

SFA, WORLD LEADER IN SANITARY FACILITIES MADE IN FRANCE



BVCert. 6045364

For 60 years, the Société Française d'Assainissement [French Sanitation Company] has worked on improving the water treatment process with Europelec. The Group, which is also the inventor of the famous SANIBROYEUR® SFA, has a worldwide presence (25 subsidaries). Today, it is one of the world leaders in the field of lifting stations.

The technological expertise acquired on these products and its market knowledge have enabled the Group to expand its range of services: from the SANIBROYEUR® to the floor-standing or underground lifting station.

It now offers a full range of products designed for individual, <u>commercial, industrial and communal use and provides real expertise.</u>

> DESIGN

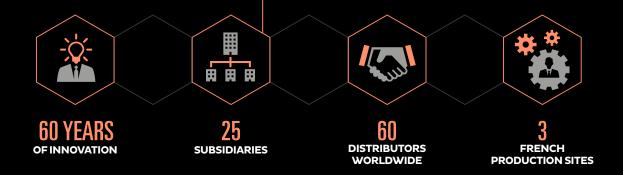
At the company headquarters, located in the heart of Paris, the engineering team designs new products to meet market expectations. The prototypes are tested by our laboratories within the productions units to ensure their reliability.

> FRENCH MANUFACTURING

The Group has production units in France with ISO 9001 and ISO 14001 certification. This enables product quality to be controlled.

> MARKETING

The Group works closely with its partners by ensuring its teams of experts are available to assist them in the sale of its high-tech products.



SERVICES

SFA offers high-performance products, manufactured in France and also professional inclusive support.

SFA is with you through every step of your project:

from the design, to selecting the appliance model, through to its installation.



HELPTO CHOOSE YOUR PUMPING STATION

0

DETERMINE THE REQUIRED FLOW RATE

The flow rate is the amount of water to be evacuated according to the type and number of devices connected to the pumping station. The flow rate measures a volume per unit of time. It is expressed in cubic metres per hour (m³/h) or litres per second (L/s).

Estimated flow rate



On the basis of 1 residence comprising: 1 WC, 1 bath, 1 shower, 1 basin, 1 sink, 1 washing machine, 1 dishwasher

Number of residences	Flow rate
1 residence (1 to 3 people)	2.5 m³/h
Up to 2 residences (4 to 6 people)	5 m³/h
Up to 4 residences (7 to 9 people)	10 m³/h
Up to 6 residences (10 to 12 people)	15 m³/h

2

CALCULATE THE TOTAL DYNAMIC HEAD (TDH)

TDH is the pressure the pump must provide between the suction point and the discharge point.

TDH = Geo H + H v

Geo H = geometric height

This is the height of the discharge in meters.

H v = Total friction losses in the discharge pipe (expressed in metres of water column).

There are 2 types of friction loss:

- regular friction losses (or linear): these result from the friction of the fluid against the walls of the discharge pipe
- singular friction losses: these result from pipework fittings (elbow, check valves, etc...)

These have to be added to the geometric height to determine the total dynamic head.

The value obtained in this table must be multiplied by the total length of the discharge pipe to obtain the total loss of loads.

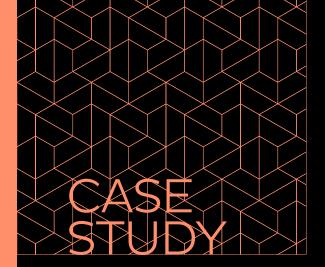
Table of friction losses

Flow	Pipe	ework of P	VC pressure p	ipes
rate in m³/h	Ø INT / EXT Ø 40/49	Ø INT / EXT Ø 50/60	Ø INT / EXT Ø 80/90	Ø INT / EXT Ø 102/114
2.5	0.011	-	-	-
5	0.038	0.009	0.001	-
6	0.055	0.013	0.002	-
7	0.067	0.017	0.003	-
8	0.078	0.020	0.003	0.001
9	0.099	0.025	0.004	0.002
10	0.120	0.030	0.005	0.002
12	0.160	0.045	0.006	0.002
15	0.250	0.065	0.009	0.003
20	-	0.100	0.014	0.005
25	-	0.160	0.020	0.008
30	-	0.23	0.030	0.010
40	-	0.35	0.045	0.017

These values have been increased to account for the check valves, elhows...

