TIPS FOR INSTALLING SANIFLO® PRODUCTS

**EXTENSION PIPE**
The macerating pumps can be installed stand alone or behind the wall with the use of an extension pipe (maximum length 18’). The bowl must be raised by 1/4”. Can only be used with the Sanitop, Sanifeed and Sanilet.

**PIPE SUPPORTS**
All sanitary pipe work must be supported in accordance with the pipe manufacturers recommendations to avoid slipping which may cause the build up of residual waste and subsequent blockage.

**BENDS**
It is recommended to have the least amount of bends in the discharge pipe work. These bends should not be 90˚ elbows as this would restrict the flow. Use two 45˚ bends back-to-back as this would create a smoother flow.

**VERTICAL INSTALLATION**
All vertical lifts should begin as closely as possible to the discharge elbow. Therefore any horizontal run from the discharge elbow should not exceed 12–18 inches. (Except for Saniswift and Sanicubic as their discharge is directly up and not across.)

**EASY ACCESS**
The macerating and gray water pump units should be accessible and removable in the event that maintenance is required. During installation, a ‘full-port’ ball valve may be fitted at the lowest portion of the vertical pipe. This would facilitate the process if the discharge pipe needs to be drained for any reason.

**GRAVITY FALL**
Gray water from other sanitary fixtures may drain into the pump units by gravity. Therefore, all pipe work connected to our unit must have a positive gravity fall of at least 1/4 inch per foot. Horizontal discharge pipe work must also have a positive gravity fall to allow for free drainage when the pump stops its cycle.

**DIRECT FALL**
When the point of discharge into the soil stack is significantly lower than the macerating pump unit, as in one or two stories, an antisiphon valve may need to be fitted at the highest point in the pipe run to avoid siphoning of the water seal.

**MINIMUM SIZE DISCHARGE PIPE**
All the pump units must have a minimum of three feet of the required size of discharge pipe before transitioning to a larger pipe size. This transition can only be implemented in the last horizontal pitched discharge line. This will allow the pump to operate for an adequate period of time to ensure efficient waste reduction.

**SOIL STACK CONNECTION**
The discharge pipe must be connected to the soil stack by an approved and approved connection.

**PIPE WORK MATERIAL**
All discharge pipe work should be made out of ridged copper or PVC/CPVC (schedule 40). Do not use flexible or semi-flexible pipe.

**FLUSHING**
The Saniflush System requires a minimum of 1.6 gallons (6 liters) of water to clean the pump satisfactorily. Our self contained units require a minimum of 1 gallon (4 liters) of water.

**DISCHARGE**
It is illegal to discharge into an open drain, ditch or manhole. The waste needs to be pumped into a sewer system, septic or holding tank.

**FREEZING**
Ensure all discharge pipe work susceptible to freezing is adequately insulated. The toilet and pump units must be properly winterized in unheated buildings.

**ELECTRICAL**
All pumps are recommended to be connected to a ground fault circuit interrupter. Before attempting any servicing or maintenance the unit must be disconnected from the power supply.

**UPHILL PIPE RUNS**
All “horizontal” pipe runs should be self-draining. Uphill or sloped pipe runs are not recommended as the solids (no matter how small) will settle in the lowest portion of the pipe run and may eventually block the pipe.

TIPS FOR INSTALLING SANIFLO® GRAY WATER PUMPS

**SANITOP®**
- Used for toilet, sink, bathtub, shower, washing machine (indirect only)
- Build a complete bathroom and more; for residential and commercial applications
- Vertical pumping up to 12 ft. and 120 ft. horizontally
- Designed for heavy use, can occasionally accept disposal of sanitary items

**SANIBEST®**
- Used for toilet, sink, bathtub, shower, washing machine (indirect only)
- Build a complete bathroom and more; for residential and commercial applications
- Vertical pumping up to 18 ft. and 150 ft. horizontally
- Designed for heavy use, can occasionally accept disposal of sanitary items

