



## FP400 MACERATOR RANGE

### Installation Instructions





**FP400**



**FP400S**



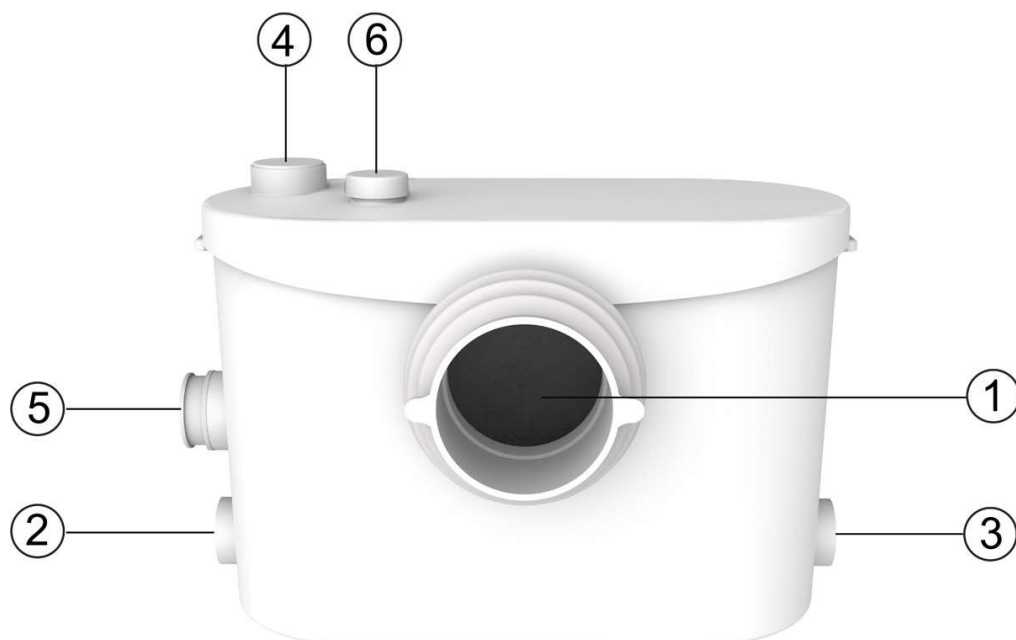
**FP400K**

FP400 Macerator: for WC and Bathroom (Front Toilet Inlet)  
 FP400S Slim Macerator: for Wall Hung and Bathroom (Side Toilet Inlet)  
 FP400K Macerator: for Kitchen, Utilities and Bath (Without Toilet Inlet)

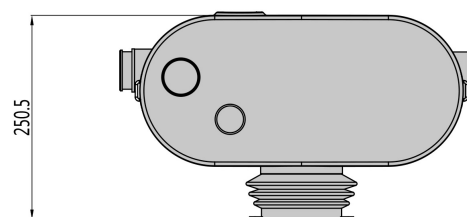
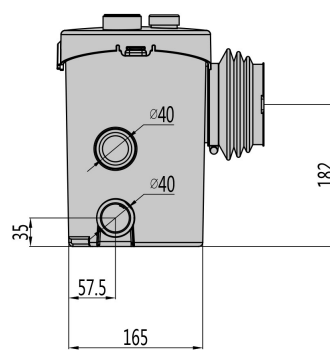
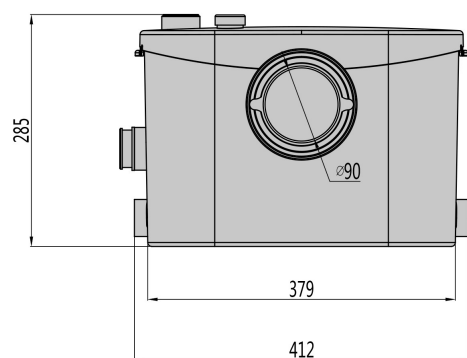
## TECHNICAL DATA - FP400 MACERATOR RANGE

Power:	400W	Voltage:	220~240V /50Hz
Horizontal discharge:	80M	Vertical discharge:	8M
Max. Water temperature:	80°C (60 mins) then 65°C* *FP400K 100°C (30 mins) then 80°C	Thermal protection:	90°C
Max. flow rate:	145L/Min	IP Rating:	IPX4

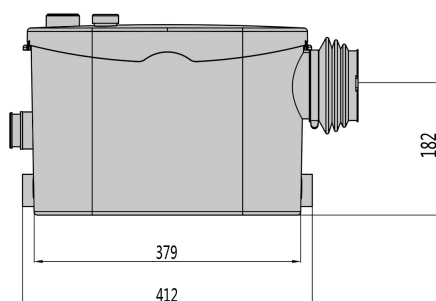
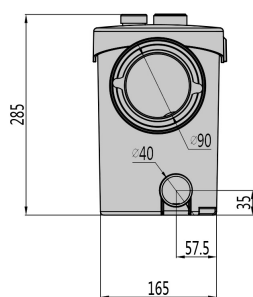
## PRODUCT DIMENSIONS/DIAGRAM - FP400



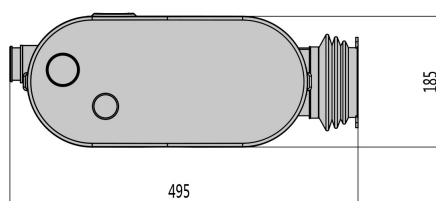
① Inlet for Toilet $\phi$ 100mm	② Inlet $\phi$ 40mm
③ Inlet $\phi$ 40mm	④ Inlet $\phi$ 40mm(Optional)
⑤ Outlet $\phi$ 22/28/32/40mm	⑥ Air Vent