Once the total dynamic head and the peak flow rate have been established, the pump's typical curve can determine its suitability for the requirements.

The volume of the tank can then be decided in accordance with the specific constraints of each installation.



Two residences are connected to a lifting station.

The station must discharge wastewater at a height of 4 m over a length of 10 m in 50 mm PVC outside.

- Geometric height: 4 m.
- Friction losses: for 2 residences, we estimate the flow rate at peak times to be 5 m³/h.

According to the friction loss table, the height is: $0.038 \times 10 = 0.38 \text{ m}$

- → the total dynamic head will be: 4 m + 0.38 m = 4.38 m
- → The station has the following criteria:

 TDH = 4.38 m and flow rate rate = 5 m³/h

Our client wants to install an underground pumping station in his garden.

The SANIFOS® range corresponds to his needs. Its installation requirements correspond with a 250 litre tank.

Analysis of the pump curve for the SANIFOS® confirms to us that the SANIFOS® 250 meets the needs of the installation.

FIND OUT MORE
INFORMATION
ABOUT THE PUMPING
STATION SIZES
IN OUR <u>SFA</u>
PUMPING STATION
INSTALLATION
GUIDE.



FLOOR-STANDING UNDERGROUND

LIFTING STATIONS



INDIVIDUAL

USE

SMALL HOUSES, DETACHED HOUSES GREY
AND BLACK WATER

SANCUBIC® 1 WP

LIFTING STATIONS

SANIFOS 110 SANIFOS 250



COMMERCIAL

USE

SHOPS, PUBLIC PLACES GREY
AND BLACK WATER

SANICUBIC® 2 CLASSIC SANICUBIC® 2 PRO SANICUBIC® 2 XL SANIFOS 110 SANIFOS 250 SANIFOS 500



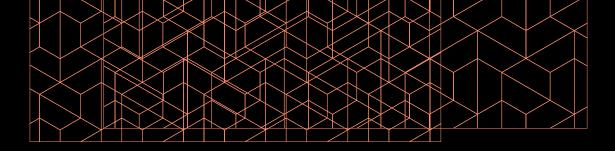
COMMUNAL

SMALL COMMUNAL GROUP, PROFESSIONAL BUILDINGS

GREY
AND BLACK WATER

SANICUBIC 2 XL

S/ANTFOS 500



PRODUCTS -

Saniflo offers a wide range of lifting stations to meet all your needs: lifting stations for grey water or black water, floor-standing or underground in a single or three-phase version, with or without grinding system.

FLOOR-STANDING PUMPING STATION

• LOW INSTALLATION COST • EASY ACCESS FOR MAINTENANCE



UNDERGROUND

PUMPING STATION

SAVING SPACE IN YOUR HOMECOMPLETELY DISCREET OPERATION

- FLOOR-STANDING RANGE

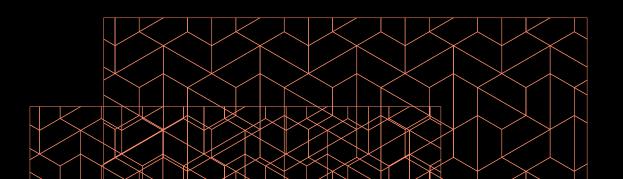
 PUMPS
 BENEFITS 08
 - SANICUBIC®1WP
 - SANICUBIC® 2 CLASSIC / SANICUBIC® 2 PRO
 - SANICUBIC® 2 XL SINGLE-PHASE / SANICUBIC® 2 XL THREE-PHASE

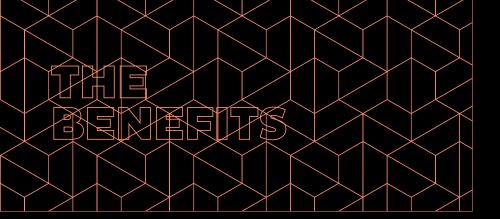
UNDERGROUND RANGE

- INSTALLATION ADVICE FOR UNDERGROUND STATIONS
 - SANIFOS® 18
 - SANIFOS®
 - SANIFOS® 250
- SANIFOS® 500 SINGLE-PHASE / SANIFOS® 500 THREE-PHASE

SUBMERSIBLE RANGE

- sanipump® 26
- ACCESSORIES
 STOP VALVES / EXTENSIONS 27
 - CONTACTS 28





SFA PUMPS SFA GRINDING

> THE PUMPS

The pump is the main element of the pumping station. It pumps away waste water from an installation.

