

**XYLEM INDUSTRIAL SOLUTIONS**

**INDUSTRIAL-STRENGTH  
THINKING  
SOLVES MORE THAN WATER**

Turn water and fluid management  
from an expense to an advantage

# Industrial water and fluid are critical to your operation. But they come with challenges.



**\$8.8 BILLION**

Was spent in 2017 on industrial water acquisition, discharge, treatment and reuse<sup>1</sup>

## WATER QUALITY & SCARCITY

Unreliable water supply creates inefficiencies in your operation, but Xylem's technologies ensure water can be extracted, treated, and transported from multiple sources at the desired pressure and quality to keep you on track.



**70% OF INDUSTRIAL COMPANIES**

Lack awareness of when assets are due for maintenance or upgrade<sup>3</sup>

## OPERATIONAL CONTINUITY & EFFICIENCY

Reducing losses from downtime and production interruptions is critical. Xylem's application-based expertise helps us design water management solutions that maximize your uptime, reduce your maintenance requirements and provide more value today and tomorrow.



**\$110 BILLION**

Will be spent on industrial IoT by 2020<sup>2</sup>

## CONNECTIVITY & AUTOMATION

The advanced capabilities of IoT can also be used to improve water management efficiency and reduce costs. Xylem's smart solutions use real time monitoring and powerful data analytics to turn water from a necessary expense to a strategic advantage.



**OIL AT \$200/ BARREL?**

Cutting sulfur emissions from 3.5% to .5% could spike oil prices<sup>4</sup>

## REGULATORY COMPLIANCE

Reliably managing industrial waste water to meet changing environmental regulations is now a major consideration for most industries. Xylem's analytics and sensors evaluate a broad range of water quality parameters, and our technologies treat water and wastewater to help you meet regulatory standards.

1. Bluefield Research, "Opportunities in U.S. Industrial Water: Market Size, Trends & Forecast 2018-2022," December 2018

2. Frost & Sullivan, Global Outlook of the Water Industry, 2018 (5/18)

3. Vanson Bourne, "Unplanned Downtime," 2017

4. Philip K. Verleger, Jr., "\$200 Crude, the Economic Crisis of 2020, and Policies to Prevent Catastrophe," July 2018

# A different approach to water and fluid management yields different results. Very different.

Your job is to run a productive plant, site, or mine. Xylem's is to look holistically at your industrial water and fluid management needs and change them from a necessary expense to a strategic advantage through innovation that reduces effort, energy and waste. We leverage four unique strengths to do it:

### INDUSTRIAL WATER EXPERTS

With 170 years of experience, we've seen it, done it, and designed for it. So, you can trust our Industrial water and fluid management experts to help solve your most complex challenges with the right equipment and services, no matter the application.

### BROAD PORTFOLIO

Your process requires dependable, high quality water and fluids. Our reliable, efficient water supply, pressure boosting, dewatering, industrial water management, heat transfer, treatment, wastewater and fire protection solutions ensure the fluids you rely on will always be ready to protect the environment, your assets and the bottom line.

### SMART CONNECTIVITY

Our smart solutions ensure real-time monitoring and powerful data analytics for useful insights that remove guesswork and worry from your Industrial water and fluid management system, so it can run at peak efficiency all the time.

### TRUE BUSINESS PARTNERS

We don't simply sell equipment and leave you to figure out what to do with it. We look at your challenges and devise ways to solve them with less effort and expense. That's the real benefit of working with Xylem.

# Working with Xylem means working with unrivaled experts.

For more than 170 years, Xylem has led the way in pumping and related technologies, including water supply, pressure boosting, dewatering, industrial water management, heat transfer, treatment, wastewater and fire protection solutions. We've kept mission-critical operations running reliably in everything from nuclear power plants to navy ships to refineries and more. And we're ready to use our unmatched expertise to analyze, customize, engineer and install the optimal solution to help you get more from your water and fluid-management systems using the right combination of these great brands:



# Xylem delivers more value by mastering your entire use cycle.

Smarter industrial water and fluid management starts from our holistic view of the entire use cycle from intake to discharge. By thinking about every step as part of a process, instead of as a standalone function, we find ways to integrate the sourcing, treatment and reuse of fluids to increase productivity and profits.

**WATER INTAKE**



**WATER BOOSTING**



**WATER CIRCULATION & COOLING**



**HEAT TRANSFER**



**WASTEWATER TREATMENT & REUSE**



**STORM WATER / FLOOD CONTROL**



**FIRE PROTECTION**



**PROCESS WATER**

# Change water and fluid management from an expense to an advantage.

Business advantage comes from innovation, and here's one advantage that can lead to many others: partner with Xylem to discover how new combinations of water management technology and expertise can deliver the reliability, efficiency and safety you need while reducing operational and maintenance spend over the long term.



