Complete Solutions for Mine Water Balance

xylem
Let's Solve Water

Mining Campus Map

Choose Xylem pumps, treatment equipment, and analytical instruments for use at every stage in mining. Our solutions are engineered for severe applications and can be counted on for reliable performance that helps you manage water in sustainable ways.

1 Open Pit Dewatering

2 Dewatering Underground

3 Leaching

4 Floating Water Monitoring Station

5 Source Water Pontoon

6 Grinding Mill

7 Fire Suppression System

8 Submersible Slurry Pumps

9 Packaged Biological Treatment System

10 Environmental Monitoring

Transport, treat and test with Xylem

Customers in more than 140 countries rely on Xylem's leading brands for complete, cost-effective, environmentally responsible water management solutions. Meet the challenges of water accessibility, quantity and quality in even the most remote regions, whether water is overabundant or scarce.

Broad product range

Everything you need to transport, treat and test water is here. Xylem solutions for open-pit mines, underground mines and material processing include:

- A wide range of pumps, designed for durability
- Advanced treatment equipment for water management
- Precision analytics to ensure process assurance and compliance

We support you throughout mining exploration, development and operation. With our extensive product range and applications expertise, we are well positioned to help solve the most challenging water related problems.

Committed to environmental responsibility

Control environmental impact, comply with regulations and prevent costly shutdowns. Use Xylem's analytical tools to monitor the environment, including ground water and surface water, to detect and manage issues early on. And rely on our innovative treatment technologies to promote efficient, sustainable water use. Our entire organization is dedicated to improving the way water is used, conserved and re-used around the world—and we're ready to make a difference for your business.

Effective approach

Choose Xylem for reliability that minimizes risks, maximizes uptime and delivers superior total cost of ownership. Increase flexibility with portable pumps and packaged treatment systems that can easily be mobilized. Emergency and temporary pump rental is available in certain areas.

A full portfolio of respected brands

Benefit from Xylem's powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

AANDERAA

Aanderaa Data Instruments offers more than 40 years' experience in designing, manufacturing and selling robust, reliable instruments for measuring and monitoring in demanding environments.

AC FIRE PUMP

A-C Fire Pump Systems has manufactured fire pumps and systems since the 1880 and today builds state-of-the-art fire pumps and turnkey systems for commercial and industrial applications.

FLOWTRONEX®

Flowtronex designs and manufactures a wide spectrum of packaged booster systems and controls, including RO membrane systems for industrial markets.

FLYGT®

Flygt was founded in 1901 and is a world leader in the design and manufacture of dry and submersible pumps, mixers and related intelligent controls systems.

godwin

Godwin has led the industry for more than 30 years in the supply of fully automatic self-priming pumps, offering diesel and electric pumps to rent or buy for dewatering and transport.

GOULDS WATER TECHNOLOGY

Goulds Water Technology manufactures energy-efficient centrifugal and turbine pumps, controllers, variable frequency drives, and accessories, building on more than a century and a half of experience.

LEOPOLD®

Leopold is a worldwide leader in the design and supply of systems for gravity filtration, clarification, denitrification, sludge collection and backwash water recovery for water and wastewater plants.

LOWARA®

Lowara is a world leader in stainless steel pump manufacturing technology, offering nearly 50 years of excellence in design and production for residential and commercial applications. Now includes Vogel series of pumps for heavy industrial applications.

PCI Membranes specializes in custom-built crossflow membrane filtration systems for liquid separation in the process industries, building on a 40-year legacy.

MJK is a global leader in manufacturing flow, level and analytical instruments and controls for water and wastewater applications, with a more than 30-year history of innovation.

OI Analytical designs, manufactures and supports analytical instrumentation used to detect and measure chemical compounds, building on nearly 50 years' experience.

Sanitaire innovative wastewater treatment solutions, introduced in 1967, include diffused aeration, sequencing batch reactor systems and membrane bioreactor systems for municipal and industrial use.

SI Analytics developed the glass electrode 75 years ago and continues to provide innovative sensors and instruments for precision measurement.

Sontek invented the acoustic doppler velocimeter in 1993 and offers diverse high-technology instruments to measure water velocity, flow, discharge, currents and waves.

Standard Xchange builds on a 50-year legacy to provide industrial heat transfer products that enable the efficient exchange of energy.

Water Equipment Technologies (WET), an early membrane technology innovator, has provided reliable membrane-based water purification technology and components worldwide since 1975.

