



## BILGE PUMPS - LEVEL & FLOAT SWITCHES

**What is a bilge pump?** A bilge pump is a device that can be used to pump excess water from the bilge of the boat.

**What is a Float switch?** A float switch is a device, which at a specific water level will activate the bilge pump(s).

### Categories

**Bilge Pumps:** It is advisable that all boats should have bilge pumps. These are divided according to the quantity of water they can pump per hour. The Lalizas range includes bilge pumps that can pump 500, 600, 700 or 1000 gallons per hour (1 gallon = 3,7854lt).

**Float Switches:** There are two types of switches available from Lalizas.

- Mechanical Float Switch FS-40 and 91549. They are activated by the rising water level, which pushes upwards the built-in float.
- Environmental Electronic Level Switch (EELS). The latest in technology, this switch has an electronic sensor which activates the bilge pump as soon as it 'senses' the water level rising. The EELS has the unique ability to distinguish harmful substances that may be found in the bilge, such as oil, gas etc. Even more important is the fact that it will not allow these substances to be pumped out into the sea.

**Materials:** All Lalizas bilge pumps are made of shatterproof ABS plastic and operate at 12V. On the other hand, the switches are made of a combination of ABS plastic and Nylon. The contacts of the electronic switch are protected from environmental factors, thus making it 100% waterproof.



Advisor



Information



Best Value



With Cables



New Product



Captain's proposal

## Bilge Pumps

### ADVISOR

**Use:** Bilge pumps are used to remove excess water from the bilge of the boat or transfer liquids. They are necessary equipment in your boat, as they free your hands from removing the excess water from the bilge and assist in maintaining your boat in good condition. Before you choose a pump, you should consider the size of the boat, the quantity of water pumped and the discharge height. Please note that the higher the discharge height, the harder the pump has to operate in order to push the water overboard. Generally for 1m discharge height the following are suggested:

Boat < 6m => 600L/h (liters per hour)\*

Boat > 6m => 900L/h (liters per hour)\*

Boat > 6m => 1800L/h (liters per hour)\*

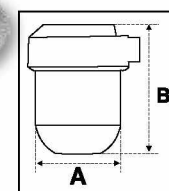
\* 1 Gallon (G) = 3.7854 liters (lt)

**Instructions of Use:** An important prerequisite for the normal operation of all electric devices is their connection to the main circuit. Lalizas bilge pumps are connected in series to the main circuit and it is suggested that you use a 10A fuse. It is very important that you follow the wiring instructions when connecting the pump. The device can be mounted vertically to the hull, at a point where most of the excess water is found. The bilge pump may be activated either manually via a switch installed by you or automatically by a float switch (sold separately). There are also versions with a built-in level switch.

**Maintenance / Replacement:** Lalizas bilge pumps are manufactured so as to operate efficiently even after long periods of time. However, for the best performance you should use and maintain them properly. Therefore Lalizas suggests the following:

- Use your bilge pump in combination with a float switch
- Place a 10A fuse in series with the main circuit
- Clean the bilge pump from any dirt
- Check regularly that everything operates correctly
- Avoid the use of any chemical substances in the bilge

**ATTENTION:** If you choose not to use a float switch you should supervise constantly the operation of the bilge pump and deactivate it when all the water is pumped, in order to avoid overheating it. Overheating the pump may seriously affect its operation and result in permanent damage.

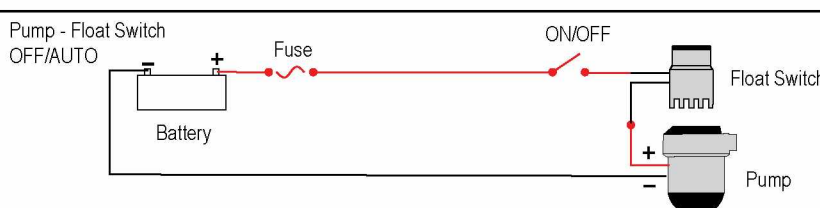
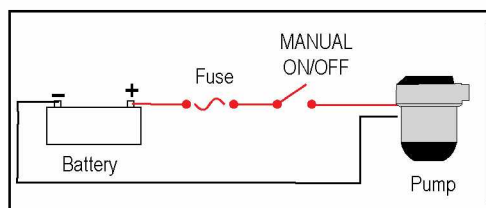


### Bilge Pump "Zero Aqua Plus"

The 'Zero Aqua Plus' bilge pumps have been designed for heavy-duty use. Their rugged construction of ABS is characteristic of the high quality standards set by Lalizas. They are very easy to mount and clean, since the body can be removed, allowing full access to the strainer and the impeller. The "Zero Aqua Plus" bilge pumps are available in four (4) sizes from 600 to 3500GPH. All models, apart from 31330 are supplied with non-return valves, while the 1500 & 3500GPH model come both in 12V and 24V. Additionally, Lalizas has a wide range of non-return valves in various angles which can be combined with the bilge pumps.



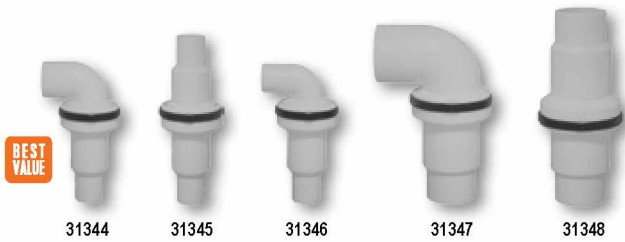
Code	31330	31331	31332	31333	31340	31341
Gallons (GPH)	600	1000	1500	1500	3500	3500
Volts (DC)	12	12	12	24	12	24
A: Diameter (mm)	68	68	124	124	124	124
B: Height (mm)	102	102	160	160	160	160
Hose Outlet	3/4"	3/4" - 1"	3/4" - 1"	3/4" - 1"	1 1/2" - 1 1/4"	1 1/2" - 1 1/4"
Non-Return Valves	Outlet	Angle	Non-Return Valves supplied			
	1"	90°	X	•	X	X
	3/4" - 1"	Inline	X	•	X	X
	3/4"	90°	X	•	X	X
	1 1/2"	90°	X	•	•	•
	1 1/2" - 1 1/4"	Inline	X	•	•	•



