

Municipal Water / Wastewater ■ Food & Beverage ■ Aquatics (Pools/Resorts/Zoos) ■ Chemical and Chem Vendors ■ Mining / Oil & Gas ■ General Industry / Energy Generation

# Complete Water Treatment Solutions

**ProMinent<sup>®</sup>**

# Your **reliable** **partner** for solutions in water life cycle management

From the invention of the first electric solenoid metering pump, to now offering a full range of chemical metering and disinfection systems, ProMinent remains focused on advancing our offerings to stay at the forefront of growing market challenges. This ensures our customers receive reliable, durable, low-maintenance, and economical solutions that meets the needs of specific applications for any situation.

Our products are used across a wide range of markets and industries, and you can rely on the experience and know-how of our experts to find the most effective and efficient solution that achieves your goals. Examples of our application expertise in specific markets include:

## Food & Beverage

- Engineered chemical feed packages
- Disinfection systems for process water
- pH neutralization solutions for wastewater
- Retort water recycling systems
- Monitoring and control of process water variables

## Aquatics (Pools/Resorts/Zoos)

- Water analysis / control and complete control of mechanical room
- Secondary and supplemental MP and LP UV disinfection
- Precision chemical dosing and dry feed
- Oxidation and disinfection with ozone, chlorine dioxide, chlorine generation

## General Industry / Manufacturing / Energy Generation

- Full metering control for coolant circuits in cooling towers
- Adjust wastewater pH through chemical metering or adding flocculants
- Monitoring electroplating baths with sensor technologies
- Bulk powder feed of solids

## Municipal Water / Wastewater

- Potable water:
  - Pre-treatment during oxidation, coagulation and flocculation, sedimentation, clarification, and conditioning
  - Post-treatment during storage
  - Disinfection during distribution
- Wastewater:
  - Mechanical screening / clarification
  - Biological aeration applications
  - Advanced cleaning for PFAS removal
  - Sludge drying, dewatering, thickening
  - Process water treatment/reuse

## Chemical and Chem Vendors

- Online chemical inventory management with radar level sensors
- Metering of solid powders or granules
- Automated tank filling utilizing metering pump with pre-selected volume settings
- Many pump material options available to handle most any chemical
- Accurate monitoring options that reduce water flow needs

## Mining / Oil & Gas

- Accurate metering of frothers and collecting agents during flotation process
- Separation of liquids and solids with polymer metering systems
- High pressure metering pumps for down hole operations
- Pumps that meet Explosion Proof Class I, Div 1, Groups B, C, & D classifications

# Metering Pumps



## Mechanical Diaphragm

*EXTRONIC / Makro*

For safe metering of liquid media in hazardous areas, these pumps are hermetically sealed units designed with durable diaphragms, chemical-resistant materials, along with a self bleeding dosing head (EXTRONIC) suitable for off gassing media.

Built for tough applications in oil/gas production, refineries, chemical, pharmaceutical, and food production.

**Explosion proof option available**

**Capacity Ranges from:**  
0.05 – 554 GPH (0.19 – 2,100 l/h)  
Pressures up to 363 psi (25 bar)



## Hydraulic Diaphragm

*Evolution / HYDRO / ORLITA / ProMus*

Hydraulic metering pumps are ideal for situations that require high pressures as they use the hydraulic fluid as a motive force for the diaphragm. Additionally, hydraulic control is very precise and requires minimal maintenance due to the durable multi-layer diaphragms.

Typical uses include oil/gas production, refineries, chemical, petrochemical, pharmaceutical, and food industries.

**API 675 versions available**

**Capacity Ranges from:**  
0.2 – 2,200 GPH (0.76 – 8,325 l/h)  
Pressures up to 58,000 psi (4,000 bar)



## Plunger

*Sigma / Makro / ORLITA*

The heart of the liquid end in a plunger metering pump is a high-resistance plunger made from coated stainless steel. Metering reproducibility is better than  $\pm 0.5\%$  within the 10 – 100% stroke length range.

Used in oil and gas production, refineries, chemical, petrochemical, pharmaceutical, cosmetics, food production, and as bottling pumps in the packaging industry.

