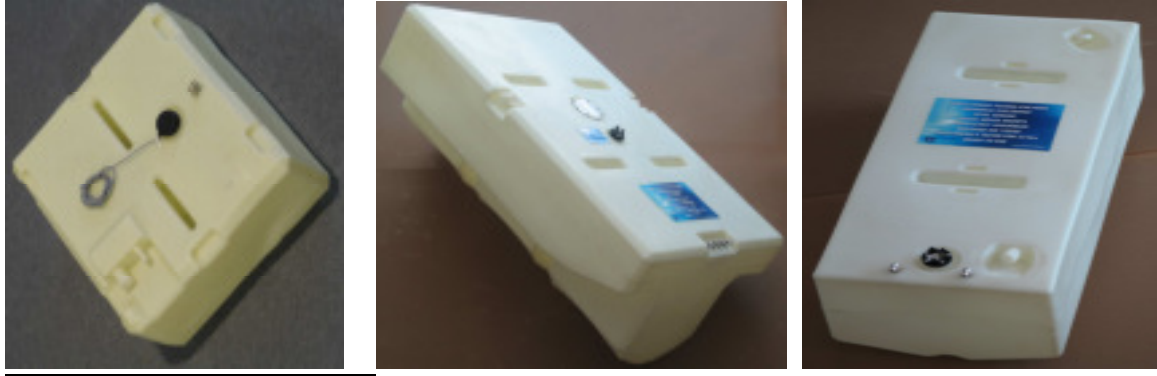




SIC DIVISIONE ELETTRONICA SRL User Manual

OPERATION AND MAINTENANCE OF TECHNOPOLYMER TANKS



REV 20130604

FUEL TANKS

The tanks of SIC Divisione Elettronica are made with the most advanced technopolymers and come equipped with pickups, inserts, Nickel plated brass fittings and with level indicator as well. They are CE certified by RINA according to ISO 21487:2012.

The available range is from 9 liters to 1000 liters, in the following formats: "P" parallelepiped, "T", "V" or "middle-V" to be adapted to the tanks of vessels.

Before being marketed, they are duly tested with pressure tests for 24 hours.

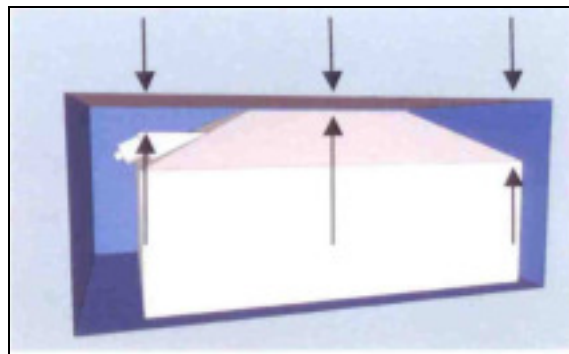
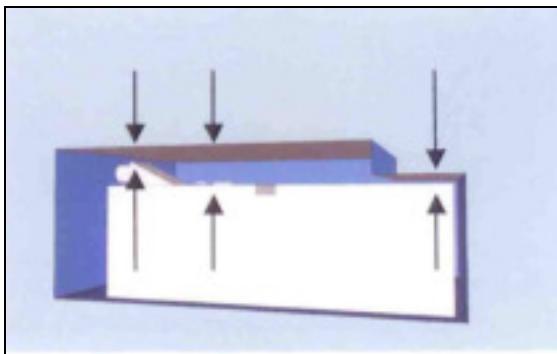
WARNINGS

All tanks designed to contain fuel shall be stored in a dry, ventilated place, away from the motor apparatus and other heat sources, possibly protected by fireproof insulating and non-absorbent screens. **They must absolutely not** be placed in cabins and exposed to sunlight or trampling.

The installation must be performed by qualified personnel or companies.

