xylem

The small pump range from the wastewater experts

Featuring clog-free Adaptive N® technology

50Hz



FLYGT
xylem

Leave clogging behind

If you're looking for a small pump that's easy to install and just keeps on working, look no further. The wastewater experts at Flygt offer a comprehensive range of 1 to 10 kW pumps, and our clog-free Adaptive N hydraulics let you rest assured of reliable, trouble-free operation.

With more than a million Flygt small pumps and millions more larger models installed, we've learned a lot over the years. New customers often tell us the top challenges with small pumps are clogging, overheating and a rapid loss of pumping efficiency. In many cases they'd rather replace a small pump than repair it, which becomes a costly proposition over time. The best solution, of course, is to avoid these problems in the first place.

Pumping innovation for you

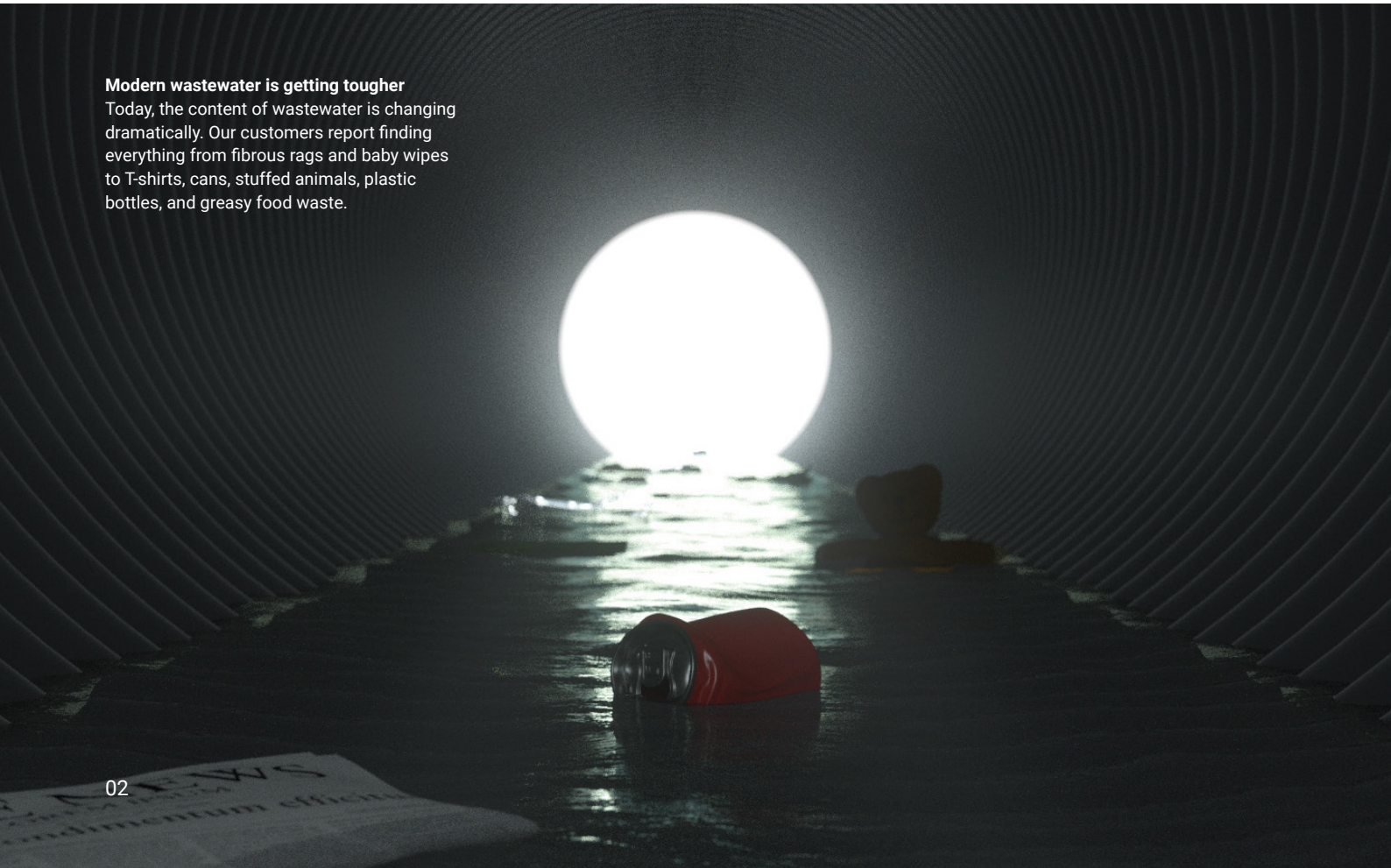
To achieve this, our wastewater experts have developed a trouble-free range of small pumps capable of taking on the toughest wastewater challenges. Having invented the world's first submersible pump in 1947 and later pioneered the self-cleaning N-hydraulics, we wanted to include some of these professional "big pump" features in our small pump range as well.