**Capacity Ranges from:**  
0.53 – 4,562 GPH (2 – 17,268 l/h)  
Pressures up to 5,800 psi (400 bar)



## Solenoid-Driven

*Concept / beta / gamma*

Solenoid-driven pumps have only one moving part, thus the drive is virtually wear-free. Additionally, these pumps require no lubricated bearings or shafts which keeps maintenance and repair costs minimal. Self bleeding option also available.

Typical uses include general metering of chemicals, disinfectants, corrosion inhibitors, biocides, flocculants, and additives.

**Capacity Ranges from:**  
0.19 – 20.74 GPH (0.7 – 78.5 l/h)  
Pressures up to 363 psi (25 bar)



## Motor-Driven

*Sigma Basic / Sigma X*

Motor-driven pumps offer extremely accurate metering even under fluctuating pressure conditions. This results in reduced chemical consumption and precise process control.

Typical uses include general metering of chemicals, additives, disinfectants, and flocculants.

**Hygienic SS design also available**

**Capacity Ranges from:**  
5.3 – 275 GPH (20.1 – 1,040 l/h)  
Pressures up to 232 psi (16 bar)



## Peristaltic

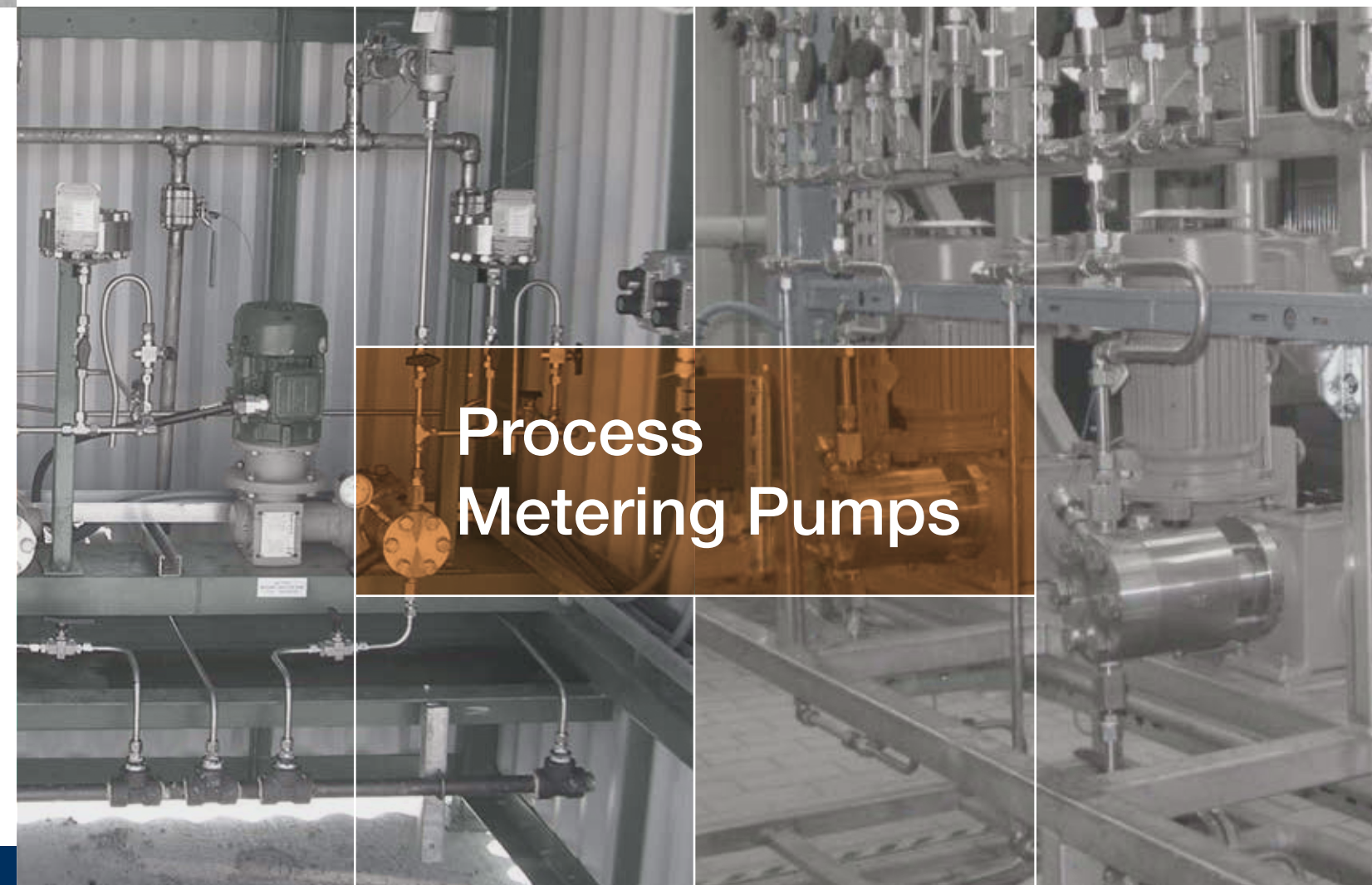
*DULCOFLEX*

Peristaltic pumps operate on the concept of a roller compressing a hose to “push” media through at a consistent flow. ProMinent utilizes a hose and roller design, which allows higher pressures and a longer service life than comparable pumps that utilize tubes and shoes. Adaptable to a wide range of applications.

Typical uses include gaseous, viscous, shear-sensitive and particle-containing media, along with polymers, disinfectants, additives, and biocides.

**Capacity Ranges from:**  
0.063 GPD – 19.2K GPH  
(10 ml/h – 72.7K l/h)  
Pressures up to 232 psi (16 bar)

# Process Metering Pumps





### AEGIS X

A multi-parameter water treatment controller featuring a flexible platform that can be configured to meet a wide range of customer applications. This powerful controller is expandable to handle extensive monitoring and control requirements with a simple interface that can be viewed and controlled remotely.

Inputs: 8-digital  
Outputs: 4-digital, 6-relays  
Comm: WiFi, Ethernet, Modbus RTU  
