

MagnoProtect – Highest Safety for Mag-drive Pumps



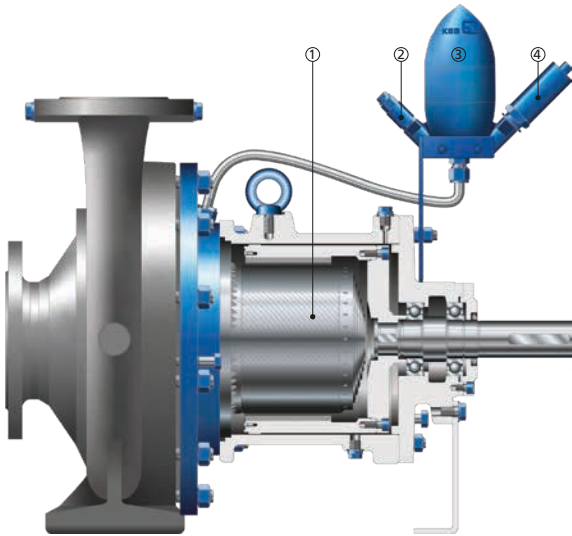
Applications:

- Handling hazardous substances of the highest safety requirements in the chemical and petrochemical industries

More information:

www.ksb.com/products

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1 MagnoProtect containment shroud 2 Lift check valve 3 Vacuum chamber
4 Pressure sensor

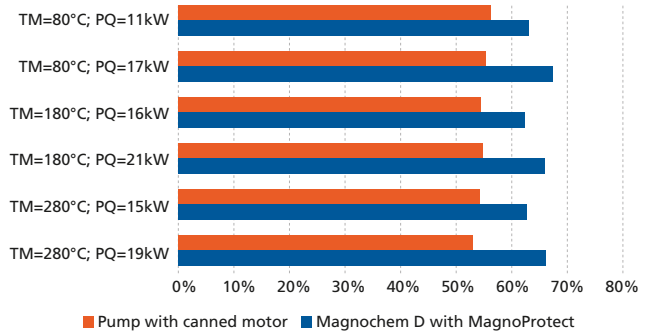
Maximum safety

- The two barriers offer a safety level comparable to that of canned motor pumps.
- Damage at the inner or outer pressure enclosure can be detected early by a pressure transmitter.
- Changes in operating condition can safely be measured via temperature monitoring at the containment shroud.
- A third safety barrier can be added.

Low energy costs

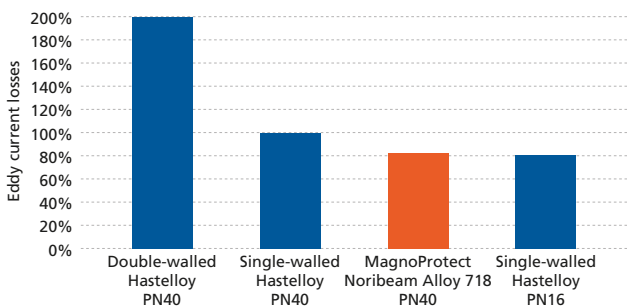
- MagnoProtect offers complete safety with 2 static barriers, like a double-walled containment shroud but without the disadvantages in energy costs.
- The patented design is comparable to a single-walled metal containment shroud regarding eddy current losses and energy costs.
- Compared to canned motor pumps, Magnochem with MagnoProtect enables considerable energy savings without any compromise in safety.
- By using IE4 / IE5 high-efficiency motors even greater energy savings can be realised.

Comparison of overall efficiency^{*)}



^{*)} Comparison based on the same operating points and same hydraulic systems at different temperatures. TM = fluid temperature; P_Q = pump power output (P_Q = ρ × g × Q × H)

Comparison of eddy current losses^{*)}



^{*)} Based on magnetic couplings of the same diameter and same transmittable torque

Fast to repair

- Easy replacement of the containment shroud in the event of damage
- No contamination of non-wetted components
- Unproblematic return to service with external vacuum chamber

Flexible application

- Available for the entire Magnochem family (MACB, MACD and MACW)
- Retrofitting is made easy by integration in the existing modular system of magnetic couplings.



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