## Bilge Pumps

### Non-return Valves

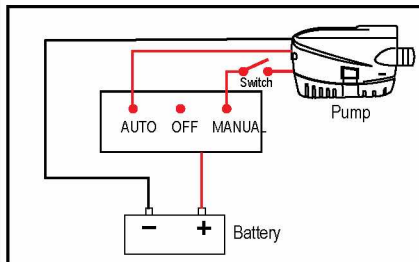
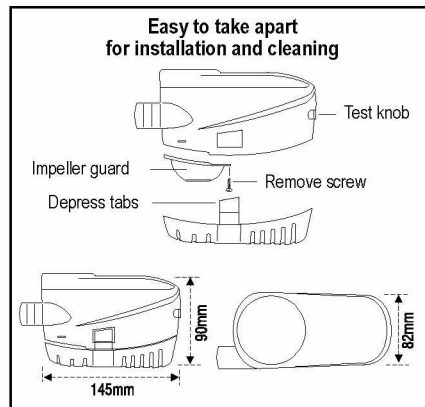
Lalzas non-return valves are ideal for use with all the "Zero Aqua Plus" bilge pump series. They feature a quick release clip, allowing you to service them easily and quickly. They are available as in-line units or with a 90° curve. Finally, their outlet connection allow the use of either a 3/4 to 1" or a 1 1/4" to 1 1/2" hose.



Code	31344	31345	31346	31347	31348
Hose Outlet	1"	3/4" - 1"	3/4"	1 1/2"	1 1/2" - 1 1/4"
Hose Inlet	3/4" - 1"	3/4" - 1"	3/4" - 1"	1 1/2" - 1 1/4"	1 1/2" - 1 1/4"
Angle	90°	Inline	90°	90°	Inline

### Submersible Automatic Bilge Pump 600GPH

The Lalzas Submersible Automatic Bilge Pump combines quality and ease of use in one device. It has a built-in automatic float switch which activates the pump when the bilge water rises, thereby allowing the pump to operate even when the boat is unattended. The pumping capacity is 600GPH through a 19mm (3/4") hose. The pump also features a manual test button that allows you to test the level switch, as well as, the pump. Additionally, it has a snap on strainer base making installation and maintenance simple. The pump housing is made of durable ABS plastic. 12V DC. Fuse 10A.

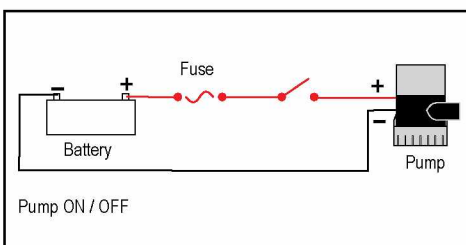
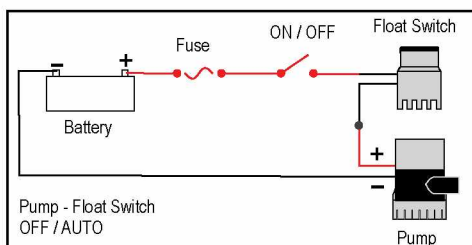
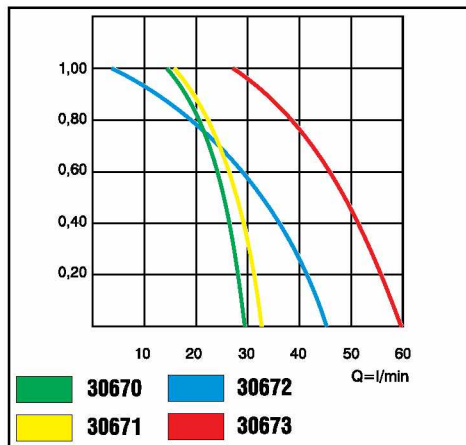
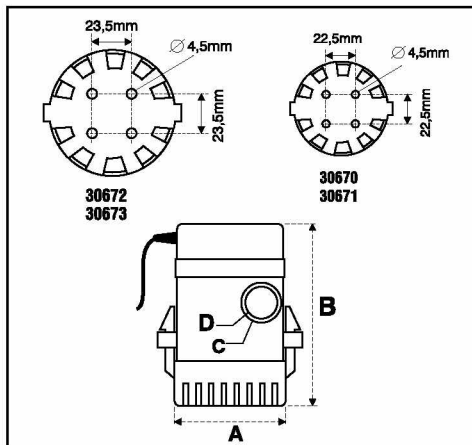


Code.....31150



### Submersible Bilge Pumps

The 12V submersible bilge pumps are made of shock resistant ABS plastic and powered by the world's best compact motor. The snap-on strainer base makes installation a simple procedure. These reliable pumps are available in four sizes from 500GPH to 1000GPH.



Code	30670	30671	30672	30673
GPH	500	600	700	1000
A(mm)	60	60	70	70
B(mm)	90	90	95	95
C(mm)	20	20	25	30
D(mm)	15	15	20	25



**ADVISOR****Use**

Float switches are used to detect the presence of excess water in the bilge of a boat, and activate the pump in order to remove it. It is suggested that you use the combination of pump and switch, as it then excludes the possibility of forgetting to switch off the pump, and will also prevent overloads.

**Operation**

**Mechanical Float Switches:** They have a built-in float switch which activates the pump when forced upwards by the rising water level. When the water level drops, the float lowers, deactivating the pump. They operate with bilge pumps rated up to 10A.

**Electronic Environmental Level Switch E.E.L.S.:** The E.E.L.S. has been designed to sense the conductivity of liquids and distinguish the presence of hydrocarbons in bilge water. Since hydrocarbons are conductors of lower intensity than water, the E.E.L.S. will switch off the pump and not allow the film of hydrocarbons, that may be present in the bilge, to be pumped and discharged into the sea, thereby preventing pollution. The E.E.L.S. Level switch operates with bilge pumps rated up to 20A.

Lalizas Level and Float switches are compact, need limited maintenance and are designed for long service life.

**Instructions of Use**

Float switches should be installed vertically in the bilge or in any area where excess water is most likely to be collected. To safeguard against malfunction it is important to ensure correct connection of the Float/Level switch to the bilge pump and to the boat's main circuit. Both the types of float switches should be connected in series to the main circuit. After connection and taking care to follow the instructions, all you need to do is regularly check that the device operates smoothly.

