

Application

Fruit and vegetables

Hidrostal pumps are successfully used for the damage-free transportation, efficient feeding, pitting and washing of fruit and vegetables. Suitable feeders are also available to support the processes.

Hidrostal - clog-free since 1960

The first Hidrostal pump was developed in the 1950s to unload freshly caught fish from a trawler without damaging the fish stock. From its successful origins in pumping fish, Hidrostal has expanded to a wider range of applications, which also benefit from the gentle pumping characteristics of our pumps.

Pumping fruit and vegetables - gentle conveying is required!

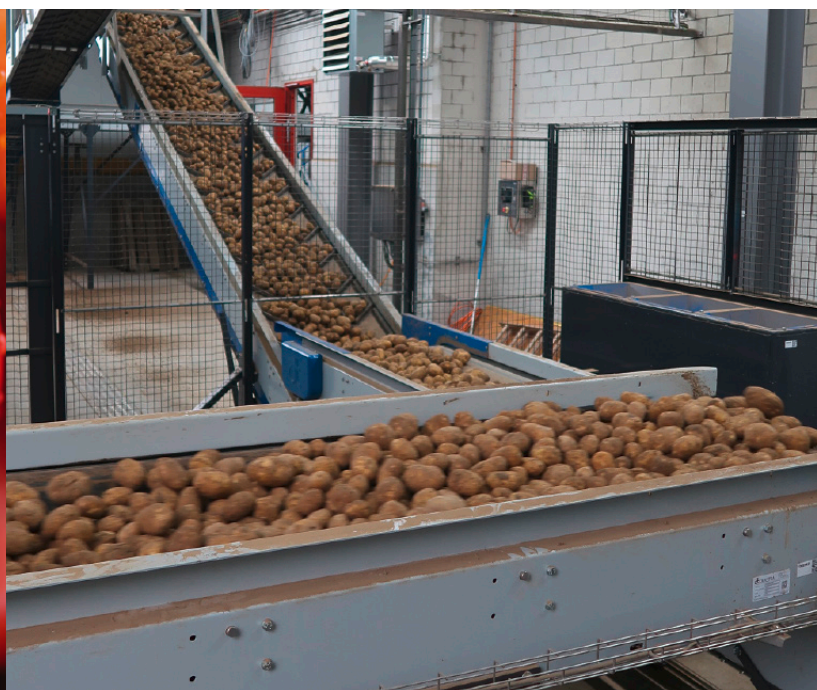
Pumping fruit and vegetables requires the highest standards of gentle pumping of the medium. The food industry requires process pumps that meet the highest quality standards, operate maintenance-free, handle the product gently and enable a high solids content. In order to ensure that the pumps can be installed as flexibly as possible, bearing frame pumps as well as submersible pumps are used, which are characterized by low NPSH values and stable motor characteristics.

