

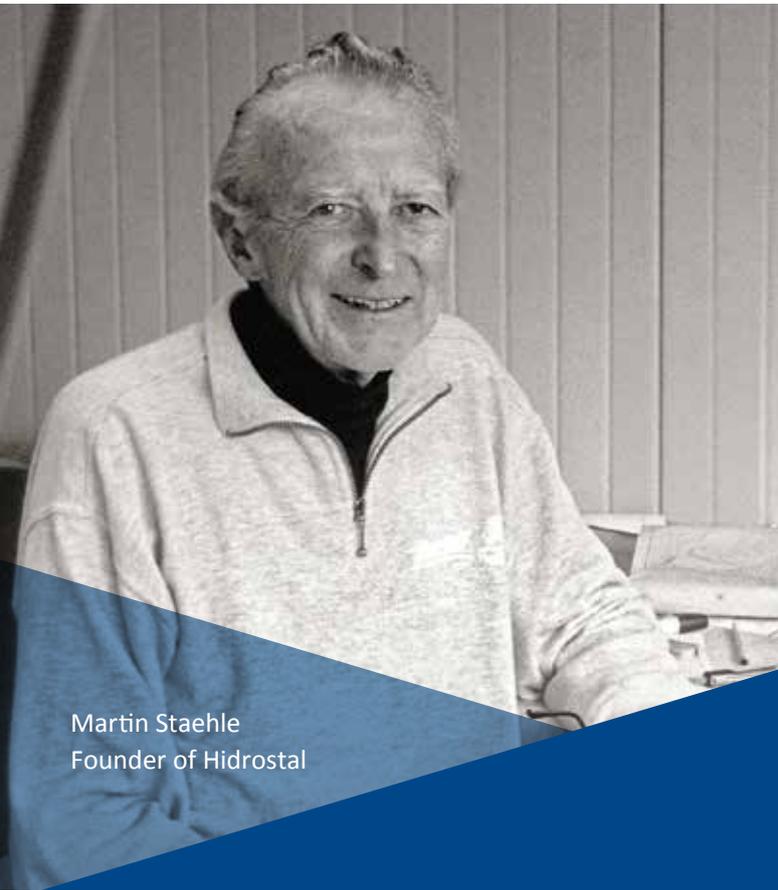


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# The ORIGINAL Screw Centrifugal Impeller Pump

High Quality pumping solutions for more than 60 years.  
Do you have a problem – we have the solution.





Martin Staehle  
Founder of Hidrostal

Martin Staehle emigrated from Switzerland to Lima, Peru, in the early 1950s to seek economic opportunities that were not available in post-war Europe. In the mid-1960s a second facility, which is today the worldwide headquarters, was opened in Neunkirch, Switzerland.

Long-serving,  
experienced employees  
characterize Hidrostal.



# Hidrostal - A success story for more than 60 years

**The Hidrostal Screw Centrifugal Pump was originally invented and then developed in Peru by Martin Staehle, the founder of Hidrostal.**

The pump was originally developed for use in the fisheries industry to transport fish from the boat for further processing without damaging them. This pump design was a tremendous success and widely imitated once the patent expired. Since then Hidrostal has continued to refine the Screw Centrifugal Impeller and today, offers tailored designs for almost all application areas.

## Your partner for pump solutions

We have in-depth experience manufacturing high-quality pumps. For over 60 years, we have supplied pump systems to all branches of industry and other sectors with a focus of our work in the area of wastewater. We are committed to developing new products as well as adapting existing products to the respective usage location. In so doing, we ensure that our customers benefit from a long service life, outstanding energy efficiency and low overall life cycle costs using our pumps.

## Hidrostal values

### Independence

At Hidrostal, we've always believed that being independent is the best prerequisite for reaching our own goals. It allows us to make free entrepreneurial decisions for the benefit of our customers and company.

### Quality

High-quality products and a continual commitment to improvement form the basis of our company. We achieved this with our qualified and motivated employees, the best possible work materials and in-depth quality controls.

### Sustainability

Sustainability and protecting the environment is an integral part of Hidrostal's philosophy. This is reflected not only by our strategies and decisions as a company, but also in the values practiced by the company's owners and employees.