WaterLOG has designed and manufactured precision instruments for more than 40 years to measure water level, temperature, relative humidity, rainfall and other hydro-meteorological measurements.

WEDECO has been a leader for more than 30 years in the environmentally friendly treatment of drinking water and waste water with ultraviolet light and ozone.

WTW offers the world's most complete line of instrumentation products for measuring and controlling wastewater, drawing on a 60-year history of proven sensor and analysis technology.

YSI provides sensors, instruments, software, and data collection platforms for environmental water quality monitoring and testing, building on a legacy that reaches back to 1948.

Source Water & Camp Water

Move water from lakes, rivers, or tailing ponds to mining production facilities for use in processing and cleaning, and assure camp water quality with packaged treatment systems. Xylem's brands have been providing pumps, controls and service to the mining industries for decades. Our containerized treatment systems provide mobility and easy installation.

Xylem offers...

TRANSPORT

Multi-Stage Booster Pumps

High Pressure Multi-Stage Pumps

End Suction Pumps

Vertical Turbine Pumps

Booster Set Packages

Diesel-Driven Dri-Prime Dewatering Pumps

Electric-Driven Dri-Prime Dewatering Pumps

Dri-Running Hydraulic Submersible Pump

Wireless Pump Controls

M&C and Remote Data Access

TREATMENT

UV Treatment Systems

Packaged RO Treatment Systems

Packaged Water Filtration Systems

Water Quality (Pre and Post Treatment)

TEST

Aquifer Measurement (Submersible Pressure Transducers – WaterLog/MJK)

Flow Meters

Featured products:

Water Equipment Technologies

Packaged Potable Water Treatment Systems

Water Equipment Technologies (WET) has provided reliable membrane-based water purification technology and components worldwide since 1975. An early innovator in membrane technology systems, WET today builds skid mount systems ideal for camp water and temporary fresh water needs.

FLOWTRONEX®

Flowtronex Booster Systems

Flowtronex designs and manufactures a wide spectrum of packaged booster and lift systems and controls for mining markets.

GOULDS WATER TECHNOLOGY

Verticle Line Shaft & Submersible Borehole Pumps

Xylem's vertical line shaft and submersible borehole turbine pumps come in a wide variety of sizes, configurations and materials to fit your source water and dewatering applications.

End Suction Pumps

Xylem's single-stage end suction pumps offer versatile pumping capabilities across a wide range of flows and pressures for water transport applications.

SANITAIRE® LEOPOLD®

Packaged Process Water Treatment Systems

Packaged domestic camp wastewater treatment systems provide efficient solutions for discharge or plant reuse.

WEDECO®

Spektron Closed Vessel UV Treatment

Ecoray lamp technology and variable output control deliver industrial UV disinfection using less energy. Validate and improve performance at lower UVTs through automated wiper, optimized hydraulics featuring OptiCone flow control, and the latest UV sensor technology.

Xylem offers...

TRANSPORT

Multi-Stage Booster Pumps

High Pressure Multi-Stage Pumps

End Suction Pumps

Vertical Turbine Pumps

Large Multi-Stage (Water and Graywater)

Booster Set Packages

Diesel-Driven Dri-Prime Dewatering Pumps

Electric-Driven Dri-Prime Dewatering Pumps

Dri-Running Hydraulic Submersible Pump

Wireless Pump Controls

TREATMENT

Ozone Treatment Systems

UV Treatment Systems

Packaged Biological Treatment Systems (Domestic Wastewater)

Biological Treatment Systems

MBR Package Plants for Water Reuse

Mixers

TEST

Water Quality (Pre and Post Treatment)

M&C and Remote Data Access

Wastewater Treatment Water Quality (IQ SensorNet)

Waste Water & Water Re-use

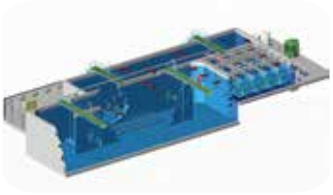
Xylem processes provide nonpotable reuse water that can be further enhanced with Xylem-engineered UV, ozone or tertiary filtration. We offer products for every facet of your re-use system, designed for expandability, limited maintenance and rugged environments. Our engineers can help you choose and configure system components, emphasizing a compact footprint, simplified operation and reduced lifecycle costs.

