



Case Study

Syngenta puts safety first by selecting sealless pumps



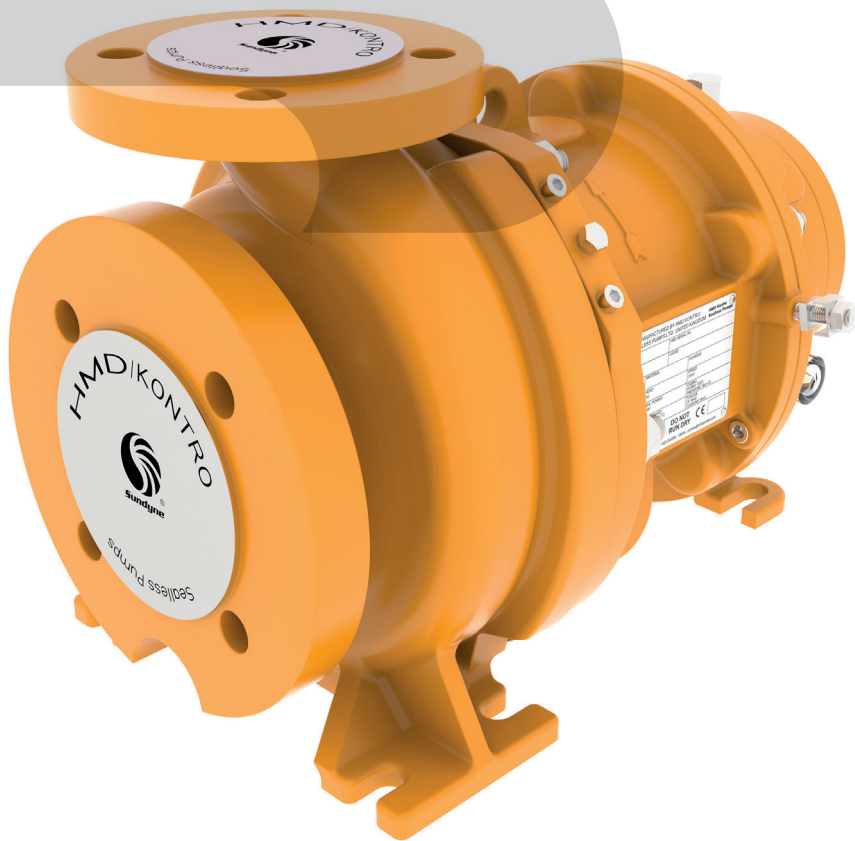
HMD Kontro has become a manufacturing partner and chemical pump supplier to Syngenta, the global agricultural group and world leader in crop protection and seed improvement.

Syngenta is a world leader in agricultural technologies and pest control products, providing innovative sustainable solutions to keep plants and crops free of pests and diseases. As farmers face increasing challenges caused by environmental changes such as climate and biodiversity loss, Syngenta provides solutions to these challenges via sustainable agricultural breakthroughs to counter these threats. By striving for lower residues on crops and in the environment, Syngenta strengthens the wider food industry, by providing safer, healthier food for the consumer.



Operating in over 100 countries worldwide and with world-class manufacturing facilities, Syngenta's sites are carefully configured to ensure products are produced safely and effectively. To support their crop protection innovation programmes, Syngenta had been seeking to further invest in manufacturing upgrades at their facility based in Porriño, Pontevedra, Spain.

As a priority, Syngenta Spain had elected to source magnetic drive sealless pump solutions that could handle high temperatures, and volatile substances associated with chemical pump applications such as pesticides, insecticides, herbicides, and fertilisers. With clear technical webinars supplied as part of the introduction and installation process, in July 2021, HMD Kontro supplied chemical service 50 Hz CSI magnetic drive pumps, specifically CSI 65-40-200 H DB6 and CSI 80-50-200 DB6, in 316 stainless steel material, with a close coupled configuration, and each one mounted on its own baseplate. Designed to handle Tefluthrin, a hazardous substance and active ingredient in soil pest treatments, the CSI sealless pump range could safely transfer liquids from the reactor to the storage tank, together with a constant recirculation of the chemical Tefluthrin within the storage tank.

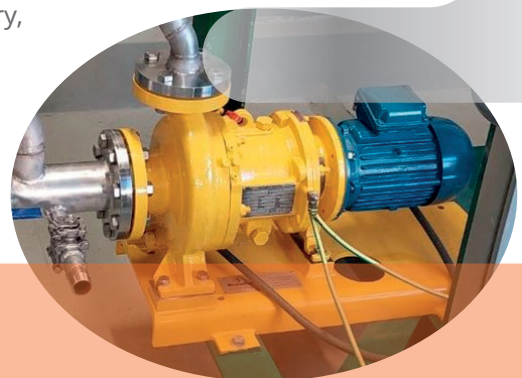


Syngenta also chose the optional feature of a secondary control system and a leakage sensor. The secondary control system comprises a leakage restriction device located between the rotating shaft and the static coupling housing to form a secondary pressure boundary. This design provides additional safety and control beyond the primary pressure boundary of the pump. In the unlikely event of a breach of the containment shell, leakage of the process liquid to atmosphere is restricted by the secondary control seal. The leakage sensor installed within the secondary pressure area then immediately halts the pump to enable the primary pressure boundary failure to be detected and addressed, providing greater safety for operators and the environment.

The CSI magnetic drive sealless pump range has been designed to deliver key operational benefits whilst ensuring compliance to ISO design and safety standards. Notable features and benefits of the CSI range include the use of the ZeroLoss containment shell for improved efficiency and tolerance to system upsets. The highly efficient hydraulics allow maximum flow and head coverage and in addition, the components are highly modular and interchangeable. With improved pump performance and reduced maintenance, the CSI delivers maximum uptime and minimum downtime, together with the ensuing cost savings. Global service teams are on hand to assist with all aspects of pump operation.

HMD Kontro are proud to be recognised as pioneers of sealless pump engineering. With no seals to leak, no buffer systems to maintain and no supporting systems for cooling water, venting or vapour recovery, the latest magnetic drive pump technology offers significant cost and operational benefits. Lower end-user installation costs and simplified maintenance requirements make an effective whole-life proposition compared to conventional mechanical seal pumps.

For more information on HMD Kontro sealless pumps for application in crop protection production, please visit hmdkontro.com, or call +44 (0)1323 452 000 or email info@hmdkontro.com.



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