# Production companies and sales partners

As the company has grown Hidrostal has evolved to the point where today there are three distinct types of entities within and associated with the Hidrostal Group. These include; Hidrostal production companies, Hidrostal wholly owned sales and service companies, and Hidrostal sales partners.

## Hidrostal production companies

The production companies produce our various product lines, including Screw Centrifugal Pumps and submersible and immersible motors. Our production companies are located in Switzerland, Peru, UK, Hungary and China.

## Hidrostal sales and service companies

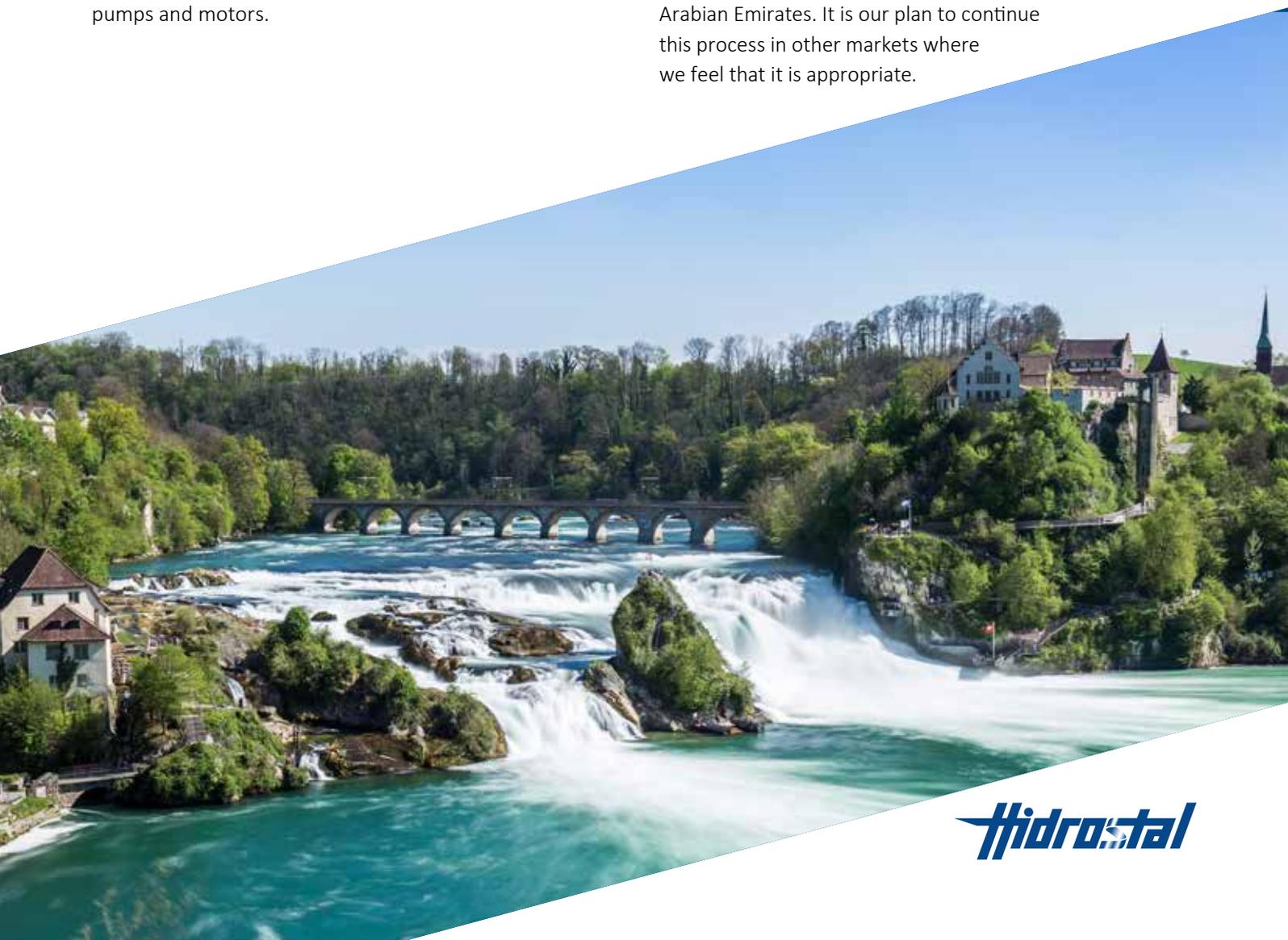
Hidrostal wholly owned sales and service companies provide sales, technical support, and service for Hidrostal products. They also produce and assemble skids and pump packages and may manufacture other Hidrostal components as needed. They do not, however, manufacture the pumps and motors.

