



EN

Application Aquaculture

Hidrostal is your comprehensive partner for sustainable aquaculture projects. We assist you with system development, meticulous planning, and organizing the system's water flow.



Onshore aquaculture – sustainable solutions for the future

The shift towards onshore aquaculture is driven by concerns over ocean pollution, over-fishing, and a growing awareness of marine ecosystems. Onshore facilities enable the removal of fish breeding waste through wastewater treatment plants, preventing the discharge of pollutants into water bodies. By building farms onshore and pumping seawater, the industry gains better control over water quality, leading to more sustainable fish cultivation.

Onshore aquaculture also allows for precise health management. Controlling diseases becomes more effective, reducing the need for medications and minimizing their environmental impact. Additionally, the ability to separate fish by size using grids enhances efficiency and output, meeting the rising demand for seafood sustainably.



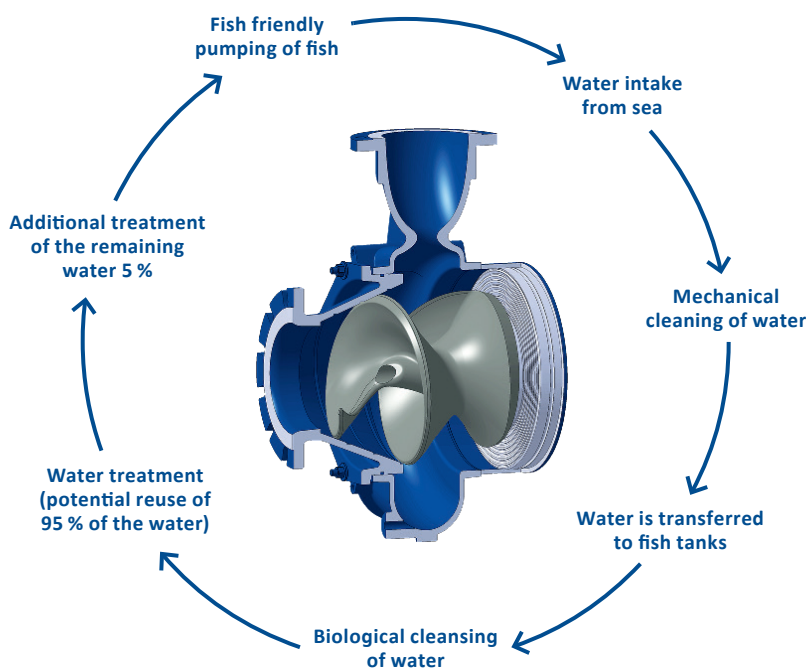
Hidrostal's support for water management in aquaculture

Hidrostal Pumps play a crucial role in optimizing recirculating aquaculture systems (RAS) efficiency. Specifically designed for efficiency, these pumps facilitate seamless water transfer between tanks during cleaning processes. Beyond this, they contribute significantly to maintaining water quality by circulating and oxygenating water, regulating temperature, and aiding in filtration and treatment processes.

The automation capabilities of Hidrostal pumps not only enhance operational efficiency but also minimize water usage and waste. In the context of aquaculture, these pumps support precise water management by:

- 1. Water Intake from the Sea:** Facilitating the transfer of seawater into the onshore aquaculture facility.
- 2. Regular Water Circulation:** Preventing stagnation and ensuring a healthy aquatic environment for the fish.
- 3. Cooling/Heating Water:** Maintaining optimal water temperature levels for fish cultivation.
- 4. Handling Fish Waste and Offal:** Efficiently managing and removing waste generated by the fish.
- 5. Moving Water Between Tanks:** Supporting the organized movement of water within the facility for various stages of fish growth.
- 6. Live fish transportation**

Hidrostal pumps in every step of the aquaculture process



Hidrostal is your full-service partner in developing your aquaculture plant

Hidrostal is supporting the development and planning of complete aquaculture plants. We can offer comprehensive services, ensuring a seamless process from conceptualization to the erection of your entire plant. We not only offer pump solutions but, thanks to our wide range of expertise, we are also able to supply state-of-the-art components that are crucial to the success of your project.

