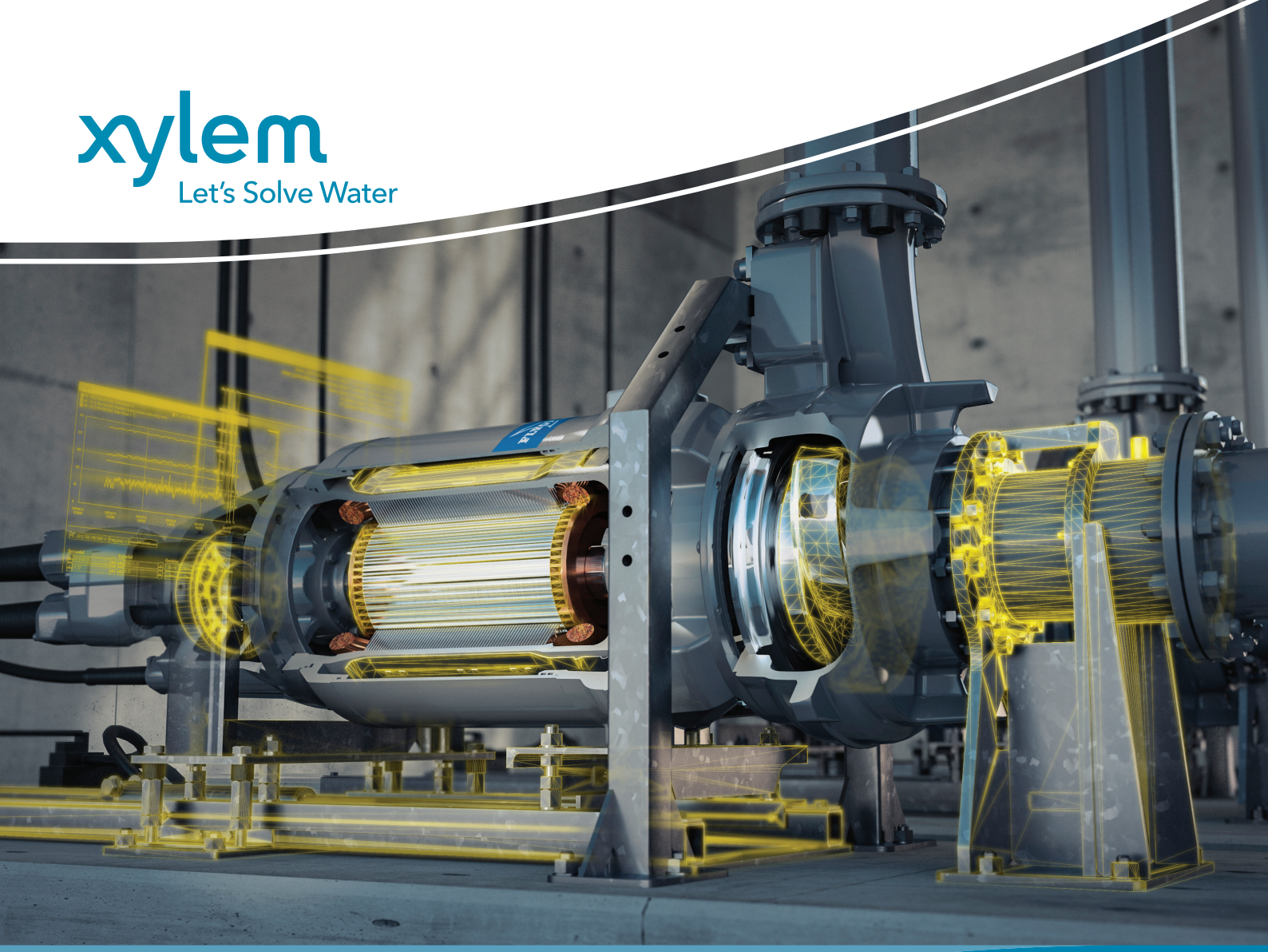
xylem
Let's Solve Water



# Large Pumping System

A COMPLETE SOLUTION FROM PUMP TO MONITORING

FLYGT
a xylem brand

# Solving heavy duty challenges

## Industry-leading operation and optimal performance with Flygt Large Pumping System – lowering energy consumption and maintenance costs as well as reducing downtime.