Featured products:

WEDECO®

Ozone Treatment Systems

Containerized ozone systems streamline oxidation and disinfection of water. Ozone systems are also used for the destruction of cyanide in gold leaching processes.



xylem

Membrane Bioreactors (MBR)

Xylem's packaged MBR systems provide compact biological treatment systems to help you meet stringent discharge limits.

FLYGT®

Experior with Adaptive N Hard Iron Impeller

Submersible pumps feature adaptive N technology to provide clog-free, energy-saving performance. Speed regulation, self-cleaning functionality, SmartRun Controls and Premium Efficiency Motors cut energy use up to 30%.

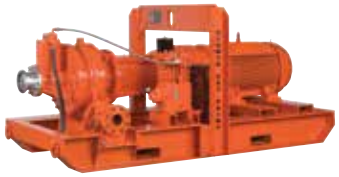
Flygt 4000 Series

Our complete line of compact mixers, top-entry mixers, mid-size and slow speed mixers all feature state-of-the art propeller designs, assuring optimal efficiency for your specific application.

godwin

Heidra Range

This compact self-contained submersible hydraulic top discharge pump includes diesel or electric power packs. With dry running capabilities, the rugged dewatering/ solids-handling unit is ready to go anywhere.



Dri-Prime CD & HL Ranges

These pumps feature automatic priming dry to 28′ suction lift; dry running, oil bath mechanical seal, abrasion-resistant silicon carbide faces; and continuously operated venture air ejector priming. Discharge is 2″ to 24″, with flow capacity up to 16,500 gpm.

