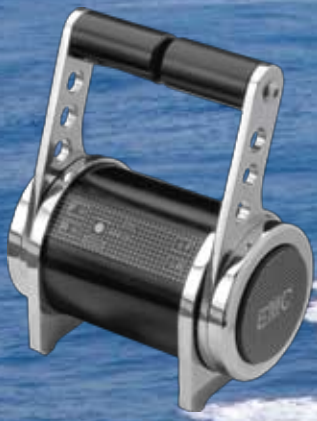




HYDRONAUTICA

Marine Innovations







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Hydronautica

Origins

Hydronautica was established as a subsidiary of Hydrosplex Cylap BV, the designer and manufacturer of a wide range of products used in the heavy transport industry. In 2004, a decision was made to incorporate all the products for the nautical market into a separate company, namely Hydronautica BV.

As in the past, however, all Hydronautica products are still being designed and manufactured in Hengelo. This enables Hydronautica to make optimal use of the multifaceted expertise available in Hydrosplex. Both Hydronautica and Hydrosplex operate under the auspices of holding company Shining Star Group BV. All the subsidiaries of the group distinguish themselves in their markets through innovation in the fields of mechanical, electronic and hydraulic engineering and always embrace the challenge of innovative change. For example, Hydrosplex received worldwide recognition for its indispensable contribution to projects such as the lifting of the Millennium Wheel in London and the salvaging of the Russian nuclear submarine, Kursk.

Products

Hydronautica's operational focus is on the development and production of electronic control and operating devices for the propulsion systems of professional and recreational maritime products.

"The knowledge and experience available in Hydrosplex and our passion for shipping forms the basis of our inspiration to develop a number of highly advanced maritime control systems that enable electronic operation and wireless positioning and mooring.

Because of the big conceptual step between manual operation and entrusting the operation of your ship to a wireless box, the company's competitors in the market initially regarded its products with a certain degree of suspicion."

We started our innovation process with past products such as EMC and RMC, which stand for Electronic Motor Control and Remote Motor Control respectively; however, we also developed the following new products in 2008.

The 'EZY' products, which, as the name suggests, stand for 'convenience' on board.

EZY-Dock is a system that consolidates your motor control, bow and stern thrusters into a simple joystick. EZY-Pilot is an automatic pilot that can be operated with a handheld wireless remote control unit; in other words, it is possible to steer the vessel remotely by wireless control from anywhere on deck. The biggest innovation is however EZY-Positioning, a system that enables the operator to keep the vessel on course with GPS and Compass with a single press of a button. This system is particularly useful when preparing fenders and mooring lines when approaching port.

All our products are designed to further increase your sailing comfort!

Electronic Motor Control

Electronic motor control

EMC is an advanced motor control system that stands out in terms of quality, image and ease of use. EMC literally puts the motorization of your vessel at your fingertips. Noise transfer and, worse still, breakage of traditional 'pull-push cables' are finally things of the past.

Ease of use

EMC is a do-it-yourself installation system with the distinguishing feature being the fact that the basic configuration can be used on almost any type of ship's engine. This makes the EMC a unique and universally applicable system that offers you nothing but ease of use.

Reliability

One of the unique features of this concept is the fact that the control handle does not use potentiometers for the forward, reverse and RPM commands. This is different from every other system currently in use in the market.

Potentiometers are nothing other than electro-mechanical resistances that are extremely sensitive to moisture and wear.

Hydronautica has developed its own blank contact sextant, which is a unique instrument in the market. 'Blank contact' means that 'wear and tear' is effectively eliminated from the equation! The concept is unique and there is no other system currently available in the market with this technology.

Our casings are designed to comply with the IP65 insulation class, which, in short, means that they are completely waterproof!

The EMC, like all the other electronic systems on board your vessel, is dependent upon your power supply system. However, to increase the system's reliability, we have incorporated a standard feature that makes it possible to power the system from two different sources, for example, your ignition batteries and your network batteries, whereby the system switches over automatically in the case of failure of either of the power sources. This 'extra' is another standard feature of this innovative system.

