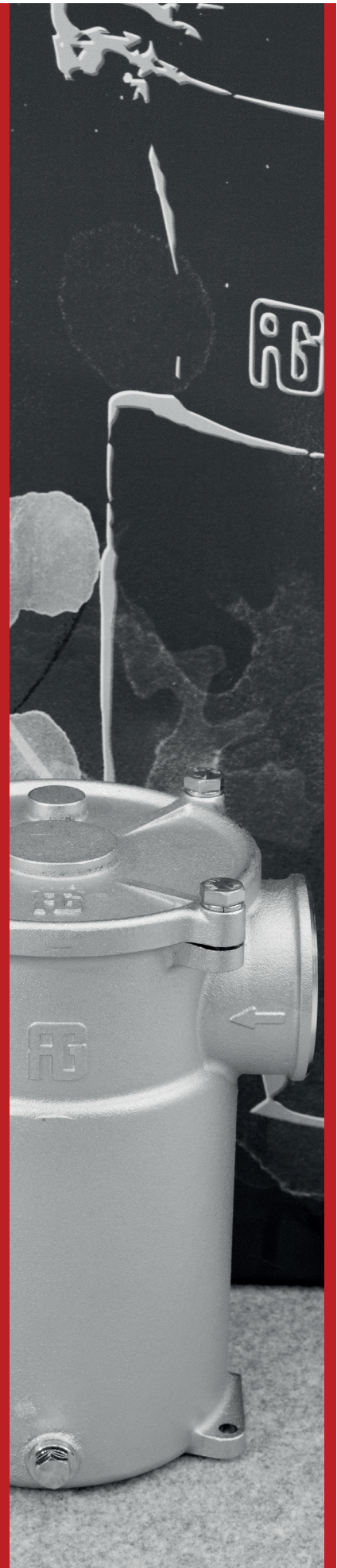


**GUIDI**  
since 1968  
**AG**<sup>®</sup>  
**MARINE**  
ACCESSORIES

# WATER STRAINER “MEDITERRANEO” SERIES

Guidi srl - Via delle Acacie, 2 - 28075 Grignasco (NO) - Italia



# WATER STRAINER “MEDITERRANEO” SERIES



## Items

- **With polycarbonate cover**
  - 1162 Nickel plated bronze
  - 3162 Black anodized aluminum
- **With metal cover**
  - 1163 Nickel plated bronze
  - 3163 Black anodized aluminum

## Uses

Mediterraneo strainer is **used** in case of “straight side-to-side” water flow. It is installed **to filter inlet water** from impurities and bring clean water to heat exchangers, generators, air conditioning systems.

For nautical uses it is generally installed in the engine room of yachts or work units, but it can be used as well for swimming pools, quarries and drinking water supply systems.

Mediterraneo strainer is not suitable to be used as diesel or gasoline pre-filter.

**Norms limitations:** cover choice should follow approval indications regarding boats classes.

Different plastic or metal models are present on the Market without the performance characteristics of genuine Guidi models.

## Material

### • Bronze

Bronze is the best choice material to avoid corrosion issues.

To reduce corrosion problems the whole installation should be entirely made with bronze components (water intake, valve, fittings, thru-hull), avoiding mix of different materials.

### • Aluminum

Aluminum is a material used for those installation where “lightness” is required. In this case it is mandatory not mixing materials to avoid corrosion.

## Shape

Mediterraneo strainer is a Guidi **patented design** from 1982, upgraded through years.

The typical “lower rounding” is designed to avoid pressure drop on the outlet, maximize water flow and avoid bubbles.

To have the best performance we suggest installing Guidi water intakes with these strainers: items 1112-1113-1114-1261, also patented.

The whole installation is studied **to reduce pressure drop, avoid bubbles and cavitation.**

Cavitation is the formation of “vacuum/water vapor” due to pressure peaks. Small bubbles imploding will create high pressure micro-jets. These implosions will generate noise, mechanical damages, loss of performance.

Cavitation, with its micro-jets, can cause pinholes in any material, with pitting on metal surfaces.



## Covers

- **Polycarbonate**

Polycarbonate cover is suitable for **yachts** and **civil installation** when visual check is required (**STATEMENT 201700782**).

Lexan is the resin we use, included in the polycarbonates group: shock and temperature resistant, it is more elastic and cut or penetration proof. In case of extreme conditions, i.e. Polar Circle, we suggest metal cover.

