

SEPTIC TANK WITH ANAEROBIC FILTER DATA SHEET

Model: XSET AIC... SMF SETTICA

Description

Single-chamber septic tank with an anaerobic filter made of monolithic polyethylene model underground stackable Aurora; built in the rotational moulding technique with constant wall thickness and structure stiffened by vertical and horizontal ribs.

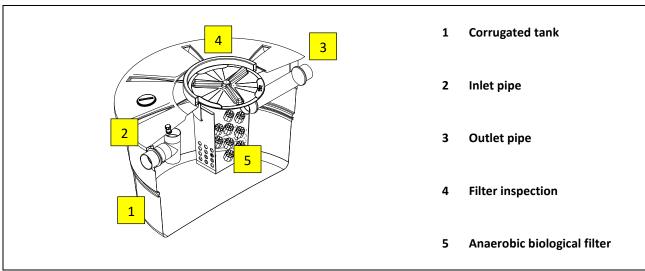
Inside the tank is installed an anaerobic biological filtration section made of filling bodies with a high specific surface area ($500 \text{ m}^2/\text{m}^3$) on which the biomass used for anaerobic purification of the wastewater adheres, increasing the performance of the plant.

On the upper part of the tank there are 2 bayonet closure plugs, one of which is at least \emptyset 600 for filter cleaning and inspection.

The tank is suitable for the treatment of black water from toilet sewage coming from residential buildings or similar drains and is suitable for discharge into surface waters or for dispersion on the ground.

The septic tank is also equipped with a vent and PVC suction pipes for sewage inlet and outlet.

Product standard configuration



Function and use

The septic tank with an anaerobic biological filter is generally used for the treatment of black sewage from domestic or similar effluents. Upstream of it, it is advisable to place a grease separator on the kitchen water discharge with the aim of eliminating the oils and greases present in the sewage arriving at the tank. The septic tank is a stilling chamber whose function is to facilitate the sedimentation of fine particles present in the sewage to be treated, which remain on the bottom of the tank. On exiting the sedimentation area, the water passes through the anaerobic biological filtration section in which there are filling bodies with a high specific surface area on which the biomass, which is responsible for anaerobic biodegradation reactions, i.e. in the absence of oxygen, adheres. This last filtration section makes it possible to guarantee a higher quality standard of the effluent leaving the plant without the aid of electrical or mechanical equipment.













Sizing and calculation parameters

The sizing must take into account the volume of sewage spilled daily for approximately 12 hours per day of detention with additional capacity for sediment accumulating at the bottom (approx. 5 to 10 litres per user).

Sludge extraction and maintenance operations are carried out periodically one to four times a year. This plant is sized according to the following parameters:

Dimensional load: 150 litres/P.E. Hydraulic load: 150 litres/P.E. x day

Specific carrier surface: 500 m²/m³

Detention time at Qm: 12 hours (calculated on the average flow rate)

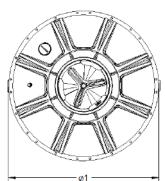
Purification yields

SST >90% BOD₅ >70%

TECHNICAL DATA







	Of process			Dimensional						
Model	P.E.	Max. flow rate	Total volume	Ø1	Ø2	Н	He	Hu	Pipes ø in/out	Caps
	nr.	litres/day	litres	cm	cm	cm	cm	cm	mm	cm
XSET AIC 1000 SMF	2 - 3	300 - 450	900	130	100	116	88	86	125	60
XSET AIC 1500 SMF	3 - 4	450 - 600	1100	130	85	150	1220	119	125	60
XSET AIC 2000 SMF	4 - 5	600 - 750	1700	170	140	121	88	85	125	60
XSET AIC 2500 SMF	5 - 7	750 - 1050	2250	170	125	168	136	133	125	60

Notes:

Heights and dimensions of items manufactured in PE by means of rotational moulding may have a tolerance of +/-3%.

Available and recommended accessories

Extension PRO X 600 / PRO X 200
Telescopic manhole CHI Y 400-600
Inspection shaft POF O 125

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