

SEVERN

TRENT

SERVICES

Severn Trent Services Drinking Water Solutions

End-to-End Water Treatment Solutions



Complete Solutions for Drinking Water Treatment

Severn Trent Services, one of the UK's leading suppliers of drinking water solutions, provides state-of-the-art disinfection, instrumentation and filtration solutions. The company has extensive expertise and experience to enable its customers to fulfil their requirements in providing clean water to their clients.

From river intake protection and abstraction control through to water storage and distribution, Severn Trent Services has it covered. We consistently deliver safe, effective and efficient solutions for our customers through world-renowned brands such as Capital Controls®, TETRA®, ClorTec®, MicroChem™, Advance™ and MicroDynamics™.

Our Solutions Include:

Product	Stage 1: River intake protection, abstraction control, water storage	Stage 2: Coagulation and flocculation	Stage 3: Filtration / Adsorption	Stage 4: Disinfection	Stage 5: Disinfection contact tank, sulphur dioxide, storage reservoir & distribution
MicroChem™2	pH, Dissolved Oxygen, Ammonia, Nitrate, Conductivity			✓	✓
Advance™ Gas Chlorination		✓		✓	✓
Advance™ Residual Analysers				✓	✓
ClorTec® Electrochlorination Systems		✓		✓	✓
Capital Controls® Chlorine Dioxide Generators				✓	✓
MicroDynamics™ Microwave UV				✓	✓
RMS Water Storage Management					✓
TETRA® LP Blocks Rapid Gravity Filter Floors			✓		
Bayoxide® E33/SORB 33® Arsenic Removal Solutions			✓		



Disinfection Solutions

Our comprehensive disinfection range includes products and services to suit all requirements from on-site generation of sodium hypochlorite, chlorine gas and chlorine dioxide through to ultraviolet disinfection technologies.

New Technologies

Recent developments by Severn Trent Services in disinfection include the new ClorTec® SCT Series – a small, compact, efficient and low cost method of generating up to 2kg/day of chlorine equivalent as 0.7% strength sodium hypochlorite solution.

MicroDynamics™ microwave UV is a revolutionary new technology for drinking water and wastewater treatment. With no electrodes, MicroDynamics systems offer excellent bulb life and the ability to switch systems on and off as required. Available as closed vessel units for drinking water treatment, MicroDynamics microwave UV disinfection is an efficient and effective solution for water companies.

Severn Trent Services has recently introduced a new mini chlorine dioxide generator, the Capital Controls™ GS4000, which is an ideal solution where low dosage rates are required. Generating from 2g/day to 10g/hour, the system is ideal for a range of applications including THM reduction, iron and manganese removal in potable water treatment and *Legionella* control in cooling water and building services industries.



ClorTec® SCT Electrochlorinator



Capital Controls™ GS4000
Chlorine Dioxide Generator



ClorTec® Electrochlorination Systems

ClorTec® on-site sodium hypochlorite generation systems offer unparalleled safety and cost efficiency. ClorTec® systems generate typically 0.8% sodium hypochlorite by combining three common consumables: salt, water and energy.

- :: No need for bulk storage or transportation of hazardous chemicals
- :: Consistent strength that is not subject to decay or by-products
- :: Optimised systems reduce whole life cost
- :: Clear electrolytic cell – initial maintenance by visual inspection



ClorTec® MCT Electrochlorinator

Gas Feed Chlorination Systems

Our complete range of Capital Controls® gas feed disinfection equipment includes chlorination, dechlorination/sulphonation, ammoniation and recarbonation equipment.

- :: Worldwide leader in the field with over 40 years experience
- :: Full vacuum system capability
- :: Supplied to industrial and municipal sectors with long-term contracts in the UK
- :: Cost-effective solutions for disinfection



Duty/Standby Chlorine Gas Feeder Systems

MicroDynamics™ Microwave UV

MicroDynamics™ microwave UV represents the latest generation of ultra-violet disinfection technology. The unique patented electrodeless design ensures longer bulb life, easy maintenance and effective treatment of drinking water for a range of parameters.

- :: Three-year lamp warranty
- :: Easy maintenance
- :: Low whole life operating costs
- :: Unlimited on/off capability
- :: Open channel or closed vessel designs available

Chlorine Dioxide Generators

Capital Controls® chlorine dioxide generators are designed to produce and consistently maintain a product yield greater than 95%, making them ideal for drinking and process water treatment.

The two-chemical system utilises commercially available concentrations of hydrochloric acid and sodium chlorite.