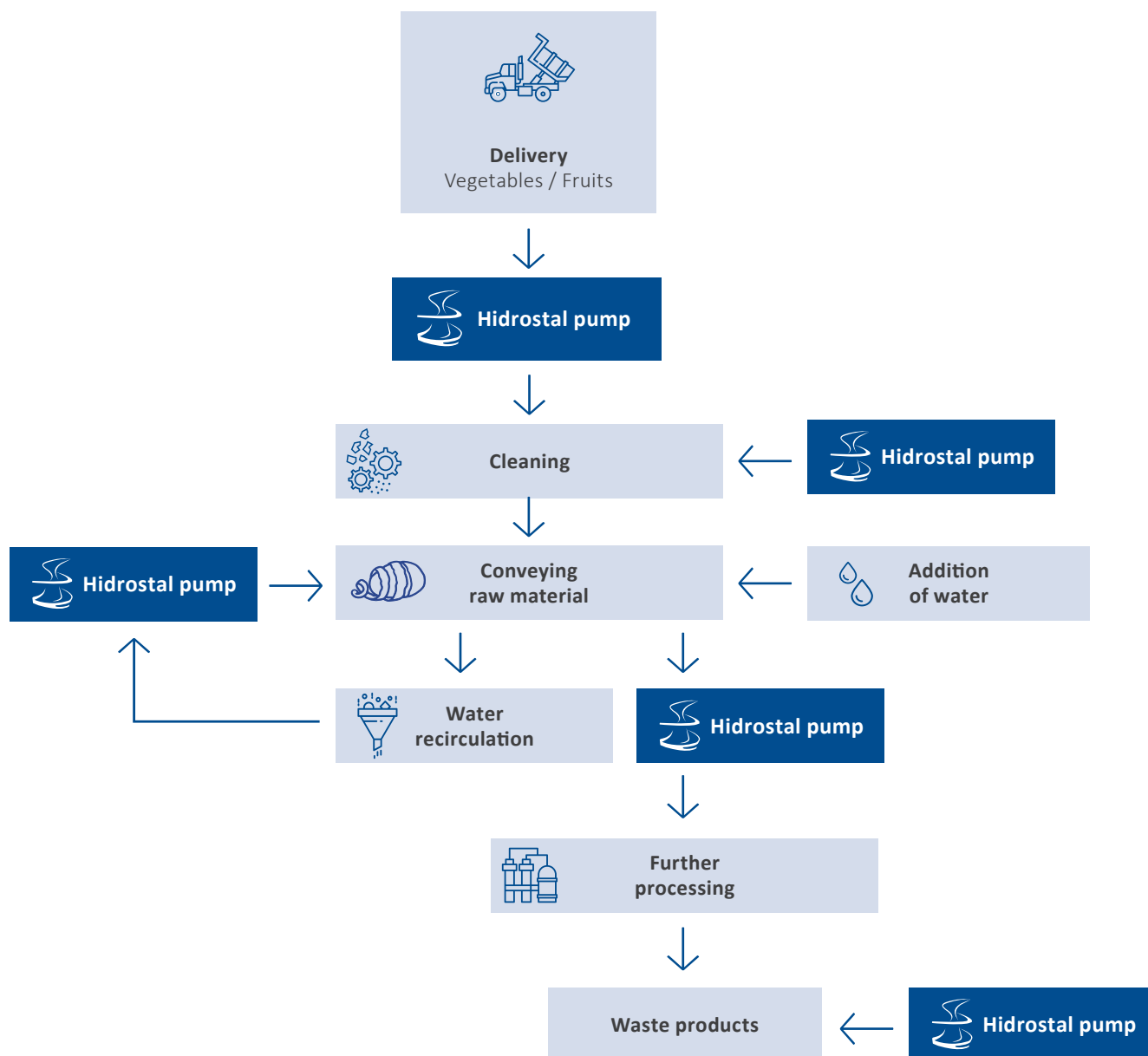
In addition to gentle pumping, our products are also used for industrial wastewater or recirculation processes. The unique impeller design of our pumps ensures blockage-free pumping in combination with high efficiency and a long service life.

The following diagram shows a simplified process flow of food production in the fruit and vegetable segment.

Our global specialists can support you with all your specific food processing needs and challenges.

Find your personal contact at [hidrostal.com](https://www.hidrostal.com)





Screw centrifugal pumps for the food industry

Whether conveying sensitive foodstuffs or pumping waste water and waste products - Hidrostal pumps offer a durable, clog-free and hygienic solution with maximum flexibility and energy efficiency.

Our original Hidrostal screw centrifugal impellers are available in various designs, depending on the requirements of the medium to be pumped. We guarantee non-clogging for all applications and gentle pumping for sensitive foodstuffs, always in combination with the high efficiency and long service life of our pumps.

Uniform current consumption across the entire characteristic curve and low NPSH values are additional advantages that make our pumps a favorite among system operators.

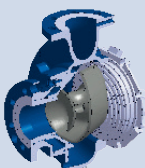
The following overview shows our different impeller types and their application areas.