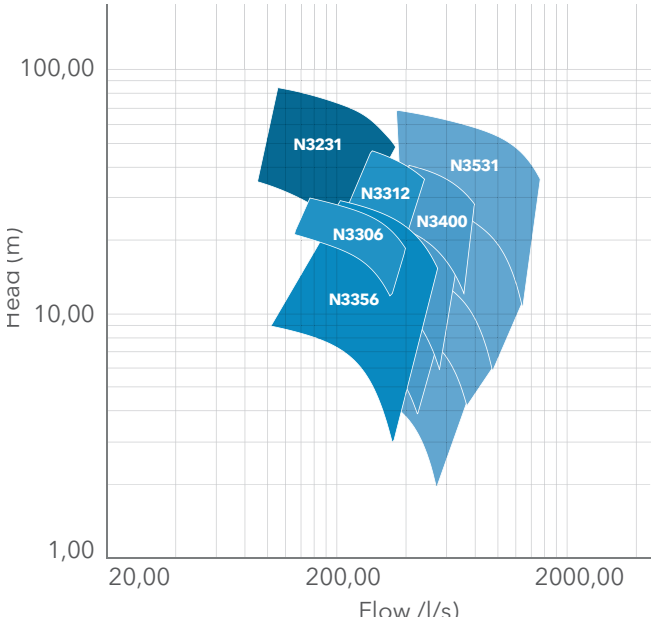
Managing large volumes of water places high demands on reliable and energy efficient operation to achieve stable and secure flows, reduce the environmental impact and prevent flooding. Optimal energy consumption, prolonged asset lifecycle and preventive maintenance are essential to lower costs and to create sustainability.

Flygt Large Pumping System combines state-of-the-art pumping performance with a market leading supervision system. The proven track record of the N-hydraulics with its self-cleaning design provides trouble-free operation with sustained high efficiency for all types of pumping applications.

Flygt Large Pumping System offers an efficient method for dry installation with easy and safe maintenance and service features. A state-of-the-art internal cooling system option assures an extended lifetime for the high efficiency motors. And the intuitive monitoring system, MAS 801, ensures optimal operation and enables preventive maintenance.

All together the Flygt Large Pumping System provides an efficient, sustainable, secure solution for critical pumping stations ensuring a peace-of-mind operation.

**Performance, 50 Hz**




**The Large Pumping System is available for the full range of Flygt 3000-series high-capacity pumps, 30 kW to 680 kW (60 hp to 1000 hp).**

# 50%

more real time data for higher reliability and preventive maintenance, reducing downtime.

# Zero risk

of overheating caused by clogged cooling jacket as coolant can never be contaminated.

# 90%

less time on inspection with the service sled and the patented pivoting service inlet, giving access to the impeller without having to dismantle the entire pump.

# 25%

reduction on energy consumption with the self-cleaning design of the N-impeller for clog-free pumping and sustained high efficiency.

