

BIOROCK® Sewage Treatment



Non-Electric



Low running costs



Completely silent



Odourless



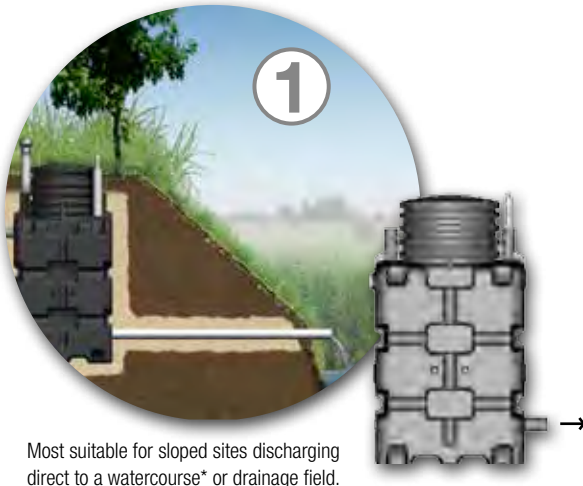
Small footprint



BIOROCK
sewage water treatment

Non-Electric Sewage Treatment Plants for domestic waste water

BIOROCK was established in 1988 and is now an internationally acclaimed and experienced company and industry leading in compact wastewater treatment technology. BIOROCK systems have already been installed worldwide in the past 25 years. Our proven performance leads to trust of both the users of our technology and our supplier's network, which is the basis of our success.



Most suitable for sloped sites discharging direct to a watercourse* or drainage field.

The BIOROCK® Non-Electric treatment process

Initially the raw sewage (A) enters a primary tank (PT, B) to provide separation and the breakdown of organic solids (Primary Treatment). The sewage then passes through an effluent filter before discharging into the BIOROCK® unit which incorporates the well proven aerobic digestion process (Secondary Treatment) and filtration process (Tertiary Treatment).

BIOROCK uses a material with huge surface area which allows colonization of the necessary bacteria, a process which is essential for the effective treatment of domestic wastewater.

The BIOROCK media is highly resistant to degradation and remains extremely stable over the long term - our 25 years' experience in the industry being proof of this.

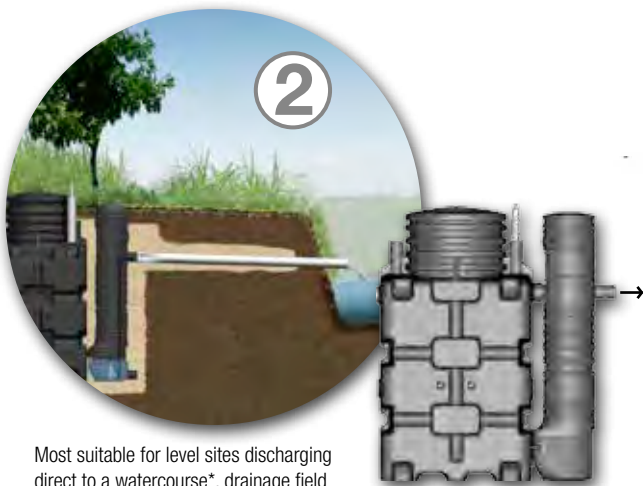
- Very Stable Inorganic material - does not break down over time, unlike "organic" media
- Requires little maintenance – scraping and scarification is not necessary, unlike for organic media
- The Structure and Composition ensures unsurpassed and unique surface treatment with exceptional purification results
- Ecological material, locally produced and recyclable

BIOROCK offers a much more efficient and ecological wastewater treatment technique compared to traditional techniques that are very high in maintenance and energy consumption.

BIOROCK offers 2 discharge options :

1. BIOROCK gravity discharge
2. BIOROCK high-level discharge

Our high level discharge system is equipped with a reliable, high-quality pump kit. This kit is delivered "pre-assembled" for ease and speed of installation.



