

Odour Control



Dry Vapour Unit

Waste processing

Waste reception buildings - Composting - Landfills - Biofilters

Wastewater Treatment

Treatment basins - Sludge dewatering buildings - Sludge Tanks

**Environmentally Friendly Deodorisation
without water**

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Dry Vapour Unit.

Waste collection, transport and storage, composting, wastewater treatment, sludge dewatering and sludge storage are often confronted with the release of nuisance odours. These scents are released as a result of natural decay processes that occur in the waste, waste water and sludge. The scents released include volatile fatty acids, mercaptans and hydrogen sulphide (H_2S) and may lead to considerable discomfort if no measures are taken to control these odours. Waste processors, industries with wastewater treatment plants and sewage treatment plants are increasingly confronted with demands in terms of odour emissions.

The **Dry Vapour Unit** is an innovative odour control system that is able to neutralize odours without the use of water as the atomization medium. Traditional odour control installations, using misting, need water to disperse the odour-neutralizing fluid in the area where the odour occurs. The **Dry Vapour Unit** is water-free and can therefore also be used in locations where a water mist is undesirable.

The **Dry Vapour Unit** uses the odour neutralizing liquid **Oxi-Max**, which is especially formulated for use in the **Dry Vapour Unit**, and this combination has significant advantages over traditional systems and odour neutralizing liquids:

- ★ Non-toxic and non-corrosive
- ★ No need for external storage containers, all is contained in the unit
- ★ No need for dosing equipment
- ★ Replaces traditional odour control liquids and work on molecular level
- ★ Economical use
- ★ No water supply needed
- ★ Can be used anywhere, in buildings, open sites, exhaust and ventilation systems
- ★ Direct action on odour, no delay
- ★ Deodorizes a wide spectrum of odours
- ★ Several system configurations are possible depending on the application conditions
- ★ Easy to install and operate.

Dry Vapour Unit pilot

Of course you cannot take any chances when taking a decision on which type of deodorization system is best for your situation. We offer the possibility to use the system for a certain test period so you can determine if it meets your requirements in terms of deodorization. The units are available as rental during this period. The consumption of Oxi-Max is included in the rental price.

How does the Dry Vapour Unit work?

The **Dry Vapour Unit** uses the laws of physics. Vaporization of a liquid occurs when the liquid molecules on the liquid surface have enough momentum to overcome the intermolecular forces of attraction and can escape to the atmosphere. When a liquid is heated this force will be increased and evaporation is accelerated. A reduction of the pressure above the liquid reduces the escape force needed by the molecules to escape to the atmosphere, and evaporation is accelerated. In this way, an odour neutralizing liquid can be obtained in gaseous form. Traditional odour control systems which operate on the basis of atomization are using water in order to disperse the odour-neutralizing agent, with a **Dry Vapour Unit** this is no longer necessary.

The odour-neutralizing agent **Oxi-Max**, used the **Dry Vapour Unit**, is an extremely complex mixture of essential oils which was especially formulated for use in the **Dry Vapour Unit**. Other odour neutralizing liquids will not work in the **Dry Vapour Unit**. Essential oils can neutralize a wide range of odours. In misting systems using water they work primarily by catching the odour causing molecules in an electrically charged film surrounding the essential oil/water mixture. The essential oil will physically react with the odour molecules and form a new physical, odourless product. Because the **Dry Vapour Unit** works without water the action of the essential oil on the odour molecule is much more direct and less product is needed to achieve the desired deodorization. Most organic odours can be easily neutralized. Hydrocarbon odours are more difficult to deodorize. H_2S , mercaptans, ammonia and most of the organic compounds containing amine groups have been neutralized.

Applications

- ★ Waste reception stations
- ★ Landfills
- ★ Composting installations
- ★ Digestion installations
- ★ Wastewater & Sludge Tanks
- ★ Wastewater treatment sludge dewatering, storage & disposal
- ★ Sewers & Pumping stations
- ★ Polishing of off gas from biofilters and gas wash installations

For more information contact us.



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