Robust impeller materials

So whether you're working in municipal sewage or building construction, you can always find a top-performing small pump for all requirements. With our Adaptive N impeller you can also choose the optimal material type for your needs: Hard-Iron or grey iron. Flygt's Hard-Iron alloy is developed specifically for tough wastewater applications. Hard-Iron is highly resistant to abrasive wear and erosion-corrosion which makes it ideal for challenging modern wastewater media.

A pump for every need

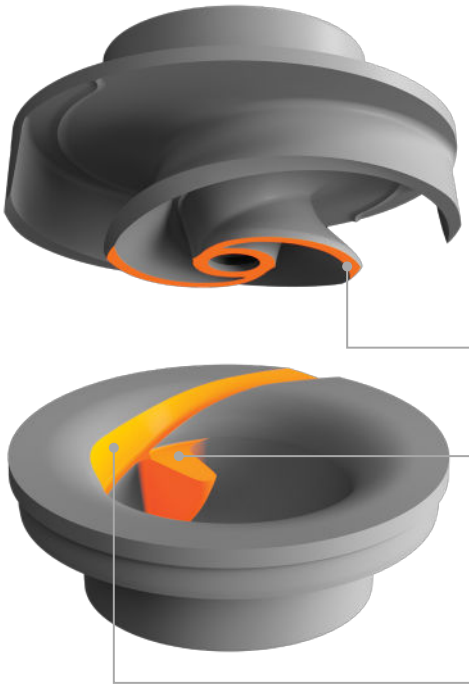
If energy savings and sustainable long-term operations are your focus, our Adaptive N impeller for small pumps allows for continuous, trouble-free pumping with an energy reduction of up to 25% compared to conventional pumps.



Modern wastewater is getting tougher
Today, the content of wastewater is changing dramatically. Our customers report finding everything from fibrous rags and baby wipes to T-shirts, cans, stuffed animals, plastic bottles, and greasy food waste.

Adaptive N®– the groundbreaking clog-free technology for small pumps

Smaller pumps are often susceptible to clogging when pumping fluids high in solids and fibrous content.

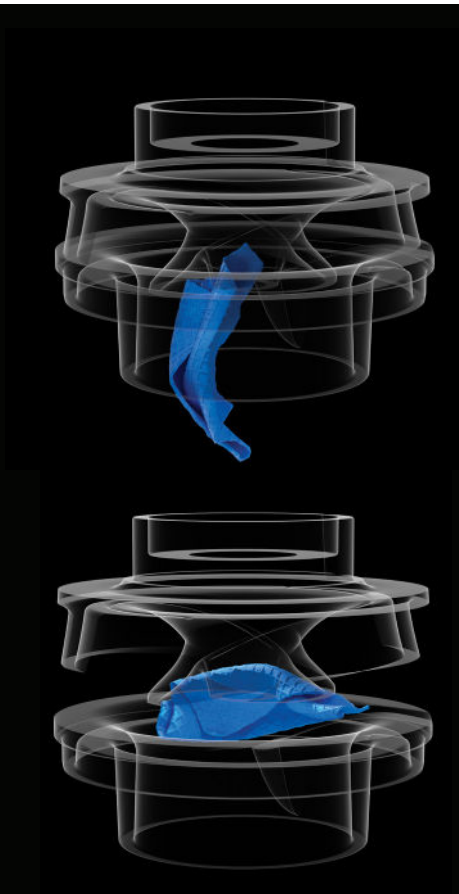


Flygt Adaptive N hydraulics combine a unique impeller blade geometry with a relief groove, guide pin, and axial movement to give you sustained high efficiency and smooth operations. The self-cleaning design allows for up to 25% lower energy consumption, independent of impeller speed or duty point. The unique geometry is also designed to minimize vibrations, resulting in a longer lifespan for the mechanical components.