SFA is always innovating and improving the performance and reliability of its pumps.

The safety of the pumps are guaranteed by extensive testing during the design phase in our French factories: two 100% electric tests, one 100% watertightness test and finally an operational test.





VORTEX KX V6

SANDCUBIC® 2 XL



Grinding BLADE **ProX K2** (Impeller not shown)

SANICUBIC® 1 WP and 2 SANIFOS®

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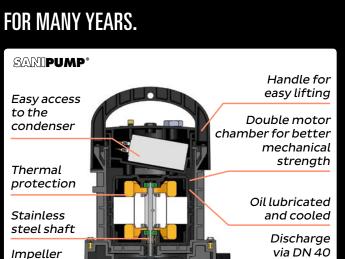
Clogged pump, without grinding system

mp, em



Clogged pipes and non-clogged pipes thanks to the grinding system

THE SFA PUMPS FROM THE SANICUBIC®* AND SANIFOS® RANGES INTEGRATE THE SFA GRINDING SYSTEM... KNOWN AND RECOGNISED FOR MANY YEARS





The ProX K2 grinding blade avoids the body of the pump becoming clogged for optimum operation of the installation.



The SFA grinding blade also prevents the clogging of pipes and makes evacuate in small pipeworks possible.





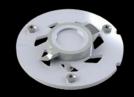
SFA grinding

system

The design of the ProX K2 grinding blade avoids clogging between the fixed plate and the moving blade for completely reliable operation.

Base plate







CUBIC® 1 WP

FLOOR-STANDING PUMPING STATION

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry

13 m



SAFE **OPERATION**

OPERATION SFA grinding system

Flow rate: 13 m³/ h

Audible and visual alarm box

HIGH-PERFORMANCE

Discharge height of 13 m (Q = 0 l / min)

- _ 3 dip tubes : 2 for engaging the motor and 1 for the alarm
- IP68 reinforced watertightness and remote control

EASY INSTALLATION AND MAINTENANCE

- Compact floor-standing unit
- _ 4 inlets available
- Discharge via DN 40 (Ø ext. 50 mm)

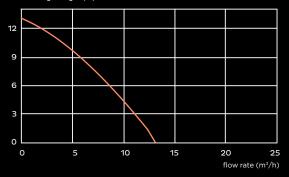


TECHNICAL CHARACTERISTICS:

V	Tank volume	32 L	
	Discharge pipework	DN 40 (Ext. Ø 50 mm)	
	Inlet pipeworks	• 1 inlet (Ø ext. 40/50 mm) • 3 inlets (Ø ext. 40/50/100/110 mm)	
FANK	Ventilation	Ø ext. 50 mm	
_	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)	
	Built-in check valve		
	Material	Polypropylene 20 % fibreglass	
PERFORMANCES	Max. flow rate	13 m³/h	
PERFOR	Max. height (Q=0 l/min)	13 m	
	Pump system	Grinder	
	Activation system	Dip tube	
	Power	220-240 V/50 Hz	
PUMP	Motor consumption	1500 W	
Ð	Max. intensity	6A	
	Weight (tank + pump)	23 kg	
	Protection index	IP68	
	Electric class	1	
CONTROL BOX	BMS connector	Dry contact for the alarm (Building Management System)	
NTR	Protection index	IPX4	
00	Alarm box	Wired alarm	

PUMP GRAPH

discharge height (m)



INLETS Ø ext. 40/50 Ø ext. 100/110

FLOOR-STANDING RANGE 570 mm 460 mm 426 mm Ø 50 Ø 50 Ø 100 Ø 50 DISCHARGE Ø ext. 50 INLETS Ø ext. 40/50 Ø ext. 100/110 INLETS Ø ext. 40/50 Ø ext. 40/50 Ø ext. 100/110

Remote control box (4 m of cable)

Remote wired audible and visual alarm

(5 m of cable)

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SANICUBIC® 1 WP





SANICUBIC® 2 CLASSIC

FLOOR-STANDING PUMPING STATION

SANICUBIC® 2 PRO

FLOOR-STANDING PUMPING STATION

GREY WATER + BLACK WATER

small buildings or shops.

