



BAY PRODUCTS, INC.

BIOFILTER ODOR CONTROL



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BIOFILTRATION



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BIOFILTRATION

- Passing odorous air through a media containing microbial populations
- Microbes use the odorous compounds as a food source
- Media must be kept moist and air must have good paths through media
- Requires long contact times and low velocities
- Systems come in a variety of designs and media configurations



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BIOFILTRATION

MEDIA

1. Organic – Wood Chips, Bark, Roots, Compost, Activated Carbon
2. Porous Rock – Laval Rock
3. Synthetic - Sponges, Scrubber Media, Foams, BioOdorSorb

IRRIGATION

1. Type – Overhead spray, Drip System, Pre-humidification
2. Water Source – Augmented Fresh Water, Plant Effluent

SYSTEM

1. In-ground
2. Basins
3. Modular Vessels



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MODULAR TYPES

1. Biofilter

- Utilizes an organic media
- Complex bioactivity, Large biomass - Heterotrophic
- Limited Media Life
- Low Face Velocities and High Contact Times

2. Bioscrubber

- Utilizes an inorganic media
- Simple bioactivity, small biomass - Autotrophic
- Long Media Life
- Higher Face Velocities and Lower Contact Times



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DESIGN PARAMETERS

1. Face Velocity – Air Flow/Cross Sectional Area of Vessel
2 to 10 feet/minute depending on compounds and load
2. Contact Time – Media/Air Flow
20 to 60 seconds depending on compounds and load



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1. Media – Wood Chips/Compost, Sand, or Engineered Media
2. Humidification – Pre-Humidification System, Overhead spray, or Mist Nozzles.



BIOFILTRATION INGROUND BIOFILTER





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BIOFILTER - Packed Bed





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BIOFILTER – Tray System





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BIOFILTER – DuO





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BIOSCRUBBER

DESIGN PARAMETERS

1. Face Velocity – Air Flow/Cross Sectional Area of Vessel
20 to 50 feet/minute depending on compounds and load
2. Contact Time – Media/Air Flow
5 to 20 seconds depending on compounds and load

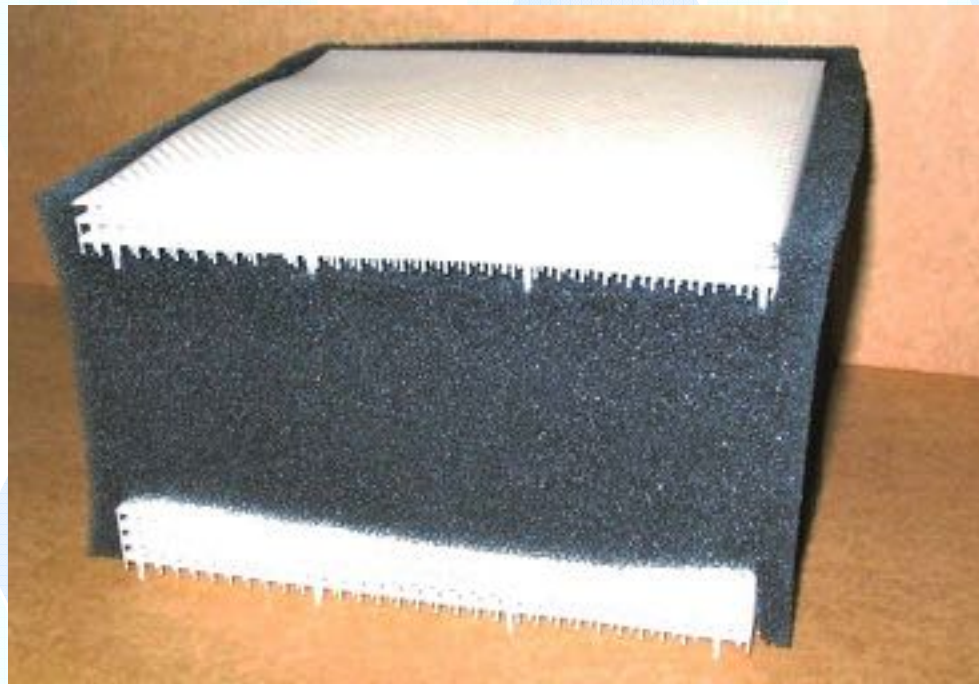


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BIOSCRUBBER

1. Media – Foam (cubes, rolled, or stacked), lava rock
2. Humidification – Not Required





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