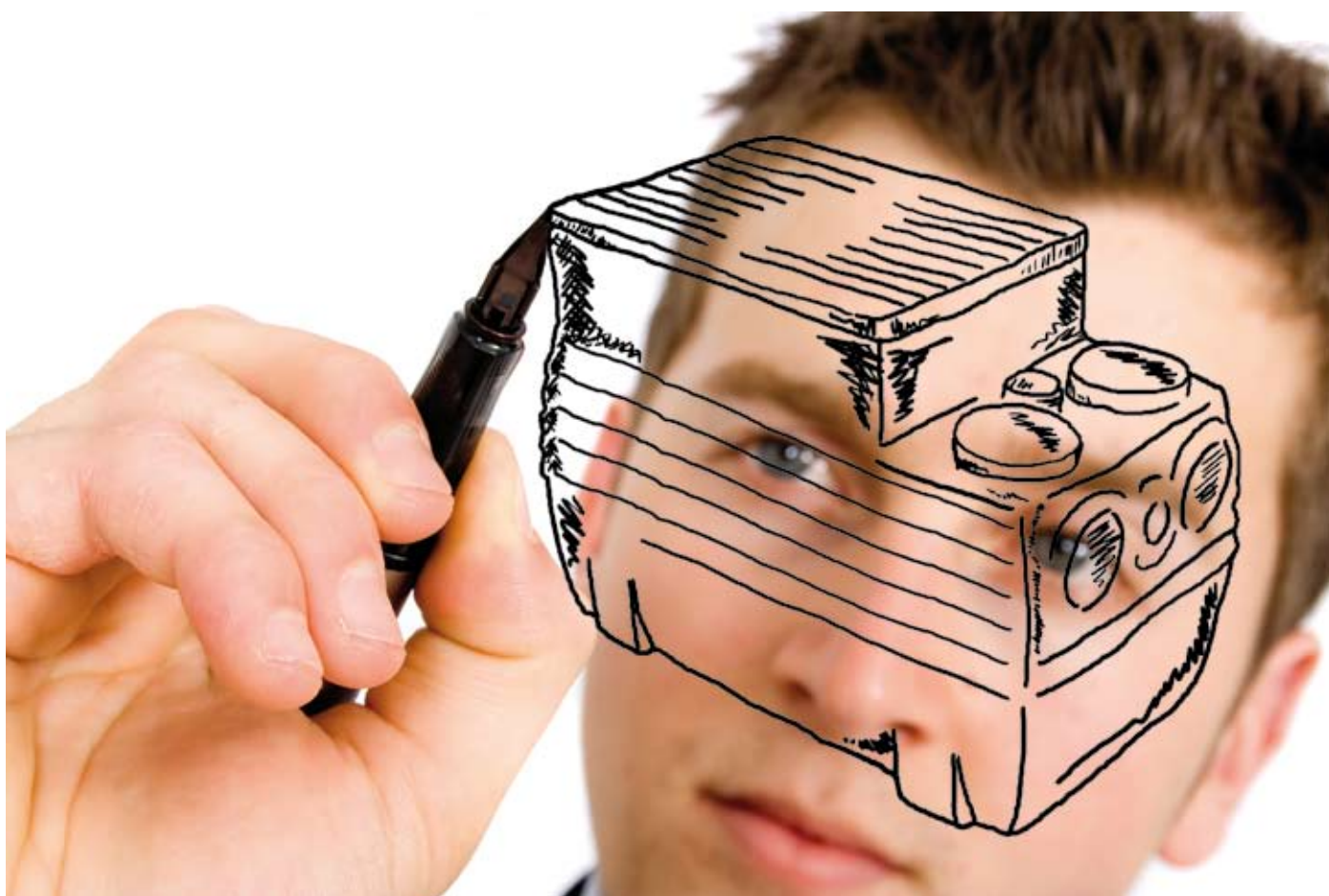


# 3.0

## LIFTING STATIONS



## 3.1 LIFTING STATIONS



Prefabricated **lifting stations** are an effective, economical solution for collecting domestic wastewater and transferring it to a sewer at a higher level or where there are barriers to gravity run-off, or where the wastewater requires grinding.

The **BlueBOX** series consists of rotary moulded polyethylene tanks of 250 or 400 litres, fitted to take one or two pumps respectively.

