



Biological Wastewater Treatment Media



MODULAR BIOMEDIA FOR WASTEWATER TREATMENT

MEDIA BACKGROUND

For many decades, the fixed film biofilter (commonly referred to as a trickling filter) has been a widely applied method for the biological oxidation of organic wastes. Biological growth on the media surface converts dissolved organic waste material or ammonia nitrogen into stable by-products including carbon dioxide, nitrates, nitrites, water and biological solids which are later removed by clarification.

In an effort to increase the efficiency of the fixed film biofilter, various synthetic media have been developed. Unique among these, is PACMEDIA a modular cone fluted media, manufactured by BioSystems initially for their design built wastewater treatment plants through out South East Asia.

DESCRIPTIONS

BioSystems' modular self-supporting PACMEDIA, is fabricated from rigid Injected Molded PVC. Each mould is assembled to on interlocking pattern with adjacent moulds. This configuration provides continuous and uniform horizontal and vertical redistribution of both air and water throughout the full depth of the media. All the media surface is located in a direction which ensures no unused "undersides" and the unique raised fluted cones allowing for proportion of vertical and horizontal flow has eliminated the risk of clogging.

ADVANTAGES

The advantages of the fixed film biofilter over other methods of treatment include:

- Low energy consumption
- Reliable performance
- High resistance to hydraulic and organic shock loads
- Simple and unsophisticated operational procedures
- Effective land utilization
- Reduced sludge bulking problems

The fixed film biofilter is, therefore, a very cost-effective method for BOD (Biochemical Oxygen Demand) reduction, nitrification, denitrification, odor scrubbing and anaerobic treatment.



SPECIFICATIONS PACMEDIA:

- PACMEDIA surface area 140 m2/m3, void 95%
- Polypropylene Injected Molded PVC sheets
- Sheet size 300 x 300 comprising 42 raised corner at 70° and locating lugs for assembly
- Shipping in 1 x 20 lt. container can accommodate 170 m3 of PACMEDIA in pack down form
- Transport volume and freight charges are reduced by 80%
- · Fast and simple installation thanks to easy handling of the PACMEDIA modules.

All of the PACMEDIA supplied by BioSystems is UV protected, resistant to rot, fungi, bacteria, acids and alkalies as commonly found in wastewater treatment.



Biomedia can pack down to 1 trolley on right.

APPLICATION

Modular PACMEDIA has numerous applications in wastewater treatment.

The more typical application include:

- Industrial Waste
- **Municipal Waste**
- **Polishing Treatment**
- Replace Rock Media
- Nitrification
- Denitrification
- Odor Scrubbing

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Cooling Towers

Distributor:

For more information on PACMEDIA for a specific application please contact BioSystems Limited.