EN

Application
Dewatering, drainage and flood control

Hidrostal pumps protect land and life in dewatering, drainage and flood control applications

Efficient and reliable: protection against the elements with Hidrostal pumps

Construction sites, dig sites, and other industrial settings often face water buildup from rain, groundwater, or other sources. Managing this water is crucial for project schedules and safety. Hidrostal pumps excel at dewatering and drainage, offering a reliable solution for removing excess water from construction sites, tunnels, and other challenging environments.

With climate change intensifying, floods and extreme weather are becoming more frequent, increasing the need for robust flood control solutions. Hidrostal pumps, designed to manage large volumes of water quickly, provide a crucial defense against flood-related disasters.

Dewatering

Unwanted water poses challenges in various scenarios. Construction sites, dig sites, tunnels, and floodplains often contend with excess groundwater or surface water. Efficient transport, free from clogs, is crucial for safety and workflows. Flexibility in handling diverse media and variable inflow is essential.

Drainage

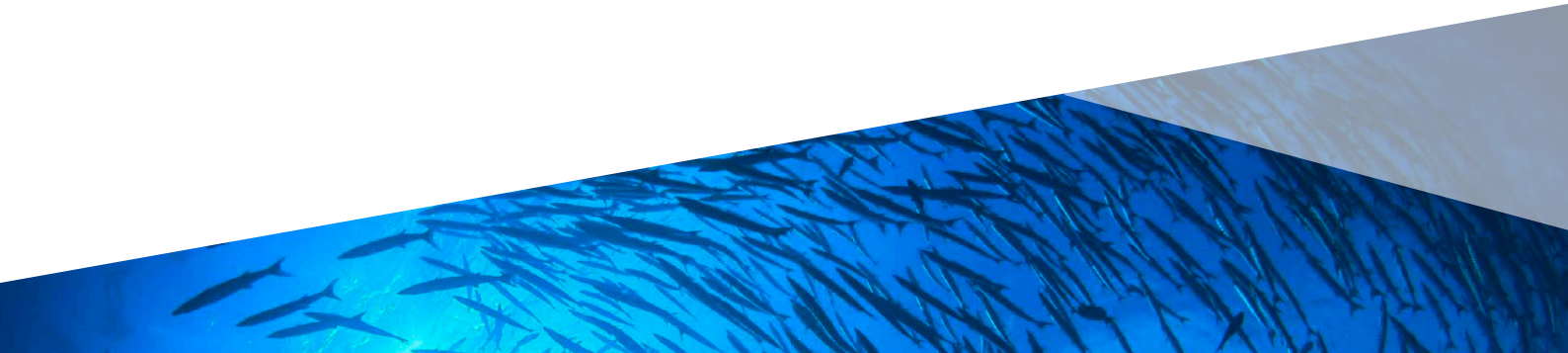
Drainage involves the artificial removal of groundwater for construction, sharing similar challenges with diverse media and intermittent inflow. Though less frequent, organic material and air intake can disrupt the process.

