# **OdourPro**®

# Odour Management









OdourPro is Part of the Bulbeck Group Working Together, Adding Value, Delivering Certainty



# Up to 99.9% Odour Reduction Be Certain

We understand the challenges of wastewater and industrial odours and the problems they cause. Key to your success is forefront advice on a complete range of air treatment products and services. Chemical Dosing. Adsorption. Biological. Even Topical. More than just equipment suppliers. Problem Solvers, we provide you with everything you need for successful air treatment of odours.

25 years EXPERIENCE

# **OdourPro**®

# Reliable Odour Reduction Delivering You Certainty

A complete approach to air treatment for municipals and industry to manage any odour problem. You can be certain OdourPro will work with you to assist with successful operational outcomes.

- Investigation and monitoring
- Assessment of odour remediation options
- Design, manufacture, installation, operation of equipment
- Maintenance of Odour Control facilities

Choose professional support and powerful technology to deliver what you need when you need it for complete certainty. Reduce odours by up to 99.9% for the healthiest clean air.

Happier, safer communities. Protected.

# **Ongoing Support for Optimal Outcomes.**

Our people understand operational and community issues you might face while protecting communities from odour emissions. We have multiple odour management strategies specifically designed for different industries. We are specialists in our field with over 25 years of experience in clean air technologies.



**Liquid Phase**Chemical Dosing



**Air Filtration**Biological & Adsorptive



**Service**Consult & Monitoring



Neutralising Vapour & Misting



Reduce offensive corrosive odours Wastewater Industrial Food Processing Meat and Livestock

# High Performance. Low Maintenance.

High performance systems designed with the operator in mind; we offer simple to maintain, durable, efficient systems offering the latest in odour removal technology. Tailored custom odour control to meet your specific needs and to fit perfectly to site.

#### Everything You Need. One Point of Contact.

Whether an individual technology or a suite of complimentary solutions, OdourPro offers a complete range. We will design simple, end to end solutions based on your exact needs.

Benefit from a single point of contact - as well as the savings that come from using a single supplier.

# The Right Advice

Guaranteed Compliance

Satisfied Constituents

Reliable Technologies

Simple Installation

Ease of Maintenance

Asset Protection

Environmentally Friendly

**Durable Construction** 

Seamless Support

Odour Neutralising

Utility Safety

#### **Ferrous Benefits**

H2S Reduction

VOC Reduction

Proven Technology

Corrosion Reduction

**Asset Protection** 

Custom Design

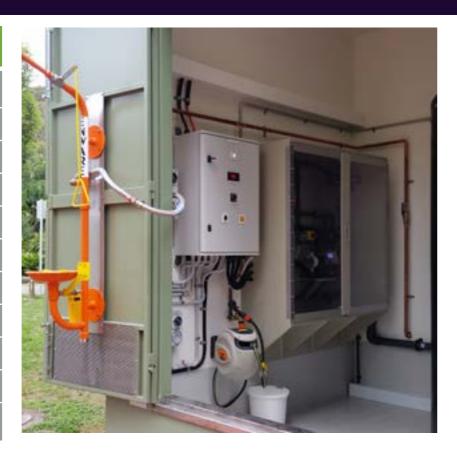
Maintenance Programs

Simple Process

Cost Effective

Versatile Odour Control

Scada Compatible



# Ferrous Dosing for Targeted H2S Removal

Get rid of up to 95% of odours with OdourPro chemical dosing systems

We supply, install and maintain Ferrogard dosing systems. Liquid dosing is a proven and effective way to control H2S to reduce odour and corrosion. Ferrous Chloride works to break down sewage odour by reducing the formation of H2S gas. Our dosing systems are tailored to customer needs.



# Application

Precision targeting of ferrous dosing for odour and corrosion control is well proven. Ferrogard dosing system facilitates efficient application. Automated dosing units range from 500L to 25,000L managing single pump stations or entire catchments.

#### System inclusions

- Dosing Pump
- Programmable PLC Control
- High/low Pressure Cut Out
- SMS Alarm
- Anti-syphoning Protection
- Calibration Cylinder
- Safety Shower and Eye Wash
- Chemical Proof Tank and Bund



# How can Ferrogard dosing be introduced into my system?

Ferrogard dosing can be introduced to your system in a variety of ways. Controls can be designed to suit customer requirements. The most effective way of introducing Ferrogard dosing into a sewer system is by dosing directly into the rising main. Rising main dosing allows for the dose rate to be regulated by the sewer flow.

