

## AquaCulture

Vessels & Land-based Fish Farming



PROVEN TECHNOLOGY

AQUA CULTURE

The growing world population is increasing the demand for fish, which is influencing the rapid development of land-based aquaculture systems and on board AquaCulture Vessels.

DESMI is keen about advising and finding value-added solutions together with our customers and neither compromises on quality nor reliability in regard to our products.

To support the fish farmers in achieving this goal, DESMI offers energy efficient and reliable pumps and pumping solutions for both the land-based fish farming market and on board AquaCulture Vessels. PUMPS FOR AQUACULTURE

4

6

8

10

CENTRIFUGAL PUMPS

PROCESS PUMPS

PROPELLER PUMPS

# PUMPS FOR AQUACULTURE

The ongoing rapid development in the AquaCulture industry is continuously affected by the population growth, which is increasing the demand for farmed fish and wild catch. The market demand for AquaCulture products forces vessels to have the right equipment on board their ships and fish farms around the globe to improve their existing production sites and develop new ones.

This does not only affect fishowners and fish farms but all stakeholders within the AquaCulture industry, including manufacturers of fish oil, fish meal, and fish feed. It increases the requirements for efficient production equipment. This means both minimizing the water emission and better utilization of byproducts from processing to production of fish meal and fish feed.

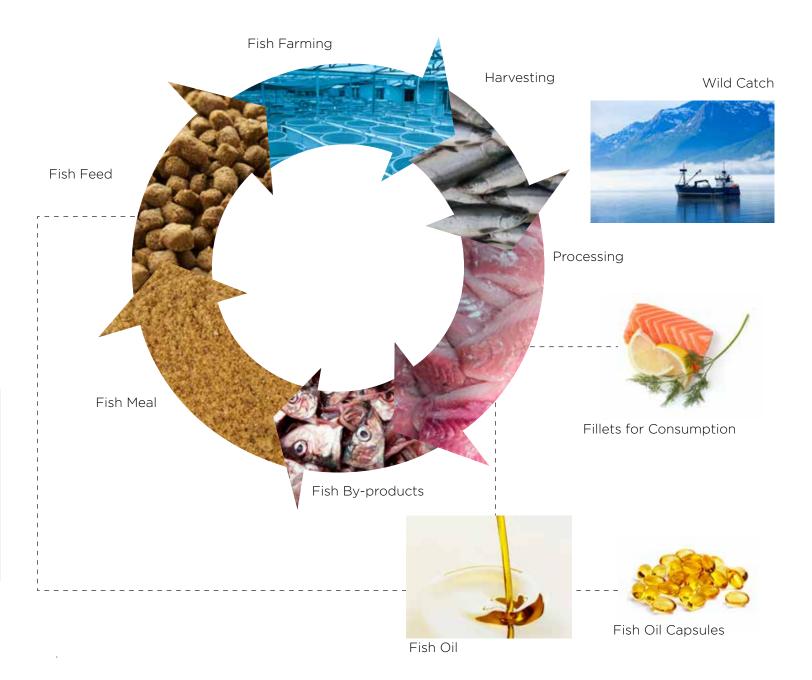
At DESMI, we are experienced in manufacturing and supplying pumps and pumping systems for various applications within AquaCulture.

To supplement our product range for AquaCulture we co-operate with other manufacturers of high quality pumps and accessories.

Our pumps are available in cast iron, various bronze alloys, stainless steel, and many other different materials suitable for the AquaCulture industry.



DESMI pumps are installed through the entire cycle of the AquaCulture value chain from land-based fish farms to wellboats, fish oil, fish meal, and fish feed factories.



## CENTRIFUGAL PUMPS

DESMI in-line and end-suction pumps can be found on a variety of different land-based fish farms/ hatcheries and on board wellboats.

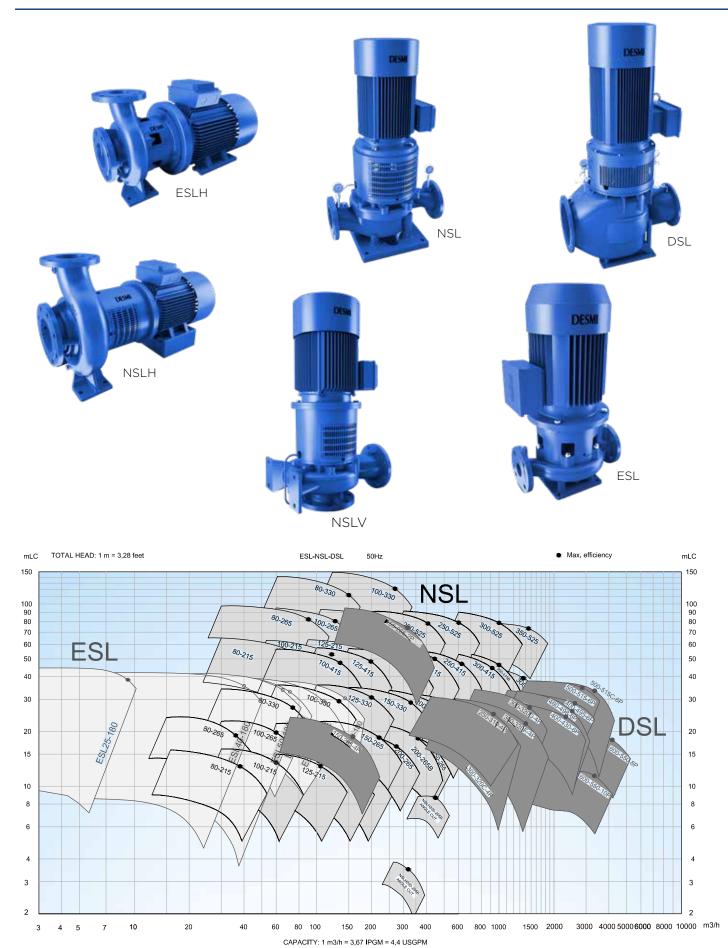
The pumps are applied in multiple applications such as water intake, heating, recirculation, glycol, lifting pump and seawater circulation for degassing, protein skimmers, oxygen cones, etc.

