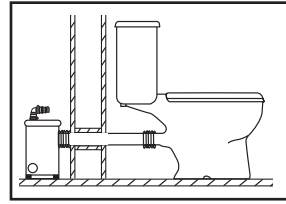


TIPS FOR INSTALLING SANIFLO® PRODUCTS

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 3/8". Can only be used with the Sanitop, Saniplus and Sanibest.



PIPE SUPPORTS

All sanitary pipe work must be supported in accordance with the pipe manufacturers recommendations to avoid dipping 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 they 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 into 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 anti-siphon 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 appropriate 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 un-heated 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.

SANIFLO®
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SANIFLO®
A Group SFA Company

EASILY AND QUICKLY INSTALL A TOILET, BATHROOM OR LAUNDRY ROOM ANYWHERE IT'S NEEDED!

SANIFLO® MACERATING TOILET SYSTEMS

External Units

SANITOP®: used for toilet, sink

- Build a half bathroom for residential applications
- 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



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
- Great for retrofitting applications. Designed to work with standard bottom outlet toilets not supplied by Saniflo
- Designed for heavy use, can occasionally accept disposal of sanitary items



SANIPACK®: used for toilet, sink, shower

- Build a complete bathroom for residential applications
- Easy to conceal with versatile and quiet operation
- Vertical pumping up to 9 ft. and 100 ft. horizontally
- Designed to work with North American wall-hung 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: 1 1/2" or 4"
- Mounted control panel with Alarm, LED power control and Over Load Indicator



Self-Contained Units

SANISTAR®: 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



SANICOMPACT®: used for toilet, sink

- Build a half bathroom for residential applications
- Vertical pumping up to 9 ft. and 100 ft. horizontally
- Compact macerating toilet for small areas. Uses just 1 gallon (4 liters) of water per flush



SANIFLO® GRAY WATER PUMPS

SANIVITE®:

used for a complete kitchen, wet 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



SANISHOWER®:

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



GENERAL GUIDELINES FOR TYPICAL INSTALLATIONS

EXTERNAL MACERATING UNITS

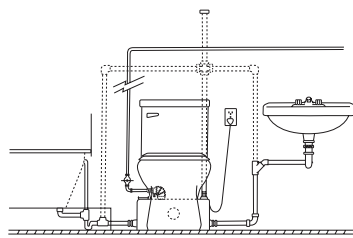
SANITOP® / SANIPLUS® / SANIBEST® / SANIGRIND® / SANIPACK®

These units can be installed as a toilet only, as a toilet and sink combination, or as a full bath (toilet, shower, bathtub and sink). The Sanitop can only connect to a toilet and sink. When pumping the waste water, the liquefied waste will need to drain to the soil stack (septic tank or sewer) using a new or existing drain pipe with at least 1/4 inch per foot gravity fall.

The discharge pipe shall either be 3/4 or 1 inch diameter. The discharge pipe-work may be made with either copper or solvent welded plastic (PVC or CPVC). When making a 90° turn, a long sweeping elbow or two 45° bends are required. The recommended venting system needs to be in place for the units to work efficiently.

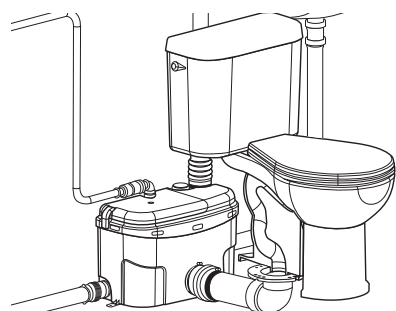
All sanitary fixtures connected to the system must be located on the same floor. The maximum water temperature entering these units must not exceed 104° F.

Installation for SANIPLUS® and SANIBEST®



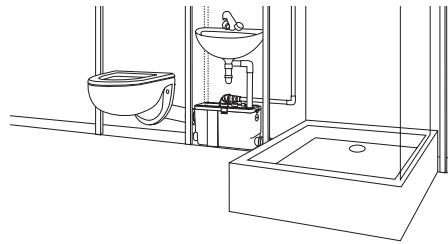
Our Sanitop/Saniplus/Sanibest Systems include the toilet bowls, tank and macerator/grinder. This external unit can be concealed behind the wall using our extension pipe.

Installation for SANIGRIND®



The maximum distance this unit can sit behind the toilet is 24 inches in a straight direction. The floor will need to be raised by a minimum of 6 inches to accommodate a bottom outlet toilet.

Installation for SANIPACK®



The wall-hung toilet shall be positioned as close as possible to the macerator for superior efficiency. Sanipack can be used with most wall-hung toilet systems. Call Saniflo for more details.

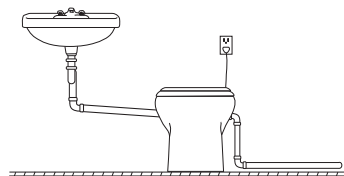
SELF-CONTAINED UNITS

SANICOMPACT® / SANISTAR®

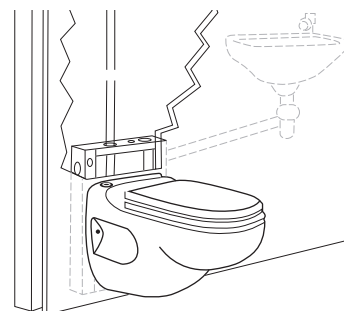
These units can be installed as a toilet only, or as half-bath (toilet and sink). The discharge pipe shall be 1-inch diameter. These units do not need to be vented, as they are forced mains.

The Sanicompact and Sanistar units were designed to fit in small places and conserve water. This allows you to install a half-bath where previously this would have been impossible or where structural work would have been necessary.

