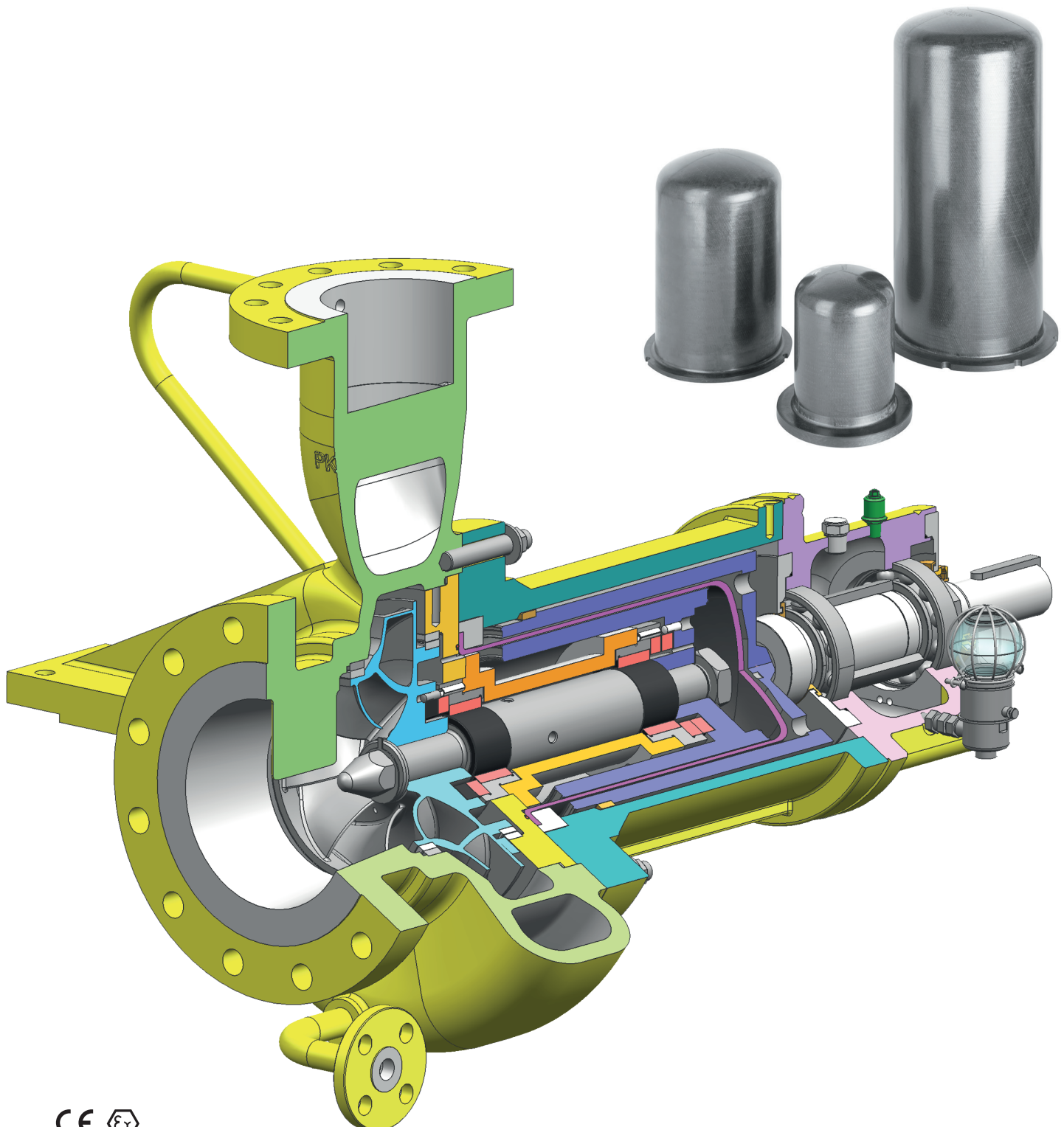


ZeroLoss™ Containment Shells

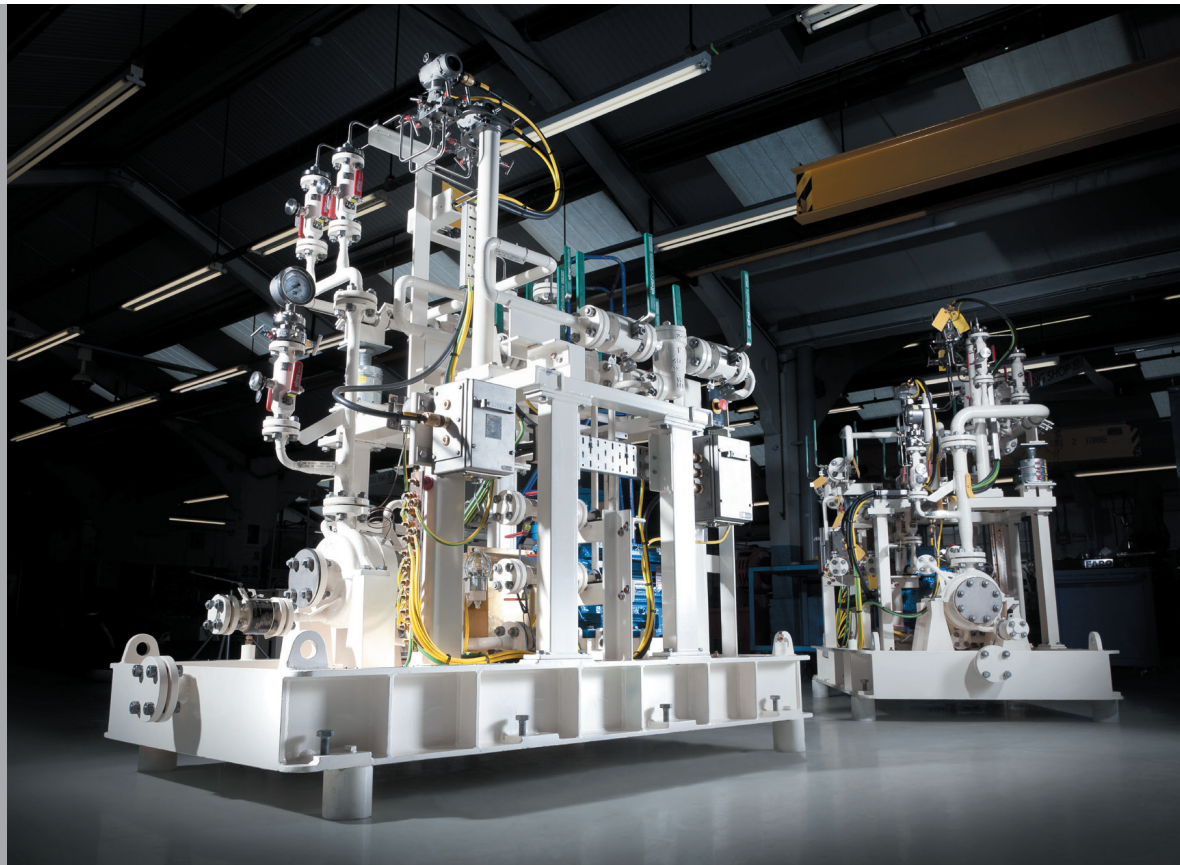
HMD Kontro





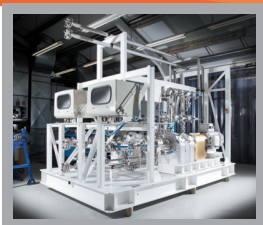
Eddy Current Elimination

The elimination of induced eddy current losses gives the ZeroLoss™ containment shell its name. Heat dissipation can be an issue with magnetic drive pumps and the composite ZeroLoss™ shell provides a step change to this problem by eliminating inductive heating.



This significantly increases the margin-to-flash safety factor and is particularly important when pumping volatile and heat sensitive liquids.

Five times lighter than steel but as strong, the ZeroLoss™ shell is engineered from a composite material of poly-ether-ether-ketone (PEEK) and carbon fibres. In addition to its higher specific strength, the material is tough and durable.



