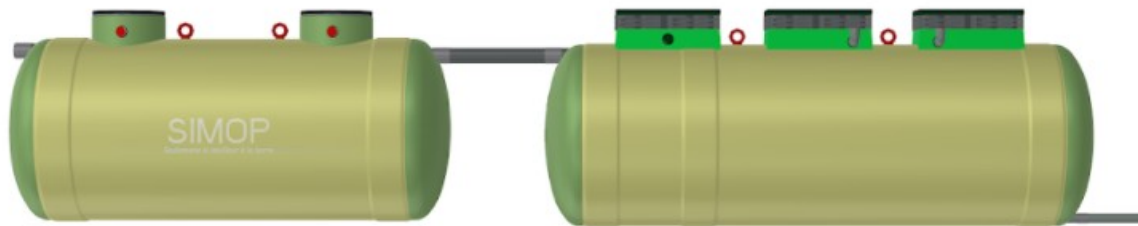


*Redonnons le meilleur à la terre*

# Bionut®

Range of compact systems based on  
of hazelnut shells  
from 21 to 200 people equivalent



## GENERAL MANUAL



FRENCH MANUFACTURING

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# SIMOP PRESENTATION

Specialized in water treatment since 1975, SIMOP designs, manufactures and distributes environmental equipment.

SIMOP works every day to clean up and depollute our water. The solutions offered are so diverse and complete that they meet the needs of a residential home as well as the requirements of collective spaces, large cities or large industrial sites.

## Innovation

The experience acquired in water treatment has allowed SIMOP to diversify its product range by proposing new products. Thanks to the research and development department Simop upgrades its products to offer ever more reliable and sustainable solutions, with the aim of protecting the environment.

SIMOP has its own approved test base where all innovative solutions

## Manufacturing

SIMOP has an industrial production capacity and relies on different manufacturing processes:

- Rotational molding
- Filament winding
- Steel boiler making

## Expertise

Certified ISO 9001 and member of ATEP (water union) and ADOPTA (storm water association),



SIMOP, through the commitment of its teams, actively participates in the working groups for the elaboration of French and European standards.

## Activities

SIMOP's expertise is wide. Discover our solutions in :

- Wastewater treatment
- Storm and runoff water treatment
- Roads and networks
- Storage and safety
- Subcontracting

## Geographical presence

The family-owned company currently distributes its production over five production sites in France and abroad in order to ensure high availability and timely delivery.

- Simop is present in :
- France and Caribbean
  - Spain
  - Slovakia



# OUR VALUES

## Equipments for environment

The essence of SIMOP is to create equipment that preserves the environment. SIMOP's products can be used to retain human waste, clean up our water, collect rainwater and reuse it... Our design office innovates every day to develop sustainable and passive solutions for environmental issues.



## Recycling at all levels

Recycling is a central element of SIMOP's growth approach. Before producing, we first seek to reuse. That's why we created our Bionut compact filter filled with hazelnut shells. Our filtering media comes from the food industry, which considered the shells as waste. At Simop, they become a real added value.

Most of our tanks are made of polyethylene. This material is very robust, corrosion-proof and durable. Moreover, it can be recycled in our factories, so the waste is recycled. Our tanks are partly produced from recycled polyethylene. At the end of their life, our PE tanks are also recyclable.



## Composting and savings

After having given a second life to shells discarded by the food industry, we value our filtering media at the end of their life thanks composting.

In collaboration with Villeunee sur Lot, The FNSA, and the company UNICOQUE we developed recipes of compost to valorize Bionut® end-of-life hazelnuts shells in accordance with the standard NFU 44-095.

That answers the French law of February 10th, 2020 relatives to the fight against waste which define producers responsible for waste of the building since January 1, 2022.

This valorization of Bionut® end-of-life hazelnut shells also has the effect of reducing treatment costs when replacing the filtering media.

## Simop serenity

We guarantee our tanks between 10 and 20 years. The electro-mechanical equipment is guaranteed for 1 year. The guarantees are valid subject to the respect of the installation conditions and the use of the product. The warranty period begins on the day of installation.

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# 1 General information

## ***1.1 General description of the installation***

The filters of the BIONUT2 range are designed for the treatment of domestic wastewater, within the framework of grouped non-collective sanitation or small collectives of 21 to 200 inhabitant equivalent. These devices support intermittent operation and do not require any energy input.

The treatment is based on the biological compact filter technique which reproduces the natural purification of water through the soil.

These systems are composed of an all-water tank ensuring the pretreatment of the effluent and a compact filter made of hazelnut shells ensuring the biological treatment.

## ***1.2 Operating principle***

The treatment by the BIONUT2 system is done in three steps:

- the pretreatment, carried out by the all water tank,
- biological treatment, carried out by the compact filter based on hazelnut shells,
- The evacuation of the treated water.

### All water tank :

The tank allows the settling of suspended matter in the bottom of the tank, where this matter will be digested and liquefied by anaerobic bacteria creating primary sludge. The storage volume of this sludge is 50% of the useful volume of the tank. The second role of the tank is to retain the floats and grease on the surface, thus forming a crust or greasy cap. A pre-filter is installed at the outlet of the tank: it prevents the release of floats towards the treatment filter.

### Compact filter :

The pre-treated water arrives in the trough flush integrated in the tank. This flush feeds the distribution ramp in order to optimize the distribution of the water on the filter surface.

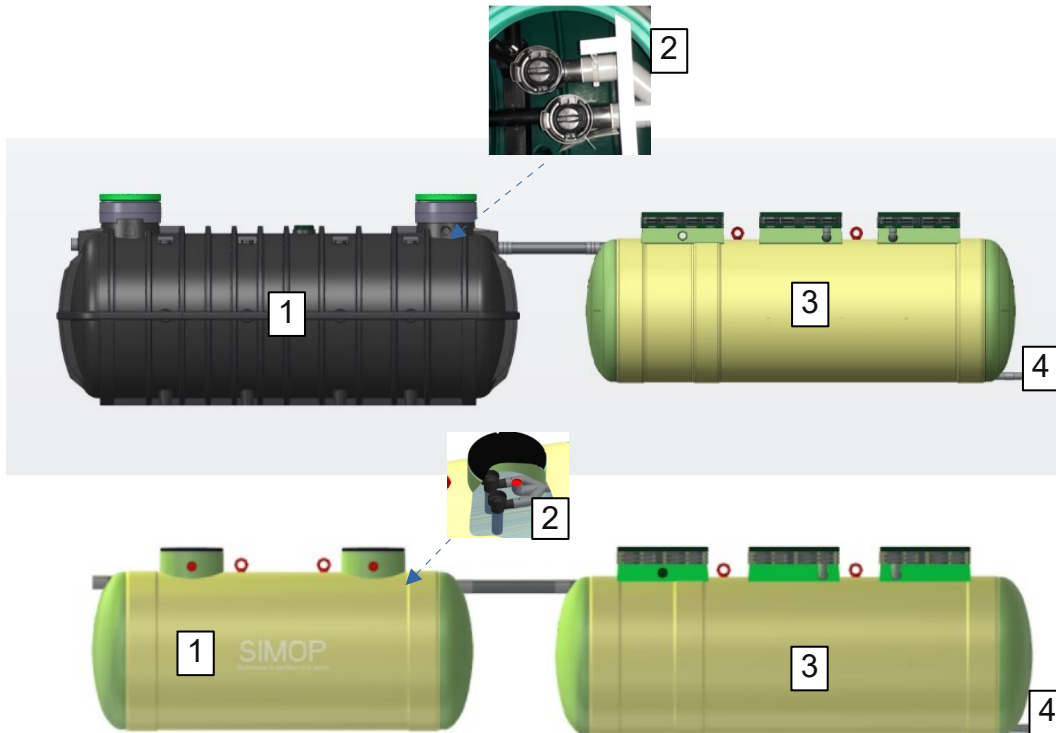
The water then percolates through the filtering mass made up of hazelnut shells on which are fixed aerobic bacteria which ensure the treatment of the water. The oxygen supply necessary for the development of the bacteria is done by 2 DN100 ventilations. The treated water is evacuated by a collection pipe.

### Evacuation:

The treated water at the filter outlet must be discharged as a priority to the surface water environment as stipulated in the decree of 21 July 2015. The discharge must be sized to avoid any risk of loading the filters.

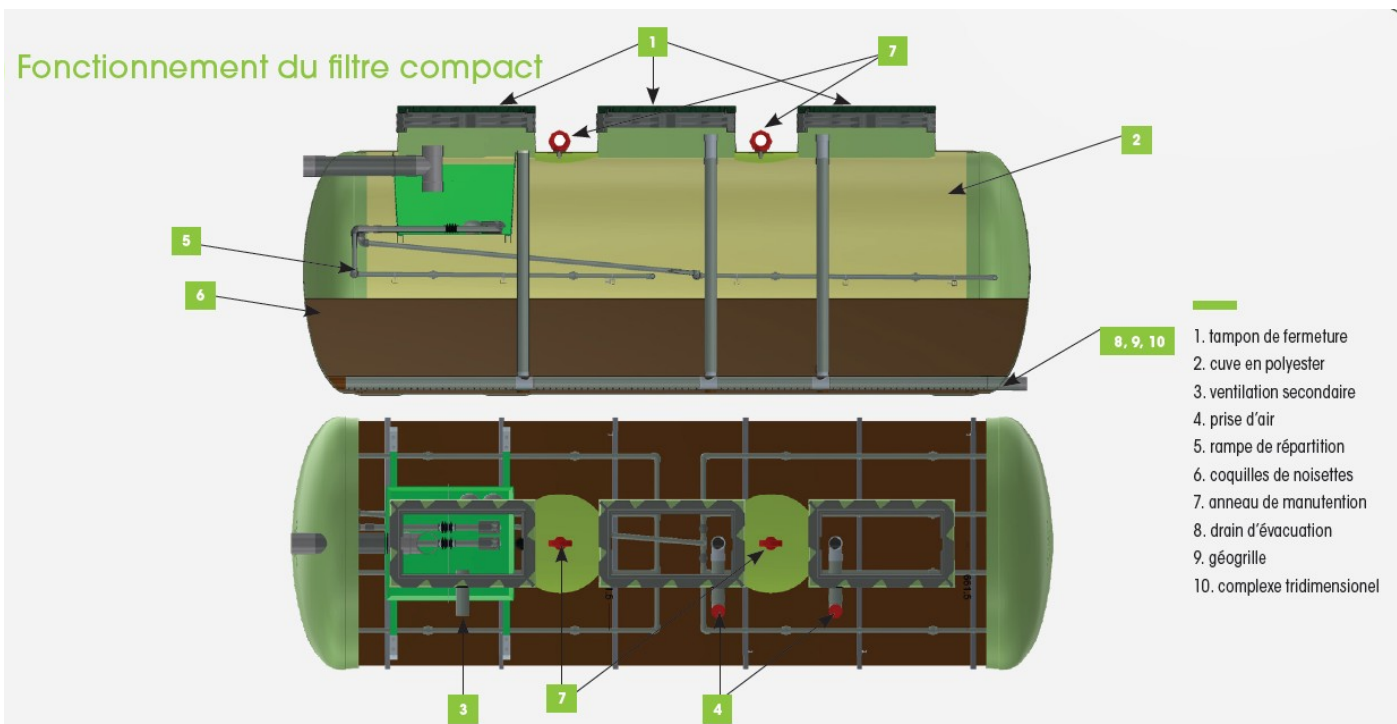
Schematic diagram:

This example shows an all-water tank (PE or GRP) with a prefilter, followed by a GRP treatment filter.



