



MANHOLE ODOR CONTROL UNIT

HIGHLY EFFECTIVE, PASSIVE MANHOLE ODOR CONTROL

ECS Environmental Solutions', **MANHOLE OCU** is compact, modular unit designed to remove unpleasant odors such as hydrogen sulfide, mercaptans and other organic odors venting from sewer conveyance manholes. The unit comes equipped with media that is specially designed to have high-activity for use in odor control applications. The **MANHOLE OCU** offers the following features & benefits:

- **Eliminates Unpleasant Odors** – By removing hydrogen sulfide and organic odors from the air stream, **MANHOLE OCU** prevents unpleasant odors from entering the atmosphere around manhole covers.
- **No Energy Requirements** – There are no mechanical parts. Unpleasant odors are removed by adsorption from the air stream as a sewer conveyance line breathes through the manhole.
- **Flexible Treatment** – Since the **MANHOLE OCU** is based on adsorption principles it is passive in operation, which means it can be highly effective on changing flows and odor concentrations.
- **Non-Corrosive** – All **MANHOLE OCUs** are manufactured from industrial plastics that have proven reliability in this type of service.
- **Easy Installation** – Modular components that can be cut permit easy assembly into existing manholes.
- **Passive Odor Control** – By using positive pressures inside the sewer conveyance line, odorous air passes up through the unit where the unpleasant odors are adsorbed and stored in the media, allowing purified air to vent through the top of the unit into the atmosphere. The pressure or surges of pressure with the sewer conveyance line is sufficient to overcome the pressure drop from the media bed.
- **Cost Effective** – The **MANHOLE OCU** is a simple media adsorption unit, which offers a high degree of odor control and performance at a low cost.
- **Replacement Media** – When odor breakthrough is detected, on the media need to be replaced. Bay Products can provide replacement media. Media replacement is as simple as dumping out the old media and filling with fresh media. This can be done at the site in a manner of a few minutes.
- **Adaptability** – Standard units are available for immediate shipment and will fit existing round manholes in sizes ranging from 16" to 37" diameters.

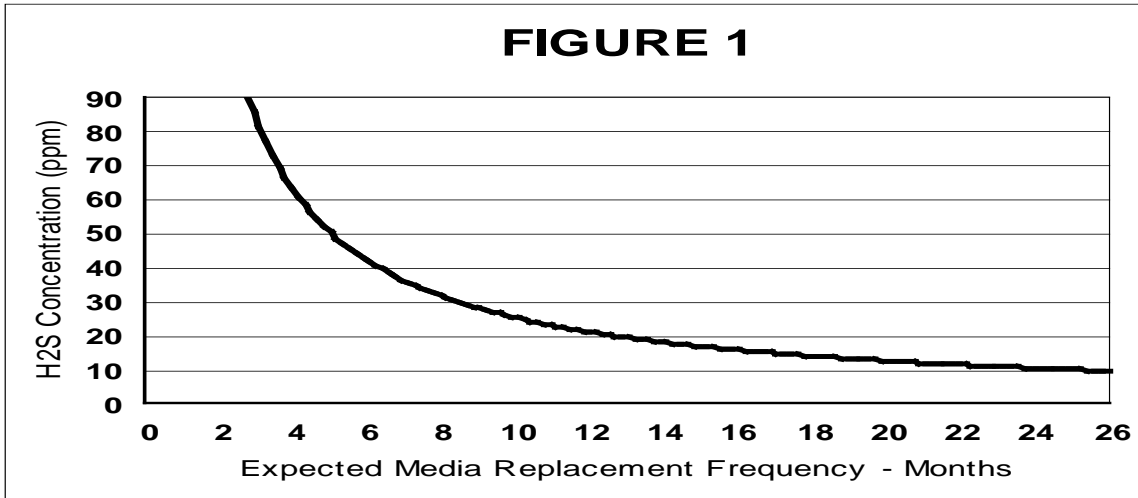


PERFORMANCE

One of the unique benefits of the **MANHOLE OCU** design is the ease to perform media replacement. It is as simple as removing the manhole cover and lifting the center bucket adsorber module. The media can then be removed and replaced with a fresh charge of media.

EXPECTED MEDIA LIFE

Odorous airflow as a constant is plotted in Figure 1 to help predict the expected media replacement frequency at various hydrogen sulfide concentrations.



PRESSURE DROP CALCULATIONS

Pressure drop for the **MANHOLE OCU** at 70°F and 1 atmosphere is shown on Figure 2.

