



Biological Filter-Scrubbers Outline Specifications

1 Off Bio-filter unit manufactured from corrosion-resistant materials – UV stabilised. Our BIOREC systems are manufactured at our partner Europe Environments French works and arrive on site, complete and ready for installation – media will arrive separately.

Gas to Treat	
Flowrates range :	200-10,000m ³ /hr
Gas inlet temperature :	4 to 35° C
Pollution source :	Odours
Relative humidity :	70%
Oxygen :	18%
Running time :	Continuous
Inlet concentrations range :	10-300ppm H ₂ S
Removal efficiencies :	70-98% depending on designs and retention times

System Description for Biofilter	
Flowrates range :	200-10,000m ³ /hr
Size :	Module selection to suit individual applications
Media depth :	1.7m
Type of Media :	Biological media type Pouzzolane (Volcanic Rock – 800kg/m ³)
Bio Filter types :	Biomod (circular) / Biorec (rectangular)
Gas velocity :	Approx. 200m/h
Contact time design :	30-45 seconds
Approximate load :	Maximum 4 t/m ²
Pressure drop :	< 500 Pa
Pipework material :	PVC
Index of protection for electrical equipment :	IP55
Estimated media life :	20-25 years
Water supply :	Final effluent continuously fed onto Biofilter at calculated rate to suit gas flow, biofilter size and odour loadings

Each Biofilter Module Comprises

- 1 x cover including 1 access door NB: The cover is not designed to be manloaded
- 1 x vertical crinoline ladder in aluminium
- Lava rock media
- 1 x sprinkler system located above the media
- 1 x access door located at the bottom of the biological filter
- 1 x differential pressure measurement across the media (visual)
- 1 x water inlet box including a digital timer & an actuated valve, a rotameter with open/close contact & manual by-pass
- 1 x 150 W heating device for freeze protection of water inlet box

NOTE

- Freeze protection of water inlet/outlet pipework excluded

IMPORTANT

- Temperature of air extracted must be between approximately 4°C to 35°C
- Biological filter to be operated continuously

Droplet Eliminator

Droplet Eliminator to be located between Biological Filter and OCS Peacemaker Filter-Scrubber Odour Polishing Unit.

Gas Treated	
Flowrates range :	200-10,000m ³ /hr
Temperature :	Ambient
Removal efficiency :	99.9% removal for 20 microns and above

Principle of Operation

The range off units has been designed around a double bank of highly successful specially profiled eliminator blades. These blades utilises the greater inertia mass of the droplet to entrain and remove them from the airstream. Each droplet then runs down the blades to be collected in a sump.

Technical Description of the Apparatus	
Type :	SGL
Size :	To suit
Pressure drop :	220 Pa
Material of construction :	HDPE
Maximum operating pressure :	+ or – 80mm at 20°C

The Apparatus Includes for :

- 2 off banks of eliminator blades
- 1 off drain
- 1 off rectangle/square to round TYPE 4 at inlet
- 1 off rectangle/square to round TYPE 4 at outlet

preserving the environment

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