CleanaWater®

Dependable Odour Control

VapourGard

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cleanawater.com.au

Cleanawater is excited to bring the latest in odour abatement technology out of Europe and the US with our VapourGard range. VapourGard utilises the latest in odour neutralising technology without the use of water like traditional misting systems, making them ideal for large open areas and production facilities wishing to avoid bulky and expensive extraction and treatment systems.

VapourGard is a revolution in airborne odour control

Cleanawater's unique VapourGard system is more effective than fragrance and neutralising oils. That's because its active deodorisation technology destroys odour particles - rather than just masking them. The vapours stay airborne for longer than traditional sprays - allowing more effective odour treatment.

It's what makes VapourGard an industry-leading system. Meaning total control of airborne odours - indoors and outdoors.

More Effective Than Misting Systems	✓
Economical	✓
Low Maintenance	✓
Odour Removal	90 - 100%

Advantages of Vapour for Odour Treatment

- Deodoriser is delivered in lightweight particles, similar to the weight of the odours
- No water is needed
- Maintenance is minimal
- The deodoriser is unobtrusive
- The vaporisation system is relatively quiet, dry, and invisible
- Cost-effective to install and run
- Completely safe and environmentally friendly
- **Can be used to treat hydrogen sulphide (H_2S)**

Odours are compounds that have volatilised – transitioned to gaseous or vapour state. That is why we can smell them. We don't actually smell liquids or solids. We smell the portions of them that make the transition into the vapour state – making them light enough to travel in the air and into our nostrils.

The VapourGard System releases deodoriser converted to vapour form. The deodoriser vapour moves at the same speeds and in the same direction as odorous vapours. This allows the deodoriser to stay in the air for a much longer time, creating more opportunities for contact and deodorisation. The system uses a pipe to transport an air-stream filled with vaporised deodoriser around the perimeter of any area where deodorisation is desired. The type of pipe is determined by terrain and weather conditions.

The vapour is created by a unique system that moves air across a tank of deodoriser. The deodoriser is designed specifically to vaporise when subjected to air movement or minor turbulence. Heat is not used. The chemical is not "evaporated" in the normal sense of the word. The vaporiser unit contains only a motor and blower, a tank, and a vacuum system for creating the vapour and delivering it into the air-stream. While some heat is created by molecular vibration at the surface of the liquid, the amount is minimal. This allows vaporisation of the deodoriser without fractionation. The composition and functionality of the deodoriser are not compromised.

The ingredients are carefully designed to vaporise together, retaining their integrity. This is why heat is not used. Heating any blend of volatile ingredients results in a loss of integrity because each component will have a different evaporation rate and temperature threshold. Using heat to create vapour simply separates the deodoriser back into its component parts.

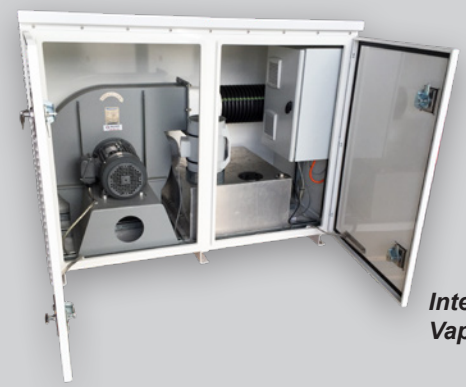
The deodoriser was created specifically for the process of vaporisation by turbulence. It contains no propellants or alcohols, and its component parts are all approved for cosmetic use or greater by the FDA. People use most of the components of VapourGard deodoriser every day in their homes.

How VapourGard Works

We start with a cationic surfactant, blend a set of amine groups with anionic surfactants, and create sets of amino complexes with a high reactive affinity toward certain odorous groups. Many of these complexes are amino hydroxyl groups that will react in contact with organic acids, mercaptans, and other reduced sulphur compounds. With mercaptans for example the sulphur/hydrogen (SH) bond is displaced through a series of ionic reactions and replaced with the sulphur/oxygen (SO) bond of an odourless sulphate.

Some reactions involve the conversion of organic and short-chain fatty acids to esters and simple alcohols. Some complexes trap and adsorb odorous compounds, others use opposing ionic charges to combine with or displace sections of the odorous molecule. Most of the reactions are induced by ionic charge or pH differences. It is very similar to the deodorants and shampoos each of us uses daily. It simply performs in the vapour state rather than the liquid state. The system provides an environmentally and personally safe deodorisation method while conserving water and energy..

