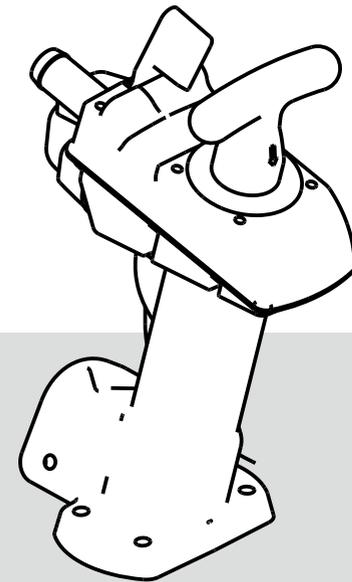


# SEAFLO<sup>®</sup>

## TWIST 'N' LOCK' PUMP



This manual toilet pump assembly pairs with any manual marine toilet. It incorporates an ergonomically designed, hand-powered piston pump that can be mounted for either left handed or right handed used.

## FEATURES

- Twist 'n' Lock safety handle and flush control lever.
- Powerful swirl action for efficient flushing.
- Full sized external seal housing allows quick clean seal replacement and instant access to pump cylinder.
- Powerful self-priming pump for above or below waterline installation.
- Crevice free contours and smooth moldings for added hygiene.
- Automatic vacuum breaker for easier pumping.
- Angled pump housing and long stroke for more comfortable operation.

You may install the Twist n' Lock' Pump Assembly to SEAFLO Compact bowl manually operated marine toilets in both power and sailing craft, either above or below the waterline, for use on sea, river, lake or canal.

Your installation may discharge the waste either overboard (provided that your national and local regulations allow this), or into a treatment system or into an on-board holding tank (U.S.C.G. Marine Sanitation Devices Type I, II and III).

## PERFORMANCE

- Flushing pump self-priming from dry up to 1 meter (3ft) below the base.
- Waste pump discharges up to 3 meters (9ft) above the base.

## INSTALLATION INSTRUCTIONS

YOUR TOILET is just one part of a system. Correct installation of the whole system is essential if you want the toilet to perform properly, operate reliably and safely, and give satisfactory length of life. The toilet is delivered assembled for right-handed operation. The toilet may be re-assembled with the pump on the left hand side. The seat and lid is delivered boxed and unfitted for its protection.

## RE-ASSEMBLY FOR LEFT HAND USE

- If you wish to change the pump mounting from right to left hand, do so before installing the toilet.
- Pull off the hose (key 13) that runs from the pump to the bowl.
- Remove the 4 screws that secure the pump assembly to the base.
- Lift off the pump assembly and leave the base valve gasket (key 17) on its 3 locating pegs.
- Remove the 4 bolts (key 5) that secure the bowl to the base.
- Rotate the bowl 180° and re-secure it, using the nylon washers (key 5) to protect the ceramic from the stainless steel washers and nuts (key 5).
- Rotate the pump assembly 180° and re-secure it.
- Rotate the push-fit intake elbow (key 12) 180° and refit the hose between the pump and the bowl.

## CONVERTS MANUAL HEAD TO ELECTRIC OPERATION

To change the mounting flange, remove the four screws (on bottom of pump assembly) which secure the mounting flange to the waste pump body. Note the relative position of the long and short screws. Grasp the pump body, wearplate and motor with one hand, holding them together as an assembly. Then slide the mounting lange/macerator housing off the pump body with the other hand trying not to disturb the wearplate and damage the paper gaskets. It may be necessary to gently tap on the flange with a plastic mallet to start it sliding off the pump body.

If the gaskets are damaged, they should be replaced with new ones (provided) before attaching the new mounting flange/macerator housing. To do this insert a blunt rod dowel into the discharge hole in the pump body and push it against the impeller to prevent the motor shaft from turning. Unscrew and remove the chopper from the motor shaft. Lift the wearplate and gaskets from the pump body and clean any paper residue which may stick to the wearplate and body. Reassemble with new gaskets by reversing the procedure.

Before assembling the new mounting flange/macerator housing to the pump body, ensure the discharge port O-Ring is properly positioned in the O-Ring groove of the pump body. Secure the flange to the pump body with the two shorter screws and the pump assembly to the motor with the two longer screws.

Before removing the manual pump, flush the toilet for sufficient time to ensure all waste is thoroughly flushed from the discharge hose.

Remove the 3/4" inlet hose and toilet bowl link hose from the manual pump. Detach the discharge elbow, flange and joker valve assembly from the pump cylinder. It should not be necessary to remove the discharge hose from the elbow.

## TESTING

**Refer to the Operating Instructions and follow the procedure "2 Normal use".**

- If the flushing pump is hard to prime half fill the bowl with fresh water.

## OPERATING INSTRUCTIONS

The toilet is one of the most used pieces of equipment on your boat. Correct operation of the toilet is essential for the safety and comfort of your crew and craft.