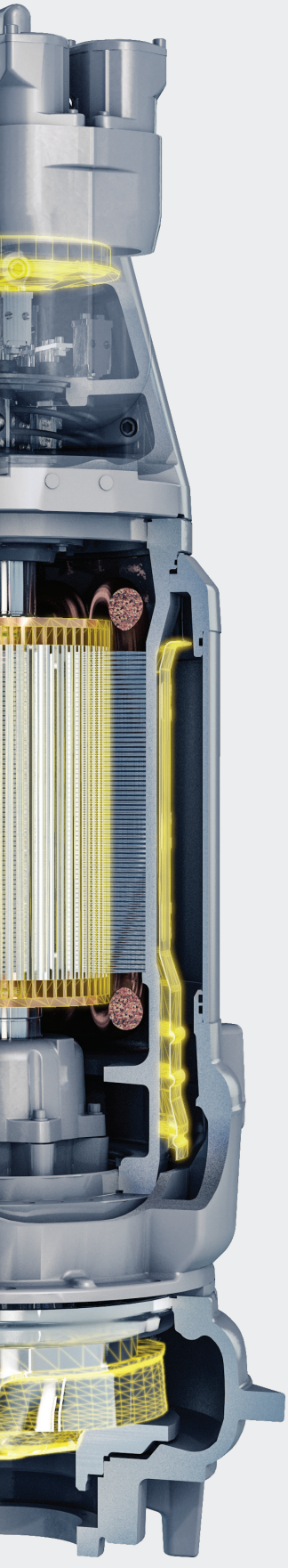
# Sustainable and optimal performance

## MAS 801 enables a proactive approach to station diagnostics

Flygt MAS 801 collects 50% more real-time data, compared to previous generation, and has more than 10 warning parameters to prevent pump failure and unnecessary wear. This together with the built-in diagnostic tool suggesting possible root causes and the fact that no pilot cable is needed for pump sensors – The Flygt SUBCAB Power Cable is simply enough – provides for lower installation costs, powerful troubleshooting, reduced downtime and increased reliability. The pumps can be monitored on site or remotely in the interactive and user-friendly interface with up to ten pumps in the same view. To have immediate access to critical data provides the opportunity to quickly gain insight to improve performance and address problems as they arise. Deciding on maintenance based on actual conditions will save time and money and provide means to focus on remedy actions where they are needed.


## CLC 800/900 gurantees optimal operating performance

Closed loop cooling (CLC) means that the cooling liquid is pumped up through the space between the inner cooling jacket and the stator housing. The coolant is then circulated downwards between the inner and outer cooling jacket down to the cooling bottom. Finally, the coolant bottom transfers the heat from the coolant to the pumped media. Being isolated from the pumped media, CLC eliminates the risk of the motors overheating due to contamination of the cooling system. Flygt CLC guarantees industry-leading pumping performance with the latest technology providing reliable operation.



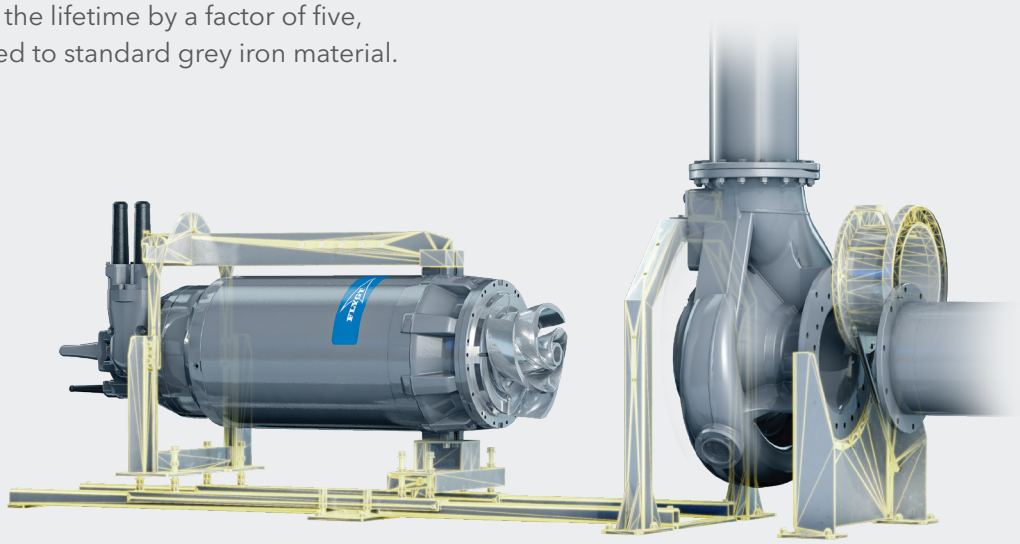
| Feature | CLC | N-technology | Z installation | MAS 801 |
|---|---|---|---|---|
| Improved system efficiency | ● | ● | ● | ● |
| Patented Service Inlet to impeller | | ● | ● | |
| Increased efficiency and no overheating | ● | ● | | |
| No solids within the cooling jacket | ● | | | |
| Patented Spin-out™ seal expels abrasives | ● | | | |
| User-friendly, multiple-pump overview & monitoring (on site or remote) | | | | ● |
| Improved performance | ● | ● | ● | ● |
| Reduced maintenance and energy costs | ● | ● | ● | ● |