Image

Under no circumstances can you allow your system to be inferior in any way to the rest of your vessel. For that reason, we have opted to use only the highest quality materials available in the market to ensure a rich image and negligible impact from weather conditions.

We are certain that the design will meet your high standards.

The system is designed in accordance with CE directives.



Remote Motor Control

The ease of wireless mooring

Would you like to be able to maintain full control of your vessel while not actually positioned at the wheel? Although this may seem impossible, it actually is not. The RMC system, which stands for Remote Motor Control enables you to manoeuvre your vessel safely and accurately from anywhere on board. Not only does the wireless remote control system control the bow and stern thrusters, but also the main engines (1 or 2) for forward and backward propulsion. RMC makes this possible. The technology underlying this product is a failure-proof wireless communication system that was developed by Hydrosplex and is now incorporated in the Hydronautica's RMC system. The innovation is in the bi-directional communication, which effectively translates into two-way transmission. The remote control and the vessel both serve as transmitters and receivers, as a result of which they are 'introduced' to one another and communicate via a code that only they 'know' and can 'hear' and which is therefore insulated from all other (interference) sources.

The handheld unit runs on rechargeable Li-Ion battery technology and can operate for more than two weeks without a recharge. Obviously the system issues a 'Low Battery' signal before it reaches the point where the signal begins to fail.

RMC, a new style of navigation

Bigger and bigger vessels operated by smaller and smaller crews:

The more complete a maritime vessel today, the more engines and bow and stern thrusters it will have. The RMC system puts all of those systems at your disposal in one hand and in any desired location on board. You could even serve as the absent crew member on the aft deck when mooring in a sluice.

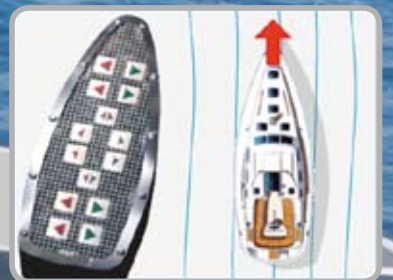
Shape and Design

The unit is shaped in the form of a ship and the design incorporates only the highest quality materials available in the market today. In other words, no cheap plastic box, but a robust, yet elegant design that will enrich the image of your boat. The handheld unit is also splash proof!

Ease of use

The RMC is easy to install and can be used with all current electronic motor control systems. Ask Hydronautica whether your system is compatible for use with RMC.





EZY-Dock

Manoeuvre your ship in any desired direction with the 'smart little joy stick'

EZY-Dock opens up a whole new dimension in 'new navigation'. All you need to be able to manoeuvre your ship in any direction is a Joystick: simply flip the Joystick in the direction you wish to sail. You can even use the Joystick to turn your vessel around its own axis.

The system is an extension of the RMC system and consists of the Joystick and an interface developed by Hydrosplex. Where desired, you can also connect two Joysticks to the system.

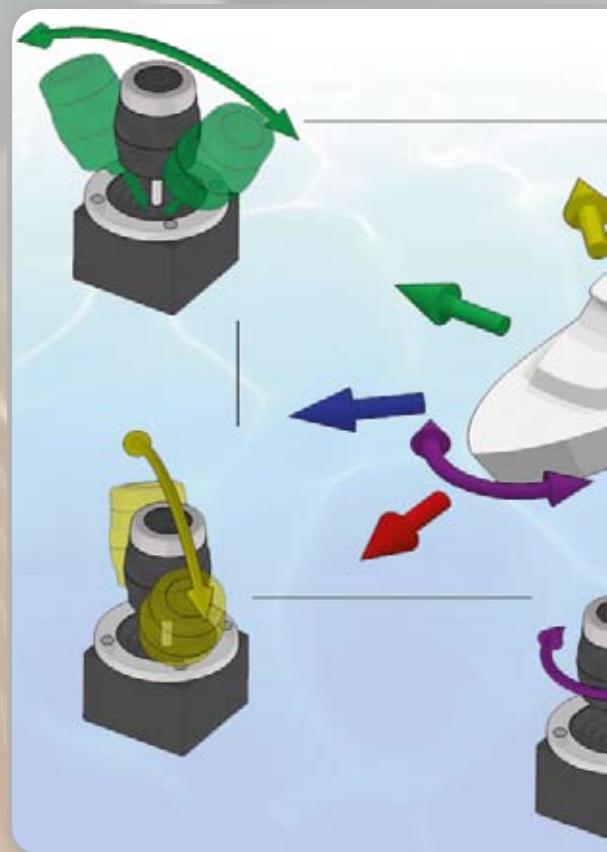
EZY-Dock is the ideal tool for mooring and manoeuvring, as well as for navigating in the harbour. The programmed electronics decide independently whether to engage the engines, or the bow or stern thrusters. If, for example, you wish to turn your boat around its own axis, all you need to do is to flip the Joystick lever in the direction you wish to turn, and the electronics will execute the action by engaging the bow and stern thrusters or the forward or aft engines as necessary.

