

## TECHNICAL INFORMATION

BIOSET units are available in the following configurations:

CONFIGURATION	OXIDATION	NITRIFICATION	DENITRIFICATION
BIOSET B	●		
BIOSET BN	●	●	
BIOSET DBN	●	●	●

The hydraulic loads of **BIOSET** unit are related to the EUPS Plate Settler unit as follow:

PLATE SETTLER MODEL	DAILY FLOW (m <sup>3</sup> )	WIDTH (m)	HEIGHT (m)	LENGTH (m)
EUPS 110	200	1.6	2.2	2.0
EUPS 170	300	1.9	2.5	2.9
EUPS 230	400	2.4	2.5	2.9
EUPS 275	500	2.5	3.6	3.1

**For further details please request the technical specifications and drawings.**

# BIOSET Prefabricated Sewage Treatment Plants

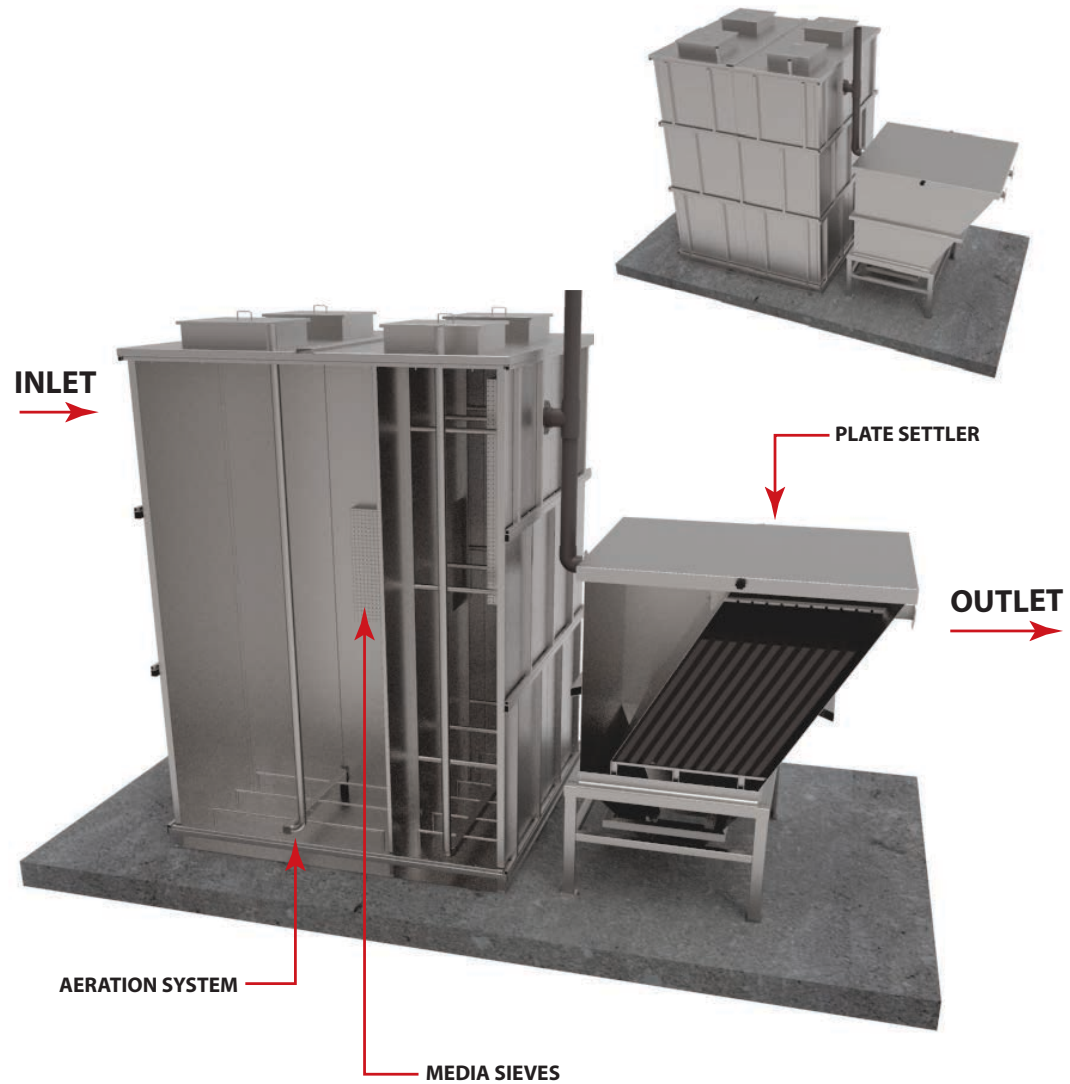
**PREFABRICATED BIOSET** sewage treatment plants are compact, factory-assembled units designed to treat wastewater generated by a number of house, residential blocks or small communities. Their unique characteristic is that they are fully modular. BIOSET units consist of one, two or more independent bio-reactors coupled to an independent settler. Their design philosophy is to have prefabricated treatment plant that can be installed in limited space and are transportable by truck. BIOSET units are proprietary design of Euromarket and are based on an advanced biological treatment process, the Moving Bed Biofilm Process MBBR. The MBBR process is based on the development aerobic bacterial culture on a protected plastic media surface. The media are kept in suspension by air that is diffused into an aerobic reactor, or with the use of mixing device in the case of anoxic denitrification reactors. In turn, the bacteria population biodegrades the organic waste compounds and an effluent of superior quality is produced.

