



ecodepur[®]
tecnologias de protecção ambiental



AQUADEPUR[®]

MICRO SBR



*THE NEW SBR RANGE FOR
DECENTRALISED WASTEWATER
TREATMENT*

**MEETS TODAY'S DEMANDS
PREPARED FOR THE CHALLENGES OF THE FUTURE**

CERTIFIED by



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52074 Aachen



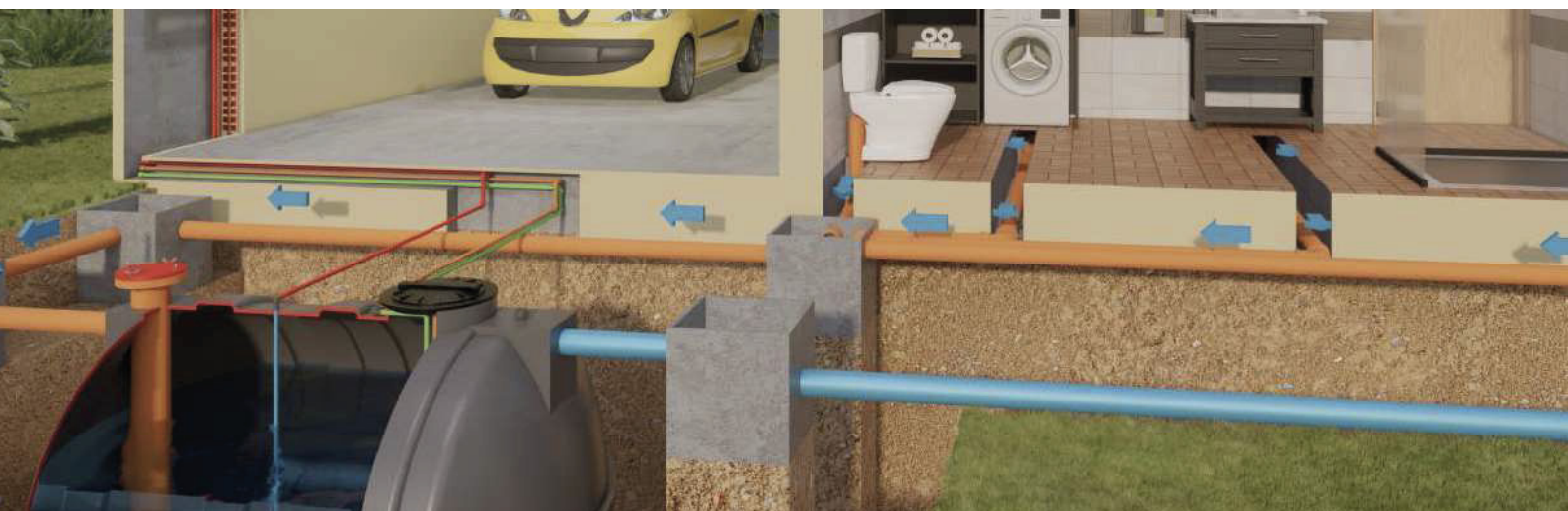
01

HIGH TREATMENT PERFORMANCE

AQUADEPUR® Micro SBR has been designed and tested in accordance with the European standard EN 12566-3, obtaining treatment efficiencies superior to the current legal exigences, which allows to respond to a possible increase in regulatory requirements.

PARAMETER	TREATMENT EFFICIENCY	QUALITY OF TREATED EFFLUENT
CHEMICAL OXYGEN DEMAND (COD)	93,5%	53 mg/l
BIOCHEMICAL OXYGEN DEMAND (BOD5)	97,0%	10 mg/l
TOTAL NITROGEN (TN)	89,0%	10,4 mg/l
AMMONIACAL NITROGEN (NH ₄ - N)	82,3%	4,4 mg/l
TOTAL PHOSPHORUS (P _{tot})	62,6%	2,6 mg/l
TOTAL SUSPENDED SOLIDS (TSS)	96,0%	16 mg/l

AS PER TEST REPORT PIA 2022





HIGH-PERFORMANCE SBR

ECODEPUR®'s Micro SBR
AQUADEPUR® is a
high-performance wastewater
treatment plant, ideal for
single-family houses and small
agglomerations where a sewage
network is not available.

02

TECHNICAL ADVANTAGES

AQUADEPUR® Micro SBR simplifies the decentralised treatment of wastewater.

Its conception, design, quality of raw materials and components, testing (mechanical resistance and treatment levels) and production control (ISO 9001 / ISO 14001 conditions) guarantee reliable and long-lasting operation with minimum human intervention, simplifying and ensuring compliance with the legal discharge limits, protecting and safeguarding the quality of surface and ground water.