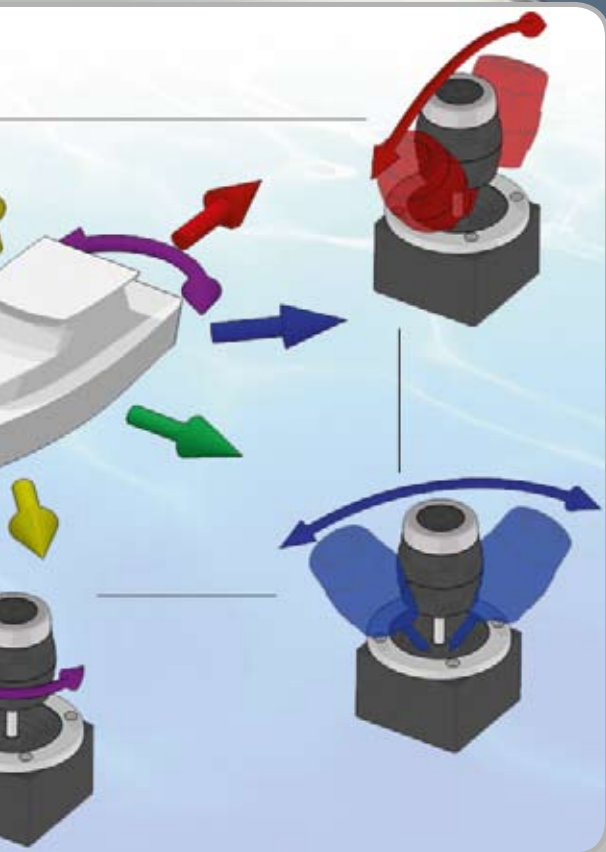
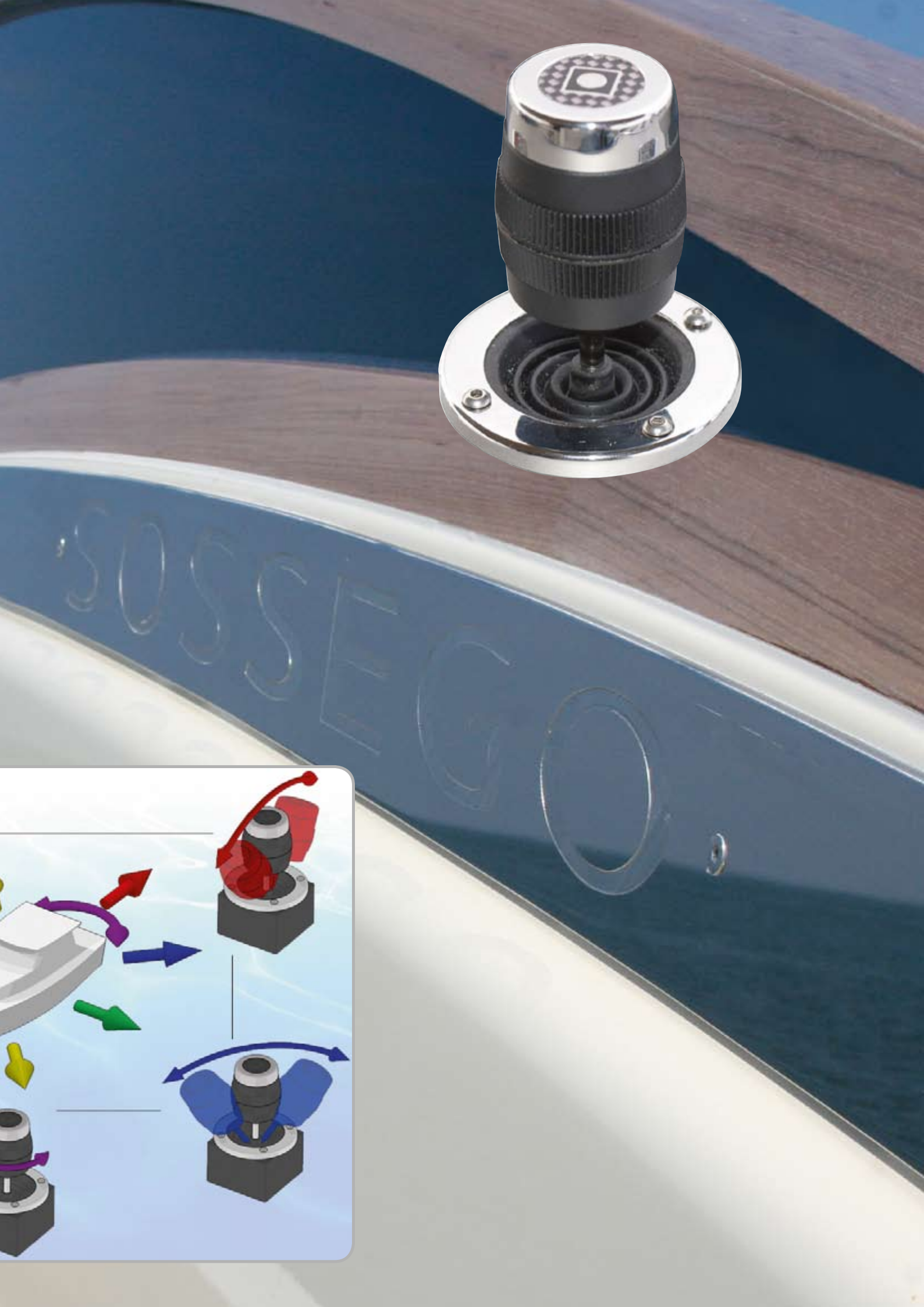
Shape and Design

