Mechanical Developments, in Eastbourne, UK, the company developed and supplied the first magnetic drive pumps in 1947.

These pumps were designed and supplied to ICI to handle Dowtherm at 300°C. Four years later, HMD developed the first permanent synchronous magnet drive pumps rated up to 20 HP. The company continued to progress sealless magnetic drive technologies and was acquired in 1995 by Sundyne, who merged HMD Sealless Pumps with the American-based Kontro brand.

Widespread application

The adoption of sealless technology is now widespread with Sundyne HMD Kontro and other manufacturers having supplied pumps for thousands of installations around the world. The product portfolio has expanded to include horizontal, vertical, high-pressure, low-flow and multi-stage designs, vastly expanding the variety of processes and industries for which sealless magnetic drive pumps are suitable, many of which would never have even been considered a possible fit 70 years ago.

By challenging industry's early, and indeed some current, perceptions of what sealless pumps are capable of, at every stage of their evolution; pumps are now available for a very wide variety of applications. From standard pumps for use in many industrial processes, particularly those relating to the chemical, pharmaceutical and biochemical sectors, through to more specialised pump solutions specifically engineered for use in demanding services such as the petrochemical, oil and gas industries. Magnetic drive technology is also often the preferred option for moving



ZeroLoss containment shell reduces energy consumption.

hazardous and potentially harmful liquids.

The very latest sealless pump developments have been in the areas of secondary containment, reducing power consumption and the elimination of the risks of dry running. By introducing a series of key feature updates, magnetic drive pumps are now more reliable, safe and efficient than ever before.

ZeroLoss containment shells

Among these new features is the ZeroLoss™ containment shell. This shroud design eliminates eddy current heating, which is a common issue with rotating magentically-coupled equipment. By removing this variable, higher efficiency ratings can be achieved by the pump. This correlation is most valuable for larger sealless pump installations, where reductions in the specified size of the magnetic coupling and motor can also lead to operational cost savings. By reducing energy requirements and overall utility costs, as well as the intrinsic benefit of a reduced carbon footprint, the ZeroLoss containment shell has become a value-added feature of the product line options.

VapourView gas detection

Recognising the importance of detecting gas within pumped liquids in order to avoid the risk of damage and dry running, Sundyne HMD Kontro has also now developed and patented non-intrusive instrumentation that uses an ultrasonic signal to detect the presence of gas in a liquid stream from outside the confines of the pump pressure boundary.

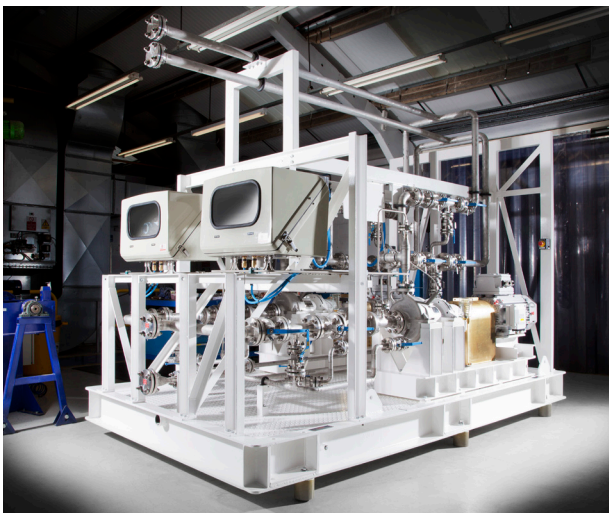
The recently introduced VapourView™ pump protection system monitors process fluid as it passes through the pump. When the probe detects the presence of even the most minute gas levels within the flow, a warning signal is sent to the pump operator. This instant feedback helps prevent harm to the pump from occurring by providing early warning of incorrect priming, venting, cavitation or entrained process gas, which can result in pump damage or even failure.

With thousands of pumps now installed worldwide, many of which are still operating after several decades of use and many serving challenging applications in hostile environments, sealless pumps, including those from Sundyne HMD Kontro, are a leading choice for those who appreciate their low maintenance costs (no seals to replace), environmental safety, leak-free operation and best-in-class durability. ●

www.sundyne.com/hmdkontro

VapourView gas detector mounted on a LMV 801S vertical sealless pump.

A standard GSP pump with widespread application.



A sophisticated sealless pump system for the petrochemical industry.