

*Give the best back to earth*

# BIOXYMOP MAX 21 TO 50 PE

WITH INTEGRATED PRIMARY SETTLING TANK

## MONOBLOCK

FIXED CULTURE ON FLUIDIZED BED (IFAS)

**6346 - 21 to 50 PE**

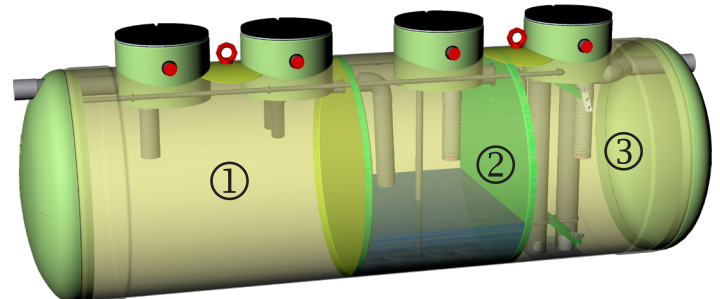
### 1 Technical definition

The BIOXYMOP MAX micro-stations are designed according to the aerobic submerged fixed culture process and are used to treat domestic wastewater from individual homes.

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

Parameters	BOD <sub>5</sub>	COD	TSS
Discharge (mg/l)*	11	75.5	15
Yields (%)*	96	88.8	95

\*Test performed with raw water at 300 mg/L TSS, 300 mg/l BOD<sub>5</sub> and 675 mg/l COD (in accordance with the requirements of EN12566-3+A2).



1 - primary clarifier  
2 - aeration basin  
3 - clarifier

### Specificities in the 6346 range

- Monoblock
- Ø1900 mm
- **Power supply in 230V**
- Compressor for air supply
- Possibility of an external cabinet on a base to contain the electrical panel + the compressor
- **New in 2022** : only one compressor per unit, from 21 to 50 p.e. Only one cabinet model for the whole range (reduced price)

### 2 Operation

The micro-stations are composed of 3 compartments:

- Primary settling tank (1)
- Aeration basin (2)
- Clarifier (3)

Domestic wastewater arrives in the primary settling tank where the heaviest materials are retained at the bottom and the floating materials on the surface.

The pretreated effluent then passes into the aeration basin where the dissolved pollution is eliminated by the purifying bacteria attached to the free supports.

The last stage of the treatment is carried out in the clarifier, where the treated effluent is separated from the suspended solids. In this same compartment, two pumps allow the recirculation of the sludge to the aeration basin and the extraction of the excess sludge to the primary settling tank.

The treated effluent meets the requirements of EN12566-3 and the amended Order of 21 July 2015.

Treated wastewater can be discharged in two ways:

- by drainage and infiltration into the soil (recommended).
- by discharge into the surface water environment, subject to compliance with the technical prescriptions in force and an authorization from a research department.

### 3 Maintenance

All maintenance instructions are included in the user's guide.

### Advantages

- Very low energy consumption
- Single vessel
- Very small footprint
- Low maintenance cost
- Shallow excavation depth (close to 2 m)
- Low emptying frequency
- Installation with or without water table
- Large volume of primary settling tank
- Easy to handle
- Accepts load variations
- Easy to maintain

### 4 Installation

The compressor, as well as the electrical cabinet, can be installed in a technical room near the station (technical room not supplied) or outside, on a concrete slab. In this case, the compressor is positioned in the waterproof cabinet, placed on its base.

The electrical cabinet and all the electromechanical equipment operate on 230V single phase.

Please refer to the website to consult the current documents

### 5 Guarantees

A maintenance contract must be signed with a specialist approved by SIMOP as soon as the system is put into service.

**THE GUARANTEE OF THE RESULTS, THE FUNCTIONING AS WELL AS THE ELECTROMECHANICAL PARTS CAN ONLY BE ACQUIRED UNDER THIS CONDITION.**

For more information (warranties, operating costs, maintenance...) please refer to the user's guide.