**SANIGRIND®**
- Based on our Sanibest grinder pump
- Build a complete bathroom and more, for residential and commercial applications
- Vertical pumping up to 18 ft. and 150 ft. horizontally
- Designed for heavy use, can occasionally accept disposal of sanitary items

**SANIFLO® GRAY WATER PUMPS**

**SANIFLO® MACERATING TOILET SYSTEMS**

**External Units**

**SANITOP®**
- Used for toilet, sink, bathtub, shower
- Vertical pumping up to 12 ft. and 120 ft. horizontally
- Designed to work with our rear discharge toilet that only uses 1.6 gallons (6 liters) of water per flush

**SANIPLUS®**
- Used for toilet, sink, bathtub, shower
- Build a complete bathroom for residential applications
- Vertical pumping up to 15 ft. and 150 ft. horizontally
- Designed to work with our rear discharge toilet that only uses 1.6 gallons (6 liters) of water per flush

**SANIPACK®**
- Used for toilet, sink, shower
- Build a complete bathroom for residential applications
- Vertical pumping up to 9 ft. and 100 ft. horizontally
- Designed to work with North American wallhung toilet systems not supplied by Saniflo

**SANICUBIC®**
- Classic used for whole home/commercial applications with several connected fixtures
- Two powerful grinder pumps of 1 HP each
- Vertical pumping up to 36 ft. and 328 ft. horizontally
- Suitable for several fixtures producing waste water up to 60 gallons per minute
- Up to 5 inlets: 1½ “ or 4”
- Mounted control panel with Alarm, LED power control and Over load indicator

**SANICOMPACT®**
- Used for toilet, sink
- Build a half bathroom for residential applications
- Vertical pumping up to 9 ft. and 100 ft. horizontally
- Wall mounted. Compact macerating toilet with built-in macerator/pump. Uses just 1 gallon (4 liters) per flush

**SANISHOWE®**
- Used for toilet, sink, bathtub, shower, washing machine (indirect only)
- Build a complete bathroom and more; for residential and commercial applications
- Vertical pumping up to 18 ft. and 150 ft. horizontally
- Designed for heavy use, can occasionally accept disposal of sanitary items

**SANISTAR®**
- Used for complete bathroom, well bar etc...
- Discharges 18 gallons per minute
- Vertical pumping up to 16 ft. and 150 ft. horizontally
- Small enough to fit inside a kitchen cabinet with the capability to handle hot water. Ideal for heavy-duty applications

**SANISWIFT®**
- Used for laundry room, sink, shower, dishwasher
- Discharges 18 gallons per minute
- Vertical pumping up to 14 ft. and 140 ft. horizontally
- Multiple inlets for various installations

**SANISWEE®**
- Used for shower, sink, wet bar
- Discharges 14 gallons per minute
- Vertical pumping up to 12 ft. and 100 ft. horizontally
- Easy to install and small enough to fit under the shower base
- Ideal for light-duty applications

**SANISWIFT®**
- Used for toilet, sink, bathtub, shower
- Vertical pumping up to 12 ft. and 120 ft. horizontally
- Designed to work with our rear discharge toilet that only uses 1.6 gallons (6 liters) of water per flush

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The discharge pipes shall either be 3/4 or 1 inch diameter. The discharge pipe work may be made with either copper or solvent existing drain pipe with at least 1/4 inch units must not exceed 104˚ F maximum water temperature entering these places for the units to work efficiently. When making a 90˚ turn, a long sweeping elbow is recommended. Venting system needs to be in place for the units to work efficiently. All sanitary fixtures connected to the system must be located on the same floor. The maximum water temperature entering these units must not exceed 104˚ F.

Installation for SANIPACK®

Sanifloformore details.

Installation for SANISWIFT®

The Saniswift can handle multiple fixtures to solve the most difficult installations. Saniswift sets the standard for the ultimate gray water pump.

Installation for SANISHOWER®

The Sanishower is a small gray water pump that may be used to pump wastewater away from a shower, sink, or sink.