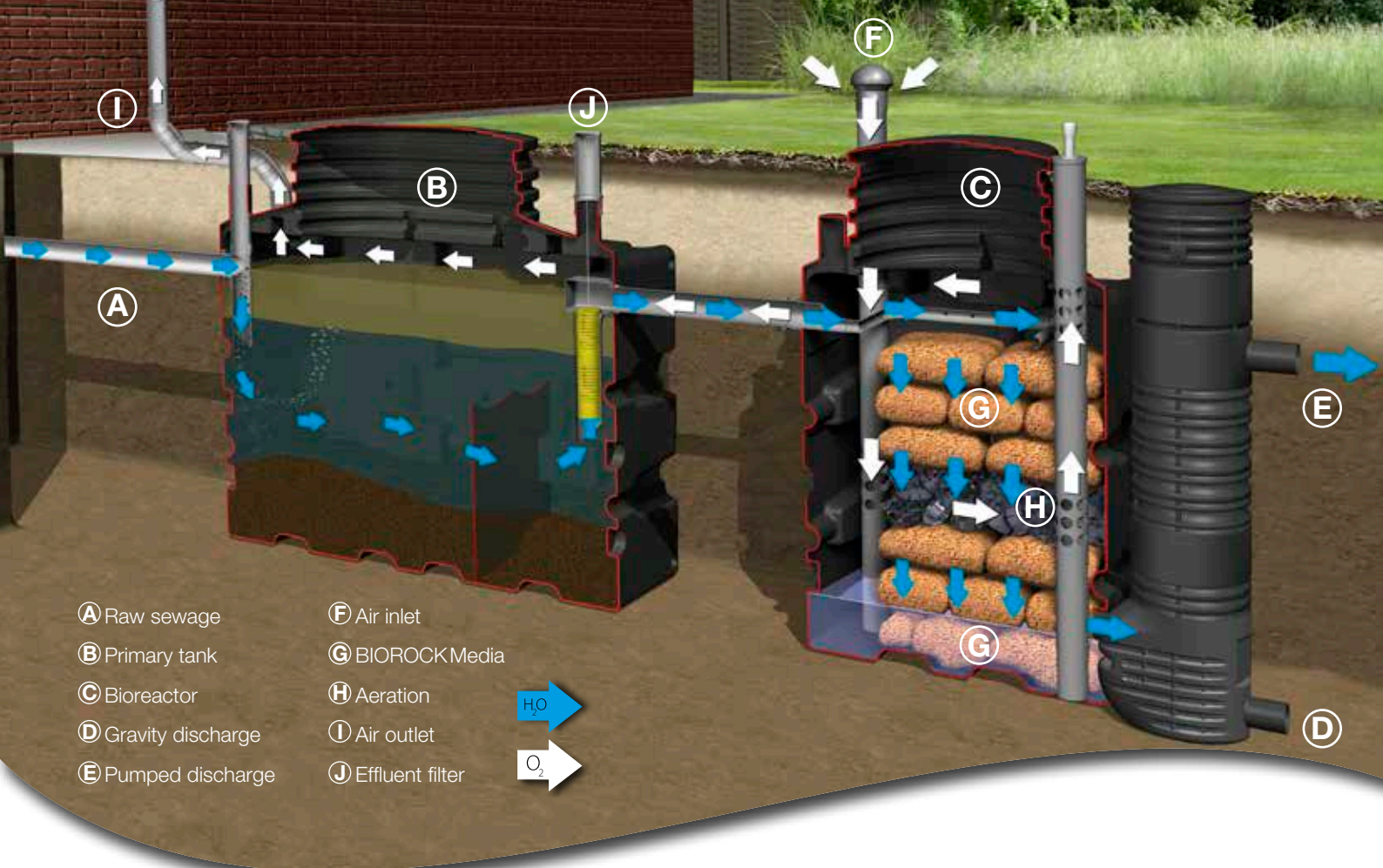
Most suitable for level sites discharging direct to a watercourse*, drainage field or raised bed.

*subject to local or national regulations.

Installation for all type of ground conditions and applications.

- High ground-water sites.
- Reinforced and durable, the BIOROCK units and Primary tanks are reinforced as standard enabling them to be structurally sound in all ground conditions.
- The BIOROCK System has the ability to handle intermittent (seasonal) wastewater loadings, even during long absence periods
- Holiday Homes, Campsites, Caravan Parks, etc.
- The system can also handle low utilization levels without compromising the treated effluent quality.





Unique advantages

BIOROCK provides a revolutionary, efficient and reliable compact wastewater treatment solution. Very compact, our systems are free from any blower or air diffusers. They don't need any electricity for the treatment process, leading to minimal maintenance and repair costs, the lowest operational costs and the longest desludge intervals.

These unique advantages lead to significant costs savings for the user compared to conventional wastewater treatment plants, as the reliability of the system is maximized with no possible breakdowns thus no need for expensive spare parts. The superb purification results produced by BIOROCK have placed our systems in a leading position when compared with older & traditional wastewater treatment techniques.

Revolutionary technology

- ✓ Septic tank replacement / upgrade
- ✓ Non-Electric sewage treatment process
- ✓ 24 Hour start-up period
- ✓ Long absence periods acceptable

Unique advantages

- ✓ Completely silent
- ✓ Low operational costs
- ✓ Very light maintenance
- ✓ Long desludge interval

Sustainability

- ✓ Superb effluent quality
- ✓ Low carbon footprint
- ✓ Ecological material, locally produced and recyclable

The BIOROCK® systems are delivered 'complete' and pre-assembled for ease of installation.