Expandable with two satellite controllers



### AEGIS II

A multi-parameter water treatment controller for cooling tower and boiler applications. Optional measurement of pH, ORP, Cl, temp, electrolytic conductivity, corrosion plus many other parameters are available. Includes a simple communication interface that can be viewed and controlled remotely.

Inputs: 1-analog, 2-serial, 8-digital  
Outputs: 4-digital, 5-relays  
Comm: WiFi, Ethernet  
Other: data logging, up to 6-analog I/O optional, Modbus RTU optional



### AEGIS S

An easy-to-use water treatment controller for evaporative cooling systems. It measures conductivity and controls metering of biocides and corrosion inhibitor, thus preventing biological growth. Intuitive user interface, touch display and live view of the cooling circuit.

Inputs: 5-digital  
Outputs: 2-analog, 6-relays  
Comm Options: WiFi, Ethernet, Modbus RTU  
Other: data export through USB



### DCM Control Package

For remote monitoring and controlling water chemistry and processes in pools, spas, hotels, motels, and condos. Two models available with a variety of options depending on system. Both include data logging.

Options for: salt / stabilized / non-stabilized water  
Monitoring capabilities: pH, ORP, Gold ORP, temperature, free chlorine, total chlorine, combined chlorine, ClO, bromine, ppm, conductivity



### diaLog DACb

A complete controller for water analysis in a variety of industries with functionalities for processing of interference variables and switchover of control parameters.

Inputs: up to 3-channels, 7-digital  
Outputs: 3-analog, 4-digital, 3-alarm  
Comm Options: Ethernet, Modbus RTU  
Other: data logging optional



### Type D1Cb

Provides precise monitoring or controlling of process variables. The control unit is equipped for key measured variables in basic applications of water treatment.

Inputs: 1-channel, 1-digital  
Outputs: 1-analog, 2-digital, 1-alarm  
Comm Options: none



### Compact

Provides precise measurement and control of pH or ORP process variables. Comes standard with pulse relay for pump control, configurable analog output, and configurable power relay.