- 1.All water tank
- 2. Integrated pre-filter
- 3.Treatment system
- 4. Evacuation

Filter legend:



## 1.3 Sizing rules

The models of the BIONUT2 range are dimensioned on the basis of a daily organic load of 60 g<sub>BOD5/d/EH</sub>.

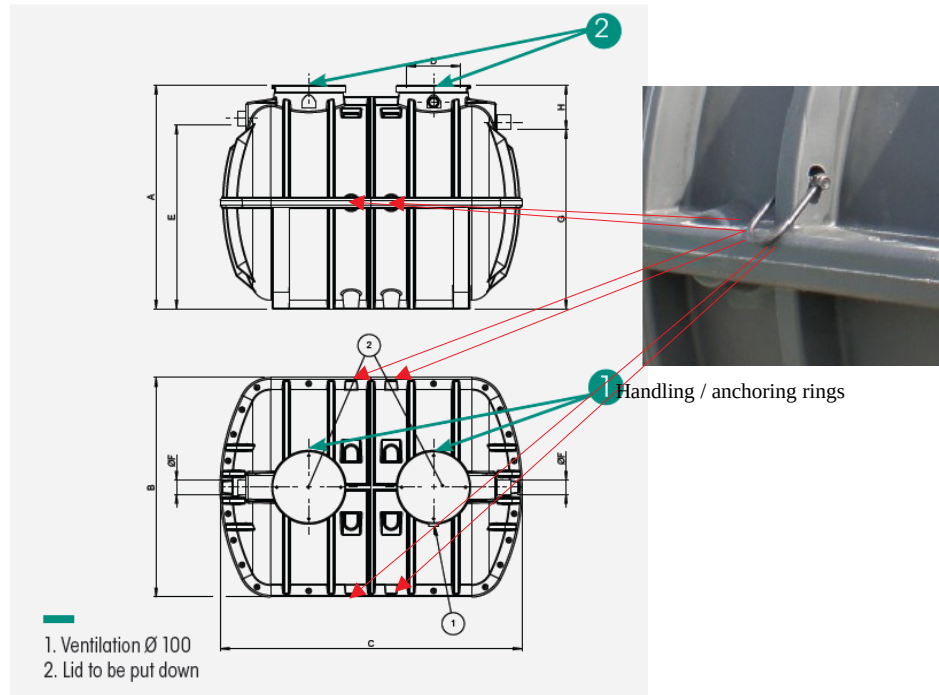
The range sizing is given by the following tables:

Reference	Composition of the sector			Repartior	Regarding collection	Pollow-up valve	Number of Charnut01 *
	FTE	Filter	Nof tanks				
Bionut2/6381/21	FTE2/6309/10	Bionut2/21	2				0
Bionut2/6381/25	FTE2/6309/12	Bionut2/25					1
Bionut2/6381/30	FTE3/6317/15	Bionut2/30					2
Bionut2/6381/35	FTE3/6317/17	Bionut2/35					3
Bionut2/6381/40	FTE3/6317/20	Bionut2/40					4
Bionut2/6381/45	FTE3/6317/20	Bionut2/45					5
Bionut2/6381/50	FTE3/6317/25	Bionut2/50					6
Bionut2/6381/60	FTE3/6317/30	2 x Bionut2/30	3	REP2/160 included	REC4/160 (option)	RELBIONUT-MAX1 (see FT 5304)	4
Bionut2/6381/70	FTE3/6317/35	2 x Bionut2/35					6
Bionut2/6381/80	FTE3/6317/40	2 x Bionut2/40					8
Bionut2/6381/90	FTE3/6317/40	2 x Bionut2/45					10
Bionut2/6381/100	FTE3/6317/45	2 x Bionut2/50					12
Bionut2/6381/120	FTE3/6317/55	3 x Bionut2/40	4	REP4/160 (option)			12
Bionut2/6381/135	FTE3/6317/65	3 x Bionut2/45					15
Bionut2/6381/150	FTE3/6317/70	3 x Bionut2/50					18
Bionut2/6381/160	FTE3/6317/80	4 x Bionut2/40	5	3xREP2/160 (option)			16
Bionut2/6381/180	FTE3/6317/90	4 x Bionut2/45					20
Bionut2/6381/200	FTE3/6317/90	4 x Bionut2/50					24

### Sizes of the gravel pack for Bionut2/21 to 50 PE filters

EH capacity	21	25	30	35	40	45	50
REFERENCE FILIERE	BIONUT2/6381/21	BIONUT2/6381/25	BIONUT2/6381/30	BIONUT2/6381/35	BIONUT2/6381/40	BIONUT2/6381/45	BIONUT2/6381/50
NUMBER OF ENVELOPES	1 pit + 1 filter	1 pit + 1 filter	1 pit + 1 filter	1 pit + 1 filter	1 pit + 1 filter	1 pit + 1 filter	1 pit + 1 filter
Pit reference	FTE2/6309/10	FTE2/6309/12	FTE3/6317/15	FTE3/6317/17	FTE3/6317/20	FTE3/6317/20	FTE3/6317/25
N° pit data sheet	6309	6309	6317	6317	6317	6317	6317
Useful volume (m)	10	12	15	17	20	20	25
Height (inlet water line)	2085	2085	1710	1710	2110	2110	2110
Total length (mm)	3378	3928	6528	7288	5392	5392	5392
Total width (mm)	2490	2490	1914	1914	2314	2314	2314
Total height (mm)	2540	2540	2210	2210	2610	2610	2610
Filter reference	BIONUT2/21	BIONUT2/25	BIONUT2/30	BIONUT2/35	BIONUT2/40	BIONUT2/45	BIONUT2/50
Number of filters	1	1	1	1	1	1	1
Useful surface (m)	10	12	15	17	20	22	25
Height of useful massif (mm)	750	750	750	750	750	750	750
sizing (m <sup>2</sup> /EH)	0.51	0.51	0.51	0.51	0.51	0.51	0.51
Total length (mm)	5777	6832	8151	9470	10789	12108	13427
Total width (mm)	1914	1914	1914	1914	1914	1914	1914
Total height (mm)	2130	2130	2130	2130	2130	2130	2130

### Sizes of the PE all water tank: FTE2/6309/10 and 12 m<sup>3</sup>

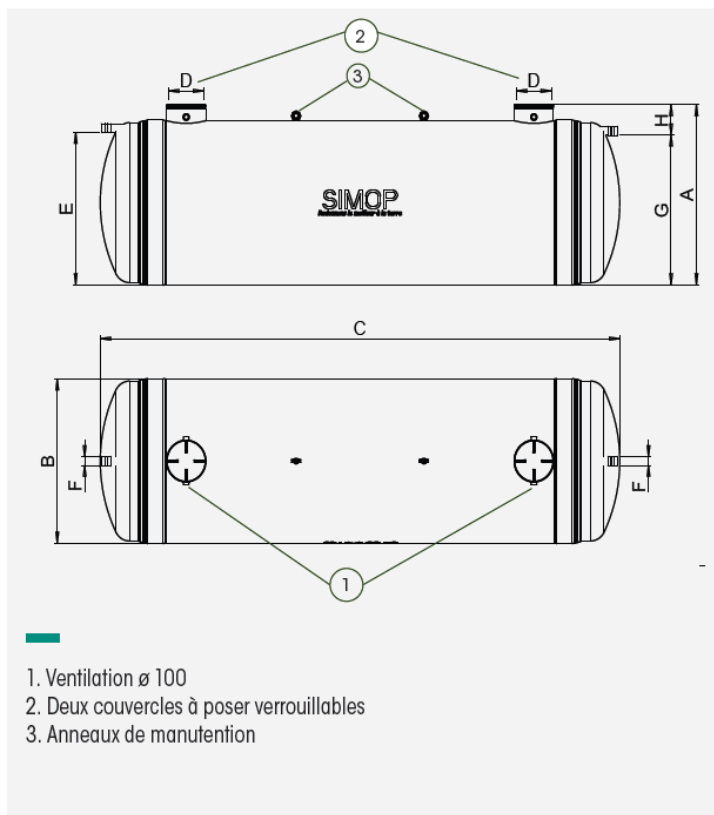


Reference	Dimensions in mm								Useful volume (m <sup>3</sup> )	Max. backfill height (mm)
	A	Ø B	C	Ø D	E	Ø F	G	H		
FTE2/6309/10	2540	2490	3378	600	2085	160	2035	505	10	300
FTE2/6309/12	2540	2490	3928	600	2085	160	2035	505	12	300
RH2/6030	Extension to be placed height 300 mm									
CA3/6394/10T	Anchoring belt to be clicked for installation in the presence of groundwater									