Backswept leading edges – ensures no sticking
When solids enter the pump, they are met by our dual-blade N impeller. The optimized blade geometry, with its horizontal backswept leading edges, ensures that no material sticks to the impeller.

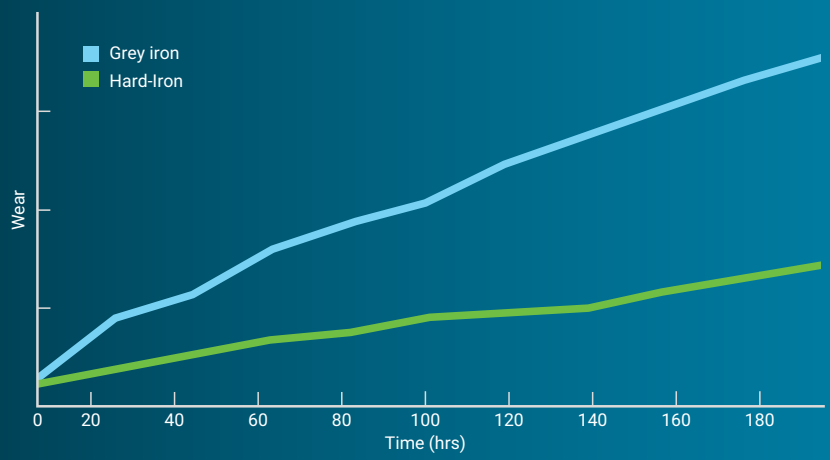
Integrated guide pin – clears the center
Integrated into the insert ring, a guide pin clears the center of the impeller by pushing solids along the leading edges towards the periphery of the impeller for removal.

Relief groove – facilitates transport
When solids arrive at the perimeter of the inlet, they are transported inside the relief groove, guided along the edge of the impeller vane, through the volute and out of the pump.



Adaptive N – lifts up for large objects
When larger objects enter the pump, the impeller moves axially in response to a pressure differential created by these solid objects passing through. This avoids clogging and ensures continuous, energy-efficient pumping.

Adaptive N hydraulic materials — accelerated wear test



After 200 hours, the Hard-Iron impeller proved to be five times more wear resistant than the grey iron version.

Install it exactly the way you want it

In our small pump family, the Flygt 3069 stands out as a unique pump in its class and a reliable all-round workhorse. Not only is it available with our patented Adaptive N technology or, alternatively, the Vortex and Grinder hydraulics, but it features our flexible installation concept. This means you can customize the configuration to fit your needs exactly.

With the Flygt 3069 flexible installation concept, the bare pump is always your starting point. Then simply choose from among four predefined installation kits (F, H, P or S). Designed to cover every pump model and outlet size, the kits are carefully pre-checked to ensure nothing is missing.

No more searching for parts

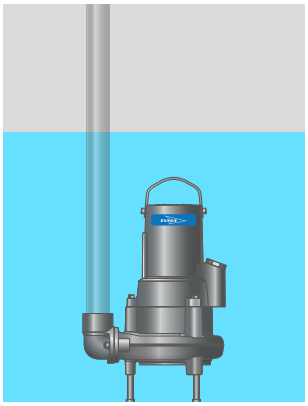
As a result, there is no need to spend valuable time searching for individual parts. You also avoid potential order errors relating to small parts since nothing is forgotten. This modular approach also means you can do late product configurations or even multiple installation configurations using the bare pump as the base. Finally, for your convenience, all components required for installation are included in one part number.

Flygt 3069 Series
Our 3069 Series with Adaptive N covers all wastewater applications and is the preferred hydraulic option in our small pump range.