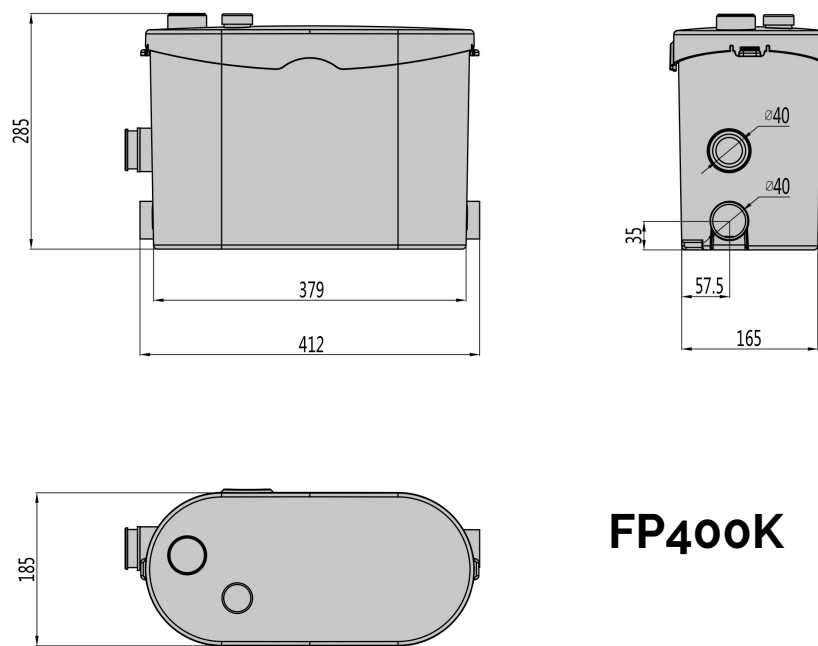


**FP400**



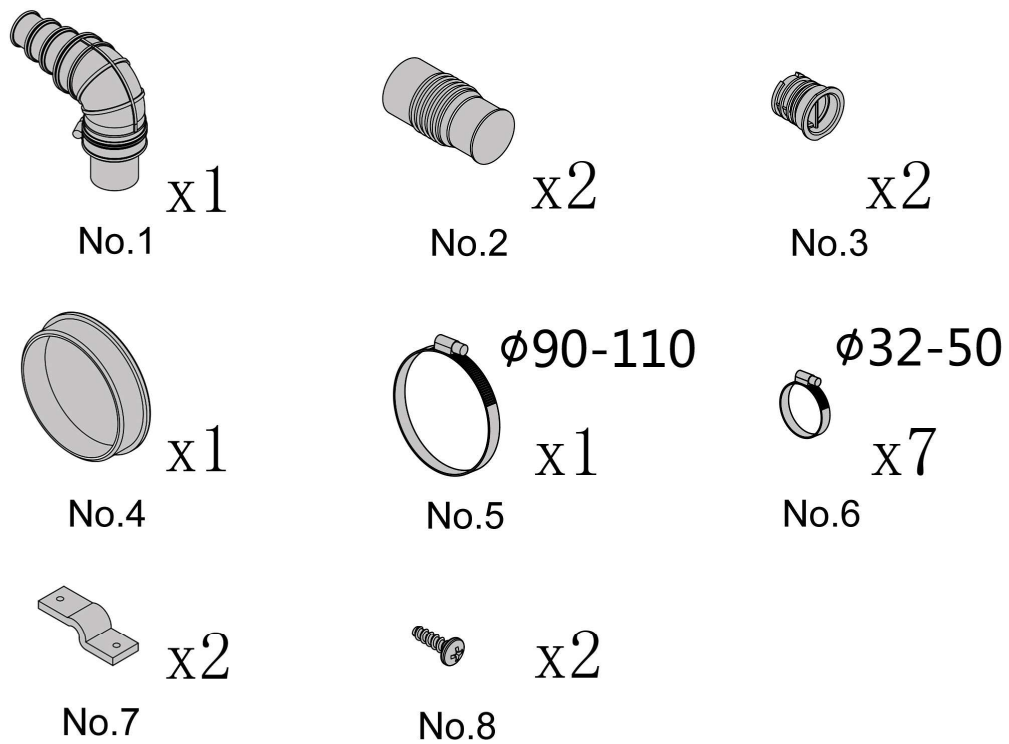