Dosing mechanisms can be controlled by either a direct connection bewtween the OdourPro dosing pump controls and the sewer pump or by utilising an inline flow meter to communicate to the OdourPro dosing controls (commonly used for pressure sewer systems).

#### How does Ferrogard dosing work?

Most sewer odour problems are caused by the presence of hydrogen sulphide (H2S) gas. This is formed by the anaerobic breakdown of sulphates in solution to form sulphides. These sulphides then become available to bond with hydrogen to become H2S gas.

Ferrous Chloride (Fe 2+) reduces sewage odour by reducing the formation of H2S gas. As sulphides are released into solution the Iron (Fe2+) in the ferrous chloride solution immediately binds to the sulphide and removes it from solution by forming an insoluble precipitate. This reaction is irreversable and dramatically reduces the formation of odorous sulphur based compounds.

#### **Applications**

Municipal Wastewater | Industrial Water Treatment and Processing | Landfill | Food and Dairy Processing | Abattoirs and Tanneries | Solid Waste Management | Composting | Meat and Livestock

Chemical Dosing

**Bio Filters** 

Odour Neutralising

Utility Safety

Carbon Filters

**Chemical Dosing** 

# Magnesium Benefits

Odour Reduction

Corrosion Reduction

Proven Process

Eliminates Powder Handling

Asset Protection

Friendly to Bio Systems

Maintenance Programs

Simple Process

Tailored Dosing

Improved WH & S - non DG

Eliminates pH Control



# Magnesium Hydroxide Dosing for reduced H2S emissions

Effective and precision targeting of magnesium (MHL) dosing for odour and corrosion control is widely used for acid neutralisation and effective odour control. Magnesium dosing safely raises pH in sewage to retain sulphides in solution thus reducing H2S emissions. Magnesium enhances the removal of suspended solids and heavy metals.

# Species % 100 90 80 70 60 30 40 30 10 0 4 5 6 7 8 9 10 11 12 13 14 15

Applications
Municipal Wastewater | Industrial

#### How does MHL work?

Ideal conditions for biological conversion of dissolved sulphates to hydrogen sulphide occurs between pH 6.8 and pH 7.2. By introducing Magnesium Hydroxide to the sewage, the pH level can be raised above this, resulting in less hydrogen sulphide being produced.

The relationship between the solubility of H2S and sewage pH is shown in the figure opposite. Increasing the pH of the sewage from pH 7 to pH 8.5 increases the solubility of the hydrogen sulphide to over 97%. This increase in the solubility of hydrogen sulphide directly corresponds to much lower headspace H2S levels and therefore greatly reduced odours.



# **Application**

Magnesium Hydroxide dosing can be dosed directly into a flow stream, this can be a sewer manhole, pump station or rising main. The dose rate can be controlled in any number of ways, including linking directly to incoming flows or pump station operation. A range of automated dosing units from 500L to 25,000L manage single pump stations or entire catchments.

Dosing is friendly to biological systems, non-hazardous and can be dosed automaticallly.

# **System inclusions**

- Peristaltic Dosing Pump
- Programmable PLC Control
- Automatic Dosing Line Flush System
- Tapered Tank with integrated stirrer or sealed system for smaller applications

# www.odourpro.com.au

Odour Neutralising

#### Micro Nutrient Benefits

H2S Reduction

Corrosion Reduction

Simple Installation

Improved WH & S - non DG

Asset Protection

Preventative Process

Maintenance Programs

Cost Effective

No Mixing Required

Scada Compatible





# **Calcium Nitrate Prevents Septic Conditions**

Cut down odours and gas emissions by up to 90% with OdourPro calcium nitrate dosing units

Effective and precision dosing of calcium nitrate for odour and corrosion control biologically prevents wastewater progressing to a septic state thereby delivering a reduction in odour generation.

Calcium Nitrate is friendly to bio systems, non hazardous and can be dosed automatically.



# Application

Calcium nitrate automated dosing units are available to treat 500L to 25,000L managing single pump stations or entire catchments.

