SEAFLO®

Y-valve Instruction Manual



SFYV-01

SEAFLO®

FEATURES

- Chemical and corrosion resistant polypropylene and stainless steel construction
- Ports can be rotated so discharge plumbing can berouted away in parallel, at 90☒ or in opposite directions, or either up or down without disassembly
- Valve is supplied with both 1-1/2" (38 mm) ports(fitted) and extra 1" (25 mm) straight inlet port
- Optional shaft extension allows valve to be mounted through a bulkhead up to 1-3/4" thick with only the selector handle exposed
- Self cleaning design provides trouble free operation
- Molded in flow direction indicator arrows
- Easy access to three sturdy mounting feet for quick and simple installation
- Easy access to valve – by removal of just three hex head machine screws, top cover and diverter assembly lift away from the body

APPLICATION

SEAFLO Y-Valve is designed to provide flexibility of onboard waste management by diverting waste either into an onboard holding tank or directly overboard where legal to do so. Check local and Federal regulations to determine where direct overboard discharge of untreated waste is permitted. No overboard discharge of untreated waste is allowed within three miles of shore.

Some near shore areas and inland areas are designated as “No-Discharge Zones” where the discharge of any onboard waste, even treated waste is strictly prohibited. Many of these areas require a waste retention system that can be positively secured in an onboard retention mode. SEAFLO Y-Valve accommodates this requirement by providing the ability to add a padlock that secures the selector handle in either direction to ensure waste is directed to an onboard holding tank. The Y-Valve may also be used to direct waste from a holding tank to an onboard waste discharge pump for holding tank evacuation or, alternatively, to a waste deck plate for removal by a shoreside pump-out facility.

The Y-Valve may also be used in a bilge pumping system to select between two separate bilge pickups in different bilge compartments providing for evacuation of two separate bilge areas

INSTALLATION

Waste system plumbing should be kept as short and straight as possible. There should be no dips or low spots in the plumbing that would create water traps where waste can collect and solidify. Ideally, the highest point of a waste plumbing system should be as close to the toilet as possible, with the remainder of the system running down hill from that point to take advantage of gravity. Other than the one way valve located in the discharge port of most toilets, check valves should not be used in waste system plumbing as they can create points of possible blockage. If plumbed to an onboard holding tank, the tank must be properly vented. If plumbed to an overboard discharge through hull fitting and seacock, the discharge through hull fitting should be positioned well aft of and ideally lower than any intake through hulls.

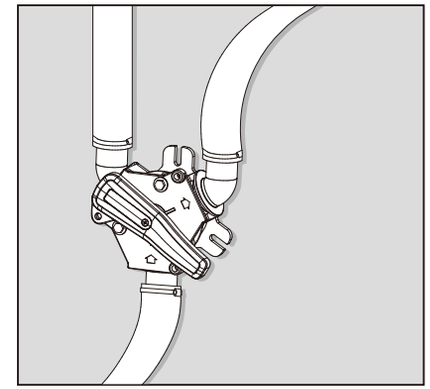
Choose a location for the Y-Valve that offers easy access to the selector handle for valve operation. The optional handle extension kit may be used to mount the valve assembly on one side of a bulkhead with the selector handle on the opposite side. Determine the best routing of plumbing to the inlet and discharge ports. The discharge port fittings may be rotated 360° allowing the discharge hoses to be routed away from the valve in parallel (on the same axis as the inlet port), at 90° to each other or in opposite directions to each other. Alternatively, each port can be rotated to point either up or down.

If desired, the 1" (25 mm) barbed port (included with the valve) can be installed in the inlet port to simplify plumbing when the valve is used with macerating type toilets having 1" (25 mm) discharge ports.To accomplish this, simply remove the three machine screws that secure the top cover to the

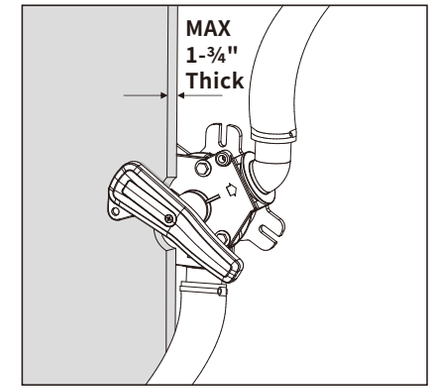
valve body and remove the cover with diverter and handle as an assembly. Remove the 1-1/2" (38 mm) inlet port from its socket in the valve body and insert the 1" (25 mm) port fitting in its place. Refit the top cover & diverter assembly with the diverter positioned near the discharge ports and secure it in place with the three machine screws.