- **CE marking:** designed, manufactured and tested in accordance with the EN 12566-3 standard
- Treatment levels, watertightness, structural behaviour and durability **tested** by an external entity **accredited** by the European Union for this purpose
- Full compliance with the **legislation in force (Portuguese / European)**
- **Minimum energy consumption** (high energy efficiency)
- Absence of chemical and biological products
- Absence of bad odours
- Silent system with no visual impact
- Absence of pumps or other submerged equipment
- Easy and quick to install
- High durability and **quality** of the installed components
- Minimum human intervention necessary
- Easily upgradeable for reuse of treated water for irrigation

03

MINIMUM POWER CONSUMPTION

A+

AQUADEPUR® | 0,167 kWh/HE ⁽¹⁾

BF | 0,270 kWh/HE ⁽²⁾

REGULAR SBR | 0,276 kWh/HE ⁽²⁾

MBBR | 0,390 kWh/HE ⁽²⁾

MBR | 0,408 kWh/HE ⁽²⁾

1) Micro SBR AQUADEPUR® 6 Consumption

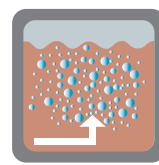
2) Consumption of different systems (Specialized bibliography)

04

OPERATION

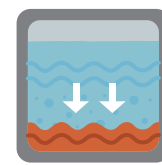
Micro SBR AQUADEPUR® is an ultra-compact solution in a single reactor guaranteeing the reliability, perennity, simplicity and high treatment levels characteristic of Sequential Biological Reactors (SBR).

The "Batch" treatment process is mainly characterised by the fact that aeration and the settling of sludge take place sequentially and cyclically in the same tank.



AERATION AND MIXING

Effluent is aerated through a fine bubble diffusion system. Aeration ensures aerobic biological degradation and nitrification.



SETTLING

The biological flocs settle effectively at the bottom of the reactor generating a treated/clarified effluent zone at the top of the reactor.



TREATED EFFLUENT EXTRACTION

The treated clear water is discharged into the natural environment. After this phase, treatment is restarted.

COMMAND AND CONTROL UNIT

Automatic control of aeration and extraction of treated effluent. The command and control unit is equipped with a pressure sensor that determines the water level during the aeration and extraction phases. It is also equipped with an acoustic alarm (in case of electrical failure or malfunction), a sequential operating program permanently stored in the EEPROM and rechargeable NiMH batteries that ensure continuous sending of signals in case of power failure.

TECHNICAL MODULE (OPTIONAL)

It can be supplied, with control unit and blower pre-installed in a cabinet.

BLOWER

Aerating system supply.

INLET PIPE

Reduces inlet turbulence, facilitates inspections and allows for efficient and easy sludge extraction.

HDPE TANK

Manufactured by rotomolding with a 5-year guarantee. Watertightness, structural behaviour and durability tested by an external entity accredited by the European Union for this purpose.