Hidrostal is your trusted partner for the supply of essential elements:

- 3D print of first ideas
- Production of gates
- Production of fish tanks
- Installation of drum filters
- Installation of UV Light and outlet from drum filters
- Installation of Hidrostal pumps



Unique Screw Centrifugal Impeller for aquaculture environments

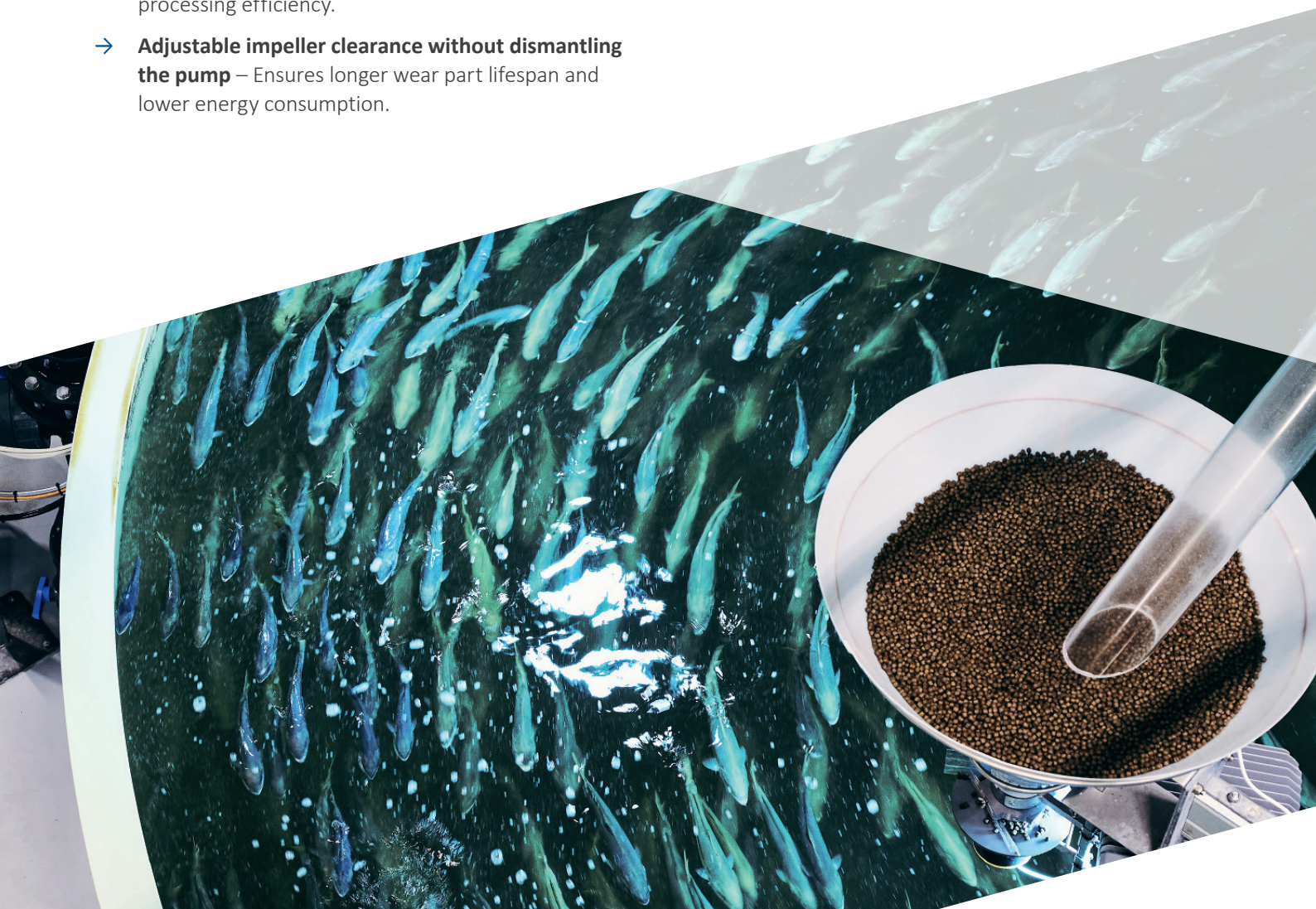
When it comes to pumping in aquaculture, Hidrostal stands out, offering unparalleled advantages that enhance the efficiency and reliability of your aquaculture systems. Here's why Hidrostal is the ideal choice for your aquaculture needs:

Screw Centrifugal Impeller for proven performance in demanding environments

- **Large free ball-passages** – No blockages in raw, unscreened water, reducing plant downtime and enhancing production efficiency.
- **Minimal flow deflection** – Fewer changes in direction minimize pump blockage risks.
- **Delicate handling ability** – Maintains the vitality of delicate aquatic organisms during pumping.
- **High hydraulic efficiency** – Saves on energy costs and requires less installed power.
- **Capacity to handle high solid contents** – Reduces process water and energy consumption, enhancing processing efficiency.
- **Adjustable impeller clearance without dismantling the pump** – Ensures longer wear part lifespan and lower energy consumption.

Specifications

- Discharge Sizes: 50–700mm (2–28")
- Suction Sizes: 70–700mm (3–28")
- Head: 2–100m (6.5–328ft)
- Flow: 7–2500l/s (110–40000gpm)
- Power: 5–650kW (7–872hp)
- Frequencies: 50 Hz, 60 Hz, VFD



Customize your Hidrostal pump to your needs!

