

FiltaBTF™ biotrickling biological air phase filtration system.



FiltaBTF™ BTF580 Diagram

About FiltaBTF™ technology

The FiltaBTF™ biotrickling filter is part of the Bioaction biological air phase odour and emission filter range. These biological scrubbers or biotricklers offer a very effective way to treat high levels of odorous and pollutant gases such as Hydrogen Sulphide (H₂S), mercaptans and V.O.C.'s (Volatile Organic Compounds). This natural process of biological oxidisation can achieve significant odour and emission reduction in outlets with high gas concentrations, without the use of harsh chemicals.

FiltaBTF™ biotrickling filters are a modular plug'n'play filter system and can be configured in a multiple vessel or low-rise construction to achieve most treatment outcomes and installation requirements. Depending on the site, by installing a low-rise system with a large diameter vessel over a larger area the duplication of pipe and system infrastructure associated with tall multi-vessel system is negated and the cost savings are significant. The modular design minimises costs via a reduction in construction lead-times as well as logistics costs and on site assembly costs. All the filter vessels are constructed in Australia from High Density Polyethylene (H.D.P.E.) to meet strict wastewater guidelines. They are designed to minimise UV degradation problems evident in other composite materials.

FiltaBTF™ biotrickling filtration systems have a great value proposition and meet expectations for the environmentally sustainable treatment of gaseous pollutants from industries such as municipal and industrial waste water treatment, sewer systems and pump stations, pulp & paper industries, tanneries, rendering facilities, minerals and petrochemical processing, landfills, and composting plants.

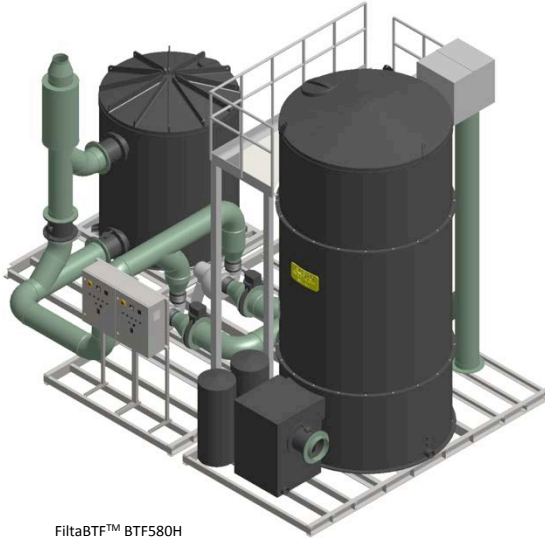
Benefits of FiltaBTF™ filtration systems:

- Hydrogen Sulphide removal rates of up to 99%
- Modular robust construction
- Efficient water usage
- Unique nutrient makeup
- Small footprint
- Flexible design to suit height or surface area restrictions
- Low environmental impact



FiltaBTF™ FV580 x 2 System with secondary carbon filter

Sustainable Modular Filtration Systems



FiltaBTF™ BTFS80H

Functional Description	The FiltaBTF™ system is a biological treatment system capable of removing up to 99% of odours. Hazardous gases are extracted from the source using a blower/extraction fan and air is forced through a packed bed of inorganic media. The gas diffuses through the media filter bed which is continually moistened by an irrigation system. Nutrient is provided by the irrigation system to promote microorganism growth on the filter media which metabolise the contaminated air stream. Water to the irrigation can be recirculated from the wet well and pH balanced. Nutrient supply can be supplemented by recycled effluent water if available.
Construction	FiltaBTF™ filter vessels are constructed from P300 High Density Polyethylene (HDPE), incorporating UV-impregnated resins that are corrosion resistant and UV stabilized throughout the material. They have a high chemical-resistance to provide significant design life expectation and are suitable for all climatic conditions. Construction follows DVS technical codes on plastic joining DVS 2202 / 2210. Joint construction is butt and extrusion welded.
Adsorptive Media	The packed bed media is either PVC pal rings or open cell foam blocks, each designed to provide a large surface area for biological adhesion and minimise pressure drop.
Humidification and Irrigation	The filter bed is irrigated to maintain correct moisture levels within the filter media to optimise biomass stability and colonisation. The irrigation assembly is located on the filter bed surface and accessed through the inspection hatch.
Optional Items	Standby fan with PLC upgrade. Stainless steel fans. High level systems operational sensors. Irrigation and inspection hatch access platform. Continuous H ₂ S monitoring. Activated carbon secondary polisher

Series	Model	Capacity		Empty Bed Residence Time (EBRT)		Vessel Outside Diameter		Skid Size		System Heights				Media Volume		Media Depth		System Mass						Duct Sizing	Pressure Drops	Fan Details	
		L / s	m ³ / hr.	Biofilter (sec)	GAC (sec)	Biofilter (m)	GAC (m)	Width (m)	Length (m)	Biofilter Vessel (m)	GAC Vessel (m)	Misc. (Skid, Duct, etc.) (m)	Total Height (m)	Biofilter (m ³)	GAC (m ³)	Biofilter (m)	GAC (m)	Biofilter Media (kg)	GAC Media (kg)	Vessels (kg)	Skid (kg)	Misc. (kg)	Total (kg)	Duct (mm) ID	Vessel (Pa)	Model	Motor Size (kW)
FiltaBTF	FB580	580	2088	15	N/A	2.3	N/A	2.3	4.3	5.2	N/A	0.16	5.39	8.7	N/A	2.13	N/A	861	N/A	661	415	500	2437	300	100	Seat 25	2.20
	FB580H	580	2088	15	3.0	2.3	1.8	2.3 + 2.4	4.3 + 4.0	5.2	2.56	0.16	5.39	8.7	1.7	2.13	0.61	861	974	1004	835	600	4274	300	620	Seat 25	2.20