Conveying fruit and vegetables

Our pumps enable a wide variety of pipe arrangements and are more flexible and space-saving than installations with conveyor belts, lifting systems or tanks. Piping systems have the further advantage that they are more hygienic and protected from external contamination. Hidrostal pumps can also be easily installed in series if high delivery pressures are required.

Water recirculation and wastewater treatment

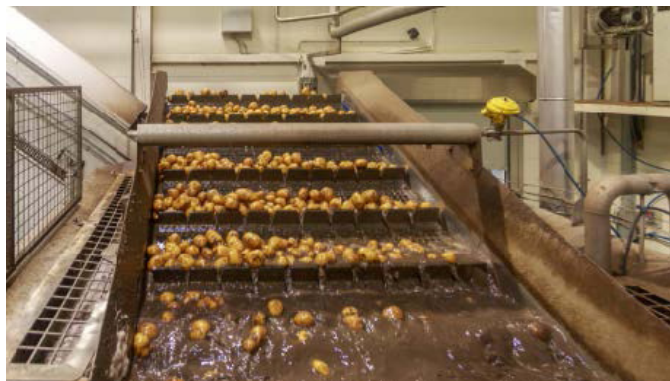
Throughout the production process, our clog-free pumps can also be used to convey waste products containing solids.

Impeller Type	Conveying from	Material	Examples
Open Q-& K-Line 	Liquids with coarse solids, viscous media, shear force-sensitive media	Cast iron, duplex	Waste products in food production, transportation or recirculation processes of non-critical media
Closed F-Line 	Sensitive solids, impact and pressure-sensitive objects	Cast iron, duplex	Fruit, salad, spinach, vegetables, berries, potatoes, mushrooms, pasta (e.g. ravioli)
Closed V-Line 	Highly abrasive media, long-fibered solids	Cast iron, duplex	Potatoes, vegetables and fruit in a sandy medium

Specifications

- Gentle and clog-free pumping performance thanks to the unique design of the Hidrostal screw centrifugal impeller and the wide range of available characteristic curves
- Wide range of applications from 1 - 100 m (3.28 - 328 ft) delivery head and 10 - 2000 l/s (159 - 31'700 gpm) delivery rate with high efficiency
- Various material options
- Installation as a submersible pump, dry installed with submersible motor or as a bearing frame pump
- Wide range of sealing and elastomer options
- Flexible connection and instrumentation options
- Wide range of accessories

Efficient solutions for the gentle transportation of fruit and vegetables



Potato washing systems

Hidrostal offers reliable solutions for washing systems in the potato industry. After the product is fed into the conveyor, which ensures the optimum liquid-to-potato ratio, the potatoes are pumped into the washing area. After leaving the wash, they can be cut and peeled as required before being transported to the next processing area.

Hidrostal pumps enable efficient reuse of water in the washing process, which is both sustainable and cost efficient. The Hidrostal impeller guarantees the best ball passage, avoids any clogging and allows all the above tasks to be carried out smoothly and the product to be transported gently.



Conveying potatoes

In the production of French fries, potato chips and other potato products, our pumps are successfully used for the transportation of washed potatoes. After transportation via the feeder designed by Hidrostal, F-impeller pumps installed in series convey the potato-water mixture to the next process step, where the potatoes are separated from the water and further processed. The excess water is then pumped back with our pumps for reuse. Thanks to the gentle pumping and efficient operation, the customer can save on service and electricity costs.

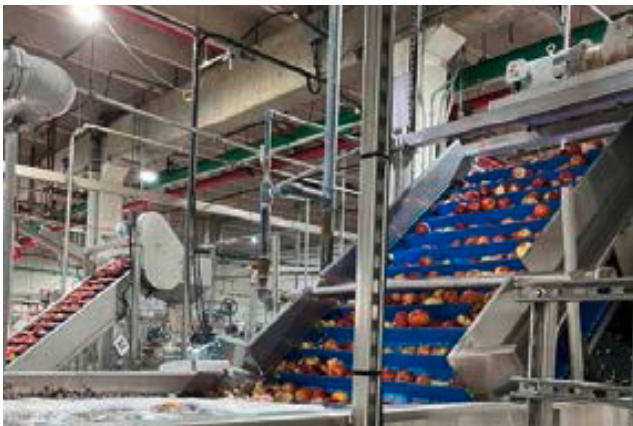


Example: conveying peas

The customer was looking for a gentle transport method for transporting peas as part of the washing process. The choice fell on Hidrostal screw centrifugal pumps with the impeller type F, which can convey the peas with low shear, without any damage and with high efficiency. The high efficiency of our pumps, for example compared to a vortex pump, reduces the energy consumption and enables the selection of a smaller motor size than alternative products.