**FP400S**





**FP400K**

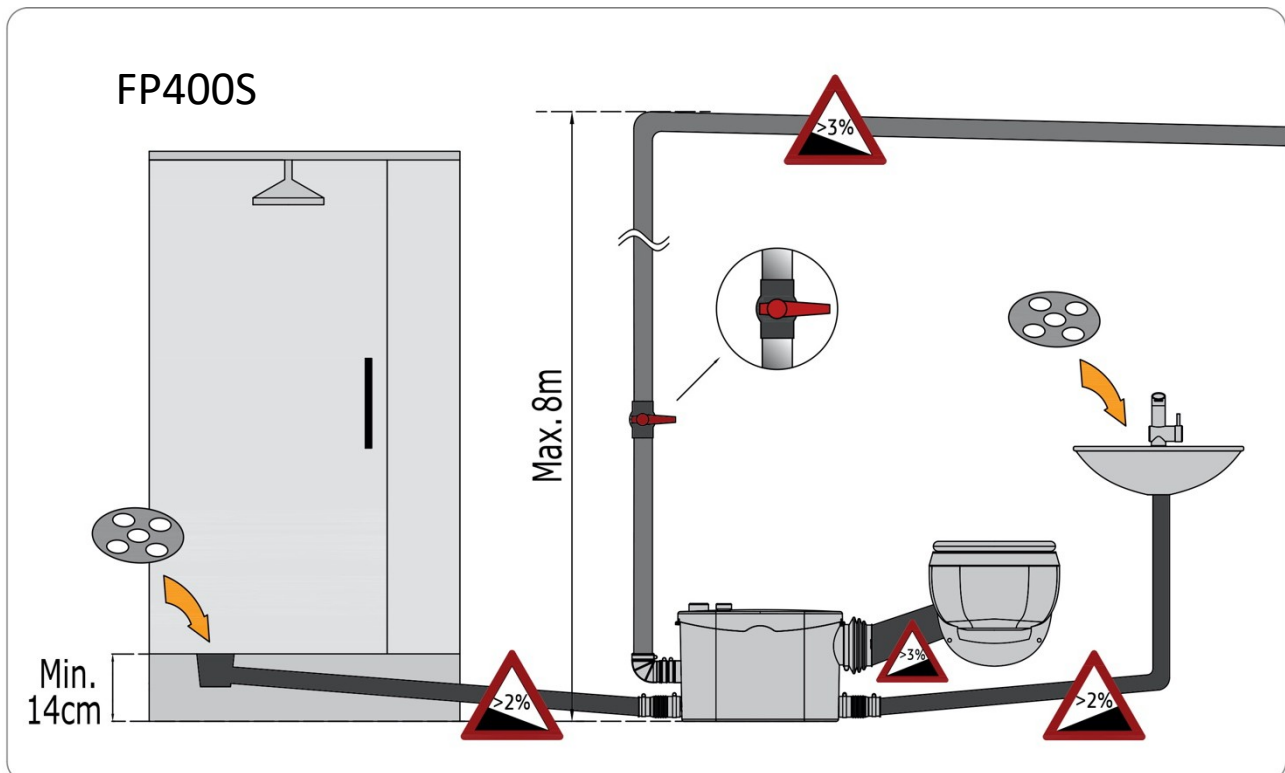
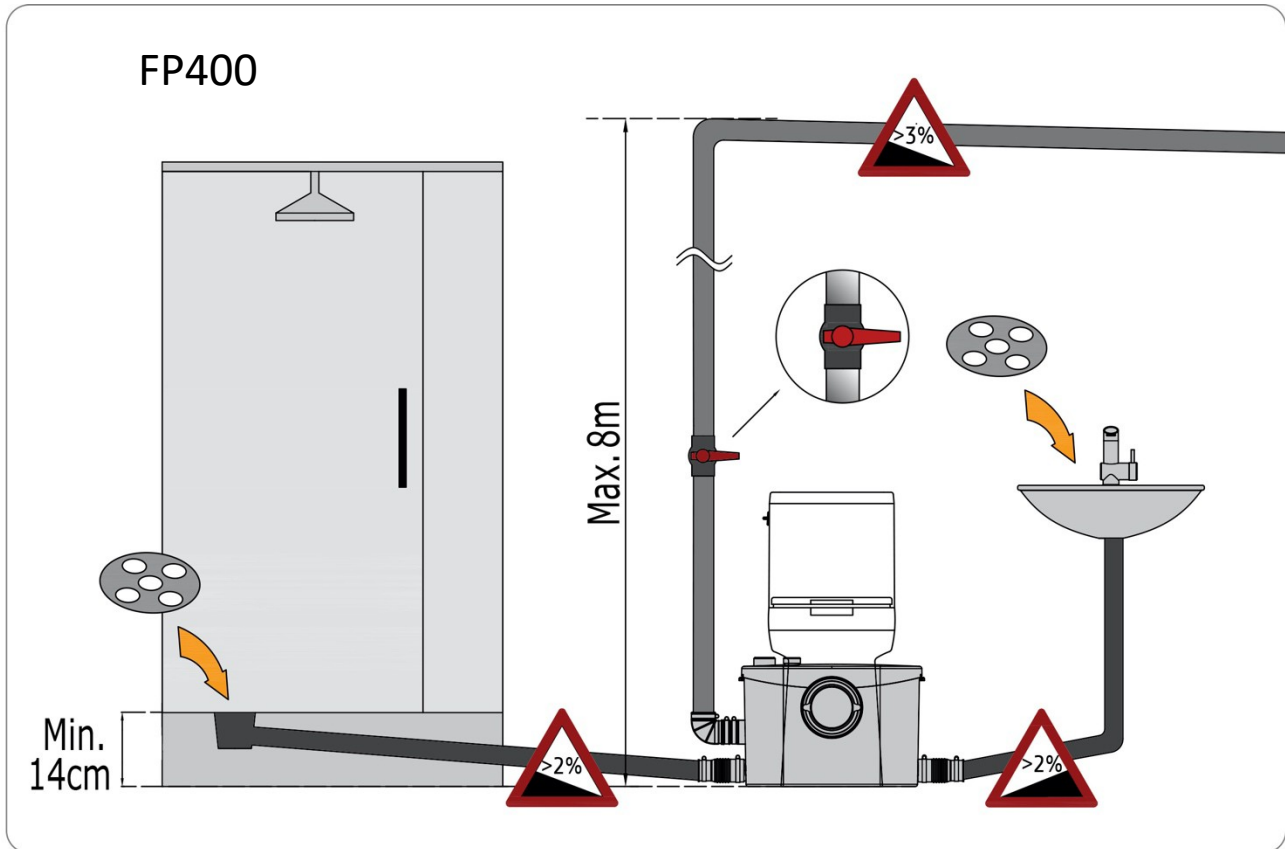
## SPARE PARTS