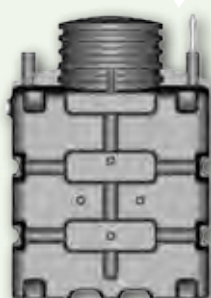
FACTS

TRADITIONAL VERSUS BIOROCK	Traditional units	BIOROCK
Non-Electric purification process	NO	YES
Silent & Odourless	NO	YES
Handles Intermittent Loading	NO	YES
Handles absence periods	NO	YES
Handles most household cleaners	NO	YES
Handles power failure	NO	YES
Septic tank conversion unit*	NO	YES
Intensive maintenance	YES	NO
High sludge production	YES	NO
High operational costs	YES	NO

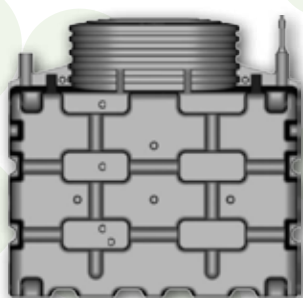
The BIOROCK® range of sewage treatment plants



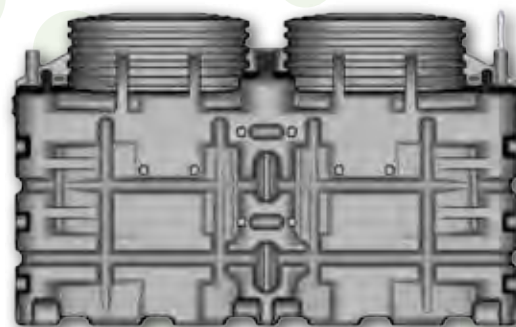
ECOROCK-1500



ECOROCK-2000



ECOROCK-3000



ECOROCK-5000

	ECOROCK-1500	ECOROCK-2000	ECOROCK-3000	ECOROCK-5000
Capacity in P.E.	4/6 p.e.*	10 p.e.*	15 p.e.*	30 p.e.*
Capacity in litres/day	600/900	1500	2250	3750
Material	HDPE	HDPE	HDPE	HDPE
Length	1150 mm	1450 mm	2150 mm	3550 mm
Width	1150 mm	1150 mm	1150 mm	1150 mm
Height unit (max.)	2100 mm	2100 mm	2100 mm	2175 mm
Weight (empty)	186 kg	223 kg	297 kg	625 kg
Δ in- & outlet pipe	1098 mm	1098 mm	1098 mm	1213 mm

Purification results BIOROCK®

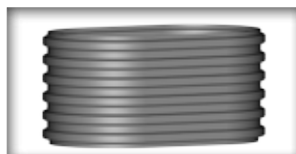
Tested conform EU Norm EN 12566-3 + A2

BOD ₅	4 mg/l	99%
COD	26 mg/l	96%
S.S.	3 mg/l	99%

More results are available upon request

*The capacity of the individual ECOROCK-5000 unit can be increased if the required effluent quality is of a lower standard than the results, achieved during the EN-12566-3 Performance test. "

Options BIOROCK



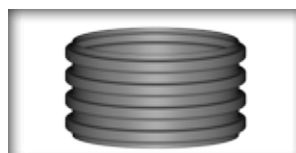
Extension set 700 x 1200 mm



Extension set 400 mm



Mechanical fan 110 mm



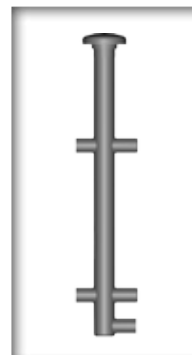
Extension set 700 mm



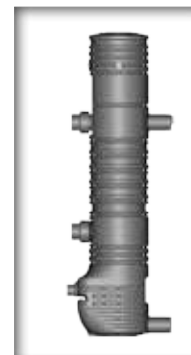
Effluent filter for primary tank



Clips for above ground installations



Sampling pipe 160 mm



Pumping well 400 mm

Our support

- A brand with strong values
- Access to licensed products
- Daily support by our team of professionals
- Excellent hands-on trainings
- Warranty: 25 years on tanks / 10 years on BIOROCK media*

*subject to conditions, contact us for details

www.biorock.co.uk

email: info@biorock.co.uk

Sales Enquiries: 01612466065

BIOROCK Sewage Treatment Ltd.

UK North Office : 5300 Lakeside, Cheadle Royal Business Park, Cheadle, Cheshire SK8 3G

UK South Office: Unit A2, Lympne Distribution Park, Otterpool Lane, Hythe, Kent CT21 4LR