## Sales partners

Our sales partners are not a part of the Hidrostal group. These are independent companies that provide sales, technical support, and service of Hidrostal products.

## The Hidrostal sales strategy

In order to better serve our customers, Hidrostal is forming its own sales and service companies in key markets. Today there are 20 of these wholly owned Hidrostal sales and service companies throughout the world. The last couple years there have been new companies formed in South Africa, the Netherlands, USA, Australia, France, Austria and United Arabian Emirates. It is our plan to continue this process in other markets where we feel that it is appropriate.



# Different applications need different pump solutions

Hidrostal pumps reliably and efficiently solve pumping tasks in all application areas. A simple modular system allows high flexibility in combining different types of pumps for an almost unlimited number of installation options.

## End Suction Volute Pumps

Most of the worldwide asked pumping tasks can be covered with the four main types of Screw Centrifugal Pumps described below. Depending on the application and general requirements, the pumps are only suitable for wet or dry installation or for both.

| Pump type   | Specifications   |
|---|--|
| <p><b>Compact Pumps</b></p>         | <p>Hidrostal compact pumps are portable, heavy duty field units which combine usability and robustness with the superior hydraulic and solid handling performance of the screw centrifugal impeller with a free passage of 50mm.</p> <ul style="list-style-type: none"> <li>→ Discharge Sizes: 50 - 80 mm (2 - 3")</li> <li>→ Suction Sizes: 50 - 80 mm (2 - 3")</li> <li>→ Head: 0.5 - 21 m (2 - 70 ft)</li> <li>→ Flow: 0.8 - 25 l/s (12 - 400 gpm)</li> <li>→ Power: 0.1 - 2.4 kW (0.1 - 3.2 HP)</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> <li>→ Materials: Cast Iron, Ductile Iron, Hi-Chrome, Stainless Steel, Duplex</li> </ul>         |
| <p><b>Submersible Pumps</b></p>    | <p>Hidrostal submersible pumps are capable of pumping wastewater and effluent with high solids content. The robust motor is cooled by the liquid in which it is submerged during continuous operation.</p> <ul style="list-style-type: none"> <li>→ Discharge Sizes: 50 - 700 mm</li> <li>→ Head: up to 100 m</li> <li>→ Flow: up to 2500 l/s</li> <li>→ Power: 0.55 - 400 kW</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> <li>→ Materials: Cast Iron, Ductile Iron, Hi-Chrome, Stainless Steel, Duplex</li> </ul>   |
| <p><b>Immersible Pumps</b></p>     | <p>Hidrostal immersible pumps are ideal for pumping wastewater and fluids with high solids content. These pumps are capable to run with equal performance continuously dry in air, fully or partially submerged with fluid.</p> <ul style="list-style-type: none"> <li>→ Discharge Sizes: 50 - 700 mm (2 - 28")</li> <li>→ Suction Sizes: 65 - 700 mm (2.5 - 28")</li> <li>→ Head: 0.5 - 90 m (2 - 300 ft)</li> <li>→ Flow: 0.5 - 3000 l/s (7 - 47500 gpm)</li> <li>→ Power: 0.1 - 650 kW (0.1 HP - 870 HP)</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> <li>→ Materials: Cast Iron, Ductile Iron, Hi-Chrome, Stainless Steel, Duplex</li> </ul> |
| <p><b>Bearing Frame Pumps</b></p>  | <p>Hidrostal offers a wide range of versatile, energy efficient bearing frame pumps for dry installation, suitable for horizontal or vertical mounting and in combination with standard electric motors.</p> <ul style="list-style-type: none"> <li>→ Discharge Sizes: 32 - 700 mm (1.5 - 28")</li> <li>→ Suction Sizes: 32 - 700 mm (1.5 - 28")</li> <li>→ Head: 0.5 - 90 m (2 - 300 ft)</li> <li>→ Flow: 0.5 - 3000 l/s (7 - 47500 gpm)</li> <li>→ Power: 0.1 - 650 kW (0.1 - 870 HP)</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> <li>→ Materials: Cast Iron, Ductile Iron, Hi-Chrome, Stainless Steel, Duplex</li> </ul>                     |