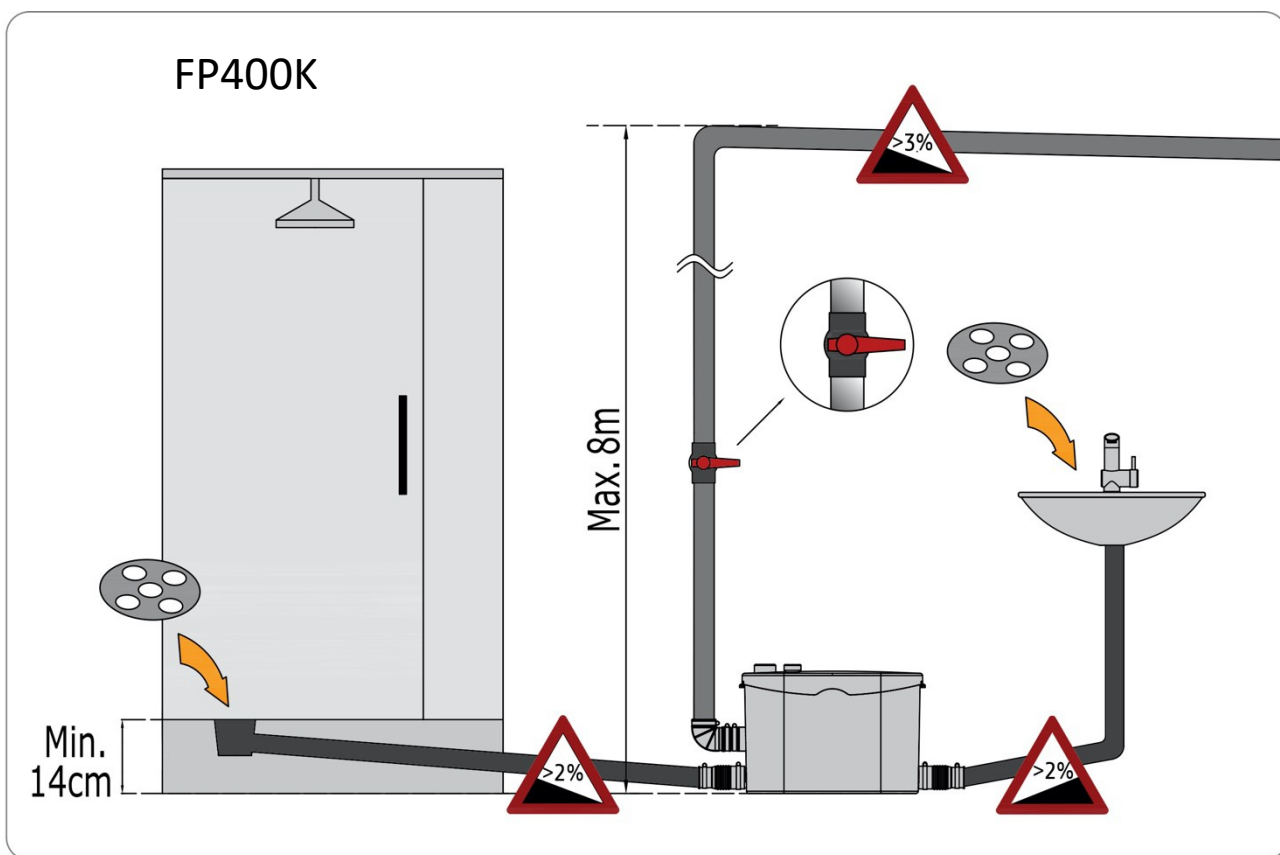


FP400K - No.3 x 1, without No.4 & No.5

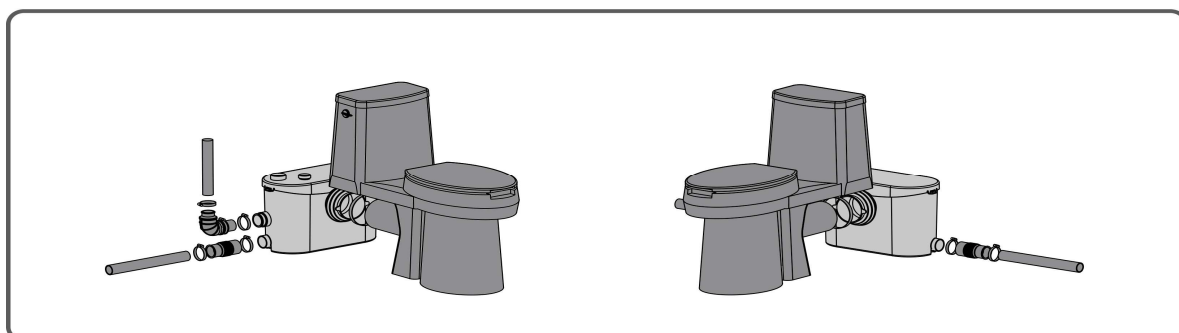
## EQUIPMENT

- 1, An outlet check valve is necessary
- 2, Installing an extra manual check valve for repair is suggested
- 3, Lift the shower 14cm high, when you connect the side inlet
- 4, Using filter in showers & toilets to prevent hair blocking the machine

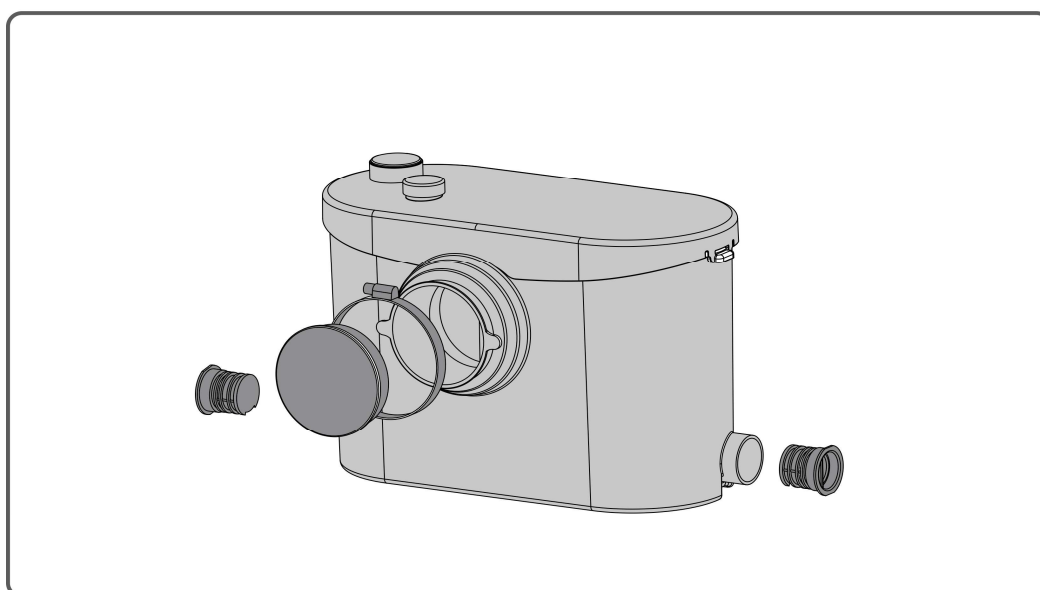




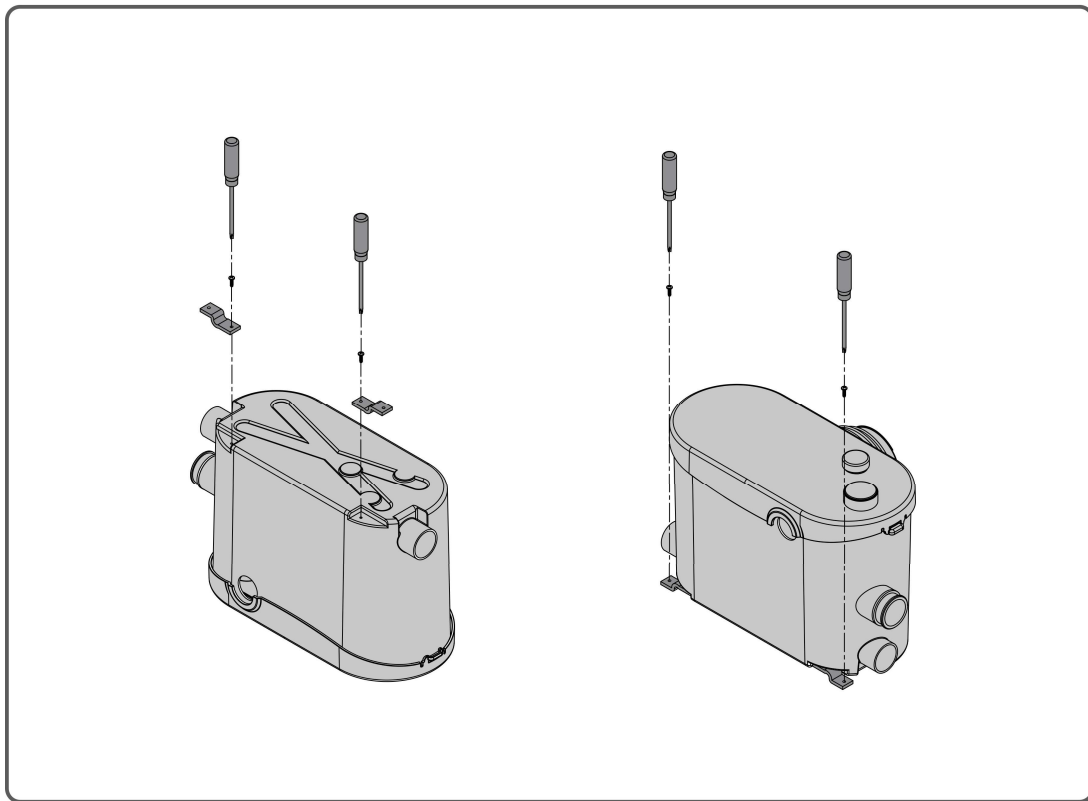
## CONNECTION/INLET COVER



Cover the inlets when unused as shown below.

