





Global Water partners with municipalities, consulting engineers and civil contractors to deliver world class innovation and achieve excellence in every aspect of water and wastewater collection, pumping and treatment.





Global Water's professional team work closely with clients to establish expectations and develop a complete solution, offering the greatest efficiency and lowest operational costs over the life of the system.

Global Water offers clients the benefit of our in-house chemical process and mechanical engineering capacity, complemented by our efficient project management and cutting-edge product innovation, to provide the ultimate water solution.









Global Water's end-to-end delivery model streamlines procurement, manufacturing, testing and transportation services to quickly deliver to clients a complete system which meets strict quality requirements. Global Water is there for clients after the system has been installed, providing a range of services including system optimisation, technical training for staff, ongoing product support and preventative maintenance.





#### Maintain

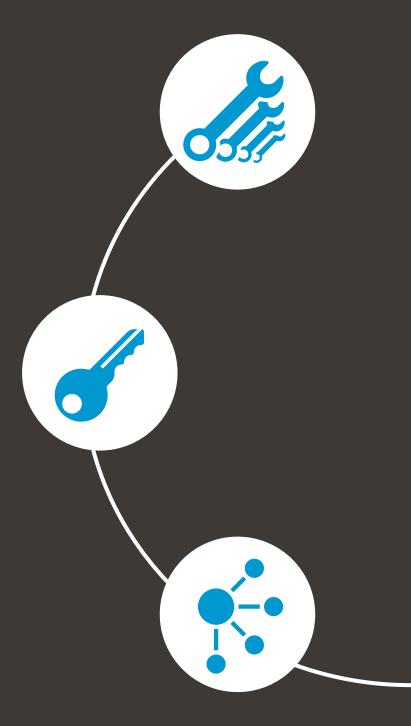
Global Water product warranties are serviced by a network of accredited technicians and authorised agents. We provide preventative maintenance through regular servicing by our experienced personnel, who can carry out periodic system analysis and cleaning regimes, protecting and extending the life of your asset.

#### Commission

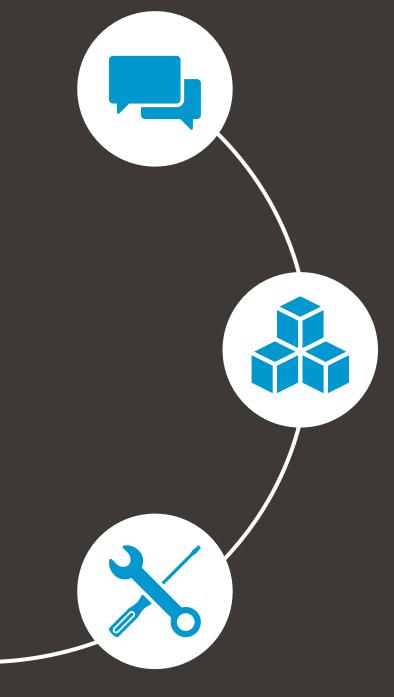
We give our clients the opportunity to witness the factory acceptance testing and performance checks under the supervision of our engineering personnel and safety officers. Once the system has arrived at your site and the electrical and plumbing connections have been completed, we analyse water quality, flow rate and pressure measurements and carry out fine tuning adjustments on mechanical and electrical components.

#### Manage

Our dedicated project managers establish a site construction program that details critical time lines and milestones for your project. The project management team will schedule meeting dates with all relevant stakeholders and operators to ensure system compliance and timely project delivery.



# our holistic approach



## **Engage**

We approach every project with open discussions, site visits and chemical water analysis. We also conduct extensive asset audits to establish a thorough understanding of our clients' needs and expectations and formulate a clear project brief. Armed with this information, we can then present the optimum process selection, and our process and mechanical engineering departments will prepare a full technical review.

#### Design

The Global Water engineering team will examine every system component with whole-of-life costs in mind. Our detailed design submissions include overall functionality with civil, mechanical, hydraulic and electrical CAD drawings. We bring together operational innovations that reduce clients' operational costs and assist to minimise health and safety risks on site.