## 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
- Treatment packages
- Leaching equipment
- Dust suppression
- Dewatering
- Fire suppression
- Environmental monitoring
- Advanced monitoring and controls
- Pipeline integrity management



## OIL & GAS Solve Fluid Management

Whether water is scarce or plentiful, Xylem can help integrate your operations from sourcing to production to reuse in upstream, midstream and downstream applications - including product transport and pipeline integrity management.

- Pumping equipment
- Environmental monitoring
- Pipeline integrity management
- Monitoring, controls and analytics
- 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



## 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.

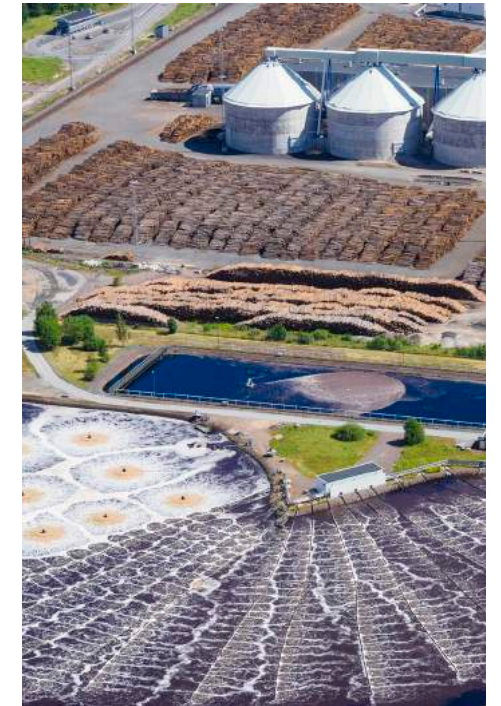
- Pumping
- Chemical analysis
- Advanced monitoring & controls
- Test & measurement
- Fire protection



## 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.

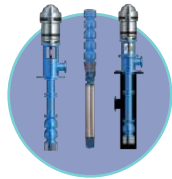
- Water supply
- Ozone for pulp & paper bleaching
- Pumping
- Filtration
- Disinfection
- Pipeline integrity management
- Testing & monitoring
- Wastewater treatment

# Xylem Industrial Solutions:

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

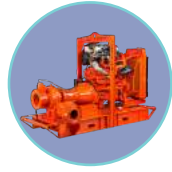
We offer ruggedly reliable solutions in all these areas:

## Pumps



### Vertical Turbine Pumps

Solve complex applications with reliability, efficiency, and uptime in a wide range of uses, including corrosive/abrasive, high/low pressure and single/multistage from 50 gpm to 50,000 gpm (5" to 48" bowls sizes) and head pressures exceeding 1000ft. **Available for rent.**



### Automatic Self Priming Pumps

Get automatic priming, indefinite dry-run capability, and up to 16,500 gpm or 630 ft head for water, wastewater or industrial fluids with solids up to 5 inches in diameter. Our pumps include industry-leading remote control and monitoring technology for total peace of mind. **Available for rent.**



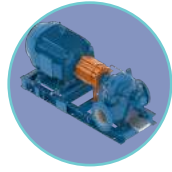
### Submersible Pumps

Xylem offers a wide range of robust submersible pumps designed to handle the toughest environments. These pumps have a modular design for different types of impellers as well as a broad material selection. Intelligent functionalities and advanced monitoring and control equipment help adapt to operating conditions in real time to deliver sustained high efficiency and long-term reliability at lower, more predictable costs. **Available for rent.**



### End Suction Centrifugal Pumps

With capacities up to 5,000 gpm, these multi-purpose, cost-effective, rugged end suction pumps are available in a wide range of sizes and configurations. The compact designs save space and are easy to maintain. A broad spectrum of materials and mounting options deliver quality performance specific to your application. **Available for rent.**



### Single Stage Double Suction Centrifugal Pumps

With flow capacities up to 57,000 gpm and heads up to 800 feet, these pumps offer a broad range of materials and configurations to help optimize your efficiency for the most demanding industrial application needs. Xylem also offers custom split case pumps capable of handling up to 200,000 gpm. **Available for rent.**



### Multistage Pumps

With stainless steel or cast-iron construction and multiple suction and discharge orientations, these pumps are designed to handle virtually any industrial high-pressure application including filtration, pressure boosting, wash systems, and boiler feed applications, delivering flows to 2600 gpm and 3100 feet TDH. **Available for rent.**