# **System Inclusions**

- Dosing Pump
- Programmable PLC Control
- High/Low Pressure Cut Out
- Sms Alarm
- Anti Syphoning Protection
- Calibration Cylinder

#### Applications

Municipal Wastewater | Industrial Water Treatment

#### Micro-Nutrient Additives Reduce BOD5 and COD Levels

Micronutrient formulation reduces BOD5 and COD levels, suspended solids and sludge. It manages basic biological processes - supporting effective populations of naturally occurring faculative bacteria that aid in rapid decomposition of biological waste without production of odorous by-products.



# **Application**

Typical applications involve introducing the product to wastewater applications in 5-50 ppm range based on organic loading. Product is best applied where it can be completely mixed with wastewater.

## Introduction to System

Introduce the reagent at the influent flow source pipe or channel, or by topical application . Mixing by mechanical agitation.

Carbon Filters

**Bio Filters** 

Odour Neutralising

Utility Safety

**Chemical Dosing** 

Carbon Filters

Carbon Filters





### **Passive Vent Filters**

Protect your community, the environment and your assets with OdourPro's vent filters

OdourPro's vent filters are trusted by councils and water authorities to dramatically reduce odour problems, especially those occurring during peak periods in the early mornings and late afternoons.

**Easy Connection** 

With a variety of sizes available we can provide a unit to suit site requirements that will easily connect to your existing infrastructure.



Ideal for Municipal Sewers

99.5% H2S Odour Removal

Vent Duct/Stack Connection

Allows Air Flow

Low Static Pressure

Multi-Cartridge Options

Easy Installation

Replaceable Cartridges

Insect and Vermin Proof

Capacity of 40-160L/s



# **Ideal for Pump Stations and Rising Mains**

Ground mounted these units are designed to connect at pumpstations and rising mains to remove odourous gases.

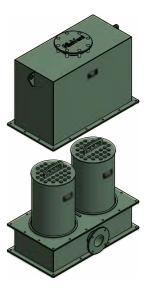
- Units can be used as passive units and in forced ventilation
- Eliminates up to 99.5% of H2S
- Simple Installation

## Minimal Maintenance

FiltaVent contains little to no moving parts. This means minimal maintenance. Robust outer casing is secure and suitable for remote enivironments.

Cartridges are loaded with high performance activated carbon to manage odorous H2S, VOC's Dimethylsulphide and Mercaptans.





Carbon Filters

Odour Neutralising

Chemical Dosing

## **Cannister Filters**

99.5% H2S Removal

Rid Organic Contaminants

Treat Varying Flow Rates

Continuous Treatment

Simple Installation

Ease of Operation

Single or Multiple Units

Flexible Design

Rapid Drum Replacement

Capacity 75-225 L/s





#### **Small Fan Assisted Carbon Filters**

Ideal for municipal sewer odour control, mitigation and control of toxic industrial gases with the ability to remove more than 99.5% of H2S. Effective treatment to remove a variety of organic contaminants and odour causing emissions.

Units come in a variety of sizes from 1 to multiple canisters. Larger vent cube filter systems (below) are designed for the rigors of wastewater treatment to remove 99.5% of odours.

# Vent Cube Filters

Fully Self Contained

Secure

Integrated Fan

In-built Prefilter

Quick and Simple Installation

Only Requires Power

Simple Carbon Exchange

Continuous Treatment

Suits Varying Flow Rates

Capacity 150-200 L/s









# Large Fan Assisted Filter

- Proven sewer odour control & mitigation
- 99.5% of H2S removed
- Optimum use of media through filter vessel design
- Very small operating footprint
- Long term option for soil bed replacement
- Corrosion resistant & UV stable HDPE construction
- Complete with blower and electrical control panel
- Skid mounted for easy installation
- Capacity of 155-1900L/s (558-6840 cubic m/hr)

#### **Applications**

Wastewater | Industrial Water Treatment | Abattoirs & Tannery | Diary & Meat Manufacture

Bio Filters

Odour Neutralising

Utility Safety

Chemical Dosing

Carbon Filters

#### Biofiltration Benefits

95% H2S Removal

Flexible Modular Design

10+ Year Media Life

Simple Installation

Ease of Maintenance

Small Footprint

Durable UV stable HDPE

Corrosion Resistant

Skid Mounted



#### Ideal Replacement for Soil Beds

Protect your community, the environment and your assets with OdourPro's biofilters

Ideal to replace soil bed filters, this advanced deep bed biofilter is capable of removing H2S with over 95% effectiveness. Modular in design, skid mounted and easily transportable these plug and play systems are rapidly deployed so installation is fast. Our Turn Key Systems can be installed simply requiring only water, waste and power connections to install with ease.