Inputs: 1-channel, 1-digital  
Outputs: 1-analog, 1-digital, 1-alarm  
Comm Options: none



### DULCOPOOL Pro Touch

A multi-parameter controller ideal for individual swimming pools. It enables all types of chlorine and other important disinfection parameters to be measured. Up to five parameters can be monitored.

Inputs: 4-digital, 6-analog  
Outputs: 6-relays, 4-analog  
Comm: WiFi, Ethernet, Modbus RTU  
Other: data logging, touch screen



### SlimFLEX 5

A controller that sets the standard for monitoring and metering of cooling tower and boiler applications. Built-in WiFi Hot-spot and enhanced browser views for easy programming.

Inputs: 6-digital, 1-serial, 4-analog  
Outputs: 5-relays  
Comm: WiFi, Ethernet, data logging  
Other: no Modbus capability  
Other: data logging optional



### DMTa

Compact 2-wire-transmitter with microprocessor technology. Reliable monitoring for pH, redox, chlorine, conductive conductivity, and temperature applications.

Inputs: 1-analog limited  
Outputs: 4 – 20 mA (loop power)  
Comm Options: Profibus  
Other: monitoring only



### Ammonia Analyzer

Continuous on-line measurement of ammonia. Determine free ammonia, total ammonia, and NH<sub>3</sub>-N for control and reporting purposes.



### DULCONNEX

DULCONNEX is a web-based IIoT platform for digital fluid management. The web application provides easy access to all relevant plant, process and inventory level data on any connected device for monitoring and controlling connected components such as pumps, measurement sensors, liquid levels, etc.

## DULCOTEST Sensors

ProMinent manufactures its own sensors to ensure a high quality and availability. Our product family consists of application-based sensors for precision measuring and flexibility in connecting to various devices such pumps, controllers or PLCs.

Free Chlorine:	0.01 – 200 ppm (higher upon request)
Total Available Chlorine:	0.01 – 10 ppm
Total Chlorine:	0.01 – 10 ppm
pH Sensors:	0 – 14
Oxidation (ORP):	-1,500 – +1,500 mV
Chlorine Dioxide:	0.01 – 10 ppm
Ozone:	0.02 – 2 ppm
Conductivity:	0.01 µS/cm – 20 mS/cm
Inductive Conductivity:	200 µS/cm – 2,000 mS/cm
Peracetic Acid:	0.02 – 2,000 ppm
Bromine:	0.01 – 10 ppm
Fluoride:	0.05 – 100 ppm
Hydrogen Peroxide:	0.2 – 2,000 ppm
Dissolved Oxygen:	0.05 – 10 ppm, 0.1 – 20 ppm
Chlorite:	0.02 – 2 ppm
Temperature:	32 – 212 °F (0 – 100 °C)
Turbidity:	0 – 1,000 NTU
Conductivity/Temp/Flow (CTFs):	10,000 µS / 150°F (65°C) / 1GPM
Fluorescence (3 <sup>rd</sup> party):	0 – 200 ppb
Submersible Sensor Holder:	Light Duty / Heavy Duty



### Liquid Level Radar Sensor

*DULCOLEVEL*

An easy-to-use radar sensor that provides continuous, accurate and reliable measurements of chemical levels within tanks, containers or IBC totes.



### BAMa Modular Bypass Sensor Housing

Accommodates ProMinent sensors in various configurations that offers:

- Low water flow requirements for savings when water is not returned back to the process
- Easy cleaning and maintenance
- Good particle mobility for water which contains solids
- Designs for temperatures up to 158°F (70°C) and pressures up to 101.5 psi (7 bar)



### Portable Disinfectant Measurement

*DT1B / DT3B H<sub>2</sub>O<sub>2</sub> / DT4B*

A portable way to measure nearly all disinfectants and pH values based on the photometric principle. Ideal for spot testing and as a reference check for calibrating electrochemical sensors.



### DULCOSENSE DCI<sub>3</sub>

A new solution providing a continuous measurement of trichloramine in the air for public and commercial swimming pools. Offers real-time level measurements so that precautions can be taken to increase the safety for swimmers.

## Ultra Violet (UV) Systems

UV radiation is a safe, chemical-free and reliable method of disinfection in water treatment. It attacks the vital DNA of the germs, which then lose their reproduction capability and are destroyed. UV is also used to remove oxidants such as ozone, chlorine and chlorine dioxide.



