



## MARINE & OFFSHORE - Methanol Pumps

Magnetically Driven Centrifugal Pumps

PROVEN TECHNOLOGY

**DESMI**

# NAVIGATING TOWARDS A GREENER HORIZON

## – OUR ENVIRONMENTAL COMMITMENT

The call for a sustainable future resonates across industries, and the shipping sector is no exception. In alignment with the International Maritime Organization's (IMO) ambitious target to achieve carbon neutrality by 2050,

DESMI is fully committed to this environmental imperative. We are proud to introduce our new range of magnetically driven pumps, exactly engineered to meet the demands of next-generation fuels like Methanol.

# Revolutionizing the Safe Handling of Alternative Fuels

The quest for greener alternatives to traditional fossil fuels is essential, yet it comes with its own set of challenges. New fuel types such as methanol are often toxic or hazardous, necessitating stringent isolation measures and double-walled piping systems.

As a pioneer in pumping solutions, we introduced magnetic coupling technology in the 1990s, and our cutting-edge design and continuous improvements have earned the trust and recognition of a wide-ranging customer base.

Our innovative, seal-less technology not only sets new industry standards for the safe pumping of hazardous liquids but also offers a solution that is:

**Efficient**



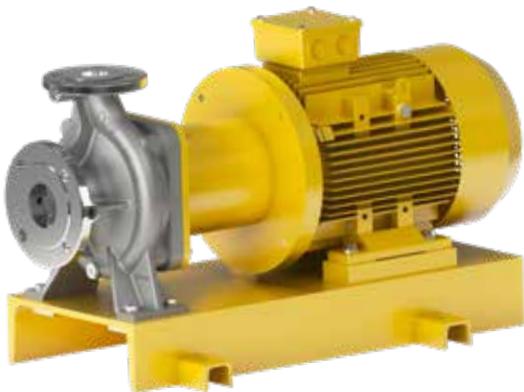
**Reliable**



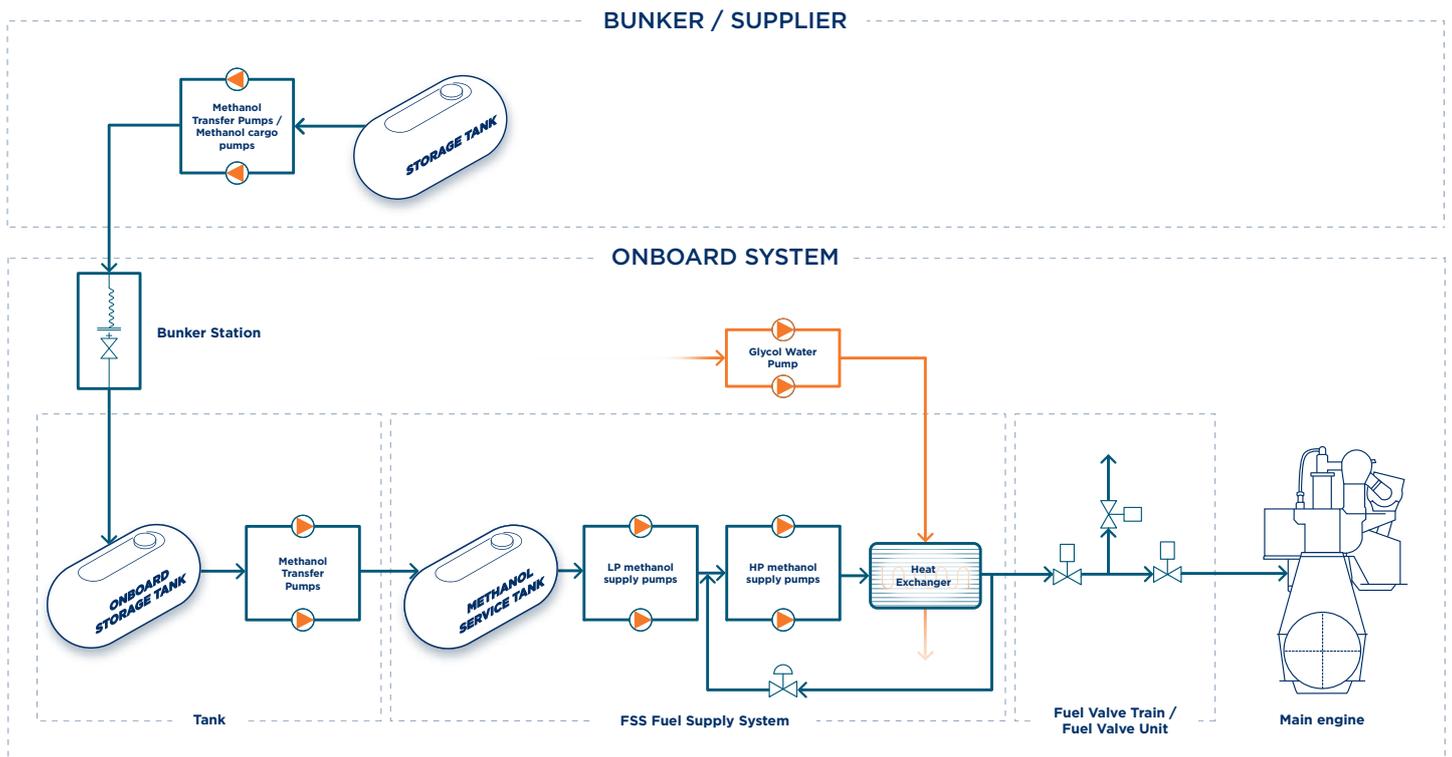
**Cost-effective**



By eliminating the need for expensive auxiliary shaft seal flush systems and minimizing operational downtime for seal inspections or replacements, we provide a comprehensive solution that aligns with both safety and sustainability.



# METHANOL PUMPS FOR ALL SYSTEMS



## FUEL SUPPLY SYSTEM

### Methanol Fuel Supply System

- Vital for green vessel propulsion.
- Components designed for the marine environment.
