

MATN'S
Stabilizers

MILES BETTER



MATN'S STABILIZERS

MATN'S Stabilizers has focused on the development, manufacture and sales of stabilizers for pleasure yachts and other ships of all sizes. From the beginning MATN'S Stabilizers has set itself the objective of developing world class stabilizers that are valued all owners, captains, experts and shipyards all around the world. The criteria below have been an important guide in developing products at the highest level:

- the amount of roll damping
- the life span and reliability
- the size of the installation
- easy installation, both mechanically and electronically
- possibility of world-wide service

We make use of high quality materials and components for our systems. We also make use of the most modern electronic sensors that register even the smallest movement of your ship. This makes very fast and accurate stability control possible, which greatly improves the comfort on board. Our systems are developed for all sizes of ships and we have a range of stabilizers with a shaft diameter from 60mm to 220mm.

The systems are easy to install and can be mounted on steel, aluminium, wood and GRP hulls.

In the overview below you can find our current program of main shaft sizes. Apart from this program we can also make your own tailor-made solution for example with four fins or electronics integrated in your ship's system.

The sizes mentioned in the overview are all estimated values.

The choice of the fin size is determined by a calculation using the following parameters:

- length of the ship
- beam of the ship
- draught of the ship
- top speed
- stabilisation design speed (usual cruising speed or slightly lower)
- metacentric height (commonly pointed out as the GM)
- displacement

Shaft diameter (mm)	Fin size (m ² ±)	Length of the yacht (m ±)
60	0,75	16
80	1,25	30
100	1,80	35
120	2,50	45
150	3,50	60
180	5,00	80
220	7,50	100

HYDRAULICALLY DRIVEN STABILIZERS

The hydraulically driven stabilizer system consists of the following components:

- tank for hydraulic oil
- hydraulic pump driven by the main engines or separately by an electric motor
- cooler
- proportional valves
- actuators with hydraulic drive and sensor feedback of the fin position
- fins
- computer with built in movement sensors
- touch screen panel to operate the system

The tank, pump and cooler can be integrated in the hydraulic system of the ship but MATN'S can also provide those components. At larger ships the stabilizer system often has a separate, dedicated pump with it's own electric motor and oil tank built together with the cooler as a so called power pack.

COMPLETED PROJECTS



Brandsma Noordseekotter

Architect:

Vripack

Built by:

Brandsma Jachten



Privateer Trawler 60

Architect:

Naval Architects

Built by:

Privateer Yachts



Poolster

Architect:

Gaastmeer Yachtdesign

Built by:

Heysman / Vink Diesel

TOUCH SCREEN POSSIBILITIES

Master/slave/oil monitoring

If needed we can offer a slave touch screen in addition to the master screen. The master can be put in the wheel house and the slave in the engine room.

To monitor the hydraulic functions or even cut off the hydraulics automatically in case of a hydraulic alarm we can also add an oil monitoring menu in the touch screen. This menu could contain for example the following functions: low level oil, high temperature oil, return filter clogged and pressure filter clogged.

By using a bus system we can add additional touch screens which make our system very flexible. As we have our own software programmer we are able to make tailor made solutions for the control units.

Integrated bridge

More and more shipyards prefer to use their own bridge panel system instead of all sizes of control panels of various suppliers. MATN's is very willing to cooperate and has the skills to integrate our stabilizer controls in such a system.



Nuovo Pensiero

Architect:
Boretti

Build by:
Cantiere Navale Ciemna

DESIGN AND PRODUCTION



3D CAD design and analyses

We design our products in 3D to be sure to have the best design and all parts will fit properly. With our software we can also make strength calculations and drawings which can be put into the total ship model of our customers.



CNC Machining

High qualified craftsmen use CNC machines to make the parts of the actuator unit and shafts. Only high quality material is used and when needed, parts will be made from certified material (Lloyd's Register for example).



Fins

The fins are made from grade A steel and have a NACA0012 profile. They are protected from corrosion by a 3 layer epoxy paint system. Other materials (carbon composite for example) are also possible for the fins.

OVERHAUL OF EXISTING STABILIZER SYSTEMS

Overhaul of stabilizer systems can be easily carried out. Mostly the old electronics are replaced by our new and compact control unit. The mechanical parts must be inspected and replaced or repaired when necessary. We can overhaul systems of all manufacturers and depending on the system even grade them up to at anchor stabilisation.