**Maintenance / Replacement**

Although these products need limited maintenance, Lalizas suggests that you:

- Place a fuse with an amperage relative to the pump in series with the main power supply circuit
- Check regularly that everything operates correctly
- Avoid the use of any chemical substances in the bilge

**ATTENTION:** Automatic Float switches are designed to help maintain smoother operating boat drainage system. They are not designed to control operation or replace human surveillance.

**Float Switch FS-40**

The Lalizas Float Switch FS-40 has been designed to be used with bilge pumps rated up to 10A. The FS-40 activates or deactivates the bilge pump, depending on the water level. Namely, when the water level rises, it forces the float upwards, which switches on the bilge pump. By installing the float switch, there is no need to monitor the water level and switch the pump on or off manually. A very important feature is that you can test the smooth operation of the switch at any time, just by using the test button. The Float Switch FS-40 is made of from tough ABS plastic for long life.

Voltage: 12V - 24V DC Amperage: 10A

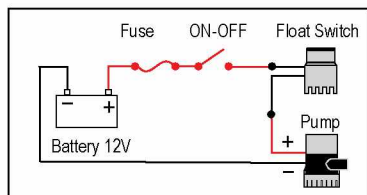
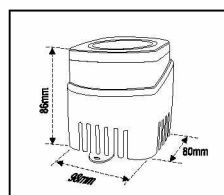


EASY MOUNTING

BEST VALUE



Code.....31170

**Environmental Electronic Level Switch E.E.L.S.**

The Lalizas Environmental electronic level switch is the latest in innovation, as it operates with an electronic sensor, instead of the air pressure or any moving parts. It has been designed to sense the water level with great precision and accuracy, thus offering you the best possible result. One of the most important advantages of the Lalizas E.E.L.S. is that it is environmentally friendly. Lalizas designed this switch to operate only when it senses water. If there are quantities of hydrocarbons, such as oil, it switches the bilge pump off, thus preventing any pollution. Mounted vertically to the hull, the Lalizas E.E.L.S. is connected inline with bilge pump(s) even of higher potency. Also its compact design allows a far greater freedom of movement. On the other hand, in inboard vessels the minimum space it occupies, leaves more loading space and the hatch space intact. Other features of note are the insulated electrical contacts, casing from durable Nylon and ABS plastic, 100% impermeability to water.

**Technical characteristics**

The Lalizas Electronic Level Switch can be used with any bilge pump up to 20A. The Electronic Level Switch has the following electrical characteristics:

**Voltage:** 12V DC

**Connection to the main circuit:** Inline

**Maximum Amperage:** 20A.

**How to connect the Lalizas Electronic Level Switch**

Connect a switch for the activation of the automatic operation of the bilge pump inline to the positive pole of the battery. You should also connect inline a fuse, according to the amperage of the bilge pump and up to 20A max (See manufacturer's instructions). The wires of the Electronic Level Switch which are connected to the poles of the battery are RED (+) and BLACK (-). The other pair of wires, BLACK (-) and BLUE (+) are connected to the negative and positive pole of the bilge pump respectively.

**ATTENTION!**

It is necessary that you follow the polarity when making the connections, otherwise you run the risk of producing a short circuit leading to damage your Electronic Level Switch. Please check the polarity before activating your new Float Switch.

**WIRING**

Black: Negative (-)

Red - Blue: Positive (+)

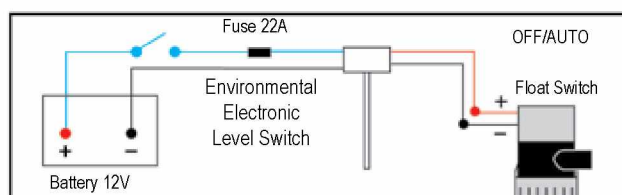
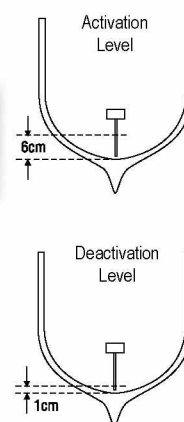
Black - Red: Connection to the battery

Black - Blue: Connection to the Bilge Pump



EASY MOUNTING

Code.....31010



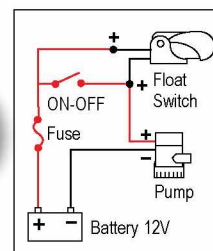
## Float Switches

### Automatic float switch, DC 12V/24V, 15A max

This float switch is designed for the automatic control of electrically driven bilge pumps. Designed with a reliable rolling-ball and switch system that prevents rapid on/off cycling found on some switches and is safer than mercury switches. When water lifts the chamber buoy up to 6cm, the switch automatically turns the bilge pump on until the bilge is emptied. This automatic float switch has a plastic housing.

**BEST VALUE**

Code..... 91549



Power: 12V/ 24V, Fuse: 15A max, Material: ABS plastic, Dimensions: L 11cm W 7cm H 6.5cm

## Bilge Pump Switch

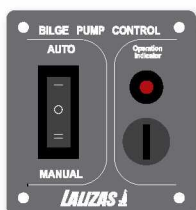
### Pump Switch

Lalzas Pump Switch allows you to operate your boat's bilge pump automatically, manually or even switch it off. It is water resistant, with an indication light, so that you know when the device is operating. The Lalzas Pump switch is made of Inox 316 for durability and lifetime protection against corrosion. It is available in charcoal colour.

**2 YEARS GUARANTEE**

**INOX 316**

**BEST VALUE**



#### Features:

- Auto-Off-Manual switch
- For use only in 12/24V. Maximum load per switch 15A
- Coated with electrostatic paint
- Completely wired and ready to install
- Two years Warranty

Code	Function	Dimensions (cm)		Colour	Volts DC
		Height	Width		
31301	Auto - Off - Manual	7	6,5	Charcoal	12-24



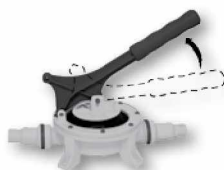
## Manual Bilge Pumps

### Diaphragm Bilge Hand Pump

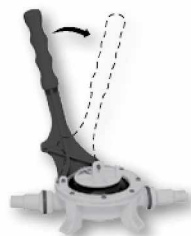
Ideal for use where battery power is not available or as a backup to electric pumps, the Lalzas diaphragm bilge hand pump is easy to use and has a capacity of 6,5 gallons at 60 strokes. It features a built-in non-return valve, which can be easily removed with the quick release clip and two-position handle for convenient use, depending on your requirements. Additionally, its outlet connection allows the use of either a 3/4" or a 1" hose.