## N-technology provides clog-free performance and energy savings

When pumping wastewater the pumps over time often lose efficiency due to fibrous material and debris building up on the hydraulic parts. In critical situations this leads to hard clogging and costly down time and call-outs. Flygt N-technology has a self-cleaning design that easily pumps fibrous materials and continues to maintain high efficiency. This generates an estimated 25% in energy savings and reduces the cost for unplanned call-outs. The N-hydraulics are available in stainless steel, hardened grey iron and hard-iron to fit the need of most any pump application. Flygt's patented Hard-Iron alloy is developed specifically for tough wastewater applications. Accelerated wear tests prove that hard-iron (60 HRC) hydraulic components prolong the lifetime by a factor of five, compared to standard grey iron material.

## Z installation simplifies inspection and lowers servicing costs

With a patented pivoting service inlet, Flygt dry horizontal installation offers faster maintenance and servicing, where you can access the impeller without having to separate the drive unit from the hydraulics. Compared to conventional dry installed pumps you can reduce time spent on inspection with up to 90%, thus lowering servicing costs. The unique hydraulic actuator and Z-sled tracks need minimal manual force to move the drive unit and ensure safe handling. Horizontally installed systems also benefit from higher available NPSH (Net Positive Suction Head) and no need for shaft alignment.



# Applications

## Wastewater

Wastewater can be difficult to transport and manage with large amounts of organic solids, rags and other waste matter that challenges wastewater pumps. High demands are placed on reliable pumping, since spills and overflows will cause damage to the environment and result in fines. This is when Flygt can help, with proven non-clog pumps for tough media and state of the art pump station designs for all specific pumping requirements.

## Stormwater

Stormwater pump stations help protect areas by pumping away large volumes of water, thereby preventing the occurrence of flooding. Many cities and municipalities are located on or near bodies of water, creating a need for large, reliable pumping systems capable of handling large volumes of water. Floodwater often contains solids and large amounts of fibrous materials, like branches, leaves, weeds, trash, dirt and sediments such as sand, silt, mud and soil. The pumps and pump station design face tough requirements, since trash must not get caught in the pumps or sediment in the pump sump.

## Amusement parks – Pumping up the fun

Many leisure locations and water parks rely on the efficient flow of water for pools, water rides, fountains and other applications. For water to flow, pumps must pump efficiently. Designed for heavy-duty continuous operation, our pumps bring reliability, high operating efficiency and low maintenance costs to your operations. Wherever water is- part of the main attraction, you'll find Flygt pumps contributing to the beauty, fun and safety of water.

## Treatment, influent, effluent

After water has served its many uses, it needs to be collected and transported to the wastewater treatment plant to be treated and returned to the environment. Wastewater flows increase along the collection system toward the treatment plant. When gravity flow is not economically or technically possible, pump stations are used and the pumps are controlled to achieve a stable, secure flow to the wastewater treatment plant. The closer to the treatment plant you get, the larger the pump stations become, in order to handle the increased flows.

## Other applications include:

- Cooling Water
- Dry Docks
- Dewatering
- Industrial Effluent
- Raw Water Intake

# Xylem |'zīləm|

1) The tissue in plants that brings water upward from the roots;
2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on devel oping comprehensive, sustainable solutions.

**For more information on how Xylem can help you, go to www.xylem.com**

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