

BFT

Biofilter for odour removal

The biofilter for odour removal BFT type has been designed for the removal of bad smells that spread from water treatment and composting plants, industrial plants etc., by transforming the malodorous substances (hydrogen sulphide, mercaptans, dimetil - sulphures, natural origin or inorganic synthesis ammonia, aromatic or aliphatic compounds) in inodorous compounds.

The Biofilter is mainly composed of:

- a tank to support and contain the filtering bed composed of standard modules made of FRP or in stainless steel of various degrees, according to the needs of the clients.

- a filtering bed composed of a calibrated mix of high quality wood chips, characterized by a high grade of porosity, high retention of humidity having characteristics suitable for the growth and the taking root of the bacterial flora able to metabolize the odour compounds;

- a centrifugal blower to suction the exhausted air from those sections of the plant more subject to the release of odour compounds and its consequent inlet in the biofilter;

- an automatic system for the humidification of the filtering bed composed of PVC pipings, spray nozzles and solenoid valves;

- a complete cover of the biofilter avoids the direct exposure of the bed to sun light that would be

responsible for its uncontrolled exsiccation and at the same time allows the outlet of the treated air;

- a system to control the biofilter operating parameters composed of temperature sensor, relative humidity sensor of the filtering bed and manometer which are directly connected to the local control panel;

- local control panel installed on board.

The air sucked by the blower is spread evenly inside the biofilter and it slowly passes through the bed from bottom to top.

The bacterial flora lying on the filtering bed clean the air from the odour compounds and the treated air goes out from the top of the biofilter. The bacteria are automatically separated by the surplus of the drainage water.

During operation the natural acidification tendency due to the air to be treated is defeated by the filtering bed.

Therefore pH control of the bed has to be rarely carried out by means of simple laboratory tests or simple field instruments.

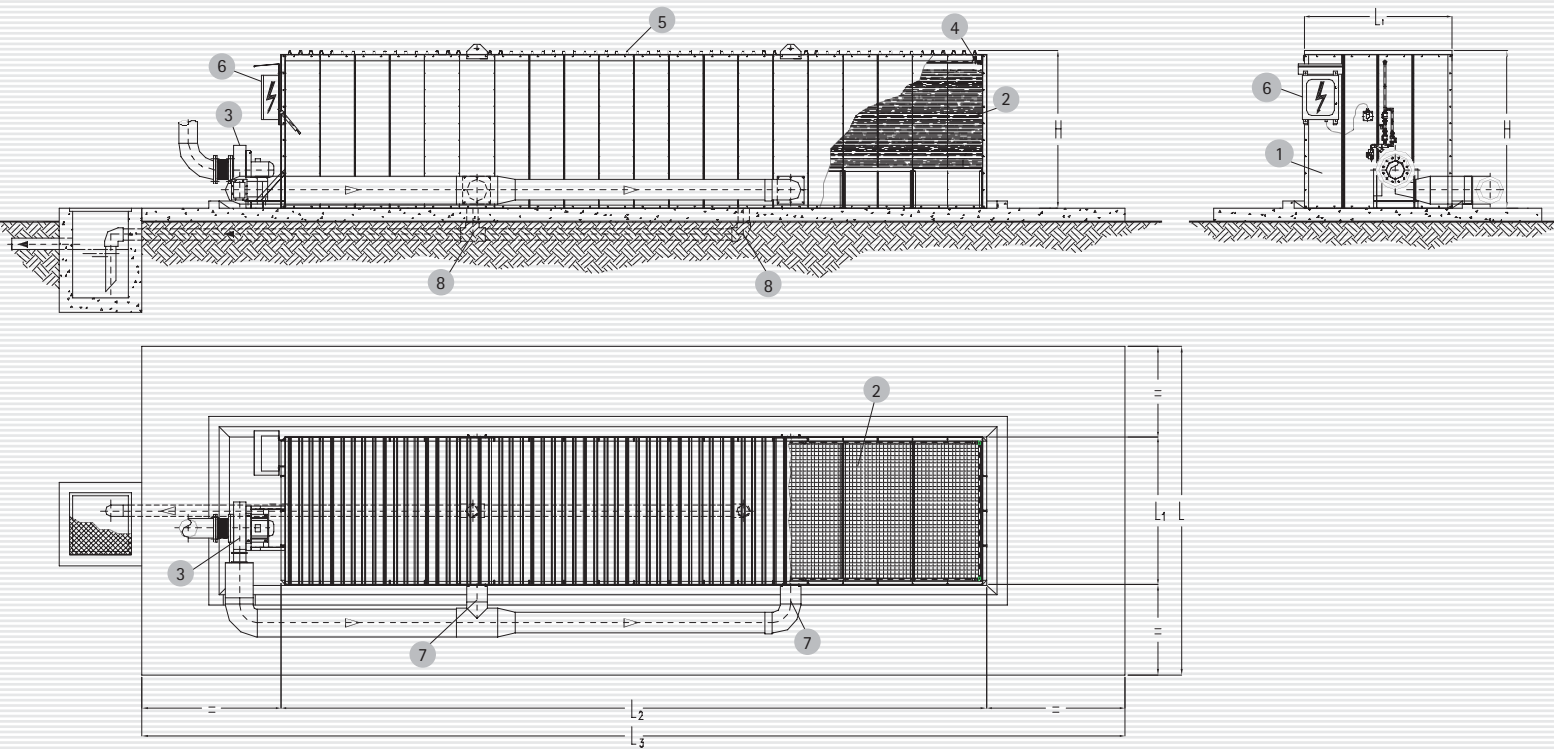
The biofilter is designed under the most restrictive regulations in force about odour treatment.