FAQ’s - MACERATING TOILETS AND GRAY WATER PUMPS

What is a macerator? In “macerate” is to soften, to break in pieces. Our macerating systems use a rotating cutting blade to liquify human waste and toilet paper. When mixed with flushing water the waste is pumped into a sanitary sewer as a fine slurry.

Where can I use macerating systems? These systems can be used anywhere extra sanitary facilities are needed or wanted. Extra bathrooms can be installed in basements, cottages, hotels, motels, etc.

Is Saniflo expensive? The greatly reduced labor costs and the infinite flexibility makes Saniflo an economical and viable alternative when gravity flow systems cannot be installed.

Can I also install a shower or bathtub? When installing a bathtub a platform of 2 x 8 inch is needed to allow for the installation of a P-Trap and pipe with some gravity flow towards the macerating unit.

Do I need to break up the floor to install the macerating system? No, Saniflo can easily be installed on top of any finished floor, which totally eliminates the need to dig up a floor as present methods using a sump and septic ejector pump require. Additionally, there is no need to leave an accessible space, as is the case with an infloor sump system.

Where is the waste discharged? The waste is pumped into a sewer system, septic tank or holding tank by means of a proper waste pipe system that complies with applicable codes.

Can I discharge the waste by means of upward slopes? The best method to install a discharge pipe is to rise vertically at the unit as high and from that point on it should be drawn at a full of 1 inch per linear foot to the point of discharge.

Can a washing machine be discharged into the macerating system? No. The greases and larger food particles would clog up the smaller diameter pipe and create a problem eventually. The Sanivite and Sanishower are designed for this purpose.

Do I need to install a P-Trap in bathtubs, bathtubs, and showers? Yes, even though macerating systems have built-in mechanical traps most plumbing codes require a regular P-Trap to be installed. It is also necessary to prevent odors and sewer gases from escaping into the room.

Will I void the warranty, if I install the system myself? No, but since this is an unusual system and proper building, plumbing and electrical codes must be followed we suggest that the system is installed by a trade person.

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Do I need a P-Trap in any fixtures? All macerating and gray water pumps have been designed with a sump connection on the lid. All plumbing codes require connection to a vent system. Please note that the vent system should be a horizontal one vent. The use of mechanical vents, air admittance valves or similar devices are not permitted as these are considered sanitary vent systems. The Sanicompact and Sanistar units are “fossil main” and they do not need to be vented.

How much water does the system use? All models in the Saniflo line are low consumption type water closets. The Saniswift uses 1.6 gallons (6 liters) of water per flush and Sanipack uses 1.2 gallons (5 liters) water per flush. This company very respectfully with older style water closets that may use up to 8 gallons (30 liters) of water per flush.

What is the discharge capacity? Depending upon the discharge installation the Saniflo/Sanibest can pump up to 17 gallons per minute and the Sanicompact can pump up to 18 gallons per minute. The Sanicompact cannot pump more than 2 gallons at 2.5 times as it is an electrically timed system.

Can I use lake water to flush the toilet? Yes, provided that a particle like a hilted in the supply line before it enters the water closet. The Saniswift uses a solenoid valve and if a particle gets stuck between the valve and the body, leakage may occur.

How long will macerating systems last? A national recognized laboratory tested the Saniflo system for 50,000 cycles, e.g. flushed 10 x a day = 3650 x a year = 13,650 years lifetime. As this is a standard test, it was skipped after 50,000 cycles; therefore the Saniflo may last much longer.

Are there colors available? We have two colors for our bowls and tanks, The standard white color and biscuit.

What is the normal operation of the pump units? The pump unit operates depending on the usage. Water from the tanks is drawn out, the system resets and the pump and motor turns on. Every time water is drawn out, the system resets and the pump and motor turns on. The pump and motor run until the water level in the tank gets too low.

Does Saniflo offer other toilet designs? We offer toilets with elongated bowls for greater comfort. These toilets are ADA compliant and measure 16 inches in height.