

# Capabilities Brochure

Sales Literature No. WPSSL02101



#### **About Water Process Solutions Ltd.**

We pride ourselves as a provider of engineered solutions to Water and Wastewater treatment applications across the global market place. Operating from our facility in Aylesford, UK, Water Process Solutions Ltd is a manufacturer and distributor for a variety of product, providing additional value through innovative design, vast experience and focused service support.

Created from a core team of long standing water treatment specialists, Water Process Solutions is proud to focus its operation to best suit its customers and their needs. Through this focus we have made ourselves flexible to suit the changing processes and landscape demands of the users application, developing and responding swiftly to ensure leading standards, high quality and exceptional customer service remains a constant.

Development is a high priority to us at WPS and as a result we are continually discussing and exploring NPD and partnerships to meet market place and specific client requests if you have a need and would like us to consider a development, please do not hesitate to contact us.

We work in association with UGSI Chemical Feed, Inc. in the United States for some of our product range. We are their approved master distributors, manufacturers and representatives for UGSI Chemical Feed, Inc. across Europe, the Middle East and Africa.

Water Process Solutions comprises a group of highly experienced water treatment professionals. Our personnel have backgrounds with brands and companies such as Wallace & Tiernan®, Stranco and Chemfeed, all well known and trusted within the water industry.

Based in Kent, our aim is to provide customers with the equipment and support they need for effective and reliable water treatment. For further information, visit our website.

We welcome you to our organisation and look forward to working with you and supporting your business needs.

"Our portfolio offers value to a range of applications within areas of drinking water, wastewater, leisure resorts, food processing, breweries, mining, power generation, facilities management and mainstream industrial processes."

# **Chemical Metering Pumps**

WPS Ltd. offers several styles of metering pumps with integrated controls. These include: solenoid-driven, mechanically actuated diaphragm/Plunger pumps, hydraulically actuated pumps as well as integrated dosing and control packages for municipal and industrial markets.

Integrated metering pump skid packages are designed to meet the needs of most industrial or municipal liquid chemical feed applications. Completely assembled systems offer the features and flexibility required for accurate chemical metering with the benefit of easy installation, start-up, operation and maintenance for a "plugand-play" approach.

When it comes to pumps, the Encore® 700 in its wide variety of configurations is a long standing and trusted partner in the chemical metering world, providing accurate and reliable operation for decades opposed to a few years. We are able to provide full support for these units, in the majority of cases, direct from our stocks.

The Encore® metering pump will provide unparalleled economy, simplicity, and serviceability of a mechanical pump. Supplied with a cast iron gearbox assembly and the head materials carefully selected for compatibility to the duty to be metered and the environment to operate within.

All pumps can be supplied with manual stroke control, which offers infinite continuous adjustment via the hand wheel over a 10:1 feed rate range. If remote adjustment is preferred, an electronic adjustable stroke length option can be supplied in addition to variable speed drive motors.

In addition full global support for current and discontinued Wallace & Tiernan® pumps is provided.







#### **Product Line**

Digital Encore®
Encore® 700 mechanical diaphragm
Encore® 700 Plunger
Chemtube® tubular diaphragm

#### Varea-Meter® Variable Area Flow Meters

WPS Ltd can supply a broad line of flow meters for readout, transmission and control of fluid rate for most industrial process applications.

For low-capacity, low pressure applications we offer glass tube purge meters with stainless steel frames. Purge meters are specifically designed for purging instrument cases and control lines, and are readily adapted to liquid-level indication, sampling, liquid specific gravity determination and similar applications. For low flow, higher pressure applications armored purge meters are available. For high volume flows glass-tube and metal tube meters are available in a variety of sizes and configurations for metering both air and liquid.









#### **Product Line**

Glass tube purge meters Arma-view®II Amoured purge meters Glass and metal tube Varea-Meter® units

Encore®, Chemtube®, PolyBlend®, Varea-Meter®, Arma-view® and Microclor® are registered trademarks of UGSI Chemical Feed, Inc. Wallace & Tiernan® is a registered trademark of Evoqua Water Technologies LLC.