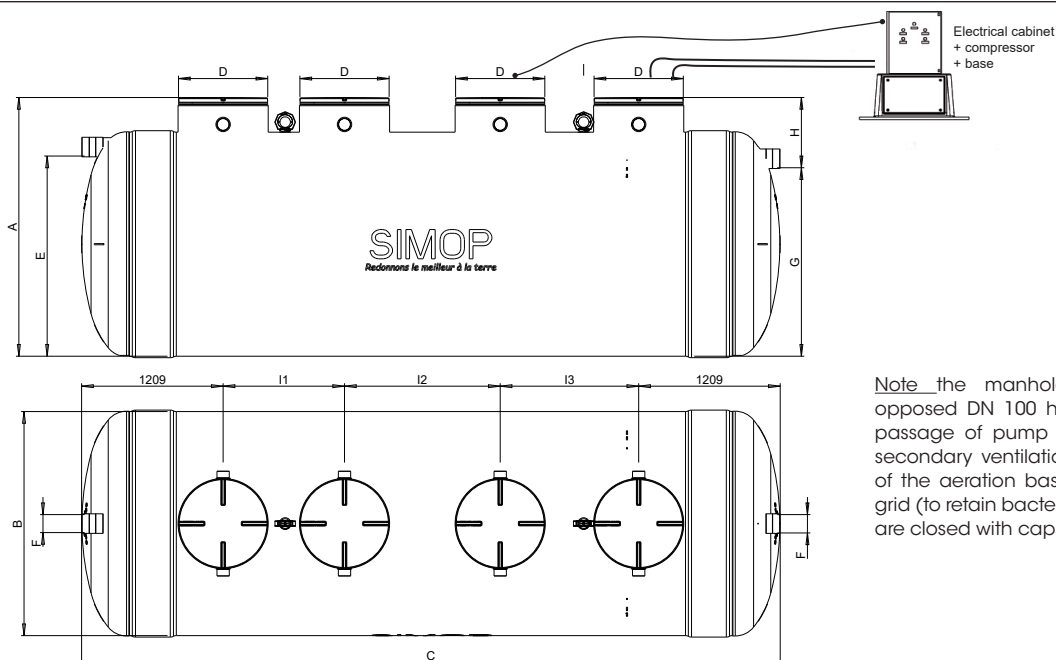
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Note the manholes have two diametrically opposed DN 100 holes, which are used for the passage of pump cables, air supply duct and secondary ventilation. The secondary ventilation of the aeration basin must be equipped with a grid (to retain bacterial carriers). The unused holes are closed with caps (KAPSTO type).

References of tanks and electromechanical equipment	Nb of PE	Nb. stamps	Nb. compressors	A	B	Overall length	E	ØF	G	H	Ø D	Ø Passage	Weight (kg)
BIOXYMOP6346/21-19 KBIOXY3-21-1-ELEC	21	4	1	2210	1940	5962	1710	160	1610	600	750	600	1340
BIOXYMOP6346/25-19 KBIOXY3-25-1-ELEC	25	4	1	2210	1940	6692	1710	160	1610	600	750	600	1450
BIOXYMOP63466346/30-19 KBIOXY3-30-1-ELEC	30	4	1	2210	1940	7602	1710	160	1610	600	750	600	1710
BIOXYMOP63466346/35-19 KBIOXY3-35-1-ELEC	35	4	1	2210	1940	8522	1710	160	1610	600	750	600	1870
BIOXYMOP6346/40-19 KBIOXY3-40-1-ELEC	40	4	1	2210	1940	9552	1710	160	1610	600	750	600	2010
BIOXYMOP6346/45-19 KBIOXY3-45-1-ELEC	45	4	1	2210	1940	10702	1710	160	1610	600	750	600	2310
BIOXYMOP6346/50-19 KBIOXY3-50-1-ELEC	50	4	1	2210	1940	11842	1710	160	1610	600	750	600	2480