The special shape is inspired by the Pininfarina design of the Blue Series pumps.

Their construction characteristics make BlueBOX systems extremely versatile and easy to install.

### Operation and Use



The collection tank receives household wastewater from drains of any kind, and any rainwater or seepage drains.

The pump installed inside the tank refluxes the wastewater into the sewer.

The cover and pipe joints are fitted with seals to ensure airtight connections.

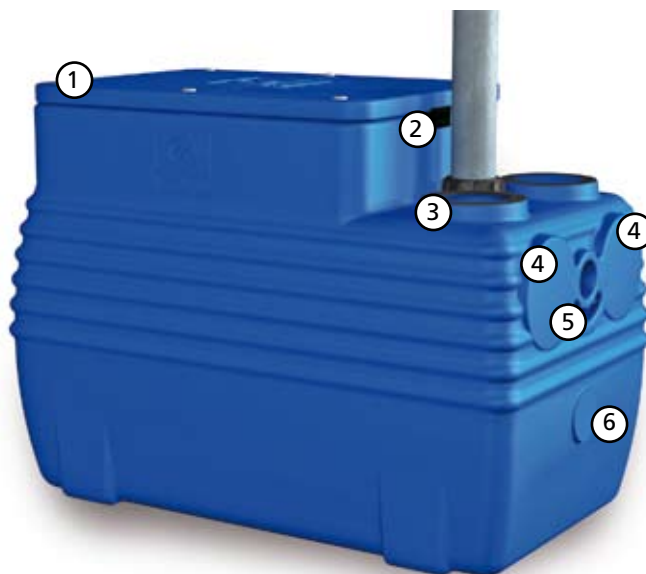
BlueBOX units are designed to allow a large number of intake, outlet and ventilation pipe connection options, allowing effective use whatever the space available.

A grinder pump capable of breaking down any solids in the wastewater, and refluxing it to large distances, can be installed inside the unit. This allows the pumped liquid to be passed through even small-diameter pipelines, with considerable financial savings on the total cost of the system.

# BlueBOX 250 - 400

## Technical characteristics

- 250 litre version for one pump and 400 litre version for two pumps
- can be installed with coupling device or directly coupled
- walk-over cover
- O-ring seal between tank and cover
- simplified intake or air venting pipe connections with seal
- airtight cable gland seals
- integral lifting handles
- fitted for emergency emptying using a tap
- PATENTED cable gland allowing easy pump removal for any maintenance work
- the side fins, in the middle of the tank, guarantee an excellent grip if the unit is installed in-floor (refer to relevant manual)



Sturdy walk-over cover  
The large top opening allows a backup pump to be used for emergency emptying, ensuring operations are simple and hygienic.



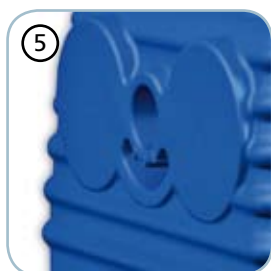
PATENTED modular cable gland system allowing the pump to be removed with no need to disconnect or extract the power supply cable (refer to relevant manual).



Guaranteed airtight thanks to "C" shaped double-lip NBR rubber seals. The seal allows the BlueBOX to be connected to the various pipelines quickly, solving the vibration problem.



Wastewater pipeline inlet ports also provided on sides.



Two integral handles for lifting and transport, for easy transfer even by hand.



Emergency drainage fitting located low down in the unit.

## Installations

BlueBOX 250-400 lt. lifting stations are fitted for installation of Zenit pumps (not included).

The delivery pipeline may be in galvanised steel or PVC and is secured to the tank by means of a ring-nut with a seal that ensures airtight sealing.

The accessories available allow a variety of installation options depending on the specific requirements.

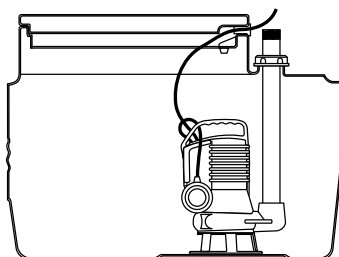
### Permanent installation

Ideal installation for pump with vertical delivery outlet up to 2 1/2"

The pump rests on the bottom of the tank. The specially shaped bottom keeps the pump in the correct position.

A ball check valve and/or a gate valve can be connected to the end of the delivery pipeline.

