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Let's Solve Water

XYLEM INDUSTRIAL SOLUTIONS

INDUSTRIAL-STRENGTH THINKING SOLVES MORE THAN WATER

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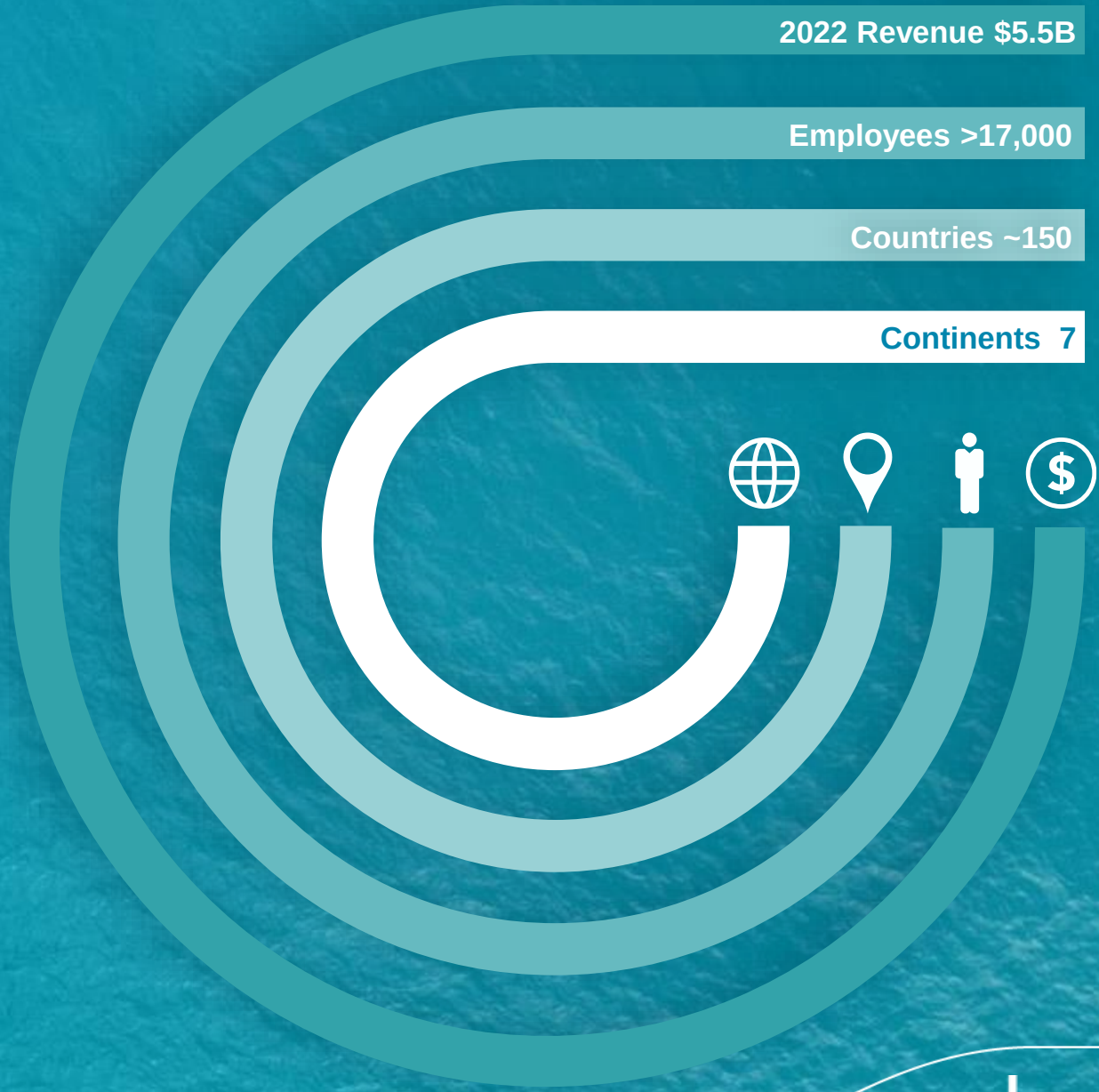
Xylem is a global water technology leader working together with customers to solve the most critical water and resource challenges.



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Industrial: Recognising the Major Challenges

Common industrial fluid challenges can also be a source of opportunity

Water Quality & Scarcity

Connectivity & Automation

Operational Continuity & Efficiency

Regulatory Compliance

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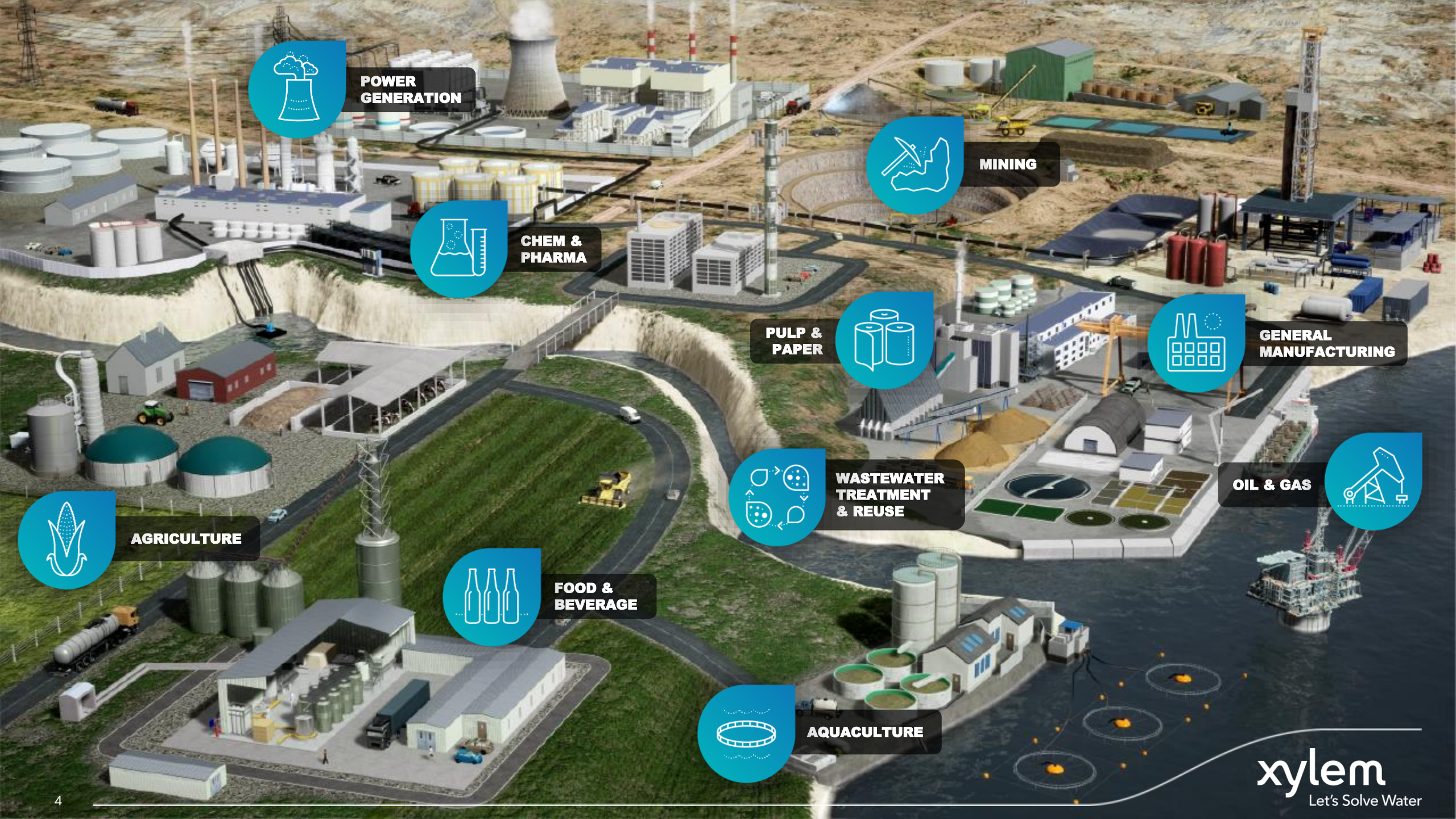