13 m



HIGH-PERFORMANCE OPERATION

- SFA grinding system
- Flow rate: 13 m³/ h
- Discharge height of 13 m (Q=0 l/min)
- 2 motors for intensive use

SAFE OPERATION

- 2 motors with duty standby system
- Remote audible and visual alarm box (wireless on the PRO version)
- 3 dip tubes: 2 for engaging the motor and 1 for the alarm
- IP68 waterproof

EASY INSTALLATION AND MAINTENANCE

- Compact floor-standing unit
- 5 inlets available
- Discharge via DN 40 (Ø ext. 50 mm)

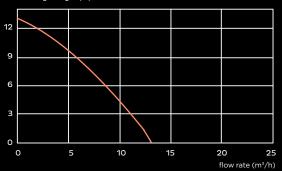


TECHNICAL CHARACTERISTICS:

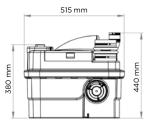
	TECHNICAL CHARACTERISTICS.			
	Tank volume	45 L		
	Discharge pipework	DN 40 (Ext. Ø 50 mm)		
TANK	Inlet pipeworks	• 1 inlet (Ø ext. 40/50 mm) • 4 inlets (Ø ext. 40/50/100/110 mm)		
	Ventilation	Ø ext. 50 mm		
	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)		
	Built-in check valve			
	Material	Polypropylene 20 % fibreglass		
PERFORMANCES	Max. flow rate	13 m³/h		
PERFOR	Max. height (Q=0 l/min)	13 m		
	Pump system	Grinder		
	Activation system	Dip tube		
	Power	220-240 V/50 Hz		
	Motor consumption	2 x 1500 W		
д М О	Max. intensity	13 A		
	Weight	SANICUBIC® 2 CLASSIC: 35,5 kg		
	(tank + pump)	SANICUBIC® 2 PRO: 33 kg		
	Protection index	IP68		
	Electric class	1		
CONTROL BOX	BMS connector	Dry contact for the alarm (Building Management System)		
IROL	Protection index	IPX4		
CONT	Alarm box	SANICUBIC® 2 CLASSIC: wired alarm SANICUBIC® 2 PRO: HF alarm		

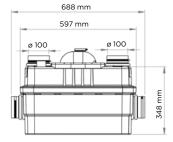
PUMP GRAPH

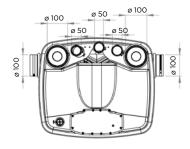
discharge height (m)



FLOOR-STANDING RANGE









SANICUBIC® 2 PRO





SANICUBIC® 2 XL

Available with single and three-phase motors

FLOOR-STANDING PUMPING STATION

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry





VORTEX system (clearance: 50 mm)

Flow rate: 55 m³/h

Maximum vertical discharge pipe

(Q=0 l/min): 17 m

EASE OF INSTALLATION AND MAINTENANCE

- Floor-standing product
- 5 inlets available
- Available in single and three-phase versions
- Direct and secure access to the 2 motors and level sensors without drainage

RELIABILITY

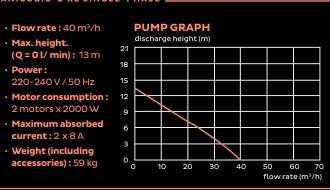
- _ 3 dip tubes
- IP68 waterproof
- Remote control and alarm boxes



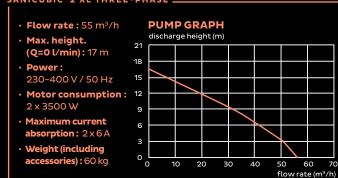
TECHNICAL CHARACTERISTICS:

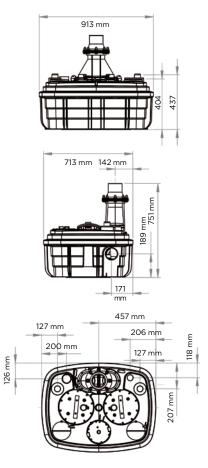
TANK	Tank volume	120 L	
	Discharge pipework	DN 100 (Ext. Ø 100 mm)	
	Inlet pipeworks	• 1 inlet (Ø ext. 40/50 mm) • 4 inlets (Ø ext. 40/50/100/110 mm)	
	Ventilation	Ø ext. 75 mm	
	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)	
	Built-in check valve		
	Material	Polypropylene 20 % fibreglass	
	Pump system	Vortex	
	Clearance	50 mm	
PUMP	Activation system	Dip tube	
۵	Protection index	IP68	
	Electric class	1	
	BMS connector	Dry contact for the alarm	
ВОХ		(Building Management System)	
	Protection index	IPX4	
CONTROL	Alarm box	SANICUBIC® 2 XL SINGLE PHASE: wired alarm SANICUBIC® 2 XL THREE PHASE: HF alarm	

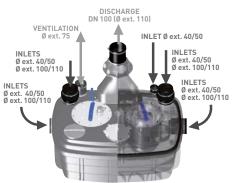
SANICUBIC' 2 XL SINGLE-PHASE _



SANICUBIC' 2 XL THREE-PHASE











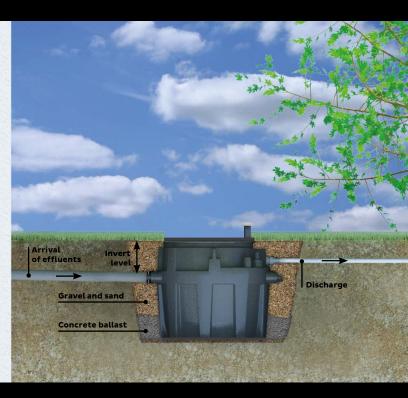
SOME INSTALLATION ADVICES FOR YOUR **SANIFOS®**

THE GROUND TYPE"

Before the installation of an underground pumping station, it is imperative to be fully aware of the soil type.

SANIFOS° LIFTING STATIONS CAN ALSO BE INSTALLED INSIDE THE HOME, STANDING ON THE FLOOR.





^{*} For accurate technical information, please refer to the installation instructions and professional standards or seek advice from our technical service : export@sfa.fr

DURING SANIFOS® UNDERGROUND PUMPING STATION INSTALLATION, DIFFERENT PARAMETERS MUST BE CONSIDERED AND FOLLOWED.



Standards

Our appliances comply with standards EN12050-1 for all-water lifting stations and must be installed in accordance with the recommendations of standard EN12056-4.

2

WHERE IS YOUR PUMPING STATION BEING INSTALLED?

SANIFOS® lifting stations have an invert level of 311 mm (and 611 mm with the extension), enabling them to be installed at various distances from the house.



Ventilation must be installed in the upper part of the pumping station to:

- evacuate the gases that form inside the tanks and prevent any risk of explosion
- avoid the station from losing pressure

To do this, lifting stations have two ventilation outlets.



SANIFOS® LIFTING STATIONS FOR...

... RELIABILITY Cover held in place by stainless steel screws

for maximum safety levels

Rotational-moulded polyethylene high-density tank with high mechanical resistance, anti-odour, resistant to chemical attacks and UV rays

Self-cleaning tank floor (on SANIFOS® 110 and SANIFOS® 250)

Thermal motor protection



Exterior or interior installations

30 cm extension available as an accessory (inlet depth of 611 mm)

2 ventilation openings

6 inlets for multiple pipework 40/50/100/110/125



... PERFORMANCE

Automatic pumping operation

New motor design for improved mechanical and thermal resistance

Energy-saving and reduced use of the motors thanks to a high useful volume (only on SANIFOS® 500)

SFA grinding system

... EASY INSTALLATION AND MAINTENANCE

Station delivered fitted with: PVC hydraulic pressure connectors pre-assembled inside the tank with stop valves, check valves, alarm and low/high detection floats

Fixing points

Invert level of 311 mm

Cable gland for motor cables and level sensors

Large tank opening for easy maintenance

Cable supplied for the lifting of the pumps

IP68 waterproof terminal blocks fitted as standard for easy connection/disconnection of the power supply without having to pull out the electricity cable





SANTEOS® 110

UNDERGROUND LIFTING STATION / 1 PUMP

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry





- SFA grinding system
- Maximum vertical discharge (Q=0 l/min): 14 m
- Flow rate: 11 m³/h
- _ 110 litre tank



