



WATER INTAKES AND SCOOPS



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Items

- **Bronze made**
 - code 1112B grated water intake “2000” series
 - code 1113B grated water intake “2000 export”
 - code 1210 round water intake
 - code 1261 water inlet “manta” series
- **Yellow Brass**
 - code 1112 grated water intake “2000” series
 - code 1113 grated water intake “2000 export”
 - code 1114 grated water intake “speedy” series
 - code 1115 drilled water intake “speedy” series
 - code 1116 slotted round scoop
 - code 1117 drilled round scoop
 - code 1118 slotted scoop
 - code 1119 drilled scoop
 - code 1120 grated water intake
 - code 1120F full grated water intake
- **Anodized aluminium**
 - code 3261 water inlet “manta” series

Uses

Water intake is installed in a hole through the hull with the purpose to let water in. This water will feed various systems: engine, generator, watermaker, toilets... This is just the first filtering step of the water entering the hydraulic system through the boat hull, but also works as a protection.



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.

- **Brass**

Brass is used for those installations with little galvanic corrosion issues or very well bonded.

- **Aluminum**

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



Design

Design is a Guidi patented development from 1982, upgraded through years. The internal hydrodynamic is designed to avoid pressure drop on the outlet, maximize water flow and avoid bubbles.

To have the best performance we suggest installing Guidi strainers and non-stick valves, patented as well.

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. This type of issues involves plastic water inlets as well.

We have two types of “grating”, the standard one and the grater version of item 1113B. Both were studied and developed to satisfy different customers’ needs.

Size

Size is to be chosen depending on the system’s and engine’s characteristics, and also on number of systems on board.

Considering every installation has got pressure drops, it is mandatory to reduce them as much as we can.

Water inlets do not need oversizing as it is a full flow system. The only case is when system has a different inlet water distribution.



Items and their characteristics

Water inlets can be used for nautical uses only.

Items **1112**, **1112B**, **1113**, **1113B** and split model **1260** + **1261**, developed to give best water inlet performances, were all patented by Guidi.

Patented items **1113** and **1113B**, both in brass and bronze, were studied to avoid “custom grates reducing” by clients in Northern seas where water is much cleaner or in case engine just needs higher flow.

Items **1112**, **1114**, **1120** are suitable for all standard boats or those boats with no specific needs.

Patented item **1261**, “**manta**” **series scoop**, unlike all other models is to be applied on the outside of the hull and can be removed for cleaning. From the matching **through hull patented item 1260** it is possible to easily access the inside of the system for cleaning and maintenance. Same concept for **item 1260A**, from the “**L**” series, suitable for boats with thicker hull like in case of wood boats or if a longer inboard thread is needed.



1120F full grated water intake is normally installed for toilets systems, as it lets water in with lower pressure. This is common also for round scoop 1210 and all the full grated scoops.

Drilled water inlet (**items 1115**, **1117**, **1119**) are suitable for “muddy water”, just like in the Italian Po river ending part.

Items 1116 - 1117 - 1118 - 1119 still in our catalogue, are the “old fashioned” version of our water inlet, also studied for working properly but with lower performance than the newer ones. 1116 and 1117 are generally preferred for fishing boats. Scoops can be installed also for different uses on vintage boats.

Patented item 3261, aluminium “**manta**” series water inlet, is studied for those cases where low weight components are required.

In years uses and installations were constantly checked in order to improve performances by upgrading all our components.

Pressure drops

Pressure drops are falls in pressure level caused by frictions and resistances reducing the regular flow of fluids in the system.

Knowing their exact entity will be good for:

- correct sizing of pipes carrying the fluids
- deciding the characteristics of devices moving fluids around

Pressure drops can be “continuous” in case they happen on linear installations or “focused” when happening in specific locations where components are installed, used to divert or reduce the flow (such as reductions, fittings, filters, valves...)

Guidi water intakes are studied to reduce such pressure drops.

Water “flowing-through” area in the scoop is definitely higher than the area of the inboard threaded connection to the system.



RINA approval

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.