Permanent installation is definitely the simplest and most economical.

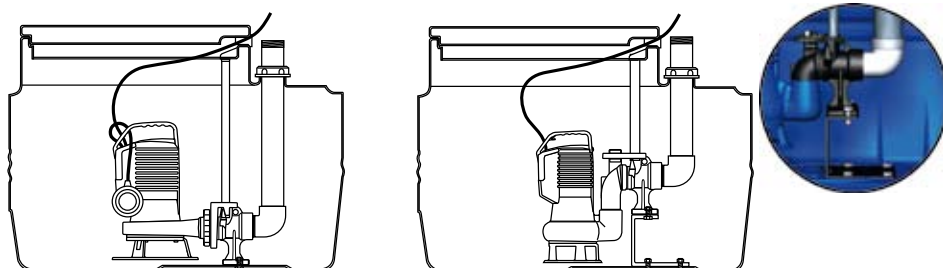


### Installation with bottom coupling device (DAC)

Installation with the bottom coupling device allows the pump to be raised and repositioned easily, with no need to empty the tank.

Vertical delivery pumps can be installed using a special kit for horizontal DAC units.

This is a versatile installation option which simplifies pump maintenance or replacement.

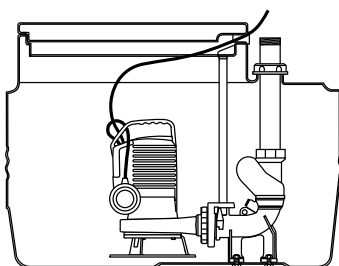


See Accessories section for further information.

### Installation with bottom coupling device (DAC) and ball valve (VAP)

This special, compact accessory provides all the benefits of an ordinary DAC, and also, thanks to an integral venting valve, it prevents air pockets from forming inside the pump body if the unit runs dry.

Thanks to this feature, a special ball check valve can be directly connected to the outlet of the DAC inside the BlueBOX, ensuring compact size and removing installation constraints.

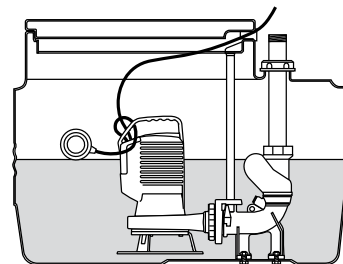


See Accessories section for further information.

## Electrical accessories

### With integral float switch

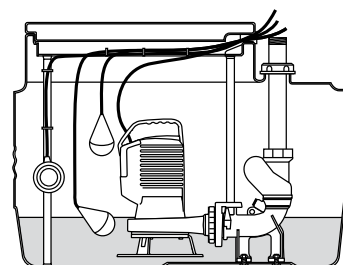
In the event of use of pumps with float switch, BlueBOX lifting stations can be used with no further electric accessories. The float switch starts and stops the pump depending on the level reached.



### Without integral float switch

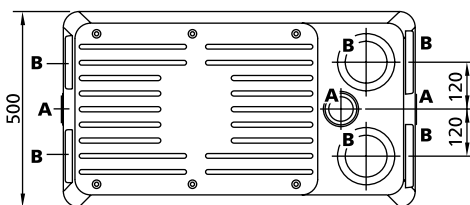
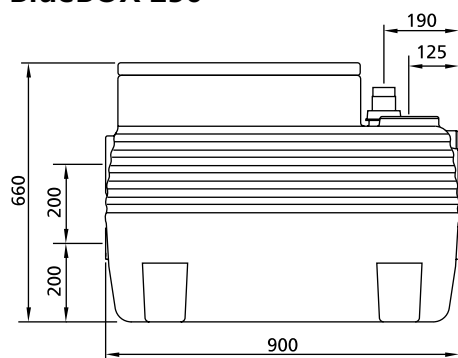
In the event of use of pumps without float switch, the BlueBOX lifting station must be equipped with minimum and maximum level float switches, and alarm float switch if required.

The electrical panel complete with all features required for operation of one or two pumps (400 lt) and accessories such as alternating control device or alarm with buzzer and light is available on request.