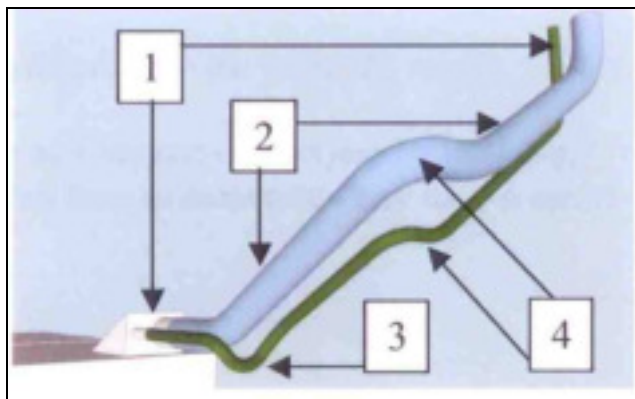
In any case, before the installation, the following must be verified:

- do not expose the tank to temperatures above 80° C
- fuel loading side
- The compartment housing the tank must include the presence of the hoses and the space required for maximum expansion of the tank (during a pressure test or during a refueling). For particular geometries with very large upper surfaces, expansion may be even of several centimeters.



BEFORE INSTALLATION, THE FOLLOWING SHOULD BE CHECKED

- The integrity of the tank
- the place of installation
- the spaces directly above the fuel tank
- the way to access the installed tanks
- the available space for additional components (such as filters, for example)
- the paths necessary to the fuel filler and vent pipes
- the installation of certified piping
- that the vent pipe has an exit to the outside
- that the seat of the housing compartment is equipped with a flat, even base and with supports to anchor the tank and/or bulkheads fit for its containment



The path of the vent and of the filling tube influence directly the quality of the fill.

USEFUL INFORMATION FOR INSTALLATION ON BOATS

In general, the boat while in the water is in a range of stabilized temperatures; the hull tends to take the temperature of the water that ranges from about 0° to max. 35°.

In some cases, for example when the tanks are allocated near the engines, the temperature may rise to +45-50° generating a volume increase in the fuel of about 1% every 9-10 °C.

There are two main cases where this can happen:

- 1) The first by difference of temperature during refueling, when petrol from underground storage tanks will be placed on those aboard the vessel, partially filled. In case of presence of continuous vent, immediately after refueling may also be generated a fuel spillage.
- 2) The second may occur daily with the change of day/night temperature.

The boat shed on the carts are generally more susceptible to temperature changes than the boat shed into the water which acts as a stabilizer of the temperature.

The factor that most influences the volume expansion may be the position of the tank during refueling, together with the length of the tank and to the fluctuations to which it is subjected.

For this reason it is advisable to never fill the tank to its maximum capacity.

INSTRUCTIONS FOR USE

Getting Started.

1. Inspect the inside of the tank to make sure it is dry and that there are no impurities. It is recommended to perform this inspection in any case, even if the tank is already installed, when it is empty, at least once a year
2. Verify the integrity of any protections and/or insulations
Verify that there is enough space to accommodate expansion and depression of the tank.
3. Make sure that the available measuring equipment is compatible with the level sensor.

Installation.

1. Connect the fuel filling pipe to the tank filler
2. Connect the engine fuel feeding pipe to the tank fuel pickup.
3. Connect the vent piping to the tank vent.
4. Tighten by means of an Allen key, all of the pipes connected to the tank by means of stainless steel tightening clamps.

The tank is already equipped with accessories and with a capacitive, bivalent level sensor, which can be connected to either American (240-33 Ohm) or European (3-180 or 10-180 Ohm) standard gauges. Dedicated level sensors (e.g. 0-10 volts, 4-20 mAmp in current, with moving float) are available on request.

DIRECTIONS FOR USE AND MAINTENANCE

Sic Divisione Elettronica's tanks are built with the utmost attention and care, and the company guarantees its operation. However, to preserve the original safety and efficiency the cooperation of the User is required. It is therefore recommended to carefully read these instructions, strictly following the indications and warnings therein contained.

The fuel tanks are made of cross-linked polymer with superior performance compared to other non-metallic tanks. However, due to the hazardous liquid that they are going to hold, it is necessary to strictly follow the rules below.