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Mining
Solve Water Conservation

For open pit and underground mines, Xylem has everything to transport, treat and test water throughout exploration, development, operation and reclamation.

- Slurry pumps
- Dewatering
- Treatment packages
- Leaching equipment
- Dust suppression
- Fire suppression
- Environmental monitoring
- Advanced monitoring & controls
- Pipeline integrity management

Oil & Gas
Solve Fluid Management

Xylem is constantly developing new, innovative methods to decrease corrosion, reduce fouling, save energy, reuse water, and minimize downtime for your operation.

- Pumping equipment
- Pipeline integrity management
- Monitoring, controls and analytics
- Environmental monitoring
- Site preparation
- Heat transfer
- Fire protection

Power Generation
Solve Efficiency

Whether your source is fossil fuel, nuclear, geothermal, or hydro, Xylem provides all the support you need for raw water intake, cooling water, condensate, deaerator, boiler feed, auxiliary water, and wastewater applications.

- Water intake pumps
- Cooling water pumps
- Boiler feed pumps
- District heating pumps
- Cooling tower treatment
- Pipeline integrity management
- Monitoring & controls
- Heat transfer
- Hydro turbines

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General Manufacturing
Solve Productivity

For water- and fluid management-intensive applications, Xylem pumps, heat exchangers, disinfection devices and monitoring & controls keep the focus on your product, not on your production process.

- Pumping
- Chemical analysis
- Advanced monitoring & controls
- Test & measurement
- Fire protection

Food & Beverage
Solve Quality

Water is a crucial input for Food & Beverage customers to ensure the best quality of the end product and Xylem's water management solutions ensure the highest quality while reducing energy and waste.

- Ground water intake
- Cooling & heating systems (Boilers, Pasteurizers, etc.)
- Bottle washing, rinsing & filling
- Hygienic processing
- Effluent management
- Wastewater treatment

Pulp & Paper
Solve Water Efficiency

Xylem's expertise in filtering, ozone dissolution, and water reuse help mills lower costs and reduce their reliance on potentially over-stressed sources of water.

- Water supply
- Ozone for pulp & paper bleaching
- Pumping
- Filtration
- Disinfection
- Pipeline integrity management
- Testing & monitoring
- Wastewater treatment

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Agriculture
Solve Sustainability

The agriculture sector is the largest consumer of water and Xylem solutions help in the sustainable development of this sector.

- Open channel irrigation pumps
- Pressurized irrigation pumps
- Manure handling pumps & mixers
- Biogas pumps & mixers

Aquaculture
Solve Reliability

With the world's population growing drastically, aquaculture will be an important source for protein and Xylem provides crucial equipment for this segment.

- Pumping for sea-based and land based aquaculture systems
- Analytics
- Monitoring & testing
- Treatment

Chem & Pharma
Solve Water Management

Chemical customers consume large amounts of water and effective management of wastewater is crucial to prevent pollution of lakes and rivers. Xylem can effectively and efficiently handle all these needs.

- Water intake pumps
- Chemical dozing pumps
- Water reuse
- Micro-pollutants treatment

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Xylem Industrial Solutions |

Xylem engineers the highest quality equipment and connects it in ways that reduce the need for water, energy and people power

PUMPS

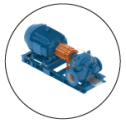

Vertical Turbine Pumps


Automatic Self-Priming Pumps


Hydraulic Submersible Pumps


Submersible Pumps


End Suction Centrifugal Pumps


Single Stage Double Suction Centrifugal Pumps


Multistage Pumps

PUMPS (CONTD.)


Column Pumps

PACKAGED PUMP SYSTEMS


Booster Packages


Packaged Pump Stations

HEAT TRANSFER


Heat Exchangers

FIRE PROTECTION


Fire Pump Packages and Systems

MIXING EQUIPMENT


Mixers

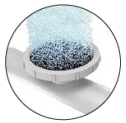
HYDROELECTRIC TURBINES


Hydro Turbines

TREATMENT PRODUCTS & SYSTEMS

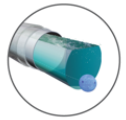

UV and Ozone Treatment Systems


Filtration Systems


Biological Treatment

MONITORING, ANALYTICS AND CONTROLS SOLUTIONS & SERVICES


Advanced System Intelligence


Pipeline Integrity Management and Monitoring Solutions


Water Quality and Quantity Instrumentation & Sensors

OUR INDUSTRIAL FLAGSHIP PRODUCT BRANDS

AC FIRE PUMP · FLYGT · godwin · GOULDS WATER TECHNOLOGY · LEOPOLD · mjk · O+Analytical · LOWARA · pure · SANITAIRE · SonTek · Standard Xchange · WEDECO · xylem · YSI