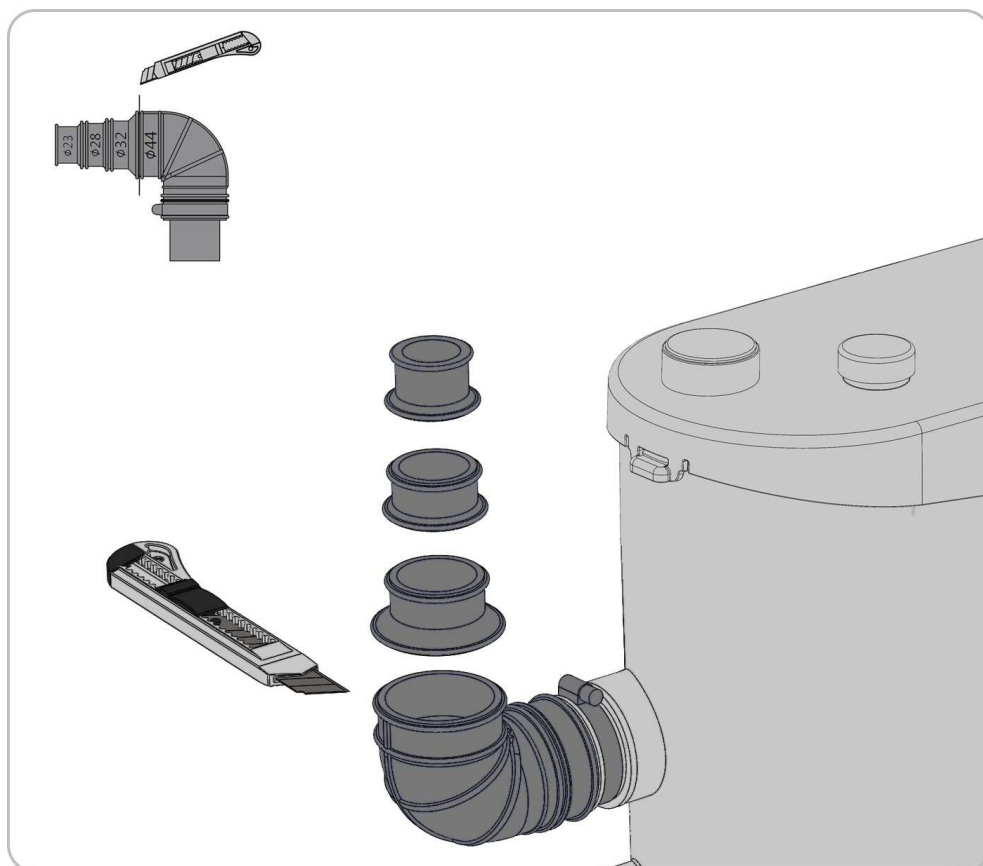


## FIXATION

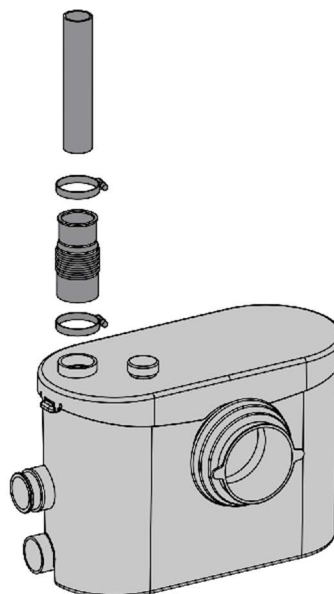
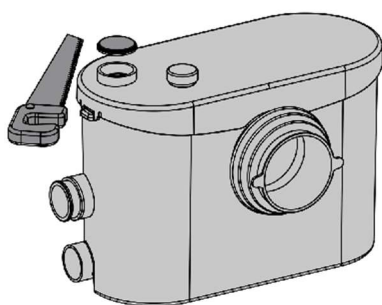


## OUTLET (CHECK VALVE)

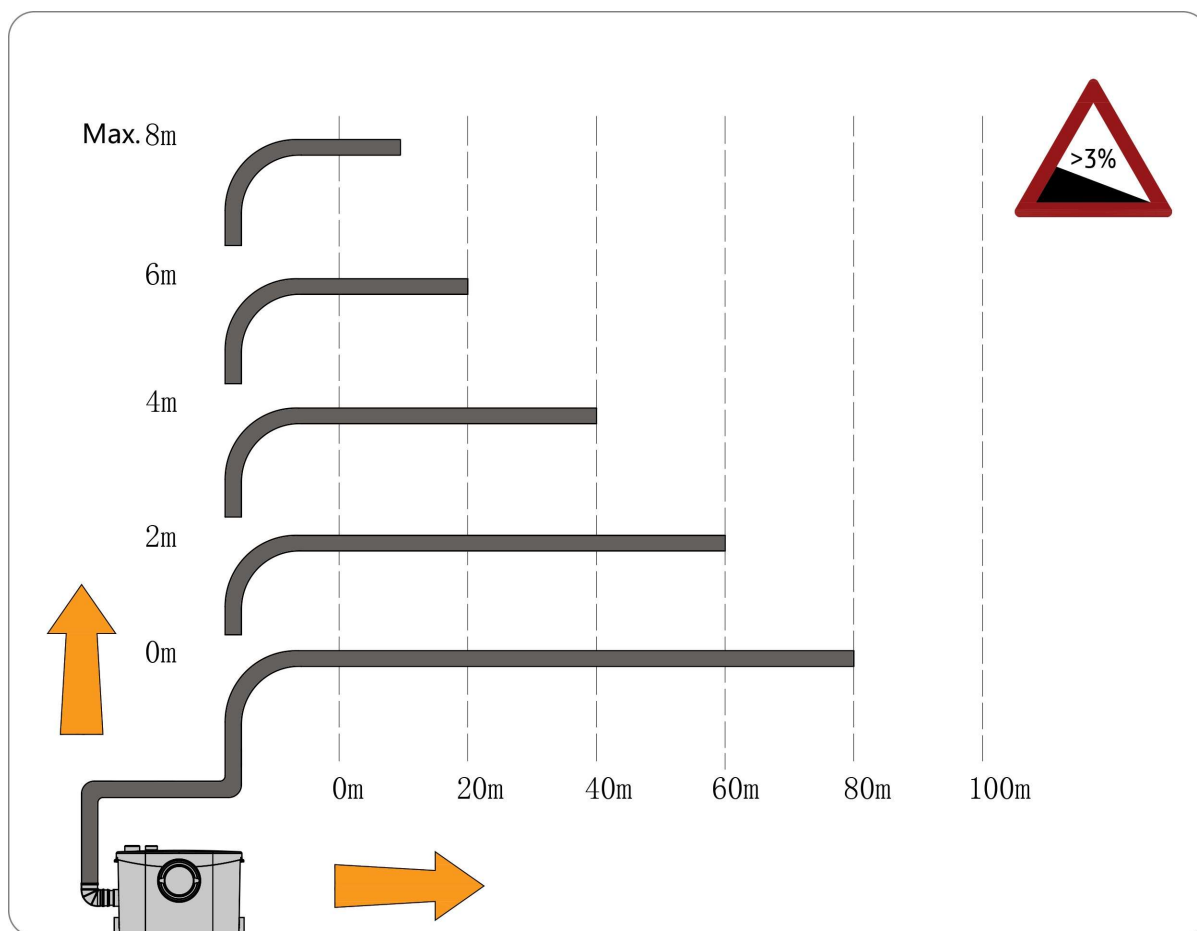
Discharge pipe insert - check valve is only 1~2CM, avoid too much insert