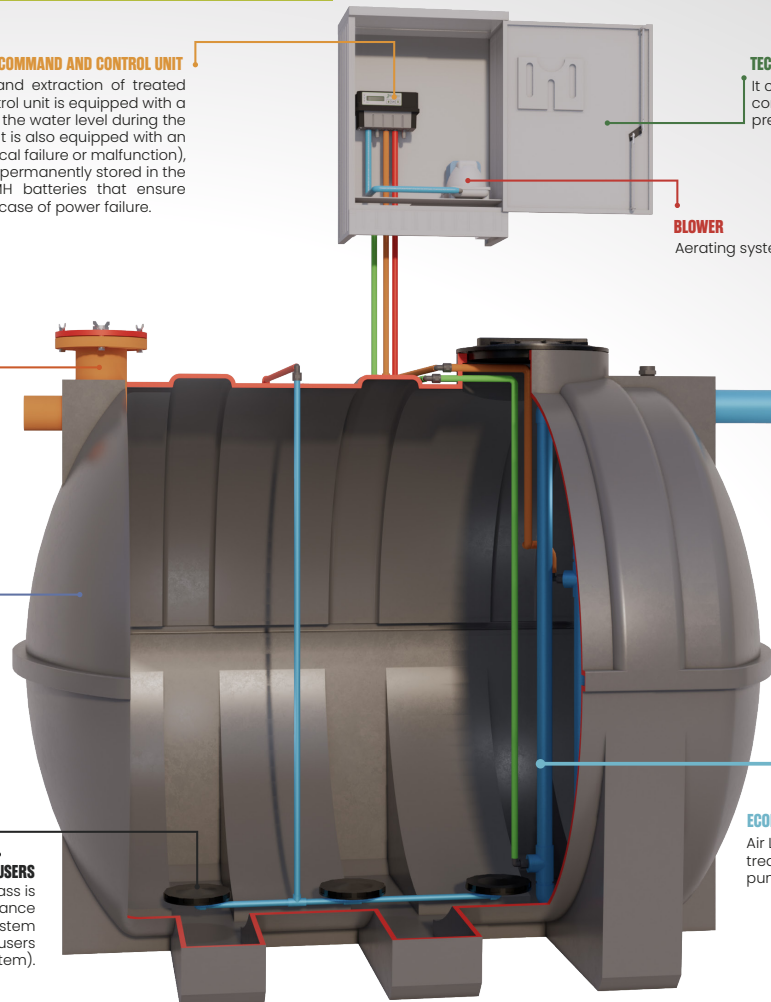


FINE BUBBLE DIFFUSERS

The aeration of the liquid mass is carried out by a high-performance fine bubble diffusion system consisting of a set of EPDM Diffusers (Anti Clogging System).

ECODEPUR® AIR LIFT

Air Lift system to discharge treated effluent without using pumps.



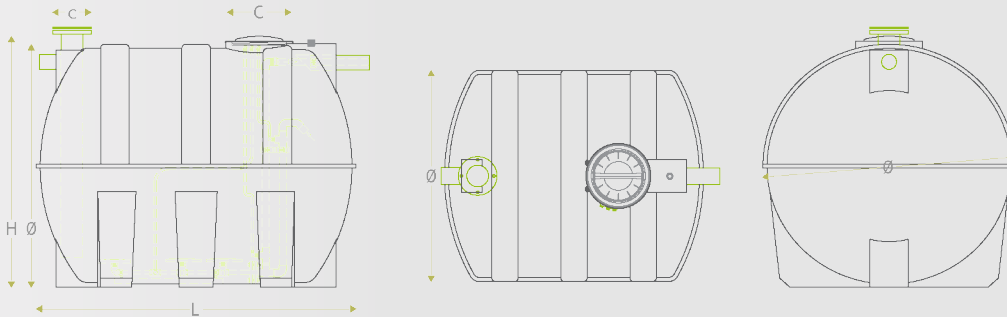
05

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS MICRO SBR AQUADEPUR®

POPULATION (EQ. INH.)	6	10	25	40	50
AVERAGE DAILY FLOW	900 L/DIA	1.500 L/DIA	3.750 L/DIA	6.000 L/DIA	7.500 L/DIA
REACTOR VOLUME	3.000 L	5.000 L	10.000 L	15.000 L	20.000 L
LENGTH (L)	1.900 MM	2.320 MM	3.440 MM	4.980 MM	6.520 MM
DIAMETER (Ø)	1.500 MM	1.800 MM	2.190 MM	2.190 MM	2.190 MM
HEIGHT (H)	1.550 MM	1.870 MM	2.265 MM	2.265 MM	2.265 MM
PIPING DIAMETER	110 MM	110 MM	200 MM	200 MM	200 MM
SLUDGE EXTRACTION PIPE DIAMETER	160 MM	160 MM	*	*	*

* On models AQUADEPUR® 25, AQUADEPUR® 40 and AQUADEPUR® 50 the sludge extraction is carried out through the manhole available for this purpose.



06

INSTALLATION

Micro SBR AQUADEPUR® is very easy and quick to install. The complete installation instructions are supplied with the equipment.

WARRANTY

The HDPE tanks have a 5-Year Warranty and the electromechanical equipment have a 2-Year Warranty against possible manufacturing defects.



07

TERTIARY TREATMENT [OPTIONAL]

Micro SBR AQUADEPUR® is easily upgradeable to produce a treated wastewater with suitable quality for reuse.

This quality can be achieved by including a tertiary treatment after the Micro SBR AQUADEPUR®, which can vary from the addition of just an automatic chlorine disinfection module to a complete system with filters and disinfection.

The actual solution will always depend on the characteristics of each case and on each country's specific regulations on treated wastewater reuse.

Please contact our technical services for further information.



GLOBAL WATER SOLUTIONS

ECODEPUR® is a company with international reach, whose scope of activity is based on the design, manufacture and commercialisation of systems for the treatment, reuse, lifting and storage of water and wastewater.

Our guiding principles are customer trust and satisfaction. Our Quality and Environmental Management Systems are certified by TÜV Rheinland Portugal, according to NP EN ISO 9001 and NP EN ISO 14001.

Focused in improving the service to its customers, with solutions dimensioned and manufactured having in account the specific typologies and the quality requirements of each situation, ECODEPUR® bets in compact and modular technologies, with widely tested and validated performances.

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TECHNOLOGY FOR WATER AND WASTEWATER

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