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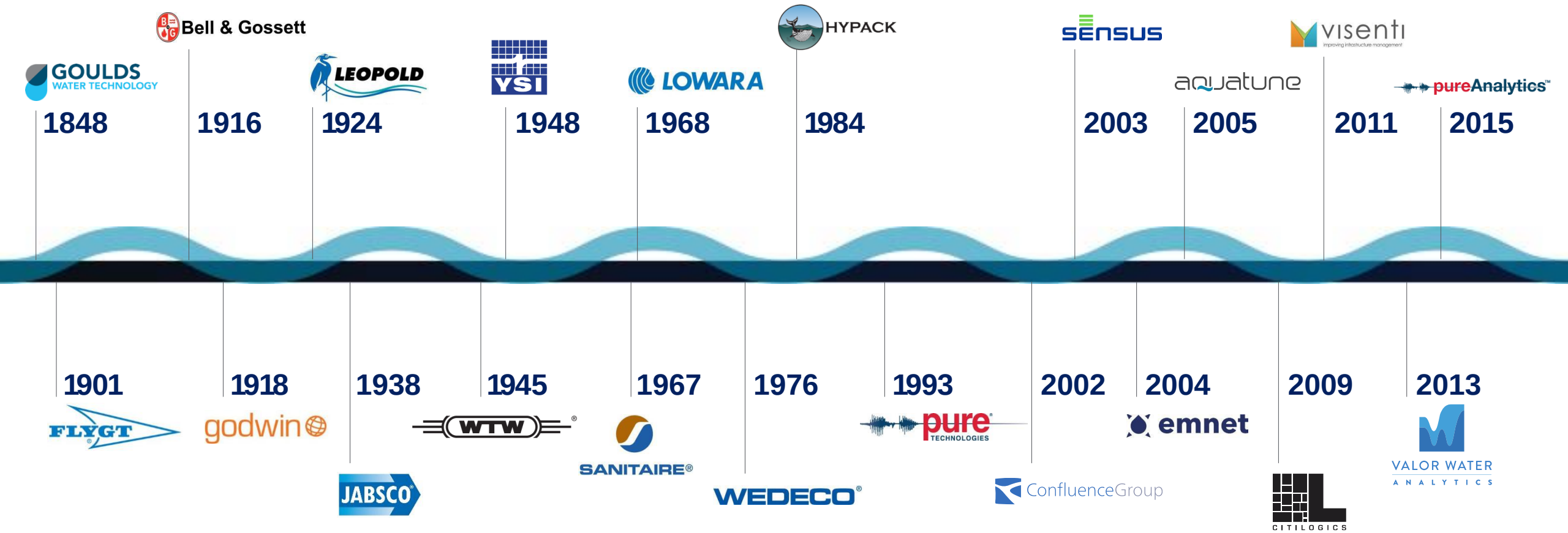
A Strong Brand Legacy



Dates are years brands were established

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Global Water Challenges Are Escalating

Scarcity

3 out of 10 people do not have access to safe drinking water.
6 out of 10 lack access to safely managed sanitation services.

Resilience

By 2050, more than **200 million people** could be displaced by desertification, sea level rise and extreme weather events.

Affordability

$40 billion of clean water is lost annually due to broken infrastructure or unauthorized use, driving water prices higher

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Education About Water Issues

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Corporate Social Responsibility

For over 10 years, Xylem employees and our partners have engaged together to create community value

4.2 MILLION
People whose lives have benefited

64+
Countries where Watermark operates

180,000+
Volunteer hours over 4 years

9,200+
Employee volunteers*

*2019


NEW YORK CITY
FOOTBALL CLUB
MANCHESTER
18
94
CITY
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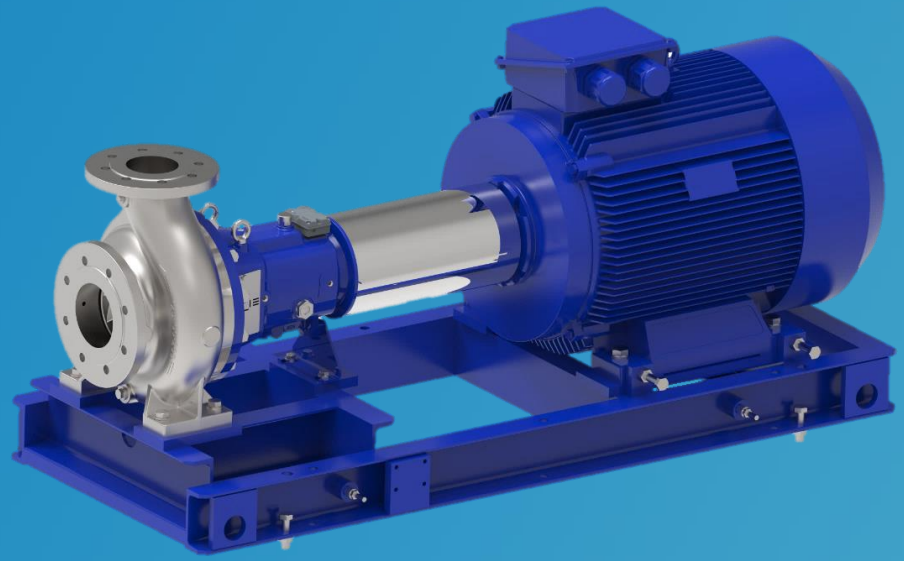
OFFICIAL GLOBAL PARTNER

Now let’s take a look at some of our key products



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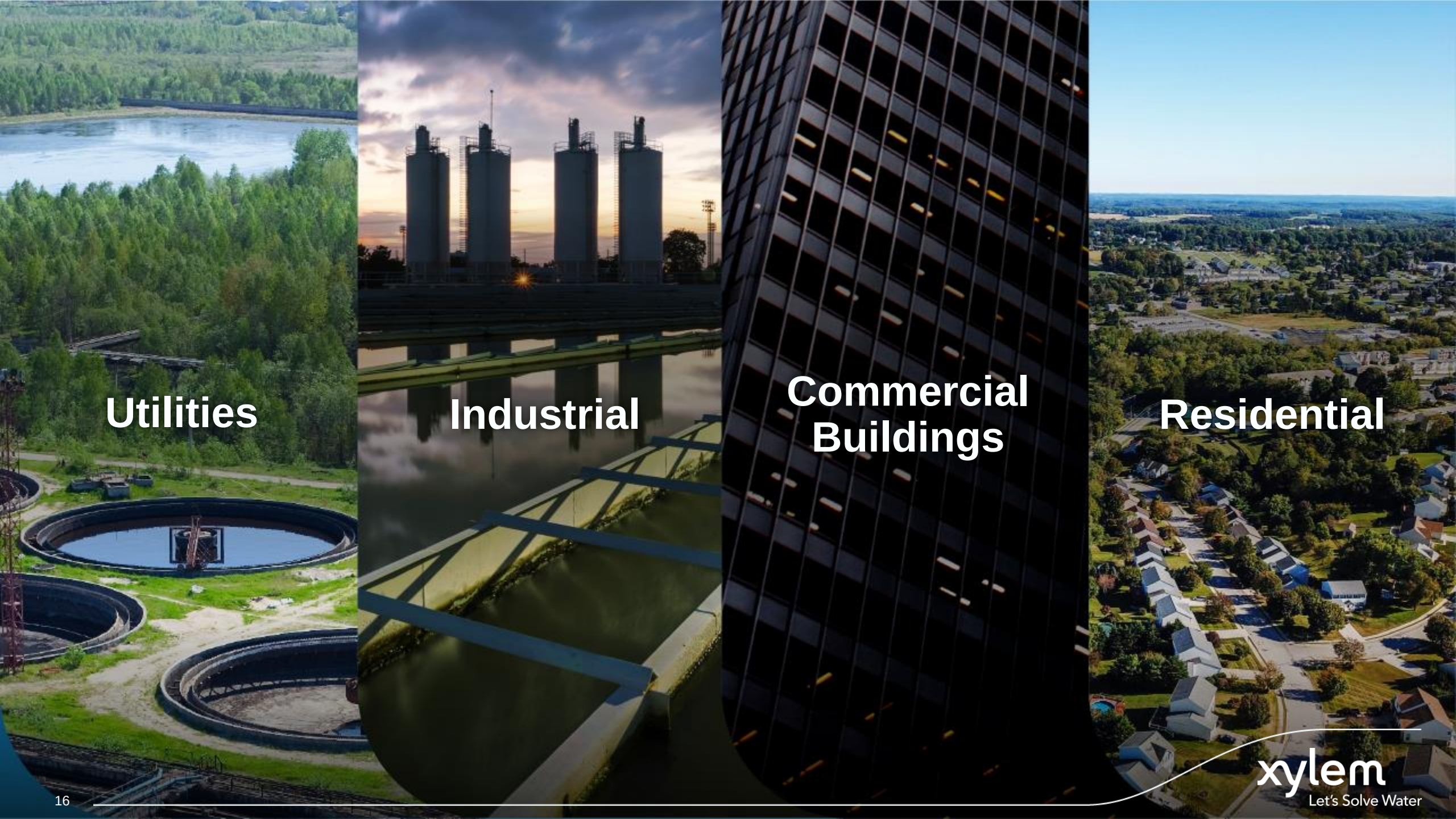