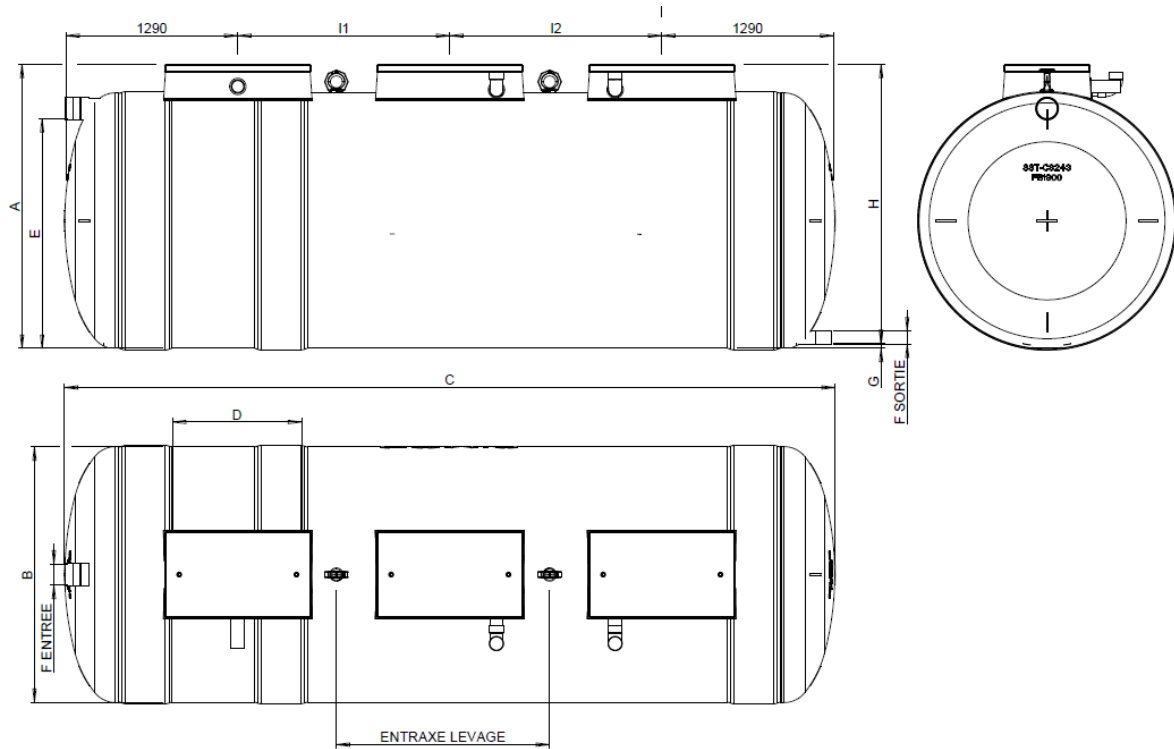


### Sizes of the polyester GRP tank FTE3/6317/15 to 90 m3

Référence	Dimensions en mm								Volume utile (m³)	Nbre de préfiltre	Poids en kg
	A	Ø B	C	Ø D	E	Ø F	G	H			
FTE3/6317/10	2 210	1 914	4 618	600	1 710	160	1 660	550	10	2	563
FTE3/6317/12			5 408						12		635
FTE3/6317/15			6 528						15		727
FTE3/6317/17			7 288						17		894
FTE3/6317/20	2 584	2 314	5 392	600	2 110	160	2 060	550	20	2	727
FTE3/6317/25			6 662						25		846
FTE3/6317/30			7 942						30		1108
FTE3/6317/35			9 222						35		1228
FTE3/6317/40			10 502						40		1490
FTE3/6317/45			11 782						45		1610
FTE3/6317/50			13 062						50		1871
FTE3/6317/55			14 342						55		1991
FTE3/6317/60	3 320	3 024	15 622	600	2 808	160	2 758	562	60	2	2111
FTE3/6317/65			16 902						65		2373
FTE3/6317/70-30			10 159						70		2452
FTE3/6317/80			12 147						80		2912
FTE3/6317/90	3 320	3 024	14 141	600	2 808	160	2 758	562	90	2	3373
FTE3/6317/100			16 456						100		3908



## Sizes of compact filters



Sizes of the rectangular PE buffers: 470 x 920 mm

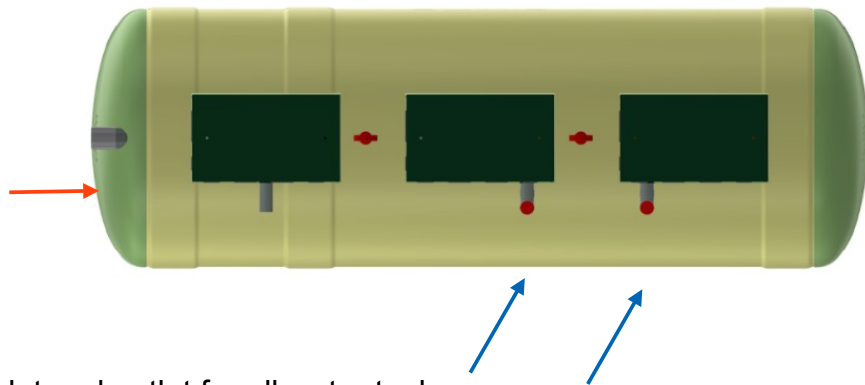
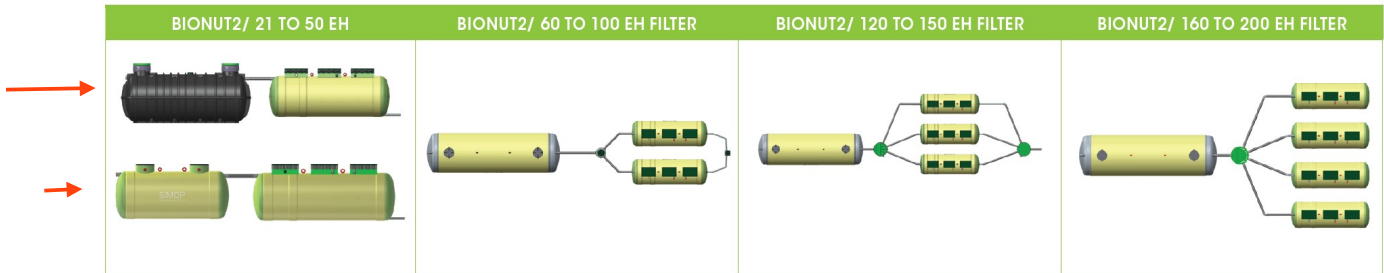
Ref. Bionut2 filter	PE	Dimensions											
		A	B	C	D	Number of Man Holes (MH)	I1	I2	E	F entry	F output	G	H
		Maximum height	ø outer shell max	Maximum length	Passage		Position of TH	INLET WATER LINE	ø flow	ø flow	OUTLET WATER LINE	Δ A-G	
21	13 à 21	2130	ø 1914	5777	916x466	3	1591	1591	1723	ø160	ø100	35	2095
25	22 à 25			6832			2118	2118					
30	26 à 30			8151			2778	2778					
35	31 à 35			9470			3437	3437					
40	36 à 40			10789			4097	4097					
45	41 à 45			12108			4756	4756					
50	46 à 50			13427			5416	5416					

Schematic diagram of the ventilations:

1) Primary ventilation connected to the wastewater network at the entrance of the septic tank →





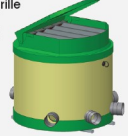
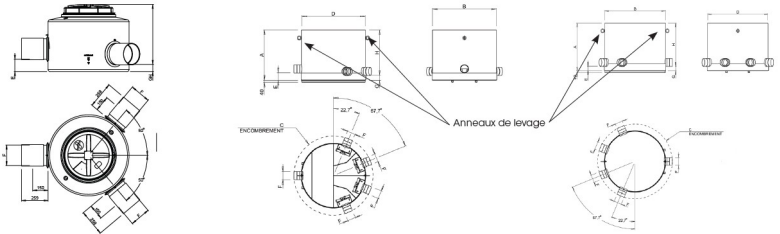
2) Secondary ventilation of the system: place 1 T at the outlet of the all-water tank and send it to the ridge, to an air extractor. →



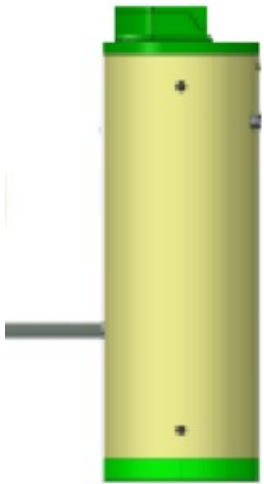


3) Fresh air intake at the last 2 manholes of the compact filter →



- Ø 160 mm inlet and outlet for all water tanks
- Ø 160 mm compact filter inlet
- Ø 100 mm compact filter outlet

## 1.4 System equipment (Accessories)

Enhancer of all water tanks	Effluent distributors
 <p>Reference: RH2/6030 : Socket for PE pit Hauthor 300mm</p>  <p>Reference : RH602 : Socket for GRP pit Height 250 mm</p>	<p>See FT 6369</p> <p>REP2/160 included in the system between 60 and 100 p.e (for 2 compact filters in parallel)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Regard de répartition 1E/2S REP2/160 et REP2/200</p>  </div> <div style="text-align: center;"> <p>Regard de répartition équipé d'un couvercle 1E/4S REP4/160 et REP4/200</p>  <p>Fourni avec 4 vanes guilothines de série</p> </div> <div style="text-align: center;"> <p>Regard de collecte équipé d'un couvercle et d'une grille anti-chute 4E/1S REC4/160 et REC4/200</p>  <p>Fourni avec 1 bouchon obturateur de série</p> </div> </div> 

BIONUT2 extension	Pumping station RELBIONUT-MAX1																											
 <p>Reference: RH2/30/B-3:300 mm extension (set of 3)</p> <p>or</p>  <p>Reference : RH2/15/B2 : 150 mm cuttable extension (in 2 parts to be assembled)</p>	<p>Optional depending on site topography Features: see FT5304</p>  <div style="display: flex; justify-content: center; gap: 20px; margin-top: 10px;"> <div style="text-align: center;"> <p>Connecteurs à sertir Plug &amp; Play</p>  </div> <div style="text-align: center;"> <p>Armoire de commande</p>  </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Reference</th> <th>A</th> <th>Ø int.cuve</th> <th>S Øext.cuve</th> <th>E</th> <th>Ø F</th> <th>Nbre entrées</th> <th>H</th> <th>Largeur totale</th> </tr> </thead> <tbody> <tr> <td>RELBIONUT-MAX1</td> <td>2907</td> <td>1000</td> <td>1025</td> <td>2415</td> <td>100</td> <td>4</td> <td>214</td> <td>1161</td> </tr> <tr> <td>RELBIONUT-MAX1/CV (avec couvercle)</td> <td>3158</td> <td>1000</td> <td>1025</td> <td>2666</td> <td>100</td> <td>4</td> <td>465</td> <td>1161</td> </tr> </tbody> </table> <p><b>Options :</b></p> <ul style="list-style-type: none"> <li>REL4/406-3 ..... Armoire extérieure (double enveloppe) 430x430x210 pour coffret électrique</li> <li>REL4/406-2 ..... Ensemble armoire extérieure + socle de protection hauteur 240 mm</li> <li>REL4-1-076-100 ..... Grille anti-chute Ø 1000 à barreaux indépendants</li> </ul>	Reference	A	Ø int.cuve	S Øext.cuve	E	Ø F	Nbre entrées	H	Largeur totale	RELBIONUT-MAX1	2907	1000	1025	2415	100	4	214	1161	RELBIONUT-MAX1/CV (avec couvercle)	3158	1000	1025	2666	100	4	465	1161
Reference	A	Ø int.cuve	S Øext.cuve	E	Ø F	Nbre entrées	H	Largeur totale																				
RELBIONUT-MAX1	2907	1000	1025	2415	100	4	214	1161																				
RELBIONUT-MAX1/CV (avec couvercle)	3158	1000	1025	2666	100	4	465	1161																				

## 1.5 Reference to the standards used

The models of the BIONUT2 range comply with the following elements:

- ⤴ Standards NF P 16-006: design of sewage systems, NF EN 12566-1 Prefabricated septic tanks, NF EN 12566-2 which specifies the infiltration system in the ground, NF EN 12566-3+A1+A2: Domestic wastewater treatment plants ready to use and/or assembled on site.
- ⤴ Order of July 21, 2015 on collective sanitation systems and non-collective sanitation facilities, except for non-collective sanitation facilities receiving a gross organic pollution load greater than or equal to 1.2kg/d of BOD5. It sets the technical requirements applicable to the design, operation, monitoring and evaluation of the conformity of the installations.
- ⤴ NF DTU.64.1, for what concerns the ventilation system.
- ⤴ NF P 98-331 and NF P 98-332 for earthworks.

## 1.6 Performance

The Bionut2 die respects the performances imposed by the decree of 21/07/2015.