Customizing your Hidrostal pump to meet specific requirements is crucial for optimizing its performance in various applications.

Material options

- Standard cast iron for neutral pH-values
- Stainless steel, or duplex for pumping sea water/salt water

Installation options

- Horizontally on base plates. This is the standard installation for dry installed pumps.
- Vertically on the Hidrostal flow optimized suction stand. Choose this option, where place of installation is limited. The suction stand takes care that the fluid enters the pump with an optimal velocity profile.

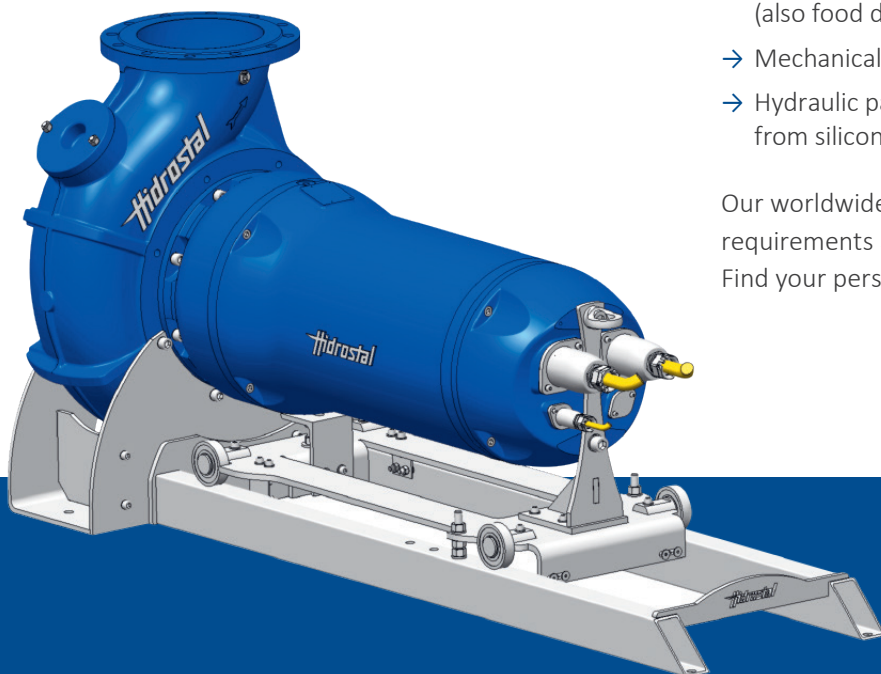
Drive options

- A standard IEC-Motor using an additional bearing frame to absorb the occurring forces from the impeller. Customers' needs such as special voltage or motor brand can be considered.
- An immersible Hidrostal motor in case of wet well installation, outside installation or if flooding, e.g. when cleaning the plant, is possible.
- To save time during maintenance or in the event of a fault, base plates for Hidrostal pumps are also available as easy-dismounting base plates.

Shaft Seal options

- Double (tandem) mechanical seal with oil filling (also food degradable) or for water flushing.
- Mechanical cartridge seals
- Hydraulic parts of Hidrostal pumps are free from silicone.

Our worldwide specialists support you with all special requirements and challenges around aquacultures. Find your personal contact on hidrostal.com



Materials

- Cast iron, duplex, spheroidal graphite iron, hi-chrome, stainless steel.

Motor

- IP 55 (splashproof)
- IP 68 (submersible), robust and waterproof

Installation

- Dry
 - Horizontally on base plate
 - Vertically on suction stand
- Wet well

Reliable and efficient services during the whole life cycle of your pumps

Our customers are individual and so are our solutions, products and services. We offer our support in the early project phase to find the optimal pump for a specific application.

Thanks to our excellent quality system and our worldwide manufacturing, sales and service network, we meet any demand for our customers and provide efficient maintenance and servicing.



Consulting & training

Our experienced team of engineers will advise you on the selection of a suitable pump and with energy-saving solutions. We offer professional pump selection training and help you design the optimal solution for your needs.



Production & installation

Our skilled technicians offer tailored solutions, from minor service calls to full installation and commissioning. We specialize in comprehensive re-engineering to maintain peak equipment performance. Additionally, we handle piping and fitting installations with equal precision.



Digital solutions

Our cloud-based solutions for failure-free pump operation enable seamless remote monitoring and control of your assets. With our vibration monitoring module you get real-time insight into the condition of your pumps.



Service & repair

We prioritize reliable pump operation. With an extensive inventory of original spare parts and an experienced service team, we offer expert advice, predictive maintenance, and swift repairs for your pump installations.



