

SEALLESS PUMPS DELIVER SAFE AND RELIABLE HANDLING OF TOXIC CHEMICALS TO THE GLOBAL BATTERY MANUFACTURING INDUSTRY



The battery manufacturing industry is experiencing unprecedented changes in demand, where the pursuit of production capacity, improved battery performance, new technologies, and profitability are at the forefront of future industry thinking.

With this business opportunity comes significant challenges for battery manufacturers. One area of concern is the safety of workers during manufacturing that involves aggressive chemicals, while maintaining efficient and reliable processes.

HMD Kontro supplies sealless magnetic drive pumps to leading lithium-ion battery manufacturing groups, with an understanding of the manufacturing priorities:

Handling of hazardous chemicals

The deployment of flammable, combustible, toxic and corrosive liquids requires key considerations, such as:

- Leak-free operation
- Containment in case of failure
- Chemical compatibility within a pumping solution
- Minimising environmental impacts

The need for a reliable solution

High operational uptime and low maintenance demands versatility and reliable operation day-in, day-out, which requires:

- Proven reliability in the chemical processing industry
- Material compatibility for long life
- No seal maintenance

Industry standards

Compliance with international dimensional or performance specifications where rugged industry standards are met, including:

- ASME
- ISO
- API
- ATEX

Global service

Availability of a responsive and flexible global supply chain to worldwide manufacturing plants, which can facilitate:

- Local service and after-sales support
- Quick delivery





Why Choose A Sealless Pump?

A sealless pump is a conventional centrifugal pump without packed glands or mechanical seals.

As specialists in the provision of magnetic drive pumps, in industries where performance and environmental integrity are key, HMD Kontro provides an effective alternative to traditional mechanical seal pumps and offers multiple benefits ranging from leak-free operation to minimal maintenance requirements.

- **Complete fluid containment**

In conjunction with the main casing, the static containment shell of a magnetic drive pump forms a completely sealed liquid and pressure boundary with high chemical and thermal resistance. The sealless technology provides total fluid containment which in turn greatly reduces the risks of product emissions or leaks.

- **Reliable solution with no seals or seal support systems**

Using the latest technology, HMD Kontro is able to offer the widest selection of sealless pumps on the market, with the ability to adapt to suit specific application requirements. HMD Kontro representatives are on hand to provide support during the selection stage to ensure high performance and reliability with the pumping solution.

As there are no seals or seal support systems, such as associated connections or instrumentation, choosing an HMD Kontro sealless pump can simplify the selection process, as well as installation, commissioning and ongoing operation.

- **Increased MTBF and lower operation costs**

HMD Kontro pumps are easy to maintain and service on site. As there are no seals to replace or maintain, our pumps benefit from reduced running costs as well as less downtime. These factors, along with longer MTBF intervals due to increased reliability, leads to significantly lower overall pump life-cycle costs.

- **Compliance to industry standard and global availability**

HMD Kontro magnetic drive pumps are designed to adhere to ISO, API, ASME and ANSI standards.

Being industry-certified means that global quality programmes have been met, together with conformity to environmental and occupational health and safety specifications.

By operating a global delivery model, client costs are minimised and customised orders across international manufacturing plants can be fulfilled. Our clients benefit from increased flexibility, and an on-hand same day local support service, anywhere in the world.

HMD Kontro Pumps

Safely Handle Toxic Chemicals Worldwide

Having supported multiple global leaders in lithium ion battery manufacturing, where the circulation or transfer of hazardous chemicals is intrinsic to daily manufacturing processes, HMD Kontro sealless magnetic pumps provide a reliable and safe pumping solution. Our pumps are compatible with a range of process liquids, including:

Example Process Liquids

Chemical Description	Chemical Compound	Liquid or Solvent Pump
Trichloroethylene	TCE	✓
Ammonia	NH3	✓
Dimethyl Sulphate	(CH3)2SO2	✓
Sodium Hydroxide	H2SO4	✓
Sulphuric Acid	H2SO4	✓
Dimethyl Carbonate	OC(OCH3)2	✓
Water	H2O	✓

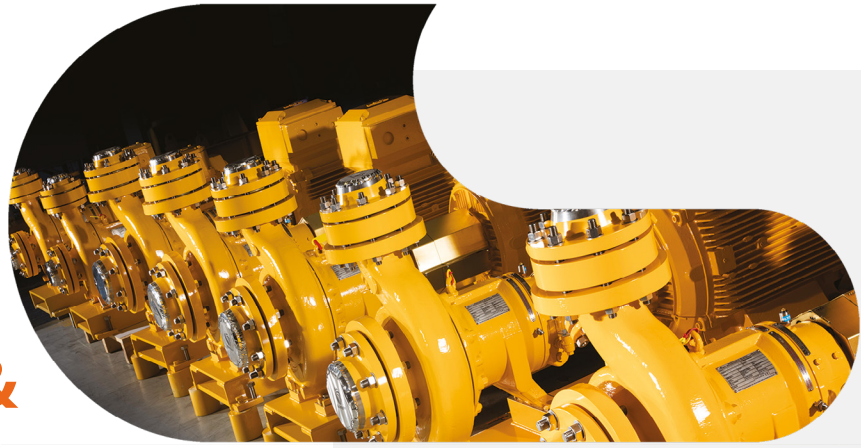


All aggressive liquids require careful handling plus an important need for sensitivity to the environment in which they are used. Our pumps consistently meet high standards where outstanding performance and safety are required. The engineering design in HMD Kontro's sealless pumps prioritises protection for human health and the wider environment.

ANSIMAG Lined Sealless Pumps



The ANSIMAG range of ETFE-lined sealless magnetic drive pumps provides an ideal solution for aggressive or corrosive liquid applications. With wetted parts moulded with Ethylene Tetrafluoroethylene (ETFE) components, ANSIMAG pumps can safely handle a wide range of aggressive liquids for temperatures up to 120 C / 250 F without corrosion.



Service Benefits & Long Term Advantages

Costs Saved

Specifying sealless can achieve the savings that are needed from initial concept to the daily manufacturing output, optimising total lifecycle costs.

At the time of installation, commissioning is quicker, allowing faster project completion and there are less lengthy HazOps (Hazard and Operability) and SIL (Safety Integrity Level) studies to undertake, and agree.

Once up and running, sealless pumps have reduced downtime, because of less maintenance and no need for seal changes, all of which contributes to improved plant utilisation and profitability.

Safety Solved

Pumping hazardous chemicals requires careful handling and consideration of the risks involved.

With total product containment, EH&S (Environmental Health & Safety) needs are met, with no need for EPA monitoring, plus all the safety benefits on site.

Due to the reduced possibility of leakages, liabilities are reduced and insurance costs are lowered.

Service Delivered

Our After Sales team, together with our Channel Partners around the world, can help to optimise the performance and through life experience of using our pumps.

We assist with installation and commissioning, ensure the smooth contract execution and swift provision of all the appropriate documentation, and optimise your spare inventory and operating efficiency using the benefit of our experience.

Scale and Support

For more information on how HMD Kontro's sealless pumps can integrate into battery manufacturing production methods and provide reliable, durable and safe liquid pumping solutions, please contact our Channel Partner or Representative local to you or HMD Kontro directly.

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Battery Manufacturing Brochure
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