Flow solutions for data centers

Maximise uptime and efficiency in critical digital infrastructure

Industry/Utility

DESMI
Make life flow

Keep digital infrastructure online and energy-efficient

With the exploding growth in demand for high performance computing (HPC) in areas like AI, ML, Cryptocurrency mining and Blockchain Validation etc. infrastructure reliability, resiliency and efficiency become more critical with each passing quarter.

DESMI is leading the way with highly efficient and reliable flow solutions for critical data center applications. From direct liquid cooling (DLC) to facility water systems and immersion cooling DESMI has the expertise and solution portfolio to help operators solve their flow solution's biggest challenges.

CONTENT

A legacy of solving complex and critical flow applications 4

Solutions for cooling 6

Water intake systems 8

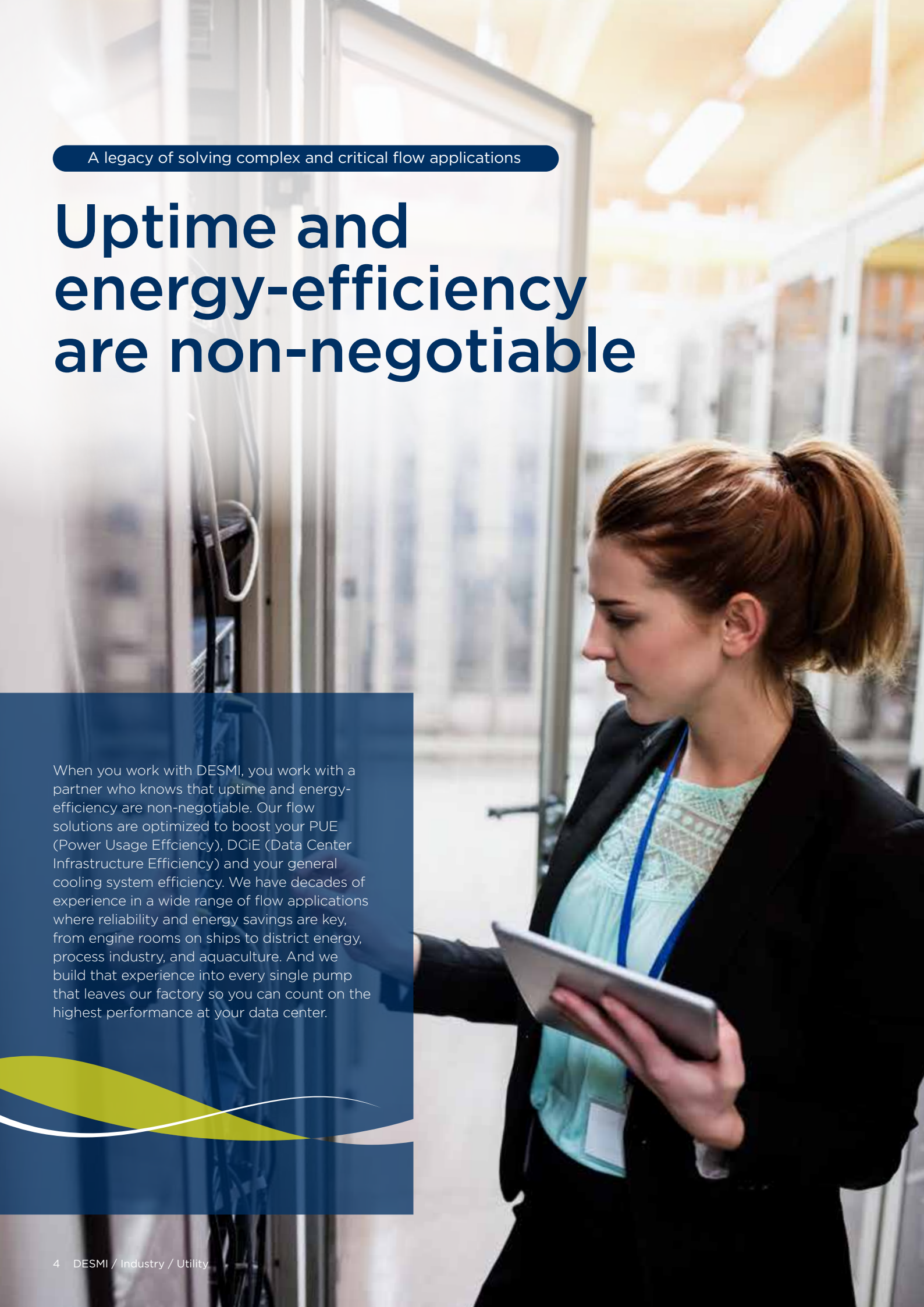
Utilization of excess heat 10

Fuel pumps for generators 12

Aftermarket support 14

A legacy of solving complex and critical flow applications

Uptime and energy-efficiency are non-negotiable



When you work with DESMI, you work with a partner who knows that uptime and energy-efficiency are non-negotiable. Our flow solutions are optimized to boost your PUE (Power Usage Effciency), DCiE (Data Center Infrastructure Efficiency) and your general cooling system efficiency. We have decades of experience in a wide range of flow applications where reliability and energy savings are key, from engine rooms on ships to district energy, process industry, and aquaculture. And we build that experience into every single pump that leaves our factory so you can count on the highest performance at your data center.

