

# VacuFlush®

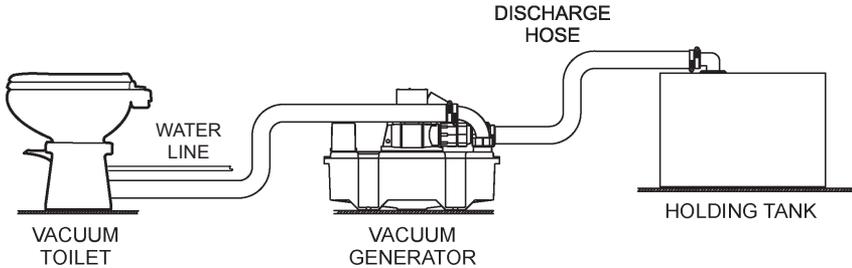
## 5000 SERIES VACUUM TOILET INSTALLATION GUIDE

### TOILET SYSTEM REQUIREMENTS

<b>Water Supply</b>	Water hose connection	Inlet thread size	1/2 inch NPT
		Flow rate at toilet	2 gpm/7.6 lpm
<b>Discharge Piping</b>	Hose ID	Standard	1.5 inch/38 mm ID
		Between toilet and vacuum generator	Max. horizontal run
	Max. vertical run		6 ft./1.8 m
	Between vacuum generator and holding tank	Max. horizontal run	20 ft./6.1 m
Max. vertical run		6 ft./1.8 m	
<b>Electrical System*</b>	Amp draw (avg.)	12 volts DC	6.0 amps
	Circuit breaker or fuse	12 volts DC	10 amps

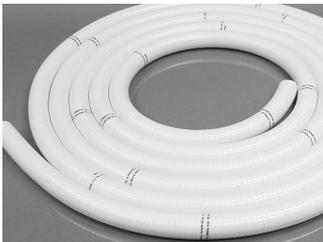
\* Required for vacuum generator (installed separately) to operate vacuum toilet.

### BASIC MARINE TOILET SYSTEM



### INSTALLATION ACCESSORIES

- OdorSafe Plus sanitation hose** – 1.5-inch (38 mm) ID.
- SeaLand digital vacuum gauge** – assures vacuum level integrity. Part no. 318530003.
- PVC primer and cement** – for solvent bonds where required.
- 2-inch (51 mm) hose clamps and other fastening hardware** – Two hose clamps are required at each hose connection. Some fasteners are not supplied with system – installer must determine appropriate fasteners based on specific installation need.



OdorSafe Plus Hose

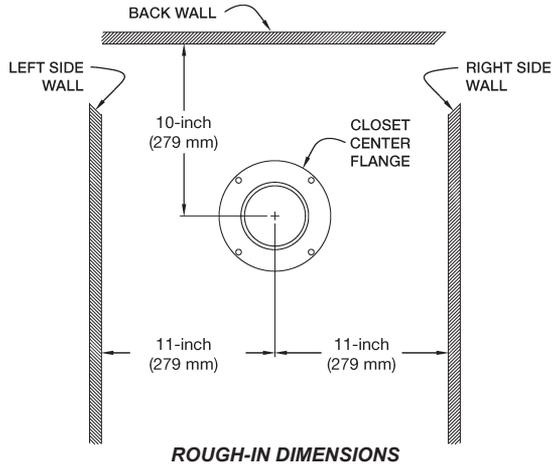


Digital Vacuum Gauge

## INSTALL VACUFLUSH TOILET

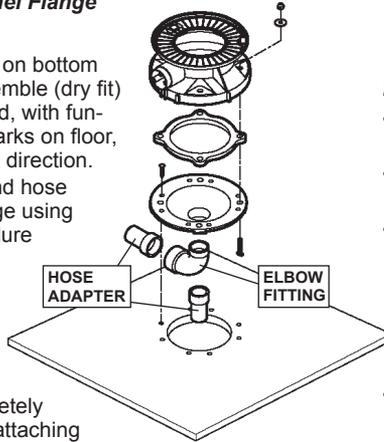
### Determine Toilet Location

1. Use "Rough-in Dimensions" at right to help determine best location for toilet. If installing 5006 or 5009 model, make sure there is adequate space under the floor for discharge plumbing.
2. Draw center lines of toilet location on floor. Place appropriate toilet model template on floor, using center lines as a guide.
3. Use full-scale template (included) of appropriate toilet model for marking fastener holes.
4. Drill and/or cut out fastener holes according to template instructions.



### Install Through-floor Funnel Flange (5006, 5009)

1. If elbow fitting is required on bottom of funnel flange, pre-assemble (dry fit) elbow fitting to bottom and, with funnel holes lined up with marks on floor, determine best discharge direction.
2. Assemble elbow fitting and hose adapter to bottom of flange using **Solvent Bonding** procedure below. (If discharge direction is straight down, only assemble hose adapter to funnel flange).
3. Allow solvent-bonded connection to cure completely (at least 4 hours) before attaching discharge hose.
4. Depending on underfloor accessibility, the discharge hose may be connected before or after attaching funnel flange to floor.



