

Proven Water and Wastewater Solutions



Control. Manage. Optimize.



Measurable Performance.

Humans consume vast quantities of water and create an increasing amount of wastewater. This places greater emphasis on environmentally responsible water treatment and leveraging reclaimed resources. Wasting water poses sustainability challenges, depletes energy reserves, and undermines ecosystem health.

Water and wastewater treatment facilities have complex operational processes, which involve a wide range of flow measurement tasks. These applications demand the highest flow meter accuracy and reliability, as well as long-term stability and a low cost-of-ownership.

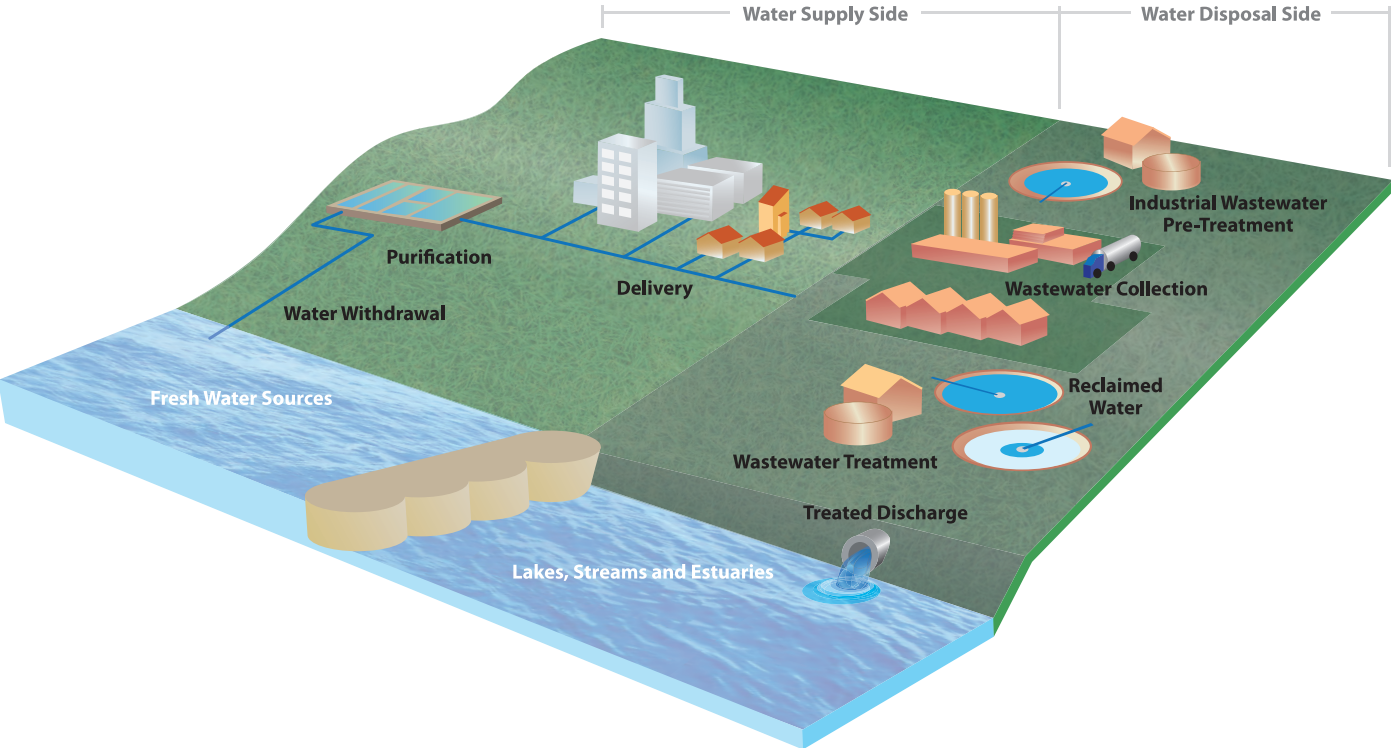
Badger Meter understands you cannot manage what you do not measure. A worldwide leader in flow metering technologies, we offer one of the broadest product portfolios for the water and wastewater industry. This includes respected brand names such as Dynasonics®, ModMAG®, Recordall®, Research Control® and more. From ultrasonic, electromagnetic, vortex and impeller meters to advanced control valves, our solutions will help you improve the efficiency and reliability of your operations.

Badger Meter offers solutions for:

- Water consumption metering
- Influent & effluent water monitoring
- Discharge quantity monitoring
- Chemical treatment dosing
- Leak detection control valves
- Municipal network load monitoring
- Water system submetering
- Ground water consumption



Application Environment



Today's water and wastewater operations must find ways to meet soaring water demands, as well as deal with new, higher standards for water quality and pollution controls. They're also under pressure to save energy and upgrade aging infrastructure. Some facilities see a revenue opportunity in treating wastewater and selling by-products.

