

Q & A

Sewage Ejector Pumps?

We have an unfinished basement and want to know if we can install a bathroom?

First of all, determine if your basement is "stubbed" for a future bath. Are there white plastic pipes sticking up through the floor? If they are, you are ready to install a bathroom. If they are not, then you will need to remove part of the concrete floor in order to install the plumbing drain pipes.

Next, determine where your plumbing drain exits the basement. The plumbing drain is a white 3" or 4" PVC pipe. It will be in one of two places. It will either exit through the concrete foundation wall or exit through the floor of the basement. If it exits through the floor and the plumbing is stubbed, you're ready to set the fixtures. If it goes through the wall, you will need to add a sewage ejector pump to pump the sewage up to the pipe.

Sewage ejectors are available in two types, non-clogs and grinders.

Non-clogs have the ability to pump high volume and can handle solids from 2 inches through 4 inches. Grinder pumps grind solids instead of passing them. They are sized only for residential or small commercial locations, often pumping to a pressure sewer system but also in gravity sewers with high vertical lifts or long horizontal runs. The most common type for Atlanta is the non-clog.

Most basements in the Atlanta area are stubbed for future baths. Also, in most cases the builder will have installed an ejector pump tank in the floor if the plumbing needs to be

pumped. The tank will have a round plastic cover approximately 24" in diameter, and it should be visible. The builder should have installed a 2" vent through the roof and a 2" "Y" connector to the main drain for connecting the pump's piping.

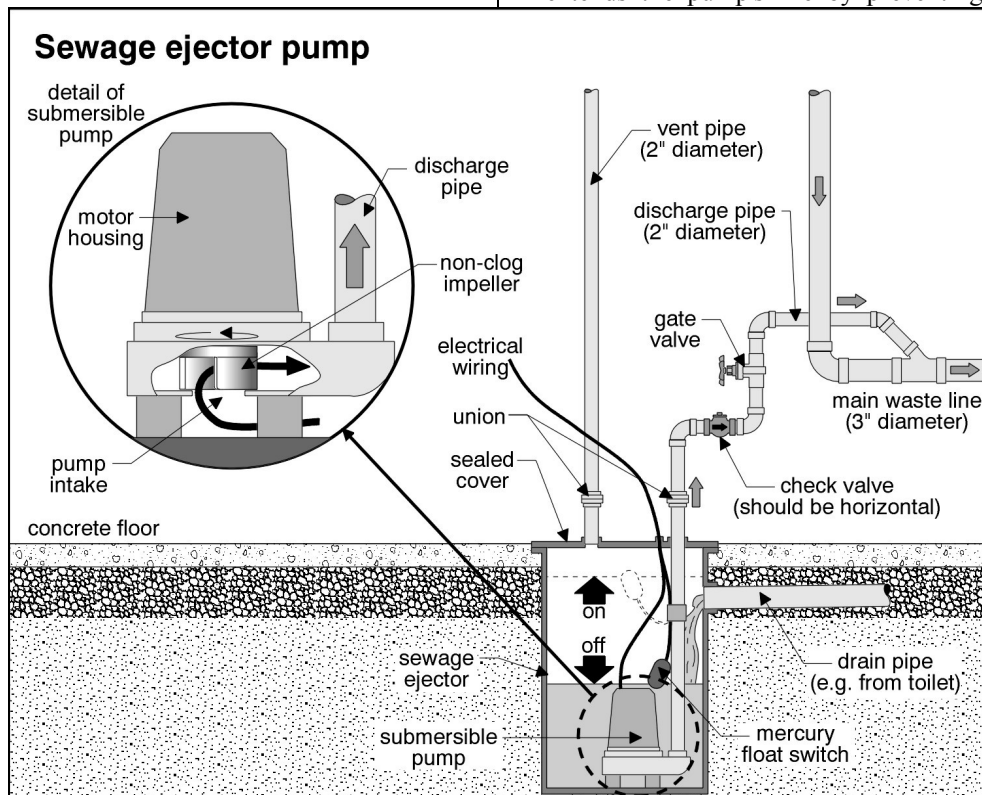
There are two basic types of ejector pumps. One is the vertical suspended type where the motor is mounted on the cover of the tank, supported by its shaft connected to the pump housing inside the tank. The second type is the close-coupled submersible, where the motor is connected directly to the pump housing and impeller by a short shaft and is submerged completely inside the basin. Submersible is the most common type in the Atlanta area. A submersible pumping system consists of the sump basin or tank, the motor-pump assembly, and a system of automatic electrical controls. These controls can be simple or complex, depending on the application.

The drainage line runs into the sump basin, and the ejector pumps it through a line with a check valve into the sewer line that drains with gravity. A check valve allows flow in only one direction and is used with ejector systems to prevent sewage from flowing back into the basin after each pumping cycle. This extends the pump's life by preventing it from cycling too

frequently. A vent pipe must also be run to relieve the suction created by the pump. The system will also need a gate valve to close the pipe for maintaining the pump.

Since the pumps are electric, the system cannot be used during a power failure. The tanks can fill and overflow onto the basement floor. Also, in rare cases the pump may burn out or stop working and cause an overflow. To guard against this, a high water

alarm is suggested, but it must be wired on a separate circuit to warn of pump failure and to prevent flooding.



Flood Alarm?

Is there a device to let us know if we have a water leak in our house?

The Flood Alarm, \$20, is an inexpensive early warning system that's dirt simple to use. Mount it near a washing machine, sump pump or water heater - anyplace you're water



wary. Position the probe where a watery threat would collect. If the end of the probe gets wet, an alarm sounds with about the same intensity as a smoke alarm, warning you to do something about the impending flood.

The Floor Alarm is powered by a 9-volt battery (included). The flexible probe can be snaked into tight spots or bent around corners. An indicator light on the front flashes every

30 seconds to tell you the unit is working. It also has an audible alarm indicating a low battery.

Buy the Flood Alarm from Brookstone Hard To Find Tools, (866) 576-7337 or brookstone.com.

Source: The Family Handyman June 2005

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Quote Of The Month

**"A MAN IS RICH ACCORDING TO
WHAT HE IS, NOT ACCORDING TO
WHAT HE HAS."**

UNKNOWN

A Tip Of The Hat To:

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