- DESMI offers a full range of specialized pumps, including booster, drainings, water heating, etc.

## BUNKER

### Methanol Bunkering

- Crucial in the transition to Green Methanol.
- DESMI's magnetic-driven pumps ensure safety and reliability.
- Your partner for clean, alternative fuel bunkering.

## TRANSFER

### Methanol Transfer

- Essential for green fuel systems.
- DESMI's high-performance transfer pumps.
- Comprehensive range of specialized pumps available.





## Leak Prevention

Due to seal-less design, the mag-drive pump is the perfect match when handling new marine fuels, as they can be corrosive, toxic, or environmentally sensitive.



## Reduced Friction

As mag-drive pumps do not have any mechanical seal, friction is eliminated, reducing wear and extending the lifespan of the pump



## Improved Reliability

Fewer moving parts, reducing mechanical failure, leads to increased pump reliability and uptime



## Low Maintenance

With fewer mechanical components, mag-drive pumps typically require less maintenance and downtime for servicing than mechanically driven pumps



## Energy Efficiency

Mag-drive pumps can be designed with precise control over flow rates, which can lead to energy-savings when compared to constant-speed mechanically driven pumps



## Enhanced Safety

Reduced risk of hazardous or toxic liquids escaping into environment



## Quiet Operation

The absence of shaft seal and ball bearings ensures noise-reduced operation.



## Environmental Benefits

More environmental-friendly operation due to reduction in leaks



# Inside the Magnetically Driven DESMI Pump



Magnetic coupling to avoid leakage.

Insulated composite cannister, designed to eliminate eddy loss, and ensure low power consumption. High-quality material and optimal structure secure the pump maximum working pressure up to 16 bar.