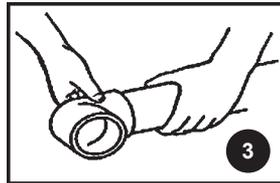
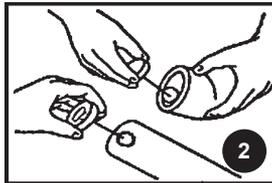
### Through-floor Funnel Flange Requirements

- Mount securely with eight fasteners (not provided).
- Mount flat on floor (no gaps between funnel and floor).
- Fastener heads must be flush or lower than top of floor flange.

### Toilet Base Requirements

- Secure to floor flange with four fasteners (provided).
- Bottom of toilet base and funnel flange must be mounted flat on same surface.

### Solvent Bonding for Rigid Pipe and Fittings



1. Use a PVC cleaner on both bonding surfaces.
2. Use a PVC cement (must contain tetrahydrofuran) on both bonding surfaces.
3. Connect parts using a twist and hold motion until the cement is set.
4. Let the joint cure for at least four hours or according to instructions on cement container. (Cold temperatures require longer cure times.)

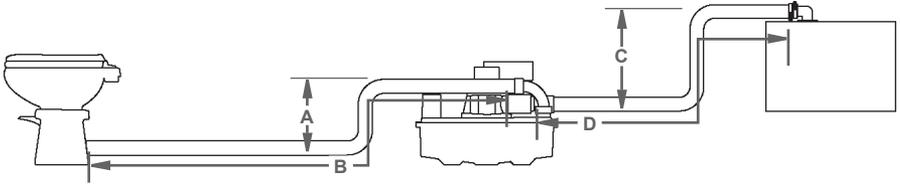
## INSTALL VACUUM GENERATOR

Refer to separate "J Series Vacuum Generator Installation Instructions" to install vacuum generator. Make sure it is located within maximum allowed distances from the vacuum toilet and holding tank (see below).

### Discharge Distances

Maximum allowed distances for hose runs are.

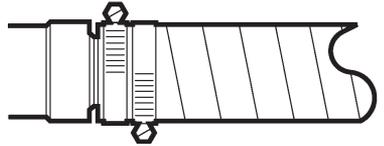
- 6 ft (1.8 m) vertical distance between toilet outlet and vacuum generator inlet.
- 50 ft (15 m) horizontal and vertical distances between toilet outlet and vacuum generator inlet.
- 6 ft (1.8 m) vertical distance between vacuum generator outlet and holding tank inlet.
- 20 ft (6.1 m) horizontal and vertical distances between vacuum generator outlet and holding tank inlet.



## INSTALL DISCHARGE HOSE

After vacuum toilet, vacuum generator and holding tank are installed, and toilet discharge fitting connections are completely cured (if applicable), connect discharge hose to toilet using two 2-inch (51 mm) hose clamps.

- Place two hose clamps on hose at end to be connected.
- Push/twist hose completely onto fitting, or at least 1.125-inch (29 mm) if the fitting has no built-in stop.
- Position hose clamps so that clamp screws are on opposite sides of hose. Tighten clamps to fitting.
- Attach other end of hose to inlet of vacuum generator with two hose clamps.
- Connect second hose section between outlet of vacuum generator and inlet of holding tank, using two hose clamps at each end.



### Making Hose Installation Easier

When connecting flexible hose to plastic fittings, use Dometic Hose Lubricant or liquid dish soap on end of fitting and inside hose end to make connection easier.



**DO NOT** use the following products when connecting hoses and fittings:



**LITHIUM-BASED GREASE** has led to cracks in adapters due to chemical reaction with certain PVC formulas.



**RTV (Room Temperature Vulcanizing) SEALANT** inhibits ability to service system at a later time if needed.

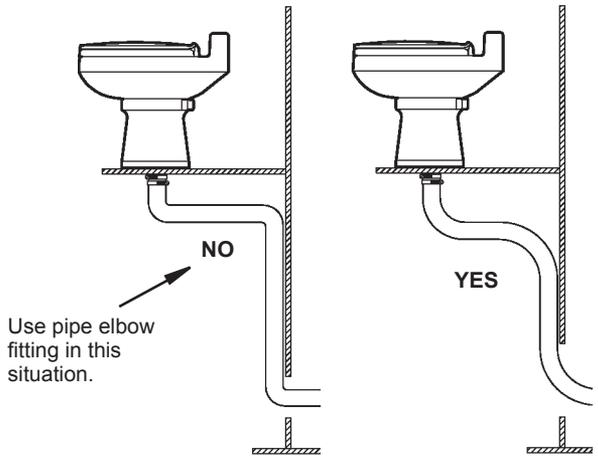
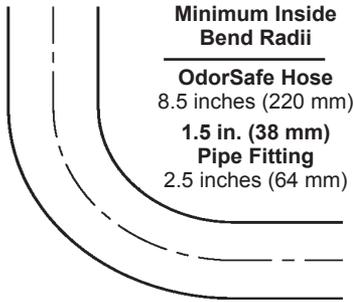


