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Halgan Environmental

has a diverse range of products to collect, treat, hold and release water providing suitable solutions and supporting environmentally friendly urban design.

Australian Made

We are proud that the production and manufacturing of our water treatment products are located in Australia, using Australian parts and labour.

Our Vision

We are committed to the continued growth of Halgan Environmental with our research and development team working along with local authorities, research and education institutions, to further expand our product range as per industry and environmental needs, in order to contribute to a more sustainable future.

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Applications

- Abattoirs
- Asphalt Plants
- Bakeries
- Beaches and Parks
- Biogas Plants
- Brewing
- Camp Sites
- Car Parks
- Catering
- Chemical Plants
- Commercial Car Wash
- Commercial Zones
- Dairy
- Data Centres / Substations
- Domestic Wastewater
- Fisheries
- Hopitals
- Hospitality
- Industrial Manufacturing
- Industrial Warehousing
- Mechanical Workshops
- Mining
- Municipal Projects
- Nursing Homes
- Petroleum Operations (Fuel Stations, Recycling Plants)
- Pharmaceutical Manufacturing and Research
- Power Stations
- Pre-retention Treatment
- Recreational Grounds
- Refineries
- Road Side Drainage
- Shopping Precincts
- Transmission Stations
- Wastewater Treatment
- Wind Farms

Our **Services**

Halgan Environmental provides a complete sustainable environmental treatment end-to-end solution from design assistance and manufacturing to maintenance and servicing of our wastewater and stormwater solutions.

Stormwater Treatment:

Gross Pollutant traps

The Halgan Environmental range of Gross Pollutant Traps (GPT) is designed to capture litter, debris, pollutants, surface oils, hydrocarbons and other suspended contaminants.

The captured contaminants separate through deflection from our Continues Separation Screen (CSS) technology. This separates the contaminants from the stormwater to hold and capture using the inbuilt storage and submerged outlet for greater hydrocarbon catchment.

Other models are also available not featuring a CSS, in order to capture suspended solids and heavy sediments, where floatables are not a concern.

The Halgan GPT is designed to treat flow rates up to 80 litres per second (LPS) and can fit pipe sizes up to 630mm, depending on the specific application it is required for.

FEATURES:

- Floatables, litter and sediment capture - stormwater is treated, capturing gross pollutants and sediment in the storage sump
- High-flow bypass allowing flows above treatable to bypass the unit, which are clean stormwater, after first flush has delivered litter and sediment to the GPT unit
- Continuous Separation Screen
- Easy transport and installation as tanks are made from lightweight high-density polyethylene, allowing easy manoeuvring

SPECIFICATIONS:

- Treatable flow rates up to 80 litres per second (LPS)
- High density polyethylene light weight tanks
- Pipe sizes up to 630mm

APPLICATIONS:

- Council work depot
- Road side drains
- Car parks
- Shopping precincts
- Commercial zones
- Pre-retention treatment
- Recreational grounds
- Beaches and parks

Industrial Treatments:

Oil Water Separators

Halgan Environmental has developed a range of full retention Oil in water separators in order to capture oils, fuels and light liquid from a range of applications, as well as suspended solids and sediment for a wide range of flows.

These have been designed to take washdown from commercial and industrial applications as well as from stormwater, depending on the specific project, it's capacity can be calculated according to maximum treatable flow or the maximum volume of light liquids and sediment to capture.

Available in one or two chamber versions, designed as per European Standard BS EN 858.1. 2002, to produce a quality effluent of 5mg/L of total petroleum hydrocarbons. Treatable flow rates range up to 100 litres per second. Pipe sizes range from 100mm to 450mm.

FEATURES:

- Gravity operated unit, with no moving parts, allowing for easier maintenance
- Full retention separator – no bypass
- Coalescing element – allows small, light liquid droplets to coalesce and combine into larger droplets with greater buoyancy, in order to remain trapped in the separator to allow for a quality effluent of 5mg/L or less
- Hydraulically designed and engineered inlet which aides in calming and evenly dispersing the incoming wastewater while preventing fire and inflammable vapours passing through to the drainage system
- The specially designed outlet allows the cleaned wastewater to exit the separator, retaining the separated sludge, oils or fuels
- Single or dual chamber options available, depending on required treatment, in order to retain light liquid at different inflow rates, for retaining Total Suspended Solids (TSS), sediment as sludge, Oil and Grease (O&G) and Total Petroleum Hydrocarbons (TPH)
- Automatic closure device capable of shutting off the separator in cases where the accumulation of light liquid reaches a predetermined threshold, to prevent light liquids exiting the separator in case of a spill (optional)
- Oil and sludge sensors (optional)
- High-level alarm (optional)

APPLICATIONS:

- Mechanical workshops
- Refueling stations
- Vehicle washing bays
- Transmission stations
- Car detailing
- Refineries
- Service stations

Sediment Traps

Halgan Environmental sediment traps have been designed to reduce Total Suspended Solids (TSS) and capture heavy sediment and sludge in applications with high levels of Suspended solids and/or sediment.