YSI

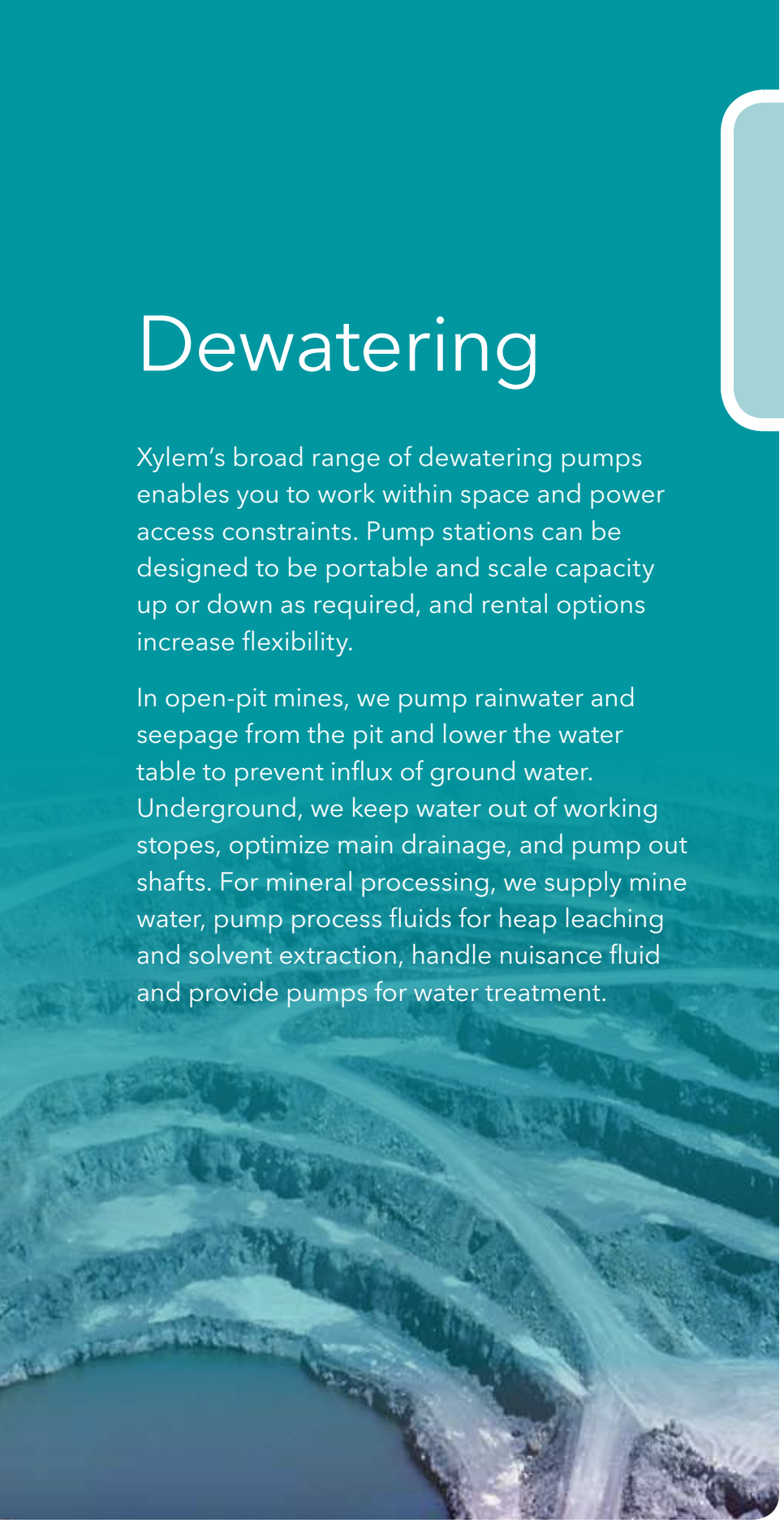
IQ SensorNet

This wastewater treatment process monitoring system accommodates up to 20 sensors and covers a wide variety of water quality parameters. Immediate benefits include better process visibility and management for wastewater treatment.

Dewatering

Xylem's broad range of dewatering pumps enables you to work within space and power access constraints. Pump stations can be designed to be portable and scale capacity up or down as required, and rental options increase flexibility.

In open-pit mines, we pump rainwater and seepage from the pit and lower the water table to prevent influx of ground water. Underground, we keep water out of working stopes, optimize main drainage, and pump out shafts. For mineral processing, we supply mine water, pump process fluids for heap leaching and solvent extraction, handle nuisance fluid and provide pumps for water treatment.



Xylem offers...

OPEN PIT:

Diesel-Driven Dri-Prime Dewatering Pumps

Electric-Driven Dri-Prime Dewatering Pumps

Vertical Turbine Pumps

Large Multi-Stage (Water and Graywater)

MSHA Centrifugal Submersible Electric Pumps

Dri-Running Hydraulic Submersible Pump

Wireless Pump Controls

UNDERGROUND:

MSHA Diesel-Driven Dri-Prime Dewatering Pumps

Electric-Driven Dri-Prime Dewatering Pumps

Submersible Pumps

Vertical Turbine Pumps

Large Multi-Stage (Water and Graywater)

MSHA Centrifugal Submersible Electric Pumps

Wireless Pump Controls

Featured products:

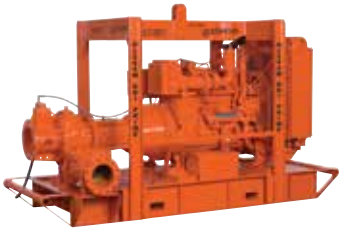
FLYGT

Flygt 2000, 2600 Series

Complete range of heavy-duty MSHA-approved submersible pumps and controls from 1.8 HP to 140.0 HP to handle the toughest pumping jobs. Innovative hydraulics provide unmatched wear resistance, resulting in less downtime and lowest cost of ownership.

Flygt Ready, 2000, 2400, 2600, 2700, 2800, 3000, and 5000 Series

Meet your most demanding applications with Flygt's wide variety of dewatering pumps, from .5 HP to over 900 HP. This product line is designed for outstanding wear resistance and long-term performance, backed by our unmatched application and engineering support.



godwin

Dri-Prime CD & HL Ranges

These pumps feature automatic priming dry to 28' suction lift; dry running, oil bath mechanical seal, and abrasion-resistant silicon carbide faces; and continuously operated venture air ejector priming. Portable diesel pumps discharge from 2" to 24", with flow capacity up to 16,500 gpm.

MSHA Approved Dri-Prime

Designed for underground coal mining, this compact, highly maneuverable unit includes a portable highway trailer. It can deliver up to 450 GPM at 93' TDH, stands 52" with canopy, and has a 30-gallon 24-hour fuel tank with UL-approved fuel cap.

Field Smart Technology

Help eliminate on-site pump watch with remote start, stop and monitoring. Engine and pump data can be collected in one-minute intervals and transmitted to password-protected website via cellular signal or satellite connection.

Xylem offers...