BIOROCK
sewage water treatment



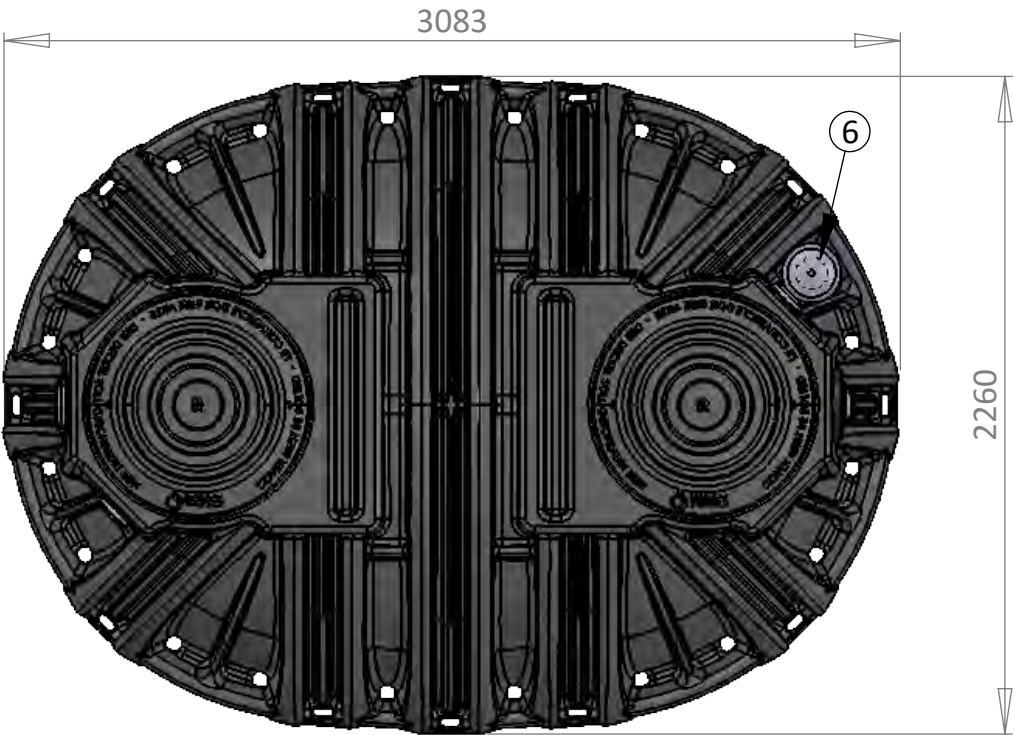
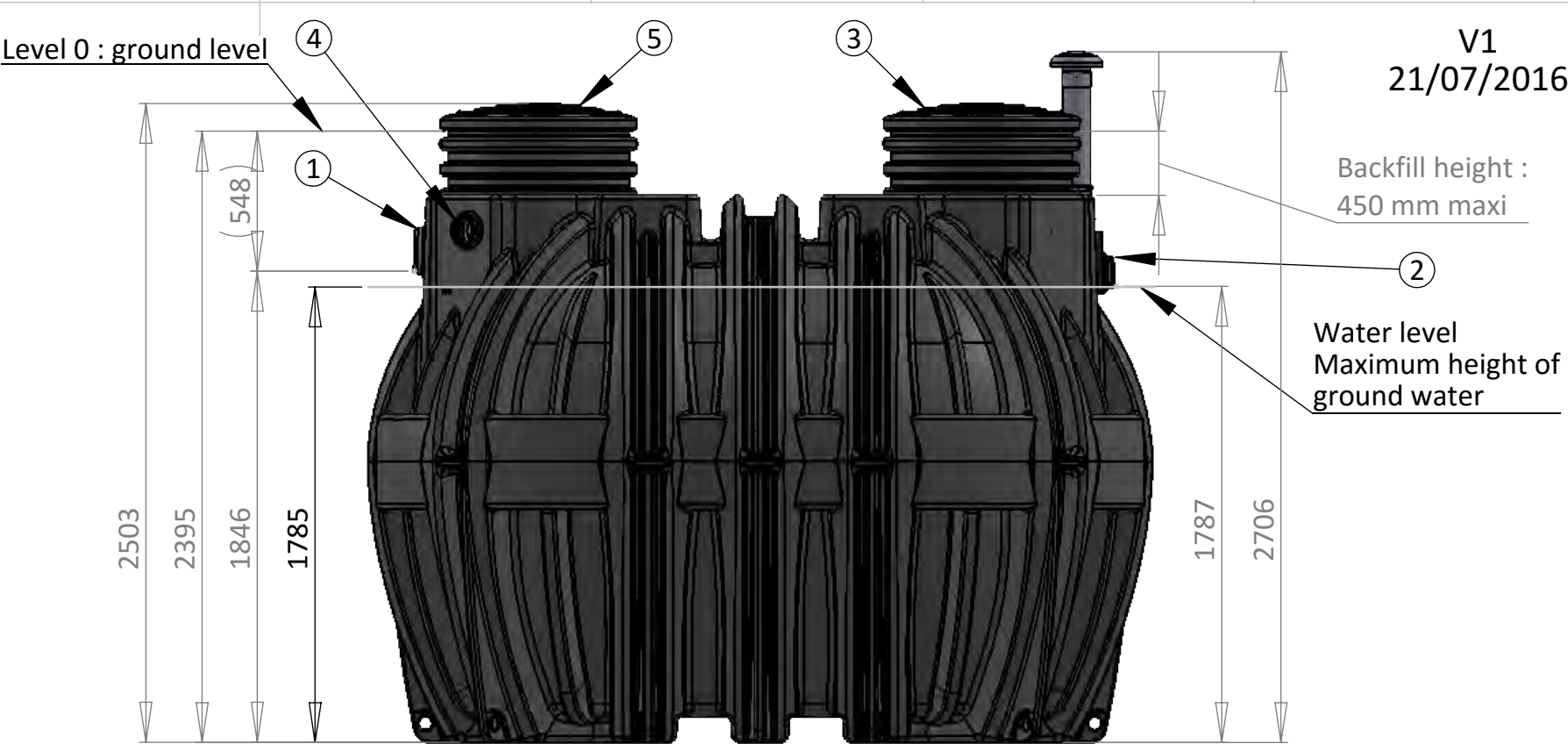
Primary tank