Code.....31342

**BEST VALUE**



A. Horizontal Position



B. Vertical Position



**BEST VALUE**

#### Service Kit for Hand bilge pump 31342

(includes diaphragm, flapper valves, gasket)

Code.....31399

## General Purpose Pumps

### Diaphragm Water Pump



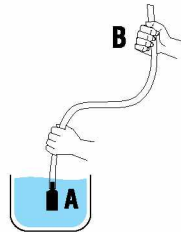
Code	Volt	Lt/min	Pressure
90274	12	9,5	2,4 bar
90275	24	12	

**LALZAS**

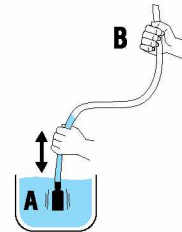


**BEST  
VALUE****Suction hand pump, length 160cm**

Code	70002	70003
Diameter (mm)	19	25

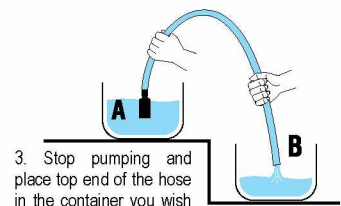


1. Place the bottom end A of the hosepipe into the tank with the liquid that you wish to pump out and hold the top end B of the hosepipe upright



2. Shake the bottom end of the hose vigorously up and down until the liquid rises in the hose, continue pumping until the liquid passes balance level

**ATTENTION:** Make sure that the empty container is placed below the level of the container you wish to empty



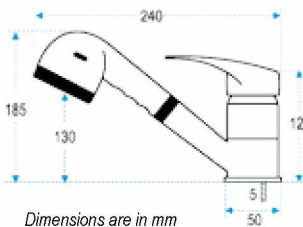
3. Stop pumping and place top end of the hose in the container you wish to fill and the liquid will flow automatically

**SUITABLE FOR PETROL  
- DIESEL - WATER**

## Faucets

**Faucet, with adjustable spray & shower tube 150cm "Rhea"**

Code.....99960



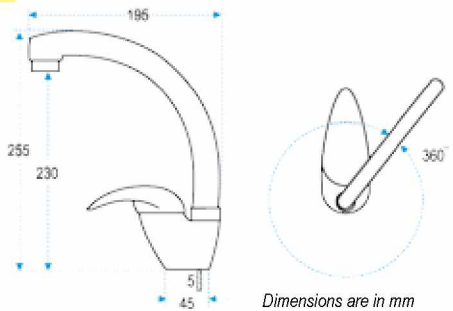
Dimensions are in mm

Chrome plated

**SE1  
TAPS****Faucet "Nefeli"**

Code.....99959

Chrome plated

**SE1  
TAPS**

Dimensions are in mm

**Faucet "Aegle"**

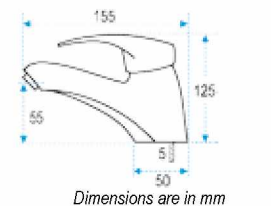
Code.....99999

Chrome plated

**SE1  
TAPS****Faucet "Artemis"**

Code.....99962

Chrome plated

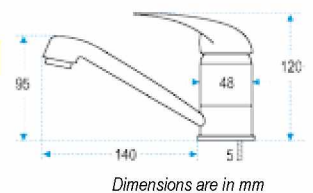
**SE1  
TAPS**

Dimensions are in mm

**Faucet "Athina"**

Code.....99961

Chrome plated

**SE1  
TAPS**

Dimensions are in mm

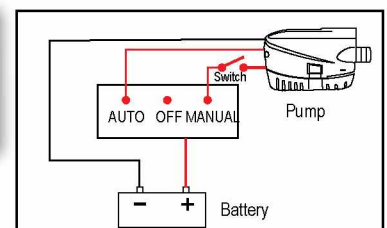
## Showers &amp; Accessories

**Shower Sump System LSU 600, 12V**

Designed especially for use on boats with built-in sink, shower or tub, the LSU 600 will pump all water out of the drain and into the tank. It is compact and can be mounted either against the floor or against the walls, in which case the two legs can be cut off. It has a built-in automatic bilge pump that will start operating as soon as the float switch senses water. Additionally, it features a filter, which can be easily serviced by removing the top transparent cover and a non-return valve at the outlet hose. The LSU 600 case is made of resistant plastic and the lid from acrylic. Its power consumption is limited to 1,5A at 12V. The LSU 600 System has 3 inlet hoses (2 of 19,1mm (3/4") and 1 of 25,4mm (1")) and 1 outlet hose with non-return valve for hose of 19,1 (3/4") and 25,4mm (1") in diameter.



Code.....31349



## Watertanks

### ADVISOR

#### Installation of the inlet and outlet fittings

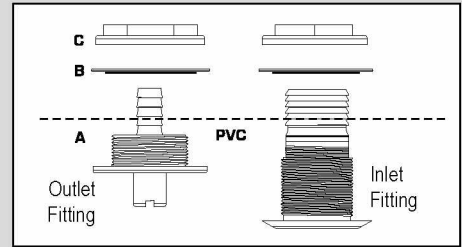
Inlet and outlet fittings are supplied loose, so that you can install in any position you prefer. However, you should always keep the outlet fitting (small) as low as possible. To install them, follow the steps below:

1. Mark the holes to be cut out using the inside perimeter of ring (B)
2. Cut the marked holes with scissors, being careful not to cut the bottom side of the tank
3. Insert the fittings in the cut-out holes, by folding the surrounding fabric slightly. Part (A) should be inside and ring (B) outside the tank wall
4. Secure the fittings by fastening tightly the nut (C)

#### Cleaning and Maintenance

To maintain the tank in good condition follow the instructions below before winter:

- Fill with water and some white vinegar to remove any algae that may have been formed
- Rinse with fresh water and leave to dry completely
- Store in a dry place



### Flexible Water Tanks, grey

Flexible water tanks solve the problem of storing water on your boat. Made of non-toxic PVC, they are suitable even for drinking water. The tanks are supplied with a valve, which can be used for ventilation and with two extra fittings (cut through hole: 48mm). They are easy to store and use. Lalizas flexible water tanks are available in rectangular and triangular models.