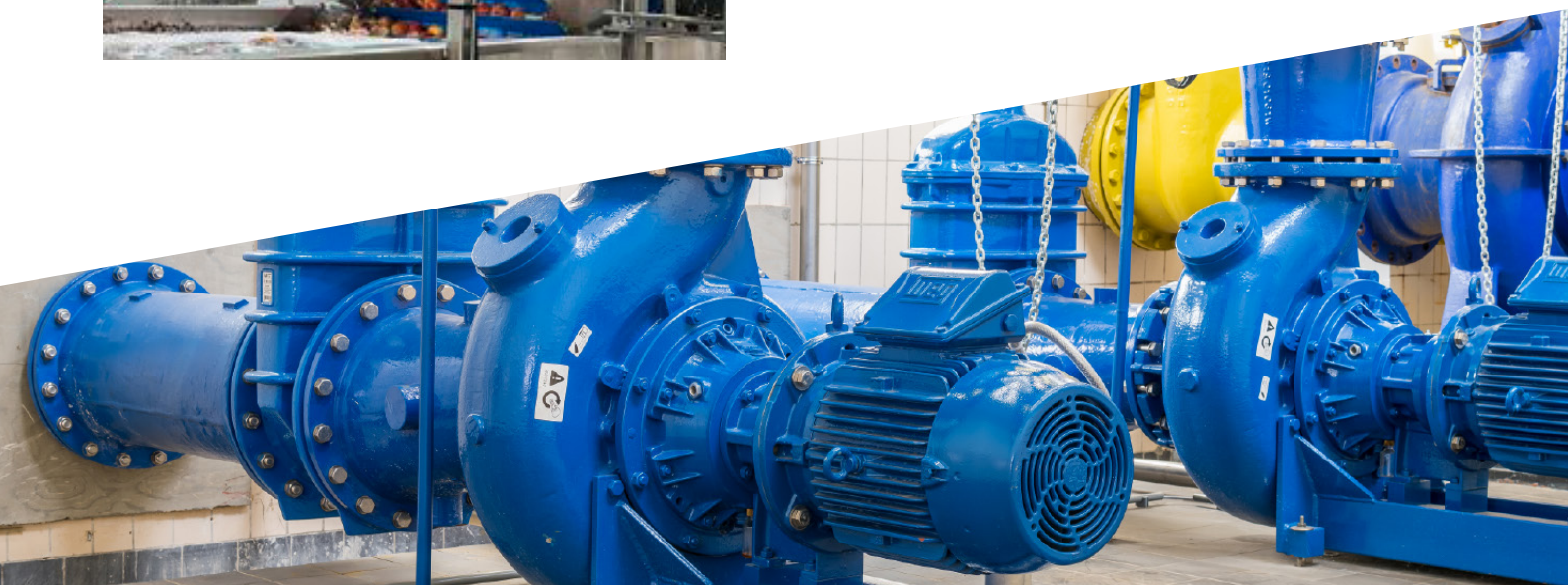
Example: Conveying spinach

Washed spinach leaves are fed into our pumps via a feeder and then transported to the third floor, 24 m (78.7 ft) high, for further processing via a 3-stage pump system. There, the pumped water is separated from the spinach and returned to the feeder for reuse. Every hour, 5000 kg (11'023 lbs) of highly delicate spinach leaves are pumped with 300 m³ (79'252 gal) of water. Thanks to the gentle conveying with our type F impeller, this process can be mastered without any problems.