### DULCODES LP TL

Able to disinfect up to 9,510 GPH (36 m<sup>3</sup>/h) of sugar syrup. Hygienic system design for elimination of spores, yeasts and mold fungus.



### DULCODES LP

Utilizes patented VARIO-Flux high-output lamps that can be quickly and precisely dimmed with flow rates up to 138K GPH (523 m<sup>3</sup>/h).



### DULCODES LP-PE

Ideal for saline sea water or thermal water, made of highly UV-resistant plastic, with flow rates up to 133K GPH (505 m<sup>3</sup>/h).



### DULCODES LP F&B

Utilizes a stainless steel hygienic design that meets international standards for drinking water and Food & Beverage applications, with flow rates up to 44K GPH (168 m<sup>3</sup>/h).



### DULCODES A

For the breaking down of combined chlorine in swimming pool water or elimination of chlorine, chlorine dioxide and ozone with flow rates up to 213K GPH (809 m<sup>3</sup>/h).

## Ozone Systems

As the most powerful oxidizing agent that can be used in water treatment, ozone is ideal for removing hazardous substances, dyes, odors and flavor additives, resulting in fewer environmentally harmful by-products than with other comparable oxidants and disinfectants.



### OZONFILT Compact OMVb

Ideal for the beverage industry, this is a complete, ready-to-use solution for the generation and metering of ozone, with a capacity of 0.04 – 0.15 lb/h (20 – 70 g/h).



### OZONFILT OZVb

A powerful and compact complete solution ideal for efficient ozone generation from compressed air with ozone capacity of 0.04 – 0.15 lb/h (20 – 70 g/h).



### OZONFILT OZMa

A demand-driven, self-optimizing pressure swing dryer reduces the consumption of compressed air thus generating ozone even with a high level of ambient air humidity. Capacity from 0.15 – 0.93 lb/h (70 – 420 g/h).

## Chlorine Dioxide Systems

Our systems produce a chlorine-free chlorine dioxide that disinfects regardless of the pH. They have a very good sustained-release effect and remains active in the pipes from many hours to several days. It also does not react with ammonia and will not create strong smelling compounds.



### Bello Zon CDLb

0.01 – 0.26 lb/h (120 g/h). Can treat up to 159K GPH (600 m<sup>3</sup>/h) of water with 0.2 ppm ClO<sub>2</sub>. Multi-point injection system available.



### Bello Zon CDVd

Up to 4.41 lb/h (2,000 g/h). Can treat up to 2.6M GPH (10K m<sup>3</sup>/h) of water with 0.2 ppm ClO<sub>2</sub>.



### Bello Zon CDKd

Up to 26.5 lb/h (12K g/h). Can treat up to 16M GPH (60K m<sup>3</sup>/h) of water with 0.2 ppm ClO<sub>2</sub>.



### Bello Zon CDLb H<sub>2</sub>SO<sub>4</sub>

Produces an extremely low-chloride chlorine dioxide solution suited for stainless steel materials.

## Electrolysis Systems

This technique uses sodium chloride (ordinary salt) to produce chlorine, hydrogen and sodium hydroxide solution. Electrolysis is an economical alternative to the use of sodium hypochlorite or other disinfectants, allowing you to generate chlorine and perform pH corrections in one system.



### CHLORINSITU IIa / XL

Two systems available, one with capacity of up to 5.5 lb (2.5kg) and one up to 100 lb (45kg) of chlorine per hour.



### CHLORINSITU III / IV / V

Variety of systems available with a capacity up to 22 lbs/h (10kg/h) of chlorine including ultra-pure gas.



### DULCOLYSE

Produces highly effective disinfectant DULCOLYT 400, with lower chlorate content ideal for Food & Beverage industry.

## Rapid Diffusion Mixer

An effective way for rapidly mixing and dispersion of chemicals and disinfectants.



### ProMix-SMS

Ideal for chemicals such as sodium hypochlorite, antiscalants, and chloramination products.