Parameters	Regulatory thresholds
BOD5	35mg/l or 60% yield
TSS	50% efficiency
COD	200mg/L or 60% yield

These performances are achieved under normal conditions of use, care and maintenance in accordance with the prescriptions of this general manual.

A start-up period of one month is required before these performances are obtained. The effluent will have to be biodegradable and the concentrations will have to be in conformity with those of a domestic effluent.

During the initial type testing of the BIONUT2 on the CE mark test platform, **the following purification efficiencies** were obtained, based on samples taken during 24 hours.

	Nominal load	50% underload	50% overload
BOD5	93,4 %	95,78 %	94,7 %
TSS	93,5 %	95,1 %	94,5 %
COD	83,4 %	81,5 %	90,1 %

And the average concentrations have always been below the imposed standards.

## ***1.7 Operating conditions for sustainable performance***

Rainwater is strictly forbidden. Only water of domestic origin is to be treated by BIONUT2. As this system is based on a biological treatment, **itis forbidden to discharge the following products (non-exhaustive list): ashes, glue, diapers, cotton swabs, sanitary napkins, plasters, paints, varnishes, oils, litter, medicines, cigarette butts, pesticides, chemicals...**

The materials used in the composition of the die have been chosen to avoid any risk of corrosion and premature degradation in order to guarantee a durable operation. The traceability of all components is ensured within the framework of our ISO9001 certification.

All the materials used are recyclable, the polyethylene or GRP parts (tank, pads, trough) can be reused as secondary material. The same is true for the PVC parts. As for the filtering media made of hazelnut shells, it can be used and recovered in an approved composting center (Waste code: 190899 - Used hazelnut shells).

## 2 Implementation and installation

### 2.1 Implantation

The requirements stipulated in the order of July 21, 2015 must be met.

**The steps and studies at the parcel must be carried out in accordance with the regulations in force in order to evaluate the constraints related to the nature of the soil.**

The SIMOP warranty is valid as long as you respect the installation instructions described in the following paragraphs.

### 2.2 Transport to the plot and unloading

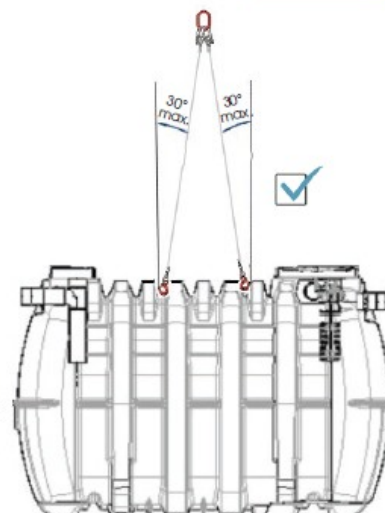
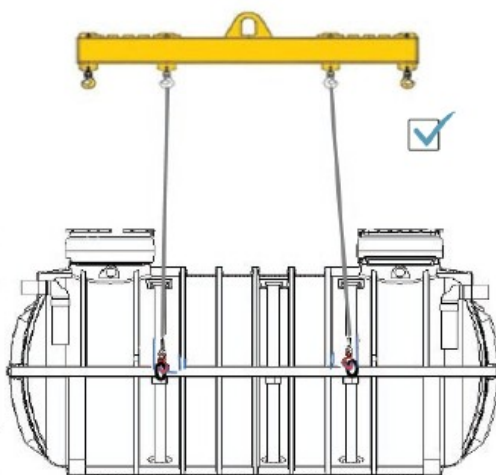
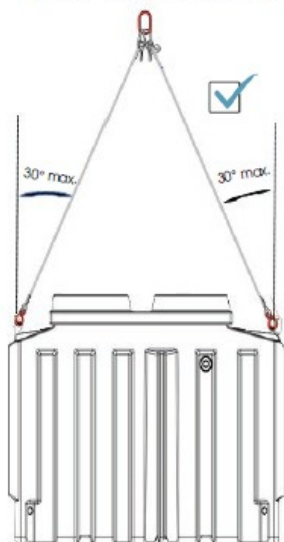
The instructions mentioned in the 2 PHPE and PHPRV-NC notices must be respected:

#### Before unloading

- Read through this document carefully before starting to install the tank.
- The installer must inform themselves about all the tank's features (weight, dimensions, use, constraints) noted on the product's technical sheet.
- Upon delivery of your tank and before it is unloaded, visually check that no damage has been done to it and that all the constituent parts are present. Please record your reservations on the CMR (waybill) in the event of any defects.
- Place the tank in a secure area before its final installation.
- Provide access for specialist transport resources (access possible for semi-trailers and oversize loads).
- Strictly comply with best practice for the installer activity (use of personal protective equipment, precautions taken with the manipulation of the tools, etc.) as with all the documents related to the product.
- Non-compliance with installation and safety instructions will not incur the manufacturer's liability and will result in loss of the equipment's warranty.

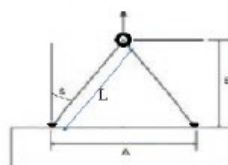
#### Handling/unloading

- The handling methods must comply with the safety rules in force.
- Before any handling operation, check that the tank does not contain any water. If it does, drain it before handling.
- The tanks must be handled using chain slings (adapted to the tank's features) hung by the lifting rings or other equipment provided for this purpose, as well as using a lifting machine (with the exception of a lift truck) suitable for the volume of the tank. The use of a swing bar is strongly recommended, and the angle of the slings in relation to the vertical must be less than or equal to 30°.
- Once it is suspended, the tank must be guided using ropes. Do not move under the load.
- The slings should be supplied by the installing company.
- Provide access for handling resources suitable for the final installation site.
- Do not wind chains or other equipment around the tank, do not roll the tank.



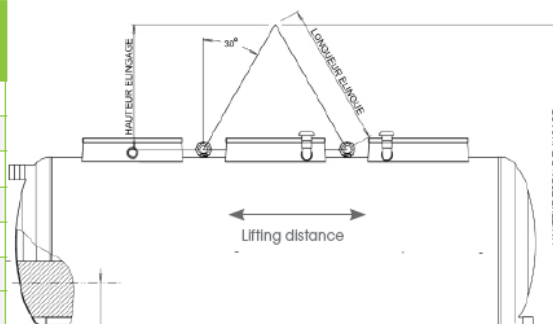
For example:

$\beta$	30°	30°	30°	30°	30°	30°	30°
A (m)	0,50	1,00	2,00	3,00	4,00	5,00	6,00
B mini (m)	0,43	0,87	1,73	2,60	3,46	4,33	5,20
L mini (m)	0,50	1,00	2,00	3,00	4,00	5,00	6,00
Longueur mini élingue (m)	1,00	2,00	4,00	6,00	8,00	10,00	12,00

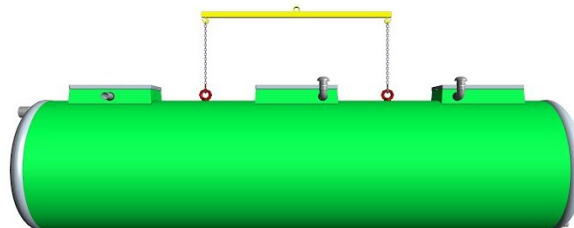
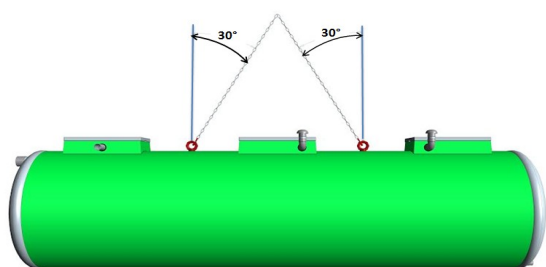


• Handling :

Ref	FILTER WEIGHT (kg)	SLINGING HEIGHT (mm)	SLINGING LENGTH (mm)	TOTAL HEIGHT HANDLING (mm)	LIFTING DISTANCE (mm)
Bionut2/21	3500	1386	1600	3386	1600
Bionut2/25	3250	1738	2007	3671	2000
Bionut2/30	3220	2353	2717	4286	2500
Bionut2/35	3100	2734	3157	4667	3000
Bionut2/40	3080	2880	3326	4873	3000
Bionut2/45	2950	3495	4036	5488	3000
Bionut2/50	2950	3495	4036	5488	3000



Lifting with a spreader bar "direct lifting slings"



Lifting "slings maxi 30°"

### 2.3 Installation instructions

The tanks must be buried in accordance with the EN 12566-3+A1+A2 standard, the rules set by the decree of July 21, 2015 and our PHPE and PHPRV-NV installation manuals.

Excerpt from Article 6 of the July 21, 2015 Order:

*" Wastewater treatment plants are designed and located in such a way as to protect local residents from neighbourhood nuisance and health risks. This location takes into account foreseeable extensions of the treatment works, as well as new housing or activity zones planned in the urban planning documents in force at the time of construction.*

*The wastewater treatment plants are located at a minimum distance of one hundred meters from dwellings and buildings receiving the public.*

*Without prejudice to the provisions laid down by national or local regulations (protection perimeters of water catchments intended for human consumption, town planning regulations, communal or inter-communal sanitation regulations), the works are located outside the sensitive use areas defined in point (31) of article 2.*

*After receiving the opinion of the regional health agency and, in the case of a non-collective sanitation installation, of the public non-collective sanitation service, the requirements of the two paragraphs above may be waived by a prefectural decision, at the request of the project owner accompanied by an expert report demonstrating the absence of impact.*

*Wastewater treatment plants shall not be located in flood-prone areas and on wetlands. In case of proven technical impossibility or excessive costs and in coherence with the provisions of a possible flood risk prevention plan, it is possible to derogate from this provision.... "*

#### General installation information

- Comply with the slopes of the tank's inlet and outlet pipes, which should be between 2% (min.) and 4% (max.).
- There must be no counter-slopes on the inlet/outlet tubes.
- If the pipes are made of concrete, sandstone or cast iron, the inlet and outlet tubes must not rest on the equipment but be supported by the terrain.
- You must comply with the diameters of the tank inlet and outlet, and the diameter of the pipes must not be smaller than the outlet diameter.
- The elevation numbers of the water levels must be maintained.
- The transport cradles are not intended for installation.



In the case of an excavation depth greater than 1.30 m, the protection of the operators must be done in



accordance with the regulations in force.

The earthwork must be done in such a way as to obtain a minimum of 0.50 m of space all around the tank.

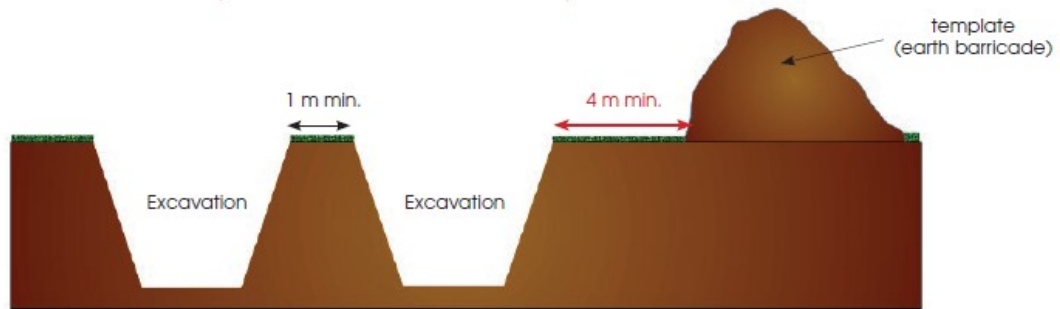
### Earthworks

Dig a separate excavation for each tank and, if necessary, push back the groundwater until the end of the tank backfilling process.