We always look beyond the pump to understand your needs

You will maximise uptime

Known globally for supreme reliability, DESMI pumps keep up the flow in data center applications. By keeping your critical cooling, water intake, heat distribution, and fuel supply processes running round the clock, they help maximise uptime at your data center.

You will get what you need

With hundreds of models to choose from, our pump portfolio covers all flow and head requirements, with any liquid and at any temperature and pressure. You will never need to adapt your technical designs to fit our pumps; we can supply a solution that adapts to your requirements.

You will save energy

DESMI pumps are carefully engineered for high efficiency and low NPSH values, giving you maximum performance and optimizing your Carbon Usage Efficiency (CUE). In addition, our solutions are designed for VFD operation, which efficiently optimises your overall PUE and CUE .

You will count on our support

With DESMI, you get a dependable partner throughout the process, from design to operational maintenance. We work with you to understand exactly what you need, and we know that the right solution is always about more than hardware.

Application

Solutions for cooling

From air-cooled to direct liquid cooling and immersion cooling, DESMI flow solutions deliver the coolant flow your data center needs. Our pumps handle a variety of water based coolants like deionized water, distilled water, water-glycol mixtures along with propylene-glycol mixtures and various dielectric oils.
Our centrifugal inline and end-suction pumps are available in a wide range of sizes and materials, supporting both direct liquid cooling (DLC), immersion cooling and HVAC applications. The materials include cast iron, ductile iron, nickel aluminium bronze, stainless steel and super duplex stainless steel. They ensure reliable performance to consistently maintain the optimal operating temperature for your IT equipment.

Suitable products

ESL & ESLH

Vertical In-line / Horizontal end-suction centrifugal pump

Up to 200 m³/h (880 US gpm)

NSL & NSLH

Vertical in-line / Horizontal end-suction centrifugal pump

Up to 2000 m³/h (8800 US gpm)

MAG-DRIVE PUMPS

Vertical in-line / Horizontal end-suction centrifugal pumps with magnetic coupling

Up to 385 m³/h (1700 gpm)

DSL

Vertical in-line centrifugal pump

Up to 6200 m³/h (27300 US gpm)

100% certified green power from biomass, wind and water

Customer Story

Cooling pumps for Data Center in Amsterdam

DESMI has supplied cooling pumps for a data center with Telecity in Amsterdam.

The entire facility infrastructure is monitored 24/7 (chillers, CRACs, fire panels, generators, UPS, etc.) and built with use of sustainable energy such as free cooling, ground water cooling and waste heat re-use, but never at the expense of reliability and availability.

The DESMI pumps have been installed since 2007 without any downtime and running continuously since then.

Location
Amsterdam,
The Netherlands

Application
Cooling system for green-powered data center

DESMI products
Centrifugal pumps for continuous air cooling

Application

Water intake systems

You can use DESMI pumps to source cooling system water from nearby sources such as lakes, reservoirs, or the sea. Inspired by our decades of experience in the marine pump industry, our centrifugal pumps are available in materials that can handle both salt, brackish and fresh water, ensuring reliability even with challenging media and contributing to lower energy consumption in your cooling system.

Suitable products

NSL, NSLH & NSLV & DSL

Centrifugal pump with vertical or horizontal inlet or end-suction

Up to 6200 m³/h (27300 US gpm)

Customer Story

Energy-efficient Cooling System for Musikkens Hus (House of Music)

DESMI has delivered and installed highly efficient pumps, pipes and wells for intake of water from the fjord for the cooling system of Musikkens Hus.

For cooling of the impressive building, DESMI was chosen to supply and install pumps and wells for the handling of the water intake from the fiord.

As part of the project, an intake well was mounted at quayside and connected to a pump well provided with two highly efficient centrifugal pumps.

The pumps are placed in a poly-ethylen (PE) well, and the regular adjustment of the pump capacity is ensured by energy-efficient frequency converters installed in the central cooling system.

”It has been a pleasure to work with a supplier who is capable of independent action, so that at Musikkens Hus we do not have to spend a lot of time on ordinary, programmed maintenance. In addition, we saw DESMI as being solution-oriented on our behalf“

Lars Nørgaard
Operations Manager at Musikkens Hus

Scan the QR code to read the full case story

Application

Utilization of excess heat

Based on our extensive experience from district heating and cooling applications, our flow solutions help you optimize your Energy Reuse Effectiveness by utilizing the excess heat in your data center for i.e. local district energy utilities. Capable of handling temperatures above 100°C (212°F), our pumps deliver reliable performance even with very hot water and help you comply with sustainability regulations by making the most of an energy resource that would otherwise go to waste.