The valve should be secured to a solid mounting surface. After selecting an appropriate mounting position, hold the valve in place and mark the location of the three mounting holes in the valve base. Drill appropriate size holes for the fasteners being used and attach the valve to the mounting surface. Rotate the discharge ports to orient them in the desired direction that best accommodates the plumbing. Attach each waste hose to the appropriate valve port and secure each connection with two stainless steel band clamps.

The valve may also be mounted in a through bulkhead configuration with just the selector handle being exposed on the operational side of the bulkhead. To install this way, an optional Handle Extension Kit is required. Remove the handle retention screw and handle from the diverter shaft. Position the valve in its desired mounting location and mark the position of the diverter shaft. Bore a 1-5/8" (40 mm) hole through the bulkhead at the position marked for the diverter shaft. Push the Handle Extension onto the diverter shaft. Reposition the valve assembly in its mounting location with the shaft extension centered in the 1-5/8" (40 mm) hole and mark the location of the three mounting holes in the valve top cover plate on the bulkhead. Drill holes for the mounting fasteners at each of the three marked locations and attach the valve via its top plate to the bulkhead. Fit the handle to the handle extension and secure the



Mounted on bulkhead.



Mounted through bulkhead with optional handle extension.

SERVICE

The Y-Valve is designed to be self cleaning as the diverter is moved from one port position to the other. Therefore, it is recommended that the valve be operated periodically (about once per month) to prevent debris from accumulating on the sealing surfaces. Other than this periodic operation, there is no regular service required unless the valve stops functioning properly.

Should the valve ever develop a leak or show signs of leakage past the diverter allowing liquid into the port that is intended to be closed, the valve should be serviced with a service kit . This kit includes all Y-Valve O-Ring seals and a molded rubber diverter seal.

Flush and drain the plumbing system in which the Y-Valve is installed. If connected to an overboard through hull and seacock, close the discharge seacock. It may be easier to remove the entire Y-Valve assembly so it can be serviced on a workbench but it is not required, unless the valve is installed in a through bulkhead configuration. Remove the three screws that retain the valve cover to the body. Lift the top cover, handle and diverter assembly off and out of the body.

Note: There are three pockets on the underside of the cover near each cover screw where the blade of a screwdriver can be inserted to gently pry the cover upward to begin the separation process.

Unscrew the handle retention screw and remove the handle from the diverter. Pull the diverter from the top cover. Pull each port fitting from the body port pockets.

Remove the O-Ring seals from each port fitting. Remove the top cover O-Ring seal from its locator ring on the cover. The diverter shaft O-Ring seal will likely remain in the O-Ring bore in the top cover but may also stick to the diverter shaft. Remove the diverter shaft O-Ring seal. Remove the two screws that retain the diverter seal retainer plate to the diverter. Remove the seal retainer plate and molded rubber diverter seal. Clean all parts, especially each O-Ring groove and diverter shaft O-Ring bore in the top cover. Also clean the diverter shaft where it contacts its O-Ring seal and the diverter pivot pin at the bottom of the valve body and pivot pin socket in the diverter. Take care while cleaning not to scratch any of the sealing surfaces.

Position the new molded rubber diverter seal in the frame of the diverter face. Place the diverter seal retainer plate in the center of the diverter seal and secure it in place with the two plate retainer screws. Install new top cover O-Ring on its locator ring on the top cover and port O-Rings on each port. Position the diverter shaft O-Ring in its bore in the top cover. Lubricate all O-Rings, the diverter seal and the diverter shaft pivot pin on the bottom of the diverter with a small amount of grease or petroleum jelly. Slide each port with installed O-Ring into its respective socket in the valve body. Slide the diverter shaft into the center hole of the top cover, through the O-Ring seal, with the diverter positioned opposite the raised molded-in handle stop on the underside of the top cover. Position the handle on the diverter shaft and secure it in place with its screw. Orient the top cover so the discharge indicator arrows align with their respective discharge ports and secure the top cover to the valve body with its three machine screws. Slide the diverter into the valve body positioned near the discharge ports. Ensure the diverter pivot pin is properly aligned, with the pivot pin socket in the bottom of the body and push the top cover firmly against the body.