Obviously technology and quality come first, but we also find outward appearance important. EZY-Dock was designed to enrich the appearance of your cockpit. It is fully waterproof and incorporates only the most advanced technologies available in the market today to ensure absolute reliability.

Ease of use

EZY-Dock used in combination with the RMC is currently the most comprehensive and advanced manoeuvring system available in the market. With EZY-Dock you are always ensured of getting your boat where you want it and RMC ensures that you remain in complete control even after leaving your cockpit to do something elsewhere on board.





EZY-Pilot

The simplest and smartest Autopilot you can own

Automatic pilots are not unique, but they can be very expensive. In addition, buying an autopilot is not always limited to the purchase of the system: you also need to buy and install the related electrical / hydraulic mechanisms that control the vessel's steering system. As a matter of fact, the latter systems can easily out-price the cost of a traditional autopilot system.

Hydronautica has opted to follow a completely different course in that regard! It started with the development of the EZY-Master, an interface that, in combination with an electronic Flux compass, electronically converts the Global Positioning (GPS) into a data protocol that communicates with the RMC-system (RMC must be installed).

EZY-Pilot uses this information to keep your ship on the set course by way of changing the engine speeds (ship with two engines) or the alternate activation of bow-screw and stern-screw (ship with one engine).

Adjusting the set course can be done by way of two switches on the EZY-Pilot, whereby the course is adjusted by 5 degrees each time. The course will be digitally shown on the EZY-Pilot.

The big advantage of this system is that there is no need for a costly and complicated hydraulic installation on the rudder. Hence the name EZY, as in 'easy'.

And this ease is not just limited to the use but also refers to the connection of the system, which takes place by way of a simple cable to the RMC module.