#### Manufacture

For more than 35 years, Global Water has been committed to manufacturing superior quality products with accreditation to strict ISO 9001 standards and exhaustive quality audits. We carry out all fabrication and hydraulic testing in our new state-of-the-art, controlled factory environment, which is subject to regular workplace safety and quality audits, ensuring exact specifications are achieved prior to delivery.



# **Products**



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## **Potable Water**

## MemX™



# Growing population, poor quality water sources and dry conditions are all placing increasing pressure on potable water supplies.

MemX<sup>™</sup> water treatment plants are optimised to ensure high-quality drinking water from fresh, brackish and salt water sources. We are committed to providing safe and reliable water quality for municipal communities, the agricultural sector and industrial applications. Global Water treatment processes range from media filters through to micro, nano and ultrafiltration or reverse osmosis membranes that provide a comprehensive barrier to particles, salts and microorganisms. MemX<sup>™</sup> also covers dosing systems for the addition of fluoride, pH correction and the precipitation of heavy metals.

Global Water is helping our clients to preserve water through highly efficient stormwater and wastewater reuse filtration technologies which contribute to sustainable development in remote regions and areas that are affected by rapid urban growth and drought. As a leading provider of innovative water solutions, Global Water has the experience, resources and expertise to partner with municipal and industrial customers to develop and expand environmental and community outcomes.

Turn-key packaged plants can be containerised, skid mounted or built on-site with telemetry options including fully automated remote control allowing adjustments online, reducing operating costs.





# **Pump Stations**

# EnviroLift<sup>™</sup> concrete



The EnviroLift™ Concrete Pump Stations are high strength concrete mould-form precast units offering the highest levels of engineered quality, reliability and WHS safety design.

The one-piece base & sludge batter and patented integral valve chamber are all hallmarks of design innovation and ingenuity. Boasting reduced installation costs, the smallest footprint along with WASA and regulatory approvals, the EnviroLift™ concrete pumps stations are the first choice by clients across the nation.

### The prefabricated advantage

Global Water has been actively engaged in developing a wide range of safety focussed alternative systems to suit the many and varied demands of the Australian market, where site conditions will not allow the gravity disposal of raw sewage, effluent, trade waste and stormwater.

Global Water is able to provide on-site commissioning of the pump station after installation is completed. Full after-sales backup is provided with a preventative maintenance program available on request.

The Global Water EnviroLift™ precast concrete packaged pumping stations have been developed for use in multi-dwelling residential installations, commercial and industrial developments and common effluent schemes where twin pumps or larger storage volumes are required.

The EnviroLift™ precast concrete pits are a unique, mould-formed chamber with a smooth, hard, impervious finish, specially designed to give superior life by combining high strength (50 MPa) sulphate resistant cement and calcareous aggregate. Internal coatings or polyethylene linings are available as options.

Packages are approved by relevant water authorities around Australia, and comprise a precast concrete holding tank in a range of sizes, single or dual submersible pumps with either a built-in float switches or control panel operated, and all internal pipework and valves. The unit can be supplied with pump stands and valves pre-assembled for simple on-site installation.

Pits can be supplied with integral valve chambers, fully sealed against ingress of liquid or gas, an innovation which further reduces capital cost, space requirements and on-site labour.

A complete range of pumps and specialised control panels are available to suit almost any requirement from effluent and sewage through to stormwater and trade waste.

The use of submersible pumps results in a more aesthetically pleasing installation with greater flexibility of location, significantly reduced noise and odour pollution, eliminates pump priming problems, and minimises the risk of vandalism.



# **Pump Stations**

# EnviroLift<sup>™</sup> fibreglass

# DrainAce<sup>™</sup> poly



The EnviroLift™ Fibreglass Pump Stations are specifically designed for applications where a heavy-duty lightweight and corrosion resistant chamber is required.

These units are supplied as a complete one-piece prefabricated unit with internal equipment pre-fitted prior to delivery. This reduces the amount of site work to final plumbing and electrical connections only, making this product perfect for remote townships, mining camps and corrosive effluent applications.

Global Water packaged fibreglass pumping stations have been specifically designed to cater for applications with the need for a lightweight, corrosion resistant and cost effective solution. Fibreglass stations are ideal for remote applications or where limited crane access is available and are fully engineered to handle ground pressures without external support.



