



ENVIROGEN

**BIOTRICKLING FILTERS**  
**BIOFILTER TECHNOLOGY SYSTEMS**  
*(BT/BTLP SERIES)*

## VERTICALLY ORIENTED VAPOR-PHASE BIOREACTORS

### HIGHLY EFFICIENT TREATMENT SYSTEMS WITH SMALL PHYSICAL FOOTPRINT

Envirogen biotrickling filters are vertically oriented vapor-phase bioreactors filled with an inorganic media featuring 100% recirculation. The unique design of the filters can address high concentration of hydrogen sulfide ( $H_2S$ ) odors in areas where space is at a premium - offering a shorter retention time and treatment of higher air volumes versus conventional biofilters. They can also treat high concentrations of volatile organic compounds (VOCs) and ammonia. Biotrickling filters can be chemically augmented when needed.

Our biotrickling filter towers are available in a dual media chamber version (tall), and a single media chamber version (low profile). They're delivered with lightweight, synthetic media with internal irrigation assemblies typically preinstalled to improve the speed and lower the cost of installation.

Envirogen biotrickling filter systems offer:

- Small physical footprints
- Efficient contaminant destructions
- Elimination of chemical usage/storage of chemical scrubbers
- Reduced energy usage
- Lower carbon footprint versus traditional technologies
- Lower overall emissions
- Adaptation to changing odor sources and levels

## EXACTING PROCESS CONTROL

Envirogen Biotrickling Filter Systems feature the latest concepts in odor and VOC control system design. Unlike other biofilter tower systems, the recirculation water maintained in the tower allows for optimal control of pH, nutrient levels and biofilm thickness. These highly automated systems use minimal energy; require minimal staff attention and little or no chemicals, cutting operating costs and eliminating the need for chemical storage and handling.

### KEY FEATURES

- FRP vessel without metal support structure (no corrosion)
- Single or dual-zone media tailored to air influent
- Ease of Installation (modular)
- "Drop and Start-up" (i.e., drop unit on pad, pre-loaded media)
- High degree of automation & process control in FRP or stainless steel panel construction

## BIOTRICKLING FILTER SYSTEMS

SERIES/LINE	MODELS	MEDIA (ft <sup>3</sup> )	CUBIC FEET PER MIN (CFM)	EBRT/SECONDS (DEFAULT)
Biotrickling Filters (BT)	23	225-3500	200-14000	10-30 (15)
Biotrickling Filters (BTLP)	8	120-680	480-2,720	10-30 (15)

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

## TAILORED SOLUTIONS FOR YOUR FACILITY



### BIOTRICKLING FILTERS (BT)

Envirogen biotrickling filters are vertically-oriented vessels filled with an inorganic media featuring 100% water recirculation. Their unique design can address high concentration of H<sub>2</sub>S odor control in areas where space is at a premium - offering a shorter retention time and higher throughput than a conventional biofilter. They can also treat high concentrations of VOCs and be chemically augmented when needed. The recirculation water maintained in the tower allows for optimal control of pH, nutrient levels and biofilm thickness.



### BIOTRICKLING LOW PROFILE FILTERS (BTLP)

Envirogen low profile biotrickling filters (signal stage) are vertically-oriented vessels filled with an inorganic media featuring 100% water recirculation. Their low-profile design can address high concentration of H<sub>2</sub>S odor control in areas where space and height are a premium. The recirculation water maintained in the tower allows for optimal control of pH, nutrient levels and biofilm thickness.

## 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



### NORTH AMERICAN HEADQUARTERS

Envirogen Technologies  
2627 Chestnut Ridge Road, Suite 200  
Kingwood, TX 7733  
T: 713.979.9142  
E: [info@envirogen.com](mailto:info@envirogen.com)

### UK HEADQUARTERS

Envirogen Group  
Unit 9, Wimsey Way, Alfreton Trading Estate  
Alfreton, Derbyshire, DE55 4LS  
T: +44 (0) 1773 441029  
E: [enquiries@envirogengroup.com](mailto:enquiries@envirogengroup.com)

### EUROPEAN HEADQUARTERS

Envirogen Technologies bv  
Penningweg 71, 1507 DG Zaandam, The Netherlands  
T: +31 75 204 7200  
E: [NLinfo@envirogengroup.com](mailto:NLinfo@envirogengroup.com)

We have a network of regional sales and service teams worldwide:

**USA:** Texas, Tennessee, New Jersey, California, Nevada.

**UK and Europe:** UK, The Netherlands, Germany, France, Italy.

For further details, visit our website or contact our main office locations above.

[www.envirogen.com](http://www.envirogen.com)

Follow Envirogen Technologies on LinkedIn 