## For Liquids

Complete pre-assembled "ready-for-use" chemical metering systems make sense as all components come from one supplier, no interface issues and no on site assembly. Available as pre-engineered for quick lead times or custom designed for your application and space, even if it is installed outside exposed to the elements.



### Pre-Engineered Single/Dual Pump Skids

ProMinent has designed a variety of systems that suit common applications. This cuts down greatly on costs and delivery times. Utilize our extensive Systems Library for currently available options.



### Custom Designs

Let our experts design a system tailored to meet your goals no matter the application, standards or environment.



### Control & Monitoring Packages

Complete modules are available for easy integration. They can be designed for measuring most any variable in water treatment applications, with capabilities for remote access.



### ProSIP MF / SF / SW / S

Pump packages developed to provide flexible options for floor or wall mounting our motor or solenoid driven metering pumps.



## For Polymers

To eliminate solids from liquids requires the use of liquid or powder polymers. Our polymer preparation and metering systems provide efficient technologies to meet stringent requirements.



### ULTRONAT ULFa / ULDa / ULPa

Fully automatic systems that handles liquid and powdered polymers to batch flocculation aids into a ready-to-use polymer solution. Extraction rates up to 2,113 GPH (8,000 l/h).



### PolyRex

A turn-key automatic feed system for batch-wise preparation and metering of polymer solutions from powdered or liquid chemicals.

### ProMix S / M / L

A pre-engineered system with a unique 3-zone design resulting in superior polymer activation and lowered chemical consumption.



## For Solids

For the metering and treating of solids, including cost-effective solutions for materials with weight fluctuations or problems with bridging.



### Bulk Bag Emptying

For use with both disposable and returnable super sacks weighing up to 2,200 lbs (1,000 kg).



### Volumetric Feeder

Volumetric multi-screw feeders for metering powders and granulates up to 7,600 ft<sup>3</sup>/h (215 m<sup>3</sup>/h).



### Powdered Activated Carbon (PAC) Metering

System consisting of a sack emptying unit, storage tank and screw feeder for accurate delivery of PAC.



### ProCal SV

Granular Calcium Hypochlorite feeder generates a dilute solution as a chlorine source for swimming pools.

## For Gases



### CO<sub>2</sub> Controller

Utilizes CO<sub>2</sub> in the control of pH levels in pools. Does not contribute to a TDS increase and no mineral acid fumes.

## Chemical Storage



### Chemical Storage Tanks

Sizes available from 15 – 300 gal (60 – 1,135 liters) and includes support for mounting ProMinent pumps, stirrers or radar sensors.



### Acid Gas Scrubber

A proprietary device that allows for direct venting of an acid tank located inside a mechanical room. It eliminates the need for costly venting via fans or secondary water tank type fume traps.



### DULCODOS SAFE-IBC

A complete metering station for chemical totes that utilizes a 53 gal (200 liters) intermediate tank to ensure no interruptions during tote changes.

# OUR ADVANTAGE

ProMinent integrates a full suite of capabilities to ensure your system operates at peak performance specific to your application. From in-house design and manufacturing that delivers high quality control to in-field support and training that keeps your system producing reliable results. You can count on ProMinent as your partner throughout your system's entire life cycle.

## IN-HOUSE CAPABILITIES

Custom System Design and Engineering

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Custom Sensor Panel Fabrication and Testing

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Standard System Designs for Quick Delivery

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Component and System Manufacturing

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## AFTERMARKET SUPPORT

Large Inventory of Parts and Components

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Service Support: Phone, On-site and/or Start-Up

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Maintenance, Repair and Troubleshooting of Equipment

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Training: Certified Service Partner, Operational, Maintenance, General Product

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## PROVEN SOLUTIONS THAT MEET YOUR NEEDS

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ProMinent Fluid Controls, offers the highest quality metering pumps, disinfection systems, polymer preparation systems, metering systems for solids, instrumentation, and custom designed systems. The Group is headquartered in Heidelberg, Germany with more than 2,800 employees throughout 50 sales and service locations and 11 production sites. With over 60 years of experience, our expertise and wide range of products positions us as your reliable solution partner for the treatment of water.

To learn how we can help solve your water treatment challenges, contact us at:

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