The DrainAce™ Polyethylene Pump
Stations are designed as a heavy duty
lightweight prefabricated pump station
combining a heavy duty polyethylene
chamber with a wide range of pump and
control options to provide an compact,
economical and easy to install pump
station for residential and commercial
sewer, effluent and stormwater
applications.

The DrainAce<sup>™</sup> pumping chambers are also used as neutralisation and buffer/dilution chambers in trade waste treatment systems and as stormwater detention and settling pits.

Polyethylene is a resilient light-weight material with excellent chemical resistance and is extremely strong. Holes can easily be cut for vent and conduit penetrations on site and inlet connections are moulded in.

A choice of cover options are available, including light duty hinged aluminium covers and light or heavy duty cast iron covers and hot dip galvanised grates.

A complete range of automatic or manual pumps are available to suit any application and they can be configured in single or twin pump arrangement.

## **Pump Station – Controls**

## Kwikstart™

## Sulzer PC441 controller



The Global Water range of Kwikstart™ alarm panels have been developed to provide a level alarm warning in septic tanks, water storage tanks, pump sumps and dump pits.

Global Water is able to supply and commission complete control systems including all switchgear and telemetry equipment to provide complete station control.

Kwikstart™ control systems are designed and manufactured to the highest standard to achieve optimum protection of equipment, reliability of service, fault diagnostics, operational ease and simplified maintenance procedures.



Used for control, monitoring or both, the Sulzer ABS pump controller PC 441 provides advanced but easy-to-use functions that can reduce service visits and increase the effectiveness of pumping stations.

The Sulzer ABS pump controller PC 441 offers many ways to reduce energy consumption, troublesome peak loads, downtime and tankering costs. Simple to install and operate, it provides both control and monitoring functions that are easy to combine according to your application needs. Designed primarily for municipal pumping stations, it widens the range of Sulzer ABS systems for control and/or monitoring.

The pumping controller is mainly designed for use in municipal wastewater pumping stations. Its many advanced features minimize operational costs and increase the availability of pumping stations and networks throughout their entire life cycles.

Users can operate the PC 441 as a standalone monitoring unit. Alternatively they can run the AquaProg configuration software on a PC connected directly to the local service port or remotely, such as via modem. Settings are password-protected at two levels in order to avoid unauthorised or accidental changes.

# **Wastewater Treatment** PODZ



The modular, floating PODZ system provide the most cost effective solution for covering and treating gaseous emissions emanating from industrial tanks, ponds, basins and lagoons.

The PODZ system minimises odours and greenhouse gas emissions with each individual unit containing its own replaceable filtering medium that's tailored to the specific needs of the application to ensure maximum efficiency.

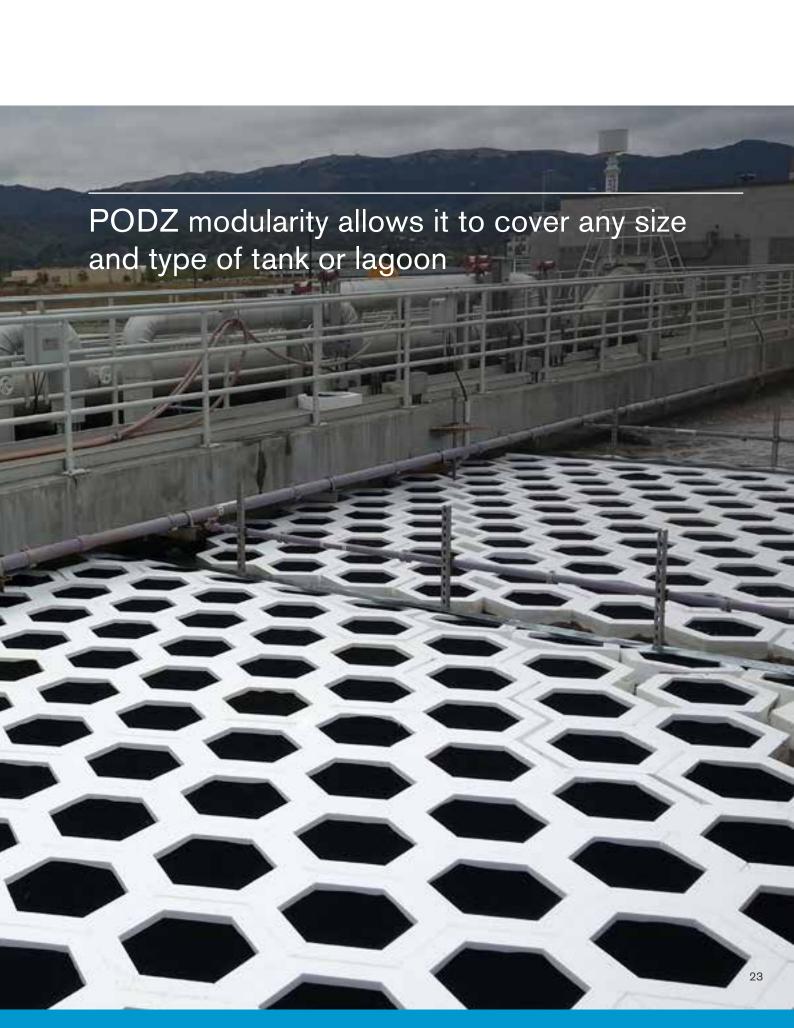
The PODZ modularity allows it to cover any size and type of industrial tanks, ponds, basins and lagoons installed, creating a flexible and nonintrusive cover on the water's surface.