# **Polyelectrolyte**

The PolyBlend® systems are automated polymer feed systems for precise control and economical performance of liquid grade polymers.

Polyelectrolytes require specifically designed energy regimes during preparation to attain the correct physiochemical state in solution to perform the tasks they were designed for.

That's why the PolyBlend® automated polymer feed systems provide precise, programmable control of dosing rate, dilution levels, retention time and energy. With this exclusive control of these process variables you can be sure your polymers have the ideal mixing environment. That means you get the maximum yield efficiency from any polymer.

#### Features of this design include:

High capacity mixing chamber. The unique multizone activation chamber is designed to give energy values appropriate to the swelling and hydration needs of the chemical through this operation

- Flow sensors, variable set-points for low water protection, auto restart.
- Operates to a maximum water pressure: 5 bar.
- Mixer motor: 0.37 KW
- Single phase continuous duty



#### **Product Line**

Polyblend® PB series emulsion dosing system Polyblend® M series emulsion dosing system Polyblend® DP series dry powder systems



#### **ElectroChlorination**

Electrochlorination is the process of generating a solution of Sodium Hypochlorite from three common place and readily available materials: salt, water and electricity. This process is economically proven to provide a low cost of ownership over the life of the systems.

The simple process occurs when a DC voltage is applied to a salt solution flowing between a series of electrodes. An electrical current results in a chemical reaction which produces a low strength Sodium Hypochlorite solution. The solution can be safely stored in a product tank and used to disinfection water.

Water Process Solutions are pleased to be able to offer a variety of approaches to on site generation needs and for lower capacity applications we have our WPS-P range. This range is typically suitable for process needs of less than 400 g/h of chlorine equivalent.

For the larger capacity requirements, WPS have the PSI MicrOchlor system available. The patented MicrOclor design is the result of over twenty five years of experience in the manufacturing, installation and servicing of hypochlorite generation equipment. Advancements in system safety and ease of operation make MICROclor the overwhelming choice for facilities. The combined benefits of the following unique features make MICROclor the most robust and durable system available today:

- Vertical/Multi Cell Configuration
- Direct Hydrogen Management
- Continuous Process Control
- Full Wave DC Power
- Compact Cell Design
- High-Velocity Electrolyte Circulation

#### VERTICAL/MULTI CELL CONFIGURATION:

MICROclor's vertical "V-Ray" cell arrangement is the most significant of the many features that distinguish it from the earlier generations of equipment.

The V-Ray electrolytic cells are configured in a vertical array and vented directly to atmosphere. This prevents the chance of over pressurisation by releasing all hydrogen directly from each cell. Other systems use the storage tanks as hydrogen separators which can contribute to excessive cell pressure and vibration in the discharge piping.

With Capacities of: 9-1088 KG per day chlorine equivalent. The MICROclor OSHG can generate Sodium Hypochlorite solution of 0.8% + 0.05% using a potable water supply and salt.

#### **Product Line**

Electro-Chlorination / generation systems - less than 1000 g/h OSH Generation systems - PSI MICROclor systems to 1076 kg/d



# **Dry Chemical Feed Equipment and Control**

We offer a variety of technologies for feeding and metering dry chemicals commonly used in the treatment of municipal and industrial water and wastewater.

Our extensive line of volumetric screw and belt-type volumetric and gravimetric feeders, feeder tank systems, lime-slaking systems and accessories can handle the most commonly used chemicals in the municipal water applications such as calcium oxide, calcium hydroxide, ferric sulfate, soda ash, potassium permanganate, aluminum sulfate, and carbon. Chemicals used in industrial processes include bleach, clay gypsum plastic pellets, pigments, and flour.





### **Product Line**

Series 32-050 and BA071 Volumetric Screw Feeders Series 31-165 Digital Weightbelt Feeders Series 35-050 Potassium Permanganate Feeders Series A758 Lime Slaker Systems



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