Tank volume 7500 L

1	Water inlet
2	Water outlet
3	Access to effluent filter
4	Air outlet
5	Access to rodding point
6	Ait inlet

Characteristics	Value	Unit
Primary tank (PT)		
Material	HDPE	
Minimum volume necessary	7500	Litres
Specification	Value	Unit
Overall length	3083	mm
Overall width	2260	mm
Overall height	2706	mm
Total weight (without water)	390	Kg
Pipe diameter	160-110	mm

This primary tank can be installed in high ground water table.



Overall tolerance : 3%

Service :

ORIGINATOR

	NAME	SIGNATURE	DATE
AUTHOR	AQ		21/07/2016
APPROV.			

CHANGES

	NAME	SIGNATURE	DATE
AUTHOR			
APPROV.			

CHANGES

	NAME	SIGNATURE	DATE
AUTHOR			
APPROV.			

TITLE:

Nb. of PLAN

FTE-X7500

A3

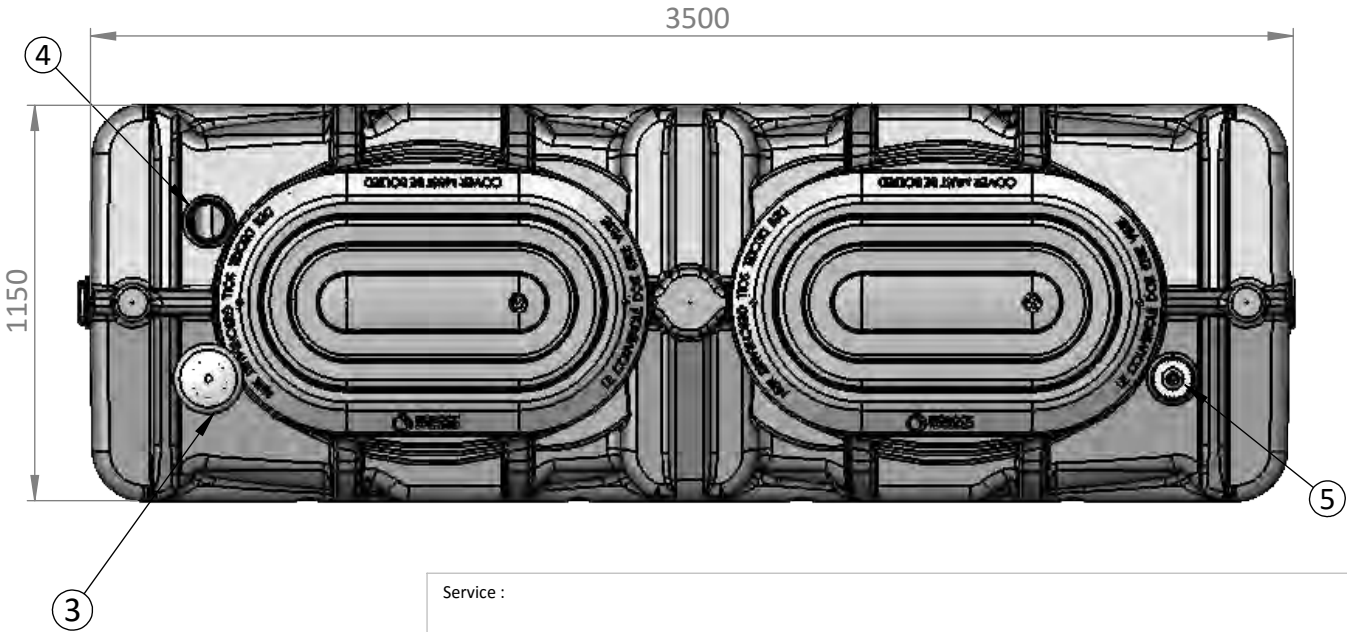
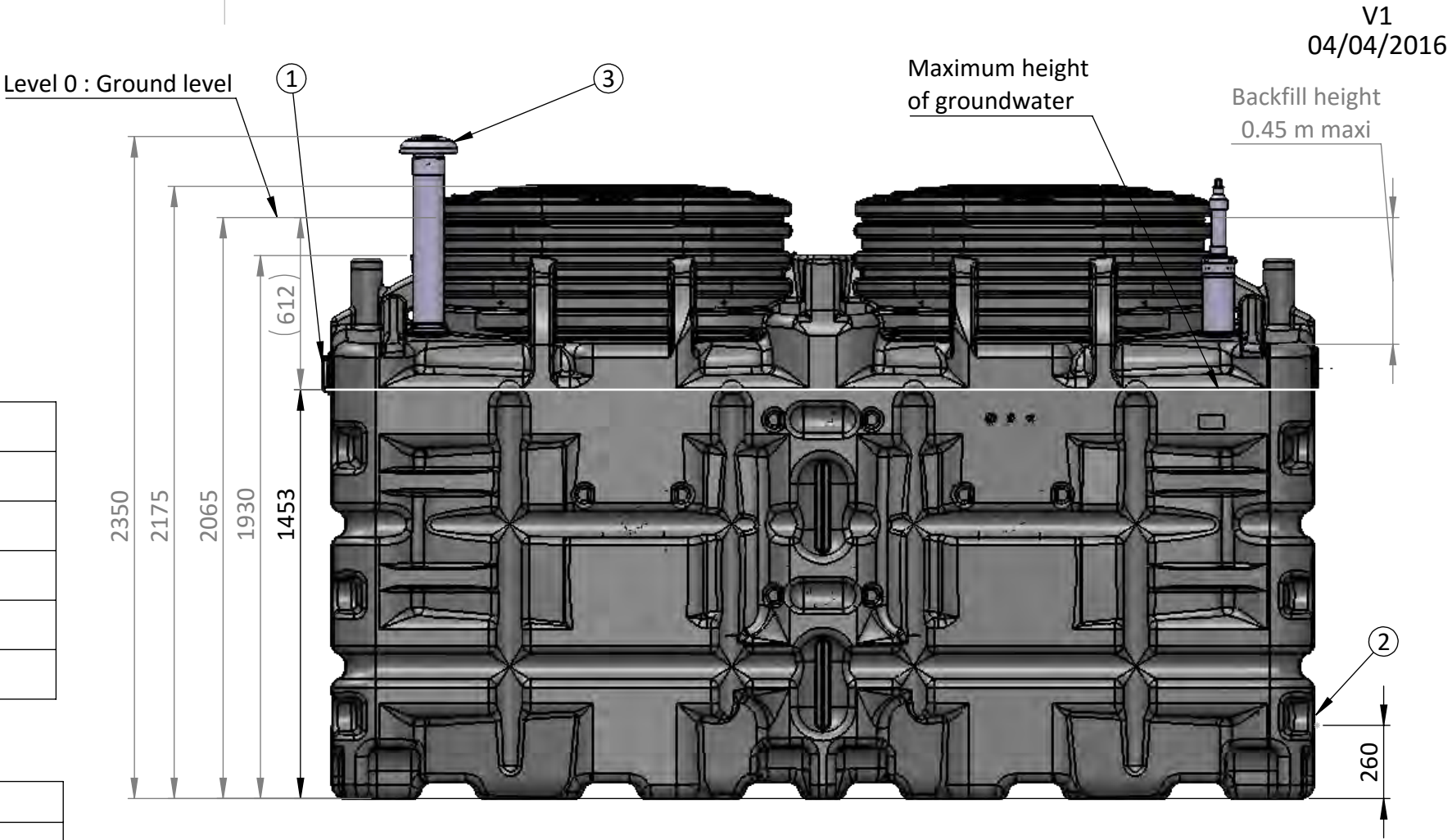
BIOROCK

SCALE:1:26

ECOROCK-5000
Treatment Unit
Tank volume 5000 L

1	Water inlet
2	Water outlet
3	Air inlet
4	Air outlet
5	Overflow Alarm

Characteristics	Value	Unit
ECOROCK-5000 Treatment Unit		
Capacity in population equivalent	30	PE
Daily volume of wastewater	150	litres/day/PE
Daily hydraulic load	4.5	m ³ /day
Organic load per PE	60	gr.BOD ₅ /PE/jour
Organic load raw influent	up to 2.25	kg BOD ₅ /day
Specification	Value	Unit
Tank volume	5000	Liters
Overall length	3500	mm
Overall width	1150	mm
Total height of the tank	2175	mm
Overall height (+ventilation pipe)	2350	mm
Total weight (without water)	680	Kg
Pipe diameter	110	mm



