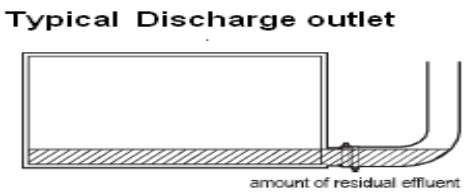
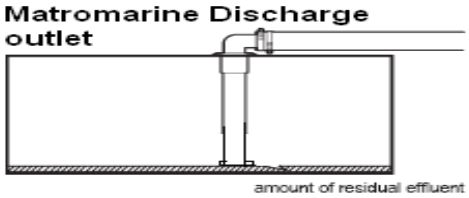
WASTE WATER KIT

Complies with ISO 8099 STANDARD

CD: 9400000547 Kit for waste water (rectangular) 47 lt.
CD: 9300000550 Kit for waste water (rounded shape) 50 lt.
CD: 9400000578 Kit for waste water (rectangular) 78 lt.
CD: 9300000575 Kit for waste water (rounded shape) 75 lt.
CD: 9400005112 Kit for waste water (rectangular) 112 lt
CD: 9300000598. Kit for waste water (rounded shape) 98 lt.

Superior Durability: MATROMARINE holding tank systems are molded from linear low density polyethylene (LLDP) resin. Polyethylene is best-suited for holding tank construction because of its resistance to corrosion and odor permeation, and it will last longer than the life of a typical fiberglass hull.
ISO/USCG Compliant: MATROMARINE models are fully compliant with the ISO 8099:2000(E) standard .
Odor-Free Design: MATROMARINE tanks have extra-heavy wall thickness to prevent odor permeation. Tanks can be fitted with an actived carbon filter that stops unpleasant odors from escaping through the holding tank vent.
Multiple Tank Outlets: Most Mtromarine models are equipped with two discharge outlets. One is for connection to a deckmounted discharge fitting and one is for connection to an overboard discharge pump.
Leak-Proof Design: one hose connection Matromarine holding tanks is on the top of the tank, eliminating possibility of leakage due to a faulty connection below the liquid level of the tank contents. Our unique diptube design reduces the risk of plugging while keeping the residual contents in the tank to a minimum.





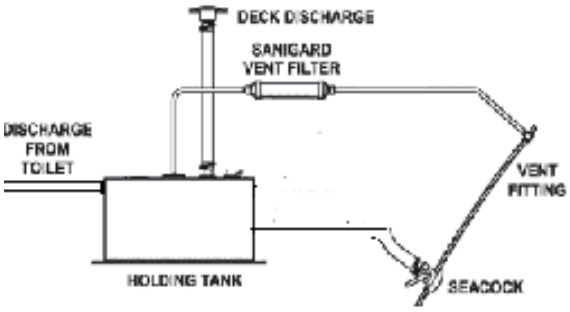
I-
STALLATION

CHOOSING A LOCATION FOR THE HOLDING TANK SYSTEM

As a general rule, the waste water tank should be positioned as low in the hull as possible with all interconnecting hoses or pipes sloped to permit gravity drainage and prevent potential hose odor permeation.
The holding tank must not be exposed to temperatures above 120°F (45°C). Do not place near heat sources such as engine manifolds, water heaters, generators, etc.
Be certain to estimate holding tank weight when filled (typical effluent weighs about 9 lbs. per 1 gallon or 1.08 Kg per liter). Make certain to allow for total filled weight when selecting materials for mounting the tank. Also consider impact of full tank on vessel trim.

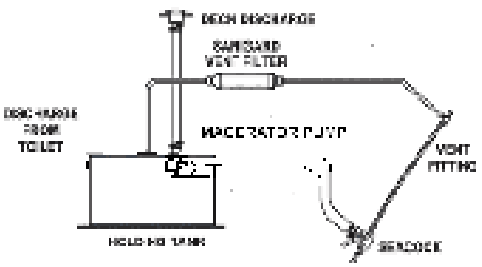
PREPARING A MOUNTING SURFACE

1. Mount tank to surface that supports the entire area of the tank.
2. If required, fabricate mounting surface and toe blocks from 13 mm or 19 mm (1/2-inch or 3/4-inch) plywood.
3. Do not mount tank on projections such as screw or bolt heads, which could puncture the tank.
4. Do not allow holding tank to block free flow of bilge water.