Badger Meter products are used across the entire water eco-system in applications ranging from water storage and transmission, to raw water and wastewater treatment. We support both the efficient provision of clean water and the safe disposal of wastewater.

Water & Wastewater Treatment Challenges

With increasing awareness that water resources exist in limited quantities, there is an urgent need to save, reuse and recycle water, as well as develop methodologies to improve resource management.

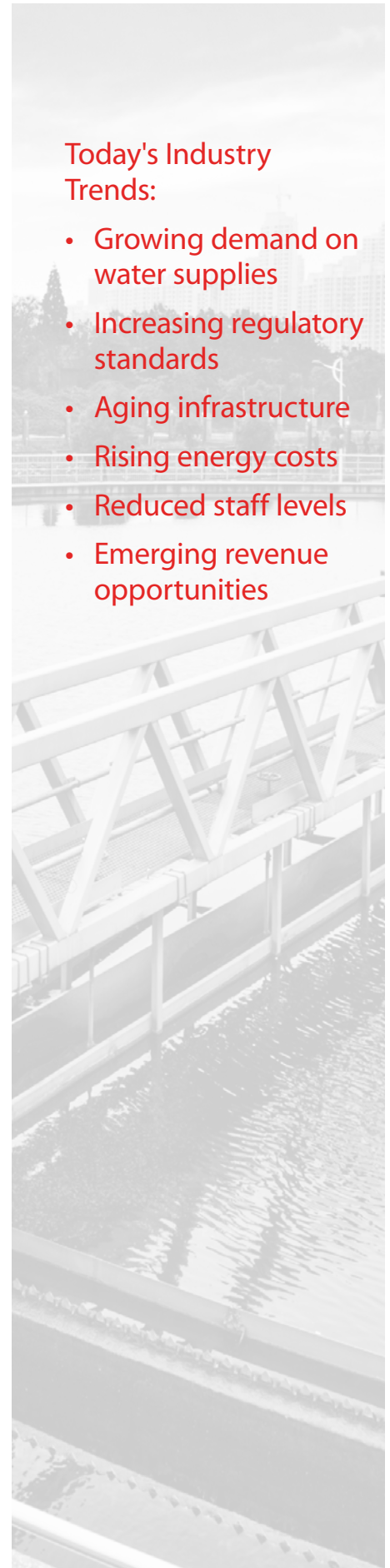
Water and wastewater treatment systems require accurate measurement of flow to ensure reliable and cost-effective operation. Flow meters must be able to measure liquid across all phases, including large volumes of fluid carrying suspended solids, sludge by-products and other materials. Meters are also needed to measure the dosage of treatment chemicals and to monitor methane discharge and reuse.

Effective water and wastewater treatment is equally critical for industrial and commercial organizations. This includes metering effluent for surcharge reporting and precisely measuring influent water, making it easier to manage operations. In addition, they seek to reduce raw water consumption, lower energy and chemical costs, minimize toxic waste treatment and discharge, and improve regulatory compliance.



Today's Industry Trends:

- Growing demand on water supplies
- Increasing regulatory standards
- Aging infrastructure
- Rising energy costs
- Reduced staff levels
- Emerging revenue opportunities



Water Reuse & Sustainability

As the scarcity of water becomes a more pressing issue, the drive to reclaim and reuse wastewater grows more important. Problems involving municipal water sanitation stem from the rise in urban migration. Conversely, industrial and commercial operations have long dealt with the problem of residue disposal.

One way to lessen the impact of declining water supplies is to expand water and wastewater reuse. Employing Badger Meter Dynasonics® clamp-on ultrasonic flow meters allows easy retrofits of existing systems so that water and greywater can be monitored where it wasn't previously possible. It also supports the objectives of ecological sustainability.