The investment and operating costs are just a fraction of conventional odour treatment. Additional engineering and infrastructure are not required.

## **Applications**

- lagoons
- tailing ponds
- activated sludge
- aerated basins
- evaporation ponds
- open-air tanks
- clarifiers
- anaerobic basins
- water tanks
- leachate ponds
- piggery basins





## **Wastewater Treatment**

### **Haigh Pipeliner sewage macerator**

The Haigh Pipeliner disintegrates solids found in raw sewage, wastewater sludge, industrial effluent and food waste, protecting downstream pumps, mixers and other mechanical equipment from clogging and excessive wear.

This macerator has very low maintenance costs as it consists of a single moving tungsten carbide cutter that rotates against a hardened shear plate offering the unique ability of being able to chop up hair and stringy fibres in the waste stream.



#### **JWC Muffin Monster**

With three different sizes of in-line grinders, Mini Monster, Muffin Monster and Macho Monster, we can ensure your sludge process works at maximum efficiency by shredding rags and large solids into particles that easily pass through sensitive equipment like sludge pumps, spiral heat exchangers, belt presses and centrifuges.

Our grinders also homogenise sludge for efficient dewatering and we have made the full range of JWC products and treatment systems available through Global Water.



#### Sulzer Disc diffuser system

The Nopon disk diffuser system builds up piping, pipe connectors, and diffusers. Mechanical connectors as well as factory pre-assembled elements enable fast and easy installation and maintenance. Five alternative diffuser models are available, either with a rubber membrane or a porous polymer disk.

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## **Wastewater Treatment**

#### **Sulzer XRW**

The most energy efficient mixer for agitating, blending, mixing, dissolving and the suspension of solids in wastewater treatment plants.

The XRW series includes several submersible mixers with integral motors ranging from 0.8-25 kW (1.1-34 hp)

Sulzer offers highly efficient direct-driven and gear-driven mixers with either standard or explosion-proof motor enclosures.



#### Sulzer XSB

The complete answer to low-speed, highly energy efficient submersible mixing in a wide range of applications in industry and municipal treatment plants.

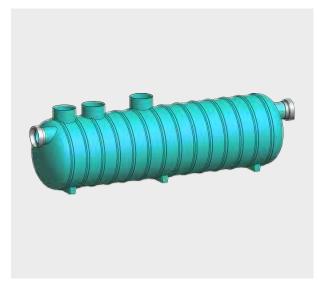
This slow-running submersible unit is available with integral IE3 premium-efficiency motors ranging from 1.0-7.5 kW (7.4-10.1 hp) for gentle circulation and mixing of fluids in wastewater treatment plants and industrial applications.