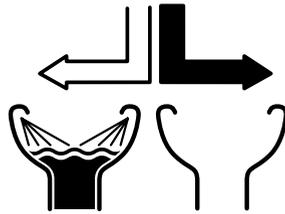
## OPERATING INSTRUCTIONS

The toilet is one of the most used pieces of equipment on your boat. Correct operation of the toilet is essential for the safety and comfort of your crew and craft.

## 1. FIRST USE

After periods without use the toilet may benefit from lubrication.

- Open inlet and outlet seacocks (and secondary valves if fitted).
- Half fill the bowl with warm fresh water.
- Keeping the Flush Control Lever (key 24) in the Shut (  ) position, pump out the warm water.



## 2. NORMAL USE

Open inlet and outlet seacocks (and secondary valves if fitted).

- Before use, ensure that there is enough water in the bowl to prevent the toilet paper becoming compacted at the bottom of the bowl.

If the bowl is empty, move the Flush Control Lever (key 24) to the Open (  ) position and pump the handle (key 36) up and down until the flushing pump is primed and water enters the bowl.

Then Shut (  ) the Flush Control.

- Operate the pump with long, smooth strokes for efficient and easy operation.
- During use, pump as necessary to keep the contents of the bowl low enough for comfort.
- Use good quality hard or soft household toilet paper, but do not use more than necessary.
- After use, keep the Flush Control Shut (  ) and pump until the bowl is empty.
- When the bowl is empty, Open (  ) again, and continue to pump until all waste has either left the boat, or reached the holding tank (allow 7) complete up/down strokes per meter (yard) length of discharge pipework).

**AFTER USE** — SHUT (  ) THE FLUSH CONTROL.  
— SHUT BOTH SEACOCKS



**HAZARD RISK - Accidental Damage**

If the toilet is connected to ANY through-hull fittings that are below the waterline at any time, and if the toilet or pipework is damaged, water may flood in, causing the craft to sink, which may result in loss of life.

Therefore, after every usage, both seacocks (or secondary valves) **MUST** be shut.

Whenever your craft is unattended, even if only for a very short period of time, both seacocks (even if secondary valves are fitted) **MUST** be shut.

- Ensure that ALL users understand how to operate the toilet system correctly and safely, including seacocks and secondary valves.
- Take special care to instruct children, the elderly and visitors.

### SHUT SEACOCKS!

## DISMANTLE THE PUMP ASSEMBLY AS FOLLOWS

- Remove the 6 screws that secure the valve cover.
- Open (  ) the Flush Control (key 24) before lifting off the valve cover assembly and picking up the top valve gasket (key 21), the valve seat (key 19) and the valve spring.
- Remove the handle and the seal assembly by following the **SERVICING INSTRUCTIONS** for SEAL

## REPLACEMENT.

- Withdraw the piston assembly and prise off the piston O-ring.
- Do NOT remove the bowl from the base  
Clean and disinfect all parts - refer to **OPERATING INSTRUCTIONS** for **CLEANING**. Remove scale from the cylinder bore.
- Inspect the top and bottom valve gaskets (key 21) and the joker valve, and renew them if they are damaged, stiff or covered with scale. Automatically renew the seal assembly and the piston O-ring. Use the other parts in the kit as necessary.

