

WASTEWATER TREATMENT

# **BIOXYMOP**<sup>®</sup> MAX

#### **COMPACT WASTEWATER TREATMENT UNIT FROM 21 TO 980 PE**

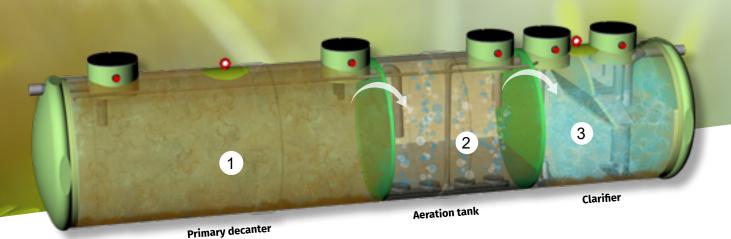


### WWW.SIMOP.FR



Give the best back to earth

#### **PRINCIPLE OF OPERATION**



The BIOXYMOP <sup>®</sup> MAX compact stations are designed according to the process of fixed culture on a fluidized bed. They can be used to treat domestic wastewater from collective housing, establishments receiving public, small companies...

Designed to be simple and easy to install, this system guarantees the most efficient treatment (CE marking up to 50 PE). The compact stations are composed of 3 compartments:



**PRIMARY DECANTER** 

The primary settling tank receives the raw domestic wastewater and allows a first separation of suspended solids (macro-waste) and floating matters (grease...).

The settled sludge is digested by anaerobic bacteria, which significantly reduce its volume.

The aeration tank, which is the heart of the system, receives the pre-treated effluent from the primary decanter. The effluents are brought in contact with the free bacteria and those fixed on the supports.

These aerobic bacteria consume the pollutions dissolved in the effluent (DCO, DBO,...)

The clarifier finalizes the treatment.

It allows the separation of sludge and bacteria from the treated effluent by decantation.

Part of the settled sludge is recirculated to the bioreactor. At the exit of the compact station. the effluents can be rejected in the surface water environment or by infiltration into the ground.

Bioxymop stations comply with the regulations in force and guarantee discharges in accordance with the French decree of July 21, 2015 modified by the decree of July 31, 2020.



#### • KEY APPLICATIONS

The BIOXYMOP <sup>®</sup> MAX compact stations are designed according to the process of fixed culture on fluidized bed. Designed to be simple, adaptable and easy to install and use, our solutions can be integrated in a variety of environments, from camping to schools and small communities.



The BIOXYMOP <sup>®</sup> MAX range offers great flexibility of use. The tests in platform during several months have shown a tolerance to load variations of ± 50% of the nominal flow during several weeks without degradation of the quality of the discharge.

The gate valve distributor allows to reduce the number of treatment tanks in case of a significant drop in load.

Conversely, it is easy to increase the number of tanks in case of a significant raise in the wastewater to be treated.

This sanitation solution can also be used in the industry for a pre-treatment of water before sending it to a treatment plant.

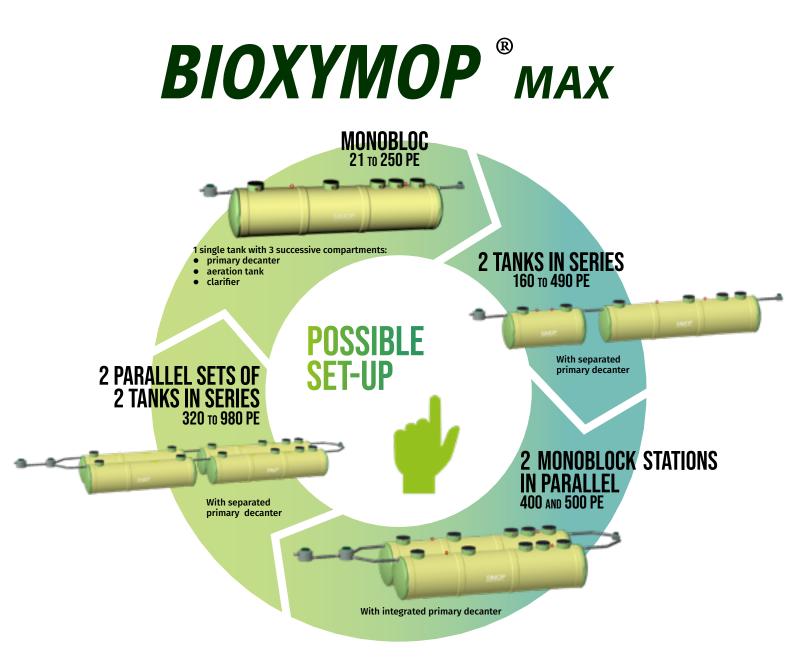


- Very small footprint
- Not subject to corrosion due to H<sub>2</sub>S
- Odorless
- Reliability due to 3 separate compartments
- Very low energy consumption
- Low emptying frequency
- Low maintenance costs



- Large volume of the primary decanter
- Very low energy consumption
- Low emptying frequency
- Low maintenance costs





For systems > 980 PE, please contact us for a project study

Practical: our BIOXYMOP ® MAX solution adapts to your site configurations!



Our compact stations are delivered ready to install and are always composed of :

- One or more GRP tanks
- Recirculation and sludge extraction pumps
- An electrical cabinet installed outside or inside





#### **OUR SOLUTIONS TO OPTIMIZE THE PROCESS**



\*Non-exhaustive list. Other accessories are available on www.simop.fr

#### **O EXCEPTIONAL PURIFICATION PERFORMANCE**

Designed to treat domestic effluents, these systems guarantee a discharge into the surface water environment, in compliance with the french decree of July 21, 2015 (after a start-up period of the compact station of about 1 month).

Simple and easy to install, this system offers you the most efficient treatment (CE marking) with a performance well above the regulations in force.

Parameters	DBO <sup>2</sup>		DCO		MES	
	<b>ВІОХҮМОР</b> <sup>®</sup> мах	Regulation 21/07/15	<b>ВІОХҮМОР</b> <sup>®</sup> мах	Regulation 21/07/15	<b>ВІОХҮМОР</b> <sup>®</sup> мах	Regulation 21/07/15
Discharge (mg/l)*	11	35	75.5	200	15	-
Performance (%)*	96	60	88.8	60	95	50

\*Test performed with raw water at 300 mg/L TSS, 300 mg/L BOD5 and 675 mg/L COD (according to the requirements of EN12566-3+A2).



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