These sediment traps are sized depending on the daily inflow of wastewater and consist of several chambers in succession, flowing by gravity, starting with a sedimentation chamber, fitted out with internal baffles designed to capture heavy sediment in the form of sludge along with a high percentage of total suspended solids and equipped with a Surge Control Device (SCD) that acts as a filter and as flow regulator for reaching the next chamber, which allows for additional detention.

Additional chambers can be added for pH dosing or any other pollutant correction required with the process, according to local authorities.

FEATURES:

- Gravity operated
- Surge Control Device (SCD)
- Blower/compressor feeding diffusers to deliver oxygen to the system (optional)
- pH correction dosing (optional)
- System is calculated for specific effluent pollutant targets
- Control panel/control switches (if required)
- High-level alarm to prevent overflowing (optional)

APPLICATIONS:

- Sediment detention zones
- Stormwater detention
- High sediment concentration sites
- Concrete plants
- Construction sites

Rainwater Harvesting:

Rainwater Tanks – Aqua 204

Rainwater tanks are a source of domestic and commercial water supply, that can significantly reduce demand on drinking water supplies, as tank water can be used to flush toilets, wash clothes, water the garden and wash the car.

Rainwater tanks collect stormwater run-off from impervious surfaces such as roofs. They are fitted with an overflow mechanism, meaning once a tank is full, the overflow is redirected into the stormwater drainage system. Capturing and reusing rainwater minimizes the impact on our water resources.

The Aqua 204 is a double walled High-Density Polyethylene (HDPE) unit which is robust, lightweight and can hold volumes up to 52,500 litres of rainwater. These tanks are designed to take the weight of 11.5 tonnes axle load limit when all installation conditions are adhered to. The material is also food grade so they can also be used for drinking water when installed with the correct disinfection equipment.

FEATURES:

- Sizes up to 52,500 litres
- Robust double wall HDPE design
- Food-safe material for water reuse
- Different connection sizes from 100mm to 630mm
- Multiple tanks can be installed using balance pipes

APPLICATIONS:

- Stormwater storage
- Retention tanks
- Detention tanks
- Water recycling

Commercial and Industrial Pumping Solutions:

Pump Stations

Halgan Environmental also does a range of larger size pump stations from 8,000 litres up to 20,000 litres in a vertical configuration, and 30,000+ litres in a horizontal configuration. These are below-ground units with different lid loading options.

They can also be dual or triplex packaged pumping stations fitted at factory with a control panel and alarm, with options for fitting vortex, drainage, cutter or grinder pumps.

Halgan Environmental can offer design assistance in order to specify the correct model required each time. We can also offer assistance in sizing the package pumping station in order to get the best performance out of the product.

FEATURES:

- Vertical or horizontal configurations
- Range of sizes up to 20,000 litres vertical and 30,000+ litres in horizontal configuration
- Dual or triplex options
- Control panels with Building Management System (BMS) option
- High level alarm (optional)
- Guide rails for servicing
- Valve box (optional)
- Controlled by pump switches or a pressure transducer
- Sewer, stormwater and grease pump models

APPLICATIONS:

- Large sewer pumping applications
- Pumping to mains connections
- Stormwater pumping
- Sewer pumping
- Grease pumping

Commercial Wastewater Treatment Systems:

Aerated Wastewater Treatment Plants

The Halgan Environmental Aquamax Aerated Wastewater Treatment Systems (AWTS) have been designed for large scale commercial, residential, industrial and processing applications.

They use Sequential Batch Reactors (SBR) technology which is a type of activated sludge process for the treatment of wastewater. SBR treat wastewater such as sewage or output from anaerobic digesters or mechanical biological treatment facilities in batches.

These systems are designed based on the particular conditions of the application required and come in a variety of layouts depending on the constraints of the project design.

The Halgan Environmental Aquamax AWTS can be designed in single or multiple tank solutions using primary treatment chambers, secondary treatment chambers, buffer chambers, SBR treatment chambers, disinfection chambers, clean water storage chambers and Ultraviolet (UV) chambers. These chambers can vary in volume and design and feature feed pumps, sludge return pumps, SBR treatment via surface or base aeration, clear water discharge pumps and UV disinfection via lamps.