- Multi-Stage Booster Pumps
- End Suction Pumps
- Vertical Turbine Pumps
- Large Multi-Stage (Water and Graywater)
- Booster Set Packages
- Diesel-Driven Dri-Prime Dewatering Pumps
- Electric-Driven Dri-Prime Dewatering Pumps
- MSHA Centrifugal Submersible Electric Pumps
- Dri-Running Hydraulic Submersible Pump
- Wireless Pump Controls
- Magnetic Flow Meters

Water Transport & Boosting

Move water and wastewater efficiently and cost-effectively. Xylem pumps are designed for easy installation, low-maintenance operation and durability. Our large multi-stage pumps offer high head capabilities for boosting water out of mine shafts, or moving source water up to mines at high elevations. Products are offered in a wide range of configurations and materials. Let our team help guide water system construction to support continuous, efficient production.

Featured products:

GOULDS WATER TECHNOLOGY

Multi-Stage Booster Pumps

The e-SV and e-HM booster pumps are ideal for water transport across a wide range of flows and pressures. Gain market-leading efficiencies in clean water pumping, with your choice of vertical or horizontal orientation and multiple materials.

LOWARA®

Large Multi-Stage Pumps

The large multi-stage pumps in Lowara's Vogel series are designed for high-pressure boosting applications for water and gray water. Ideal for process circuit cooling and high head dewatering, they deliver flows up to 63.6 thousand cubic feet per hour (1,800 m3/h) and pressures up to 1,450 psi (100 bar).

mjk

Mag Meters

MJK Electromagnetic Flow Meters combine high accuracy, stability and low maintenance, with no moving parts; straight-through flow sensors; and self-cleaning electrodes. The full-bore flow sensor ensures no effect on the flow rate and no pressure drop.

Xylem offers...

Environmental Monitoring Devices

Water Quality

Flow Meters

Meteorological (Includes Rain)

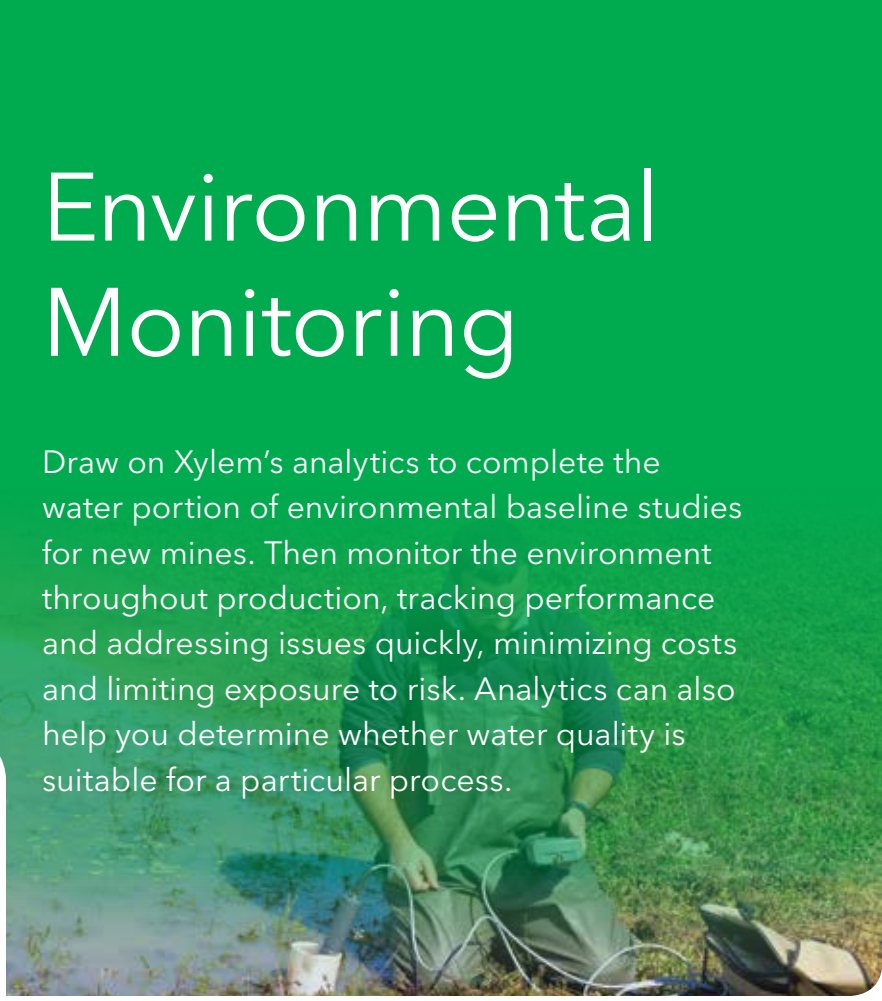
Remote Data Access/Telemetry

Water Level

Monitoring Systems/Platforms/Buoys

Environmental Monitoring

Draw on Xylem's analytics to complete the water portion of environmental baseline studies for new mines. Then monitor the environment throughout production, tracking performance and addressing issues quickly, minimizing costs and limiting exposure to risk. Analytics can also help you determine whether water quality is suitable for a particular process.