## Overall dimensions and weights

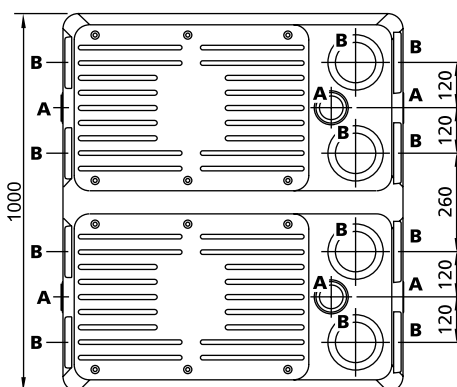
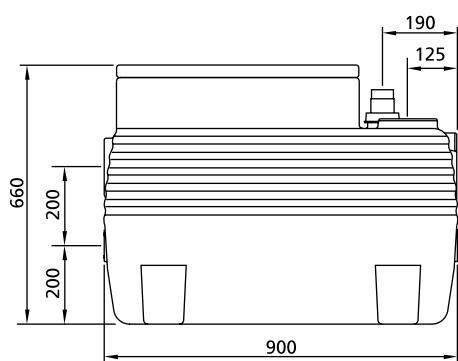
### BlueBOX 250



A Ø max 2 1/2"  
B Ø max 110 mm  
Weight 15 kg

(data without pump and accessories)

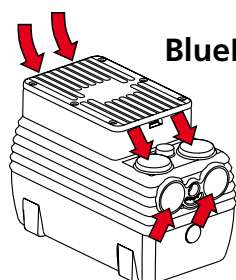
### BlueBOX 400



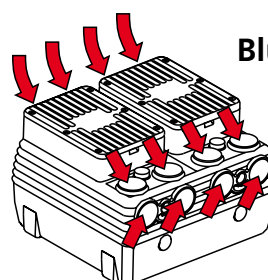
A Ø max 2 1/2"  
B Ø max 110 mm  
Weight 31 kg

(data without pump and accessories)

## Inlets available



BlueBOX 250



BlueBOX 400



## Recommended electric pumps

### With vortex impeller

|                               | V   | Phases | P2 (kW) | A    | Rpm  | Ø        | Free passage |
|-------------------------------|-----|--------|---------|------|------|----------|--------------|
| DG Blue 40/2/G40V A1BM/50     | 230 | 1      | 0.3     | 2.3  | 2900 | G 1 1/2" | 40 mm        |
| DG Blue 50/2/G40V A1BM/50     | 230 | 1      | 0.37    | 2.8  | 2900 | G 1 1/2" | 40 mm        |
| DG Blue 75/2/G40V A1BM/50     | 230 | 1      | 0.55    | 4.1  | 2900 | G 1 1/2" | 40 mm        |
| DG Blue 100/2/G40V A1BM/50    | 230 | 1      | 0.74    | 5.6  | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 50/2/G40V A1BM/50  | 230 | 1      | 0.37    | 2.8  | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 75/2/G40V A1BM/50  | 230 | 1      | 0.55    | 4.1  | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 100/2/G40V A1BM/50 | 230 | 1      | 0.74    | 5.6  | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 50/2/G40V A1BT/50  | 400 | 3      | 0.37    | 1.15 | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 75/2/G40V A1BT/50  | 400 | 3      | 0.55    | 1.6  | 2900 | G 1 1/2" | 40 mm        |
| DG BluePRO 100/2/G40V A1BT/50 | 400 | 3      | 0.74    | 2.15 | 2900 | G 1 1/2" | 40 mm        |

|                                  | l/s   | 0    | 2    | 4    | 6    | 8    | 10   | 12   |
|----------------------------------|-------|------|------|------|------|------|------|------|
|                                  | l/min | 0    | 120  | 240  | 360  | 480  | 600  | 720  |
|                                  | m³/h  | 0    | 7,2  | 14,4 | 21,6 | 28,8 | 36,0 | 43,2 |
| DGBLUE 40/2/G40V A1BM/50         |       | 6,0  | 4,0  | 1,7  |      |      |      |      |
| DGBLUE 50/2/G40V A1BM/50         |       | 7,6  | 5,5  | 2,9  |      |      |      |      |
| DGBLUE 75/2/G40V A1BM/50         |       | 10,1 | 8,5  | 5,7  | 2,6  |      |      |      |
| DGBLUE 100/2/G40V A1BM/50        |       | 11,6 | 10,2 | 7,6  | 4,3  |      |      |      |
| DG BluePRO 50/2/G40V A1BM(T)/50  |       | 7,0  | 4,9  | 2,4  |      |      |      |      |
| DG BluePRO 75/2/G40V A1BM(T)/50  |       | 10,2 | 8,0  | 5,5  | 2,6  |      |      |      |
| DG BluePRO 100/2/G40V A1BM(T)/50 |       | 11,4 | 9,8  | 7,4  | 4,4  |      |      |      |
| DG BluePRO 150/2/G50V A1CM(T)/50 |       | 12,3 | 10,7 | 8,8  | 6,5  | 4,4  | 2,4  |      |
| DG BluePRO 200/2/G50V A1CM(T)/50 |       | 15,3 | 13,7 | 11,7 | 9,4  | 7,1  | 4,7  | 2,5  |