Some Benefits of the ZeroLoss™ Shell

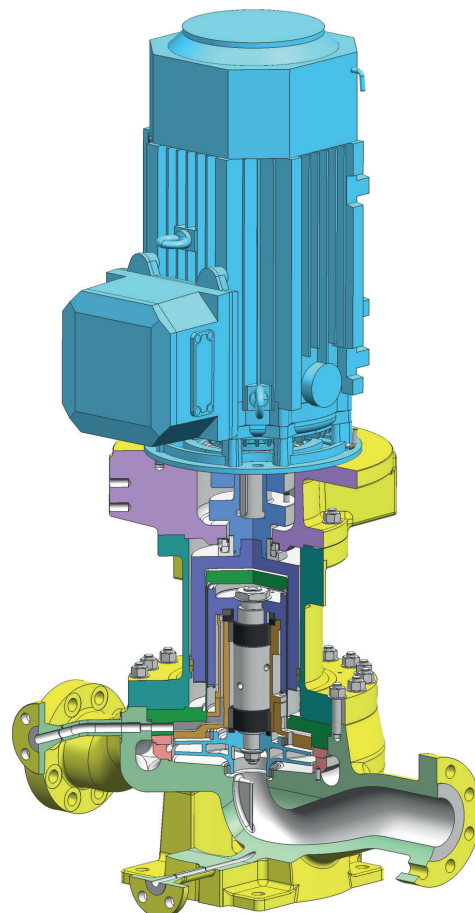
- More robust design for closed discharge or potential dry run circumstances.
- Reduced power consumption for significant energy savings.
- Potentially lower capital costs from smaller motor and magnetic coupling.
- Lower utility costs, both for installation and ongoing consumption.
- Reduced heat into the liquid being pumped.
- Improved handling of liquefied gases and heat sensitive liquids.
- May be retrofitted to existing Sundyne HMD Kontro GSP pumps.

Reduction in Energy Consumption

The ZeroLoss™ containment shell eliminates eddy current losses within the pump. The advantage increases in proportion with the magnetic coupling size and is particularly appropriate for larger pumps, making the magnetic drive option even more attractive because life cycle costs are reduced even further.

Lower power consumption not only results in reduced running costs but also potentially provides lower initial capital costs, as smaller motors can be specified. Also installation costs can be reduced, as lower-rated cabling may be required.

You will also be reducing your carbon footprint, further enhancing the environmental benefits of adopting sealless pumps.



Composite Material for PEEK Performance

The Sundyne HMD Kontro ZeroLoss™ containment shell is engineered from a combination of Carbon Fibre and PEEK (Poly Ether Ether Ketone).

Some of the benefits of this material include the following:

- | | | |
|--------------------------------|------------------------------|---|
| • High tensile strength | • Resistant to thermal shock | • Thin wall structures |
| • High electrical resistivity | • Single part complex shapes | • Low mass |
| • Chemical resistant | • Recyclable | • Low co-efficient of thermal expansion |
| • Excellent fatigue properties | • No porosity | |
| • Fire and heat resistant | • Impact resistant | |

All of the above properties make the material very suited for use in sealless pumps and in the majority of process applications.



Applicable to Pump Ranges

(limited for operation up to 120°C)

GSA/GSI Frames 1 & 2	GSP Frames 1, 2 & 3	GSPV Frames 1 & 2
GSPVS Frames 1 & 2	GSPLF Frame 2	LMV-801S

ZeroLoss™ Sealless Pumps Parameters

Temperature	-100°C to +120°C / -150°F to +250°F
Flow Rates	Up to 2000m³/h / 8800 USgpm
Heads	Up to 350m differential / 1140ft
Viscosity	Maximum 200cP
Pressure	Up to 40 bar / 580 psi
Solids	Up to 5% wwt, with a particle size of 150 microns Up to 8% wwt and 500 microns with filtration
Power	365kW 50Hz / 440kW 60Hz
Standards	API685 (API610) / ASME B73.3



Environmentally
Friendly



Strong &
Robust



High
Temperatures



Money
Saving



Energy
Efficient



High
Pressures

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