

# “How To Install” Guide

## When Bad Things Happen to Good Plumbing – A Seasoned Pro Tells How To Correctly Install a Saniflo Macerating Toilet



Contractor Mike Coletto, Saniflo installation specialist

Installing a Saniflo macerating plumbing system is a relatively straightforward affair – one that can be readily accomplished with a half-day’s work, maybe less. Still, mistakes do happen, and that’s where Mike Coletto comes in.

The Illinois plumbing contractor – who is also a licensed electrician with his own heating and air-conditioning business – is the on-call plumber for Professional Sales and Service, Saniflo’s Chicago-area sales agent. In this capacity, he restores poorly installed Saniflo units to their proper performance levels, usually by correcting simple but serious errors.

Since joining PSS two years ago, Coletto has seen it all: from mere oversights to a blatant disregard for plumbing basics. “The number-one mistake I see is that the installer didn’t use ¾-inch pipe,” Coletto says, noting that with only three exceptions, the Saniflo units are designed for the smaller-diameter piping.

Another common error is improper pipe turns, he says. “Installers should use two 45-degree elbows instead of a single 90-degree elbow for right-angle turns on discharge piping. And a Y-connection should be used for tapping into the plumbing or sewer stack main drain, not a tee,” he adds, noting another frequent misstep that can result in backup or flow restriction.

Above-floor plumbing is very similar to standard plumbing, but the technology is different. As a result, the installation procedures are different in many aspects. For example, the external macerator pump (on all but the Sanicompact and Sanistar units) is entirely different from conventional plumbing. “Installation is not something that can or should be finessed,” says Coletto. Although the procedure is simple, even experienced installers should review the installation guide and follow it to ensure a good installation.

Over the years, Coletto has seen a wide range of installation problems, which he finds somewhat puzzling considering how straightforward Saniflo plumbing is. “The installation is very basic and the instructions simple to understand, so maybe some people don’t bother to read them.”

Saniflo units can be installed in half a day, Coletto says, even less in some locations. “I can install a Saniflo unit in about three hours. It’s really very simple in most cases.”

The experienced Coletto offers the following step-by-step guide, along with helpful reminders to avoid the common missteps that he is most frequently called in to correct.

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## Saniplus Residential Installation with Concealed Macerator Pump



Most of the necessary components are packaged with the Saniflo unit except for the toilet seat and  $\frac{3}{4}$ -inch PVC piping. When you are concealing the macerator pump behind a wall, purchase the optional 16-inch Saniflo Extension Pipe as well as an access panel (cover). In addition, the water closet should be raised  $\frac{3}{8}$  of an inch above the macerator to aid gravity flow. Usually, the thickness of the floor covering under the water closet is sufficient if the macerator is set below the finished-floor level.

- 1 Read the installation instructions that come with the Saniflo unit. Identify all of the supplied components and obtain any needed  $\frac{3}{4}$ -inch PVC piping and connector pieces, as well as PVC fasteners, cleaner, primer and glue.



- 2 Select an installation site that is within the maximum distance range: no more than a combined 12 feet below the sewer level or 150 feet away from the soil stack. **If you plan to attach additional fixtures to the Saniflo unit, they must be located on the same level of the structure.**



- 3 Cut into the soil stack material and install a Y-connector for the discharge pipe from the macerator.

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- 4** When the installation will include a concealed macerator pump, ensure there are approximately 12 inches of space behind the framing for the pump. **When installing against an outside wall, leave a few inches behind the macerator pump for insulation.**



- 5** Tap into or establish a fresh water supply to the installation area, and position the supply line valve 10 to 12 inches off the floor. **Use cold water for toilet installations.**



- 6** A nearby 15-amp electrical circuit is needed to operate the macerator pump. Due to the close proximity to water, the circuit should be protected with a Ground Fault Circuit Interrupter (GFCI), the blue box in the photo.

- 7** Make sure no water is running. Unplug any sump pumps. [no photo]



- 8** Now prepare the macerator unit for installation. Install the discharge elbow, which has a non-return valve built into it. Secure the elbow with a clamp. **Make sure the elbow is seated properly:** Press down and twist.



- 9** Discharge piping should be  $\frac{3}{4}$ -inch for most Saniflo units. Make sure the discharge pipe is 12 inches or more off the floor. It must pitch toward the main soil stack at  $\frac{1}{4}$  inch per foot.



- 10** Run any necessary PVC piping. If you need a right-angle turn, use two 45° elbows (arrows) instead of a single 90° elbow. **Make sure to insulate any piping that is susceptible to freezing.**

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**11** Clean, prime and glue all fittings used.



**12** The macerator pump must be vented into the house's vent system, but it can be installed as a wet system vent. Create a connection to vent sewer gas (see Step 3);



**12b:** Slip the accordion connector onto the rim of the vent hole, which has been pre-cut and trimmed at the factory.



**13** Create a 1 1/2-inch PVC vent line at the accordion connector.



**14** Finish the 1 1/2-inch vent line by tightening the accordion connection.



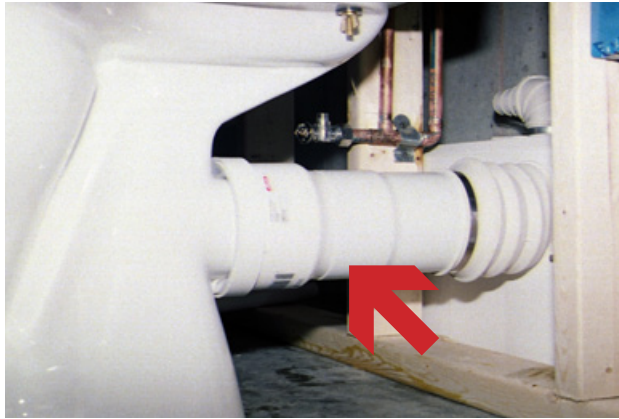
**15** Insert the breather opening cap (above) and cover with the air vent cover (right). **Make sure this is not obstructed after installation.**



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- 16** If you are not yet ready to add other fixtures (tub-shower, lavatory sink, etc.), install the removable inlet blanking plug in the waste inlet opening (above). Push and twist to fully seat the plug (below).



- 17** If you are concealing the macerator, attach the Extender Pipe (arrow) to the macerator with the accordion connector.



- 18** Center the unit in an area that is approximately 3 feet wide and with 1 to 1½ inches between the wall and the top-back of the tank.

- 19** Mark the locations of the holes through the mounting holes in the base. Drill holes in the floor. [no photo]



- 20** Attach the toilet to the macerator pump (or to the Extender Pipe for concealed pumps) as shown above. Secure the macerator pump unit to the floor. [no photo]



- 21** Secure the toilet to the floor with screws and plastic anchors.

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**22** Attach the tank to the toilet, using the supplied nuts to secure it.



**23** Hand-tighten water supply line connection to the toilet.

**24** Turn on the water. Measure the water level in the tank. **Make sure the water level inside the tank is ½ inch below the overflow tube.** [no photo]



**25** Plug in the macerator pump.

**26** Remember to install a removable panel on the wall in order to have access to the macerator pump. [no photo]

**27** If you are connecting multiple fixtures, make sure the hot water for the bath and faucet are 104°F or less. [no photo]



**Congratulations, your Saniflo unit is properly installed.**