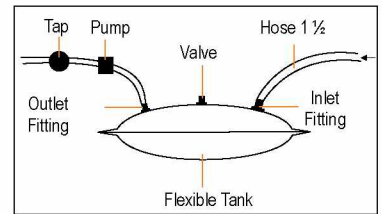


#### Triangular

Code	31325	31326
Dimensions (cm)	86x21x93	108x21x108
Capacity (Lt)	55	100

#### Rectangular

Code	31321	31322	31323	31324	31329
Dimensions (cm)	74x60	74x84	74x100	74x125	74x150
Capacity (Lt)	55	75	100	120	150



BEST VALUE



**Outlet Fitting**  
diam.: 48mm for  
5/8" hose, black  
Code..... 31352

BEST VALUE



**Inlet Fitting**  
diam.: 48mm for  
1 1/2" hose, black  
Code..... 31351

BEST VALUE



**Valve for Flexible Water Tanks (31321-6, 31329)**  
Code..... 02022

### Water Shower Tank , flexible

- It is made of PVC and can heat 20lt of water
- It is lightweight & small, saving you a lot of space
- It is environmental friendly, since the construction material doesn't contain any toxin



Code	99976
Capacity (Lt)	20

## Marine Toilets & Accessories

### ADVISOR

In order to both prolong the life of your portable toilet and maintain its full function we recommend you the following:

- Avoid exposing the toilet to high temperatures (over 60°C)
- Make sure that there is always enough water in the fresh water holding tank before use
- Clean the waste holding tank regularly. Ideally, it should be cleaned every time the fresh water tank is empty.
- You can use any tank detergent, strictly according to its instructions

#### Maintenance

- Lubricate the slide valve periodically
- The slide valve may be removed for service or cleaning, by just unscrewing counter clockwise
- Clean the exterior parts of the toilet with a mild, non-abrasive cleaner

### Portable Toilet

This portable toilet is suitable for interior and exterior use. It is self-contained and it doesn't require any external water or power connections. It consists of two separate tanks; a fresh water holding tank of 12lt capacity and a waste holding tank of 10lt. However, you can change the waste tank's capacity to 20lt, by replacing the 10lt waste tank with the 20lt waste tank (11869). The toilet is made of high-density plastic with matt finish for greater resistance to scratches.

Code.... 11867



Code.....11873



**Spare slide valve for the spare tanks 11868 & 11869**

Code.....11872



**Spare cap for the waste holding tank of the portable toilet 11867**

Code.....11871



**Spare cap for the fresh water tank of the portable toilet 11867**



**Base for the portable toilet 11867, Height 125mm**

Code.....11870



**Spare waste holding tank, for the portable toilet 11867**

Code	11868	11869
Capacity (Lt)	10	20



The fresh water tank provides up to 50 flushes



Heavy duty, corrosion resistant side latches lock the tanks together



The double sealed drain valve protects against leakages and odours



Both waste and fresh water tanks feature one-piece construction; no seams involved.



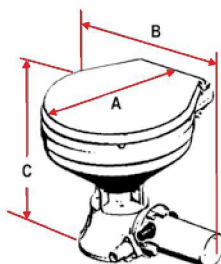
The detached waste holding tank (10lt or 20lt) can be easily emptied, without using any tools

### Electric Marine Toilet LT-0E & LT-1E

Electric toilets LT-1E and LT-0E, can be supplied as either 12V or 24V and have been designed to make your life on-board easier, because of their self-priming double action pumps. By just pushing the on/off switch, which can be installed anywhere in the toilet cabin, you activate the pump and while fresh water rinses in the bowl, the macerator grinds up and pumps out the waste.

The LT electric toilets can be easily installed, either above or below the waterline. Please note that when they are installed below the waterline, it is necessary to use an antisiphon loop for preventing water inflow into the interior. Furthermore, the toilets are supplied, either with a compact (LT-0E) or a regular bowl (LT-1E). Additionally, the LT toilets have been designed with a quick fit locking mechanism, which allows you to easily remove the pump's base, in order to clean the exposed waste surfaces. All parts are made of corrosion resistant materials.

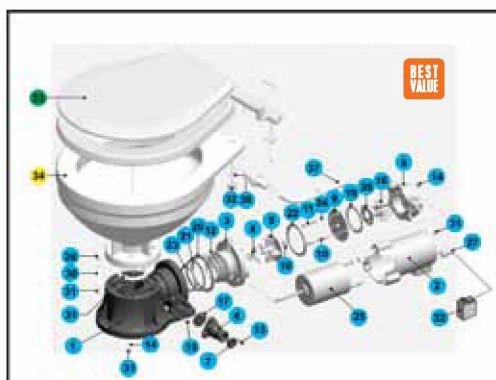
Code	Description	Voltage (V)	Dimensions (mm)		
			A	B	C
11874	LT - 0E	12	400	435	370
11875		24			
11876	LT - 1E	12	480	460	400
11877		24			



You can install the pump in four different positions.



BEST VALUE



BEST VALUE

### Kits Available for Electric Marine Toilets

Code	Description	Key
11452	Cover Set for manual toilet LT-1E	33
11519	Cover Set for manual toilet LT-0E	33
11896	Toilet bowl for the toilets LT-0E, ceramic, white	34
11897	Toilet bowl for the toilets LT-1E, ceramic, white	34
11879	Repair kit for the electric toilets 24V, LT-0E & LT-1E	1-32
11878	Repair kit for the electric toilets 12V, LT-0E & LT-1E	1-32

## Do it yourself

You can always assembly the Lalizas electric marine toilets, LT-0E & LT-1E, by using the relevant spare parts included in the following table. For instance, if you want to assembly the electric toilet LT-0E (11874), then you are going to need the 11896, 11519 & 11878 spare parts, which are also highlighted in the above picture.