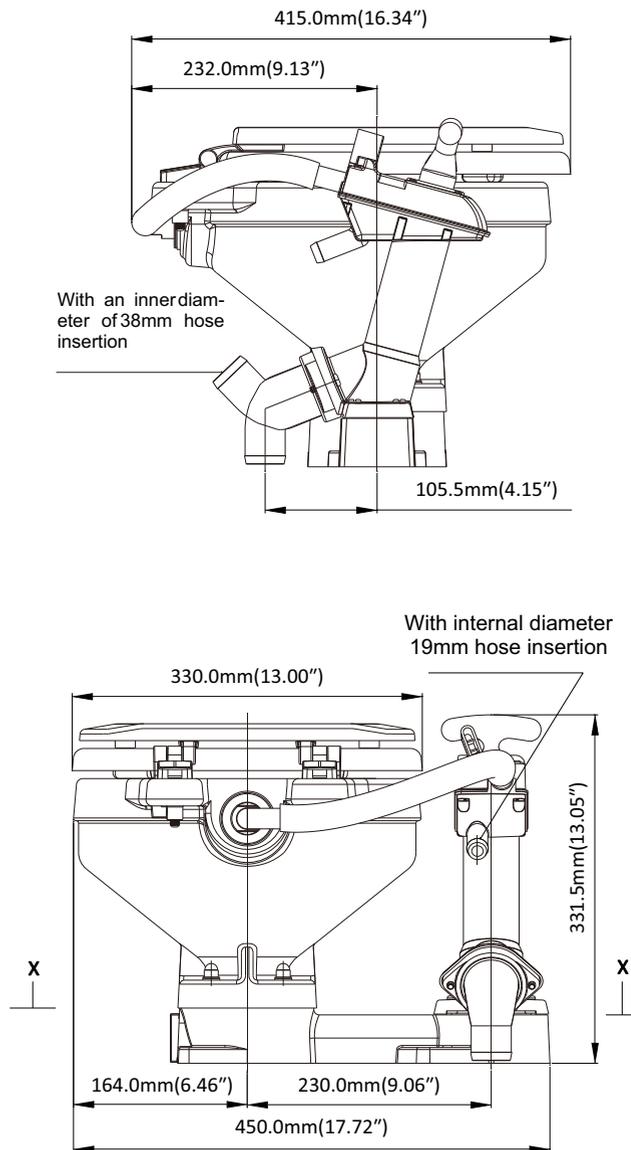
## REASSEMBLE THE PUMP AS FOLLOWS

- Push on the new O-ring and lubricate with petroleum jelly (vaseline).
- Following the **SERVICING INSTRUCTIONS** for **SEAL REPLACEMENT** fit the new seal assembly, the piston assembly and the handle.
- Lubricate pump cylinder bore with petroleum jelly (Vaseline).
- Locate the valve seat (key 19) on top of the cylinder, locate the top valve gasket (key 21) on its pegs on top of the cylinder, locate the valve spring on its peg in the valve cover, and Open (  ) the Flush Control (key 23) before refitting the valve cover.
- Locate the joker valve (key 15) in the discharge elbow(key 16).
- Secure the discharge elbow and hose to the cylinder, using the discharge flange (key 14), **BEFORE** you refit the pump assembly to the base (key 7), so that the joint is not under leverage from the discharge hose. If you do not, the joint may not seal.
- Locate the bottom valve gasket (key 16) on its pegs on the base.
- Secure the pump assembly to the base whilst relieving any leverage from the discharge hose. If you do not, the joint may not seal.
- Examine all hoses throughout their length for chafe, kinks and splits under hose clips. Check all hose clips for corrosion and replace worn or damaged parts.
- Reconnect all loose hose ends and secure them with their hose clips.
- Ensure that the base drain plug (key 9,10) is securely in place.

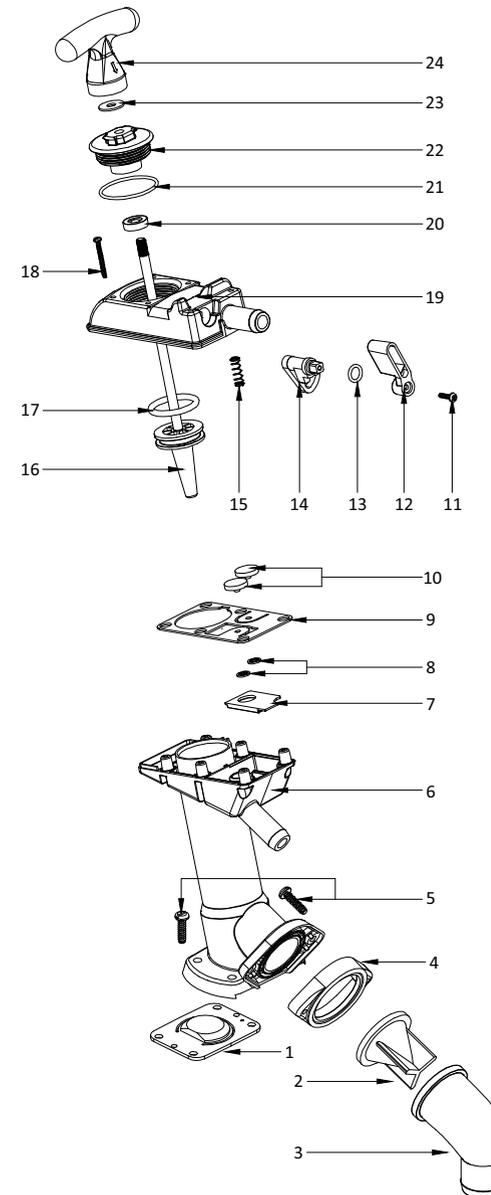


**CAUTION: Do NOT lubricate top or bottom valve gaskets. Do NOT apply sealing compounds to any gaskets or hose connections.**

## DIMENSIONAL DRAWING



## EXPLODED VIEW



1	Seat, lid & hinge set
2	Hinge set
3	Hinge set
4	Cap
5	Bolt assembly
6	Base valve gasket
7	Toilet seal
8	O-ring (plug)
9	Plug seal
10	Base plug
11	Intake seal
12	Intake elbow
13	Hose
14	Discharge flange
15	Joker valve
16	Discharge elbow
17	Self-tapping screws
18	Pump cylinder
19	Top valve seat
20	Valve block fastening washer
21	Top valve gasket
22	Copper valve block
23	Screw(flush lever)
24	Flush control lever