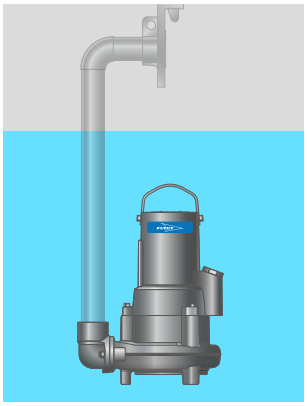


Flygt 3069 flexible installation

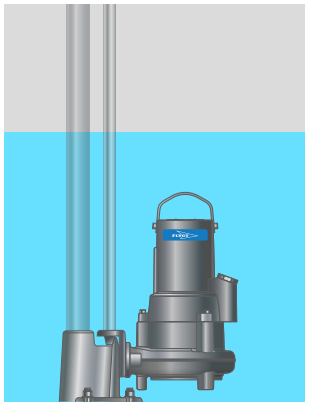
F-installation
Free standing, the pump is equipped with supporting legs. Can be connected to a hose or pipe.



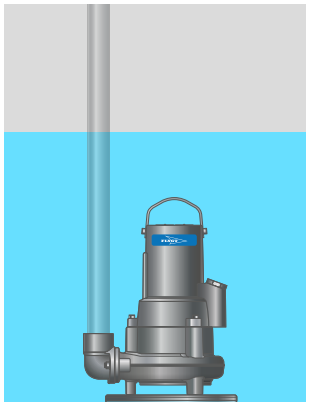
H-installation
Stationary wet installation suspended from the discharge pipe. The quick connection joint has an integrated non-return valve applicable for Flygt Compit pump stations.



P-installation
For semi-permanent wet well installations. The pump is installed between guide bars on a discharge connection.

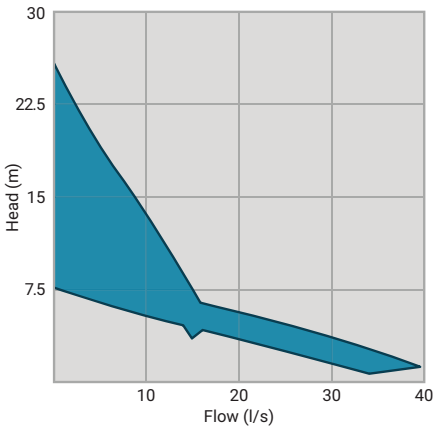


S-installation
Semi-permanent freestanding installation. Easy to transport with its pipe or hose connection.



Flygt 3069 Adaptive N

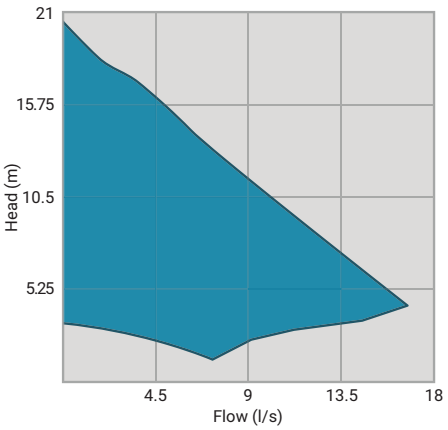




Adaptive N hydraulics not only prevent clogging and reduce stress on the shaft, seals and bearings, but also enable up to 25% sustained lower energy usage. Choose between Hard-Iron and grey iron impeller materials.

Flygt 3069 Vortex

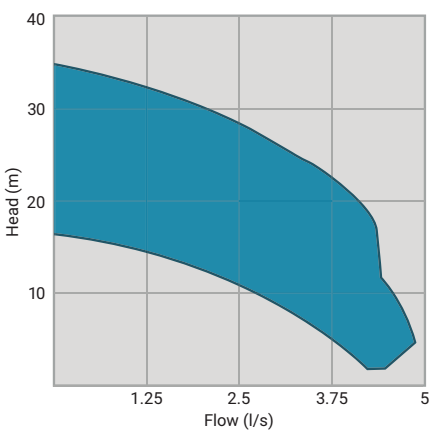




Robust and highly reliable, our powerful Vortex model has an open recessed impeller design to allow free flow-through passage of solids and liquids. It is capable of handling sludge concentration with up to 4% dry solids.

Flygt 3069 Grinder





When it comes to superior shredding and cutting, our enhanced Grinder model is often used when high efficiency is a must in uneven terrain. This pump type is excellent at reducing solids to a fine slurry that can then be pumped through small-diameter pipes. It adjusts to the actual system conditions without producing a very high pressure, and it requires very low maintenance.