- 1) Proper installation. The installation of a tank is very important and should be carried out by specialized personnel. A bad installation can result in load or stress points which can cause breakage of the tank.
- 2) Proper method of fixation. Even the use of metal belts, which prevent the normal elasticity of the tank, may compromise the duration in time.
- 3) Routine annual inspections. The fuel in the tanks is a potential risk of fire and may cause damage to property and/or persons; It is therefore recommended to always inspect the tank before installation and before each season or after a period of not use of the boat. It is recommended to inspect the tank at least once a year.
- 4) Our cross-linked tanks have better performance than metal tanks, greater flexibility and less risk of breakage along the weld line, but to allow the characteristics of the tank remain unchanged over time it is recommended a proper installation and use, as prescribed in this User's Guide. Therefore, it is necessary to keep in mind that it is better to replace a tank after an inspection if it is very old or if it showed cracks during inspection rather than defer and risk the loss of fuel due to accidental breakage.

WARRANTY

Art. 1 - The product requires installation by qualified personnel who, in any case, will have to follow the instructions in this manual and in relation to those given in the manual of the boat. The warranty is valid for 2 years from date of manufacture stamped on the top side of the product together with other identification data of the tank and only covers original conformity defects, that is only those defects already existing on the date of delivery. The Product Warranty covers spare parts and labor required for the repair of the product or of the components recognized as being defective. In any case, before taking possession of the product, verify its compliance with your demands/expectations. Where the retailer is also installer, we recommend verifying the correct operation by performing a real use test on the tank.

Art. 2 - Defective product benefiting from the conditions of guarantee must be delivered to the dealer with a certain proof of purchase (receipt or invoice). They will send it at the headquarters of Sic Divisione Elettronica, carriage free after receiving appropriate RAN (Return Authorization Number). With the limitations specified below and subject to the conditions of warranty, the product will be serviced at no charge for the costs strictly necessary for the repair, or at the discretion of Sic Divisione Elettronica, replaced and then returned carriage paid to the dealer. For products under warranty the customer, therefore, owes nothing to the dealer as a contribution for transport or management expenses. Where the product is sent regardless of the expired warranty period, or it is clear that these are defects exceeding the limits of art. 3, or that the product is free of defects, Sic Divisione Elettronica will charge the dealer transportation, administrative and technical costs. The lack of proof of purchase of the product, will be the sole cause of the loss of the warranty.

Art. 3 - Sic Divisione Elettronica warranty does not cover: defects which occurred over the original term of the guarantee; defects that did not exist prior to the delivery of the product; failures caused by negligence or careless use; by incorrect installation, maintenance; from erroneous storage and/or conservation (such as, for example, from dirt, bad fixing, sun exposure, exposure to overpressure, etc.); maintenance performed by unauthorized personnel; shipping; corrosion. Sic Divisione Elettronica can not be held responsible for damage caused during installation or as a result of improper installation. The guarantee does not cover the periodic inspections, tests at sea or on land, practical explanations on the use of the product other than those specifically required for the functional recovery of the replaced part covered by the warranty.

Art. 4 - The warranty does not cover any damages caused by/to devices, systems and/or components and resulting from unauthorized use of the product or in contrast with the existing legislation. The materials subject to wear and tear are specifically excluded from the warranty. The guarantee does not cover any differences in color, material or appearance, found between the product and other similar or the same type and between the product and illustrative material, advertising, catalogs, the Internet, unless such characteristics have been specifically requested at the time of the purchase order and accepted by Sic Divisione Elettronica.

Art. 5 - Sic Divisione Elettronica can not be held liable for any damages, whether direct or indirect, incidental to the user or to third persons or things of the user and/or the dealer due to the installation or storage of the product in a manner inconsistent with the provisions of the law or regulations in terms of safety. Sic Divisione Elettronica can not be held liable for any damages, whether direct or indirect, incidental to the user by way of loss of profit, business, contracts, opportunity and/or other losses for any reason or cause. All Products made by SIC Divisione Elettronica are to be considered ancillary to the performance for which they are intended and is therefore exclusively the user's responsibility to use the necessary caution and judgment during their use.

See all available tanks with dimensions and technical drawings on our constantly updated website
www.sic-divisione-elettronica.it