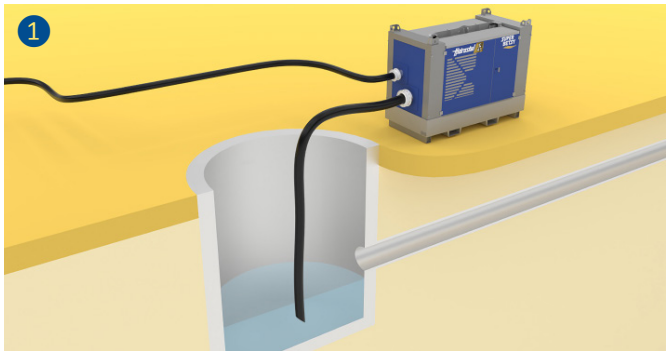
Flood control

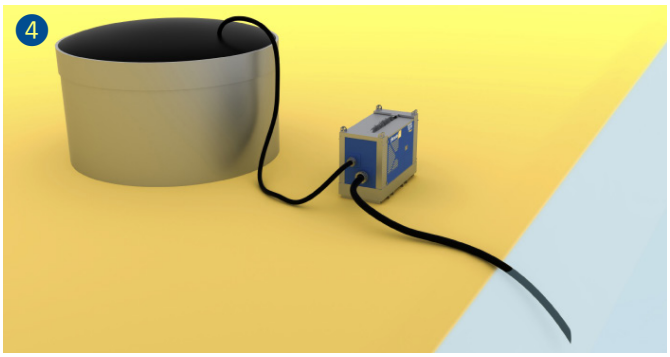
In a flood or stormwater pumping situation it is necessary to move large volumes of water at relatively low heads. Pumps can be called to action after long periods of idle and must deliver maximum performance quickly and efficiently.
Seasonal variations in the weather can lead to fluctuations in flow rates and head. The pumped media can also be variable, often containing solids and fibrous materials such as branches, leaves, sand and silt.
Reliability is imperative in flood control and prevention efforts. Given the potential for large inflows within short time frames, the absence of robust pumping safeguards could lead to the loss of both land and lives.

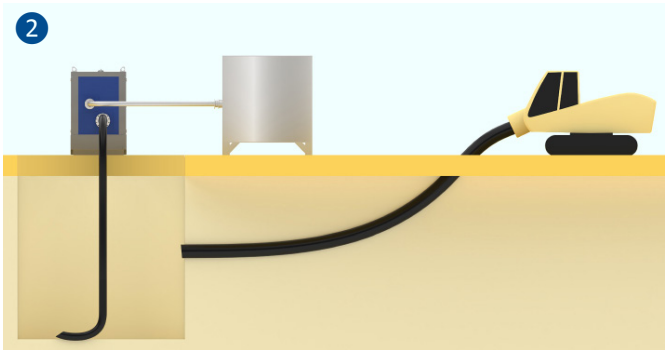
Portable pumping with IPS SuperBetsy

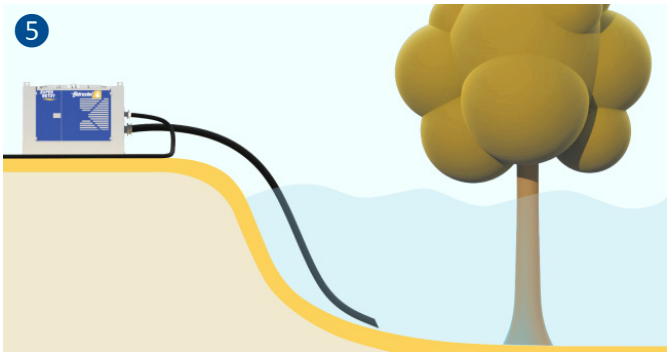
Designed for versatility, our Independent Pump System (IPS) SuperBetsy is perfect for semipermanent or portable use in dewatering, drainage, and flood control. Its clog-free design with a 75 mm to 120 mm free ball passage, innovative canopy, and efficient, low fuel consumption engines make it ideal for challenging conditions. Equipped with BetsyPrime and Intelligent Control, it offers reliable operation. Available in various sizes with flow rates from 28 to 300 l/s, it provides monitoring, control, and GPS options.