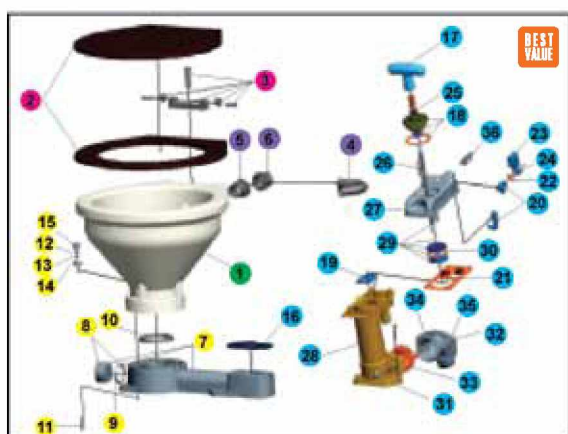
Code	Description	Voltage (V)	Dimensions (mm)			Key
			A	B	C	
11874	LT - 0E	12	400	435	370	11896 + 11519 + 11878
11875		24				11896 + 11519 + 11879
11876	LT - 1E	12	480	460	400	11897 + 11452 + 11878
11877		24				11897 + 11452 + 11879



**Marine Manual Toilets LT-0 & LT-1**

The LT-0 and LT-1 toilets are especially designed for long term use. They are available in two sizes compact (LT-0) and regular (LT-1). Both can easily be installed above or below the waterline. If they are installed below the waterline, it is necessary to use an anti-siphon loop to prevent water inflow into the interior. Furthermore, these toilets can be installed with the pump either at the right or the left side of the porcelain bowl. The valves have been designed for a longer and more reliable service life. The drain plug has been designed with a quick fit locking mechanism for easier and more effective drainage of the toilets. All the parts are made of corrosion resistant materials.

Code	Description	Dimensions (mm)		
		A	B	C
11510	LT-0	400	430	330
11412	LT-1	450	470	360

**Kits Available for Marine Manual Toilets**

Code	Description	Key
11451	Kit E, Base to Bowl Mounting Kit	7, 8, 9, 10, 11, 12, 13, 14, 15
11452	Cover Set for manual toilet LT-1	2, 3
11519	Cover Set for manual toilet LT-0	2, 3
11453	Kit G, Intake Seal for manual toilet LT-1	4, 5, 6
11447	Kit A, Major Service Kit for manual toilet LT-1	16, 18, 21, 22, 25, 30, 33
11535	Assembled Spare Pump for Manual Toilet LT-0 and LT-1	16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
11896	Toilet bowl for the toilets LT-0, ceramic, white	1
11897	Toilet bowl for the toilets LT-1, ceramic, white	1

**Do it yourself**

You can always assembly the Lalizas marine manual toilets, LT-0 & LT-1, by using the relevant spare parts included in the following table. For instance, if you want to assembly the manual toilet LT-0 (11510), then you are going to need the 11451, 11519, 11453, 11535 & 11897 spare parts, which are also highlighted in the above picture.

Code	Description	Dimensions (mm)			Key
		A	B	C	
11510	LT-0	400	430	330	11451 + 11519 + 11453 + 11535 + 11897
11412	LT-1	450	470	360	11451 + 11452 + 11453 + 11535 + 11896

**Covers set for LT Toilets**

Code	For Toilets		Material
11519	LT-0	LT-0E	MDF
11452	LT-1	LT-1E	PP

**Toilet bowl for LT toilets, ceramic, white**

Code	For Toilets		Weight (Kg)
11896	LT-0	LT-0E	6
11897	LT-1	LT-1E	7,75

**Repair kit for LT electric toilets**

Code	For Toilets		Voltage (V)
11879	11875	11877	24
11878	11874	11876	12



**Anti-vent loop connection, nylon**

An anti-vent loop connection is required when the toilet installation is below the waterline. This prevents water inflow into the interior. The Lalizas anti-vent loop connection is made of ABS and is available in two different sizes.



BEST VALUE

Code	Ext. Diameter (cm)
90184	1,9
90185	3,8

## Toilet Sanitizing &amp; Cleaning

**Disinfectant Sanitizing Release Unit DSRU**

The DSRU is a unit that keeps your toilet bowl clean and free from limescale. The unit should be attached to the pipe, where water flows from the flush pump to the toilet. As water is pumped towards the bowl it sucks a quantity of the disinfectant inhibiting limescale, it also colours the water (green or blue) and deodorizes. Each unit is supplied with two tablets, 'Marine' (blue) and 'Pine' (green) scent respectively. The tablets are also sold separately, but the DSRU is designed to fit any tablet in the market smaller than 30x30x40mm.

The DSRU is very easy to install, requires minimum maintenance and has a discreet and compact design.



Code... 11865

BEST VALUE



BEST VALUE

**Spare Disinfectant Tablets for 'DSRU' Marine, & Pine (2 Tablets)**

Code..... 11866

## Hose Clamps

**Heavy-duty Inox 316 hose clamps**

Lalizas hose clamps are designed for heavy-duty secure hose connections, such as exhaust hoses. They are made of Stainless Steel 316 for the ultimate resistance to corrosion. Each Hose features smooth imperforated band surface and rolled edges, so as to prevent hose damage. Sizes varying from 29mm up to 175mm with band spreads from 2mm to 12mm and width from 20mm up to 26mm depending on the model, will guarantee that you will find the ideal hose for your requirements.

	DIN	AISI/AS	BS	AFNOR NF	SUS
Hose clamps	1.4401	316	316S16	Z6CND17.12	316
Screw	1.4401	316	316S16	Z6CND17.12	316

INOX 316

spectrumlabs



MARE

INOX 316	Code	10280	10281	10282	10283	10284	10285	10286	10287	10288	10289	10290	10291	10292	10293	10294	
	Width(mm)	20					22					24					
	Diameter(mm)	29-31	31-34	36-39	40-43	44-47	47-50	52-55	56-59	60-63	64-67	68-73	74-79	80-85	86-91	92-97	
INOX 304	Code	10295	10296	10297	10298	10299	10300	10301	10302	10303							
	Width(mm)	24					26										
	Diameter(mm)	98-103	104-112	113-121	122-130	131-139	139-147	148-160	162-174	175-187							

**Hose clamps Inox 304 & 316**

Lalizas hose clamps are especially designed for marine use, with band, housing and screw all made of Stainless Steel for extra resistance to corrosion. They feature fixed housing and bevelled edges, - the complete smoothness of the internal surface will ensure protection from any kind of hose damage. Lalizas hose clamps are available in various sizes from 8mm to 140mm with band spreads from 8mm to 20mm and width of 9mm or 12mm depending on the model and in two types depending on their material, stainless steel 304 and 316.