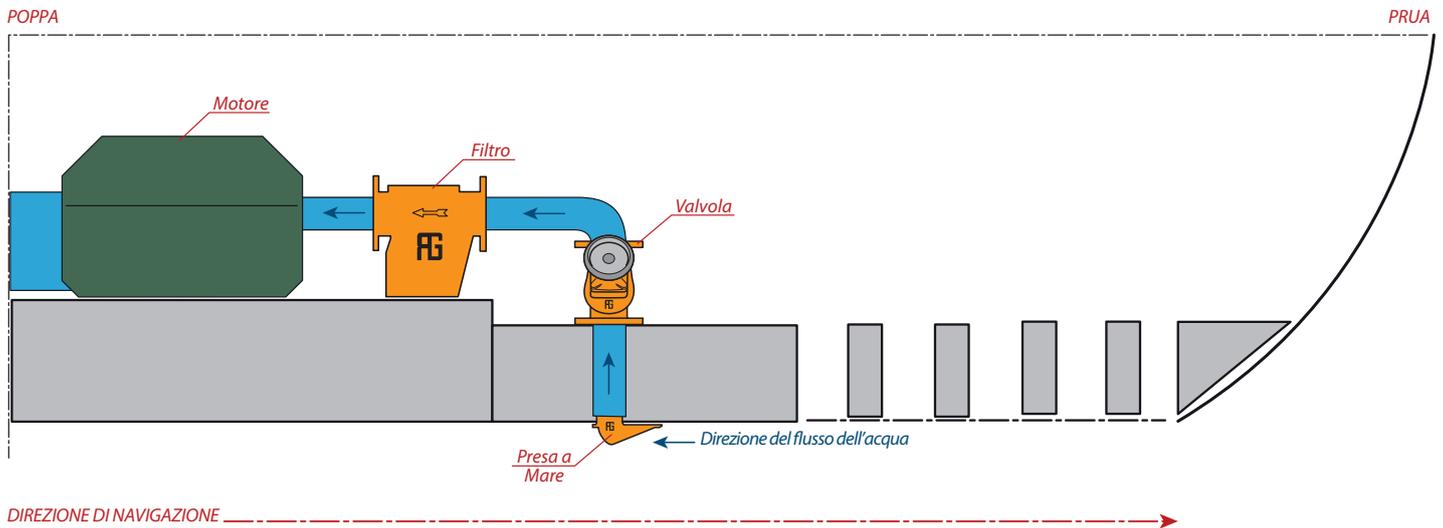
- **Thru-hull connection cod. 1260 and cod. 1260A RINA validated**
- **Compliant with UNI EN ISO 9093-1**

STATEMENT 201800693

The products **1260** - 1121 - 1147 - 1125 - 1270 - 1270A - 1255 - 1123 - 1122 - 1265 - 1266 - 1004 - 1004B - 1005 - 0110 - 1020 - 1025 - 1022 - 0900 - 0910 - 2210 - 2230 - 2200 - 2220 - 2240 - 2250 - 2260 - 2270 intended for the use on pleasure vessels having hull length less than 24 meters, having the constructive characteristics as per technical documentation filed at Rina Head Office, have been submitted to the ascertainments foreseen by the Standard ISO 9093-1.

Installation

As previously anticipated water intake is installed in a hole through the hull, using screws and bolts to fix it to the hull, with the purpose to let water in.



Guidi System installation drawing (water inlet, non-stick valve, filter)

Threading

Threading is BSP cylindrical

BSP, British Standard Piping, is a technical international standard to join and seal pipes and fitting using an external thread (male) with an internal thread (female).



Maintenance, spare parts and accessories

Periodical cleaning and maintenance are strongly recommended. We suggest checking the water intake to be always clear from dirt. Not only marine fouling generates dirt, but also other materials entering the systems with water such plastics or wastes; all these can block the inlet grates. Encrusted water intake can be cleaned using specific tools such as hard brushes or high-pressure water jets.

An antifouling system duly installed inside the filter will help to keep water intakes clear and clean because, while boat is docked, it does not allow formation of fouling also through the installation downstream (valve and water intake direction). In case system allows it (depending on builder or installation), it is always important to protect by bonding every water intake from galvanic corrosion.

Guidi water intakes have an option available, washer with lug (item code 1145), to allow the connection of protection bonding system through a simple bolt.



Washer with connection for cable
Yellow brass
COD. 1145

Spares such as washers or bolts can be sourced separately (please see our dedicated fittings section on website).

In case Guidi water intakes are dirty, they still grant enough water flow for the systems. However, it is always wise to keep water intakes well clean and clear.

The longer life option - Durabilità & Riciclabilità

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.

For our water intakes range all items are entirely recyclable.





Don't forget to share your ideas with us!

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