

Envirogen Built-in-Place Biofilters

High-volume, centralized treatment with low lifecycle costs



Envirogen Built-in-Place Biofilters are custom designed solutions for mid- to high-air flow VOC and odor control applications. These systems are employed in point source or centralized emissions control applications, for air flows ranging from 2,000 to well over 100,000 cfm. Installations are based on standardized system components and multibay designs to lower installed costs, increase flexibility of design and allow for expansion as plant needs change.

Line	Models	Media (ft³)	CFM	EBRT/seconds (default)
BIP 1-bay	8	2000-16000	2000-24000	20-60 (30)
BIP 2-bay	8	4000-32000	4000-48000	20-60 (30)
BIP 3-bay	8	6000-48000	6000-72000	20-60 (30)

Individual corrosion-resistant concrete-foundation biofilter bays are covered with UV-resistant FRP domes. Organic or inorganic biofilter media is customized to contaminants, treatment requirements and cost considerations — and can be guaranteed for up to 10-years of life. These advanced systems include irrigation & nutrient supply, featuring a programmable logic controller that monitors temperature, humidity, pressure, low pressure drop and fluid levels.

Envirogen Built-in-Place Biofilters are robust, sustainable solutions, offering:

- · Efficient contaminant destruction
- · Reduced chemical usage/storage
- · Reduced energy usage
- · Lower carbon footprint
- Lower overall emissions
- · Adaptability to changing emission sources and levels

Exacting Process Control

Envirogen Built-in-Place Biofilters feature the latest concepts in odor and VOC control system design. They can be configured to include both biofilter and biotrickling designs for multi-zonal treatment – allowing them to efficiently address $\rm H_2S$, reduced sulfur compounds (RSC) and volatile organic compounds (VOC). Beyond standardized bay designs, Envirogen can tailor a built-in-place biofilter to available space in a facility.

Features include:

- FRP frame and panel construction without metal support structure (no corrosion)
- · Long media life (guaranteed)
- Single to triplex media zones tailored to air influent & treatment goals
- High degree of automation & process control



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		Filtration	Phys-Chem	Adsorptive
Fluidized Bed Reactors (FBR)	Built-in-Place (BIP) (High flow)	SimPACK™ (400 gpm+)	FlexSorb™ (5- 150 gpm)	Ultrafiltration	Gas Transfer Membrane De-Aeration	Granular Activated Carbon Systems
Membrane Bioreactors (MBR)	B, P, BT/BF, & I- Series (mid-flow)	MinX™ (100-850 gpm)	HyperSorb™ (35-3000+ gpm)	Multimedia Filtration	Demineralization	Zero Valent Iron
Suspended Carrier Reactors (SCR)	H-Series (low flow)	MinFlex™	Softening	Cartridge and Bag Filters	Disinfection	
	Biotrickling Filters (air) BT-Series	Service Exchange/ Customer Supplied		Reverse Osmosis and Nanofiltration		





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

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Envirogen Biofilter Media

ScorFil™ inorganic, scoria lava

VamFil™ aged bark, engineered

FlexFil™ synthetic structural or random packed media

Up to 10-year warranty