COMPLETED PROJECTS



Varnebank

Architect:
Pieter Beeldsnijder

Built by:
V/d Molen, Mets, V/d Berg



Coast Guard

Architect:
confidential

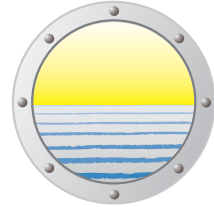
Built by:
confidential



cdt Fourcault

Architect:
Belgian Government

Built by:
Belgian Government



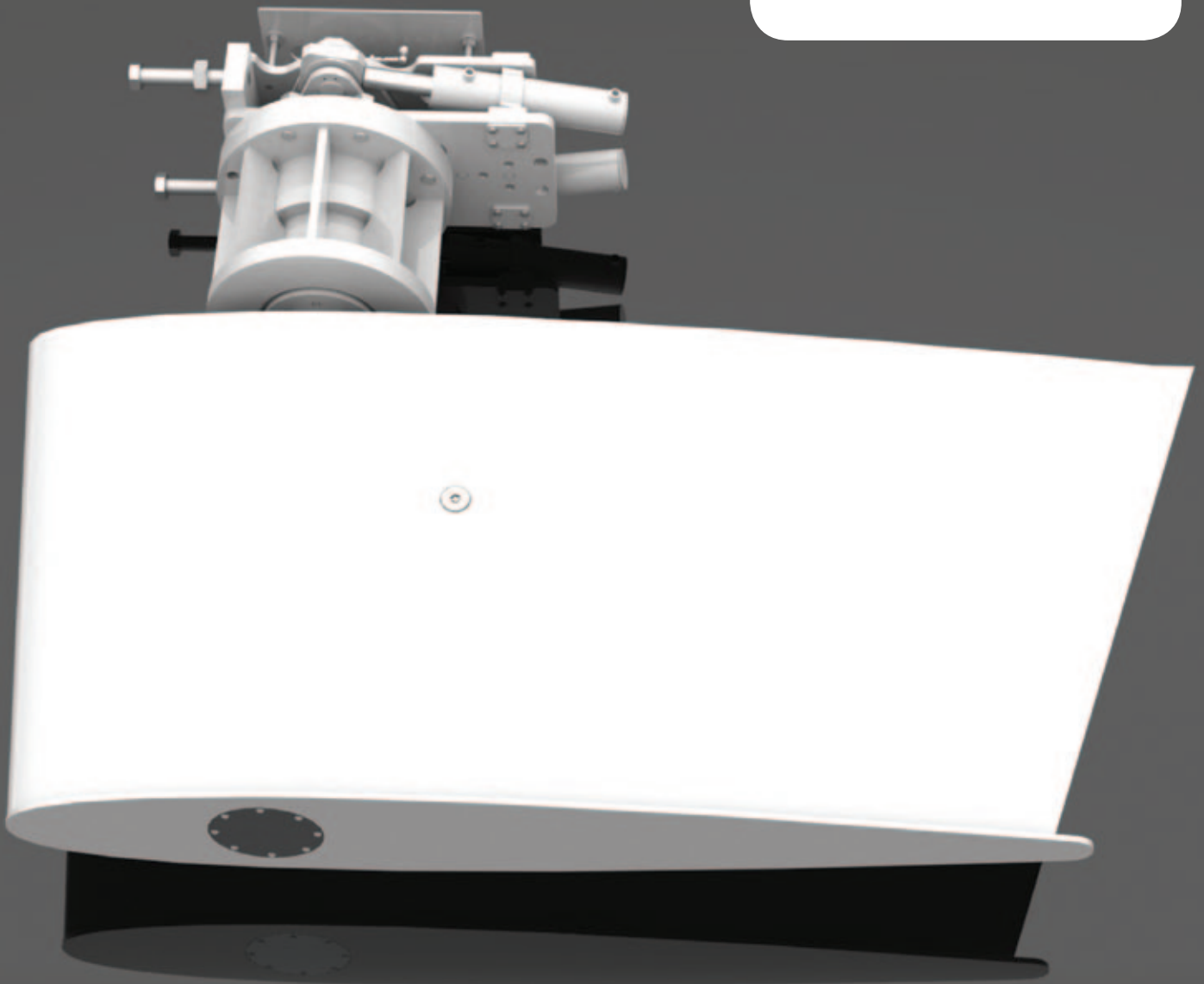
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