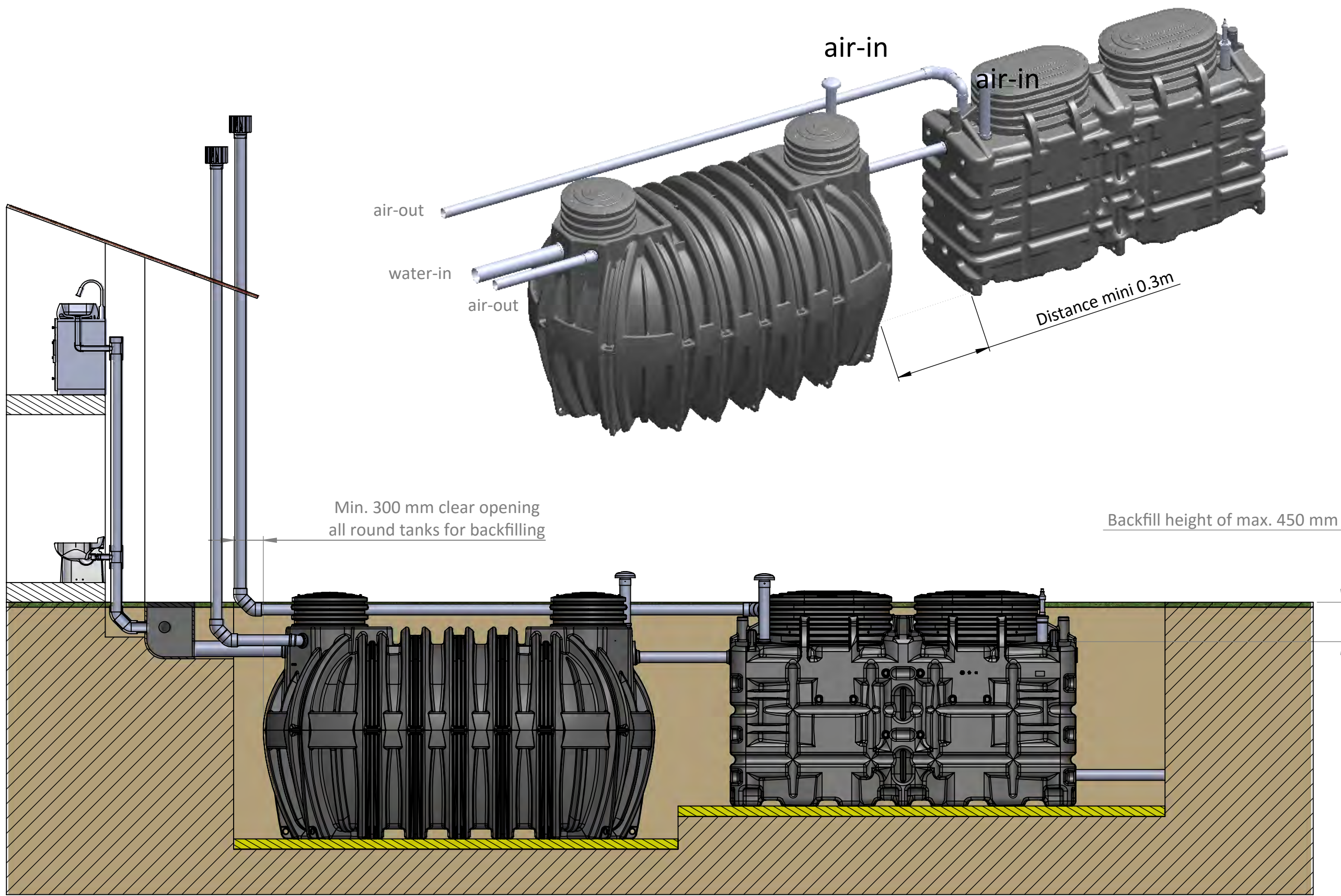
Overall tolerance : 3%

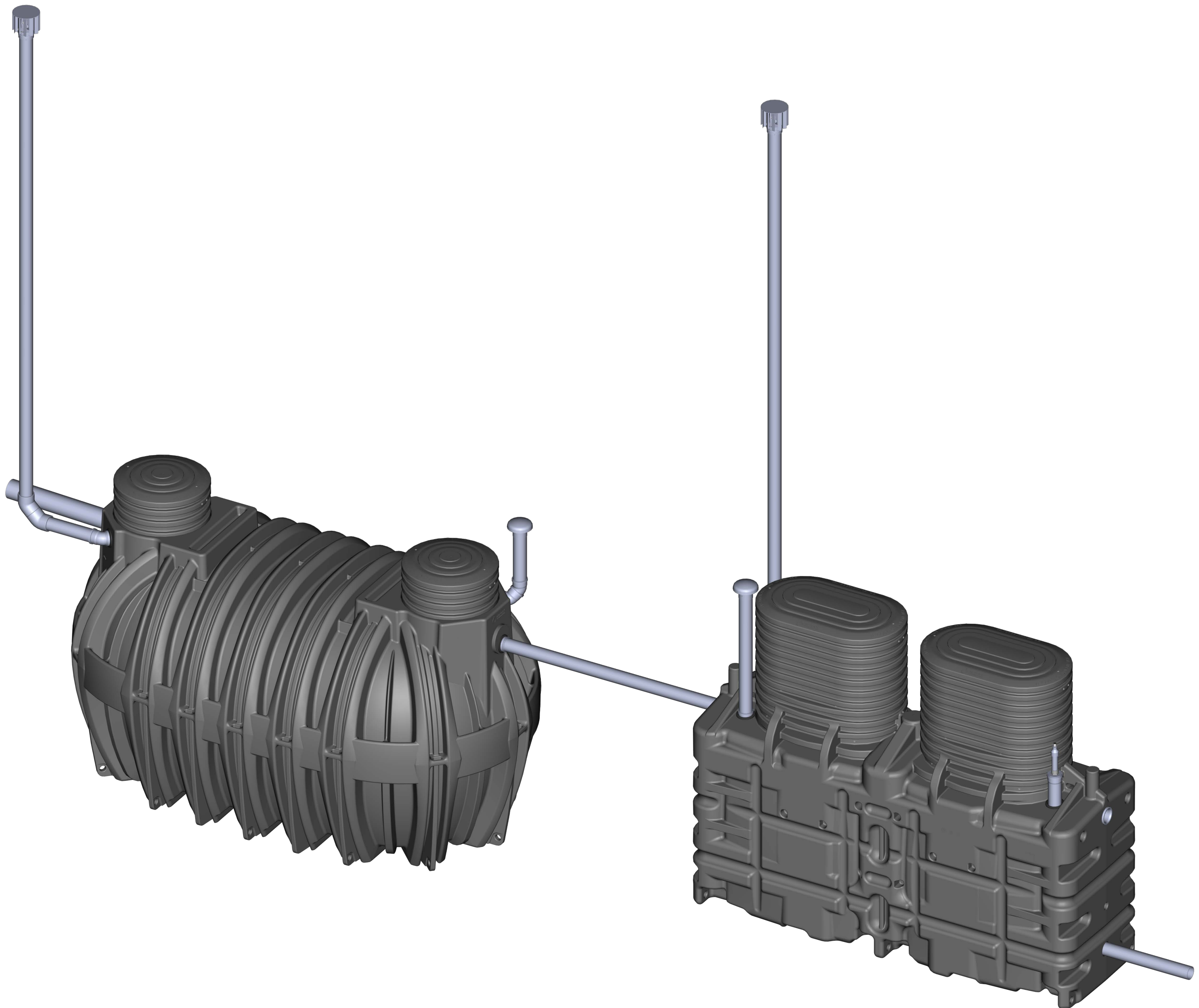
Service :			
ORIGINATOR			
	NAME	SIGNATURE	DATE
AUTHOR	AQ		04/04/2016
APPROV.			
CHANGES			
	NAME	SIGNATURE	DATE
AUTHOR			
APPROV.			
CHANGES			
AUTHOR			
APPROV.			
TITLE:			ECOROCK-5000
Nb. of PLAN			
UT-X5000			A3
SCALE:1:22			



Installation in dry ground conditions
BIOROCK-ST 7500 + ECOROCK-5000

V1
03/05/2016
F-X20





HIGH VENT OPTIONS



Individual or Single supports

TREATMENT PERFORMANCE RESULTS

BIOROCK Sewage Treatment Ltd

5300 Lakeside, Cheadle Royal Bus. Pk. Cheadle SK8 3GP

EN 12566-3

Results corresponding to EN 12566-3 and S.R. 66

PIA-SR66-1703-1026

BIOROCK

Aerobic biological gravity filter

Nominal organic daily load	0.27 kg/d		
Nominal hydraulic daily load	0.75 m³/d		
Material	Polyethylene		
Watertightness	Pass		
Crushing resistance (Pit test)	Pass (also wet conditions)		
Durability	Pass		
Treatment efficiency (nominal sequences)		Efficiency	Effluent
	COD	96.3 %	26 mg/l
	BOD ₅	98.7 %	4 mg/l
	NH ₄ -N*	90.5 %	3 mg/l
	SS	99.3 %	3 mg/l
Number of desludging	Not more than once		
Electrical consumption	0 kWh/d		

*determined for temperatures $\geq 12^{\circ}\text{C}$ in the bioreactor

Performance tested by:

PIA – Prüfinstitut für Abwassertechnik GmbH

CSTB – Centre Scientifique et technique du Batiment

CERIB – Centre d'Etudes et de Recherche de l'INdustrie du Béton

This document replaces neither the declaration
 of performance nor the CE marking.



Notified Body
 No.: 1739



Certified according to
 ISO 9001:2008



Prüfinstitut für Abwassertechnik GmbH
 geprüft - tested - testé

Elmar Lancé

March 2017