## Fibreglass in-ground storage chamber

These fibreglass water retention systems are based around a filament wound glass reinforced plastic underground storage tank. Rainwater is collected from roof areas or hard-standings and diverted through a filter chamber into the underground storage tank. The filter unit separates leaves and debris.

A wide range of fibreglass underground tanks are manufactured with reference to BS4994 structural design, which is a world class standard for FRP, ensuring strength and stability.



# Submersible Pumps

## Sulzer XFP

## Sulzer Piranha



Global Water offers the complete range of Sulzer XFP wastewater pumps to satisfy the growing demands of the wastewater industry.

The Sulzer submersible sewage pump range have advanced, premium efficiency IE3 motors which greatly reduce pump running costs. Based on Computational Fluid Dynamics (CFD) research and testing, a truly ground-breaking range of Contrablock Plus impellers has been engineered.

The advanced, non-clogging and hydraulically efficient Contrablock impeller features unsurpassed rag handling and the large solids passage provides the ultimate in blockage free operation.

The XFP range has a fast and easy wear plate tolerance adjustment system that negates the need to dismantle the pump. There is a cable plug system allowing pumps to be removed without the need to disconnect wiring on selected models.



Piranha submersible pumps provide effective and economical dewatering using small-diameter discharge lines in private, municipal, and industrial areas.

Piranha sewage pumps with shredding action provide reliable and economical discharge of effluent under pressure in private municipal and communal schemes. They offer an economical alternative to gravity sewers and improve environmental protection for pressurised sewer systems.

# Submersible Pumps

# Sulzer MF

# Sulzer Dewatering



The MF is a compact submersible pump with large solids passage for reliable and effective dewatering of buildings and sites.

The Sulzer MF 154-804 features a vortex impeller as well as a large free passage for excellent solids handling. This compact, robust pump features a water tight, fully flood proof cast iron motor and a hydraulics section.

All units are available in either automatic or manual versions, and have the capacity to handle grey water with temperatures up to 40°C (60°C intermittent duty). All MF pumps are fitted with choke-less impellers to enable the handling of large sphere-size solids up to 65 mm in diameter. Larger flow rate units are available on request.

Both single and three phase units have in-built overload protection and are fitted with 10 m motor cables.

Pumps can be supplied in either free-standing configuration for installation in polyethylene pits, or auto-coupling pedestal mounted with guide rails for concrete pit installations.



For construction and mining dewatering applications, where weight and portability is a key factor, Sulzer is able to supply a range of light weight robust products type ABS to meet the requirements of these applications.

Submersible drainage pumps XJ 25-80 are ideal for pumping water and dirty water mixed with soil. When delivered to a site you can start using them right away. Pumps with built in AquaTronic unit will always have correct direction of impeller rotation, ensuring peak performance and reduced wear.

## **Chlorination**

# Klorigen

Global Water has partnered with Electrolytic Technologies to bring a ground-breaking chlorine generation system to the Australian and New Zealand water industry.

Klorigen plants safely and economically produce high purity 12.5% sodium hypochlorite, chlorine gas and sodium hydroxide from food grade salt that is low cost, safe to transport and is readily available from multiple sources.

This advanced chlorine generation technology eliminates the safety concerns pertaining to the storage and use of pressurized chlorine and the cost, supply and degradation issues associated with bulk sodium hypochlorite. Klorigen has specifically been designed for municipal and industrial water treatment applications with a production capacity range from 200 to 20,000 kg of chlorine per day.

The Klorigen gas generation system is a direct replacement for pressurised chlorine gas yet eliminates the potential for toxic gas releases and the risks to public and operators, renders existing major hazard facilities safe, has reduced maintenance requirements and enables clients to withdraw off the national security register. Membrane-grade sodium hydroxide is produced as a co-product giving an added benefit to clients already purchasing caustic or lime for pH elevation or primary solids treatment in wastewater applications.

The Klorigen sodium hypochlorite generation plants allow the use of existing infrastructure that is dosing high strength 12.5% liquid. Storage is not required giving users the benefit of no chemical degradation, it eliminates dangerous chemical unloading providing OHS improvements and substantial operational cost savings are offered.