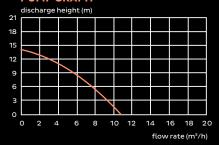
EASY INSTALLATION AND MAINTENANCE

- Station delivered fitted with preassembled hydraulics
- Automatic pump operation
- Screw cap for easy service access

TECHNICAL CHARACTERISTICS:

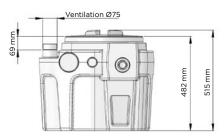
	Tank volume	110 L	
	Material	Polyethylene high-density	
	Discharge pipework	DN 40 (Ext. Ø 50 mm)	
FANK	Inlet pipeworks	• 2 inlets (Ø ext. 40/50 mm) • 2 inlets (Ø ext. 40/50/100/110/125 mm)	
	Ventilation	Ø ext. 75 mm	
	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)	
	Weight (tank + hydraulic only)	10 kg	
ICES	Max. flow rate	11 m³/h	
PERFORMANCES	Max. height (Q=0 l/min)	14 m	
	Incoming water flow rate height	182 mm	
	Pump system	Grinder	
	Activation system	Float	
	ON/OFF level	320/120 mm	
	Power	220-240 V/50 Hz	
PUMP	Motor consumption	1500 W	
J.	Max. intensity	6A	
	Weight (pump only)	13 kg	
	Protection index	IP68	
	Electric class	I	
	Thermal overload protection		

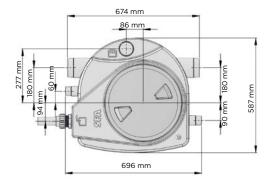
PUMP GRAPH

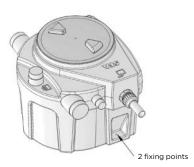


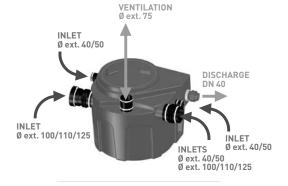
UNDERGROUND RANGE

















UNDERGROUND LIFTING STATION / 1 PUMP

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry





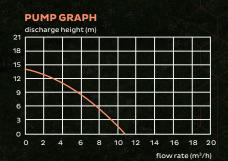
- SFA grinding system
- Maximum vertical discharge (Q=0 l/min): 14 m
- Flow rate: 11 m³/h
- _ 250 litre tank



EASY INSTALLATION AND MAINTENANCE

- Station delivered fitted with pre-assembled hydraulics, stop valve and check valve
- Automatic pumping operation
- Designed to make maintenance easier with stop valve and rope included as standard

TANK	Tank volume	250 L
	Material	Polyethylene high-density
	Discharge pipework	DN 40 (Ext. Ø 50 mm)
	Inlet pipeworks	6 inlets (Ø ext. 40/50/100/ 110/125 mm)
	Ventilation	2 x Ø ext. 75 mm
	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)
	Weight (tank + hydraulic only)	25 kg
	Built-in check valve + st	op valve
CES	Max. flow rate	11 m³/h
PERFORMANCES	Max. height (Q=0 l/min)	14 m
PERF	Incoming water flow rate height	311 mm
	Pump system	Grinder
	Activation system	Float
	ON/OFF level	400/100 mm
	Power	220-240 V/50 Hz
Δ	Motor consumption	1500 W
PUMP	Max. intensity	6A
	Weight (pump only)	13 kg
	Protection index	IP68
	Electric class	1
	Thermal overload protection	





982 mm

3 fixing points







UNDERGROUND LIFTING STATION / 2 PUMPS

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry

21 m

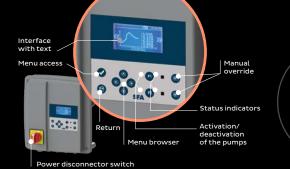


HIGH-PERFORMANCE OPERATION

- SFA grinding system
- **2 motors** for more intensive use
- Maximum vertical discharge (Q=0 l/min): 21 m
- _ Flow rate: 15.5 m³/h
- _ 500 litre tank

EASY INSTALLATION AND MAINTENANCE

- Station delivered fitted with pre-assembled hydraulics, stop valves and check valves
- SMART monitoring system of the station with remote alarm unit
- Designed to make maintenance easier with stop valves and ropes included as standard



SMART MONITORING SYSTEM OF THE PUMPING STATION WITH REMOTE ALARM UNIT

- Interface with text, date and time As done previously
- Logbook (pump operating times, Power disconnector swich fault list etc.) for increased safety