Flygt 3069 series overview

	Adaptive N	Vortex	Grinder
Power rating, kW	1.3 – 2.4	1.3 – 2.4	1.5 – 2.4
Discharge size, mm	50, 65, 80	50, 65, 80	50
Flexible installation	X	X	-
Hydraulic material options			
Grey iron	X	X	X
Hard-Iron	X	-	-

A small pump for every wastewater application

Rounding out the Flygt small pump family are the 3085, 3102 and 3127 series, which provide state-of-the-art pumping with Adaptive N technology. Proven clog-free operation reduces un-planned maintenance and lowers your energy bill, reducing total life cycle costs and making these pumps ideal for smaller municipal sewage and commercial applications.

Flygt 3085 Adaptive N
Robust, compact and highly efficient

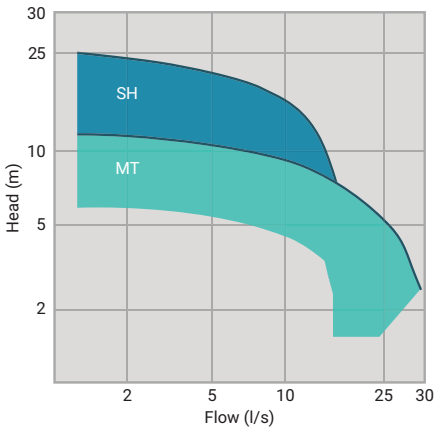


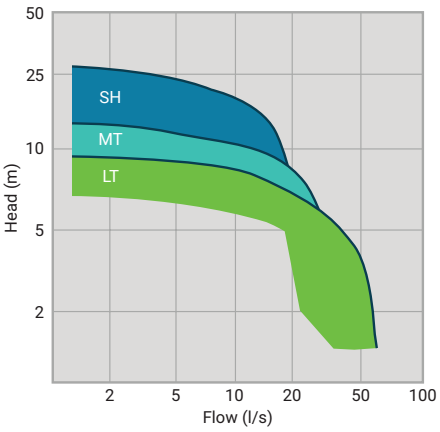
Flygt 3102 Adaptive N
Well-proven for continuous trouble-free pumping

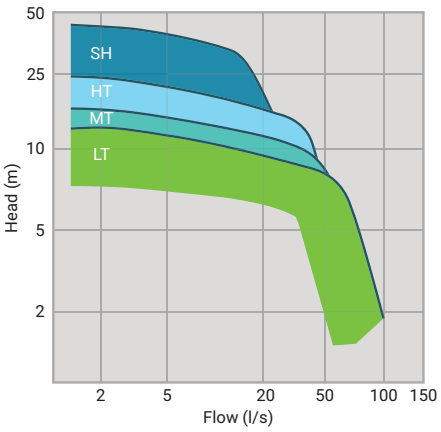


Flygt 3127 Adaptive N
Designed for slightly higher flow rates









Pressure Characteristics: SH – Super High Pressure, HT – High Pressure, MT – Medium Pressure, LT – Low Pressure

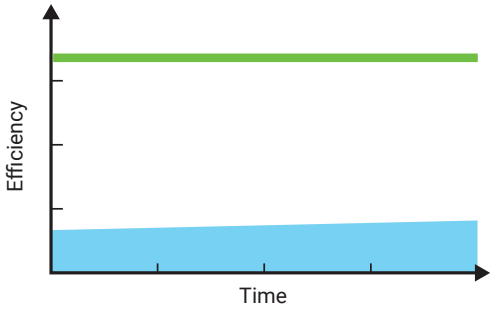
Small pump range overview

	3085 Adaptive N	3102 Adaptive N	3127 Adaptive N
Power rating, kW	1.3 – 2.4	3.1 – 4.5	4.7 – 8.5
Discharge size, mm	80	80, 100, 150	80, 100, 150
Hydraulic material options			
Grey iron	X	X	X
Hard-Iron	X	X	X