Klorigen systems are fully automated and are compatible with several SCADA systems for remote monitoring and control. They offer low maintenance, minimum operator intervention, multi-year warranties and maintenance contracts available.

Global Water heralds Klorigen on-site generation technology as the most innovative solution available in today's marketplace for chlorine dosing, and is proud to make this solution available to its business partners.





## **Chlorination**

# Chlorine dosing

# Global Water chemical dosing systems include control systems, storage tanks, pumps, valving and accessories.

Our qualified engineers select metals, elastomers and plastics materials that are fully compatible with the required chemicals.

These chemicals can include some of the following:

- sodium hypochlorite
- chlorine gas
- sodium hydroxide (caustic soda)
- fluoride
- sodium metabisulfite (SMS)
- sulphuric, hydrochloric and citric acid
- alum
- lime
- · ferric chloride

To ensure chemical dosing system longevity and low maintenance, it is important to select the correct chemical dosing pump type for each application.

We offer several types of pump technology:

- smart digital solenoid diaphragm
- mechanical and air operated diaphragm
- progressive cavity (screw, helical rotor)
- peristaltic (tube and hose)
- magnetic drive centrifugal
- piston and piston activated diaphragm

Virtually all water treatment processes require the addition of chemicals to produce safe water for drinking or discharge to the environment by coagulating, oxidising, disinfecting and pH neutralising. Global Water can assess your chemical requirements for a turn-key chemical dosing system. We design, manufacture and offer site installation, operator training and servicing in all types of dosing equipment.





# e-Boost™ pressure booster



The Global Water e-Boost™ pressure booster range is the state-of-the-art completely integrated booster system providing ultimate performance and reliability. Fully automatic, the modular design allows the flexibility of adding additional modules as required.

Giving instant pressurised discharge from shut-off through to maximum rated capacity, the e-Boost™ integrated process controllers monitor demand and seamlessly pace system output, adjusting pump speed and varying the number of duty pumps to ensure consistent constant pressure.

Cascade control logic ensures running hours are evenly distributed across the whole system, and in-built system monitoring including a feed-back loop ensures maximum reliability and support.

#### **Options**

- rainwater utilisation system
- MemX<sup>™</sup> filter systems
- Kwikstart<sup>™</sup> controls with BMS option
- pressure accumulation tanks



# Fire pump systems

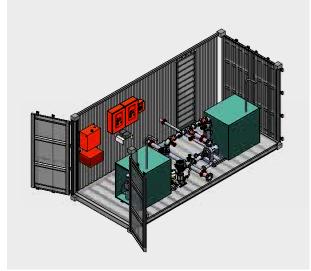


## Developed to meet the demands for fully-automated, turn-key packaged systems that exceed fire industry standards.

Global Water fire protection systems are available in a single or dual arrangement, with electric and/or diesel drive configurations.

These fire protection water boosting systems are constructed for hydrant, sprinkler and drencher applications. Options include containerised units, heavy-duty skid bases, integrated hose reels and jacking pumps.

Global Water provides design, engineering, installation, commissioning, training and maintenance services and support.





## Groundwater extraction



Global Water offers a unique turn-key system approach that integrates civil, mechanical and electrical disciplines on groundwater extraction projects which provides maximum value to clients.

We have experience in engineering multiple bore pump water supply systems, transfer pumping, panel tank storage systems with optional solar powered controls for municipal applications.

Global Water has a long history of partnering with the mining sector completing automated dewatering bore fields, standpipe tanker refuelling systems water supply pipeline pumping systems through to diesel driven pumps.

We work with private and government clients on water reuse projects that require the supply and installation of borehole pumps and integrated water treatment systems for groundwater injection into deep aquifers and underground streams.

The Global Water engineering team will work with your site specifications and installation requirements to provide a tailored, turn-key solution for your next groundwater extraction or injection project.





## Surface water extraction



Global Water can provide floating or land based surface water extraction for water supply, mine dewatering, effluent pond discharge and fire fighting applications.

Surface water pump systems are selected to handle virtually any types of fluid and can be configured in electric motor or diesel engine drive. We offer to visit your site to assess your specific pumping requirements to ascertain the optimum solution.

Surface water extraction projects can be designed with floating pontoon systems, skid and trailer mounted pumping systems, or alternatively, wet or dry well pump stations.

