Integrated Engineered Solutions for Naval Applications

Engineering, Integration, Testing and In-Service Support

Defense

DESMI
Make life flow

Supporting your mission every step of the way

DESMI Defense delivers engineered and fully integrated pumping solutions for naval and coast guard vessels. Combining proven marine technology with defense-focused engineering, we support mission-critical operations worldwide.

Our Capabilities

- Mechanical, systems, and automation engineering
- Project management and ILS expertise
- Global naval and coast guard experience
- FMEA and CFD engineering capabilities

Why DESMI?

- Extensive range of marine-qualified pumps
- COTS/MOTS solutions and rapid replacement programs
- Defense-ready processes, including export control, cybersecurity, and security clearance compliance
- ISO 9001, ISO 14001, and AQAP compliance
- Proven track record in naval applications

What a DESMI naval solution includes:

When partnering with DESMI, you gain a complete solution designed for performance, compliance, and long-term support.

Engineering & Compliance

- ✓ Compliance with naval requirements for shock, vibration, noise, and EMI
- ✓ Compliance with applicable class society rules
- ✓ System design and integration
- ✓ In-house automation and control systems

Solution Delivery

- ✓ Robust, mission-ready designs
- ✓ Modular, standardized, or customized configurations
- ✓ Integrated equipment packages
- ✓ Comprehensive project documentation and ILS deliverables

Lifecycle Support

- ✓ Spare part packages and logistics support
- ✓ On-site commissioning and technical assistance
- ✓ 24/7/365 global in-service support
- ✓ Long-term sustainment and modernization support

Capabilities

Testing and validation capabilities

In-house testing capabilities:

Full-range pump testing on a class-approved test bed or calculation-based shock assessment where applicable.

Class approved test bed

Full digital test report

Dedicated fuel system test facility

Noise and Vibration test facility

External qualification support:

Shock testing via barge test or at a shock test lab.

Scan the QR code to watch our Live shock test video

Offerings

Custom -engineered solutions

DESMI develops systems tailored to meet specific naval requirements

We have extensive experience supporting customers through the delivery of highly specialized solutions across a broad range of naval applications.

Project Examples

BWMS

Ballast Water Treatment System navy vessel ready

Helicopter Refueling Systems

Vessel based Aviation fuel systems for helicopter and fixed wing aircraft

Hot Fresh Water module

Heating water for the crew and galley

Emergency Diesel driven fire pump

A compact, diesel-driven fire pump designed specifically for naval defense applications

Customer story

Aircraft Refueling System for Indian Navy

Vikrant Class Aircraft Carrier – Build at Cochin Shipyard

Being the integrated supplier of the complete aviation fuel system, DESMI participated as a key partner for the build of the first indigenous aircraft carrier in India.

After official commissioning in 2022 the focus changed to in-service-support and the maintenance of onboard and base spares.

Customized Solution

Fuel Dispensing Skid

Designed specifically for the Vikrant Class Aircraft Carrier in Indian Navy

This image is for illustrative purposes only and is not related to the specific customer project described.

Customer story

Smart Radar Cooling System

Utilizing cold ocean seawater, when available, to remove heat from the radar cooling system

Navy vessels are designed to operate in seawater temperatures of up to 32°C. Dedicated radar cooling chillers typically supply chilled water to the radar system at approximately 15°C.

DESMI has designed and delivered a system to the Royal Danish Navy that intelligently utilizes the naturally colder seawater found around Denmark and in the North Atlantic.
When seawater temperatures are approximately 10°C or below, the system can provide sufficient cooling capacity without the need to operate the radar cooling chillers.

As a result, the vessel benefits from reduced electrical power consumption, lower fuel usage, and decreased maintenance requirements due to reduced chiller operating hours.

The system consists of:

- ✓ Chilled water and Sea Water pumps.
- ✓ Variable speed drives for all pumps.
- ✓ Heat exchanger for cooling the radar cooling water.
- ✓ Full automation system with both local control and communication with central control system.
- ✓ Chillers (not DESMI supply).

We exist to help you complete your missions

DESMI works closely with MODs, OEMs, and shipbuilders to deliver critical flow processes that help governments on every continent achieve their national security ambitions. Our pumps and supporting systems are trusted worldwide for dependability and performance.

We help you maintain stringent operational standards through sector insight, tight security protocols, and the flexibility to navigate complex processes. We offer global support and after-sales service plus an efficient global supply chain.

Founded in Denmark in 1834, we have provided the expertise, solutions, and aftermarket support our customers need for nearly two centuries. We help you operate more efficiently and reliably, enabling you to complete your missions, achieve your tactical goals and strategic objectives – and get your vessels and crews safely back.

Together, we can make a difference, whatever the future holds. Because we, like you, are here to **make life flow**. For more information, visit **desmi.com**

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