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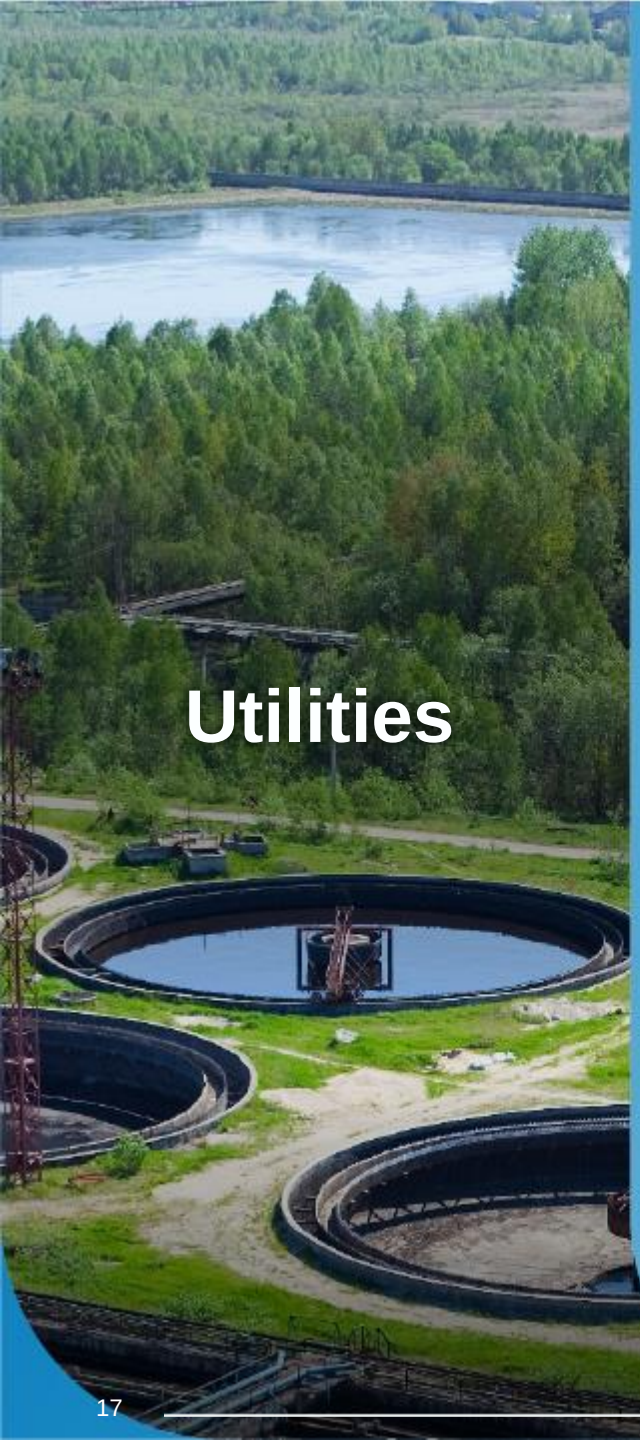

Utilities

Industrial

Commercial Buildings

Residential

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Flygt Concertor™

The total wastewater pumping solution that adapts to operational conditions

FLYGT
a xylem brand

Up to

70 %

Energy savings

COMPARED TO CONVENTIONAL PUMPING SYSTEMS

- ✓ Energy minimizer function automatically finds optimal duty point
- ✓ IE4 compliant permanent magnet motor
- ✓ Efficient power management
- ✓ Adaptive self cleaning N-hydraulics

FLYGT
a xylem brand

a xylem brand

Utilities

Industrial

Commercial Buildings

Residential

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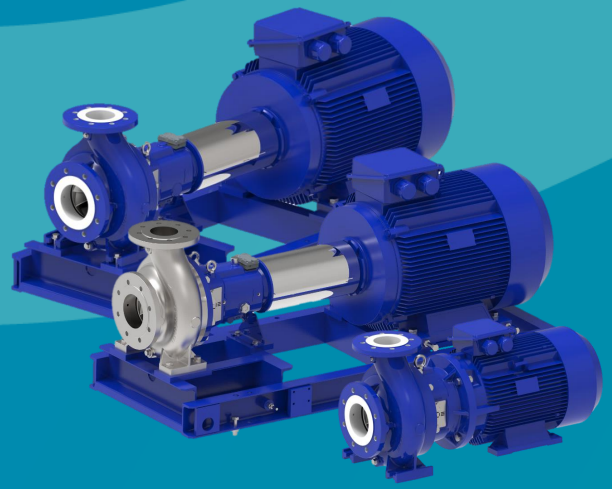