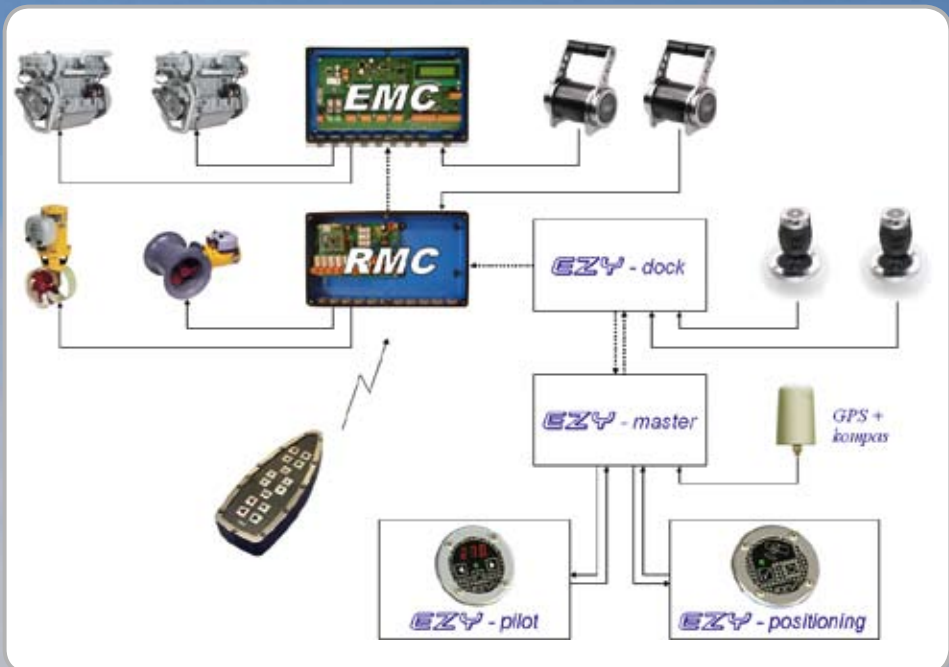
Remote steering

With EZY-Pilot the RMC has also become more intelligent as, when it has all been connected, the RMC will be able to remotely adjust the course of the EZY-Pilot.

For example, you will then be able to give your ship course adjustments from the foredeck.

And this is exactly the kind of 'ease of navigation' meant by Hydronautica.





EZY-Positioning

Dynamic positioning of your ship

The biggest break-through in the nautical field is EZY-Positioning. A system operating as a Dynamic Positioning system, which so far has only been used in the offshore field. EZY-Positioning is able to keep your ship in a certain position by efficiently driving all your screws, your bow-screw and stern-screw with the aid of GPS and an electric compass and this with a reasonable accuracy. Of course, your bow-screw and stern-screw will have to be strong enough! Such systems were in the past prohibitively expensive, but with EZY-Positioning Hydronautica is making this system achievable for the yachting sector.

EZY-Positioning is an extension of your RMC system, whereby the EZY-Master monitors and filters the ship's position. If the vessel drifts off course, the EZY-Positioning ensures its return to the original position by adjusting the RMC.