## Brainpower: For Rent

We design, engineer and manufacture our own equipment. And we rent it, too. Whether you need a fast-track, temporary fix or cost-effective long-term solution, we can help keep your operation up and running with efficiency, reliability and peace of mind. [www.xylem.com/RentalSolutions](http://www.xylem.com/RentalSolutions)



## Xylem offers a broad array of:

- Pumps & Packaged Systems
- Heat Transfer
- Fire Protection
- Mixing Equipment
- Treatment Systems
- Monitoring & Controls
- Analytics and Consultative Services

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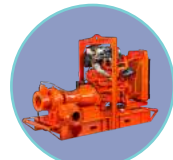
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### Column Pumps

See operating efficiencies up to 92% and significant cost savings with column pumps available in multiple metallurgies, including cast iron and stainless steel. And because we mount drivers directly above the pump, you'll also see savings in floorspace and footprint. **Available for rent.**

## Packaged Pump Systems



### Booster Packages

Our pre-configured variable speed pressure booster packages provide maximum value, proven reliability, superior energy efficiency and better system protection in one solution with standard operating pressures up to 300 PSI and flows to 2100 gpm. **Available for rent.**



### Packaged Pump Stations

These packages include all necessary components for quick, easy setup and operation. Self-cleaning sump design reduces the risk for fat and sediment build-up, optimizing the operation, increasing the life time of the station and reducing costs. Smart controllers assure reliable and optimized performance.

## Heat Transfer



### Heat Exchangers

Whether you need pre-engineered or custom TEMA class shell & tube, brazed or gasketed plate or air-cooled heat exchangers, Xylem can help you evaluate, select, and install the right solution. Our heat transfer technologies reliably perform mission-critical industrial applications everywhere from nuclear power generation to the U.S. Navy.

## Fire Protection



### Fire Pump Packages and Systems

Xylem designs and custom-builds UL/FM-listed fire pump products and turnkey systems including prefabricated packages and house units that meet fire protection needs. Our engineers have a unique combination of experience and insight to ensure maximum protection. **Available for rent.**

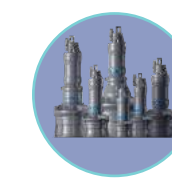
## Mixing Equipment



### Mixers

Whether you need submersible or dry-installed mixers and agitators, you'll find them here. Including unique adaptive mixers that make it easy to match mixing output to exact process needs. With Xylem, you never waste energy, time, or any opportunity to adapt to what happens next. **Available for rent.**

## Hydroelectric Turbines



### Hydro Turbines

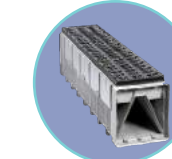
Our submersible Semi-Kaplan type turbines offer high operational efficiency and reliability with no transmission shaft, couplings or intermediate bearings. They're designed for small hydro plants where ease of installation and service is extremely important.

## Treatment Products & Systems



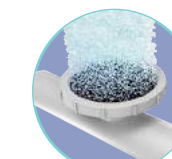
### UV and Ozone Treatment Systems

Highly-efficient UV and ozone oxidation systems provide chemical-free and environment-friendly solutions for source water, processed water, and wastewater treatment that are suitable for a wide range of industrial applications.



### Filtration Systems

Xylem has been leading the way in gravity media filtration since 1924. Whatever your application, we can help you develop the cost-effective, energy-efficient, high-performance system you need with the longest possible filtration cycles to meet your permit requirements at the lowest possible costs.



### Biological Treatment Systems

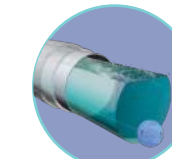
Xylem provides biological wastewater treatment solutions such as diffused aeration, oxidation ditches, sequencing batch reactors (SBR), and state-of-the-art controls that drive efficient operations. Our advanced process performance optimizer provides real-time wastewater process measurement and control to optimize operations to reduce energy consumption while stabilizing the treatment process and maintaining effluent quality.

## Monitoring, Analytics and Controls Solutions & Services



### Advanced System Intelligence

Get unmatched knowledge of your operations through analytics, monitoring, drives and controls that removes guesswork and worry. A vast suite of intelligent solutions and connectivity that can be tailored to your needs and specific to your application whether you are running a remotely installed diesel driven pump or operating a fully integrated process system.



### Pipeline Integrity Management and Monitoring Solutions

Our diagnostic, analytic and consultative solutions lead the market in intelligent pipeline leak detection and integrity solutions for power plants, pulp & paper mills, well and refineries so you can deliver so you can deliver energy as safely and efficiently as possible, monitor assets, defer maintenance intelligently and avoid costly unnecessary maintenance.



