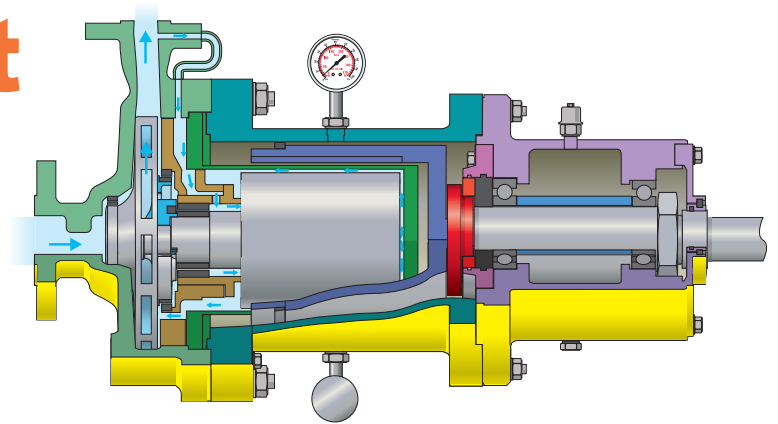


Secondary Control/ Containment Options

For an even safer
pump solution



Sealless, magnetic drive pumps offer complete containment and eliminate the need for dynamic seals. The intrinsic benefits of sealless pumps include the provision of a 'leak free' solution and the removal of the risk for the release of hazardous liquids to the atmosphere.

HMD Kontro pumps feature containment shells that are designed in accordance with the ASME Boiler and Pressure Vessel Code. The containment shell forms part of the primary pressure boundary and its breach is an extremely rare occurrence. To further guard against the highly unlikely occurrence of a primary shell leak, an additional feature of a secondary control or secondary containment system is available as an upgrade on both new and most existing HMD Kontro pumps.

Primary and Secondary Protection

The primary pressure boundary comprises the pump casing, generally a thick walled, cast component, sealing the process to atmosphere and a thin-walled containment shell between the two parts of the magnetic coupling. With the introduction of secondary protection, the purpose is to either control or contain any leakage should a breach of primary containment occur. There are two methods of secondary protection:

Secondary Containment

The containment shell is located inside the coupling housing which may, as an option, be fully sealed to form a secondary pressure boundary with a secondary containment system. The system features a dry mechanical seal, between the rotating shaft and the static coupling housing, which completes the sealing of the secondary pressure boundary in conjunction with a leak detection device (either Pressure or Liquid Sensor) within the secondary area. In the unlikely event of a primary pressure boundary failure, the pump is shut down and the process liquid is confined within the secondary pressure boundary of the pump, preventing it's escape to atmosphere and allowing for it's safe removal via the secondary housing vent or drain connections.

Secondary Control

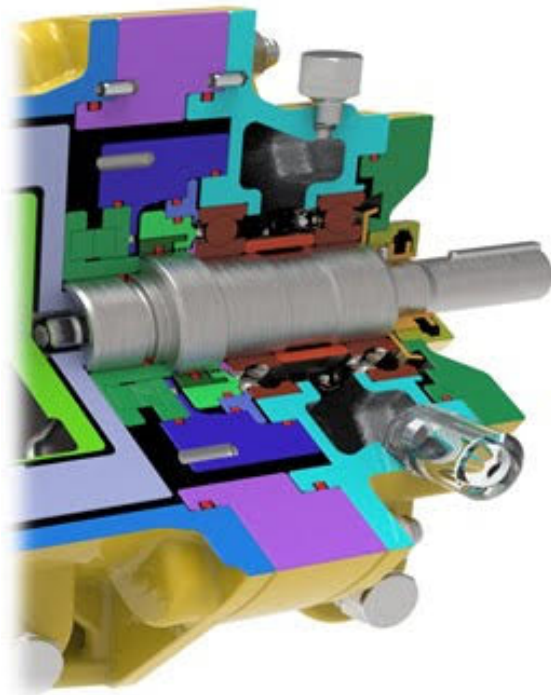
Secondary control is a variation on the above containment concept. This feature consists of a labyrinth seal that restricts leakage in the unlikely event of a breach of primary containment, along with a leak detection device (either Pressure or Liquid Sensor) within the secondary area. On detection of a breach of primary containment, the pump is shut down and the sealing device minimises leakage to the atmosphere and the system allows for removal of the process liquid via the secondary housing vent or drain connections.

Benefits of Upgrade

Sealless pumps are completely self-contained as standard with the resultant environmental, health and safety benefits. With the addition of a secondary containment or secondary control system, along with the applicable leak detection instrumentation, the safety of HMD Kontro sealless pumps is further enhanced making them suitable for a wider range of toxic, aggressive and harmful applications.

Benefits include:

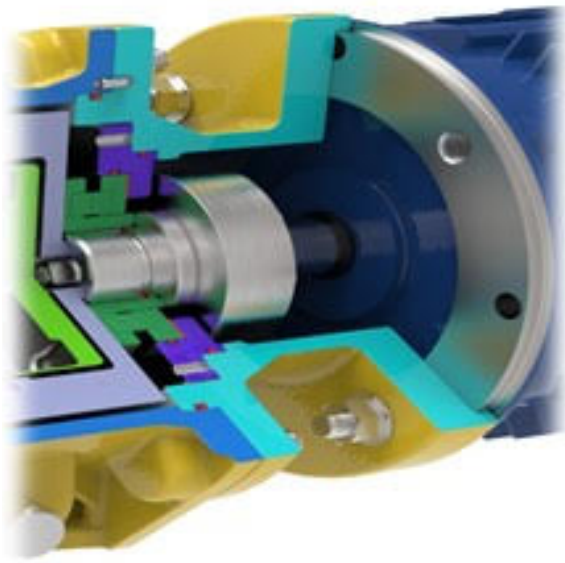
- Reliable, efficient, and environmentally friendly
- Conformance to the applicable standards and regulations
- Design allows for a high degree of monitoring and control
- Immediate shut down of pump if a leak is detected if the required instrumentation is installed



Upgrade Availability

Upgrades are available for most HMD Kontro ASME, ISO and API pumps:

GSA or GSI Frame 1 pumps (DA magnetic coupling sizes)
GSA or GSI Frame 2 pumps (EA magnetic coupling sizes)
GSP Frame 1 (DA magnetic coupling sizes)
GSP Frame 2 (EA magnetic coupling sizes)
GSP Frame 3 (FA magnetic coupling sizes)
GSPV Frame 1 (DA magnetic coupling sizes)
GSPV Frame 2 (EA magnetic coupling sizes)
GSPLF Frame 2 (EA magnetic coupling sizes)
LMV – 801S



If you would like to know more about HMD Kontro secondary containment or secondary control options and to view a video that explains further please see:

www.hmdkontro.com/secondary-containment

To maximise your uptime, please contact HMD Kontro's highly skilled Aftersales Technical Support Team who have vast experience in the operational aspects that customers may encounter during the lifetime of their sealless pump installations. We are keen to share this knowledge with you to ensure your pump maintenance is optimised and straightforward, fast and cost effective. Our Engineers are always on hand to provide trouble shooting advice and to recommend suitable upgrades, spares kits and stock inventory levels.

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