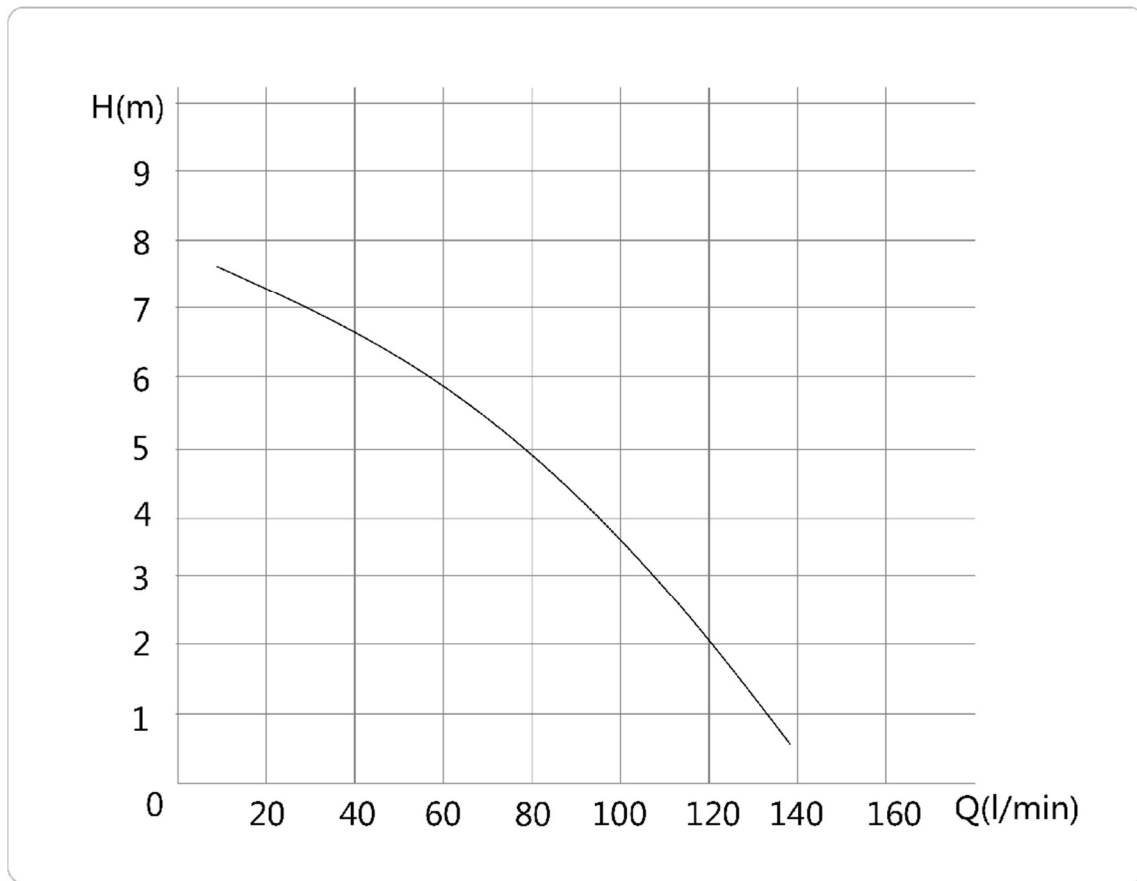
Optional Inlet



## VERTICAL/HORIZONTAL PERFORMANCE

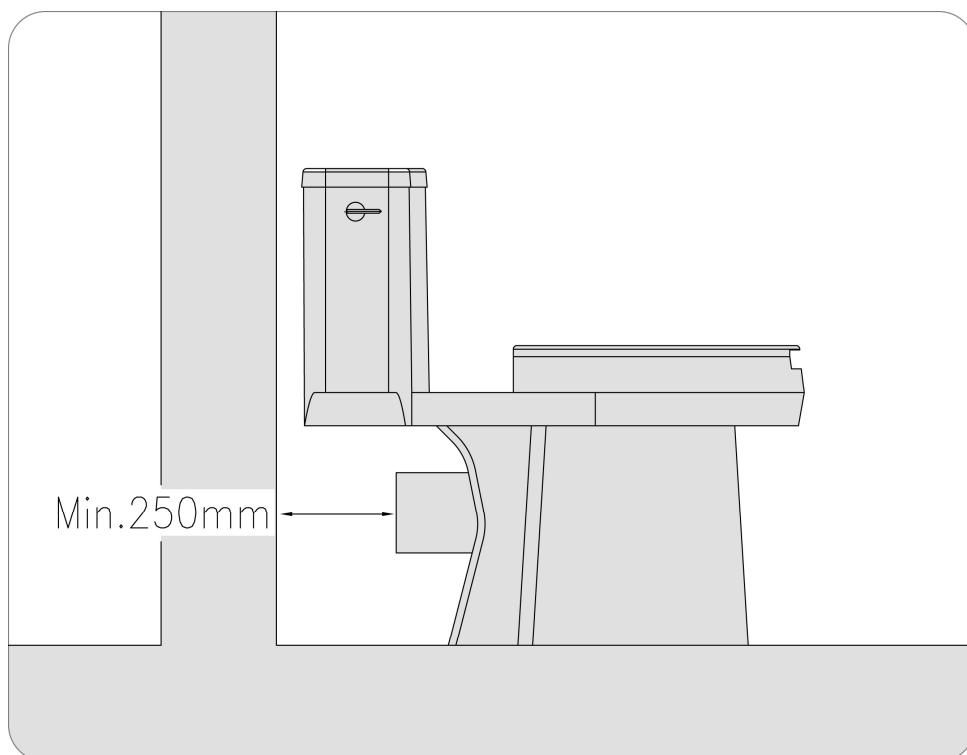


## FLOW RATE



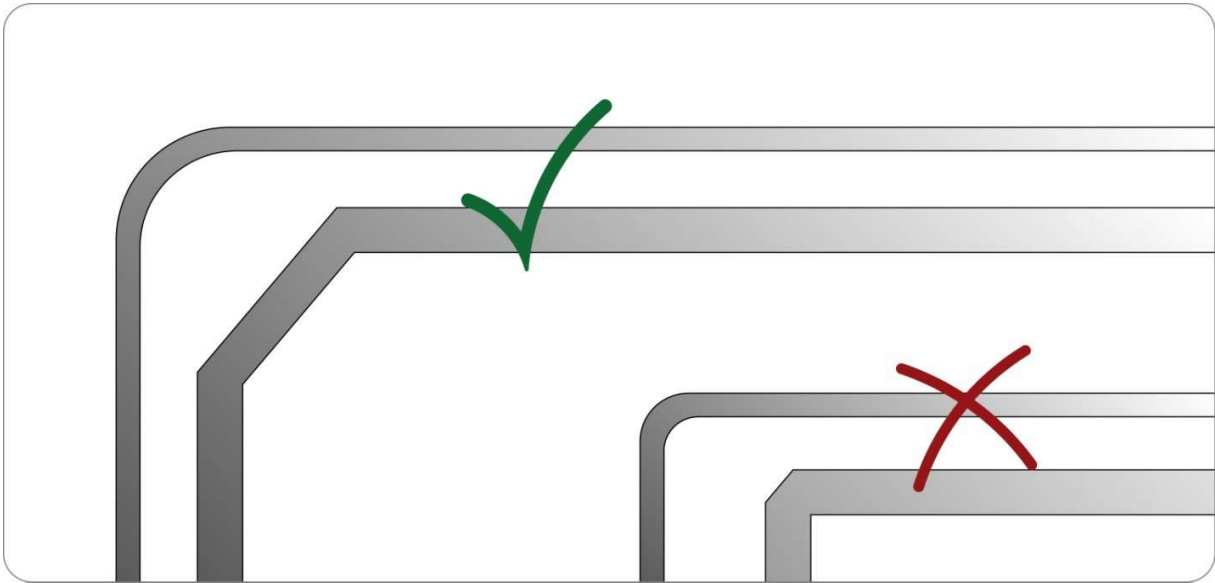
## TOILET OUTLET

Min Size from toilet outlet to rear wall is 205mm

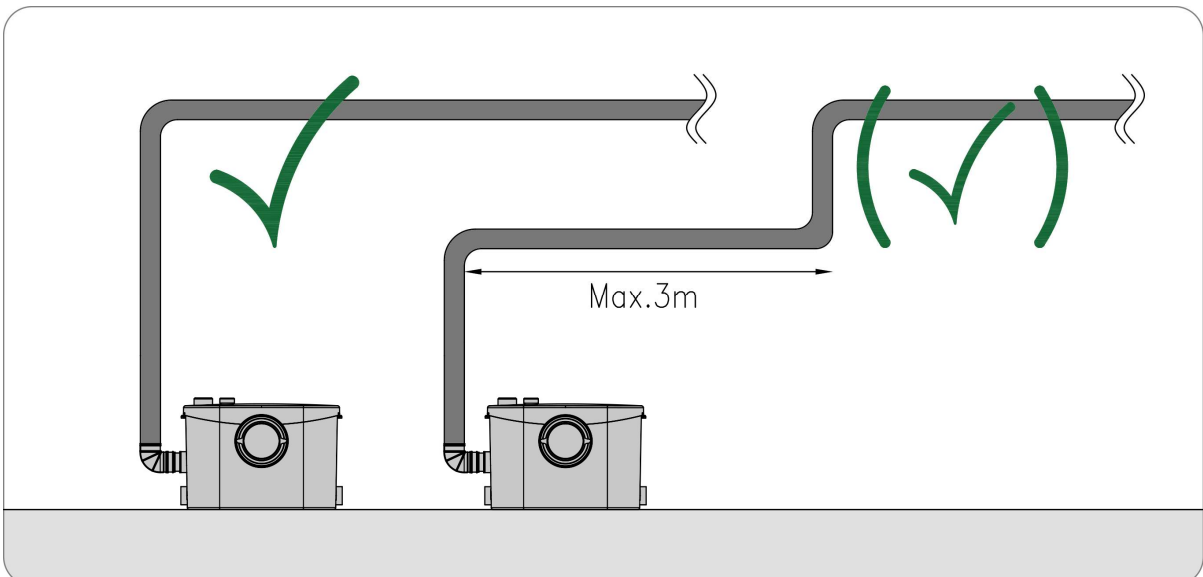
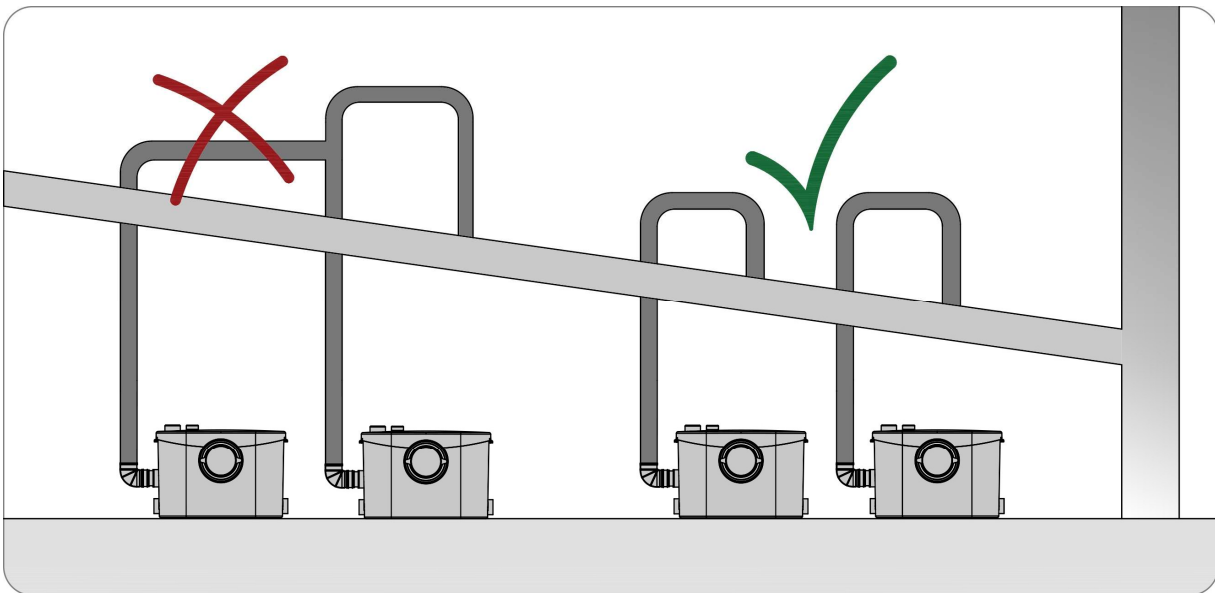


## Angle

1 x swept bend (or 2 x 45 degree elbows) must be used instead of 1 x 90 degree elbow.