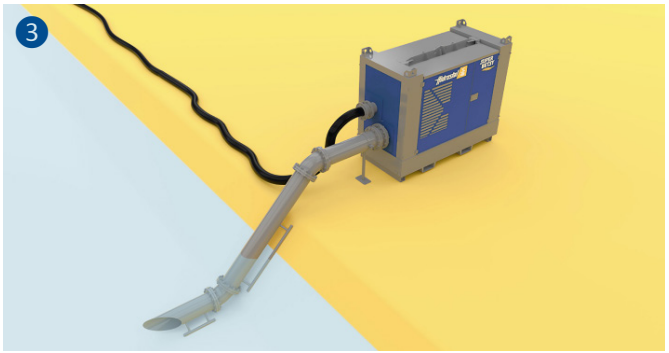












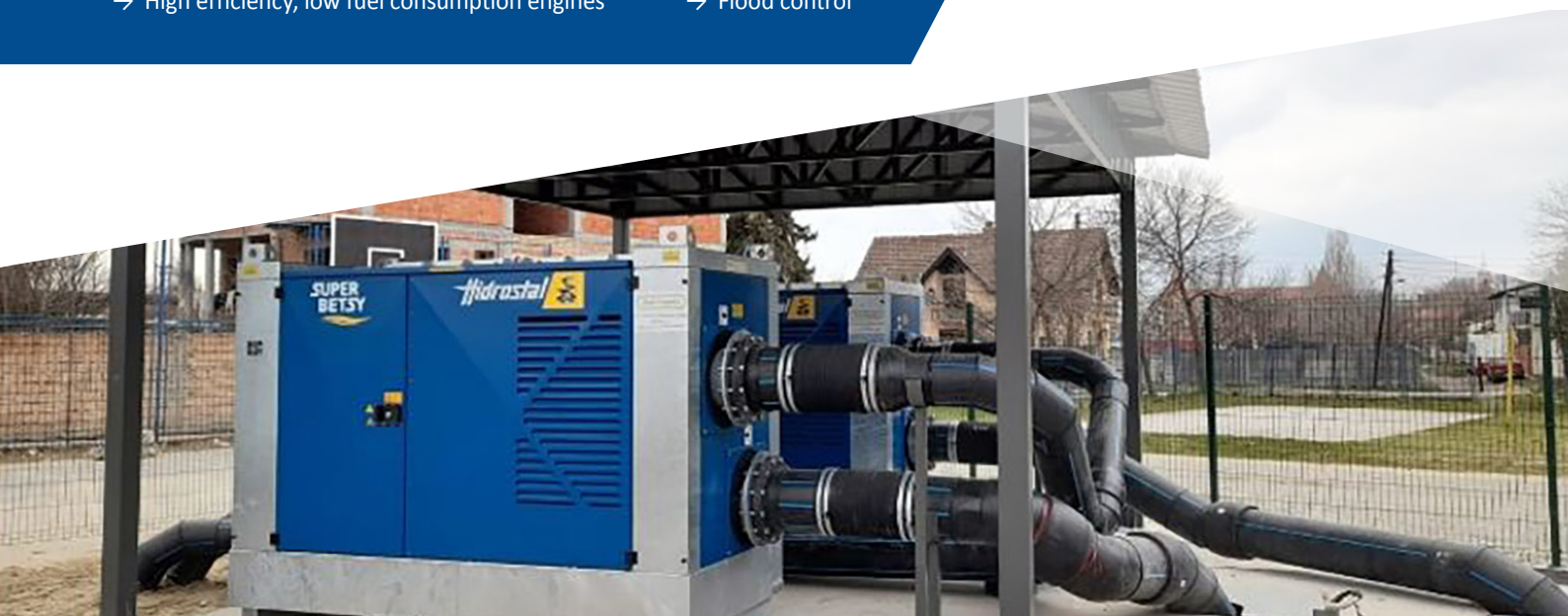
1. Renovation work on sewage pipes: SuperBetsy is used for drainage or sewerage work
2. **Bentonite at flow drilling:** Removal of bentonite fluid for recycling purposes
3. **Wet well pumping:** Versatile applications, including irrigation, flood defense, cooling water, surface and stormwater management, docks dewatering, and land drainage
4. **Dewatering to reservoirs or filter bags:** Sludge or sediment filtering with filter bags or storage of temporary water supply for firefighting
5. **SuperBetsy on dam tops:** Dewatering for irrigation, flood defense, surface and stormwater control, docks dewatering, and land drainage

Specifications SuperBetsy

- → Free ball passage: 75 to 120 mm (3 - 4.7")
- → Flow rate: 28 - 300 l/s (444 - 4755 gmp)
- → High efficiency, low fuel consumption engines

Applications

- → Dewatering
- → Drainage
- → Flood control



Permanent installations - unmatched performance

Hidrostal pumps excel in permanent installations, ensuring clog-free operation across diverse applications, even in challenging conditions. With efficiency surpassing comparable products, our extensive lineup of over 500 standard designs allows us to provide the optimal solution.