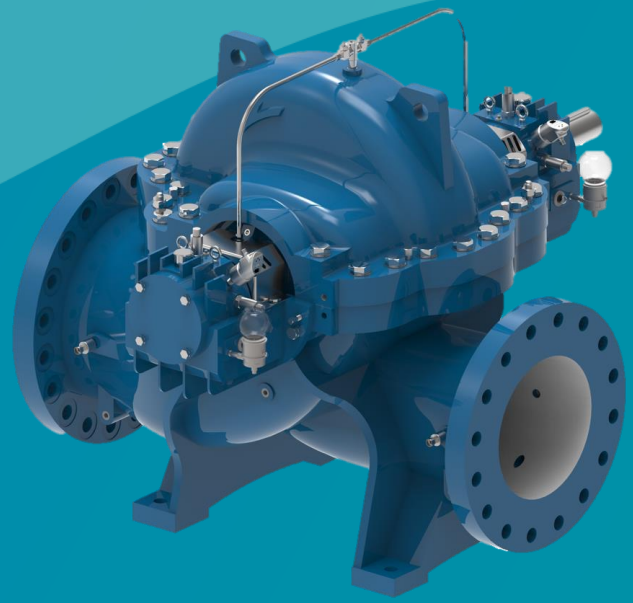

Industrial Pumps from Xylem

e-IXP, e-XC, e-MP

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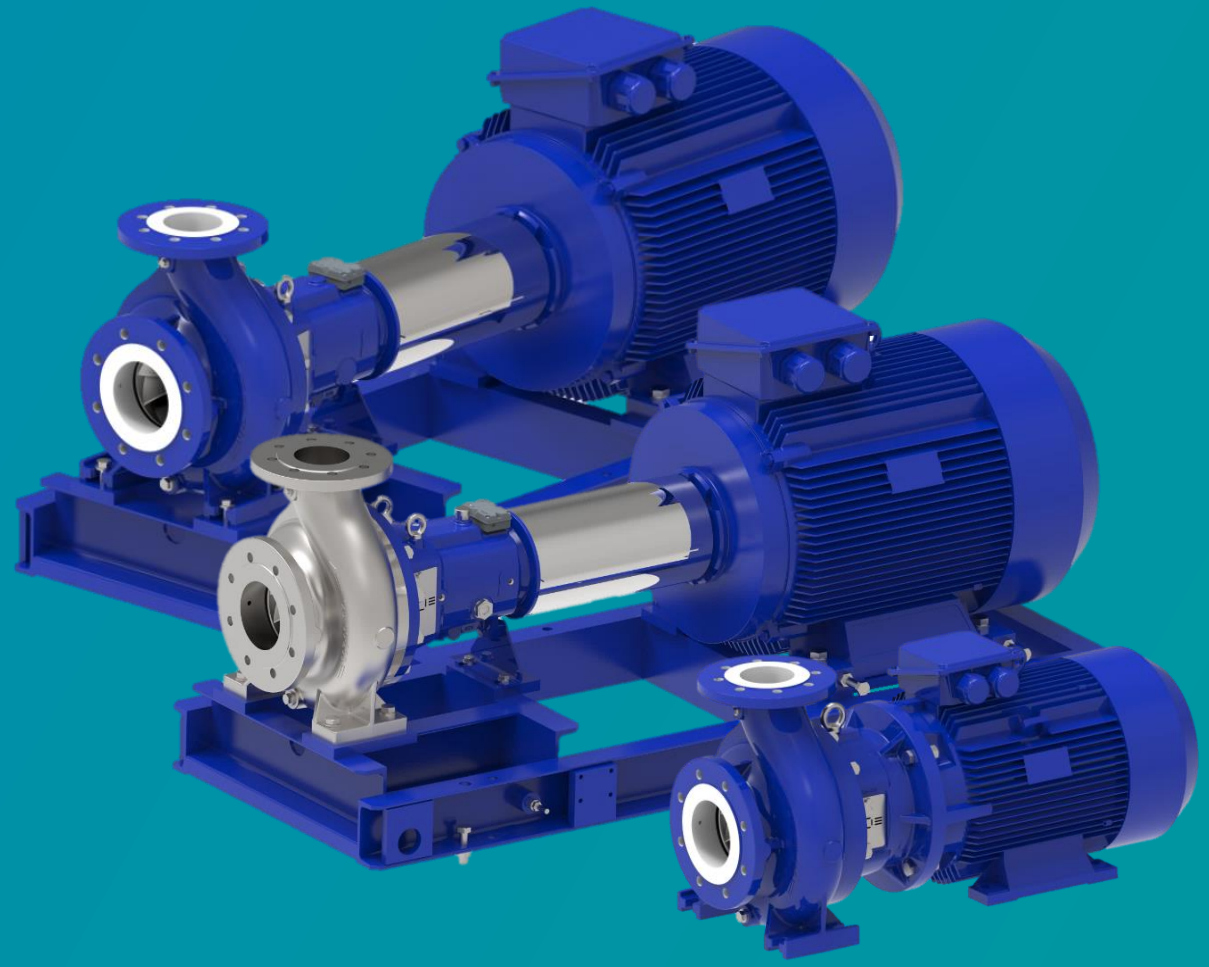
October 14, 2021

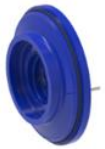
e-IXP

END SUCTION INDUSTRIAL PUMP FROM XYLEM

ISO 2858, ISO5199



Material configuration

	WORKING PRESSURE [bar]	IMPELLER 	CASING 	CASING COVER 	WEAR RINGS 	SHAFT 	SHAFT SLEEVE 	BEARING BRACKET / MOTOR ADAPTER 
DN	**16 and 25**	AISI 316	Ductile Iron	Ductile Iron	Duplex	AISI 431 (Opt. Duplex)	Duplex	Cast Iron (GJL-250)
NN	**16**	AISI 316	AISI 316	AISI 316	Duplex	AISI 431 (Opt. Duplex)	Duplex	Cast Iron (GJL-250)
RN	**25**	AISI 316	Duplex	Duplex	Duplex	AISI 431 (Opt. Duplex)	Duplex	Cast Iron (GJL-250)
RR	**16 and 25**	Duplex	Duplex	Duplex	Duplex	AISI 431 (Opt. Duplex)	Duplex	Cast Iron (GJL-250)
TT	**16 and 25**	Super Duplex	Super Duplex	Super Duplex	Super Duplex	AISI 431 (Opt. Duplex)	Super Duplex	Cast Iron (GJL-250)
UU	**16**	Super Austenitic SS	Super Austenitic SS	Super Austenitic SS	Super Austenitic SS	AISI 431 (Opt. Duplex)	Super Austenitic SS	Cast Iron (GJL-250)

