

BUILT-IN-PLACE BIOFILTER SYSTEMS

HIGH-VOLUME, CENTRALIZED TREATMENT WITH LOW LIFECYCLE COSTS

Envirogen built-in-place (BIP) biofilters are pre-engineered designed solutions for mid- to high-air flow volatile organic contaminant (VOC) and odor control applications. These BIP biofilter technology systems are employed in point source or centralized emissions control applications, for air flows ranging from 1,000 to well over 100,000 cfm. Concrete biofilter installations are based on standardized system components and multi-bay designs to lower installed costs, increase flexibility of design, and allow for expansion as plant

Individual corrosion-resistant concrete-foundation biofilter bays are covered with UV-resistant FRP or aluminium. 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 build in place concrete biofilter systems include irrigation and nutrient supply, featuring a programmable logic controller that monitors temperature, humidity, pressure, low pressure drops and fluid levels.

EXACTING PROCESS CONTROL

Envirogen built-in-place biofilters feature the latest concepts in odor control solutions and VOC control system design. They can be configured to include both biofilter and biotrickling filter designs for multi-zonal treatment – allowing them to efficiently address hydrogen sulphide (H₂S), reduced sulfur compounds (RSC) and volatile organic compounds (VOC). Beyond standardized bay designs, Envirogen can tailor custom built-in place biofilter to available space in a facility.

Envirogen modular biofilter technology offers robust and sustainable solutions:

- Efficient contaminant destruction
- Reduced chemical usage and chemical storage
- Reduced energy usage

needs change and evolve.

- Lower carbon footprint
- Lower overall emissions
- Adaptability to changing emission sources and levels
- Over 130 biofilter technology systems installed at over 90 locations

KEY FEATURES

- FRP construction without metal support structure (no corrosion)
- Ease of Installation (modular)
- "Drop and start-up" (i.e., drop unit on pad, pre-loaded media)
- Single or dual-zone media tailored to air influent and treatment goals
- High degree of automation & process control
- Range of guaranteed long media life with up 10-year warranty



BUILT-IN-PLACE BIOFILTER SYSTEMS

SERIES/LINE	NUMBER OF MODELS	MEDIA (ff³)	CUBIC FEET PER MIN (CFM)	EBRT/SECONDS (DEFAULT)
BIP 1-Bay	8	2000-16000	2000-16000	20-60 (30)
BIP 2-Bay		4000-32000	4000-32000	
BIP 3-Bay		6000-48000	6000-48000	

Envirogen custom build biofilter solutions: high-volume, centralized treatment with low lifecycle costs

TAILORED SOLUTIONS FOR YOUR FACILITY



BUILT-IN-PLACE BIOFILTERS (BIP)

Envirogen built-in-place systems are custom made biofilter technology systems designed for mid- to high-air flow VOC and odor control applications. Installations are based on standardized multi-bay designs and system components to lower installed costs for air flows ranging from 1,000 to 72,000 cfm or more. They can be configured with both biofilter and biotrickling designs for multi-zonal treatment. Envirogen built-in-place biofilters are intended for centralized treatment solutions and are ideal for emissions control in industrial manufacturing applications.

LONG-LIFE FILTER MEDIA WITH 10-YEAR WARRANTY

The Envirogen biofilter product line features a set of long-life engineered filter media matched to your project. With filter media guaranteed for up to 10-years it helps ensure lower project life cycle costs, consistent compliance, and excellent system performance:

- ScorFil™ inorganic, scoria lava
- VamFil™ aged bark, engineered
- FlexFil™ synthetic structural or random packed media
- NutraFil™ nutrient impregnated inorganic media
- Other filter media available

ABOUT ENVIROGEN

Envirogen is a leading international provider of water and wastewater treatment solutions. We solve complex challenges relating to water availability and quality, and help our customers to increase productivity, reduce costs and meet environmental and sustainability targets.

We do this through offering:

- Best in class water and wastewater treatment and process filtration technology
- Expertise in design, project management and engineering
- World class manufacturing and servicing capability



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