#### **Applications**

Municipal Wastewater | Industrial Water Treatment and Processing | Food and Dairy Processing | Abattoirs & Tanneries | Meat & Livestock

# Unique Organic Media

All units use a unique organic media that has a life expectancy of 10+ years. Highly robust media provides increased sorption, high porosity, low bioavailability and will not compact over time. Made of a blend of hydrophobic and hydrophyllic micropore adsorption and biomass distribution, media delivers optimum microbial growth.

## **Biofilter Systems**

Multiple units can be fitted to suit your inflow capacity. Standard systems include:

- Blower
- Irrigation
- Humidification System
- Electrical Control Panel



#### FILTAODOUR SERIES SPECIFICATIONS

Model	Capacity L / s	Total Weight KG	Skid Size W x L	System Height	Duct Size MM
F075	75	1191	1.8m x 3m	3.52 m	104
FO165	165	2366	1.8m x 3m	3.6m	154
F0300	300	4027	2.4m x 4m	3.66m	240
FO450	450	5900	3m x 4.5m	3.74m	300
F0670	670	8514	3.6m x 4.8m	3.82m	375

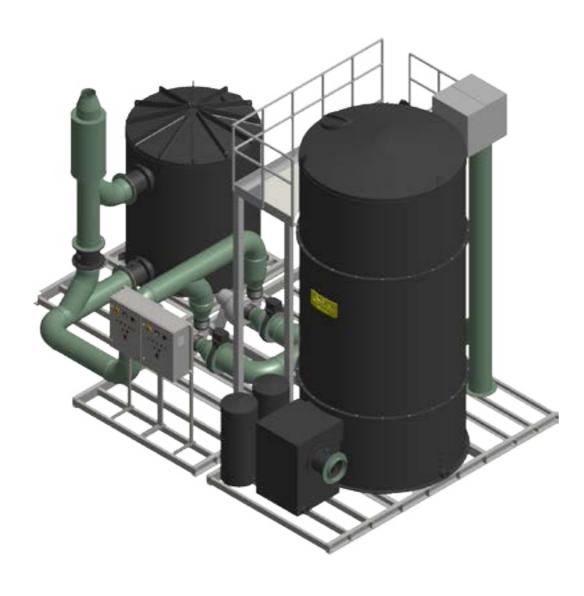
FiltaOdour has the ability to treat complex gas streams with high flow capacities from 751/s up to 670 1/s.

All systems are designed specifically with municipal wastewater, industrial wastewater and general industrial projects in mind to meet your needs and deliver on expectation.

Odour Neutralising

Utility Safety

Carbon Filters



# **Biotrickling for Municipals**

Biotrickling filter systems that reduce odours from H2S emissions by up to 95%

- Modular robust construction
- Efficient water use
- Small footprint
- Unique nutrient make-up
- Less contact time required
- Flexibile design to suit height or surface area restrictions
- Suitable for higher contaminant loads
- 117 1140 L/sec (421-4104 cubic m/hr)
- 99% H2S removal

#### **Applications**

Municipal Wastewater | Industrial Water Treatment | Food Processing | Abattoirs & Tannery | Diary Manufacturing | Meat & Livestock





#### **Applications**

Municipal Wastewater | Industrial Water Treatment | Food Processing | Abattoirs & Tannery | Diary Manufacturing | Meat & Livestock

# Modular 2 Stage Filtration

Get the best of both worlds with OdourPro's FiltaPlus modular hybrid filter systems

- 10 year biofiler life expectancy
- Unique long lasting media
- Deep bed design
- Minimum static pressure
- Compact design small footprint
- High retention times
- Corrosion resistant
- UV Stable HDPE Construction
- Complete with blower, irrigation, humidification system and control panel
- Minimal install air, water, waste and power