		·	
	Tank volume	500 L	
	Material	Polyethylene high-density	
	Discharge pipework	DN 40 (Ext. Ø 50 mm)	
	Inlet pipeworks	6 inlets (Ø ext. 40/50/100/110/125 mm)	
TANK	Ventilation	2 x Ø ext. 75 mm	
	Incoming waste water max. temperature	70°C intermittently (max. 5 mins)	
	Weight (tank + hydraulic only)	63 kg	
	Built-in check valve + stop valve		
	Incoming water flow rate height	311 mm	
	Pump system	Grinder	
	Activation system	Float	
_	ON/OFF level	500/135 mm	
PUMP	Weight (pump only)	2 x13 kg	
•	Protection index	IP68	
	Electric class	I	
	Thermal overload protection		

SANIFOS' 500 THREE-PHASE

Max. height (Q=0 l/min): 14 m

SANIFOS' 500 SINGLE PHASE _

- Flow rate: 11 m³/h
- Motor power: 220/240V / 50 Hz
- Maximum current consumption: 2 x 6 A
- · Consumption: 1500 W

PUMP GRAPH





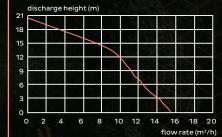
- Max. height (Q=0 l/min) : 21 m
- Flow rate: 15.5 m³/h
- Engine power : 230-400V / 50Hz

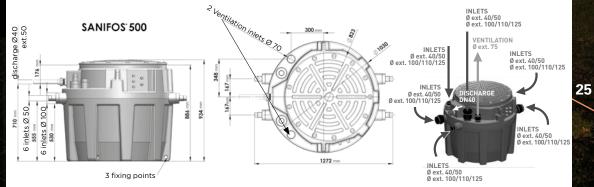
000

HF remote alarm box

- Maximum current consumption: 2 x 4.75 A
- · Consumption: 2600 W

PUMP GRAPH





UNDERGROUND RANGE



PUMP®

GRINDING SUBMERSIBLE PUMP

GREY WATER + BLACK WATER

WC, bathroom, kitchen and laundry





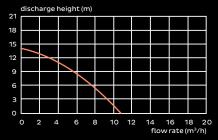


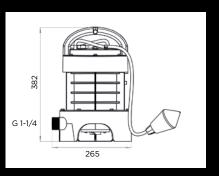


HIGH-PERFORMANCE OPERATION

- SFA grinding system
- Autonomous pump operation
- Flow rate: 11 m³/h
- Maximum vertical discharge (Q=0 l/min): 14 m
- _ ON/OFF level: 400/100 mm

PUMP GRAPH





> STOP VALVES

To comply with the regulations and to facilitate maintenance operations, stop valves must be installed on the effluent inlets as well as on the discharge pipe.

Blade gate valves for inlet pipes _



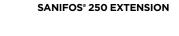
DN100 ball valve for discharge: especially for the SANICUBIC® 2 XL



> EXTENSIONS FOR SANIFOS®

In order to increase the invert level of SANIFOS® lifting stations, extensions are available as accessories.

They have the same pipework as the tank but are not stackable.



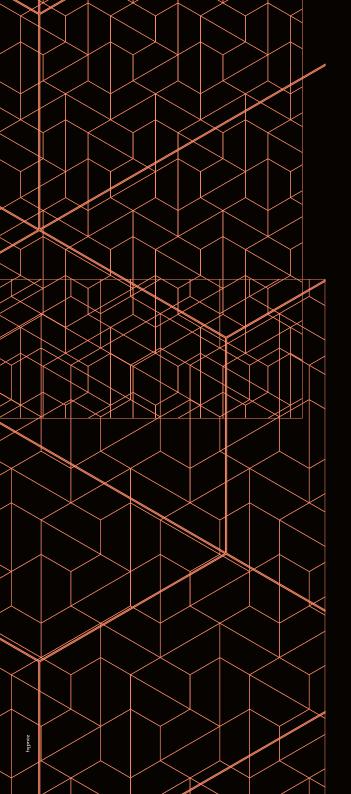


SANIFOS 250 with 30 cm extension Invert level: 611 mm





SANIFOS' 500 with 30 cm extension Invert level: 611 mm



SFA / SANIFLO

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