## DISCHARGE PIPE CONNECTION



## 1. Warning

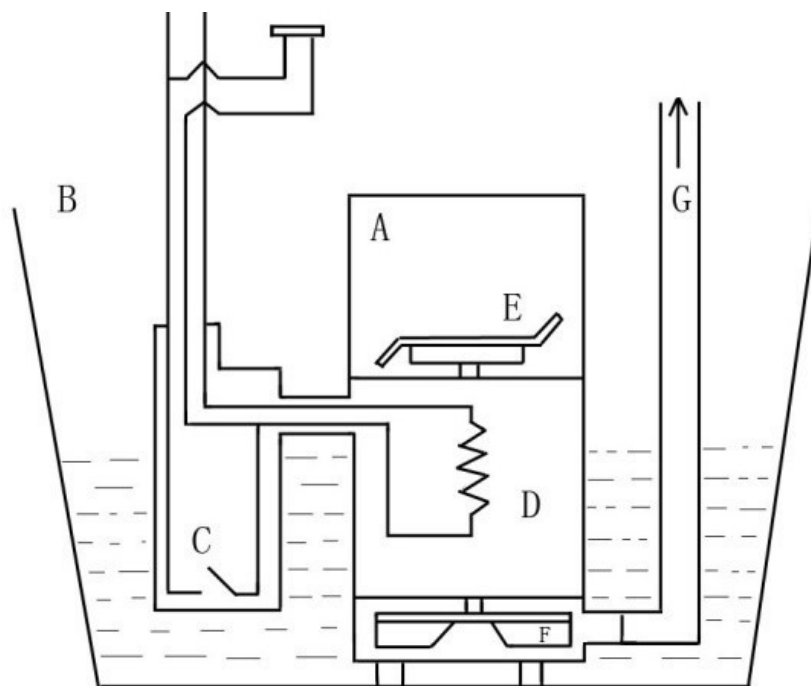
- The appliance is only ready for use after installation.
- The appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to reduce hazards.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- This appliance is for domestic use only

## 2. OPERATING PRINCIPLE

The pump has been designed to pump away the waste from toilet and other sanitary appliances.