Odour Neutralising

Bio Filters

Odour Neutralising

Utility Safety

Carbon Filters





#### **Applications**

Municipal Wastewater | Industrial Water | Food Processing | Abattoirs & Tannery | Diary Manufacturing | Meat & Livestock

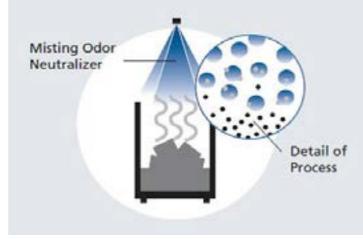
# Low Maintenance VapourGard Systems

A revolution in airborne odour control. The more efficient way to control ambient odours

- 10 year biofiler life expectancy
- Unique formalate to vaporise not atomise
- 24 hour per day operation
- No need for water
- No blocked nozzles
- Low running costs
- Versatile
- Available in multiple units and sizes
- Output 500 linear metres outdoors 3000 cubic metres indoors from a single unit







Airborne Misting Odour Neutraliser

Neutralised Odour

Odour Emissions

# **ONA Spray Systems**

Effective airbone odour treatment. ONA spray systems utilise high quality odour neutralising solutions

- Operates hydraulically to atomise liquids under high pressure
- Specialised tubing and nozzles produce a mist, fog or spray
- Made from a complex blend of essential oils and odiferous organic compounds found in plants. The odour removal process works through a variety of adsorption and decomposition processes, converting odour molecules into non-volatile compounds
- Non-corrosive and non-toxic

#### How does ONA work?

 Our misting odour neutralisers contain powerful reactants made from essential oils, surfactants and aromatics. Airborne droplets attract and neutralise odours through an active chemical process. See diagram opposite.

#### **Applications**

Industrial Water Treatment | Food Processing | Abattoirs & Tannery | Diary | Meat & Livestock Odour Neutralising

Carbon Filters

Odour Neutralising

Utility Safety

**Chemical Dosing** 



#### **Surface Treatment**

Surface odour control for wastewater and solid waste sites

Our surface treatment products are particularly suited to wastewater facilities such as leachate lagoons and containment sites (BioStreme™ 201) as well as odorous surfaces at solid waste sites (BioStreme™ 111F).

#### Uses and applications

- Reduce biochemical oxygen demand (BOD5) and chemical oxygen demand (COD) levels
- Surface treatment for different types of odours
- Reactants added to water directly or sprayed onto surfaces
- Odour relief from volatile organic compounds (VOCs) and hydrogen sulfide (H2S)
- Stop production of odorous by-products
- Lower levels of suspended solids and sludge in lagoons



#### Uses and applications

- Units can use a variety of reagents
- Treatment for different types of odours
- Reactants misted into the air work at a molecular level
- Active ingredients get to the chemical cause of odours
- Lower odour levels at site boundaries
- Suited to immediate and temporary odour control
- Portable for easy transport on or between sites.







#### **Well Washers**

Keep your wells clean and save money on maintenance costs

Auto well washers are an easy and convenient way of clearing fat and grease from well walls as it accumulates. No power is required to run our washers, and they can operate on mains pressure water.

Our well washers are an astute investment for wastewater facilities to reduce long-term maintenance costs and lower health risks associated with the existence of H2S gas in confined spaces.

#### Uses and applications

- Can use clean water or recycled treated
- Makes the wet well safer for maintenance work crews
  - Reduces levels of trapped H2S gas
- Proactive and easy cleaning of infrastructure
- Washes away fat before it solidifies
- Prevents blockiages of wet well pipelines

Well washers are an astute investment for wastewater facilities

Improves Site OH & S

Corrosion Control

Reduced maintenance cost

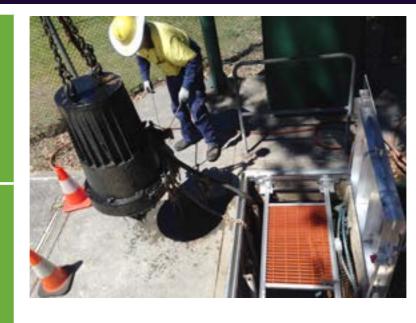


#### **Applications**

Municipal Wastewater | Industrial Water Treatment and Processing | Solid Waste Management | Food and Dairy Processing | Abattoirs and Tanneries | Composting | Meat and Livestock | Landfill

Carbon Filters

**Chemical Dosing** 





#### **Protective Access Lids**

Australia's safest fully customisable access covers

Developed specifically to protect against existing issues and potential hazards associated with access lids.