Example: conveying apples

For the production of apple sauce, our bearing frame pumps with a screw centrifugal impeller are used at a speed of 1240 rpm. The highly efficient K-impeller gently pumps the apples together with water up 11 m (36 ft) to the next production step. The system has been running to the customer's complete satisfaction for years. No damage to the apples conveyed has been detected to date.



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.

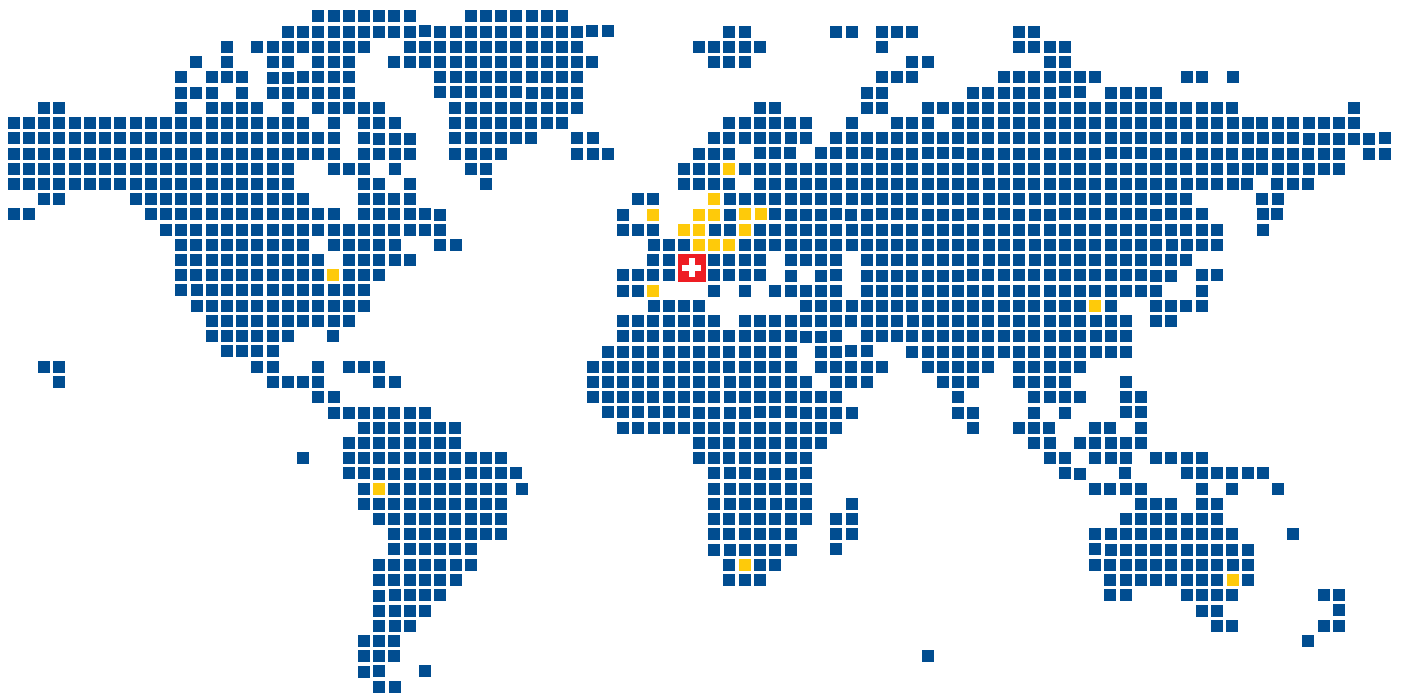
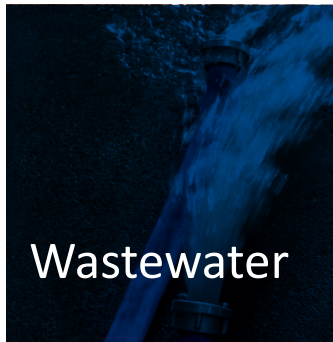
Hidrostal pumps

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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