	DIN	AISI/AS	BS	AFNOR NF	SUS
Hose clamps	1.4401	316	316S16	Z6CND17.12	316
Screw	1.4401	316	316S16	Z6CND17.12	316
Hose clamps	1.4301	304	304S15	Z6CN18.09	304
Screw	1.4301	304	304S15	Z6CN18.09	304

INOX 316

INOX 304

spectrumlabs



MARE

INOX 316	Code	11113	11114	11115	11116	11117	11118	11119	11120	11121	11122	11123	11124	11125	11126	11127	11128	11129	11130
	Width(mm)	9					12												
	Diameter(mm)	8-16	12-20	16-25	20-32	25-40	16-27	20-32	25-40	32-50	40-60	50-70	60-80	70-90	80-100	90-110	100-120	110-130	120-140

INOX 304	Code	11479	11480	11481	11482	11483	11484	11485	11486	11487	11488	11489	11490	11491	11492	11493	11494	11495	11496
	Width(mm)	9					12												
	Diameter(mm)	8-16	12-20	16-25	20-32	25-40	16-27	20-32	25-40	32-50	40-60	50-70	60-80	70-90	80-100	90-110	100-120	110-130	120-140

## Thru-Hull Plastic Fittings

### Expanding drain plugs

The Lalizas series of expanding drain plugs includes 4 drain plugs of different diameter for different drain sizes. They are made of Nylon, supplied in black and each of the drain plugs can be applied to specific drains in the Lalizas range.

Code	Diam. (mm)	Suitable for Drains
95790	22	95793
95786	25	10250, 10251, 10254 & 10255
95787	35	10259
95785	40	10252, 10253, 10256 & 10257



**Outlet Fitting**  
diam.: 48mm for  
5/8" hose, black  
Code..... 31352



**Inlet Fitting**  
diam.: 48mm for  
1 1/2" hose, black  
Code..... 31351



**Oval Drain Socket with  
O-ring Ø 26.3mm**  
Code..... 95781 95782  
Colour..... White Black



**Long drain**  
Diam. 22mm, L 125mm, white  
Code...95793



**Non return valve for drain,**  
Diam. 22mm  
Code...70209

### Through Hull Drain 90 degrees for 1" and 1 1/4" Hose



white



Code Description  
10254 With adjustable length  
10255 With stead face

### Adjustable drain 20-40mm, white



Code.....10258

### Adjustable drain 40-80mm, white



Code.....10259

### Through Hull Drain for 1 1/4" Hose, white



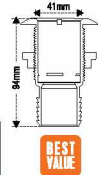
Code.....10252

### Through Hull Drain for 1 1/2" Hose

white



Code.....10253



chrome plated with  
plastic nut

Code.....70600

### Through hull drain for 3/4" hose

White



Code.....10250

chrome plated with  
plastic nut



Code.....70597

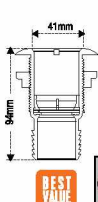
### Outlet with reverse flow protection valve for 1 1/4" hose, white



Code.....10256



Code.....10257



chrome plated with  
plastic nut

Code.....70603

### Through Hull Drain for 1" Hose

white



Code.....10251

chrome plated with  
plastic nut



Code.....70598

## Lever, Ball & Safety Valves

### Non-return Valves

Lalizas non-return valves are ideal for use with all the "Zero Aqua Plus" bilge pump series. They feature a quick release clip, allowing you to service them easily and quickly. They are available as in-line units or with a 90° curve. Finally, its outlet connection allows the use of either a 3/4 to 1" or a 1 1/4" to 1 1/2" hose.



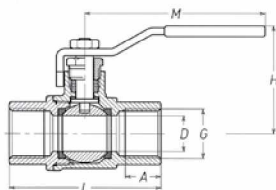
Code	31344	31345	31346	31347	31348
Hose Outlet	1"	3/4" - 1"	3/4"	1 1/2"	1 1/2" - 1 1/4"
Hose Inlet	3/4" - 1"	3/4" - 1"	3/4" - 1"	1 1/2" - 1 1/4"	1 1/2" - 1 1/4"
Angle	90°	Inline	90°	90°	Inline







Lever operated ball valve F-F,  
SeaWare, nickel plated  
brass, for gas



Lever operated ball valve F-F,  
SeaWare, nickel plated  
brass, for water

Code	Weight (gr)	M	H	L	D	A	G
96569	122	71	45	41	10	10,5	1/4"
96570	115	71	45	41	10	10,5	3/8"
96571	148	90	50	47,5	14	10,5	1/2"
96572	220	92	53	53,5	18	12	3/4"
96573	310	114	57	62	21	12,5	1"

Code	Weight (gr)	M	H	L	D	A	G
70150	122	71	45	41	10	10,5	1/4"
70151	115	71	45	41	10	10,5	3/8"
70152	148	90	50	47,5	14	10,5	1/2"
70153	220	92	53	53,5	18	12	3/4"
70154	310	114	57	62	21	12,5	1"
70155	520	136	70	72	29	13,5	1 1/4"
70156	750	150	76	78,5	32	16	1 1/2"



Non return valve for drain,  
Diam. 22mm

Code...70209



Ball valves, PVC

Code	Diameter
90373	1/2"
90374	3/4"
90375	1"
70979	1 1/4"
70980	1 1/2"

## Ventilators

### Ventilators

Made of strong ABS ensuring a long and durable life. There are two sizes available, 115mm x 127,5mm and 90mm x 255mm respectively. The integrated design produces easy screw mounting.



Code	01685	01686
Colour	White	
Dimensions (cm)	11,5X12,7	9X25,5

### Ventilators "EVO"

"EVO" ventilators achieve natural air circulation in the interior of your boat. They improve air quality, reduce humidity and eliminate carbon dioxide concentration indoors. A healthy atmosphere insures crew comfort and prolongs electrical device's life. "EVO" ventilators 70231-70233 and 70235-70237 are made of highly resistant plastic and 70234 and 70238 are made of ABS. They come in both rectangular and square shapes and they can be combined with connector 70239 for better performance. You will find "EVO" ventilators in white, black, grey and chrome colour.



