



Biofilter The SAM System



Package Sewage Treatment System

Incorporating Submerged Aerated Media

Benefits

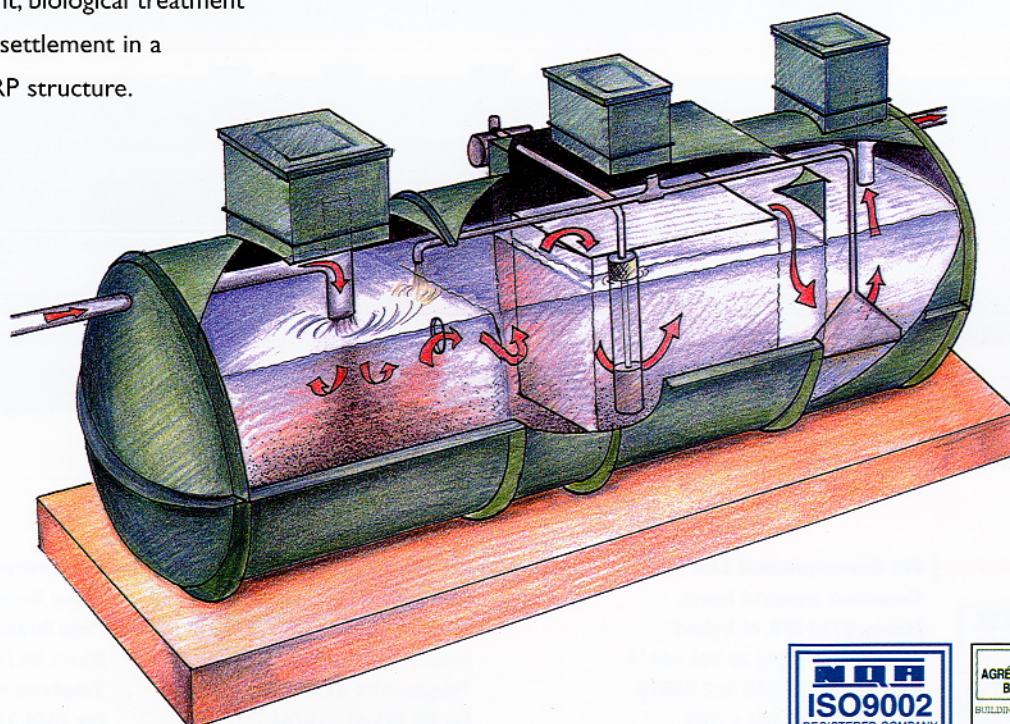
- *Easy to install*
- *Low Maintenance*
- *Environmentally Acceptable*

The Biofilter SAM Package Sewage Treatment units are designed to treat wastewater flows for populations of up to 250 persons, producing an effluent to comply with discharge consent limits for BODs, SS, and nitrified effluents.

The Biofilter SAM system incorporates "Submerged Aerated Media" to provide a high quality biological treatment process. Of compact design, the unit contains primary sludge settlement, biological treatment and final settlement in a single GRP structure.

Applications

- *Housing Schemes*
- *Hotels & Restaurants*
- *Caravan Parks*





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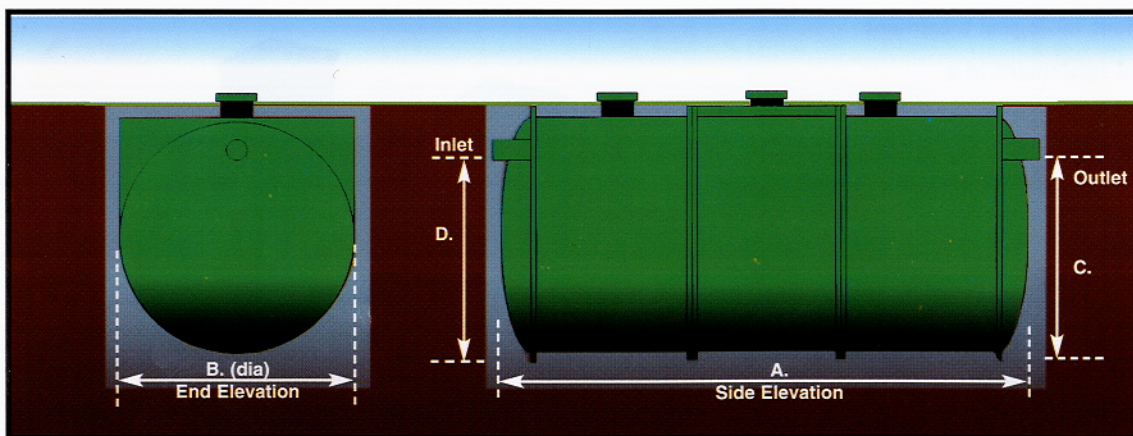
The SAM Process

Sewage entering the SAM unit flows through a two stage primary settlement compartment to ensure sufficient settlement time for gross solids. The separated liquor entering the biological compartment mixes with aerated liquor already undergoing treatment by recirculation through a submerged plastic filter media. Micro-organism activity is encouraged by fine bubble diffusion and full aeration of the media. The treated liquor then displaces into the final baffled settlement compartment before discharging to a receiving watercourse or percolation area. An automatic air lift system returns settled humus sludge from the final compartment back to the primary and biological compartments to assist the process.

The entire process is achieved using a surface blower housed in a weatherproof kiosk. SAM units are designed in accordance with BS 6297 to meet the strict effluent discharge standards set by local authorities, while also giving careful consideration to ease of maintenance and health and safety matters.

Model Ref	Equivalent Population	Average Flow 200 L/h/d	Applied Load BOD ₅ 60 g/h/d	Unit Weight Empty	Unit Weight Full	Air Lift Number	Inlet/Outlet Pipe Diameter	Approximate Dimensions (m)					
								A	B	C	D		
	Head	m ³ /d	kg/d	tonnes	tonnes		mm						
VES 5	40	8.00	2.40	1.0	16.1	1	150	5.57	2.50	2.00	2.13		
VES 6	60	12.00	3.60	1.2	24.2	1	150	3.88	3.50	2.93	3.06		
VES 7	80	16.00	4.80	1.6	35.4	1	150	4.43	3.50	2.93	3.06		
VES 8	100	20.00	6.00	1.8	41.5	1	150	5.33	3.50	2.93	3.06		
VES 9	120	24.00	7.20	2.0	47.0	1	150	5.88	3.50	2.93	3.06		
VES 10	130	26.00	7.80	2.2	51.2	1	150	6.37	3.50	2.93	3.06		
VES 11	140	28.00	8.40	2.3	55.2	1	150	6.86	3.50	2.93	3.06		
VES 12	150	30.00	9.00	2.5	59.3	1	150	7.35	3.50	2.93	3.06		
VES 13	170	34.00	10.20	2.8	66.8	2	150	8.36	3.50	2.93	3.06		
VES 14	200	40.00	12.00	3.3	78.9	2	150	9.80	3.50	2.93	3.06		
VES 15	220	44.00	13.20	3.6	86.8	2	150	10.78	3.50	2.93	3.06		
VES 16	250	50.00	15.00	4.1	98.6	2	150	12.25	3.50	2.93	3.06		

For larger or smaller applications please contact our sales office.



The company reserves the right to modify the design or amend the dimensions in respect of the equipment described in this leaflet.

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