### *Certified strainer RINA DIP - STATEMENT 201700782*

*On the samples of filters for engine water cooling pipes named 1160-1162-1164-3162-3164 the following tests have been performed: ascertainments of the compliance of the components to the constructive drawings, check of the documentation relevant to experimental tests, burst tests. Considering the result of the ascertainments and tests carried out it is stated that the above mentioned filters, having the properties described below, are recognized as suitable for exclusive use on board pleasure units subject to EC certification and pleasure units classified by Rina for private use service, having a gross tonnage < 300 GT.*

- **Bronze**

Bronze cover is installed on **professional or work boats** (**MAC261718CS**)

### *Certified strainer RINA MAC - MAC261718CS*

*Type approval certificate No. MAC261718CS. This is to certify that the products: 1158-1163-1166 are in compliance with the Rina regulations and reference standards.*

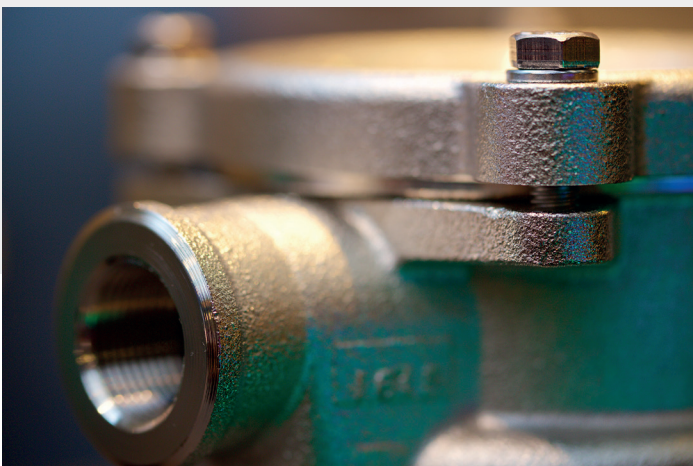
Covers are tightened with a hex screw and can be opened/closed just with standard tooling. Screws and grower must be properly tightened with metal ring and disc (polycarbonate cover) or cover (metal cover) on the body of the strainer.

### **Indicative screws tightening torque:**

Size 3/8" ÷ 1/2" ~ 4 Nm

Size 3/4" ÷ 1"1/2 ~ 6 Nm

Size 2" ÷ 4" ~ 9 Nm



## Baskets (gatherers)

Our baskets are **316L steel made**, suitable for salty water and some marine uses. It is a standard steel with a stainlessness level (PREN index) between 25 and 28. 316L has got a high electrolytic resistance compared to other versions, i.e. 304. 316L has a carbon ratio lower than 0,035% (standard 316 gets up to 0,080%), making it corrosion resistant.

**Corrosion of steel baskets** happens when the basket itself becomes the sacrificial anode, meaning there is some issue on the installation. In case of visible corrosion, it will be necessary to check the cathodic protection and grounding.

## Gaskets

Mediterraneo strainer has got one O-ring under the cover and one O-ring on the drain plug. O-rings are neoprene made; a synthetic rubber salty water resistant.

## Drain hole

Drain hole can be used to simply drain the strainer with shut valves and boat on shore. Drain can be opened/closed with standard tooling (hex key or wrench).

## Sizing

Size of the strainer should follow the hydraulic and engine requirements, depending also on how many lines it will serve.

It is required also to consider and respect loss of pressure.

Strainers are not supposed to be oversized.



## Checks/Testing

Check on materials is done **before** tooling.

**During** working process strainers are severely checked for dimensions, assembling, packaging. **At the end** manufacturing process, a meticulous water and air pressure test is done.

**Hydrostatic test** is done with a pressurized water-oil mix, for a certain time following internal quality procedures. Then eventual leaking is searched. These are tests done under external labs supervision.

Water-oil mix is chosen because we use recycled machines cooling water before disposing it; its typical white color allows to identify leaking.

**Air testing** is done by pressurizing air at a certain pressure, following our internal procedures, inside the strainer body checking eventual drops of pressure level.

This is a very quick and clean procedure.

We issue an internal quality certificate because there is no external labs supervision, but we still strictly follow certified quality procedures.

## RINA certification

This document states Guidi products are designed, manufactured and tested **following rules and procedures** established by the Italian Naval Register (rules and procedures in compliance with the international naval organization). Approvals are maintained by periodical checks.