The pump for toilets comprises an electric pump (D) that is automatically controlled by a float switch (C).

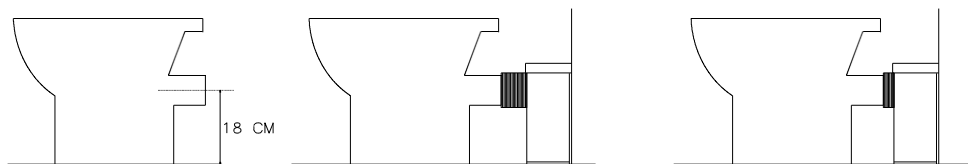
The discharge action is triggered when the flushing system is actuated, as with a conventional toilet. See picture.



### 3. INSTALLATION

#### 3A TOILET CONNECTION

- First, put some silicone or liquid soap on the toilet spigot
- Fit the collar supplied on the bowl outlet
- Pull the flexible sleeve over the pan spigot
- Position the jubilee clip over the edge of the flexible sleeve, and tighten with a screwdriver
- Once the appliance has been positioned, fix it to the floor using the 2 screws supplied.
- If using the two floor fixing lugs, secure them to the floor before positioning the unit.



#### **WARNING !!!**

There should be no dripping of water from the toilet cistern or any other sanitary appliances. If there is, this will cause the unit to activate repeatedly as it pumps the water away.

#### 3b CONNECTION OF DISCHARGE PIPEWORK

Insert the discharge elbow into the rubber discharge pipe, turn to the desired direction and secure with the metal jubilee clip provided (36-50mm). Then connect the hose to it using the 20-32mm metal jubilee clip, making sure the hose is not kinked. A 22-32mm plastic reducer is supplied if 32mm discharge pipework is to be installed.

#### 3c TECHNICAL ADVICE FOR DISCHARGE PIPEWORK

- Horizontal pipe runs must have a minimum fall of 1:200 (5mm per metre) to the soil stack.
- If a vertical lift is required, it must be made before the horizontal run at the start of the piperun.
- We would recommend that a drain-off point is installed to allow the discharge pipework to be drained down before any service work.
- If the discharge pipework runs to a level considerably lower than the unit, the resultant syphoning effect can suck out the water seal in the unit. Fitting an air admittance valve (BBA approved) at the high point of the pipe run will overcome this problem.
- The discharge pipework must be connected to the soil stack using an appropriate strap on boss.
- Ensure all external pipework is adequately lagged to avoid the possibility of freezing.

**N.B.:** Any elbow on the discharge pipe of the unit will create friction loss (roughly 50 cm per elbow to be deducted from the vertical pumping spec.)

Always use smooth bends (OR 2 X 45 degree bends together) and not 90 degree elbows.

### 3d CONNECTION TO THE ELECTRICAL SUPPLY



**The electrical installation should be carried by a qualified person.**

The unit should be connected to a fully earthed electrical supply.

### 4 COMMISSIONING THE UNIT

Once electrical and pipe connections have been made, flush the toilet once. The motor should run from 5 to 10 seconds to clear the waste (depending on the height of the pipe run) . If it runs for more than 20 seconds, check that the pipework is clear, and that the discharge hose is not kinked. Flush the toilet checking that all seals, and connections are watertight. Check both the discharge pipework from the unit and the other sanitary appliances connections.

### 5 USAGE AND WARNING

#### **WARNING !!!**

**If away for a long periods (eg holidays) we recommend that you turn off the water supply to the WC served by the unit.**

A toilet connected to this unit can be used like any normal toilet, and requires minimum maintenance. The unit will operate automatically as soon as the required level of water enters the case.

The motor thermal protector will operate once the motor is overheated. Unplug the plug from the socket-outlet, then plug in again, the appliance will work normal after waiting about 30-60minutes.

#### **WARNING !!!**

**Only the disposal of toilet papers, organic waste matter, and waste water will be under guarantee. Any damage due to foreign bodies such as cotton-wool, condoms, sanitary towels, wet wipes, food, hair, metal, wood or plastic objects, will not be under guarantee. Solvents, acids and other chemicals can also cause damage to the unit, and will invalidate the guarantee.**

### 6 MAINTENANCE



**DISCONNECT THE ELECTRICAL POWER SUPPLY, BEFORE ATTEMPTING ANY WORK ON THE UNIT.**

There is no need of any particular maintenance.

This unit is fitted with an active carbon filter and requires no external venting.



#### Correct disposal of this product

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal

**Distributed by MARK VITOW LIMITED**

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# FLOWPRO

## **TROUBLESHOOTING GUIDE**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Motor runs properly, but pump does not drain water	Clogged drain pipe or valve; Outlet valve is half closed	Clean pipes and valves. Check outlet valve
Pump doesn't start; water doesn't drain	Clogged ventilation duct	Clean ventilation duct
Pump does not start, water doesn't drain	Power cut off. The thermal limit switch does not work	Wait for thermal limit switch to come on (about 20 minutes)
The motor hums but doesn't turn on	Foreign body obstructing pump. Defective condenser	Check the pump
Water drains, but motor continues to run for a long time and the thermal limit switch is activated	Drain pipe blocked or twisted; damaged membrane, gear wheel damage, pump partially blocked	Check for blockage
After draining, motor restarts several times before shutting down	Water flows back to pump, back flow valve does not work	Flush once or twice with clean water to clear valve or remove valve and clean
Motor is running with loud noise, but does not drain or shut off	Back-siphonage or poor counter pressure in drain pipe, causing air pockets; Presence of foreign body	Modify drain pipe in order to prevent back-siphonage or to increase counter pressure (for example, use smaller pipes and add a curve to pipe). If problem persists, consult a certified technician
Motors runs, but makes strange noise	A solid body is in pump	Consult a certified technician
Water flows back to bath or shower	Insufficient gravity flow. Inlet valve defective	Ensure that gravity flow is at least 1/4 inch at 12 inches between other bathroom appliances and pump. Clean inlet valves