If several tanks are being installed, a distance of at least 1 metre must be left between each excavation, depending on which mechanical device is used on site (this is to ensure stable excavation walls). Do not drive over this area.

The excavation walls must be located at least 0.2m from the tank on all sides. The excavation must be stabilised and empty of water.

The bottom of the backfill template must be at least 4m away from the tank on all sides.



Make independent excavations for each of the tanks spaced at least 1 meter apart, in order to keep the excavation walls stable.

## 2.4 Water inlet and outlet wires

EH	FTE		REP2/160		REP4/160		FC		FC		FC		RELBIIONUT-MAX1		RELBIIONUT-MAX1	
	sans rehausse		avec RH2/4031-15				150 mm rehausse		300 mm rehausse		450 mm rehausse		sans couvercle		avec couvercle	
	FEE	FES	FEE	FES	FEE	FES	FEE	FES	FEE	FES	FEE	FES	FEE	FES	FEE	FES
21	455	505					557	2245	707	2395	857	2545	2415	214	2666	465
25	455	505					557	2245	707	2395	857	2545	2415	214	2666	465
30	500	550					557	2245	707	2395	857	2545	2415	214	2666	465
35	500	550					557	2245	707	2395	857	2545	2415	214	2666	465
40	474	550					557	2245	707	2395	857	2545	2415	214	2666	465
45	474	550					557	2245	707	2395	857	2545	2415	214	2666	465
50	474	550					557	2245	707	2395	857	2545	2415	214	2666	465
60	474	550	684	734			557	2245	707	2395	857	2545	2415	214	2666	465
70	474	550	684	734			557	2245	707	2395	857	2545	2415	214	2666	465
80	474	550	684	734			557	2245	707	2395	857	2545	2415	214	2666	465
90	474	550	684	734			557	2245	707	2395	857	2545	2415	214	2666	465
100	474	550	684	734			557	2245	707	2395	857	2545	2415	214	2666	465
120	474	550			873	925	557	2245	707	2395	857	2545	2415	214	2666	465
135	474	550			873	925	557	2245	707	2395	857	2545	2415	214	2666	465
150	512	562			873	925	557	2245	707	2395	857	2545	2415	214	2666	465
160	512	562			873	925	557	2245	707	2395	857	2545	2415	214	2666	465
180	512	562			873	925	557	2245	707	2395	857	2545	2415	214	2666	465
200	512	562			873	925	557	2245	707	2395	857	2545	2415	214	2666	465

EH	FTE		REP4/160		FC		FC		RELBIIONUT-MAX1	
	300 mm rehausse				450 mm rehausse		600 mm rehausse		avec couvercle	
	FEE	FES	FEE	FES	FEE	FES	FEE	FES	FEE	FES
21	755	805			857	2545	1007	2695	2666	465
25	755	805			857	2545	1007	2695	2666	465
30	800	850			857	2545	1007	2695	2666	465
35	800	850			857	2545	1007	2695	2666	465
40	774	850			857	2545	1007	2695	2666	465
45	774	850			857	2545	1007	2695	2666	465
50	774	850			857	2545	1007	2695	2666	465
60	774	850	873	925	857	2545	1007	2695	2666	465
70	774	850	873	925	857	2545	1007	2695	2666	465
80	774	850	873	925	857	2545	1007	2695	2666	465
90	774	850	873	925	857	2545	1007	2695	2666	465
100	774	850	873	925	857	2545	1007	2695	2666	465
120	774	850	873	925	857	2545	1007	2695	2666	465
135	774	850	873	925	857	2545	1007	2695	2666	465
150	812	862	873	925	857	2545	1007	2695	2666	465
160	812	862	873	925	857	2545	1007	2695	2666	465
180	812	862	873	925	857	2545	1007	2695	2666	465
200	812	862	873	925	857	2545	1007	2695	2666	465

## 2.5 Installation of the all water tank in reinforced HDPE

It can support 30 cm of backfill and the height of the water table must not exceed the inlet water line of the tank.

### 2.5.1 Installation in standard soil (without water table, not clayey, not silty, stable)

Make the bed with sand or gravel rolled 2/4 mm on a thickness of 10 cm minimum, perfectly level and compacted.

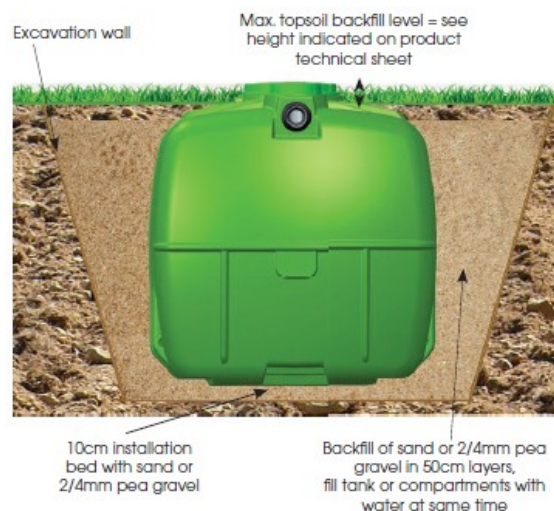
Place the tank and stabilize it by filling it with water to a height of 10 to 15 cm.

At the same time, fill the tank and backfill with sand or rolled gravel 2/4 mm to the top of the tank.

Proceed in 50 cm increments with hydraulic compaction. **Mechanical compaction is not allowed.**

Complete the backfill up to the level of the lids with topsoil. Respect the maximum backfill height of 30 cm.

When backfilling, make sure to leave the lids accessible, in order to have access to the interior of the tanks for maintenance operations.



### 2.5.2 Installation in clay soil and/or in the presence of groundwater

- During construction, keep the water table below the invert level.
- Place a geotextile on the walls of the excavation.
- Create a 350 kg/m<sup>3</sup> concrete slab with a sufficiently strong rigid welded mesh.
- Create a steel anchoring system on which the straps will be fastened without excessive tension. The characteristics of the concrete slab (dimensions, thickness, reinforcement...) must be determined by a design office in order to meet the constraints for which it is intended.
- Install a piezometer (PVC tube Ø 315 mm protected by a buffer in the upper part and a bed of gravel and geotextile in the lower part) to measure the level of the water table and to allow it to be lowered during emptying operations.
- Make the bed with sand or gravel rolled 2/4 mm on a thickness of 10 cm minimum

perfectly level  
and compacted.

- Place and strap the tank by the anchoring rings provided for this purpose. Fill it with 10 to 15 cm of clear water to stabilize it.
- Simultaneously, fill the tank with clear water and backfill with sand or rolled gravel 2/4 mm to the top of the tank. Proceed in 50 cm increments with hydraulic compaction. Mechanical compaction is not allowed. In case of a compartmentalized tank, fill the compartments SIMULTANEOUSLY.
- Complete the backfill up to the level of the covers with sand and topsoil within the limit of 20 cm of topsoil and up to 30 cm of backfill.

Make sure that the lids are accessible in order to have access to the interior of the tanks for maintenance operations.



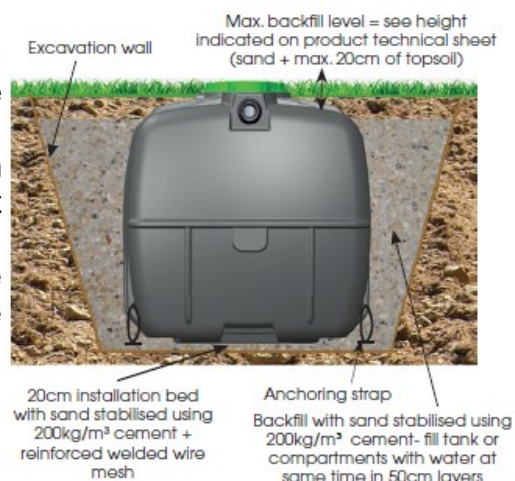
### 2.5.3 Installation in silty and/or unstable soil and/or clay soil and/or in the presence of groundwater

**A backfill support structure may be required around the structures** of the structures. These recommendations will be defined by a specialized engineering office.

- Lay the bed with sand stabilized with cement 200 kg/m<sup>3</sup> on a thickness of 20 cm minimum, perfectly level and compacted, by integrating a reinforced welded mesh.
- Place and strap the tank, then fill it with clear water to a depth of 10 to 15 cm to stabilize it.
- At the same time, fill the tank\* with clear water and backfill with cement-stabilized sand 200 kg/m<sup>3</sup> up to the outlet water line.

Complete the backfill up to the level of the covers with sand and topsoil according to the maximum backfill height of 30 cm and within 20 cm of topsoil.

Make sure that the covers on top of the tanks are accessible, so that the interior of the tanks can be accessed for maintenance operations **maintenance**.



### 2.5.4 Top slab for load bearing

It will be necessary to carry out a slab of recovery of the loads in reinforced concrete in the following cases:

- 1) In case of backfill height higher than 30 cm.
  - 2) In case of overload due to the passage of vehicles within 4 meters of the edge of the excavation.
  - 3) When using concrete extensions shafts.
  - 4) In case of overloading due to extreme weather conditions (e.g. snow).
- This slab must be supported all around the excavation on the stabilized and/or undisturbed ground.

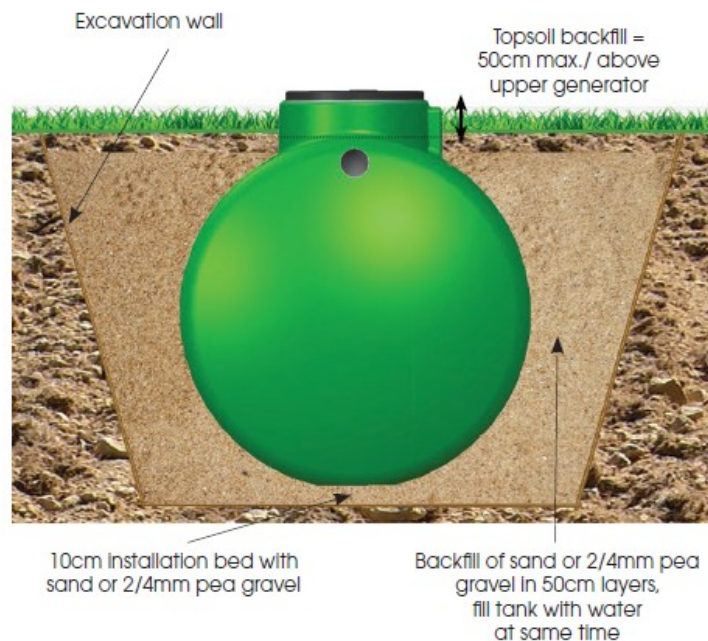
It should be placed at the level of the sill, but should not be integral with the sill.  
The characteristics of the load bearing slab (dimensions, thickness, reinforcement...) must be determined by a design office in order to meet the constraints for which it is intended.

