

WASTEWATER TREATMENT

Bi nut[®]

Solutions from 4 to 20 PE

Eco-responsible compact
sanitation system based on recycled hazelnut shells!



- time on site !
- + economical !
+ durable !
- landscape impact !

Give the best back to earth



A filtration based on hazelnut shells

In partnership with the Ecole des Mines d'Alès, SIMOP has developed a bio-media medium using hazelnut shells.

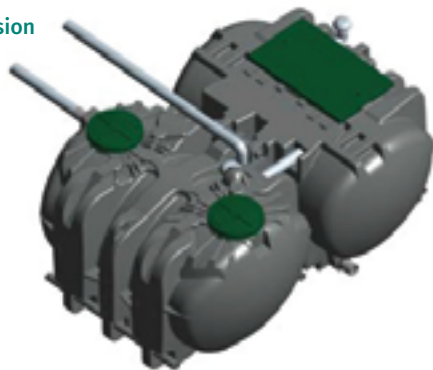
But why hazelnut shells?

- A 100% natural bio-media support,
- Favours bacterial development,
- Ecological recovery of a waste product from the agri-food industry,
- Compostable at end of life (waste code 19 08 99 «used hazelnut shells»)

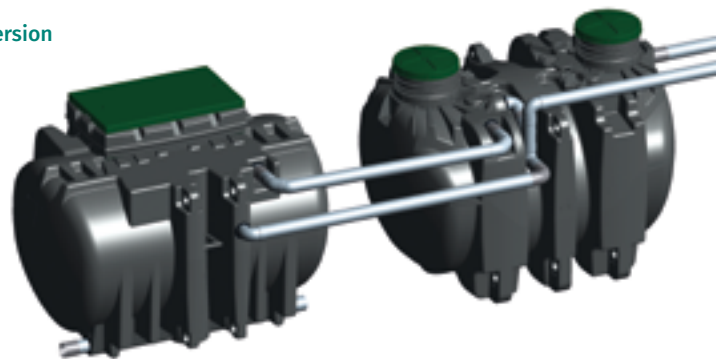
A system designed for all available spaces !

➔ A monobloc design for easy installation (4 to 6 PE)

Packed version



Line version

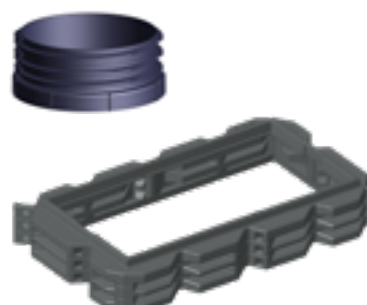


➔ Accessories to adapt to every topography

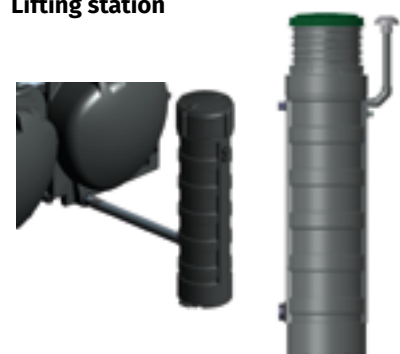
Extension shafts for accessibility, whatever the depth of the water line and **Lifting station** for the upper outlet.



Manhole extension shafts



Lifting station



Your eco-responsible compact sanitation solution!

Bionut is designed for domestic wastewater for single dwellings and small communities. This system is composed of an raw water tank and a compact filter with a sustainable and ecological filtering media, which is in line with our policy of sustainable development .

➔ **An innovative filtration process, based on recycled hazelnut shells, with multiple benefits...**

- 100% French manufacturing
- European patented system
- Hazelnut shells from French production (low carbon footprint)
- Recycling of a waste product from the food industry
- 100% natural media, without any chemical treatment
- No settling or decomposition of the media in the filter over time



MAJOR ASSETS FOR YOUR SANITATION!

+ economical



- Less work than a traditional solution (ground surface reduced from 120 to 10 m²)
- No energy required
- Reduced maintenance costs
- no work to renew the shells

+ practical



- Ready to install
- One-piece pack
- Resistant to ground water table
- Suitable for intermittent use (second homes)
- Easy change of the filtering media
- 2 possible outlets

Reduced landscape footprint



+ ecological



- Natural and renewable filtering media
- Recycled and recyclable material (hazelnut shells used as filtering media and then, at the end of their life, sent to a composting center)

+ environmental



+ durable

- 100% French product: innovation, design and manufacture by SIMOP
- Low carbon footprint
- Less landscape footprint
- No electrical consumption
- Homogeneous, efficient and sustainable purification system