The system is suitable for almost every biologically degradable wastewater, and can be tailored for specific pollutant discharge targets, depending on the expected pollutant loading received by the system, focusing on Total Suspended Solids (TSS), Biochemical Oxygen Demand over 5 days (BOD5), Coliform microorganisms (E. Coli).

FEATURES:

- SBR technology
- Pumps to transfer fluid in between chambers
- Blower/compressor feeding diffusers to deliver oxygen to the system
- Bacterial activity to reduce pollutants
- Reduction of BOD5, TSS and E. Coli
- Reduction of Total Nitrogen (TN) and Total Phosphorous (TP)
- UV disinfection system (optional)
- pH correction dosing (optional)
- phosphate precipitation (optional)
- Additional filtration (optional)
- System is calculated for specific effluent pollutant targets
- Control panel
- High level alarm to prevent overflowing
- Economy mode if the system is not used at full capacity
- Retrofit alternative into existing tanks

APPLICATIONS:

- Domestic and Municipal wastewater
- Bakeries
- Abattoirs
- Breweries
- Catering
- Hospitality
- Dairy
- Fisheries
- Camp Sites
- Nursing Homes
- Hospitals
- Biogas plants

HSED-BREW:

Aerobic Sediment Traps

Halgan Environmental sediment traps have been designed to reduce Total Suspended Solids (TSS), Chemical Oxygen Demand (COD) and 5 days Biochemical Oxygen Demand (BOD5) in applications with high levels of organic matter, which require a large amount of dissolved oxygen to enable bacteria to consume this organic matter.

These sediment traps are sized depending on the daily inflow of wastewater and consist of several chambers in succession, flowing by gravity, starting with a sedimentation chamber, fitted out with internal baffles designed to capture heavy sediment in the form of sludge along with a high percentage of total suspended solids and equipped with a Surge Control Device (SCD) that acts as a filter and as flow regulator changing the hydraulic path before reaching the next chamber, which allows for additional detention and for aeration processes to take place and foster bacterial development to consume organic matter and reduce the level of Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD).

The aeration chamber is fitted with diffusers that will deliver air from a compressor/blower located outside the tank via a hose. This will have to be configured depending on the amount of oxygen required with a combination of aeration and sedimentation periods.

The system must be sized according to the maximum expected daily inflow, in order to allow enough time for the sedimentation and aeration processes to take place and effectively separate and/or reduce the pollutants, allowing for pollutants treatment to the desired quality effluent.

Additional chambers can be added for pH dosing or any other pollutant correction required with the process, according to local authorities, before discharging the wastewater.

FEATURES:

- Gravity operated
- Surge Control Device (SCD)
- Optional blower/compressor feeding diffusers to deliver oxygen to the system
- Bacterial activity to reduce pollutants
- pH correction dosing (optional)
- System is calculated for specific effluent pollutant targets
- Control panel/control switches (if required)
- High-level alarm to prevent overflowing (optional)

APPLICATIONS:

- Bakeries
- Abattoirs
- Breweries
- Catering
- Hospitality
- Dairy

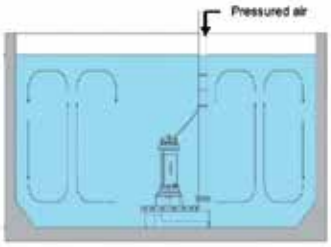
Aerators:

LBA® - Lowspeed Bottom Aerator

Radial Submerged Aerators from 7.5 up to 37 kW

Type LBA without channel extensions (7.5 to 15 kW)

Type LBAC with channel extensions (18 to 37 kW)



PRODUCT DESCRIPTION:

- Submersible gear motor
- Devices from 18 to 37 kW with channel extensions
- Pressured by an additional blower for aeration
- Very efficient mixing when the blower is switched off
- High oxygen transfer rates and optimal mixing capacity in deep basins

APPLICATIONS:

- SBR plants
- Activated sludge plants
- Aerobic digesters
- Flotation of greases, oils and solids
- Ozonation
- Digesters

HBA® - Highspeed Bottom Aerator

Radial Submerged Aerators from 0.75 up to 80 kW

PRODUCT DESCRIPTION:

- Direct drive submerged high efficiency aerator, available with or without channel extensions
- Self-aspirating or pressured by an additional blower
- High oxygen transfer rates and optimal mixing capacity in deep basins

APPLICATIONS

- Homogenisation and equalization tanks
- SBR plants
- Activated sludge plants
- Aerobic digesters
- Flotation of greases, oils and solids

Aerators:

HSA® - Highspeed Surface Aerator

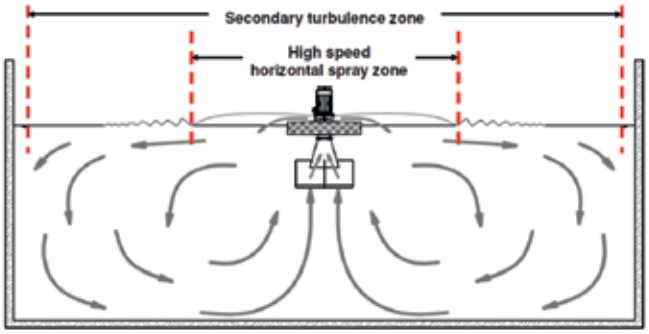
Surface Aerators from 3 up to 55 kW

PRODUCT DESCRIPTION:

- Direct drive high efficiency surface aerator with optimized centrifugal impeller
- Micro bubble formation due to optimal transfer of kinetic energy into the water surface
- High oxygen dispersion over large surfaces, optimized mixing capacity even in deep basins

APPLICATIONS:

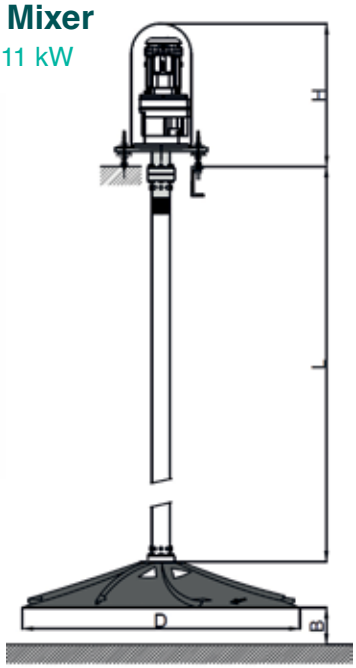
- SBR plants
- Activated sludge plants
- Aerobic digesters
- Aerated lagoons and basins
- Cooling of industrial wastewater with high temperature



Mixers:

LDM® - Lowspeed Disc Mixer

Vertical Mixers from 0.75 up to 11 kW



PRODUCT DESCRIPTION:

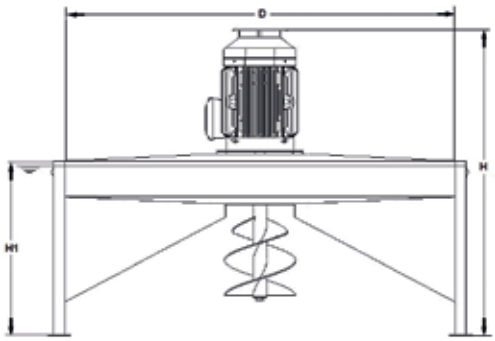
- High efficiency low speed mixer with special designed / optimized disc impeller
- 360-degree vertical mixing pattern
- Non-clogging impeller
- Optimal mixing capacity even in deeper basins

APPLICATIONS:

- SBR reactors
- Denitrification basins
- Activated sludge basins
- Equalization tanks
- Sludge storage tanks
- Digesters

HSM® - Highspeed Surface Mixer

Floating Surface Mixers from 3 up to 22 kW



PRODUCT DESCRIPTION:

- Direct drive floating high efficiency surface mixer with optimized axial impeller
- Intensive and high turbulence downdraft mixing, the vertical downward flow is deflected by the tank bottom to the sides generating a vertically upflow along the walls
- Ideal mixing pattern, leaving no dead spots or areas in the tank volume

APPLICATIONS:

- All WWT applications, municipal or industrial
- Storm water tanks (e.g. in refineries)
- Chemical industry, waters with high temperature
- Lagoons or sludge storage tanks
- Homogenisation & equalization tanks

Decanters:

CWE® - 025-P & CWE®-050-P

Decanters with pump for 25 m³/h resp. 50 m³/h

PRODUCT DESCRIPTION:

- Designed for flow rates of 25 m³/h resp. 50 m³/h
- Has to be used in case the discharge under gravity is not possible
- Two-part float with clear water extraction pump
- Guiding in the basin by 2 vertical stainless steel chains

APPLICATIONS:

- SBR WWTP up to 1,500 PT
- Sludge settling tanks
- Continuous surface water extraction
- General decanting purposes

CWE® - Clear Water Extractor

Decanters from <100 m³/h up to >1500 m³/h

CWE | CWE-P | CWE-EMC | CWE-EMC with vertical guiding system

PRODUCT DESCRIPTION:

- Designed for flow rates of <100 to >1500 m³/h
- Clear water weir based below an unsinkable float, including support legs and a guiding system
- Also available with electromechanically closing system (type CWE-EMC) and/or pump (type CWE-P)

APPLICATIONS

- SBR WWTP up to 15.000 PT
- Sludge settling tanks
- Continuous surface water extraction
- General decanting purposes

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