

Effective Odour Management

Chemical Dosing Systems



Ferrous Dosing for Targeted H₂S Removal

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

Features and Benefits

- ☞ H₂S and VOC Reduction
- ☞ Proven Technology
- ☞ Corrosion Reduction
- ☞ Asset Protection
- ☞ Custom Design
- ☞ Maintenance Programs
- ☞ Simple Process
- ☞ Cost Effective
- ☞ Versatile Odour Control
- ☞ Scada Compatible

CleanaWater is Australia's industry leader in comprehensive odour control and management, with a variety of chemical dosing systems available. The double benefit of reducing toxic gas emissions as well as corrosion to wastewater facilities makes chemical dosing a popular option for odour management.

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.

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 between the CleanaWater dosing pump controls and the sewer pump or by utilising an in-line flow meter to communicate to the CleanaWater 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 (Fe²⁺) 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 irreversible and dramatically reduces the formation of odorous sulphur based compounds.

System inclusions

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

Benefits to clients

Unlike capture and treat strategies, our Ferrogard® ferrous dosing units prevent the formation of odours, thereby properly treating the cause of the problem for a sustainable long-term solution.

Our ferrous dosing systems don't just control odours by up to 95%, they also play a crucial part in wastewater system maintenance, by preventing H₂S corrosion of infrastructure, while also keeping your workers safe from gases and complying with Workplace Health and Safety (WHS) Regulations.

Chemical Supply Logistics

Ferrous Chloride, Ferric Chloride, and Micro-nutrient treatment is available.

Two dedicated delivery vehicles can supply chemicals ranging from 6,000L capacity to 12,500L capacity. Our knowledgeable chemical delivery drivers cover all the logistics, OHS and environmental compliance.

Media / Odour Neutralisers / Additives Supply

CleanaWater have access to a wide range of GAC (granular activated carbon) and chemical additives to treat a variety of odorous compounds to suit an assortment of applications. We source only the best quality Activated Carbons and can assist with the removal and disposal of old spent media with replacement by our qualified technicians. Our activated carbons can be packaged to suit our clients needs in either 20-25kg bags for easy handling or bulk bags of 500kg can be supplied for larger applications.

CleanaWater also specialise in liquid and air phase odour treatment and control and with our experience and expertise can recommend a solution to effectively treat and neutralise odours in the liquid or vapour state.

- ☞ Activated Carbon packaged 20-25kg bags
- ☞ Activated Carbon 500kg Bulk bags
- ☞ QuikAir 0900 (broad spectrum odour neutraliser)
- ☞ BioStreme 201 Micro Nutrient Additives
- ☞ QuikAir 0900V (Vapourising solution to be used in conjunction with CleanaWater VapourGard Systems)
- ☞ Bektra 830F (foaming contact deodoriser)



How do they work?

A bio-chemical reaction occurring in sewers produces Hydrogen Sulphide (H₂S), the gas responsible for "bad egg" odours. Dosing with ferrous chloride reduces odour by initialising a different chemical reaction. The ferrous chloride binds with sulphides in the wastewater to form a stable, insoluble precipitate.