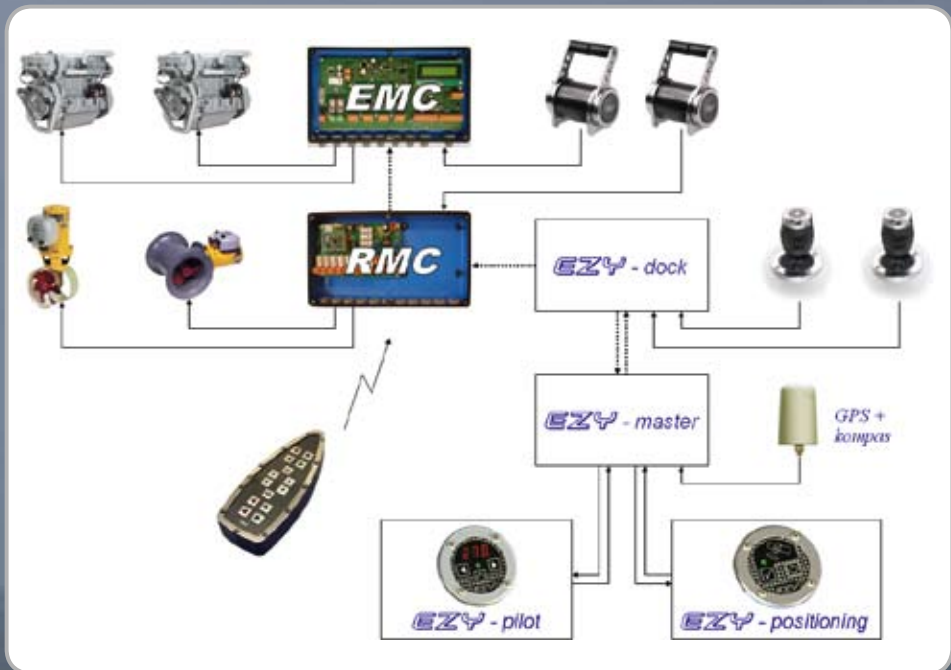
Shape and Design

As you have come to expect from Hydronautica, the choice of design and components was a high priority in the development of this product. That not withstanding, we were once again able to deliver a compact and simple control module that will enrich the appearance of your cockpit.

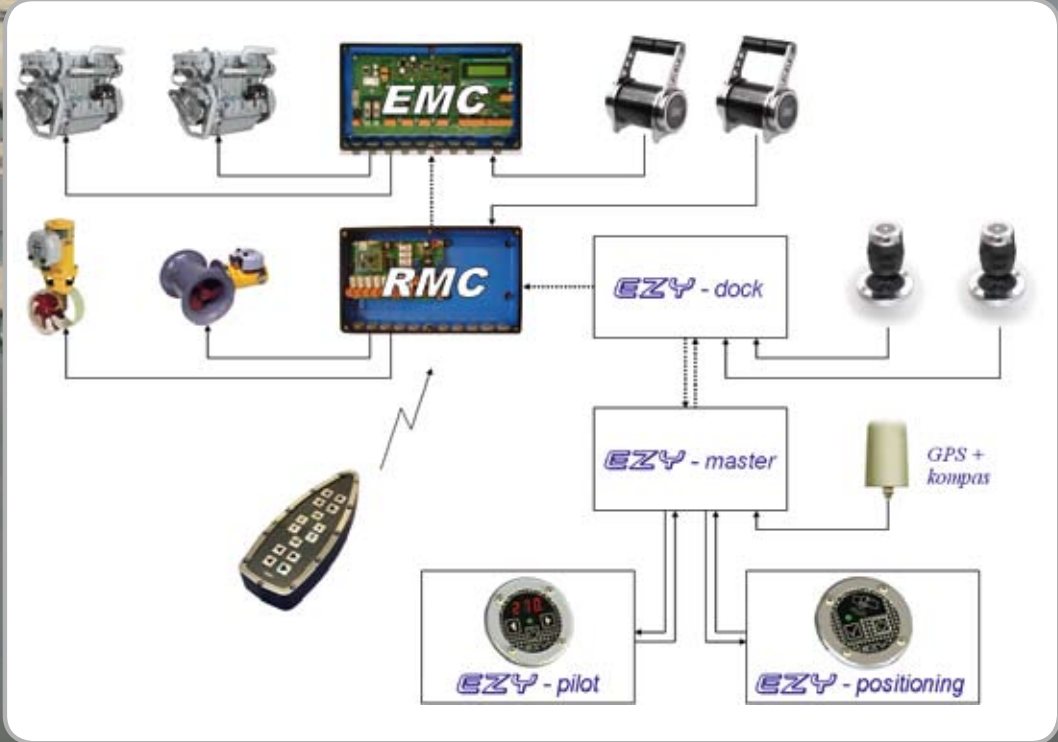
Ease of use

As always, ease of use is a high priority. The system only has two control buttons: start and activate. If your propulsion systems are no longer capable of keeping your ship in position due to external conditions (such as excessively strong winds or currents), the system emits an acoustic warning signal that cautions you to assume manual control without first having to deactivate the system.

The installation of this system is also very simple. It requires no more than putting a plug in the RMC and installing a GPS-aerial. This is the kind of 'ease of navigation' Hydronautica keeps talking about.









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