Standard offering
Optional offering
Optional offering available at phase 2

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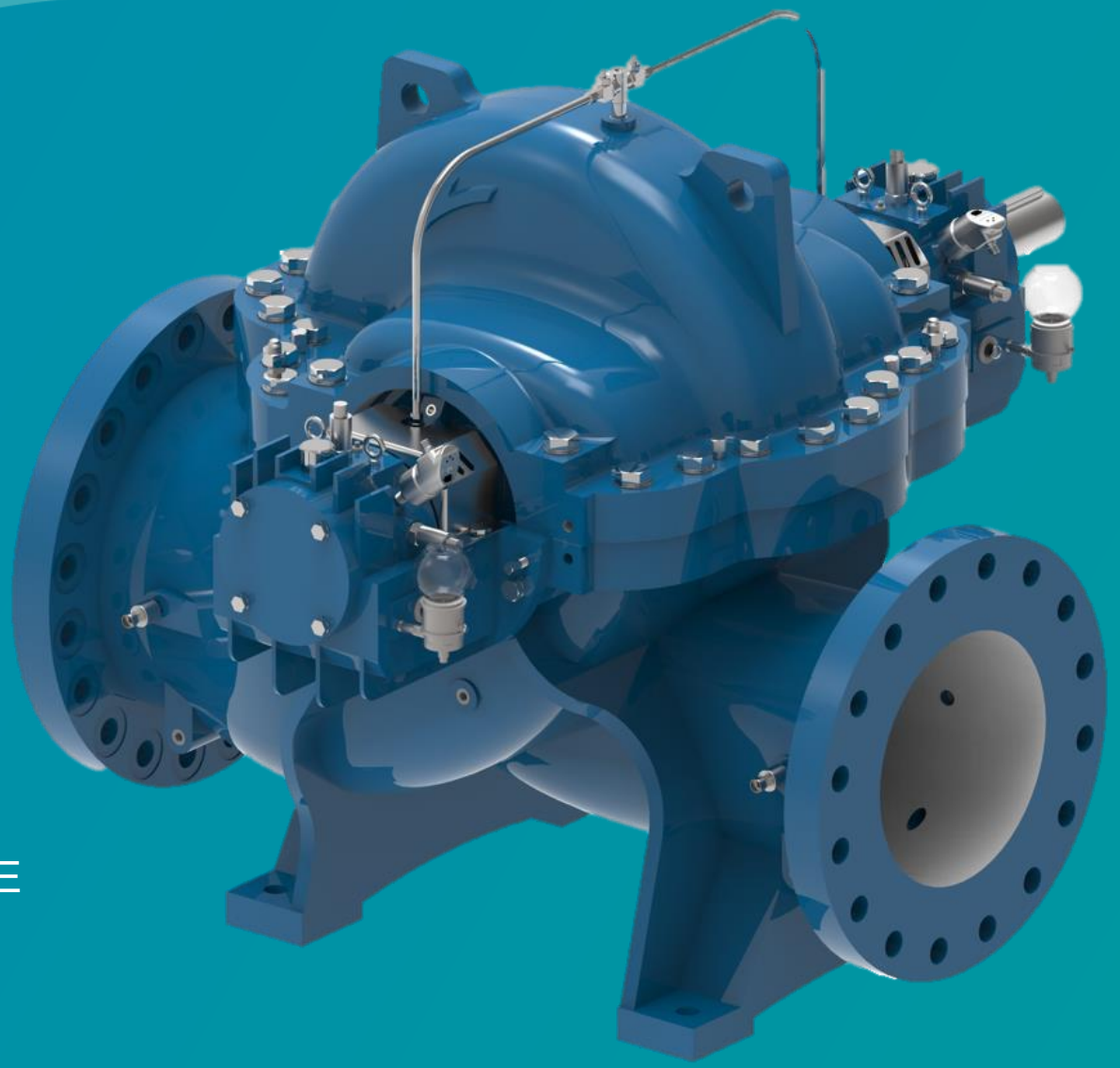
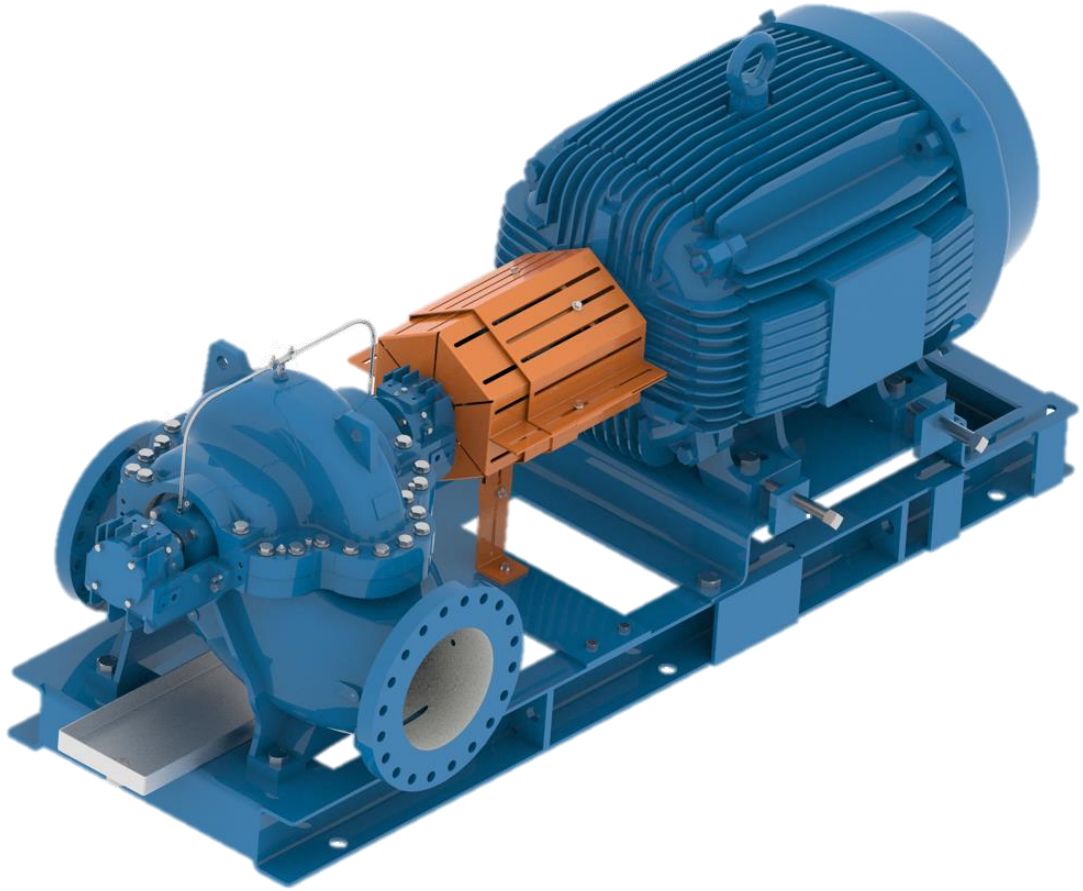
e-XC Split Case

THE NEW DOUBLE SUCTION SPLIT CASE PUMP RANGE FROM XYLEM



e-XC, the range

- **Number of versions**: 71 with 2 set of impellers (142)
- **Maximum flow**: 11,400 m^3/h
- **Maximum head**: 240 m
- **Nominal pressure**: 16 to 31 bar
- **Temperature range**: up to 120°C
- **Casing**: Cast Iron with option Ductile Iron, 316SS, Duplex, Super Duplex
- **Flange pressure**: based on casing pressure
- **Impeller**: 304SS with optional 316 SS, Duplex, Super Duplex
- **Shaft:** Dry shaft in carbon steel , with 304 sleeve.
- **Standard mechanical seal**: Carbon/Sic
- **O ring**: FKM



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e-MP
Multistage Pump

e-MP models designed according to ISO 5199.

e-MPA
Highest suction capability (the lowest NPSH) thanks to ideal axial inlet flow, reduced wear due to fewer parts, small horizontal footprint

e-MPD
Higher possible inlet pressure, optional drive on suction side

e-MPR
higher suction nozzle flexibility, reduced wear due to fewer parts, small horizontal footprint

e-MPV
smallest footprint,
4 positions by nozzle
(90°, 180°, 270°, 360°)

e-MP Overview

Technical

Configurations: 3 horizontal versions
1 vertical version

Flow up to 850 m³/h

Head: up to 950 m

Materials: Cast iron, ductile iron, cast steel, stainless steel, duplex, super duplex