The DESMI centrifugal pumps are designed to meet the different requirements for operation in landbased fish farming, where reliability and energy efficiency are key in order to run the production in a smooth and sustainable way and to keep the salmon alive during transportation to and from the cages.

The pumps are available with capacities from 2 to  $6,000 \text{ m}^3/\text{h}$  / 26417 gpm and delivery heads from 2 up to 220 mLC / 8.8 to 17,611 gal (US)/min and are available in bronze cast iron and Stainless Steel/ Super Duplex.



### Centrifugal Pumps



## PROCESS PUMPS

DESMI manufactures the Internal Gear Pump, ROTAN<sup>®</sup>. The pump series is recognized within the feed industry and is used for fish oil, fish meal, and fish feed plants around the world, pumping fish oil and other liquids required in these industries.

We focus on finding the optimum solution that can meet our customers' requirements and needs. Our knowledge, understanding the process of manufacturing fish oil, fish meal, and fish feed combined with our application expertise enables us to identify the optimum solution and advise the customers about the best choice for the purpose.

The ROTAN® pump series is known for high quality and reliability, providing low life cycle costs and are typically sold to OEM equipment manufacturers for wellboats and aquaculture vessels where the process pumps are built into their systems.



Field of Application is one of the Focus Areas for DESMI ROTAN® Pumps around the Globe.

### Process Pumps

## Regardless of the thickness of the liquid, we

manufacture customized pumps and pumping solutions that can handle any type of liquid within the manufacture of fish oil, fishmeal and fish feed.





ROTAN® CD (Chemical Duty) Capacity Range: Up to 170 m³/h / 748 gpm Viscosity Range: Up to 250,000 cSt Temperature: Up to 250°C / 482°F



ROTAN® ED (Enviromental Duty) Capacity Range: Up to 90 m³/h /396 gpm Viscosity Range: Up to 10,000 cSt Temperature: Up to 250°C / 482°F



ROTAN® GP (General Purpose) Capacity Range: Up to 50 m³/h / 220 gpm Viscosity Range: Up to 7500 cSt Temperature: Up to 150°C / 302°F



ROTAN<sup>®</sup> HD (Heavy Duty) Capacity Range: Up to 250 m<sup>3</sup>/h / 1100 gpm Viscosity Range: Up to 250,000 cSt Temperature: Up to 250°C 482°F



## PROPELLER PUMPS

As part of our product portfolio, we offer submerged and dry installed propeller pumps for RAS systems and land-based fish farming.

The pumps are customized based our customers' requirements to reach the highest pump efficiencies possible and to keep energy consumption as low as possible. The DESMI propeller pumps are used in applications such as oxygen pumps, CO<sup>2</sup> degassing and biofilters etc.

### Submerged Pumps

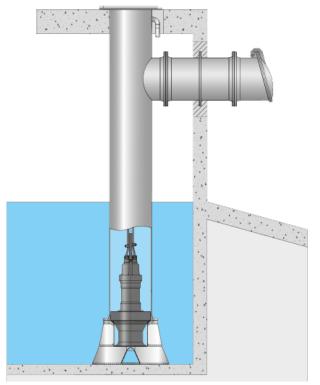
The DESMI series of submerged propeller pumps offer good energy efficiencies and are tailored to operate from 1,800 - 7,500 m<sup>3</sup>/h / 7,925 to 33,021 gal (US)/min and delivery heads from 1 up to 6,5m.

### Dry-installed Pumps

DESMI offers a dry-installed propeller pump, which comes in a vertical and horizontal version.

The pump offers good energy efficiency and is tailored to operate from 57 - 8,600 m<sup>3</sup>/h / 251 to 37,864 gal (US)/min and delivery heads from 0.7 up to 20m.