Installation for SANICOMPACT®



Installation for SANISTAR®



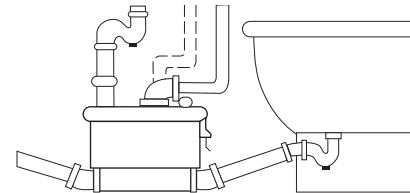
The Sanistar is our self-contained toilet with the macerator pump and an electrical activated flushing action built inside the unit.

GRAY WATER PUMPS

SANIVITE® / SANISWIFT® / SANISHOWER®

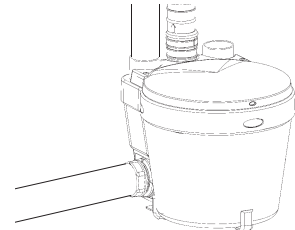
These units were designed to pump gray water from a different variety of sources. All liquids coming to the unit must have gravity fall of at least 1/4 inch per foot. The discharge pipe needs to be 1 inch in diameter for all these units. The Sanishower can also adapt to a minimum 3/4 inch discharge pipe.

Installation for SANIVITE®



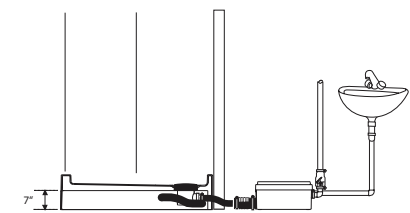
The Sanivite is our most powerful gray water pump. It is designed for large capacities and higher discharge rates.

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, bar sink.

NOTE:

1. The installation of Saniflo products must comply with local electrical codes and plumbing codes. A permit may be required to install a macerating system. Check with your local authorities.
2. It is recommended to use a good brand of disinfectant or cleaning agent in a prescribed quantity to clean the toilet and macerating pump unit.
Please be careful when using bowl cleaners made with hydrochloric acid. Apparently some products are so aggressive that neoprene rubbers of the flush-and-fill-valve may deteriorate and could cause premature failure of these parts.
3. In the event of a power loss do not use the toilet or any other sanitary fixtures connected to the system since they will not discharge until the power is restored.

FAQ's - MACERATING TOILETS AND GRAY WATER PUMPS

What is a macerator?

To "macerate" is to soften, to break in pieces. Our macerating systems use a rotating cutting blade to liquefy 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 incredible 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 sewage ejector pump requires. Additionally, there is no need to leave an accessible space, as is the case with an in-floor 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 as necessary and from that point on to slope down at a fall of 1/4 inch per lineal foot to the point of discharge.

Can a washing machine be discharged into the Saniplus?

Our Saniswift, Sanivite, Sanibest and Sanigrind units are designed for this type of application. The washing machine must be drained into a laundry tub or sink first if using any of these units.

Can I discharge a kitchen sink into a macerating system?

No, the greases and larger food particles associated with kitchen sinks would clog up the smaller diameter pipe and create a problem eventually. The Sanivite and SaniSwift are designed for this purpose.

Do I need to install a P-Trap in vanities, 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.

Can the warranty be voided?

Yes, when any foreign objects are found in the macerating unit that has to be retrieved by a plumbing or service person. Also, by pouring automotive anti-freeze, solvents, paints, etc., into the system, or by opening the motor of the macerating unit.

Do macerating systems, gray water pumps and fixtures need to be vented?

All macerator and gray water pumps have been designed with a vent connection on the lid. All plumbing codes require connection to a vent system. Please note that the vent system should be a two-way air vent. The use of mechanical vents, air admittance valves or similar devices are not permitted as these are considered one-way vent systems. The Sanicompact and Sanistar units are "forced mains" 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 Saniplus uses 1.6 gallons (6 litres) of water per flush and Sanicompact uses 1 gallon (3.5 litres) water per flush. This compares very favorably with older style water closets that may use up to 8 gallons (30 litres) of water per flush.

What is the discharge capacity?

Depending upon the discharge installation the Saniplus/Sanibest can pump up to 17 gallons per minute and the Sanivite can pump up to 18 gallons per minute. The Sanicompact cannot pump more than 1 gallon (3.5 litres) at a time as it is an electrically timed system.

Can I use lake water to flush the toilet?

Yes, provided that a particle filter is fitted in the supply line before it enters the water closet. The Sanicompact 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 Saniplus system for 50,000 cycles, e.g. flushed 10 x a day = 3650 x a year = 13.69 years lifetime. As this is a standard test, it was stopped after 50,000 cycles; therefore the Saniplus may last much longer.

Are there colors available?

We have two colors for our bowls and tanks; The standard white color and biscuit.

Should I winterize the system?

When installed in areas that are prone to freezing, all parts need to be properly drained, e.g. the macerating unit, the discharge piping, the tank, the supply pipe etc. Alternatively, a jug of plumbers anti freeze may be poured into the system until the macerating systems start up.

Does the system need maintenance?

No, the motor is filled with oil and sealed for life.

Where can we purchase parts?

Parts can be purchased through the Technical Department. Call toll free: For US 800-571-8191; For Canada 800-363-5874.

What warranty is provided by Saniflo?

The pump units have a 2-year warranty while the porcelain (toilet bowl and tank) have a 1-year warranty.

What is the normal operation of the pump units?

The pump operation varies depending on the usage. If water is flowing at a continuous rate into the pump, it will cycle several times as it is trying to empty out the constant flow.

Does Saniflo offer other toilet designs?

We offer toilets with elongated bowls for greater comfort. These toilets are ADA compliant and measure 16 1/4 inches in height.