## 2.6. Installation of all-water pits in GRP

The GRP tanks can support 50 cm of fill and the water table up to the inlet water line to the inlet water line.

### 2.6.1 Installation in standard soil (without water table, not clayey, not silty, stable)

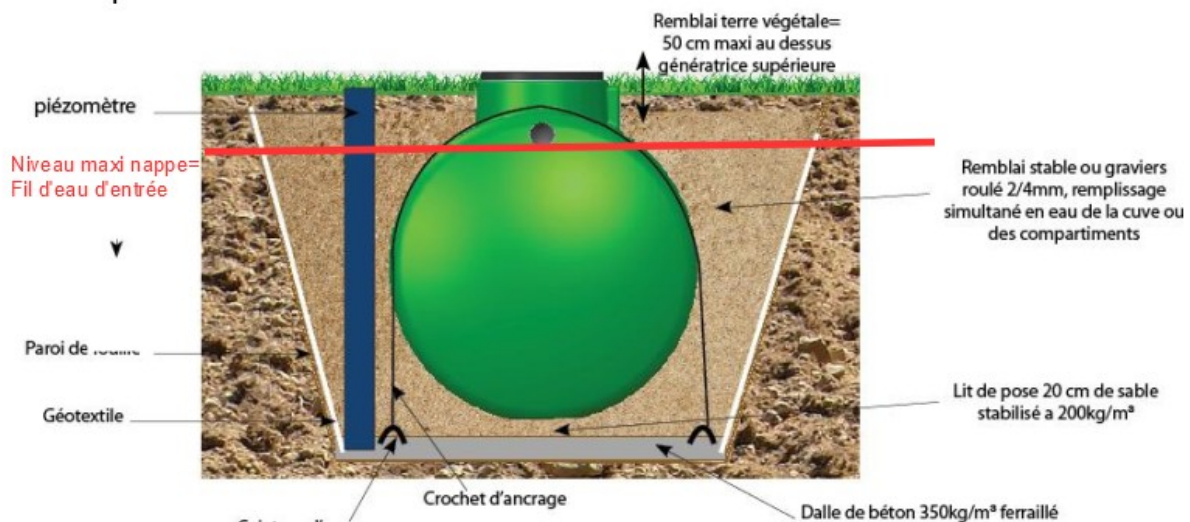
- Make the bed with sand or gravel rolled 2/4 mm on a thickness of 20 cm minimum, perfectly level and compacted.
- Place the tank and stabilize it by filling it with water to a height of 10 to 15cm.
- Simultaneously, fill the tank and backfill with sand (or rolled gravel 2/4mm) to the top of the tank. Proceed in 50 cm increments with hydraulic compaction. **Mechanical compaction is not allowed.**
- Finish the backfill with topsoil up to the level of the covers. The maximum backfill is 50 cm above the top generatrix.
- Make sure that the lids are accessible in order to have access to the interior of the tanks for maintenance operations.



### 2.6.2 Installation in clay soil and/or in the presence of groundwater

- During construction, keep the water table below the invert level.
- Place a geotextile on the walls of the excavation.
- Create a 350kg/m<sup>3</sup> concrete raft with a sufficiently strong rigid welded mesh.

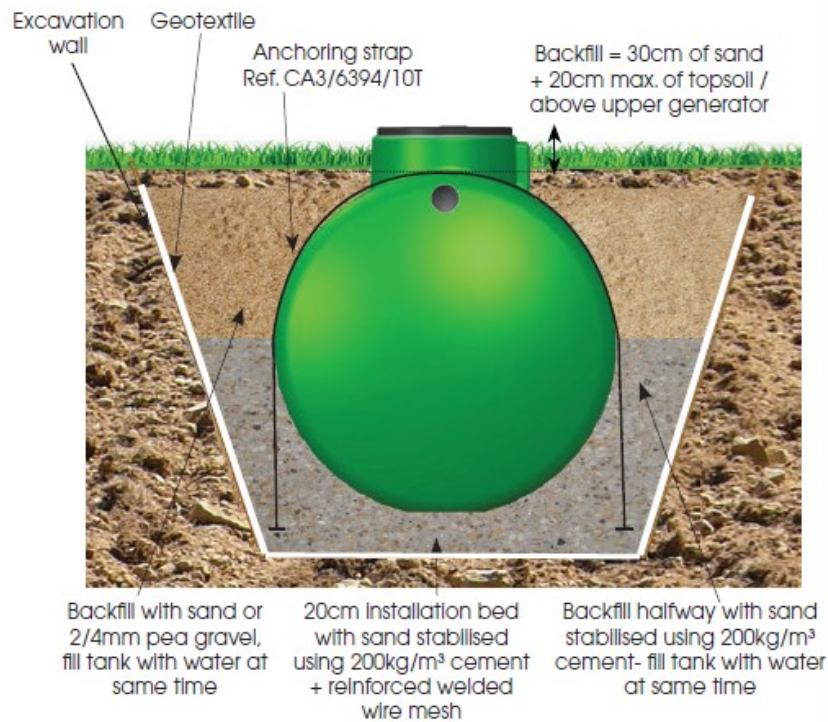
- Create a steel anchoring system on which the straps will be fastened without excessive tension. The characteristics of the concrete slab (dimensions, thickness, reinforcement...) must be determined by a design office in order to meet the constraints for which it is intended.
  - Install a piezometer (PVC tube Ø315 mm protected by a buffer in the upper part and a bed of gravel and geotextile in the lower part) to measure the level of the water table and to allow it to be lowered during emptying operations.
  - Make the bed with sand or gravel rolled 2/4 mm on a thickness of 10 cm minimum, perfectly level and compacted.
  - Place and strap the tank from above. Metal straps should not be used.
  - At the same time, fill the tank with clear water and backfill with sand or rolled gravel 2/4 mm to the top of the tank.
- Proceed in 50 cm increments with hydraulic compaction. Mechanical compaction is not allowed.
- Finish the backfilling up to the level of the covers with sand or rolled gravel 2/4mm on 30 cm then with topsoil on 20 cm maximum.
  - When backfilling, make sure to leave the lids accessible, in order to have access to the interior of the tanks for maintenance operations.



### 2.6.3 Installation in silty and/or unstable soil and/or clay soil

Place a geotextile on the walls of the excavation.

- Lay the bed with cement stabilized sand 200kg/m<sup>3</sup> on a thickness of 20 cm minimum, perfectly level and compacted, integrating a reinforced welded mesh.
- Place and strap the tank, then fill it with 10 to 15 cm of clear water to stabilize it. Simultaneously, fill the tank and backfill with cement-stabilized sand 200kg/m<sup>3</sup> up to the middle of the tank, then backfill with sand up to the top of the tank.
- Finish the backfilling up to the level of the covers with sand or rolled gravel 2/4mm on 30 cm then with topsoil on 20 cm maximum.
- Make sure to leave the lids accessible in order to have access to the interior of the tanks for maintenance operations.



### 2.6.4 Top slab for load bearing

It will be necessary to carry out a slab of recovery of the loads in reinforced concrete in the following cases:

- 1) In case of backfill of more than 50 cm above the upper generatrix of the tank.
- 2) In case of overload due to the passage of vehicles within 4 meters of the edge of the excavation.
- 3) When using concrete extensions shafts.
- 4) In case of overloads due to extreme weather conditions (e.g. snow).

This slab must be supported all around the excavation on the stabilized and/or undisturbed ground.

It should be placed at the level of the sill, but should not be integral with the sill.

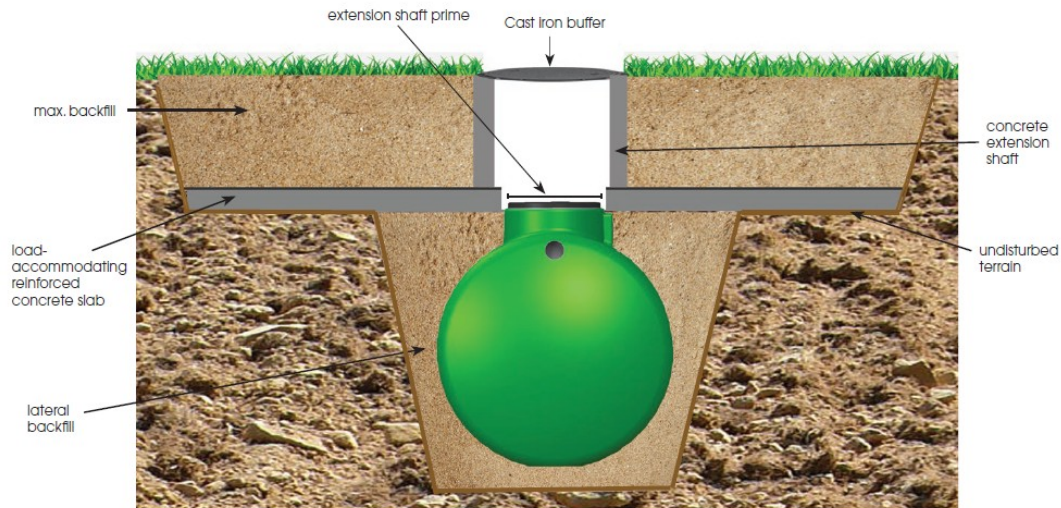
The characteristics of the load bearing slab (dimensions, thickness, reinforcement...) must be determined by a design office in order to meet the constraints for which it is intended.

Example of installation of a self-supporting slab on stable, non-clay, non-silty ground:

### 2.7. Compact filter.

Same procedure as for the "GRP all water tank" above, specific to the type of soil, **but without the water filling!**

- When backfilling, make sure to leave the lids on top of the tanks accessible, in order to have access to the inside of the tank for maintenance operations.



## **2.8 Installation of tanks in difficult terrain**

It is imperative to respect the specific implementation procedures in the following situations:

### Flood zone:

The Bionut2 range is not designed to be installed in flood zones.

### Sloping ground (> 5%):

It is necessary to avoid an installation in a low point of the ground, or if necessary to envisage the installation of a drainage upstream of the tank in order to evacuate the runoff water. Furthermore, it is important to ensure that the tank is perfectly level.

Depending on the nature of the soil, it may be necessary to build a retaining wall.

### Passage and parking of vehicles, storage areas :

In case of passage of vehicle on or near the tank or in case of static load, it will be advisable to realize a slab of distribution of the loads in strongly reinforced concrete resting on the natural ground, with adapted hydraulic buffers.



## **2.9. making the hydraulic connections**

The compact filter is delivered "ready to install", with all the equipment, including the distribution network, being installed in our plants.

The tanks are delivered ready to be connected with DN160 PVC pipe. These connections are made by the company responsible for the installation following the instructions described in this guide.

The effluent inlet and outlet pipe must have a slope of 2% to 4% (caution: take into account the settlement of the ground).

## **2.10. Wastewater supply and effluent disposal methods**

The wastewater is conveyed through a DN160 PVC pipe into the tank and then into the compact filter by gravity.