Minimum space requirement (4 to 5 PE)
A = 1,64 m / B = 2,92 m / C = 2,30 m

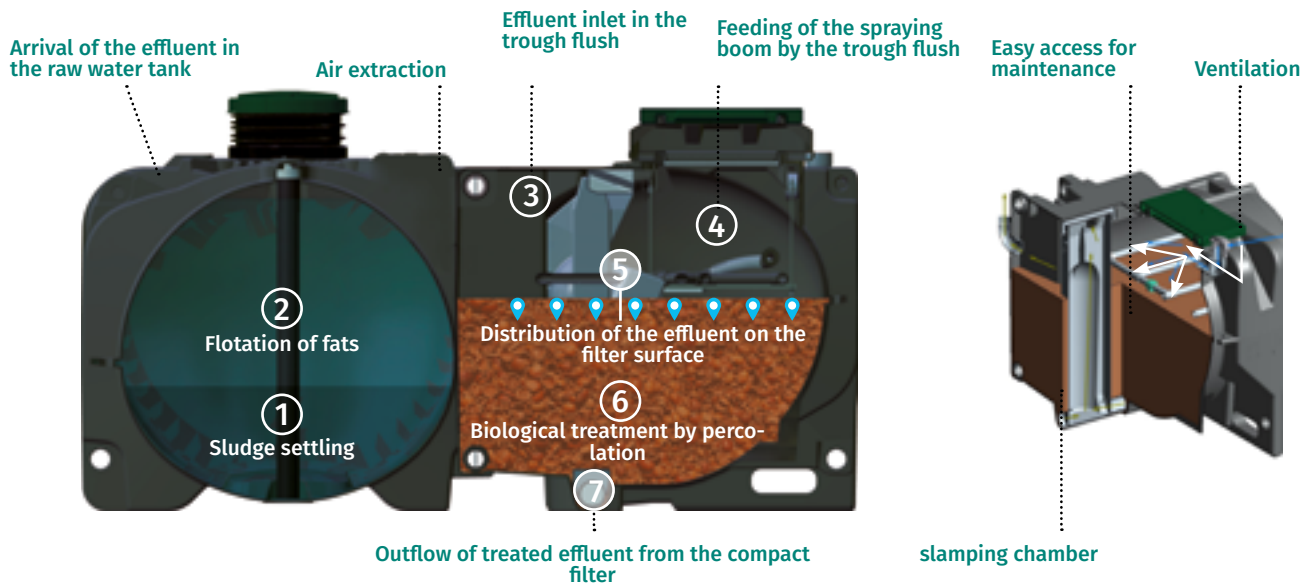
SIMOP's expertise for serene sanitation!

➔ Operation

The treatment of wastewater by the BIONUT system is done in two stages:

- the pre-treatment, carried out by the raw water tank,
- the biological treatment, done by the compact filter made of hazelnut shells.

After leaving the raw water tank, the pre-treated water arrives in the compact filter. The water is distributed on the whole surface of the filter. The water then percolates through the filtering mass made of hazelnut shells on which aerobic bacteria are fixed which will ensure the treatment of the water, until its exit.



➔ Reliability and easy maintenance

- The BIONUT system requires only limited maintenance and facilitates maintenance interventions.
- The emptying must be done when the height of sludge in the tank reaches 50% of the useful volume.
- The media is replaced after an estimated 10 years of operation under normal conditions.



Model references and features

Models		BIONUT 2/ 6054/04	BIONUT 2/ 6054/05	BIONUT 2/ 6054/06	BIONUT 2/ 6054/08	BIONUT 2/ 6054/10	BIONUT 2/ 6054/12	BIONUT 2/ 6054/16	BIONUT 2/ 6054/18	BIONUT 2/ 6054/20
PE capacity		4	5	6	8	10	12	16	18	20
Total number of tanks		2				3			4	5
RAW WATER TANK	References	FTE03000BI			FTE2/6009/04	FTE2/6009/05	INR06000	INR08000	FTE2/6309/10	
	Useful volume (m ³)	3			4	5	6	8	10	
COMPACT FILTER	References	1 x BIONUT2/04	1 x BIONUT2/05	1 x BIONUT2/06	1 x BIONUT2/08	2 x BIONUT2/05	2 x BIONUT2/06	2 x BIONUT2/08	3 x BIONUT2/06	4 x BIONUT2/05
	Total surface area of the system in m ² (sqm)	6,71 (pack)	6,71 (pack)	7,17 (pack)	9,71	21,95	23,3	28,12	47,38	58,35
Maximum backfill height (m)		0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6*	0,6*

All these models are available in low or high output.

* 0,3 m for FTE2/6309/10

**The Bionut range also offers
SOLUTIONS UP TO 200 PE !**

FIND ALL OUR PRODUCTS ON
WWW.SIMOP.FR
10 RUE RICHEDOUX
50480 SAINTE-MÈRE-EGLISE
FRANCE

export@simop.fr

+33 (0)233 958 800

FOLLOW US ON

