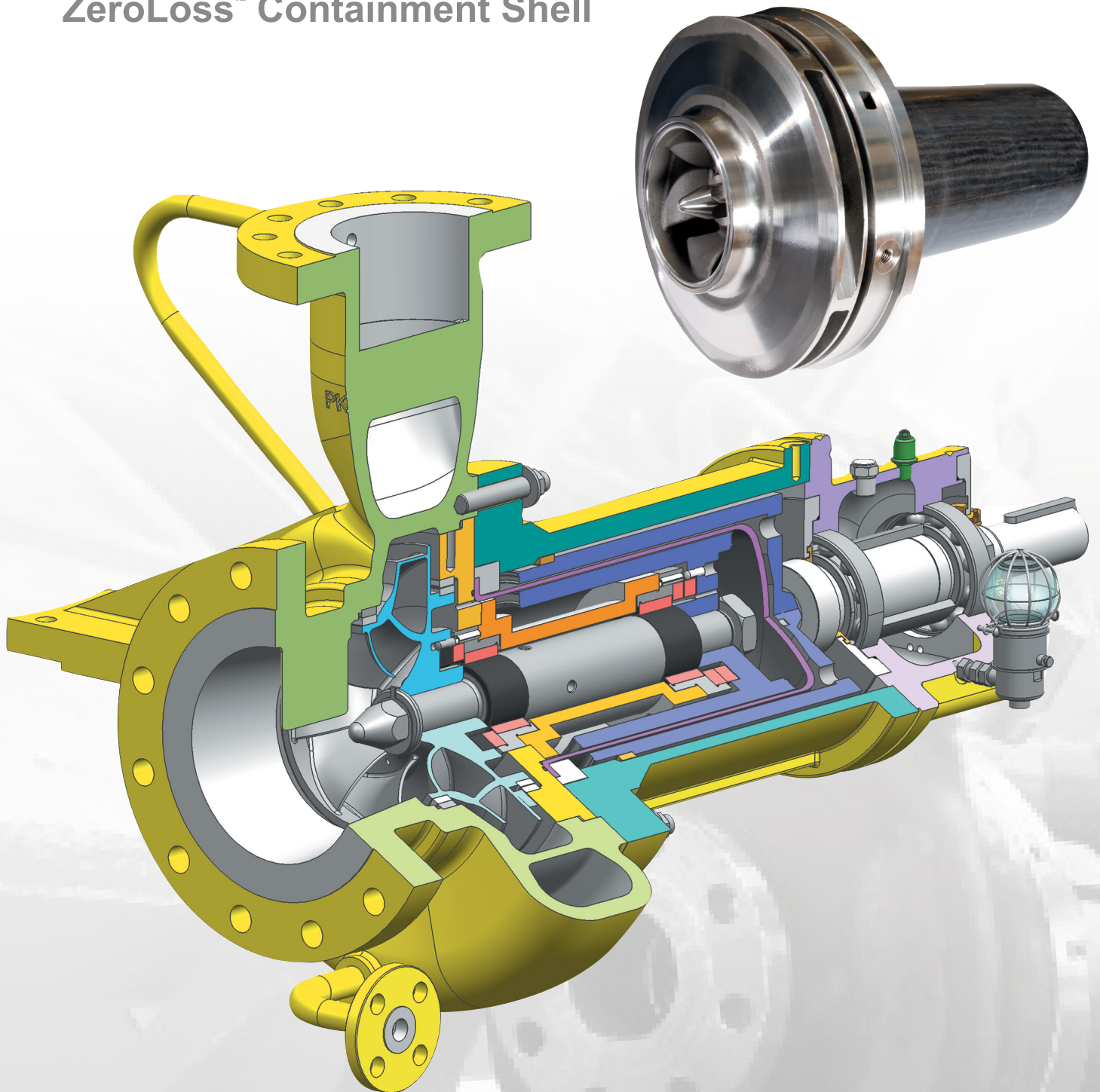


## ZeroLoss™ Containment Shell





## Reduce Your Energy Consumption, Improve Your Pump's Performance

**The ZeroLoss containment shell is a revolutionary new feature offered on the Sundyne Sealless magnetic drive pump product line.**

Engineered from a proprietary high strength, low weight material, which was originally developed for use in structural components for high-tech aircraft, the ZeroLoss containment shell is incredibly durable, offering resistance to impacts, caustic substances and extreme temperatures. This material is also non-ductile, which eliminates eddy current heating and permits the ZeroLoss containment shell to deliver higher efficiency ratings to our sealless magnetic drive pumps, allowing for reduced coupling and motor sizes and resultant operational cost savings.

Additionally, the ZeroLoss shell provides lowered energy requirements and overall utility costs, demonstrating our continued commitment to providing you with improved efficiency and reduced equipment life cycle costs.

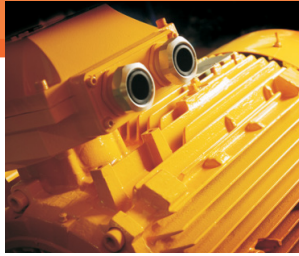
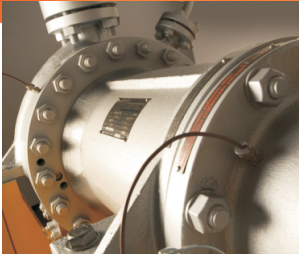
*Sundyne – your reliability assurance partner.*