Diagram 1

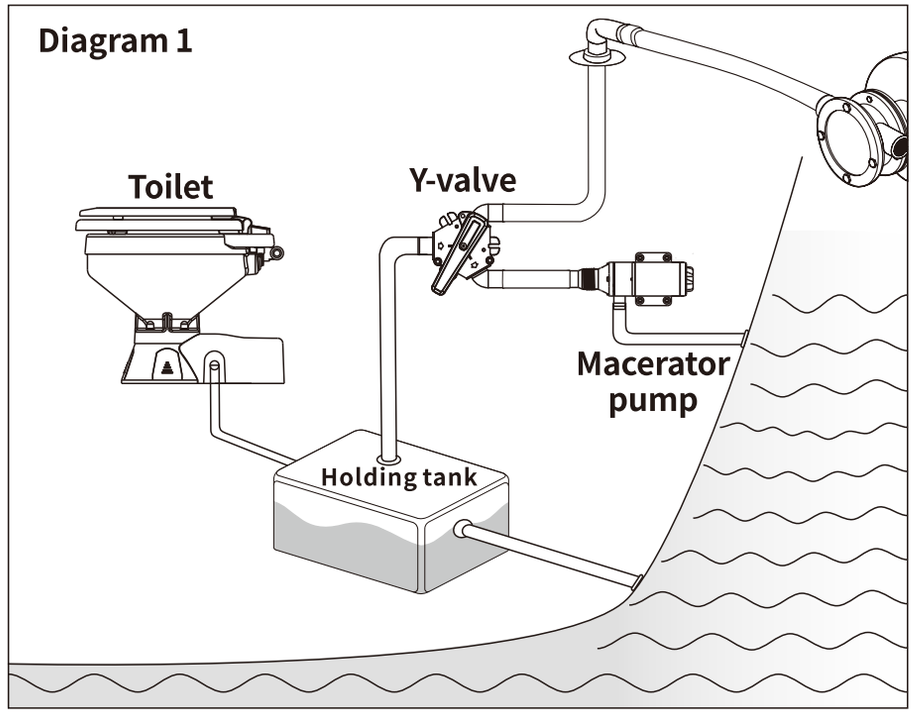


Diagram 2

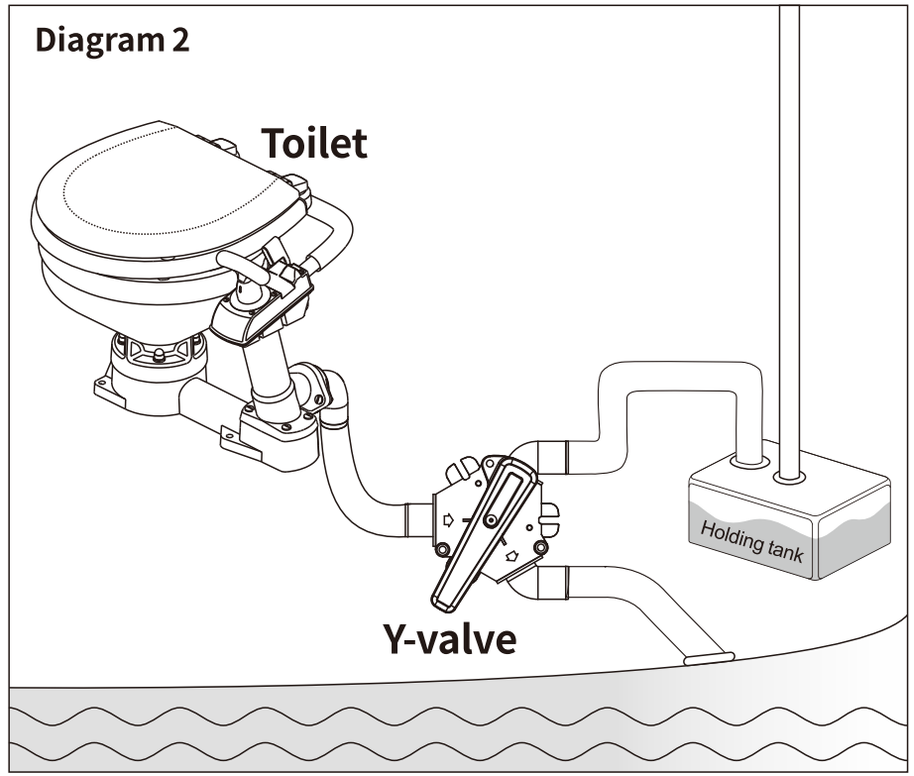
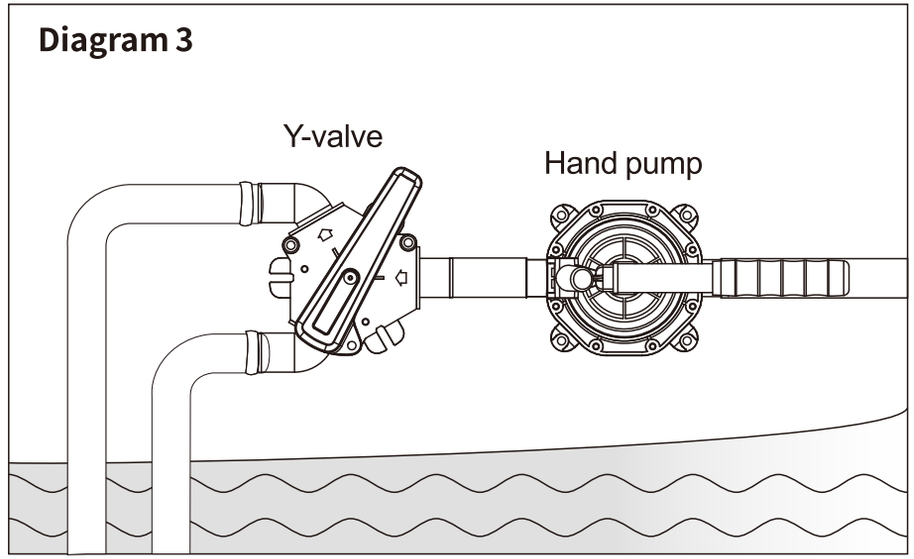
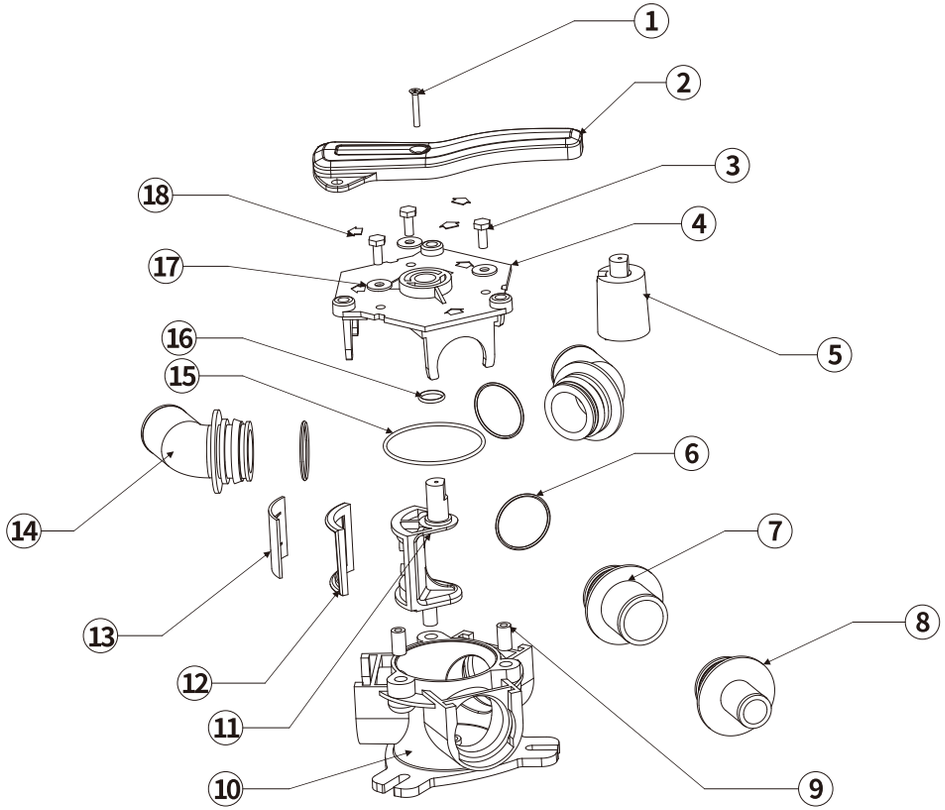


Diagram 3



EXPLODED VIEW



1	Handle retention screw	7	Inlet Port 1	13	Diverter seal retainer plate
2	Handle	8	Inlet Port 2	14	Discharge Port
3	Hexagon socket screws	9	Copper nut	15	O-Ring 2
4	Top Cover	10	Valve Body	16	O-Ring 1
5	Support block	11	Diverter Shaft	17	Washers
6	O-Ring 3	12	Diverter seal	18	Direction stickers

DIMENSIONAL DRAWING