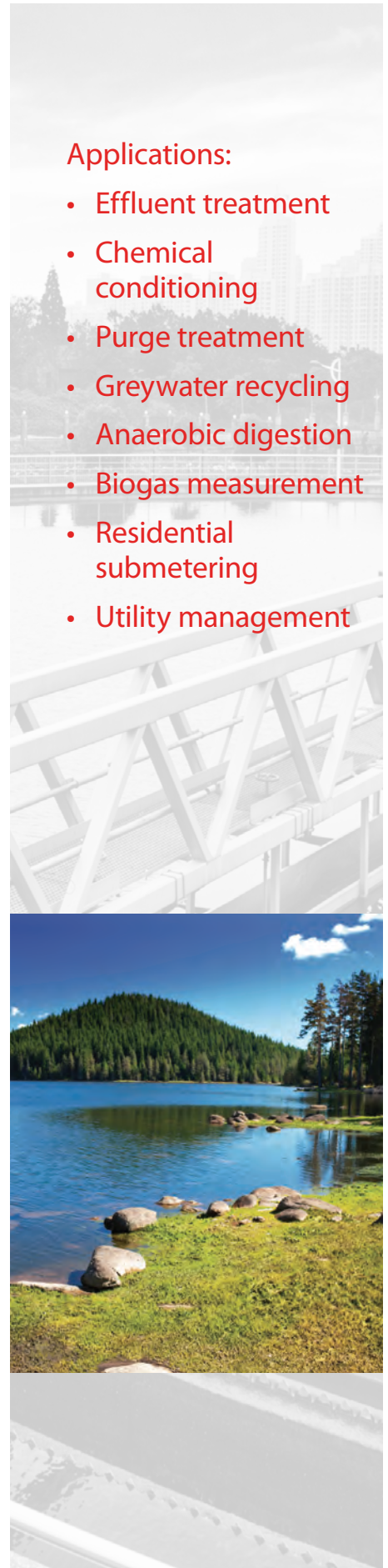
Recycling techniques even help turn biosolids from wastewater treatment plants into new sources of renewable energy and revenue. Our Vortex RNG meters can be used to stabilize sludge and produce biogas for energy generation. These meters are specifically designed to measure wet biogas produced from anaerobic digestion.

Conservation efforts are key to controlling water costs, however, the ultimate solution is water submetering. Using BEACON® Advanced Metering Analytics to allocate water costs directly to consumers through measurement of consumption provides an economic incentive to conserve.



Applications:

- Effluent treatment
- Chemical conditioning
- Purge treatment
- Greywater recycling
- Anaerobic digestion
- Biogas measurement
- Residential submetering
- Utility management



Regulatory Compliance & Quality

Municipalities and industries are now facing concerns about the impact of biological contaminants and chemicals in supply water and wastewater, not to mention stringent manufacturing requirements in process water.

Regulatory standards established by the U.S. Clean Water Act (CWA), National Pollutant Discharge Elimination System (NPDES), Effluent Limitation Guidelines (ELGs), and the National Sanitation Foundation (NSF) dictate effective water usage, treatment and disposal techniques. Moreover, water conservation is a social responsibility for utilities and businesses.

Whether for measuring industrial waste or treated water, the use of Badger Meter ModMAG electromagnetic flow meters and Research Control Valve (RCV) products to gather and treat discharge, can play a vital role in keeping wastewater emissions within prescribed limits. Badger Meter Recordall Disc and Turbo Series meters can help monitor water usage in residential, commercial and agricultural operations. Utilizing the powerful BEACON® data analytics software, our flow measurement solutions enable greater visibility and control of water conservation efforts.



Applications:

- Chemical dosing
- Aeration flow
- pH adjustment
- Process water
- Methane flare-off
- Leak detection
- Supply line monitoring
- Fiscal metering
- Agricultural water



Proven Flow Instrumentation

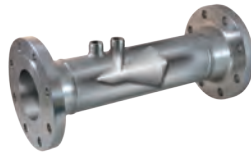
Badger Meter Flow Instrumentation provides many useful solutions for water and wastewater treatment. From low flow measurement of chemical additives to the demands of digester gas service, our products are recognized for high accuracy, proven reliability, and a low cost-of-ownership.



Electromagnetic Flow Meters
Water distribution, process water and wastewater applications



Differential Pressure Meters
Wide range of liquid and gas metering applications



Ultrasonic Flow Meters
Process water and wastewater applications



RNG Biogas Meters
Measure methane gas produced by wastewater processing



Disc and Turbine Meters
Residential and commercial water metering



Research Control Valves
Control of liquid or gas, including dosing sodium hypochlorite and regulating pH water



Impeller Flow Meters
Liquid and Btu measurement applications



Water Management Software
Industrial and commercial submetering



Flow Dynamics® Calibration Services



Flow Dynamics is a major, independent primary standard flow calibration laboratory, supplying both manufacturers and end users with industry-leading calibration results.

What we provide:

- Calibration and repair of most types of flow meters
- Multiple viscosity liquid calibrations using Strouhal-Roshko analysis
- Calibration history files for future comparisons
- Research and development testing for flow measurement devices
- Variety of inert gas calibrations
- Correlation and extrapolation methods simulating hazardous fluids
- Electronic calibrations for flow computers and signal conditioners
- OEM production calibration service
- NIST-traceable calibrations

- Calibration for most meter types
- OEM production calibrations
- NIST-traceable primary standards
- NVLAP (Code 200668-0) accredited*



FM 78587
AS9100 Rev. C and
ISO 9001:2008



Quick Calibration Service:

Seven-day turns or less for single viscosity calibrations, without expedite fees. Both on-site and field calibration services available.

*NVLAP accreditation applies only to the Badger Meter Flow Dynamics calibration Lab, located in Scottsdale, AZ.

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