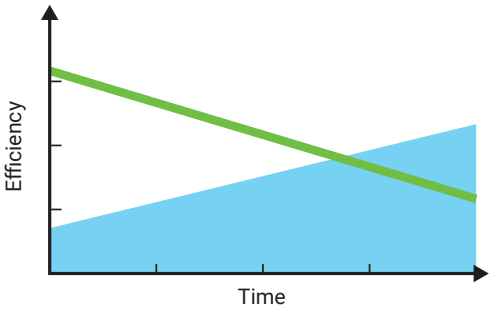
The effect of hydraulics and clogging on pump efficiency and energy use

Conventional channel- and vortex-impeller pumps tend to collect soft solids as they are operated. As the pump runs continuously in wastewater and solids build up, efficiency decreases and energy consumption gradually increases. The trend is the same when a conventional pump runs intermittently, even if back-flushing achieves temporary efficiency gains. In contrast, Adaptive N self-cleaning pumps maintain consistent efficiency and energy consumption during continuous or intermittent operation in wastewater, giving them the lowest energy consumption over time.

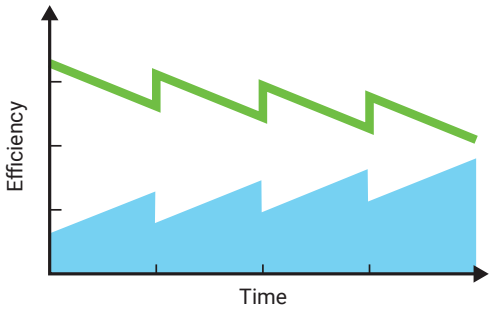
Flygt Adaptive N pump running continuously or intermittently



Conventional pump running continuously



Conventional pump running intermittently



Hydraulic efficiency Energy consumption



For more detail on pump performance and options, including grinder, vortex, and chopper hydraulics, visit Xylem Solver.

One solution. One supplier. One easy-to-buy package.

Designed to cover a broad range of pumping capacities and applications, our small pump range offers a diversity of model options, power ratings, flow rates and discharge sizes. The pumps can be delivered either freestanding or as part of a complete modular pumping solution. You decide how you want it supplied.

If you are installing a pump for a difficult municipal application or at a commercial building site with special requirements, you might want to look into one of our Packaged Pump Stations. Available in a range of designs and sizes, they come with all the necessary equipment for ease and speed of installation and commissioning. Many of the designs come with a sloped sump floor with simplified self-cleaning functionality.

Pre-engineered control systems

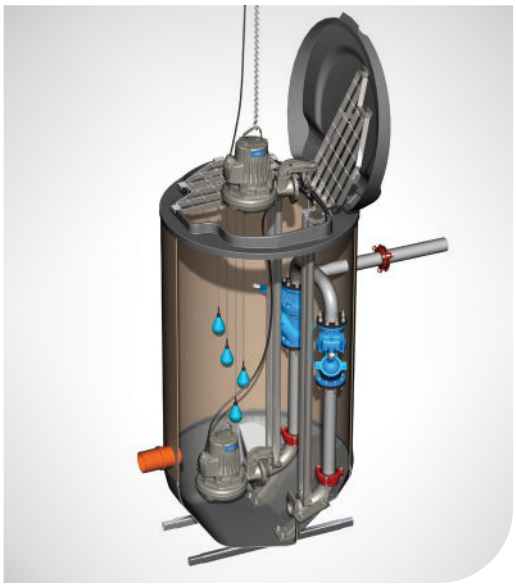
More than just pumps, we provide monitoring and control solutions that can be rapidly commissioned. They are pre-engineered specifically for water and wastewater applications. That's because we believe you shouldn't need to know hundreds of protocols to commission a small pump. So say goodbye to complex protocols and bulky control systems.

Service that's close to you

As a knowledgeable partner with maintenance and repair facilities around the world, we have the local presence to provide fast, expert support should you need it. Not that this should be a problem with our small pumps, but our service technicians are never far away with the right spare part and the right competence if needed.

User-friendly monitoring and control interfaces
Our monitoring and control systems are designed for easy, out-of-the-box installations. Example below: Flygt FGC 400.





Packaged Pump Stations
We can design and deliver Packaged Pump Stations pre-engineered to conform to all local regulations on pipework, pump and control specifications. Example above: Flygt TOP Station.

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