Sealing: Mechanical seal, cartridge seal, soft packing

Key arguments

- Simple integration
- Safe operation
- Energy savings
- Projectable service
- Reduced wear
- Easy maintenance
- Short lead time

The e-MP is the premium high pressure pumping solution

Markets

- Industry
- Oil and gas
- Power plants
- Mining
- Agriculture
- Leisure industry
- Public utilities
- Commercial building service

Conclusions

- 110 years of experience, know how and expertise
- Expert support for all application requirements
- Online Selection Tool: Xylect
- Over 8,000 different pump configurations
- Up to £40,000 energy cost savings by pump annually
- Installable into any intelligent plant monitoring and operation system
- Engineered to order solutions on request

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Utilities

Industrial

Commercial Buildings

Residential

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Hydrovar X+


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Connectivity meets simplicity & sustainability: our key differentiators

Sustainability

Our competitors use **Rare Earth** Magnets in their motor technology.

Mining of these materials is costly and inefficient because extracting even a very small amount requires large areas to be mined. The process generates large volumes of toxic and radioactive material that can cause problems for the environment and human health.

Our unique motor design does not use these materials

We are also protected from **supply chain** instabilities that could come as a result of the increased demand for REE in electric vehicles and trade disputes between Countries.

Energy Footprint

It is estimated that electric motor driven systems account for around **45%** of the global electricity consumption, with pumps accounting for a large portion of this especially in the industrial and commercial sectors.

Our technology meets or exceeds the highest efficiency level of **IE5**.

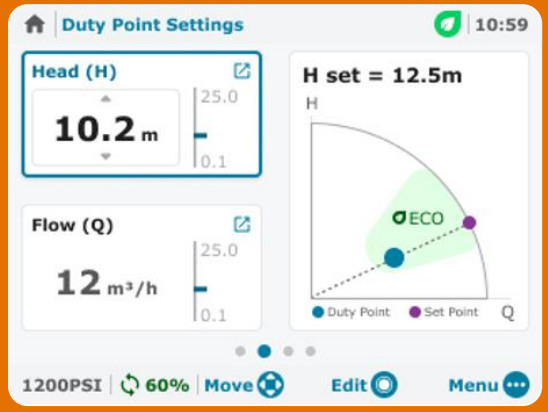
Additionally, our advanced **control algorithms** and smart curve technology enables the pumps to dynamically adjust to always operate at their most efficient point, further reducing the energy consumed by the system.

Usability

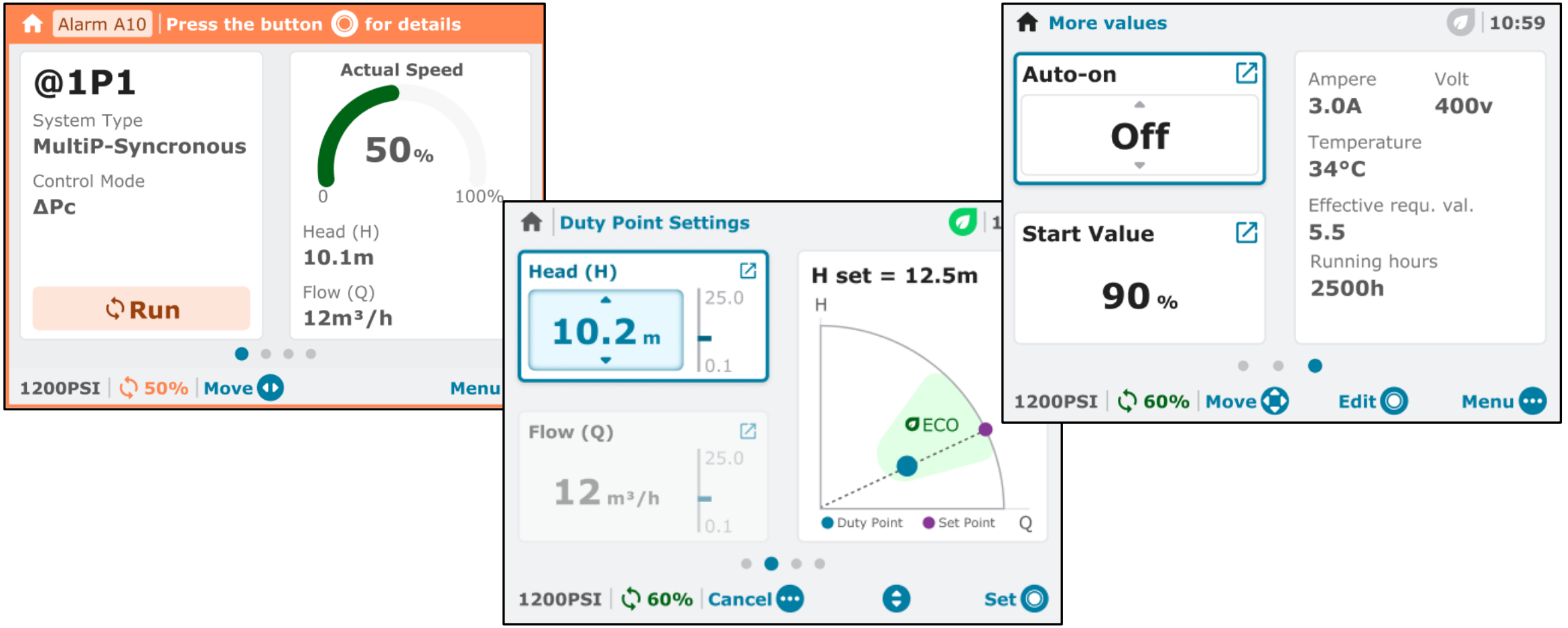
With the acceleration of advanced technology and features within smart pumps, it has become increasingly important that users are able to easily interact with the solution during set up and operation.

We have invested heavily in UX/UI development based on extensive interviews of various internal and external stakeholders to discover usage habits and needs.

With this valuable information, the embedded HMI and mobile application have been designed to be **intuitive and easy to use**, enabling operators to utilize sophisticated control features without needing extensive training or experience.