- :: Safe on-demand production of chlorine-free chlorine dioxide
- :: Simple, reliable operation
- :: Fully automatic or manual option
- :: Low maintenance
- :: Ranges in size from 2g/day to 10kg/hour

Cyl-SAFE and Drumsafe Automatic Shutdown Systems

The Capital Controls® Cyl-SAFE II system has been designed to satisfy the needs of users of gas cylinders with respect to Health and Safety concerns regarding the safe isolation of potentially dangerous gas cylinders. The Cyl-SAFE II system is the only shutdown system that is torque limited. This ensures that cylinder valves are protected from damage from the ratchet assembly.

RMS™ Water Storage Management

RMS™ is a proven technology which is designed to eliminate water quality problems with water storage systems such as service reservoirs, water towers and storage tanks.

- :: Accurately controls disinfection of water and ensures consistent water quality
- :: Can be used in large or small-scale systems
- :: Removes risk of failing to achieve disinfection quality standards
- :: Prevents stratification or poor mixing in service reservoirs



Electroded vs Electrodeless Lamps



Closed Vessel Drinking Water UV System



Cyl-SAFE Automatic Shutdown System

Capital Controls® – Type VEGA™ Gas Chlorinator Vent Exhaust Gas Arrestor

The Capital Controls® Type VEGA™ is a disposable chlorinator vacuum regular vent gas arrestor designed to treat occasional chlorine gas vent releases that normally accompany chlorine container changeovers. The VEGA will prevent nuisance tripping of chlorine room air sensor alarms; help compliance with local restrictions against exhausting chlorine fumes outside of a building; keep the building free from chlorine related acid corrosion.

Filtration Solutions



With over a decade of experience in drinking water filtration, Severn Trent Services' Bayoxide® E33 arsenic removal media successfully enables users to meet the Drinking Water Directive limit of 10µg/l. Our clean water filtration solutions also include TETRA® LP Blocks – a reliable design of dual parallel lateral filter floor offering efficient backwash, increased run times and ultimately lower operating costs.

TETRA® LP Blocks



TETRA® LP Block

The TETRA® LP Block from Severn Trent Services is a proven design of filter floor for Rapid Gravity Filter and GAC filters to offer superior distribution of both air and water, either separately or concurrently. The system is NSF61 and UK Secretary of State approved and also has certification for use with potable water applications in other European countries.

Severn Trent Services' expertise extends to new filter design through to retrofit of existing filters.

- :: Excellent distribution of backwash air/water – more efficient bed cleaning and reduced filter operating costs
- :: Ideal for use as a pre-treatment solution for desalination applications in advance of reverse osmosis membranes
- :: Lightweight and robust design reduces installation costs
- :: No moving or wearing parts
- :: Profile design mean less joints and grout are required

Arsenic Removal Solutions



Bayoxide® E33 and SORB 33®
Arsenic Removal Solutions



Bayoxide® E33 is a high capacity arsenic removal media from Severn Trent Services. Certified across Europe for drinking water applications, the ferric oxide adsorptive media is capable of reducing arsenic levels to below 5µg/l. The process is known as SORB® 33.

- :: High capacity for arsenic removal giving good media life
- :: Removes both As (III) and As (V) to below 5µg/l
- :: Efficient adsorption with hydraulic features – minimising capital costs
- :: Minimal head-loss build-up – minimising pumping costs and maximising media life

Instrumentation Solutions

Severn Trent Services offers state-of-the-art measurement solutions to provide accurate measurement of a variety of parameters.

MicroChem™2

Specifically designed for drinking water and wastewater treatment plants, one MicroChem™2 is able to measure up to three of the following parameters:

:: Chlorine	:: Bromine	:: Conductivity
:: pH	:: Ammonia	:: Dissolved Oxygen
:: ORP	:: Turbidity	:: Temperature
:: Ozone	:: Chlorine Dioxide	

Key Features

- :: Multiple measurement capability with a single electronic unit
- :: Integrated control capability
- :: Field expandable
- :: Excellent reliability
- :: Multiple languages / Password protected menus

Series CL1000B

Severn Trent Services' CL1000B Bufferless Residual Analyser represents the latest advance in residual analysis. Bufferless operation removes the growth and odour problems often associated with the acetate buffer waste from chlorine instruments.

- :: Reduced cost of ownership
- :: Optimum accuracy, excellent stability and sensitivity to 1ppb
- :: Onscreen instruction and self diagnostics
- :: No need for frequent recalibration



MicroChem™2 Analyser



CL1000B Bufferless Chlorine Analyser



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