Code	Dimensions (mm)	Material	Colour
70231	183x91,5x16,5	Highly Resistant Plastic	White
70232			Black
70233			Grey
70234		ABS	Chrome

Code	Dimensions (mm)	Material	Colour
70235	91.5x91.5x16.5	Highly Resistant Plastic	White
70236			Black
70237			Grey
70238		ABS	Chrome



Code.....70239

### Connector "EVO" 91.5x91.5x66mm, white

"EVO" connectors are attached to ventilators to support the bulkhead of your boat. The advantage of these connectors is their unique design, which prevents heavy water inflows in rough sailing. "EVO" connectors are made of white highly resistant plastic.



Ventilator, Inox 316

Code	Diameter (mm)	Thickness (mm)
99808	125	0,8



Louver Ventilator, Inox 316

Code	Diameter (mm)	Thickness (mm)
99810	102	0,8
99809	126	


**Louve Ventilator, Inox 316**

Code	Length (mm)	Width (mm)	Thickness (mm)
99063	127	115	0,8
99064	230		
99065	228		


**Vent, Inox 316**

Code	92790	92789
A(mm)	11	16
B(mm)	27	50
C(mm)	42,2	62,50

\*Surface E.P.= Electro polished

### Cabin Vents

Cabin vents offer natural ventilation indoors and prevent water leaks from waves and rain. They open and close manually. When open, air is circulated and water stays out of your boat. Cabin vents are made of plastic. The vent with code number 98621 is equipped with an inox cover.



BEST  
VALUE



#### Impermeability

Water pushes the special balls inside the vent to shut ventilation holes and ensure absolute impermeability

Code	Diameter (cm)	Cut area (cm)	Cover
70158	20	9,5	White
98621			Inox



BEST  
VALUE

### Solar Vents

Solar vents provide mechanical ventilation utilising solar energy. The solar panel activates the fan, which allows the air to flow in. These autonomous vents detect water flows from waves and rain, while refreshing the atmosphere even on those calm windless days. Special balls inside the vents are pushed by the water to shut ventilation holes and ensure impermeability. They have two functions; one function activates solar function and the other modifies the fan's function from clockwise to counter clockwise. Solar vents are made of white plastic, while the 98681 vent is equipped with an inox cover.

Code	Diameter	Cut area	Cover
98680	20cm	9,5cm	White
98681			Inox



#### Impermeability

Water pushes the special balls inside the vent to shut ventilation holes and ensure absolute impermeability



#### Solar panel

Operates with Solar Energy. Activation with on/off switches



BEST  
VALUE

### "24 hours" Vent

"24 hours" vent is completely automatic as it works with solar energy in sunny days and batteries, during the night. Forced ventilation is controlled through a dynamic impeller, which turns clockwise to inflow and counter clockwise to exhaust air. The user adjusts the vent on the corresponding function through on/off switches. Active air movement absorbs moisture and refreshes the interior of your boat completely. Simultaneously, when water enters the vent special balls inside block its entry to achieve absolute impermeability. "24 hour" vents are made of white plastic. The 99689 vent is equipped with inox cover.

Code	Diameter	Cut area	Cover
99688	20cm	9,5cm	White
99689			Inox



#### PCB

Three functions PCB to activate solar function, activate battery function and modify fan function from clockwise to counter clockwise turn.



#### Impermeability

Water pushes the special balls inside the vent to shut ventilation holes and ensure absolute impermeability



#### Solar panel

Operates with Solar Energy. Activation with on/off switches.

#### Battery

Rechargeable battery, charged automatically by the solar panel. Activation with on/off switches.



**ADVISOR****What is a dehumidifier**

A dehumidifier is a unit that circulates air turning excess humidity into water.

**Use**

1. Standard function: Plug in the dehumidifier. Turn the control to set the level of humidity. The extracted water will be collected into the 2.5lt tank. When the water tank is full, the "full-tank light indicator" will turn on and the unit will automatically stop operating. Empty the water from the tank and the dehumidifier will start working again.
  2. Continuous drainage function: Connect a hose to the drainage outlet at the backside of the dehumidifier, in order to override the tank. The hose will lead to the waste tank. Plug in the dehumidifier, set the level of humidity and the unit will start working.
- Once the humidity in the cabin reaches the pre-selected humidity level, the unit will switch off automatically, in order to avoid dryness. The dehumidifier will keep checking the humidity level and as soon as the pre-selected humidity level is exceeded, it will automatically start operating again.
- The dehumidifying capacity varies according to different temperatures and relative humidity levels. As the relative humidity or temperature increases, the dehumidifying capacity also increases. On the other hand, if the temperature and relative humidity decreases, the dehumidifying capacity will also decrease. It can extract up to 10lt per day.

**Maintenance**

The dehumidifier's performance may be reduced if the unit is not maintained properly. For this reason it is highly recommended to:

- Check the filter of the dehumidifier regularly and clean it every 2 weeks
- Avoid using strong detergents to clean the dehumidifier

**Always follow the manual's instructions for the use and maintenance of the dehumidifier.**

**Portable Sea Dehumidifier 10lt**

The Sea Dehumidifier is one of the most effective ways to control humidity. It is especially designed for marine use and will help you prevent moisture on the walls, as well as, the unpleasant odour, during the winter months, when the level of humidity is high.

The Sea Dehumidifier is efficient, with a durable compressor and features a handle that allows you to carry it easily. Moreover, it is silent and its low profile and compact design makes it ideal to fit into any space. The Sea Dehumidifier is available in white colour.

**Specifications**

Capacity: 10 lt/day  
 Working Space: 15-20m<sup>2</sup>  
 Voltage: 220-240V  
 Rated Power: 260W  
 Working Temperature: 5-35°C  
 Noise Level: <46dB(A)  
 Water tank capacity: 2.4Lt  
 Environment friendly refrigerant R134a  
 Water level detection and automatic shut off when tank is full  
 Full-tank indicator light  
 Washable dust filter  
 Automatic defrosting function  
 Net Weight: 13kg