The treated water can be evacuated by gravity or by means of a lifting station. In all cases, the final discharge must be carried out in accordance with the decree of 21 July 2015.

## **2.11. Ventilation device**

See Ventilation diagram in paragraph 1.3.

Naturally, the decomposition and digestion of the organic matter in the septic tank produces gases (methane and  $H_2S$ ). These gases must be extracted by the installation of the secondary ventilation pipe.

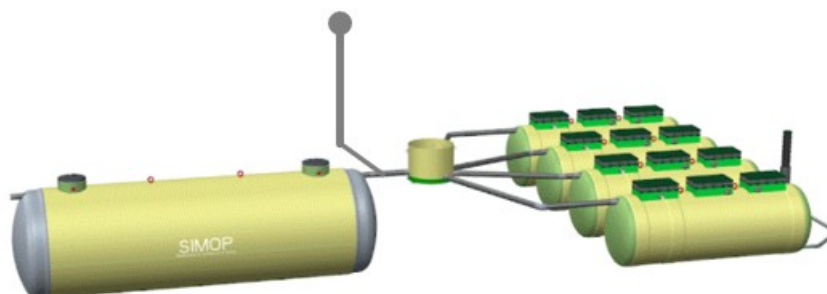
Compact filters are treatment devices in which the bacteria developed work aerobically. It is therefore necessary that the air is renewed by an air supply ventilation.

The air inlet in the septic tank is ensured by the wastewater drop pipe in primary ventilation in its diameter (100 mm minimum) to the open air and above the inhabited premises.

The fermentation gases must be evacuated by a system equipped with a static or wind extractor. The ventilation pipe must be at least DN100.

The connection of the high ventilation of the compact filter must be made on the secondary ventilation at the exit of the pit. This secondary ventilation can be taken out by a vertical tube of 2 meters height.

The fresh air is supplied through a DN100 pipe with a cap located at ground level.



## 2.12. safety information

To guarantee the structural behavior of the tanks, it is imperative to comply with the implementation conditions, as well as the conditions detailed in the order of July 21, 2015.

**Installation safety:** Without a load distribution slab, the tank withstands a pedestrian load of 2.5kN/m<sup>2</sup>. This resistance has been validated during the CE marking tests. However, the device should not be installed in a crosswalk area.

**Life safety:** The access covers are closed and locked with a key. Their thickness of 60 mm as well as their ribs allow to support a pedestrian load equivalent to 2,5 kN/m<sup>2</sup>. During the excavation, the protection of the operators must be done in accordance with the national regulations, in paragraph 1.3 of this guide and in particular, the wearing of PPE (personal protective equipment) must be respected in order to avoid any direct or indirect contact with the wastewater: gloves, shoes, safety glasses.

Non-exhaustive list of PPE that can be used:

- protective gloves
- protective shoes
- protective glasses

As the tank and the compact filter are closed by lockable buffers, any risk of accidental contact with water is avoided. Moreover, the filter being unsaturated in water and aerated, it avoids the risk of water stagnation and the proliferation of vectorial diseases.

## 2.13.commissioning of the BIONUT2/6381 :

The commissioning of the system is possible after the following steps:

- installed and backfilled tanks
- hydraulic connection made
- watering of the all water tank realized
- installation of the sockets and covers carried out
- connected ventilations.

In case of intermittent operation, the use and installation of Bionut2 does not require any additional adjustment.

The commissioning is an important operation to validate the good functioning of the installation. It can be done by the user and/or a qualified professional.

SIMOP offers on-site assistance during commissioning to guarantee the user optimal operation of the system.

System Environment:

	Yes	No
The filter is not located in a flood zone and no runoff water can flow into the filter	<input type="checkbox"/>	<input type="checkbox"/>

The natural or reconstituted soils in the vicinity (3 m) cannot cause an overload on the system	<input type="checkbox"/>	<input type="checkbox"/>
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**Hydraulic connections :**

Presence of an access for sampling upstream of the die	<input type="checkbox"/>	<input type="checkbox"/>
All the hydraulic connections outside the tanks are made by evacuation pipes with diameters similar to those of the tanks	<input type="checkbox"/>	<input type="checkbox"/>
There is no counter-slope on the connection pipes, upstream, between the tank and the filter and downstream of the filter.	<input type="checkbox"/>	<input type="checkbox"/>
The distribution shaft, if any, is laid perfectly level.	<input type="checkbox"/>	<input type="checkbox"/>
Operation of the filter trough : - open the cover of the trough compartment - visually check that the mobile part of the trough is complete (head + flexible) and fixed to the tank. - put water in the trough compartment - the trough is triggered when the water reaches the top of the compartment. - the bucket floats automatically at the end of the hunt	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Operation of the effluent distribution : - Open the filter compartment cover - The treatment bed is horizontal and the distribution network is located above (the transport did not impact the good assembly of the product) - Put water in the trough compartment - When the trough is triggered, the effluent flows over the whole of the ramps	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Presence of a sampling manhole or a lifting station downstream of the system	<input type="checkbox"/>	<input type="checkbox"/>

**Connection of the ventilations**

All the ventilations connected to the tanks are made with minimum DN100 drainage pipes	<input type="checkbox"/>	<input type="checkbox"/>
The primary ventilation is connected through the wastewater drop pipe to the open air	<input type="checkbox"/>	<input type="checkbox"/>
The secondary ventilation is piped between the pit and the filter, and then raised and fitted with a static or wind extractor	<input type="checkbox"/>	<input type="checkbox"/>

**Accessibility**

The set of covers are : - available - lockable	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
If there is a load-bearing slab, the hydraulic buffers provide sufficient access to all compartments	<input type="checkbox"/>	<input type="checkbox"/>

**Information to the owner**

At the end of this commissioning, the owner of the installation has received and taken note of : - general manual	<input type="checkbox"/>	<input type="checkbox"/>
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## 3 Care and Maintenance :

### 3.1 General

In accordance with the regulations, the user must ensure the proper maintenance and operation of the treatment device. To do so, he must follow the recommendations of this user guide and also the rules set by the decree of July 21, 2015, particularly in chapter III.

Simop strongly recommends that you take out a maintenance contract with a specialized company for the maintenance and upkeep of your wastewater treatment systems and

recommends a maintenance visit every two years.

ASSISTEAUX can intervene on the whole territory and is approved by SIMOP to ensure the maintenance of its devices. See contract model and intervention report in annex. The contract provides for a visit every 2 years.

**The maintenance operations proposed by Assisteaux do not take care of the self-monitoring and mandatory sampling operations to be carried out, in accordance with the order of July 21, 2015.**

If you decide not to subscribe to a maintenance contract with a company approved by SIMOP, the maintenance instructions and the follow-up table for your installation must be completed by your service provider or yourself.

**Maintenance should be performed at least once every 2 years. Each intervention must be recorded in the manual of your Bionut filter and/or be the subject of an intervention report.**

**NOTA : The commissioning assistance is only valid for the Metropolitan France**

### ***3.2 Maintenance requirements***

For all maintenance operations carried out on the Bionut die, be sure to respect the following health and safety precautions:

- Protective gloves must be worn,
- Wear suitable clothing (short sleeves and shorts are not recommended).

As part of the bi-annual maintenance of a Bionut2 filter, the following operations must be performed by your service provider:

- Inspect inlet/outlet terminal boxes and clean if necessary.
- Check the locks and opening of all the buffers.
- Measure the height of the crust on the surface of the pit and the height of the sludge from the bottom of the pit. Record these values in the logbook.
- Clean the double prefilter of the septic tank (rotate a quarter turn to remove the filter cartridge). Replace the filter cartridge and rotate a quarter turn to lock it in place. Clean the outlet pipe using the access pipe between the 2 pre-filters.
- Clean the trough compartment, including moving parts. Check for tilting and even feeding of the boom. Replace the trough hose.
- Scarify the surface of the filter (rake), if the deposit constitutes a significant surface.
- Check that the ventilation system is working properly (free air flow).
- Remove the bottom vent cap and clean it.
- Flush the drain at the bottom of the compact filter with clean water from the manholes.

### ***3.3 Frequency and method of emptying***

Emptying must be carried out by an approved emptying contractor in accordance with the terms of the amended Order of September 7, 2009. No other person or company is legally authorized.

The emptying of the septic tank must be done when the height of the sludge in the septic tank reaches 50% of the useful volume.

Floating matter and grease must be emptied at least once a year. After each emptying, the septic tank must be put back in water.

**The emptying vehicle must park at least 5 meters from the tank and the compact filters.**

The sludge from the septic tank will be taken care of by the approved emptier according to the terms of the modified decree of September 7th 2009. He will then establish a follow-up form for the emptied sludge in three parts for the owner of the installation, the person in charge of the disposal system and the approved emptier. These follow-up slips must be signed and kept by each of the three parties.

In the case of an emptying with presence of groundwater, it is necessary to lower the groundwater with a vacuum pump at the bottom of the piezometer in order to limit the risks of deformation of the tank. The pumping of the water table must be carried out before the emptying and be maintained during all the operation of emptying until the level of the tank is restored, or of the replacement of the filter.

**It is essential to fill the pit after emptying.**

Volume of pit emptying :

Capacité (EH)	21	25	30	35	40	45	50	60	70	80	90	100	120	135	150	160	180	200
Volume de fosses (m3)	10	12	15	17	20	20	25	30	35	40	40	45	55	65	70	80	90	90
Volume à vidanger (m3)	5	6	7,5	8,5	10	10	12,5	15	17,5	20	20	22,5	27,5	32,5	35	40	45	45

### ***3.4 Renewal of wearing parts***

In order not to affect the reliable performance of the device, it is important to have the components replaced by a qualified person.

Component lifetime :

Element	Lifetime	Actions to be taken
Trough head	15 years old	Replacement and fixing of the trough head horizontally
Flexible trough	2 years	Hose replacement
Hazelnut shells	10 years old	Pumping by a licensed drainer
Tank	>> 25 years old	-

Supply time for replacement parts:

Spare parts are available from our distributors.

### 3.4.1 Prevention of filter clogging and replacement of filter media

The respect of the installation conditions, of the maintenance instructions and of the normal conditions of use allows a perennial functioning of the system.

If, despite all these precautions, a clogging should occur, please contact our after-sales service who will first analyze the causes of this clogging and proceed to the renewal of the filter media if necessary.

The replacement of the hazelnut shells is done after an estimated period of operation of 10 years under nominal load conditions. This period can be longer, especially in the case of under-loading or intermittent use.

The gravel pack is pumped out by an approved drainer.

The hazelnut shells will then be recycled by the emptier to an approved composting center.

The tank shall be hosed down. The new media will be put in place by the technician.

### 3.5 After-sales service for parts

The supply of spare parts is carried out by the manufacturer, the installer or the company in charge of the maintenance of the die, and this during the warranty period or not.

#### Contact SIMOP after sales service (manufacturer) :

SIMOP  
 10, rue Richedoux  
 50480 Sainte-Mère-Eglise  
 Tel : 02 33 95 88 00  
 e-mail: [simop@simop.fr](mailto:simop@simop.fr)

### **3.6 Good practices for a good operation**

The design of the product has been made to guarantee you an optimal functioning during the whole life of the product as long as our prescriptions of installation, maintenance and use have been scrupulously respected.