Aiming towards a greener future

As Denmark's 3rd largest district heating company, Fjernvarme Fyn is undoubtedly a frontrunner in terms of Green Transition. Their climate goals speak for themselves. They aim to be carbon-neutral by 2030, and they are well on their way already.

Suitable products

NSL & NSLH

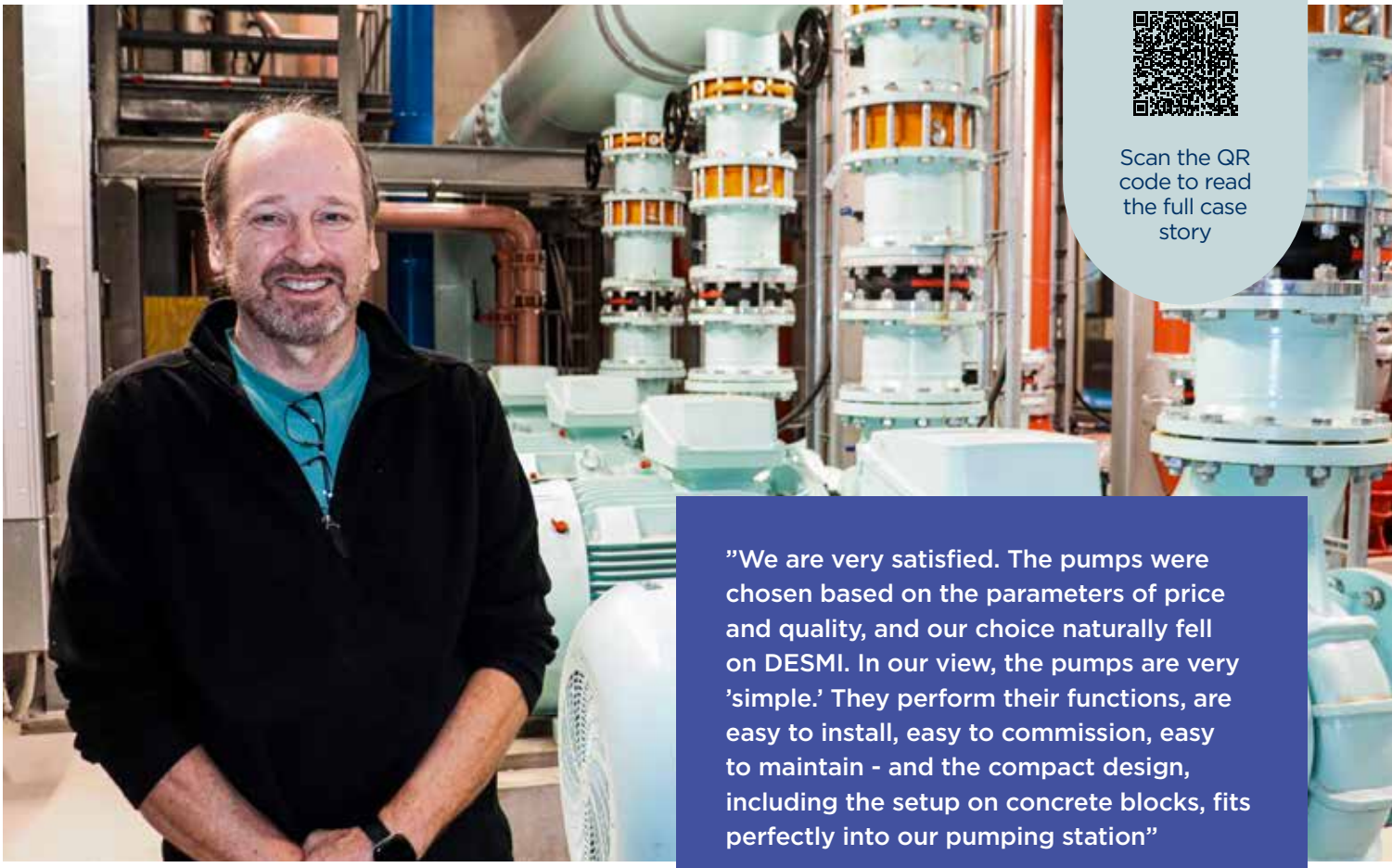
Vertical in-line / Horizontal end-suction centrifugal pump

Up to 2000 m^3/h (8800 US gpm)

DSL

Vertical in-line centrifugal pump

Up to 6200 m^3/h (27300 US gpm)



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”We are very satisfied. The pumps were chosen based on the parameters of price and quality, and our choice naturally fell on DESMI. In our view, the pumps are very ’simple.’ They perform their functions, are easy to install, easy to commission, easy to maintain - and the compact design, including the setup on concrete blocks, fits perfectly into our pumping station”

Kenneth Jensen
Project Manager at Fjernvarme Fyn

Customer Story

Fjernvarme Fyn District Heating Plant in DK, fully utilizes the excess heat from META’s data center

In Tietgenbyen, Odense, DK, one of the large pumping stations is located, where many of DESMI’s centrifugal pumps are installed. The pumping station is situated directly across from META’s data center.