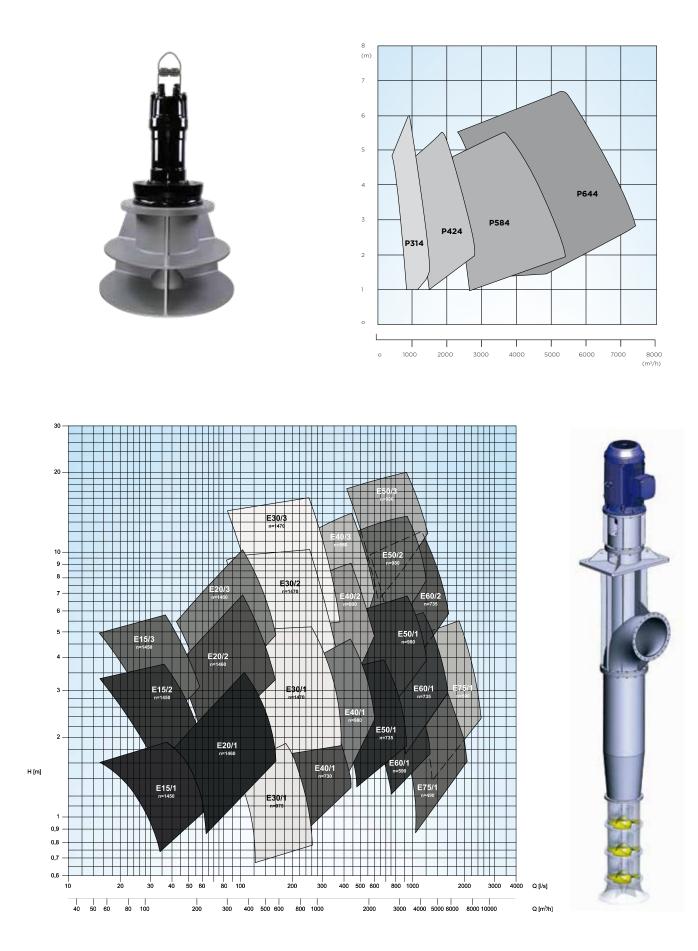
DESMI propeller pumps can delivered in various materials for both sea and fresh water.







Each unit is testet in the modern test centre before delivery



## THE DESMI GROUP - ONE GLOBAL COMPANY

#### DESMI offices:

Africa

DESMI Africa Ltd. Tel.: +255 757597827

Canada DESMI Inc. Tel.: +1 905 321 3471

China DESMI Pumping Technology (Suzhou) Co., Ltd. Tel.: +86 512 6274 0400

DESMI Pumping Technology (Suzhou) Co., Ltd. Shanghai Liaison Office Tel: +86 21 6071 06 00-05, 6071 06 07-13

DESMI Pumping Technology (Suzhou) Co., Ltd. Tianjin Liaison Office Tel: +86 22 2317 0467

DESMI Pumping Technology (Suzhou) Co., Ltd. Guangzhou Liaison Office Tel: +86 20 2831 3973

DESMI Pumping Technology (Suzhou) Co., Ltd. Chongqing Liaison Office Tel.: +86 23 8823 3518

DESMI CompaniesDESMI Dealers/Agents

DESMI Pumping Technology (Xuancheng) Co., Ltd. Tel.: +86 563 2612 570

Denmark

DESMI A/S - Group Head Quarter Tagholm 1 DK-9400 Nørresundby Tel.: +45 96 32 81 11

DESMI Pumping Technology A/S Tel.: +45 96 32 81 11

DESMI Danmark A/S Tel.: +45 72 44 02 50

DESMI Contracting A/S Tel.: +45 96 32 81 11

DESMI Ro-Clean A/S Tel.: +45 65 48 16 10

DESMI Ocean Guard A/S Tel.: +45 96 32 81 99

Ecuador DESMI Latinoamerica S.A. Tel.: +593 2 326 1939

France DESMI SARL Tel.: +33 130 439 710 Germany DESMI GmbH Tel.: +49 407 519847

Greece DESMI Greece Tel.: +30 2114 111 893

India DESMI India LLP Tel.: +91-99 4933 9054

Indonesia DESMI Ro-Clean APAC Tel: +62 21 570 7577 Korea DESMI Korea

Tel: +82 51 723 8801 Netherlands

DESMI B.V. Tel.: +31 30 261 00 24

Norway DESMI Norge AS Tel.: +47 38 12 21 80

Peru DESMI PERÚ Tel.: +51 980 306 227 Poland DESMI Sp. z o.o. Tel.: +48 22 676 91 16

Singapore DESMI Singapore Pte Ltd. Tel.: +65 62 50 71 77

**Sweden** DESMI Sweden Tel.: +46 31 304 51 30

UAE DESMI Pumping Technology A/S (Br.) Dubai Office Tel.: +9714 501 5530

Abu Dhabi Office Tel: +971 50-821 4979

U.K. DESMI Ltd. Tel.: +44 1782 566900

DESMI FHS Ltd. Tel.: +44 1782 566900

USA DESMI Inc. Tel.: +1 757 857 7041

Need more information or specifications? Contact us at desmi@desmi.com or read more about DESMI and DESMI's other products and solutions at www.desmi.com

MARINE & OFFSHORE

INDUSTRY

OIL SPILL RESPONSE