### Grinders

|                               | V   | Phases | P2 (kW) | A   | Rpm  | Ø                 | Free passage |
|-------------------------------|-----|--------|---------|-----|------|-------------------|--------------|
| GR BluePRO 100/2/G40H A1CM/50 | 230 | 1      | 0.74    | 5.5 | 2900 | G 1 1/2"-DN32 PN6 | -            |
| GR BluePRO 150/2/G40H A1CM/50 | 230 | 1      | 1.1     | 7.5 | 2900 | G 1 1/2"-DN32 PN6 | -            |
| GR BluePRO 200/2/G40H A1CM/50 | 230 | 1      | 1.5     | 10  | 2900 | G 1 1/2"-DN32 PN6 | -            |
| GR BluePRO 100/2/G40H A1CT/50 | 400 | 3      | 0.74    | 2.7 | 2900 | G 1 1/2"-DN32 PN6 | -            |
| GR BluePRO 150/2/G40H A1CT/50 | 400 | 3      | 1.1     | 3.2 | 2900 | G 1 1/2"-DN32 PN6 | -            |
| GR BluePRO 200/2/G40H A1CT/50 | 400 | 3      | 1.5     | 4.3 | 2900 | G 1 1/2"-DN32 PN6 | -            |

|                                  | l/s   | 0    | 1    | 2    | 3    | 4    | 5    |
|----------------------------------|-------|------|------|------|------|------|------|
|                                  | l/min | 0    | 60   | 120  | 180  | 240  | 300  |
|                                  | m³/h  | 0    | 3,6  | 7,2  | 10,8 | 14,4 | 18,0 |
| GR BluePRO 100/2/G40H A1CM(T)/50 |       | 18,0 | 16,4 | 14,4 | 11,5 | 6,9  |      |
| GR BluePRO 150/2/G40H A1CM(T)/50 |       | 21,1 | 19,6 | 17,9 | 15,1 | 10,4 | 3,0  |
| GR BluePRO 200/2/G40H A1CM(T)/50 |       | 27,0 | 25,6 | 23,6 | 20,7 | 16,1 | 9,3  |



## Outdoor installation

Installing a BlueBOX lifting station could not be easier.

It is supplied partially assembled to speed up installation by the customer.

A large number of construction features simplify installation, and the accessories supplied allow the system to be optimised in all conditions.



The BlueBOX tank can be installed on-floor or in-floor. Inlet and output pipeline fittings are provided on three sides, allowing installation to be optimised to requirements.



Before the unit is actually placed in position, holes are drilled in the sides using a flared grinding tool to take the seals and then the pipes in the chosen positions.



To ensure perfect sealing, the double lip seal provided is fitted. No additional sealants are required, making installation an extremely quick procedure.



Once our BlueBOX has been placed in the installation position, the wastewater inlet and ventilation pipes are fitted.



The next step is to install the pump, which will certainly be easier if a BlueBOX with DAC was chosen. In this case, the flange provided has only to be slid along the guide tubes to achieve perfect coupling to the body of the DAC. The BlueBOX contains an accessory that can be fitted to allow emptying in emergencies through the drainage hole low down in the unit.



The electrical cables are passed through special patented rubber cable glands that ensure a perfectly airtight seal. Before fitting the cable, perforate the chosen cable glands with a sharp tool, but leave the others intact to keep liquids or smells inside the unit.



Once installation is complete and operation of the pump and its float switches has been checked, the cover can be screwed into place. The cover is walk-over but will not support vehicles.



The BlueBOX lifting station is ready for use. The vast range of plumbing and electrical accessories covers all installation requirements.