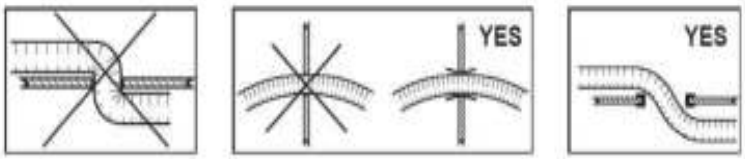


AVOIDING HOSE ODOR PERMEATION

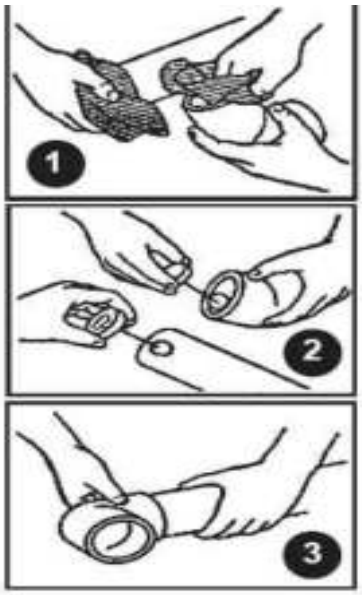
• Hose failure due to odor permeation almost always occurs in hose runs which retain sewage when the system is not in use.
• Eliminate all unnecessary runs which retain trapped liquids, if possible.
• Where possible, use rigid PVC pipe in sections that cannot be arranged to drain.
• Simplify hose layout by removing unnecessary valves. [For specific installations, some regulations and standards may require the installation of a vented loop (anti-siphon valve), one-way valve or seacock in sewage discharge piping.]



Do not restrict the ability to pull the hose or pipe.
Avoid binding corners and sharp bends.
Do not use wire ties to secure the hose or pipe.
Support flexible hose every 12 inches (.3 m), and support rigid pipe every 5 feet (1.5 m).
When creating new holes, avoid reinforcement stringers and tabs.

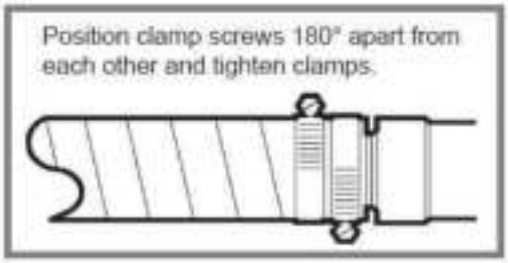


SOLVENT BONDING FOR RIGID PIPE AND FITTINGS
1. Use PVC cleaner on both bonding surfaces.
2. Use PVC cement (must contain tetrahydrofuran) on both bonding surfaces.
3. Connect parts using a twist and hold motion until the cement is set.
4. Let the joint cure for at least four hours or according to instructions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

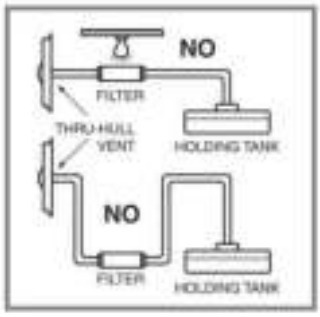


Position clamp screws 180° apart from each other and tighten clamps.

CLAMP CONNECTIONS FOR FLEXIBLE HOSE AND FITTINGS
Matromarine recommends that each hose connection are secured with two hose clamps to prevent any leaks.



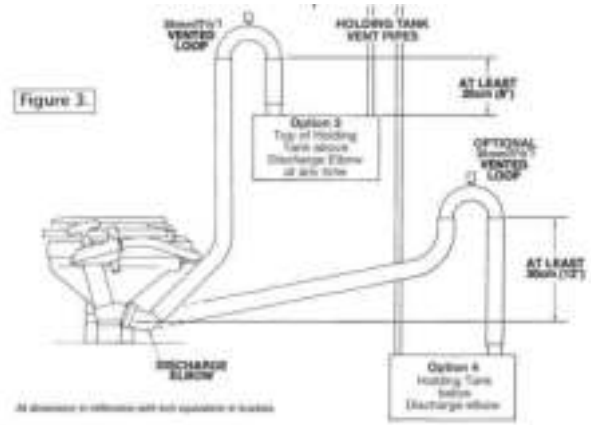
VENT LINE AND FILTER INSTALLATION
• Holding tank vent lines must be free of low points which can trap liquid and prevent the free flow of gases from or air into the holding tanks.
• Do not use non-reinforced hose for vent lines. Over time, it will tend to kink and effectively block the vent.
• A holding tank vent filter will absorb heavier-than-air gases associated with sewage and eliminate a source of malodor from the exterior of the boat. See vent filter details in this manual(page 3).
When installing vent filters that are not mounted directly on a holding tank units :
• Avoid areas near excessive heat sources such as engine manifolds or lights.
• Do not install the filter below top of holding tank.
• The filter can be mounted in any position. Installations near the through-hull vent reduce the chance of filter damage from overfilling of the holding tank.