Available in standard or custom sizes to suit. Access lids have been designed with quality and safety in mind.

- Flush mounted access cover, pull up handle and lock box prevent trip hazards
- Covers are aluminium with type 316 stainless steel hardware
- T-316 heavy duty flush hinges
- Protective grate to prevent fall from heights
- All services can be carried out with grate
- Hinged door with automatic hold open arm to maintain upright position
- Viewing areas for observation and limited maintenance
- Safety powder coated finish
- Built-in neoprene gasket to limit transmission of odours
- Channel design to allow no debris to break tight seal
- Lifetime guarantee



**Applications** Municipal Wastewater | Industrial Water Treatment & Processing

#### **Lid-Lifters**

Take the strain out of removing access covers and grids

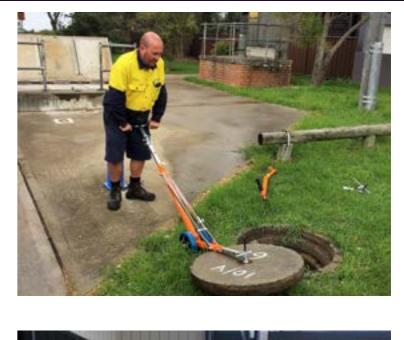
Modern, versatile and simple these lifters guarantee operator safety.

Operators know well the problems that can arise from lifting a manhole covers; the weight and possible accidents to the back, covers blocked by debris and manholes placed in high transit areas. All these issues can make removing and repositioning of covers difficult and dangerous. Reduce the hazard.

Traditional problems associated with the removal of covers are solved with the Ita-lifter cover lifters.

Designed to be compact, light and easy transportable.

It's exclusive multifunctional lifting system will fit most conditions. Perfect for modern utilities maintenance crews.





# **Italifter Benefits**

Versatile & Effective

ISO 11228-1, 1128-2, 11228-3

Services

Chemical Dosing

**Bio Filters** 

Odour Neutralising

Utility Safety

Carbon Filters



#### **Specialist Services**

An OdourPro consultant will support you to ensure you get the right advice for your projects. We advise on:

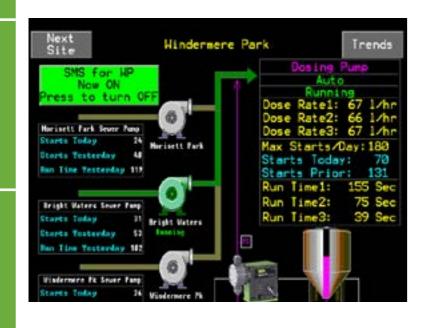
- Modes of odour generation
- Process improvements to reduce odour generation
- Evaluation of odour impacts on surrounding properties
- Odour impact reduction
- Detailed reports from simple to complex



# Maintenance & Refurbishments

We can provide regular preventative maintenance visits and refurbish and test existing systems. Consulting on:

- Technical enquiries
- System repairs
- Practical legislative compliance
- Compliance monitoring
- Upkeep
- Improvements to the construction of your odour control units



# **Telemetry Services**

Remotely access and monitor your odour control system. Basic operation functions include:

- Run times
- Contaminant levels
- Dosing levels get real time access of levels viewed from single or multiple locations

Telementary allows easy access to collected data. Operational staff can effectively and efficiently manage valuable assets to proactively minimise odour impacts on residents.

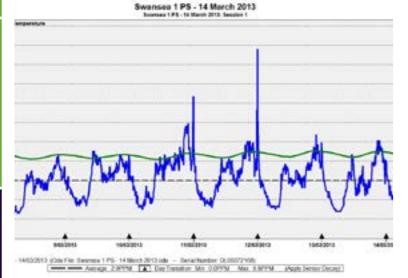


# **Chemical Supply Logistics**

Ferrous Chloride, Ferric Chloride, Magnesium Hydroxide, Calcium Nitrate and Micro-nutrient treatment is available.

Two dedicated dedicated delivery vehicles can supply chemicals ranging from 6,000L capacity to 12,5000L capacity.