- **Mediterraneo strainer model 1162 - approval RINA DIP (see Covers section)**
- **Mediterraneo strainer model 1163 - approval RINA MAC (see Covers section)**



## The longer life option - Durability & Recycling

New products development must consider a more accurate and sustainable analysis of their lifespan. Each product has got a very high durability with a quality and functioning warranty, by keeping its physical and mechanical material characteristics.

Ordinary maintenance while using these products is very low. Thanks to the easy way of taking components apart it will be possible to extend life of material beyond components working period. When product life gets to the end, through processes allowing to re-use of raw materials, each product is almost entirely recyclable.

## Differences from other Guidi strainers

- **“Ionio” water strainer:**

it is different by shape and water flow path. Mediterraneo strainer water flow is “straight side-to-side”, while in Ionio strainer it makes a “90° turn bottom-side”.

- **“Tirreno” water strainer:**

it is different by shape and water flow path. It is available in both brass nickel-plated and bronze nickel-plated. Mediterraneo and Ionio are made in bronze and aluminum.

Tirreno is smaller in size, it is the smaller version of Ionio. Its compact size makes it suitable for smaller engines and generators, solving space issues on board. Cover closure is different as well.

## Pressure drops

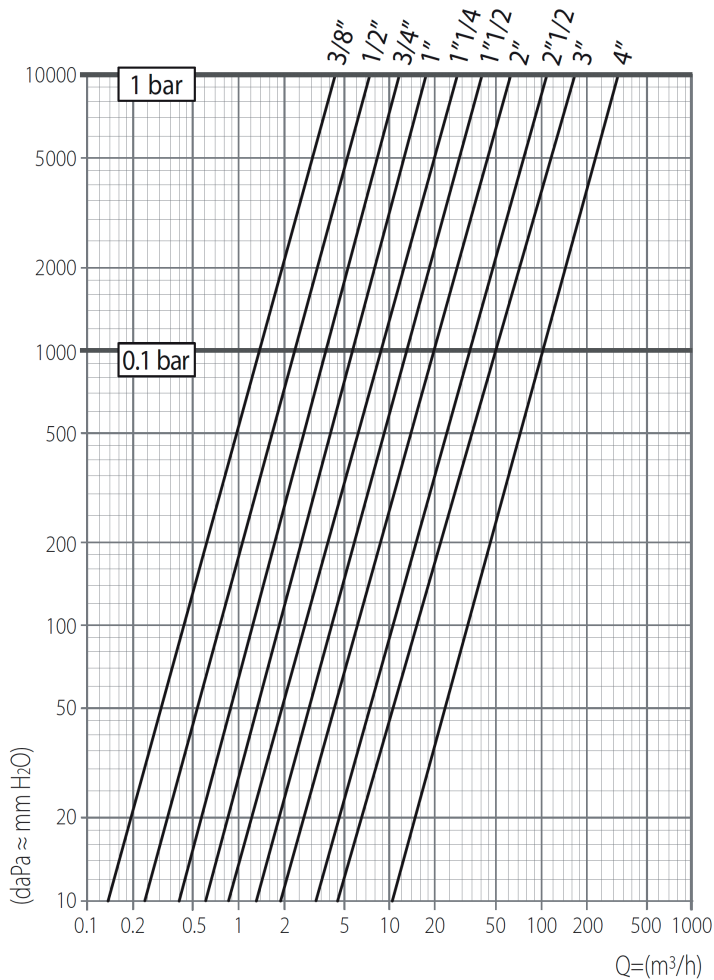
Pressure drop is a decrease in pressure due to resistance/friction reducing the water flow through the system.

Knowing the exact value of pressure drop is important for:

- Pipe sizing
- Deciding the characteristics of water circling systems

Water pressure drop can be “continuous” if happening on a linear section, or “located” in case of specific elements presence to change direction or section (reductions, bent, valves, filters...).

## Flow rate - Loss of pressure diagram



## Flow-rate capacity through the clean strainer - lt/h

G	0.1 bar	1 bar
3/8"	1400	4300
1/2"	2400	7500
3/4"	3800	12000
1"	5700	17900
1 1/4"	8800	27700
1 1/2"	12800	40600
2"	19900	63000
2 1/2"	33900	107300
3"	50000	166730
4"	103000	326000



## Installation

Water flow is always set and must follow the indicated direction.

Installing points should be blocked down (always horizontal, like filter stands), do not change position.