CLEANING

A small amount of water remains in all marine holding tanks. It is good practice to rinse the tank after the contents have been discharged. This can be accomplished by adding water to the toilet bowl. Holding Tank Deodorant and Cleaner to the bowl. Flush the entire contents into the holding tank and continue flushing until the discharge from the holding tank is clear.
Do not use chlorine-based cleaners, caustic cleaners or chemicals, such as drain-opening products, as they may damage the system seals and hoses.

WASTE SYSTEM TANK BELOW THE WATERLINE

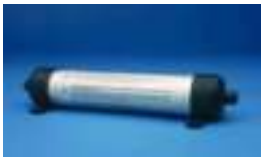


YOU MUST fit a 38mm (11/2") Vented loop fitting, MATROMARINE part number 6000100015

▼ If there is ANY possibility that the discharge elbow may be below the top of the tank at ANY time, a ventilated antisyphon loop must be fitted in the outlet pipework to ensure that the contents of the tank do not syphon out through the bowl.

▼ Arrange the outlet hose to form a loop which is at least 20 cm (8") above the highest possible level that the tank may reach, and fit the Vented Loop at that highest point.

SPARE PARTS:



ACTIVATED CARBON FILTER:CD. 9000000600 Complete filter with 3/4"nipples. Manufactured in light alloy and nylon this filter should be installed along the breather of the tank in the highest possible location. The activated carbons should not come into contact with the liquids contained in the tank or the surrounding water.

MACERATOR PUMP:Toilet waste macerator pump, 20 min. rated, can discharge tanks up to 900 litres.
- bronze macerator and rubber impeller discharge pump
- self priming up to 0.6 mt. vertical lift.
- 43 LPM output at 3 mt. total head
- macerates and discharges water and waste mixtures.

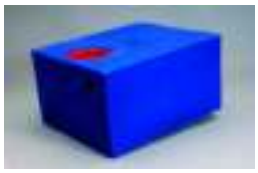
CAPACITY: 43 lt./ min.
DIMENSIONS: 240 x 130 x 90 mm
PORT CONNECTIONS: Inlet: 38/53 mm – Outlet: 25 mm
CD. 5500000912 Amp draw: 12A. - Voltage: 12V.
CD. 5500000824 Amp draw: 6A. - Voltage: 24V.

GAS TANK VENT:
CD.MN000ST005 Dim.15/16

Y-VALVE
A universal valve to discharge either overboard or into waste tanks designed for long distance control by means of a push-pull cable. It can be used in three ways: 1) the water from the toilet is flushed into the sea or into the waste tank;
2) the water is discharged from the waste tank into the sea by means of a macerator or on the quay by means of a suction pump;
3) the macerator discharges into the sea or on the quay by means of a suction pump.
FITTING DETAILS: Connections for 38 mm (1 1/2”) id. hose
CD. 6000100025

DISCHARGE CONNECTIONS:
Our discharge CONNECTION design allows for removal of waste from the top of the holding tank rather than near the bottom of the tank. This feature greatly reduces the opportunities for stagnant sewage to sit in tank discharge lines – a main cause of odor permeation and hose failure.
THIS CONNECTION MUST BE FIXED DIRECTLY TO THE MACERATOR HOSE : Inlet - 1-1/2" (38mm) Hose Barb and 1-1/4" .