Rental solutions

Our rental fleet features diverse Hidrostat quality pumps, including submersible and diesel/electric-driven options like the self-priming SuperBetsy. We offer classical pumping systems and highly energy-efficient siphon systems, such as the Heber 2000.



Analysis & testing

From pump performance tests, condition monitoring, inspection & analysis to troubleshooting – we ensure a reliable and safe operation of your pumps and processes.

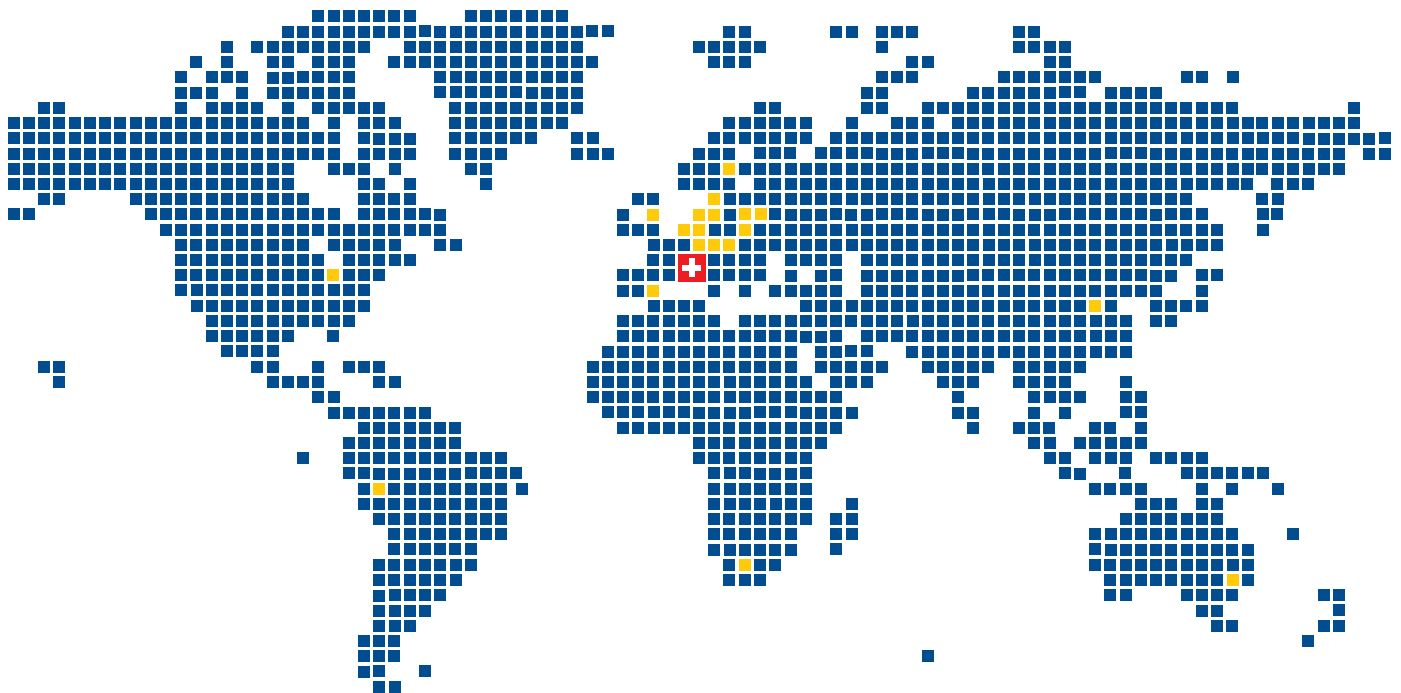
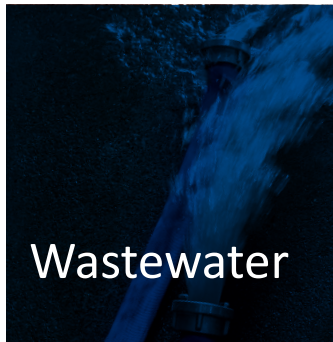
Hidrostal pumps

Make a quick and accurate
pump selection:
hidrostal.com/pumpselector.php



Hidrostal pumps are used in numerous branches and industries due to their excellent pumping characteristics. They convey a wide variety of liquids and materials with low pulsation and gentle handling. Our specialists select the suitable material combinations and adapt each pump individually to the conditions on site. This approach ensures that Hidrostal pumps prove their worth even in difficult applications and thus achieve the best results in terms of efficiency, energy efficiency and low life cycle costs.

- non-clogging delivery
- high suction capacity
- gentle conveying due to low shear forces
- high efficiency
- stable characteristic curve
- long service life
- low pulsation
- continuous, speed proportional conveying
- high pressure stability



info@hidrostal.com
www.hidrostal.com

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