Global Water offers a complete end-to-end offering for your surface water extraction project with full design, manufacturing, installation, commissioning and servicing by our highly trained engineers and technicians.

Our engineering team will team work with your site specifications and installation requirements to provide a purpose built surface water extraction system, tailored for your river and lake raw water extraction and pipeline pumping needs.





# **Packaged Products**

## **DrainAce**<sup>™</sup> Compact

The DrainAce<sup>™</sup> compact pump station was developed to meet the growing need to handle sink and basin waste in situations where gravity discharge is not feasible.

Prime examples are restaurants, basements of high-rise buildings, laboratories, doctor and dental surgeries, construction sites and portable building facilities. Units are suitable for greasy waste discharge to grease arrestors and will handle up to 40°C from dishwashers and glass washing machines.



## **DrainAce™ Sump**

DrainAce™ sump pump packages combine a precast glass reinforced cement (GRC) sump with a range of compact automatic sump pumps. Designed for low flow rate applications such as sullage, septic effluent, stormwater, basement drainage, industrial waste and condensate drainage.

GRC is a combination of glass fibres and cement mortars resulting in a superior quality material. Its extreme toughness and rigidity has a strength-to-weight ratio far beyond other cement based materials.

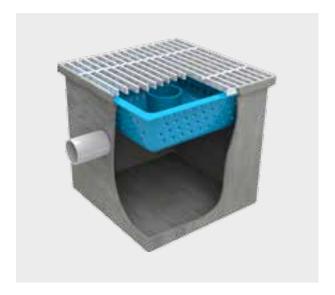
Cover options available are light service GRC, light or heavy duty grates and cast iron covers.



## **Gross Pollutant Trap**

This gross pollutant trap (GPT) is the most economical solution for the removal of floating debris and silt from stormwater run-off or washdown water. GPT pits replace conventional stormwater catchment pits and protect the environment from gross pollutants including litter, bark chips, sand and fine silt.

This primary, at-source treatment device can be used to protect pump stations, stormwater treatment devices and detention tanks. Multiple units can be installed to ensure effective site coverage and minimise the maintenance requirements of downstream systems.



# **Packaged Products**

## **Stormwater Bypass Interceptor**

The SBI720 stormwater bypass interceptor is an at-source treatment device that not only removes gross pollutants and fine silt from stormwater run-off, but effectively captures light liquids such as oil and grease.

Catering specifically for smaller catchment areas, the SBI720 enables specifiers and users alike to meet the requirements of council and environmental authorities.



#### e-Boost™ Hot Water Circulator

The e-Boost<sup>™</sup> packaged hot water circulation systems are a range of automated twin pump circulation packages designed to reduce energy consumption and ensure consistent hot water supply.

Significant reduction in overall costs is achieved by simplifying site installation and eliminating the need to co-ordinate various trades.



## e-Boost™ Rainwater Utilisation

These harvesting units are manufactured for stormwater and rainwater reuse in commercial applications. The pressurised pumping system will automatically change to mains water on low storage tank level or if the electricity supply fails.

Harvesting units include a galvanised steel base with a powder coated lockable enclosure. Available with submersible or above ground pumps with filtration and disinfection options. Designed for easy installation on-site and fully tested prior to despatch.



# **Packaged Products**

#### **Grease Muncher**<sup>™</sup>

The ultra compact Grease Muncher™ reduces maintenance and saves costs by combining conventional underflow grease arrestor design with a unique biofilter unit. This dramatically reduces the grease and oil content in the discharge through microbiological processes.

Designed in the USA, it has undergone extensive field trials in Australia and has been approved by SA Water for 1000 L/hr discharge.



#### Poly in-ground storage chamber

The modular Global Water storage system has a standard capacity range from 5000 L up to 30,000 L (larger on request), they can also be connected in series to give larger storage capacities.

These innovative and robust storage systems are made from Alkatuff® LL711UV low density polyethylene, which is a Hexene (LLDPE) material specifically designed for applications that require excellent chemical resistance, stiffness, toughness and provides prolonged outdoor protection in Australian conditions.



# **Contact Us**



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