POLYTHENE WASTE TANKS:Complete with 4 dead female unions 3/4" dim. 24/25 mm. and 4 dead female unions 1 1/4" dim 38/40 mm.for rubber gasket.
CD: 9100000547 47 lt. 470 x 400 x 250 mm - rectangular
CD: 9100000578 78 lt. 700 x 400 x 300 mm - rectangular
CD: 9100000578 78 lt 800 x 480 x 200 mm or 700X400X300- rectangular
CD: 9100005112 112 lt.700 x 800 x 200 mm - rectangular
CD: 9000000550 50 lt. 430 x 530 x 290 mm - rounded shape
CD: 9000000575 75 lt. 430 x 800 x 290 mm - rounded shape
CD: 9000000598 98 lt. 430 x 1000 x 290 mm - rounded shape



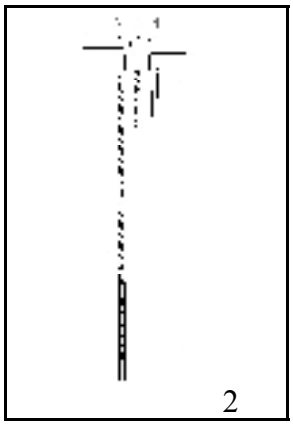
VENTED LOOPS: Indispensable component for inlet and discharge pipes of manual and electric toilets installed below the waterline. Manual and electric marine toilets flushed with sea or river water require connections through the hull below water level. If the toilet is installed below the boat waterline, the possibility of flooding the hull through an open seacock must be prevented, not only for the discharge pipe, but also for the inlet pipe. If no precautions are taken, a toilet below the waterline is at risk of flooding at all times when the discharge or inlet seacock is open A loop of pipe above water level may prevent flooding, but there remains a risk that a si phon will be created by pumping the toilet, or when the boats heels, or by wave action. Dia. 38 mm CD. 6000100015 INLET: 19 mm (3/4”) DISCHARGE: 38 mm. (1 1/2”)

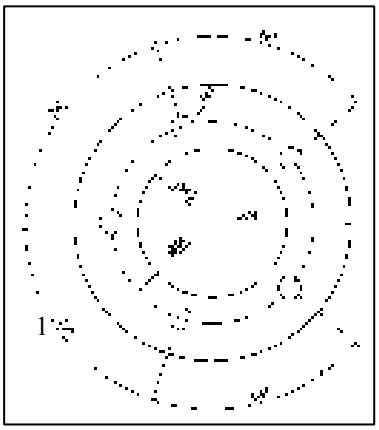
LEVEL INDICATORS:Level indicators for clean waters and waste mixture tanks. Probes holder with 5 bushes in which are screwn 5 stainless steel probes for water tanks unit and 3 stainless steel probes for waste mixture tanks unit. Plastic bushes 20 mm long, to avoid risks of short
circuit due to humidity inside the tanks. A panel with a scale of 3 leds is advising the almost full tank with a buzzer, for the indicator of waste mixture tanks. Both holders and panels are for VDO connections.
CD. 4500000140 level indicator for waste mixture tanks.

CONTROL PANEL HOLE 50 mm.
PROBES-HOLDER HOLE 38/40 mm.
Use a diameter 48/50 mm. cylinder saw to mount the probe on the waste tank.

Combination printed circuit coloured wires	*combination coloured wires / probes*	
1)YELLOW	long probe	= common
2)BLUE /GREEN	short probe	= full tank
3)WHITE	long probe	= half tank
Black	- battery	
Red	+ battery	

Control panel leds
Red led = ON
Yellow led = half tank
Green led = full tank
The colour indications refer to the complete kit (control panel, wires and terminals) the standard length of which is of 3.5 meters.
WARNING: do not short-circuit the side rods with the central one.
Drawing n 2 probe and n 1 probe gasket.





WARRANTY

A. LIMITED WARRANTY: MATROMARINE warrants that at the time of shipment, the products manufactured by MATROMARINE and sold hereunder shall be in conformity with applicable **written** specifications **and** descriptions referred to or set forth herein, free from defects in material and workmanship, merchantable, and suitable for a particular purpose, provided such is implied by State law under the circumstances of this sale.
1. Matromarine agrees to repair or furnish a replacement for, **but** not to remove or install, any product or component thereof which, within one year from date of purchase, shall upon test and examination by MATROMARINE
prove defective within the above warranty. Receipt verifying purchase date is required to obtain the claimed go-ods
No product wilt be accepted for return or replacement without the prior written authorization of MATROMARINE. Upon such authorization, and in accordance with instructions from Matromarine, the product will be returned to our factory, shipping charges prepaid by Buyer. Products returned to the following address:
Matromarine products Via Sereghe' 1 16017 Isola del Cantone (Ge) ITALY.