Different models are offered with respect to capacity and treatment configuration. A separate pretreatment unit for FOG removal, primary sedimentation, balancing and aerobic sludge digestion is normally installed prior to the BIOSET main unit. This pretreatment unit may be custom made of concrete, or of stainless steel as a prefabricated structure.

The treatment processes are performed in independent tanks that are interconnected with pipes. Two-stage BOD5 removal, Nitrification (optional), Denitrification (optional) are performed in one or more tanks depending on system capacity. For final clarification purpose, a separated lamella plate settler is used. The size and number of tanks is determined by the system capacity and the available space for installation, as well as the ability to transport them by truck. The necessary air blowers, control unit and dosing system for chlorine and coagulant / flocculant (when required) are housed in separated equipment cabinet. A final collection tank may be used for the storage and disinfection of the purified effluent before discharged. This collection tank does not form part of the compact unit. The BIOSET effluent can either have secondary (BOD5 < 20 mg/l and SS < 30 mg/l) or tertiary (BOD5 < 10 mg/l and SS < 10 mg/l) quality characteristics. The tertiary quality can be achieved without filtration but simply with the addition of flocculation and coagulating agents to the effluent prior to the sedimentation stage BIOSET treatment units can only be installed above ground.

They are available in different sizes ranging from 300 to 2000PE depending on the treatment configuration. Bioreactor designs are tailored to application specific requirements while secondary clarifiers coupled to the systems are standardised designs with regard to hydraulic load. BIOSET biological treatment unit may also be used for industrial wastewater. BIOSET unit required minimum maintenance and are characterised by very low consumption. BIOSET treatment unit cause no nuisance to the surrounding area due to their low noise emission and odourless operation.

**Disclaimer:** The information contained on this data sheet is intended for general information only and should not be considered to be complete or definitive. S.K. Euromarket Ltd reserves the right to make changes at any time, without notice, to any element of the equipment presented.



## BENEFITS

- Simple and quick transportation installation and relocation
- Built to last
- Robust on load variations
- Tolerates influent fluctuations
- Low noise emission
- Odourless operation
- Excellent effluent quality
- Low running cost
- Easy, trouble free operation
- Very small footprint

## FLEXIBILITY

- Ability to be installed in limited space
- Easy to relocate
- Capacity could be increased up to 25%
- Can achieve nitrification below 5 °C
- Can achieve denitrification (BIOSET DBN)
- Wide operating ambient temperatures from -20°C to + 45°C
- Economy mode for low loading seasons

## CONSTRUCTION MATERIALS

- All tanks made of stainless steel AISIS 304 (or AISI 316 upon demand). External walls may be covered with thermal insulation and/or cladding when required
- Aeration system made of stainless steel.
- All wet parts made of corrosion free materials (i.e. stainless steel, UPVC, PE or other materials)
- Biofilm media carriers made of HDPE