Our knowledgeable chemical delivery drivers cover all the logistics, OHS and environmental compliance.



# NATA accredited calibration gases and procedures that comply with accepted standard testing methods

# Compliance Monitoring

Monitoring your unit's performance is necessary for fine tuning the system set up. To maintain optimal active ingredient levels.

- Evaluation of site schematics
- Recommendations on sampling areas and frequencies
- Wet testing to evaluate latent conditions in reticulation systems
- Gas phase odour logging
- Evaluation and reporting

Key parameters monitored:

- H2S gas data logging
- Liquid phase sulfide testing
- pH, ORP, DO & conductivity

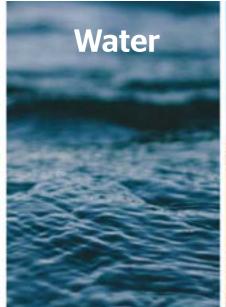


# Media / Additives Supply

- Activated Carbon packages:
   25kg bags
   Packaged Canisters
- Ferrous Chloride
- Magnesium Hydroxide
- Biostreme Micro Nutrient Additives
- Air Streme Misting Agents
- VapourGard Vapour Solution

Services

Carbon Filters









#### Cleanawater

Cleanawater are our experts in water treatment system design, manufacture, installation and servicing.

Our award winning products are engineered for performance, economy and ease of use. That includes both custom-built and off-the-shelf units approved by all major water authorities to produce the highest quality water.

www.cleanawater.com.au

#### **Bulbeck Enviro**

Bulbeck Enviro helps businesses and government in Australia and the Pacific; specialising in land, water and air pollution response products and services that protect and clean up. For pristine healthy environments.

Our world matters, our air quality, water quality and land quality. The environment is a precious commidity, that's why we're passionate to safegard it always. To ensure a prosperous future for our communities; rich with cleaner water, cleaner air and cleaner land.

Our businesses work as one to make this a reality

Water - Cleanawater, SpillPro and OdourPro

Land - OdourPro and SpillPro

Air - OdourPro

#### Delivering

Award Winning purification systems

Sustainable green solutions

Specialist advice to achieve optimal outcomes

Tailored end to end solutions based on situational needs

Professional ISO environmental, manufacturing and safety standards

Site audits, compliance & equipment training

Everything you need. One point of contact

Serving many industries: Government, Councils and Utilities, Oll & Gas, Mining & Exploration, Defence, Shipping, Transport, Marine & Offshore, Industrial, Hospitals, Workshops

Our teams of talented people are continually looking for cutting edge solutions to help protect our communities water, air and land resources.

OdourPro. SpillPro. Cleanawater. Deliver Certainty.



### SpillPro

SpillPro is Australia's leading supplier of precision land spill management products and services. As well as workshop equipment, parts cleaning machines and even safety and cleaning products.

SpillPro holds a large range of equipment in stock ready for immediate deployment, with product specialists available to advise and assist. We provide everything you need with one point of contact...

www.spillpro.com.au



#### **OdourPro**

OdourPro are specialists in odour control and management. With over 25 years experience, we offer an integrated approach that is rare in this industry. We design, advise, custom engineer, install, maintain and monitor odour control systems so that your infrastructure runs as smoothly as possible

www.odourpro.com.au

# **OdourPro**®

# **Delivering Certainty**

We're more than equipment suppliers. We're problem solvers.

And that's unique to the Australian market.

We deliver you clean air and community protection.

www.odourpro.com.au

#### OUR LOCATIONS

NEWCASTLE - HEAD OFFICE	SYDNEY	MELBOURNE	BRISBANE
4 Channel Rd	38 Ricketty St	40 Latitude Blvd	20/388 Newman Rd
Mayfield West	Mascot	Thomastown	Geebung
NSW 2304	NSW 2020	VIC 3074	QLD 4034
P: 02 4940 7350	P· 02 8999 7396	P· 03 9999 3867	P· 07 3177 3004

LKIII	ADLLAIDL	DARWIN	
67 Howe St	8 Greenhill Rd	Level 16, 19 Smith St	
Osborne Park	Wayville	Darwin	
WA 6017	SA 5034	NT 0800	
P: 08 6555 5379	P: 1800 510 704	P: 08 7999 7824	