A permanent pump installation for flood control, dam protection or drainage of floodplains, can be achieved with a regular dry or wet well pumping station installed with a stationary Hidrostal immersible or bearing frame pump, or with an inline Bedford SAF application.

The original non clogging pump

Originally designed for damage-free fish transfer, Hidrostal pumps continue to shine in pumping challenging liquids. Boasting the market's largest free ball passages and our renowned single-blade screw centrifugal impellers, our solutions have evolved for various applications. Our in-house foundry network enables customization with options and materials, tackling challenges like sea water, brackish water, or abrasive materials. Also fish friendly pump solutions according to NEN 8775:2020 are available

For permanent installations, choose from dry bearing frame or immersible pumps, offering solutions up to 3000 liters per second.

Specifications Hidrostal Product Range

- → Discharge sizes: up to 700 mm (27.5")
- → Head: up to 70 m (230 ft)
- → Flow: up to 3000 l/s (47'550 gmp)
- → Power: up to 800 kW (1073 HP)
- → Frequencies: 50 Hz, 60 Hz, VFD
- → Materials: Cast Iron, Ductile Iron, Hi-Chrome Steel, Duplex Steel

Applications

- → Stormwater pumping
- → Flood control
- → Drainage

High flow fixed installations for lasting protection with Hidrostal's Bedford Pumps SAF series

For permanent inline and even fish friendly applications the Bedford Pumps SAF series with radial, mixed or axial flow impeller options can be chosen. A smart and low footprint solution developed for pumping large quantities of media with solids or fish.

The range of axial flow pumps are installed in stormwater or land drainage pumping stations for permanent protection against flooding. The pumps have large solids handling capabilities for variable media, including any fish or eels that may be in the flood water. Available in submersible or vertical turbine variants, flow rates can go up to 10,000 litres per second. The direct drive variant also offers a external PTO facility, enabling the option to drive the pump by tractor in the event of a power failure.

Specifications Bedford Pumps Product Range

- → Discharge sizes: up to 1600 mm (63")
- → Head: up to 14 m (up to 46 ft)
- → Flow: up to 10 000 l/s (158 000 gpm)
- → Power: up to 700 kW (938 hp)
- → Frequencies: 50 Hz, 60 Hz, VFD
- → Materials: Cast Iron, Ni-resist, Aluminium Bronze, Austenitic and Duplex steel

Applications

- → Stormwater pumping
- → Flood control
- → Drainage

Customer testimonials: Insights into our solutions

A milestone project in flood protection in Jakarta

Hidrostal, together with his sister Bedford Pumps (UK), collaborate on Southeast Asia's largest submersible pump installation, a crucial part of the Jakarta Urgent Flood Mitigation Project. The eight powerful pumps, each passing 10,000 liters per second, provide robust flood defense for one of the world's most flood-prone cities.

Albert Hadianto, Export Sales GM of Mectron Engineering PTE Ltd, lauds the project, stating, *"This installation is a landmark achievement in our region. The pumps are running with even greater efficiencies than demonstrated on test, confirming their success on-site. This sets a new standard, acting as a reference point for the region and fostering unity for future collaborations in Southeast Asia."*

Bedford's 10,000 l/s SAF pump during installation on site

Hidrostal SuperBetsy pumpsets to the Fire & Rescue service for enhanced drainage management

Lincolnshire County Council, in compliance with the UK Flood & Water Management Act of 2010, takes proactive measures to manage flooding risks. Under the flood risk and drainage management partnership with Lincolnshire Fire & Rescue, they acquired Hidrostal SuperBetsy pumps.