Hydrovar X+ embedded display – UX/UI



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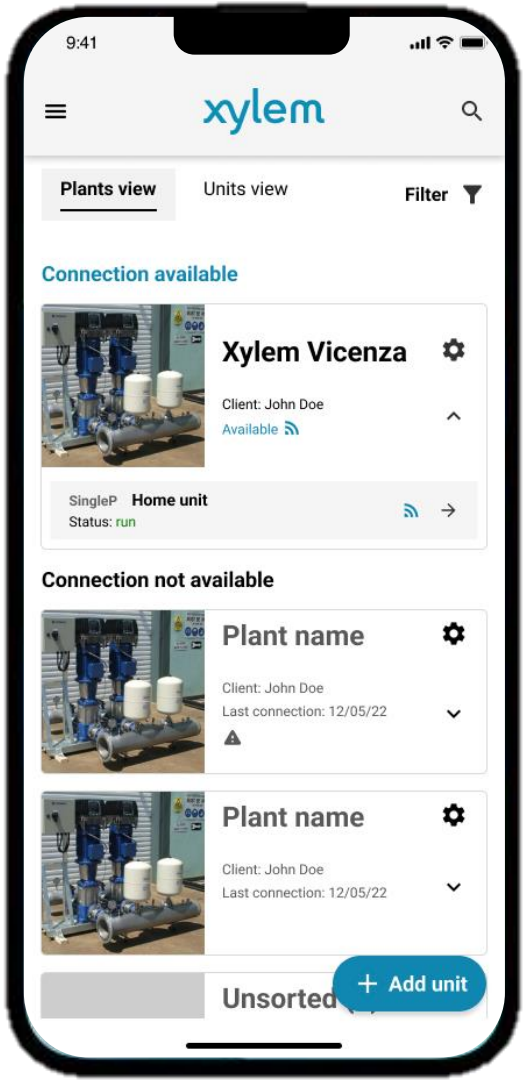
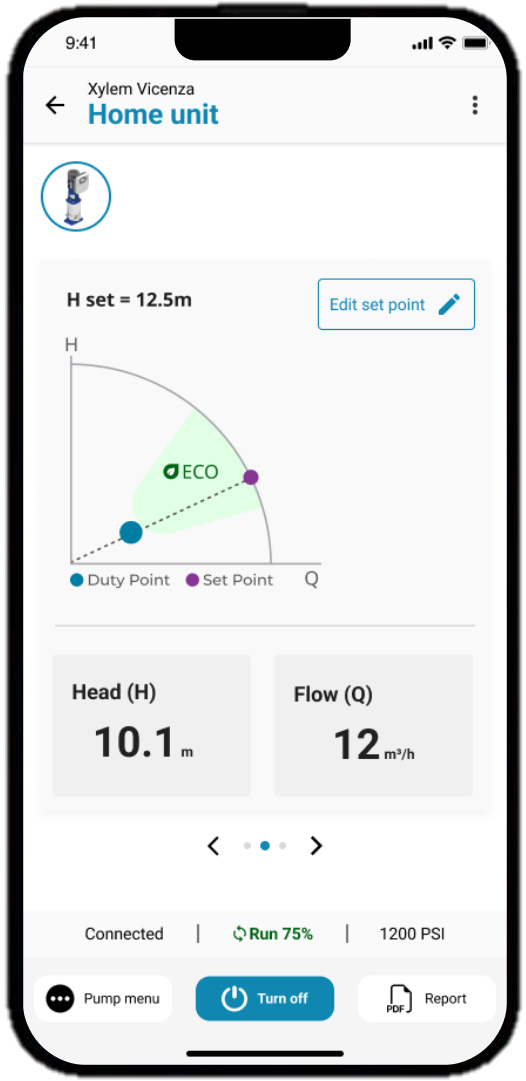
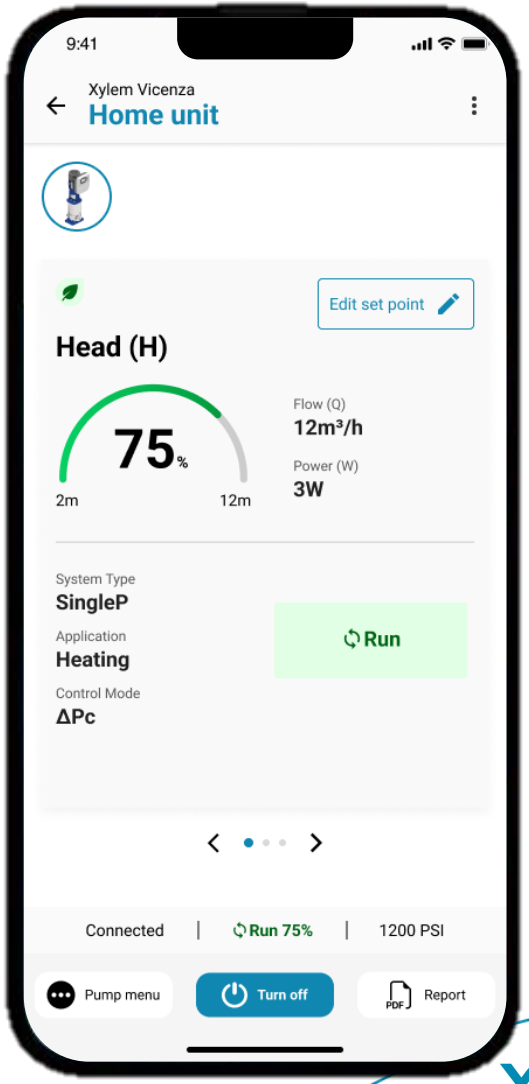
Xylem X: Mobile app for Android / iOS







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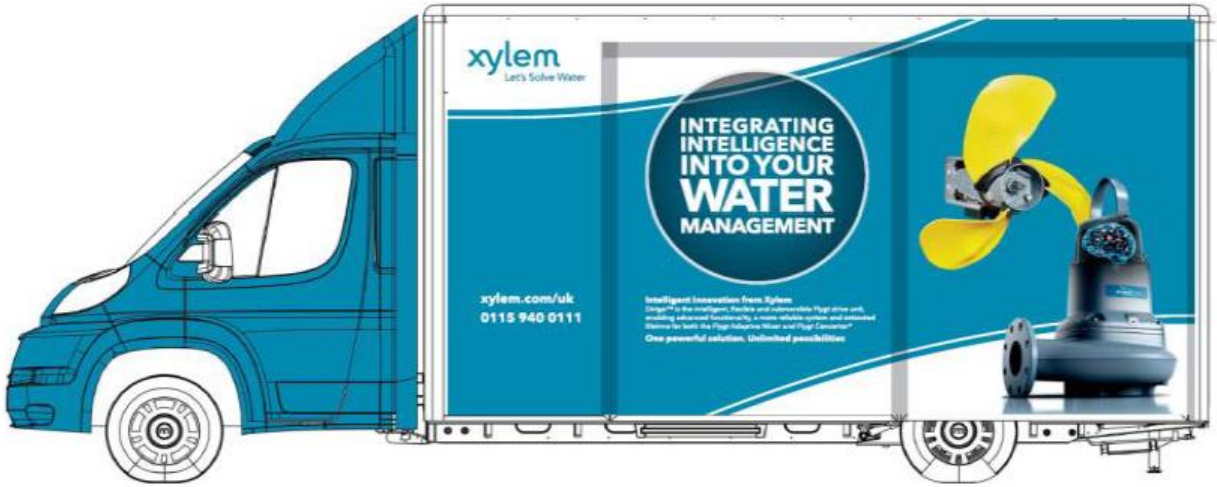
Any Questions?

Feel free to speak with us in more detail at the Xylem Demo Van, which is parked up in the workshop.



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Thank You

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