**Find your pump!** Make a quick and accurate pump selection with our [www.hidrostal.com/pumpselector.php](http://www.hidrostal.com/pumpselector.php)



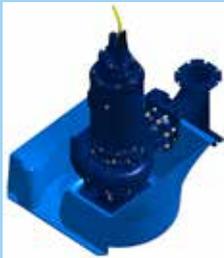
## Axial Diffuser Pumps

Hidrostal's Screw Centrifugal Impeller is ideal for pumps with axial flow direction. The product range includes a large number of pump sizes.

| Pump type  | Specifications   |
|--|--|
| <p><b>Axial Clumn</b><br/>Pumps</p>  | <p>Hidrostal submersible column pumps are located inside a tube chamber, which is often suspended from the top structure, and seated at the bottom of the column without any fasteners and can therefore quickly be installed and removed for inspection and service. They are designed for high flows at low heads.</p> <ul style="list-style-type: none"> <li>→ Tube chamber diameter: 400 mm (16 Inch)</li> <li>→ up to 1500 mm (60 inch)</li> <li>→ Head: up to 20 m</li> <li>→ Flow: 6 - 1500 l/s</li> <li>→ Power: 1.5 - 250 kW</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> </ul> |

## Pump Systems

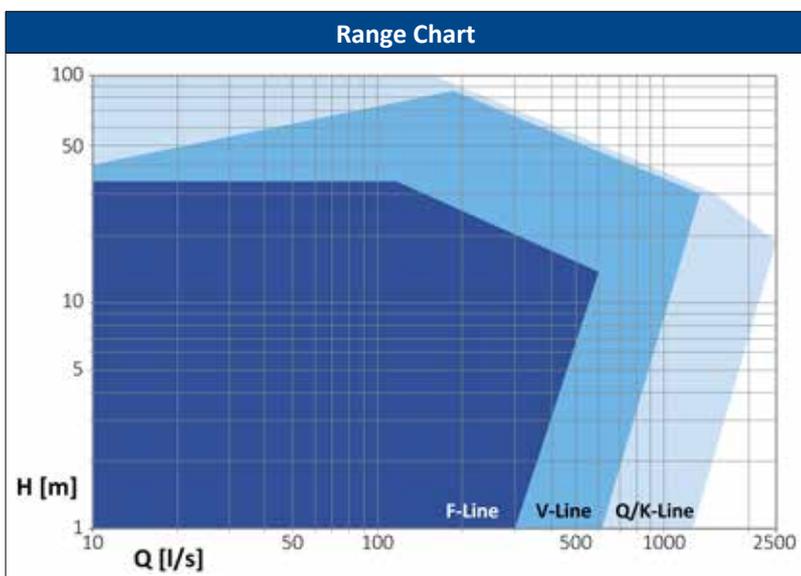
The outstanding properties of the Screw Centrifugal Pump are used in specially developed and standardized pump systems. Two of these systems are presented below.