## Composite Material For PEEK Performance

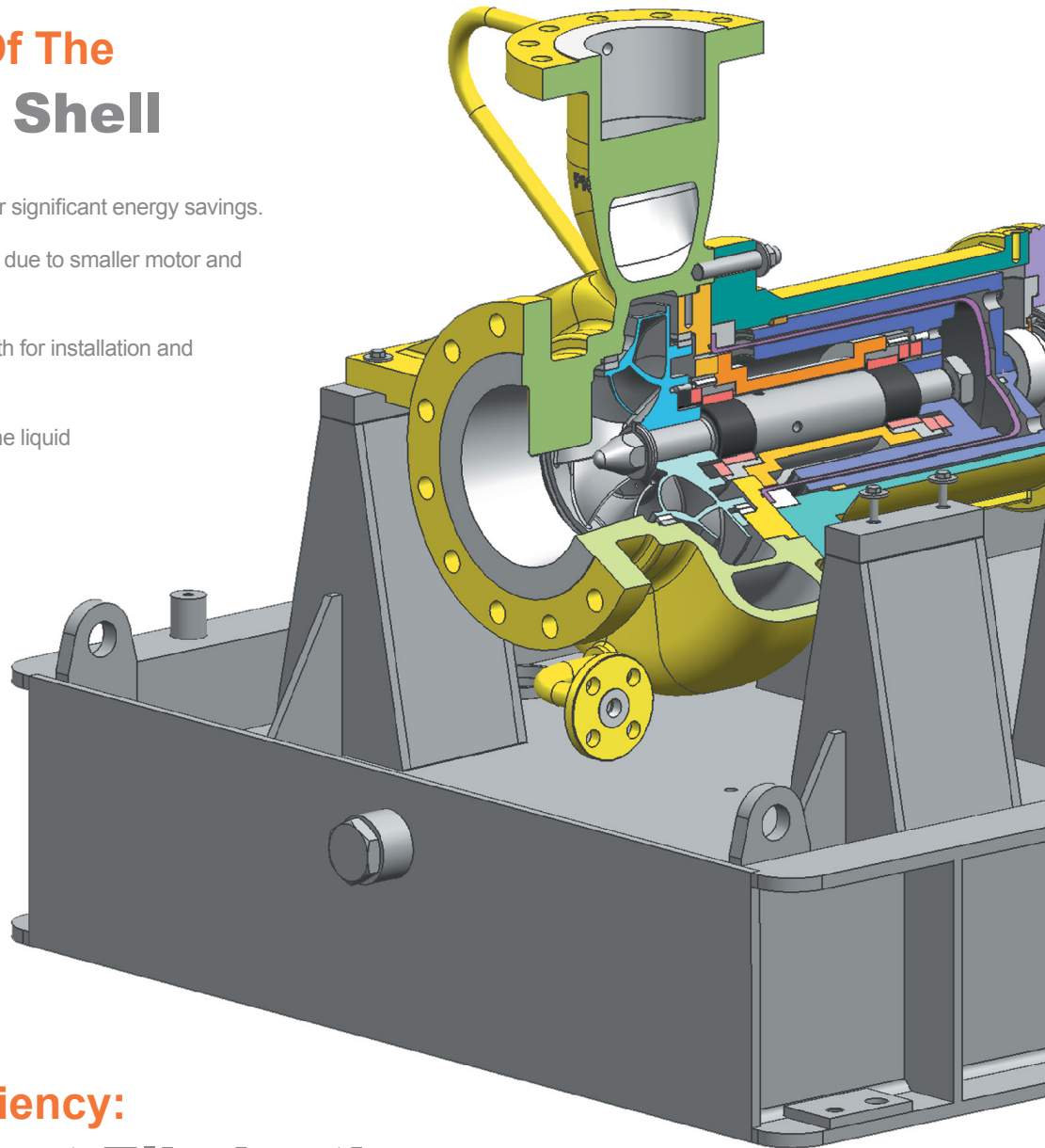
The Sundyne ZeroLoss™ containment shell is engineered from a combination of carbon fiber and Poly Ether Ether Ketone (PEEK) to deliver a range of operational benefits over metallic containment shells for use with sealless pumps, including:

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



## Some Benefits Of The ZeroLoss™ Shell

- Reduced power consumption for significant energy savings.
- Potentially lowered capital costs due to smaller motor and magnetic coupling.
- Potentially lower utility costs, both for installation and ongoing energy consumption.
- Reduced heat transferred into the liquid being pumped.
- More robust design for closed discharge or potential dry run scenarios.
- Improved handling of liquefied gases and heat-sensitive liquids.



## The Key To Efficiency: Eddy Current Elimination

The ZeroLoss containment shell is so effective because of its high electrical resistivity, which eliminates eddy current heating. Metal containment shells have much lower electrical resistance, which allows for the easy formation of eddy currents.

This means that in a pump with a traditional metallic containment shell, the motor must overcome these losses as well as drive the pump rotor, resulting in less efficient operation that leads to higher utility consumption. The ZeroLoss containment shell – due to its construction from carbon fiber and PEEK – prohibits these losses, meaning that the motor will drive the pump's inner magnet ring to the required speed without adding heat to the liquid being pumped.

The advantages of the ZeroLoss shell are most obvious on larger pumps, where reductions in the size of the magnetic coupling and motor result in further cost savings and, in some instances, smaller base plates can be specified to provide a reduced footprint for space savings.





**COMPRESSORS**

**PUMPS**

**GENUINE PARTS**

**SERVICE**

## ZeroLoss™ Sealless Pumps Parameters

Temperature	-40°C to +120°C / -40°F to +250° F
Flow Rates	Up to 2000m <sup>3</sup> /hour / 8800 USGPM
Heads	Up to 350m differential / 1140'
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

Enhance your pump's reliability and save money **TODAY** by locating the global representative, distributor or authorized service center nearest you!

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ZeroLoss Containment Shell Brochure.  
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