The construction easiness of the equipment and the quality of all components ensure low operating costs and high lasting reliability.

Strengths

- AIR CLEANING IN NATURAL WAY.
- HIGH TREATMENT EFFICIENCY.
- COMPLETELY AUTOMATIC OPERATION.
- MODULAR STRUCTURE FOR EASY TRANSPORT AND ASSEMBLY.
- LOW OPERATING COSTS.
- HIGH RELIABILITY AND LONG OPERATION LIFE.





- Legend**
- 1 TANK
 - 2 FILTERING BED
 - 3 CENTRIFUGAL BLOWER
 - 4 HUMIDIFICATION AUTOMATIC SYSTEM

- 5 COMPLETE COVER
- 6 LOCAL CONTROL PANEL
- 7 AIR TO BE TREATED INLET
- 8 DRAINAGE WATER OUTLET



TYPE	MAIN FEATURES	UNIT	DIMENSIONAL DATA								
			BFT 001	BFT 010	BFT 020	BFT 030	BFT 050	BFT 100	BFT 150	BFT 200	
BFT	MODEL		BFT 001	BFT 010	BFT 020	BFT 030	BFT 050	BFT 100	BFT 150	BFT 200	
	WIDTH (L ₁)	mm	622	2128	2128	2128	4136	6144	6144	6144	
	LENGHT (L ₂)	mm	1124	3634	6646	10160	8654	11666	17690	23212	
	HEIGHT (H)	mm	2262								
	BASE PLATE WIDTH (L)	mm	2000	4733	4733	4733	6736	8744	8744	8744	
	BASE PLATE LENGHT (L ₃)	mm	3000	7634	10646	14160	12654	15666	21690	25690	
	AIR FLOW RATE	m ³ /h	90	980	1800	2700	4500	9500	13700	18000	
	FILTERING BED SURFACE	m ²	0,70	7,73	14,14	21,62	35,79	75	109	143	
	FILTERING BED VOLUME	m ³	0,98	10,83	19,80	30,27	50,11	105	152	200	
	SPECIFIC SURFACE LOAD	m ³ /m ² /h	125 (approx.)								
	CONTACT TIME	sec	40 (approx.)								
	POWER SUPPLY	kW	0,55	4	5,5	5,5	7,5	15	22	30	
	EMPTY WEIGHT (BED EXCLUDED) IN SS	kg	456	994	1555	2207	2597	4109	5775	7307	
	WORKING WEIGHT IN SS	kg	1938	9655	17395	26422	42685	84386	127505	167035	

The units are composed of modules, all intermediates dimensions between those mentioned above are available and possible to execute. The indicated dimensions are only for reference and information.

