



Energy saving, extended service life, and safe operation

Our 'Pumping for Life' narrative revolves around three essential themes crucial to our customers.

Our products are meticulously designed to endure a lifetime and operate with utmost efficiency, resulting in energy savings. This benefits our planet and the future generations inhabiting it.

Moreover, our products enhance workplace safety. Reduced deck maintenance lowers risks for ship crew, thereby increasing safety.

MarFlex Pumping for life concept

Solid Design

Our three key themes - energy saving, extended service life, and safe operation - are achieved through our in-house developed Pumping for life concept, rooted in solid design principles.

Design considerations include flexing bulkheads, harsh environments, and the challenge of crew adherence to procedures.

- ✓ No wear-and-tear parts between dockings.
- ✓ Dedicated software intervenes if the stripping procedure isn't followed correctly.
- ✓ Mode shapes are designed to prevent resonance at any operating point.

These examples demonstrate our robust design capabilities, enabling pumping up to 32 meters effortlessly.

Smart Pumping is the latest invention strengthening our Pumping for life concept

For New and Existing Vessels

Smart Pumping is a system for simultaneous, automatic, energy-efficient unloading of multiple tanks on a ship carrying liquid cargo.

This system can be integrated into new ships or retrofitted onto existing vessels equipped with MarFlex deepwell pumps.

The system optimizes pump performance, resulting in significant energy savings (up to 40%) and reduced CO₂ emissions (approximately 100,000 kg per year). In case time is of the essence, during fastest possible discharge the system always avoids cavitation, which benefits the lifetime of the pumps. Connection to "green" shore power is also feasible.

MarFlex Smart Pumping Solution comprises three phases



Basic energy savings up to 20%: Ensures pumps operate at their peak efficiency. Crew can choose between maximum energy savings or fastest release based on the discharge plan.



Enhanced energy savings up to 20%: With sensor integration, pump speed and valve position adjusts automatically to varying tank levels or pipe resistance, optimizing efficiency.



Autonomous cargo handling: Integration with loading computer enables near-complete automation of the discharge plan.

Benefits*

- ✓ Energy savings up to 40%
- ✓ ROI achievable within 4 years
- ✓ Reduced CO₂ emissions
- ✓ Autonomous cargo handling within reach
- ✓ Predictable maintenance

* Data varies depending on the situation. Please contact sales for more information.

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