Featured products:

mjk

Chatter Data Logger

Chatter monitors and measures water level and other parameters where no permanent power supply is available. It features a built-in multi-channel data logger, GSM/GPRS modem and 5-year-plus battery life to support a daily call.

WTW

Lab & Hand-Held Analyzers

WTW lab and hand-held instruments measure a wide variety of parameters for environmental monitoring, process control and water quality analysis.

Featured products:

Environmental Monitoring Station

Real-time data delivered through cellular and satellite modems helps reduce trips into the field, conserving resources and lowering the total cost of environmental monitoring. Email alerts and data website portals deliver information for immediate action.

Exo Multiparameter Sonde

YSI water quality sondes and sensors are rugged, accurate instruments for environmental monitoring and long-term deployments. YSI datasondes accept multiple water quality sensors, many of which use the newest optical technology for accurate measurements.

Integrated Systems & Services (ISS)

Buoy provides a quickly deployable water quality monitoring platform with remote telemetry. The system can be lifted by two people and is completely serviceable from a small boat.

SonTek

The FlowTracker Handheld Acoustic Doppler Velocimeter measures 2D or 3D currents and features an automatic discharge computation using a variety of international methods, including ISO and USGS standards.

SonTek

The SonTek-IQ is an acoustic Doppler flow meter that provides high-quality water flow, total volume, level and velocity data. The SonTek-IQ collects data in manmade or natural channels, pipes or streams between 8 cm (3″) and 5 m (16′) deep.

Featured products:

O·I·Analytical

OI Cyanide Analyzer

The OI Analytical CNSolution™ 9310 On-line Cyanide Analyzer measures available cyanide in precious metal leaching, detoxification, and tailings solutions. Its use of gas-diffusion amperometry prevents interference from copper and metallic sulfides, for superior accuracy and tighter control of cyanide use and mill costs.

mjk

Mag Meters

MJK Electromagnetic Flow Meters combine high accuracy, stability and low maintenance, with no moving parts; straight-through flow sensors; and self-cleaning electrodes. The full-bore flow sensor ensures no effect on the flow rate and no pressure drop.

Process Solutions

Make water-intensive processes for cleaning and preparing extracted minerals more efficient. Xylem offers critical technology for cyanide processing, from in-line analyzers that monitor cyanide/water ratios in real time to ozone treatment systems for cyanide destruction to instrumentation that measures water quality and flow.

Xylem offers...

- Cyanide Analyzer
- Heat Exchangers
- DamSaver (Floating Pump/Mixer System)
- Water Quality
- Ozone Treatment Systems (Cyanide Destruction)
- Mag Meters

Dust & Fire Suppression

Use booster pumps to assure sufficient water pressure for spraying—whether reducing churned dust or washing vehicles and equipment. Xylem also offers permanent fire suppression systems. Components of our fire pump systems are certified by one or more of the following: Underwriters Laboratories (UL); Underwriters Laboratories Canada (ULC); and Factory Mutual (FM). Fire pump packages are certified by ETL (Intertek).

Xylem offers...

Fire Suppression Systems

Multi-Stage Booster Pumps

High Pressure Multi-Stage Pumps

Diesel-Driven Dri-Prime Dewatering Pumps

Electric-Driven Dri-Prime Dewatering Pumps

Dri-Running Hydraulic Submersible Pump

Wireless Pump Controls

Meteorological (Includes Rain)

M&C and Remote Data Access

Featured products:

A-C FIRE PUMP

Fire Pump Packages

A-C Fire Pump Systems designs and custom-builds a wide range of UL/FM-listed fire pump products and turnkey systems for mining applications, including prefabricated packages to meet all suppression needs.

Xylem |'zīləm|

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

We're 12,500 people 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 www.xyleminc.com

xylem
Let's Solve Water

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