### Water Quality and Quantity Instrumentation & Sensors

Our premium laboratory, field, portable, and online instrumentation measure water velocity, flow, discharge, currents and waves, while our sensors, instruments, software, and data collection platforms make environmental water quality monitoring and testing easy. **Available for rent.**

# Industrial-strength thinking works. Here's proof.

## Mining

Barrick Goldstrike Tailings Basin in Nevada

Smarter system design saves \$1,000,000 in energy

### The Solution:

We looked carefully at the requested use of 4160V power and determined that 480V would do the job – and create \$1,000,000 in savings.

Our solution included a portable E-House to step voltage down, and monitor and deliver power to three 400HP VFDs, and three Godwin Dri-Prime HL250M 400HP pumps with extended skids to support a 16" HDPE suction pipe in a dynamic environment.

### The Challenge:

Barrick asked us to engineer a permanent, yet portable, solution to deliver 4000 gpm to the autoclave and 7000 gpm to the Roaster. It needed to be portable since the water level in the tailings basin rises about 30 feet per year.

## Oil & Gas

Oil production in West Africa

Compact, versatile pumps keep the oil flowing

### The Challenge:

Space on oil platforms is at a premium, shared by multiple drilling technologies, living quarters and, of course, oil storage. One critical technology is a way to compensate for declining oil levels in the well using water.

The water becomes highly corrosive from salt and hydrogen sulfide, so it can't be disposed of. Instead, special pumps separate it from the oil and re-inject it in to the well.

### The Solution:

Xylem's MP horizontal multistage pumps are at home here due to compact design and minimal maintenance requirements. They're also ATEX compliant, making them suitable for potentially explosive environments.

On the Yombo oil platform far off the coast of Congo, two MP 125 pumps made from duplex steel with silicon carbide cartridge mechanical seals and efficiency ratings of 66 to 70% deliver water at pressures up to 80 bar and flow of 66 to 100m<sup>3</sup>/h, in a small, reliable package.

# The best products are only half the reason to work with us.



## Our people make the difference

Industrial-strength thinking helps us engineer, design and manufacture the highest quality pumps and related equipment. But that's not all. We apply the same dedication and expertise to every aspect of our relationship with you. Our people - and how they partner with you - are what makes Xylem the right choice for your industrial water and fluid management solutions.

## Our expertise solves the challenge

Nobody spends more time thinking about industrial water and fluid management. With hundreds of thousands of customers and millions of installations, we have more experience across more types of challenges, and can design solutions that provide more value today and tomorrow.

## Total peace of mind

Maybe you need help deciding whether to refurbish or replace existing equipment. Maybe you need to find a way to lower operating costs or troubleshoot an issue. Maybe you want to outsource maintenance and upkeep. Or maybe you need a flexible way to pay for new equipment. Whatever you need to support your industrial water and fluid management process, we do it. Our portfolio of services will give you total confidence in your system 24/7.

## Industrial-strength parts & support

Xylem designs equipment for reliability, longevity and low total cost of ownership. That said, there will come a time when routine maintenance is necessary to maintain peak performance. Genuine Xylem parts ensure optimal, reliable performance of your Xylem equipment and can be delivered directly to you or with technical support. If you prefer to handle upkeep yourself, we have you covered:

- Operator training
- Equipment service training
- Technical coaching
- Genuine parts kits

xylem  
**watermark**<sup>®</sup>  
Because Every Drop Counts

## Committed to solving water

The facts speak for themselves: worldwide, 844 million people lack access to clean drinking water. 443 million school days are lost to water-related illness. 361,000 children under 5 die from diarrheal diseases every year.\* And 90% of natural disasters are water related. It's clear the world is facing unprecedented water challenges brought on by population growth, urbanization, shrinking fresh water supplies and increasing storm severity.

At Xylem, we take our role as leaders in water and fluid management seriously and are committed to finding solutions to the world's most pressing water challenges. Our mission is to provide and protect safe water resources for communities in need around the world, and to educate people about water issues.

**To learn more about Watermark, our corporate citizenship and social investment program, visit [xylemwatermark.com](http://xylemwatermark.com)**

\*Source: UNICEF/WHO

# Industrial-strength thinking solves more than water.

**For over 170 years, Xylem has led the way in water and fluid management. We can analyze, customize, engineer, and install a complete solution that will help you focus on your core business, build profitability and solve complex challenges the right way. Give us a call to see what industrial-strength thinking can solve for you.**

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## 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 innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. 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, backed by a legacy of innovation.

**For more information on how Xylem can help you, go to [Xylem.com/industrial](https://www.xylem.com/industrial)**



Xylem Inc.  
[xylem.com/industrial](https://www.xylem.com/industrial)

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