There are indicators to detect a possible malfunction:

- slow flow of wastewater inside the building,
- strong odor perceptible around the filter,
- bad quality of the water at the outlet...

In these cases, the first corrective actions to be taken are:

- inspection of the service boxes and verification of the good flow in/out,
- cleaning the pre-filter,
- cleaning the trough.

If, despite these controls, a flow problem persists, it is essential to check the quality of the installation. Indeed, a device which would not respect our conditions of installation would involve a hydraulic dysfunction.

During the test procedure, in accordance with Annex ZA of the EN 12566-3+A2 standard, which lasted 10 months for BIONUT6054/04, no malfunctions were found.

## **4 Reliability of the equipment**

### **4.1 Guarantees**

Simop guarantees that the Bionut range of devices can treat domestic wastewater in accordance with the regulatory requirements in force at the time of installation.

This performance is guaranteed under normal conditions of use, care and maintenance in accordance with the prescriptions of this user guide.

The vat is guaranteed for 10 years, if the installation conditions have been respected.

The other elements are guaranteed according to the life of the components (table in paragraph 3.4)

The warranty period begins on the day of installation at the user's location.

The warranty is not dependent on the existence of a maintenance contract.

## 5 Information to be completed:

### Manufacturer:

SIMOP  
10, rue Richedoux  
50480 Sainte-Mère-Eglise  
Tel : +33 2 33 95 88 00  
Fax : +33 2 33 21 50 75  
Email: [simop@simop.fr](mailto:simop@simop.fr)  
Web: [www.simop.fr](http://www.simop.fr)

### Installer:

Name:  
Address:

Tel:  
Fax :  
Email:

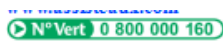
Date of completion of the installation :  
Signature and stamp of the installer :

### Product reference :

Product serial number :



## 6 Example of an intervention report



Version V2 -2014

en partenariat avec

MAINTENANCE

DEPANNAGE

AUTRE  .....

<b>Date :</b>	<b>Nom du technicien :</b>
<b>Nom et adresse du client :</b>	<b>Référence de l'installation :</b>
<b>tél :</b>	<b>Numéro série de l'installation :</b>
<b>E-mail :</b>	<b>Nombre de personnes effectives :</b>
	<b>Type d'exutoire : <input type="checkbox"/> Infiltration</b>
	<b><input type="checkbox"/> milieu hydraulique superficiel</b>

**HEURE ARRIVEE :** ..... **HEURE DEPART :** .....

		Oui	Non
N°1	- Des eaux provenant d'activités annexes sont elles déversées ? (bar/cuisine/industrie, ruissellement ..) Si oui : .....	<input type="checkbox"/>	<input type="checkbox"/>
N°2	- Présence d'un séparateur de graisse ? <input type="checkbox"/> Vidange nécessaire	<input type="checkbox"/>	<input type="checkbox"/>
N°3	- Bon écoulement général et absence de monté en charge dans les regards amonts et/ou aval	<input type="checkbox"/>	<input type="checkbox"/>
N°4	- Contrôle visuel extérieur de l'installation, tampons de niveaux, .... Observation : .....	<input type="checkbox"/>	<input type="checkbox"/>
N°5	- Tampons fermé verrouillés	<input type="checkbox"/>	<input type="checkbox"/>
N°6	- Absence d'odeurs significatives	<input type="checkbox"/>	<input type="checkbox"/>
N°6	- Inspection et nettoyage des regards amont et aval de la filière :	<input type="checkbox"/>	<input type="checkbox"/>
N°7	- Nettoyage du préfiltre de la fosse	<input type="checkbox"/>	<input type="checkbox"/>
N°8	- Mesure de la hauteur la croute en surface de la fosse : ..... cm	<input type="checkbox"/>	<input type="checkbox"/>
N°9	- Mesure de la hauteur de boues : dans la fosse : ..... cm :	<input type="checkbox"/>	<input type="checkbox"/>
N°10	- Nettoyage du compartiment auget et pièces en mouvement	<input type="checkbox"/>	<input type="checkbox"/>
N°11	- Bon fonctionnement de l'auget	<input type="checkbox"/>	<input type="checkbox"/>
N°12	- Changement du flexible de l'auget	<input type="checkbox"/>	<input type="checkbox"/>
N°13	- Absence de trace de monté en charge dans le filtre	<input type="checkbox"/>	<input type="checkbox"/>
N°14	- Nettoyage du réseau de répartition des éfluent	<input type="checkbox"/>	<input type="checkbox"/>
N°15	- Contrôle de la répartition homogène de l'effluent sur la surface du filtre	<input type="checkbox"/>	<input type="checkbox"/>
N°16	- Nettoyage du drain de collecte	<input type="checkbox"/>	<input type="checkbox"/>
N°17	-Scarification du massif	<input type="checkbox"/>	<input type="checkbox"/>
N°18	- Contrôle général des ventilations	<input type="checkbox"/>	<input type="checkbox"/>

Points de contrôle si présence d'un poste de relevage		Oui	Non
N°1	- Nettoyage de la cuve	<input type="checkbox"/>	<input type="checkbox"/>
N°2	- Nettoyage pompe+ flotteur	<input type="checkbox"/>	<input type="checkbox"/>
N°3	- test demarrage pompe	<input type="checkbox"/>	<input type="checkbox"/>
N°4		<input type="checkbox"/>	<input type="checkbox"/>
N°5		<input type="checkbox"/>	<input type="checkbox"/>
N°6		<input type="checkbox"/>	<input type="checkbox"/>
<b>OBSERVATIONS / NON CONFORMITES</b>			
.....			
.....			
<b>MATERIEL UTILISE A FACTURER</b>			
.....			
.....			
<b>TÂCHES TECHNIQUES A PREVOIR</b>			
<input type="checkbox"/> Vidange des boues de la fosse septique à réaliser avant: <input type="checkbox"/> 1 mois <input type="checkbox"/> 3 mois <input type="checkbox"/> 6 mois <input type="checkbox"/> Remplacement du massif à prévoir			
Souscription d'un contrat de maintenance afin de reconduire les visites annuelles sur l'installation <input type="checkbox"/> Oui <input type="checkbox"/> Non			

## 7 Sludge extraction monitoring table

Empty date	Drainage company	Approval number	Name of the drainer	Volume of extracted sludge	Intervention number

## 8 Follow-up table of interventions

Date of intervention	Service company	Nature of the interventions	Observations

## 9 Quality certificate:



CAPCERT certifie que le système de management de la société :  
*CAPCERT certifies that the management system of the company:*

# F2F

10 rue Richedoux  
50480 Sainte Mère L'Église

A été audité et jugé conforme aux exigences de la norme :  
*Has been assessed and found to meet the requirements of the standard:*

## ISO 9001 v2015

Pour le domaine de certification suivant :  
*For the following scope of certification:*

**Conception, fabrication et commercialisation de  
produits et d'équipement pour le traitement de l'eau**

Date de certification : **le 09 septembre 2021**

Date d'expiration du certificat précédent : **le 27 septembre 2021**

Date de fin de certification : **le 27 septembre 2024**

Le certificat ne restera valable jusqu'à la date de fin de certification que si le système de management est évalué et jugé conforme aux critères suscités lors des audits de surveillance.

Pour toute information relative au présent certificat, veuillez contacter l'équipe de CAPCERT : [contact@capcertification.com](mailto:contact@capcertification.com)

Luc MOUNEY  
Le Représentant de CAPCERT  
*CAPCERT Representative*

Le Représentant de l'Entreprise  
*The Company Representative*

CAPCERT : 2, square Aquitaine - 95100 Argenteuil  
SAS au capital de 10000 € - SIRET : 88443638700019

PG10-D0290  
V1-Nov20



ANNEXE AU CERTIFICAT n° **CAP143** - LISTE DES SITES COMPRIS DANS LE PERIMETRE  
DE CERTIFICATION **ISO 9001** DE L'ENTITE **F2F**

*ANNEX TO THE CERTIFICATE n° **CAP143** - LIST OF SITES INCLUDED IN THE SCOPE OF ISO 9001  
CERTIFICATION OF **F2F***

Site n°1 : **LE HAM**  
3 Rue Saint Pierre, 50310 Le Ham

Site n°2 : **MONTDIDIER**  
ZI de la Roseraie, 80500 Montdidier

Site n°3 : **BUJARALUZ**  
P.I Lastra, Monegros Parc B1, 50177 Bujaraloz,  
Espagne

Fait à Argenteuil - Le 09/09/2021

Luc MOUNEY - Le représentant de CAPCERT

A handwritten signature in blue ink, appearing to read "Luc Mouney".

# 10CE conformity certification

Caractéristiques essentielles	Performances		
<b>Efficacité du traitement :</b>	DCO 85,7 % DBO 96,4 % MES 94,8 % KN 77,8 % P PND		
<b>Capacité du traitement :</b>	Modèle de la gamme BIONUT2	Charge organique journalière (kgDBO <sub>5</sub> / j)	Débit hydraulique journalier (m <sup>3</sup> / j)
	BIONUT2/6381/21	1,26	3,15
	BIONUT2/6381/25	1,5	3,75
	BIONUT2/6381/30	1,8	4,5
	BIONUT2/6381/35	2,1	5,25
	BIONUT2/6381/40	2,4	6
	BIONUT2/6381/45	2,7	6,75
	BIONUT2/6381/50	3	7,5
	BIONUT2/6381/60	3,6	9
	BIONUT2/6381/70	4,2	10,5
	BIONUT2/6381/80	4,8	12
	BIONUT2/6381/90	5,4	13,5
	BIONUT2/6381/100	6	15
	BIONUT2/6381/120	7,2	18
	BIONUT2/6381/135	8,1	20,25
BIONUT2/6381/150	9	22,5	
BIONUT2/6381/160	9,6	24	
BIONUT2/6381/180	10,8	27	
BIONUT2/6381/200	12	30	
<b>Étanchéité à l'eau</b>	Conforme ( essai à l'eau)		
<b>Durabilité</b>	Conforme		
<b>Comportement structurel</b> (essai dit pit test)	Modèle de la gamme BIONUT2	Hauteur de remblai autorisée au-dessus de la cuve	Hauteur de nappe autorisée depuis la base de la cuve
	BIONUT2/6381/21	0,3 m	1,7 m
	BIONUT2/6381/25		
	BIONUT2/6381/30	0,5 m	
	BIONUT2/6381/35		
	BIONUT2/6381/40		
	BIONUT2/6381/45		
	BIONUT2/6381/50		
	BIONUT2/6381/60		
	BIONUT2/6381/70		
	BIONUT2/6381/80		
	BIONUT2/6381/90		
	BIONUT2/6381/100		
	BIONUT2/6381/120		
	BIONUT2/6381/135		
BIONUT2/6381/150			
BIONUT2/6381/160			
BIONUT2/6381/180			
BIONUT2/6381/200			
<b>Réaction au feu</b>	F		