| Pump type   | Specifications   |
|---|--|
| <p><b>SuperBetsy</b><br/>Pumps</p>   | <p>Mobile, diesel-driven pump system enclosed in a soundproof housing using the original Screw Centrifugal Pump. The combination of a reliable, high efficient and non-clogging pump with a superior priming system that operates only when required ensures the highest available efficiency for the operator.</p> <ul style="list-style-type: none"> <li>→ Head: 29 - 62 m</li> <li>→ Output: 216 - 1116 m<sup>3</sup>/h</li> <li>→ Power: 18.1 - 55 kW</li> </ul>   |
| <p><b>Prerotation</b><br/>Pumps</p>  | <p>Prerostal is a unique system to provide the pump user with the huge advantage of an automatic flow rate regulation in combination with a highly effective self cleaning wet-well system utilizing the Hidrostal Screw Centrifugal Pump.</p> <ul style="list-style-type: none"> <li>→ Discharge Sizes: 80 - 500 mm (3 - 20")</li> <li>→ Suction Sizes: 80 - 500 mm (3 - 20")</li> <li>→ Head: 0.5m - 60 m (2 - 200 ft)</li> <li>→ Flow: 2 l/s - 1350 l/s (30 - 21000 gpm)</li> <li>→ Power: 0.1 - 320 kW (0.1 - 430 HP)</li> <li>→ Frequencies: 50 Hz, 60 Hz, VFD</li> <li>→ Materials: Cast Iron, Ductile Iron, Hi-Chrome, Stainless Steel, Duplex</li> </ul> |

# Every pumping task requires specific pump characteristics.

Hidrostal can offer the optimal product from a range of 500 standard versions available. In addition, Hidrostal has developed customised solutions and entire pump series in close co-ordination and cooperation with its customers.

| Impeller type       | Application   | Example   |
|---------------------|---|---|
| Open<br>Q- & K-line | <br>Conveying granulates<br>Coarse, suspended solids   | Suspended cereal, crystals, flakes<br>Solids-containing media, unscreened wastewater and slaughterhouse waste   |
|                     | <br>Fibrous materials with a tendency to become entangled<br>Solids with abrasive character<br>Viscous, muddy and gaseous liquids | Suspendend textiled and synthetic fibres such as nylon and wet wipes<br>Surface water containing dirt and sand<br>Paint, glue, paper pulp, sludge from sedimentation, as well as gas-generating or flake-forming biological processes |
| Closed<br>V-line    | <br>Highly abrasive media  | Liquids with large quantities of sand or chippings as well as grinding and macerated waste  |
| Closed<br>F-line    | <br>Gentle conveying of voluminous materials   | Sensitive materials such as fruit vegetables and live fish  |



- Optimal operating point selection through more than 500 hydraulic variations
- Multiple versions
- High efficiencies
- Excellent suction capacity

# Hidrostal Pump Applications

Due to their outstanding characteristics, Hidrostal pumps are used in numerous municipal and industrial sectors. They pump the most diverse fluids and materials gently and with low pulsation. Our specialists select the suitable material combinations and individually adapt every pump to the local conditions. We ensure with this process that Hidrostal pumps are successful in difficult applications and achieve the best results with respect to performance, energy efficiency and low life-cycle costs.

- clog-free pumping
- high suction capacity
- gentle delivery due to low shear forces
- high efficiency
- stable, steep pump curve
- long service life
- low pulsation
- continuous flow proportional to the speed
- high pressure stability across a wide speed range

## Wastewater

Wastewater collection  
Wastewater & sewage-sludge treatment  
Industrial wastewater  
Manure  
Ship wastewater

## Industry

Paper  
Cellulose & Chips  
Biomass  
Oil and gas  
Adhesives  
Paint  
Plastic granulates  
Solvents  
Swarf and cooling lubricants  
Brine

Dewatering & drainage  
Bentonite  
Sewer rerouting  
Mine drainage  
Water intake & power  
Flood protection

## Construction

Fruits  
Vegetables  
Live fish  
Brewery  
Molasses  
Oils and pastes  
Gels

## Food

# Hidrostal worldwide.

Pumps from Hidrostal are used all around the world. Our pumps are custom -made and are specially tailored to the needs of each location. With this procedure we achieve a high level of operational effectiveness and excellent energy efficiency. It is always worth investing in a Hidrostal pump

in the long run because our pumps are low-maintenance, they almost never clog, and their long service life is unique. Depending on the location, our clients are assisted by one of our subsidiary companies or sales partners. You will find your contact at [www.hidrostal.com](http://www.hidrostal.com)



Make a quick and accurate pump selection:  
[www.hidrostal.com/pumpselector.php](http://www.hidrostal.com/pumpselector.php)

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