Be sure installation of the strainer will allow servicing of the basket in the future. When installation is done, strainer must be grounded to avoid galvanic corrosion. If the installation is not properly designed basket inside the strainer could become the sacrificial anode.

Installation should always be above water level. This is suggested for a security reason, for example if cover was not properly tightened after servicing.

In case of brand-new installation, after few hours running filter should be checked for eventual installing or packaging material in the basket from the piping: visual check and parts removal.



## Maintenance and spare parts

We suggest using **genuine parts** ONLY.

Parts are available on our website or by getting in touch with us (filter cover ring, strainer cover, 316L steel basket, polycarbonate disc for cover, bronze nickel-plated plug with neoprene O-ring for drain hole).

Screws can be after-market but should always be made in austenitic A4 low carbon stainless steel.

**Covers** are also available as spare parts. These should be replaced in case of leaking, aging or loss of transparency due to chemicals. New O-ring is highly recommended when cover is replaced. Cover replacement changes approval as well.

When servicing **always remember** to properly lock the cover before opening the valves. Strong risk of sinking the boat especially if installation is under the water line.

**Basket** replacement will be possible with “minimal” knowledge.

This procedure is supposed to be done always in security with shut water intake valves.

Basket should be **regularly checked** for impurities. Dirty or encrusted basket will reduce filter performances.

It is not only marine fouling causing problems to the strainer, but also dirt or plastics in the sea water will close the basket holes.

Basket can be cleaned just with water and compressed air.

With not running engine, valves should be shut. Basket can be removed and duly washed; in case it is encrusted a removing tool can be used on its surface. Clean basket can be placed back in its original position. **Gaskets and O-rings** must be checked for their integrity and in doubt replaced with genuine parts **ONLY**.

Before starting the system, screws and grower must be properly tightened with metal ring and disc (1162-3162) or cover (1163-3163) on the body of the strainer.

*(Check indicative screws tightening torque in the section dedicated to covers).*

Open valves of water intakes.





## The antifouling kit

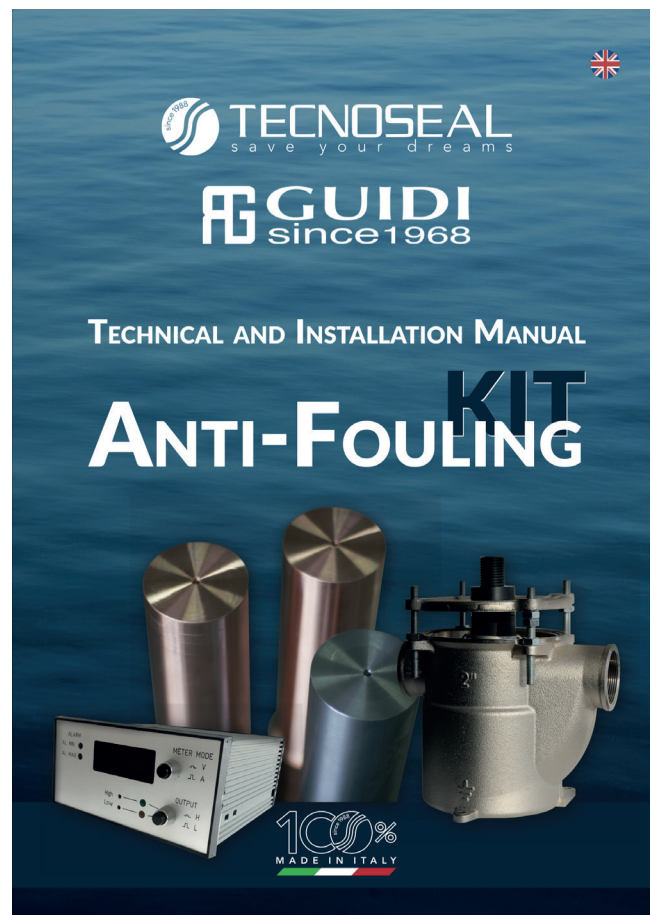
A product born from the collaboration with Tecnoseal in response to the problem of encrustation.

The anti-fouling kit, like other *ad hoc* products, comes from a market request. In some specific geographical areas, particularly subject to biofouling, there is a strong demand for this kind of product.

It has been developed to:

- eliminate the proliferation of marine fouling within the boat sea water circuit
- reduce maintenance and make it easier

Operation and characteristics of this system are available in a dedicated brochure.



Don't forget to share your ideas with us!

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