The data center generates a significant amount of excess heat, which is transported to the pumping station. Thus, it is distributed further to the many residences in and around the city of Odense.

The pumping station in Tietgenbyen alone covers 11,000 homes, it is precisely these homes that receive the excess heat from the data center.

Project Manager Kenneth Jensen from Fjernvarme Fyn reveals that the vision at Fjernvarme Fyn is to create the future’s climate-neutral, robust, and competitive district heating. The heat pumps are powered by electricity from wind turbines, and heat production is based on a wide range of energy sources, including wood chips, waste, straw, olive pellets, and coal. All energy sources are upgraded for district heating. Coal is expected to be phased out in the near future, reducing CO_2 emissions into the atmosphere.

Moving around the engine room at the pumping station is impressive, not just because of the many DESMI pumps but also due to the design and planning.
Pumps and pipes are all color-coded, making it easy to see the flow of cold and hot water, etc.

The collaboration with DESMI has proceeded without issues, and Kenneth Jensen nods approvingly when confirming his satisfaction with DESMI, the pumps, and the service provided.

Application

Fuel pumps for generators

DESMI ROTAN® gear pumps are ideal for critical fuel pump applications. They ensure a reliable and steady fuel flow so your diesel generators start and keep running when needed. The pumps thus help ensure uninterrupted server availability even if the main grid is hit by blackouts or brownouts.

Customer Story

German facility (Hamburg), keeps data centers running clean and smooth

A German company with deep roots in the marine industry, is now powering up the digital age by ensuring backup fuel stays clean - especially for global tech giants like Google and Microsoft, who still depend on diesel generators for data center backup.

Their innovative separation system is helping prevent dirty fuel from becoming a downtime disaster. Their plug-and-play unit, used with DESMI's ROTAN® GP 26–GP 41 pump range, keeps critical infrastructure online by removing water and contaminants before they reach the engine.

The solution operates on a dual-stage filtration process:

SPO (Separation Profile Optimized) allows tiny oil droplets to rise and dirt to settle naturally, while SCO (Separation Coalescence Optimized) uses a fiber bed to capture even the smallest oil traces.

While originally designed for the demanding conditions aboard ships - where space is tight and compliance is strict - this technology is just as effective on land. Whether between the bunker tank and day tank on naval vessels or in the basements of major data centers, their solution ensures that power stays uninterrupted.

The move into the industrial market is a testament to their adaptability and the robust quality of DESMI-supported systems. It's a simple but powerful idea: remove the particles before they become million-dollar problems.
In Hamburg and beyond, this German company is turning marine know-how into industrial uptime - one clean drop of diesel at a time.

Suitable products

ROTAN® gear pumps

All the ROTAN® models have a differential pressure up to 16 bar / 232 psi and a suction lift up to 0.8 bar / 11.6 psi vacuum while pumping

Clean fuel = Running servers = Happy Tech giants

Aftermarket Support

Keep all systems running with DESMI global service

Call the
DESMI Service
Hotline round
the clock at
+45 96 32 81 10

No matter where your data center is located, DESMI is always ready to support you at moment's notice

Our global service organisation supplies the expertise, spare parts, and knowledge to keep vital pumping systems at your data center running.

Our tailored global services cover maintenance, repairs, upgrades, training, and technical support. They minimise unplanned downtime, optimise pump performance, and ensure high energy-efficiency.

Overhaul Videos

We exist to keep your business flowing

DESMI works closely with design companies, EPCs, contractors, consultants, and OEMs to deliver critical flow processes that enable reliable and energy-efficient data center systems. Our pumps and supporting systems are trusted worldwide for dependability and the lowest total cost of ownership.

At DESMI, our focus has never been on discovering what we can do – it's about pushing the boundaries of what we can do for you. Our class-leading equipment, solutions, and services are designed specifically for your applications and help you contribute to a digital infrastructure that is available 24/7 whilst ensuring optimal use of the available energy.

Founded in Denmark in 1834, we have provided the expertise, solutions, and aftermarket support our customers need for nearly two centuries. We help you reduce your climate impact and keep servers running whilst realising your ambitions for reliable performance, compliance, and growth.

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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