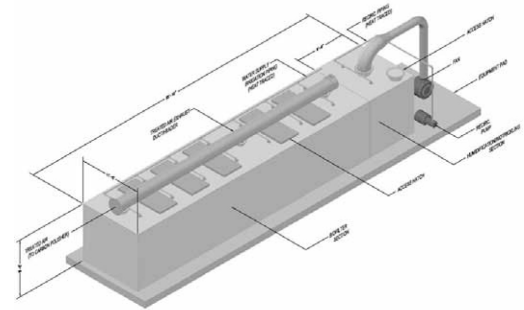


Integrated Biotrickling/ Biofilter Systems

Multi-zone Treatment for Odor
& VOC Control



For mid-range air flow odor and VOC control applications, Envirogen’s Integrated Biotrickling/Biofilter Systems are some of the most technically advanced solutions available today. The result of 20 years of research, design and operating experience, Integrated Biotrickling/Biofilter Systems combine the high performance of a biotrickling filter in removing hydrogen sulfide (H₂S), with the VOC and reduced sulfur compound efficiencies of a biofilter. Both of these technologies are housed in a single, pre-fabricated fiberglass system that offers ease of installation and a small system footprint.

One of the design advantages of the Integrated Biotrickling/Biofilter System is that it can be configured to offer multiple zones of treatment – for efficient and cost-effective management of complex air streams. Integrated Biotrickling/Biofilter Systems can feature up to three different ‘ecozones’ employing different media, pH, humidity and flow design. This allows the growth of micro-organisms that can target specific contaminants in the air stream – more effectively and efficiently than a single media system can allow. It also allows for optimization of media life – leading to lower long-term operating costs for both energy and media. Integrated Biotrickling/Biofilter Systems consistently remove H₂S to 99+% levels and can remove other compounds in the over 95+% range.

For the control of odors and VOCs, Envirogen Integrated Biotrickling/Biofilter Systems are a very robust sustainable solution, offering:

- Reduced chemical usage/storage
- Contaminant destruction
- Reduced energy usage
- Reduced carbon footprint
- Lower overall emissions
- Adaptation to changing odor sources and levels

Advanced System Design & Construction

Envirogen Integrated Biotrickling/Biofilter Systems feature the latest concepts in odor and VOC control system design – based on our experience of installing over 125 biofilter systems in 90 locations.

Features include:

- External irrigation piping for easy maintenance and inspection of nozzles
- FRP frame and panel construction without metal support structure (no corrosion)
- Zonal irrigation control
- Ease of Installation (modular)
- “Drop and Load” (i.e., drop unit on pad, then load media)
- Overall “box” profile is sleek and clean (as option, exterior shell can be color-matched to WWTP/site architecture)

Integrated Biotrickling/Biofilter Systems Configurations

Model	BTF-550	BTF-860	BTF-1110	BTF-1400	BTF-1800	BTF-2000
CFM	800-1100	1200-1700	1800-2200	1534-2812	1960-3593	2215-4061

Model	BTF-2400	BTF-2650	BTF-3000	BTF-3600	BTF-4500
CFM	2641-4842	2641-4842	4090-7498	4899-8982	4899-8982

About Envirogen Technologies

Envirogen Technologies is an environmental technology and process solutions provider that combines experience in water and vapor phase treatment with process development expertise, delivering long-term, guaranteed solutions in a broad range of treatment and process-related applications. Today, we provide system design, process engineering, equipment and operating solutions for the treatment of process water, groundwater, wastewater, VOCs & odor as well as materials recovery for a range of industrial and non-industrial customers throughout North America.

The Envirogen Technology Portfolio

Bioreactors	Biofilters	Ion Exchange	Physical-Chemical	Adsorptive
Fluidized Bed Reactors (FBR)	Built-in-Place (high flow)	SimPACK™ (400 gpm +)	FlexSorb™ (5-150 gpm)	EnviroHPA™ Media
Membrane Bioreactors (MBR)	I-Series (mid-flow)	MinX™ (100-850 gpm)	HyperSorb™ (35-3000 + gpm)	
Suspended Carrier Reactors (SCR)	H-Series (low-flow)	MinFlex™ (<300 gpm)	Reverse Osmosis	
	Biotrickling filters	Service Exchange / Customer Supplied		



Envirogen Biofilter Media

ScorFil™
inorganic, scoria lava

VamFil™
aged bark, engineered

FlexFil™
synthetic structural or random packed media

Up to 10-year warranty

Corporate Office

Two Kingwood Place
700 Rockmead Dr., Suite 105
Kingwood, TX 77339
Tel: 877.312.8950
www.envirogen.com

Visit our website www.envirogen.com for more information about the Envirogen Biotrickling Filters and our regional locations.

The information in this brochure may be subject to change without notice and is provided for general guidance only. The dimensions and performance of systems, products and services may vary. Pictures are for example purposes and not always to scale. All legal obligations are exclusively as set out in contractual documents. Nothing contained herein constitutes a representation, warranty or undertaking.