

Redonnons le meilleur à la terre

CHAIN WITH IMMERSED FIXED CULTURE WITH DISCHARGE INTO SUPERFICIAL WATER ENVIRONMENT



Features

The « IFAS » technology (Integrate Film Activated Sludge) used by BIOXYMOP consists of three compartments for three different steps :

• The primary decanter receives raw domestic waste water where a first separation between suspended solids (solid waste) and floating (greases...) is realized. The settled sludge is digested by anaerobic bacteria which allow to reduce their volume;

• The bioreactor, which is the heart of the system, receives the pretreated effluents coming from the primary decanter. The effluents are in contact with free bacteria and bacteria fixed on the support. These bacteria, in an aerobic environment, consume the pollution dissolved in the effluent (COD, BOD5...);

• The clarifier finalizes the treatment.

Sludge and bacteria are separated from the effluent treated by settling. A part of the settled sludge is recirculated towards the bioreactor. The effluents coming out of the water-plant could be discharged to mid-water surface or by infiltration into the soil.

ADVANTAGES



- Very low energy consumption
- Very small footprint
- Low digging depth : about 2 meters
- Plug & Play system
- Draining every 36 months**
- Low maintenance cost
- Installation in green spaces or under roadways
- Installation on ground with a water table
- Gravity mechanism
- Monobloc
- Good tolerance to load variations
- Easily extendable

Sizing

The primary decanter compartment is sized to have a minimum volume of 300 I/PE and an ascentional speed of 0,15 m/h.

The aeration basin compartment is sized to operate with extended aeration.

The clarifier compartment is sized to have a minimum volume of 100 I/PE and an ascentional speed of 0,4 m/h.

Maintenance

- Draining of the primary decanter and clarifier when the sludge level reaches 50 % of the volume.
- Mandatory maintenance contract for maintenance and settings of the electromecanical pieces.

SIMOP 10 rue Richedoux 50480 SAINTE-MÈRE-ÉGLISE – FRANCE – Tél. +33 (0)2 33 95 88 00 – Fax +33 (0)2 33 21 50 75 www.simop.com – e-mail : simop@simop.fr



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BIOXYMOP - WATER TREATMENT PLANT FROM 21 PE TO 50 PE POLYESTER





TANK WARRANTIED 20 YEARS AGAINST CORROSION

Technical definition

The BIOXYMOP water-treatment plants are designed with the process of aerobic immersed fixed culture. They are designed for treating domestic wastewater from individual dwellings.

Designed to be simple and easy to install, this system ensures the most effective treatment (CE marking).

Operation

Water treatment plants consist of 3 compartments :

- Primary decanter
- Aeration basin
- Clarifier



Domestic wastewater come into the primary decanter where larger particles and floating are retained. The effluent then passes through the aeration tank where dissolved pollutants are removed by purifying bacteria attached to the free supports. The final stage of treatment occurs in the clarifier. The treated effluent is separated from suspended solids. The treated effluent meets the applicable standards.

Discharges of treated wastewater can be done in two ways :

- By drainage and infiltration into the soil.
- By discharge to mid-water surface, subject to compliance with the applicable technical requirements.

ADVANTAGES

- Very low energy consumption
- Monobloc
- Very small footprint
- Low maintenance cost
- Low digging depth (about 2m)
- Frequency of the drainings spaced
- Installation on ground with or without a water table
- Large volume of the primary decanter
- Easy handling
- Good tolerance to load variations
- Easy maintenance

Installation

• Refer to installation sheets P050 and P053 (pages 27 and 28)

Maintenance

All maintenance instructions are in the maintenance book.

Guarantees

A maintenance contract must be purchased from a specialist certified by the company SIMOP upon commissioning.

GUARANTEE OF RESULTS, OPERATION AND ELECTRO-MECHANICAL PARTS MAY BE ACQUIRED ONLY WITH THIS CONDITION.

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POLYESTER

6330

The performances

After several months of testing under very solliciting conditions, the water-plant BIOXYMOP obtained exceptional purification efficiency :

	Parameters	BOD5	COD	Suspended Solids		
	Rejection (mg / I)*	11	75.5	15		
	Output*	96	88.8	95		
IInsay	Requirement of the Order dated 07.09.2009	maxi 35	/	maxi 30		

Tests carried out with raw water at 300 mg/l Suspended Solids, 300 mg/l BOD5 and 675 mg/l COD, in accordance with the requirements of the Decree dated 07/09/2009.





Reference	PE nb	Frames nb	А	В	С	D	E	ØF	G	Н	Ø١	Weight (kg)	
BIOXY3/6330/21	21	3	2175	1940	5680	6155	1710	160	1610	565	600	900	
BIOXY3/6330/25	25	3	2175	1940	6520	6995	1710	160	1610	565	600	1000	
BIOXY3/6330/30	30	3	2175	1940	7340	7815	1710	160	1610	565	600	1090	
BIOXY3/6330/35	35	3	2175	1940	8400	8875	1710	160	1610	565	600	1200	
BIOXY3/6330/40	40	3	2175	1940	9540	10015	1710	160	1610	565	600	1323	
BIOXY3/6330/45	45	3	2175	1940	10690	11165	1710	160	1610	565	600	1490	
BIOXY3/6330/50	50	3	2175	1940	13104	13579	1710	160	1610	565	600	1620	
OPTIONS													
RH602	Screw-on extension shaft Ø 600 height 250 mm												
KAERBIOXY-21	Extractable ventilation rail for BIOXY3/6330/21												
KAERBIOXY-25 Extractable ventilation rail for BIOXY3/6330/25													
KAERBIOXY-30	Extractable ventilation rail for BIOXY3/6330/30												
KAERBIOXY-35	Extractable ventilation rail for BIOXY3/6330/35												
KAERBIOXY-40 Extractable ventilation rail for BIOXY3/6330/40													
KAERBIOXY-45	Extractable ventilation rail for BIOXY3/6330/45												
KAERBIOXY-50 Extractable ventilation rail for BIOXY3/6330/50													
AE300-23-1	Outdoor cabinet												
AE300-23-C	Outdoor cabinet XL for installation of the compressor												

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