Exterior of a VapourGard unit



Internals of a VapourGard unit

Benefits to clients

Cleanawater's vapour systems are the lowest maintenance odour control products on the market. There are no nozzles to become blocked, and no portable water supply is needed. The active ingredients get to the very cause of odours, eliminating the particles. Our vapour systems are suited to large indoor and outdoor applications, especially effective on-site boundaries, aiding compliance with WHS and environmental regulations and eradicating odour complaints. The versatile design also helps you manage any site demands.

Uses and applications

- Treat a wide range of odours
- Elimination of indoor and outdoor odours
- Large factories
- Processing facilities
- On-site perimeters
- Waste Water processing and treatment facilities (H_2S)
- Solid Waste Facilities
- Recycling facilities
- Waste processing and transfer stations

Product details

Construction

Our vapour systems consist of a blower, solution storage tank, piping and an electrical control box with an electronic level gauge. VapourGard systems are set up on the boundary of the facility, with holed tubing allowing the release of vapour into the air.

They come in a range of sizes to treat outdoor areas as large as 500 linear metres or 3000 cubic metres for indoor facilities.

Electricity requirements for the VapourGard 150 is a 240v 1.2amp power supply. The VapourGard 500 requires a 240v 32amp power supply.

Vapour formulation

The odour vaporising solution QuikAir 0900V is made up of an ester, a ketone and a cineole, with citric acid and 14 amino sucroates. This formulation has been proven to be effective on all commonly encountered types of odours. While the amino sucroates work as catalysts in the solution, the ester, ketone, acid and cineole preserve, disinfect and prevent bacterial growth in the system.

Optional accessories

Optional accessories for these vapour systems include operational triggers - including timers, atmospheric conditions and remote tank level monitoring to ensure adequate vapour solution levels.

CleanaWater®

Case Study: AB MauriOdour neutralising systems for the food processing industry

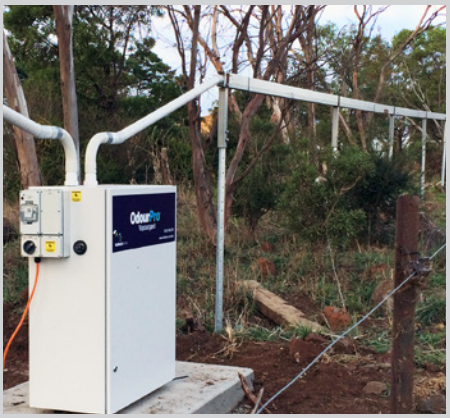
About AB Mauri

AB Mauri serves the baking industry, with a large yeast production site in a heavily populated industrial area of Western Sydney.

The problem

AB Mauri's facility in Western Sydney generates large amounts of wastewater during the process of yeast production, necessitating an on-site treatment plant. The wastewater treatment system in place created unpleasant odours causing complaints from nearby businesses and residents.

AB Mauri needed a simple solution that could be activated as soon as possible to stop odour problems immediately.



Our solution

An odour neutralising system, consisting of a solution storage tank and piping were installed. A pipe running from the unit around the perimeter of the facility allowed the release of the odour neutralising agent into the air around the site.

- Adaptable to control odours in most conditions
- Easy containment of odours to eliminate complaints
- Effective, immediate results

Cleanawater's neutralising system provided instant improvements for AB Mauri. The unit released odour neutralising agent substance into problem areas. The odour particles would then be modified into non-reactive compounds, stopping the spread of odours across site boundaries.

What we did for our client

Cleanawater commissioned and installed an odour neutralising unit that provided instant relief from odorous gases.

As part of the system, a storage tank and piping were installed, to evenly distribute the agent and successfully contain odours.

Odour complaints have now completely stopped, while authorities are also appeased with the company's pro-active approach to managing site odours and being responsive to community concerns.

Project benefits to the client

- Expert management of odour emissions
- Elimination of business and resident complaints
- Environmental regulation compliance
- Increased community approval

"We have worked collaboratively with Cleanawater toward a very effective solution. Their knowledge and expertise is priceless."

ISAAC PANAGIOTIDIS, PLANT MANAGER, AB MAURI

Why choose Cleanawater?

At Cleanawater, we supply odour control systems customised according to the needs of your specific site.

We uniquely offer multiple treatment options, including chemical dosing, carbon filtering, biofiltering, and odour neutralising, to solve odour problems whether they are generated in the air, in water systems or on solid surfaces.

Need expert help choosing the right solution?

Call us on 02 4957 2886

Or visit cleanawater.com.au