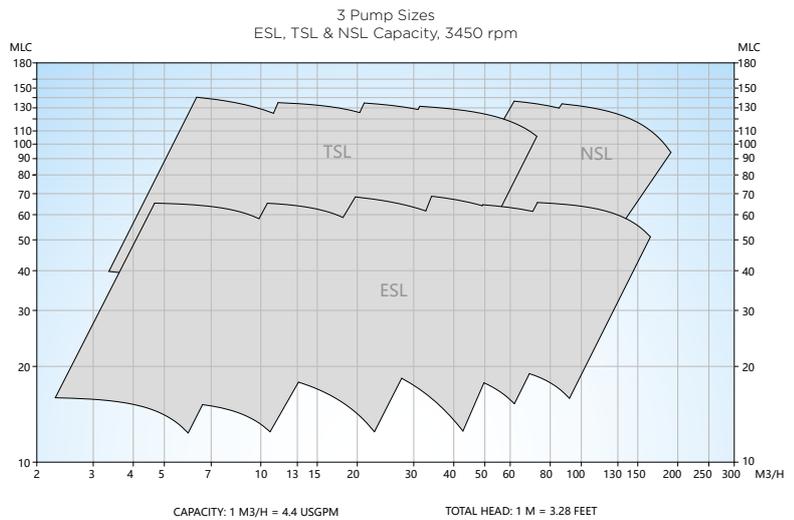
With its compact design and small footprint this pump offers convenient and flexible installation, particularly in enclosed spaces.

Built-in PT100 allows for monitoring of coupling temperature risk. Leakage probe option can be used to detect any leaks from the cannister.

Bearings in tungsten carbide possess excellent wear-resisting properties, effectively lubricated by the pumping medium, ensuring a long life-span.

# CUTTING-EDGE DESIGN METHODOLOGIES AND TOOLS

Technical Specifications	
Norminal Diameter	25 to 100
Flow rate - 50 Hz	Up to 150 m <sup>3</sup> /h (660 US gpm)
Flow rate - 60 Hz	Up to 180 m <sup>3</sup> /h (800 US gpm)
Head	Up to 130 m (430 ft)
Pressure	Up to 16 bar
Temperature	Min. -40°C / Max. 120°C
Motor	Standard and Ex motor
Starting Method	VFD or direct online (DOL)
Viscosity Range	Min. 0.3 / Max. 300 cSt
ATEX approved	
Common Applications: Where no pumping medium leakage is allowed.	
Pumping of: Methanol, Ethanol, Hydrocarbons (fuels) & Amine/Water Mixtures.	
Note: The pumps are designed for pumping liquids without solid/clogging particles. These could cause premature failure of the pump bearings and/or mag-drive.	



## Ensuring Excellence with Global Certifications

At the heart of our commitment to quality and reliability, we proudly apply rigorous design assessments and secure internationally recognized approvals for our products.

**Design Assessment by ABS:** Our products undergo a meticulous Design Assessment by the American Bureau of Shipping (ABS), ensuring they meet the highest standards of safety and efficiency.

**Type Approval by BV and CCS:** We further enhance our credibility by obtaining Type Approval from both Bureau Veritas (BV) and China Classification Society (CCS). This guarantees our adherence to global quality benchmarks.

### Product Certification - A Mark of Global Trust

Each pump we deliver comes with its own Product Certificate, a testament to its superior quality and compliance with international standards. This certificate is issued by one or more prestigious organizations:

**Diverse Certification Bodies:** Our pumps are certified by leading bodies such as ABS, BV, CCS, DNV, KR, and LR, and come with both ATEX, ISO 9001, ISO 14001, and ISO 45001 certificates.

**IACS Member Societies:** We collaborate with member societies of the International Association of Classification Societies (IACS), ensuring a broad and globally respected certification process.

In full compliance with the **IGF Code**, our products are designed to meet the rigorous safety standards for ships using gases or other low-flashpoint fuels, ensuring the highest level of safety and environmental sustainability in maritime operations.

With these certifications, we assure you of a product that is not only built to perform but also designed to lead in its class.



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