**PVC CEMENT** prevents ability to service system easily at a later time if needed.

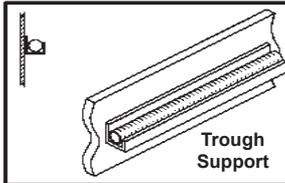
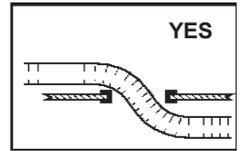
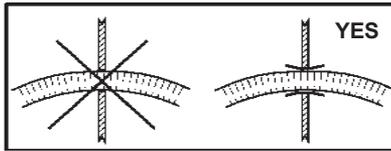
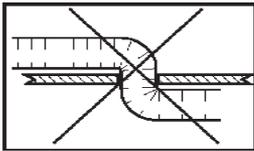
## INSTALL DISCHARGE HOSE (continued)

### Trouble-free Hose Runs

1. Use generous hose bend radii. Corners that are too tight can collapse the hose and restrict flow.



2. Do not restrict the ability to pull the hose or pipe if required..



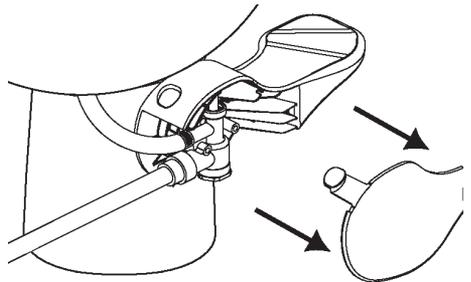
**EXCELLENT**

- Avoid running hose around binding corners or sharp bends.
- Do not use wire ties to secure hose or pipe.
- Support flexible hose every 12 inches (0.3 m) and support rigid pipe every 5 feet (1.5 m).
- Avoid placing hose near sources of heat (above 120°F/48°C).

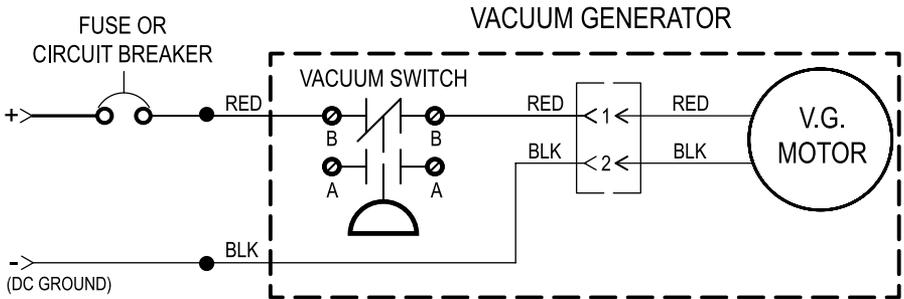
## INSTALL TOILET WATER SUPPLY

The incoming water supply line **MUST** ...

- Be cold water **ONLY**.
- Be 1/2-inch (13 mm) minimum ID.
- Provide a minimum flow of 2 gallons/minute (7.6 liters/minute) at the toilet. This requires a 2.8 gpm (10.6 lpm) demand pump or greater, depending on line restrictions.
- Include a shut-off valve for water metering or maintenance purposes.



## WIRING



### WARNING

Pump starts automatically. Turn off power before servicing.

### Electrical Guidelines

1. Vacuum generator must have a separate circuit breaker or fuse. Follow amperage recommendations on vacuum generator installation instructions.
2. Use stranded copper wire (preferably tinned).

### INSTALLATION CHECKLIST

Before energizing the system, check the following:

- Toilet mounted securely.
- Vacuum generator mounted securely.
- Vacuum generator inlet nut is tightened correctly.
- All hose connections have double hose clamps installed tight and screws are on opposite sides of hose.
- No kinks or sharp bends in hose.
- No crushed or partially collapsed hose.
- System must be winterized per owner's manual for areas with temperatures below freezing.

### "POWER ON" CHECKLIST

- Pressurize water system.
- Energize vacuum system.
- Press down on toilet pedal and hold flush valve open on toilet for 30 seconds to charge vacuum generator with water. **Assure that sufficient water has circulated through the system to wet pump valves before proceeding with the following test procedure. Do not test system dry.**
- After closing toilet flush valve, note how long it takes for vacuum pump to shut off. Vacuum pump should shut off within one minute.
- Inspect inlet water connections on toilet for leaks.
- Turn off power to the vacuum generator and let the system sit for three hours. Re-establish power to the vacuum generator. If the pump turns on, there is a vacuum leak. Use a Digital Vacuum Gauge and instructions to troubleshoot the leak.
- Winterize the system to prevent freeze problems by flushing the system with antifreeze or draining all water from the water valve assembly (see owner's manual).





*VacuFlush toilet system is manufactured by:*

**Sealand**<sup>®</sup>  
by Dometic GROUP

Dometic Corporation, Sanitation Division  
Big Prairie, OH USA