Paul Brookes, Flood Risk Manager for Lincolnshire County Council, explains, *"As a Lead Local Flood Authority it is our duty to prepare for flooding. We were uncomfortably aware that in the event of an emergency no such resource was available. We are delighted therefore to gift to Lincolnshire Fire & Rescue Service, Hidrostal SuperBetsy pumpsets which will provide full flood protection to be deployed in an emergency situation."*

Hidrostal SuperBetsy (Lincoln UK)

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 Hidrostal 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

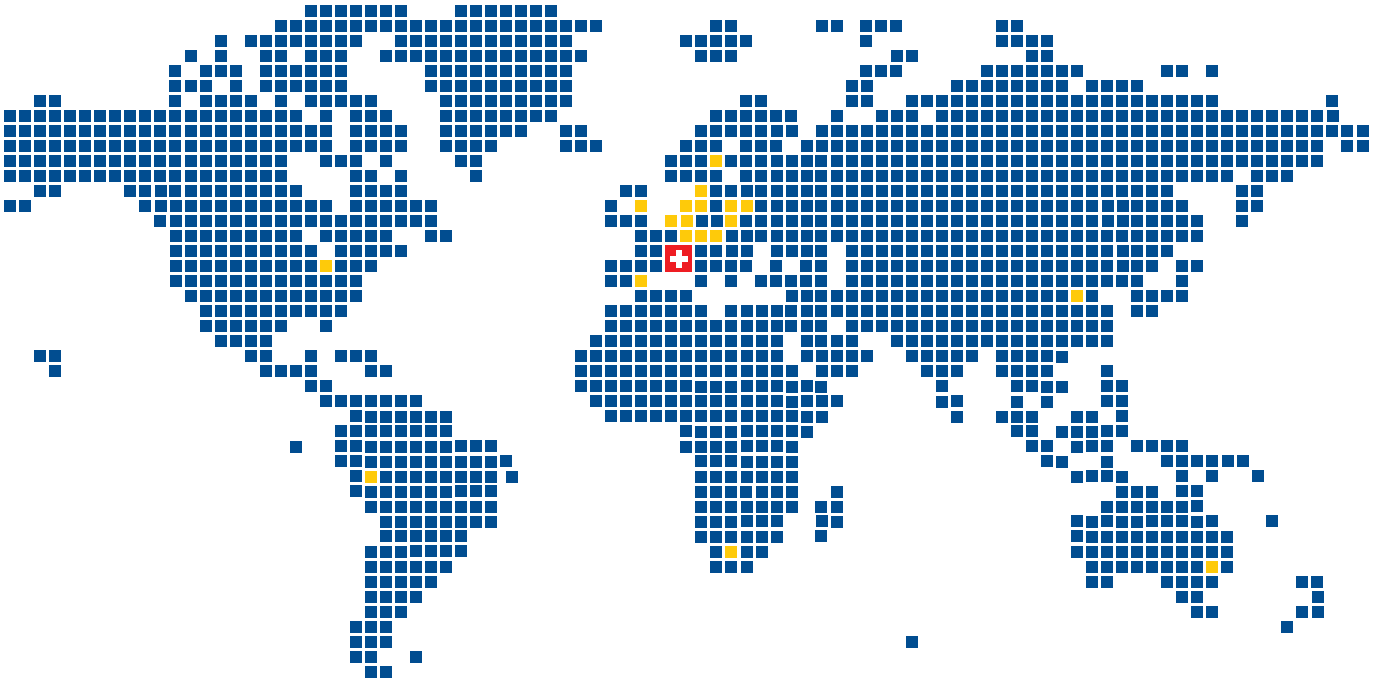
From pump performance tests, condition monitoring, inspection & analysis to troubleshooting – we ensure a reliable and safe operation of your pumps and processes.

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



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Pioneers in Pump Technology

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