BIOTRICKLING FILTER TECHNOLOGY

KCH Engineered Systems designs and manufactures a Biotrickling Filter System to remove high levels of hydrogen sulfide (H\textsubscript{2}S) gas and other odors from municipal and industrial processes. Our Biotrickling Filter systems will effectively and efficiently remove 99% of H\textsubscript{2}S without the use of dangerous chemicals. Instead of chemicals, a simple non-proprietary nutrient is used to promote biological growth on a synthetic media.

APPLICATIONS
- Municipal Waste Treatment Plants
- Pump Stations
- High Level H\textsubscript{2}S Applications
- Degasifier or Aerator Off-Gas Odor Control

BENEFITS
- Low Operating Cost
- Inorganic Media Guaranteed for 10 Years
- Over 99% H\textsubscript{2}S Removal Efficiency
- POLYLAST\textsuperscript{®} or POLYSTONG\textsuperscript{®} Vessel Material
  - Maximum Resistance to UV Exposure
  - Exceptional Structural Integrity
- Very Low Maintenance
- Low Empty Bed Retention Time
- Low Water Usage
- Non-Proprietary Nutrient System
- No On-Site Storage of Dangerous Chemicals

Can be used as a first stage unit to extend the life of Carbon units.
PRODUCT INFORMATION

The standard KCH Biotrickling Filter System, also sometimes called a Bioscrubbing system, is a vertical, countercurrent vessel designed for continuous operation. KCH Biotricklers can also be designed for a rectangular low profile configuration, utilizing a structured high density media.

These systems are constructed of POLYLAST® or POLYSTRONG® material, providing structural integrity, UV protection and corrosion resistance required for outdoor installations.

The Biotrickling Filter System can include additional components needed to provide a complete functioning system such as:

- Non-Proprietary Nutrient Systems
- Different Vessel and Media Configurations Based on Application
- Integral Mist Eliminator
- Recirculation Pump
- Direct Drive Fans
- Ducting
- pH meter
- Integral Sump or Remote Tank for Nutrient Storage
- OSHA Approved Ladders or Platforms

HOW IT WORKS

Biotrickling Filters use a synthetic media to support the growth of natural occurring micro-organisms to convert H₂S into a dilute acid solution part of which is discharges via a continues water make-up or overflow. The Biotrickling Filter uses continues recirculation of a nutrient rich solution to promote the biological growth. KCH offers a non-proprietary nutrient supplement to feed the micro-organisms and water to maintain the optimum pH.

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