PE	Primary decanter		Aeration basin		Clarifier	
	Volume (m <sup>3</sup> )	Mirror area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Mirror area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Mirror area (m <sup>2</sup> )
21	6.65	3.53	3.4	1.83	4.5	2.38
25	7.87	4.19	4.03	2.18	4.5	2.38
30	9.40	5.02	4.83	2.6	4.5	2.38
35	10.93	5.85	5.64	3.05	4.5	2.38
40	12.47	6.68	6.43	3.48	4.8	2.51
45	14	7.50	7.25	3.91	5.4	2.83
50	15.53	8.33	8.07	4.36	5.9	3.14

Reference of the electrical cabinets	Description of the cabinets	Base of electrical cabinet	References of the box compressor protection
21-50 PE			
 AE300-ME2	Waterproof wall box for outdoor wall mounting. transparent door. H432. W340. D161. 6kg	Not necessary, because the cabinet is fixed against a wall.	Required: <b>REL4/6025</b> (681 x 445 mm on the floor) 
 AE300-C2	Polyester outdoor cabinet, complete with waterproofing, to be placed on a base (included), the cabinet can contain the compressor(s). H762. L560. P250. 25kg	Necessary and included in the article AE300-21-C2	Not necessary, as the compressors are installed in the electrical cabinet.

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## 6 Accessories and options

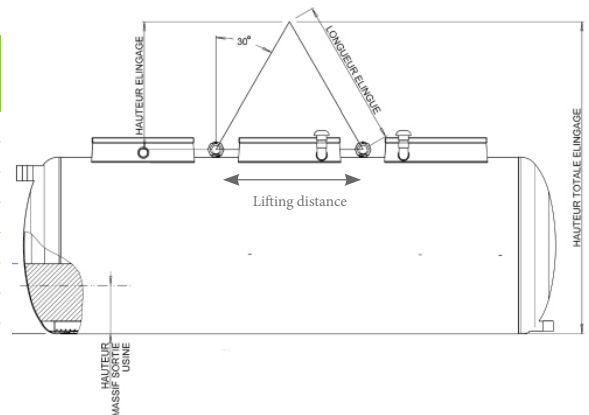
REFERENCE	DESCRIPTION
AE300-OPT1	Addition of 2 Auto/Stop/Manual switches for the control of the 2 pumps and 1 Auto/Stop/Manual switch for compressor control
AE300-OPT2	Added value for compatibility with the IT neutral system Replacement of the 5 iDT40 type circuit breakers by iC60 type bipolar circuit breakers and of the iID type differential switch by an iC60 RCBO type differential switch
AE300-OPT3	Hour meter on inner door for 2 pumps and 2 compressors Modular totalizing hour meter with digital display - 230 V AC - 50Hz - 2 modules
AE300-OPT4	230V mono socket inside the box

Possible options : RH602 (x4) and CA3/6394/10T and OD3/1900 : sludge suction kit DN80 (2 per primary clarifier) + cabinet options (see next page)

## 7 Handling, installation and commissioning

### • handling:

Nb of PE	Tank references	Lifting distance (mm)	Length of sling (minimum in mm)	Minimum height (mm)	Weight (kg)
21	BIOXYMOP6346/21-19	2500	2500	2165	1340
25	BIOXYMOP6346/25-19	2800	2800	2425	1450
30	BIOXYMOP6346/30-19	3600	3600	3118	1710
35	BIOXYMOP6346/35-19	4400	4400	3811	1870
40	BIOXYMOP6346/40-19	2800	2800	2425	2010
45	BIOXYMOP6346/45-19	2800	2800	2425	2310
50	BIOXYMOP6346/50-19	3000	3000	2598	2480



### • installation:

Refer to the general manual.

Maximum backfill height: 50 cm on GRP tanks

### • commissioning:

Commissioning is an important operation to guarantee the proper functioning of the installation. It must be carried out by a qualified professional and according to the recommendations described in the general manual.