

Pinfabb POSEIDON³



Advanced retrofit for stabilizing fins

✓ **BRILLIANT RETROFIT**

*Perfect Retro-Fit for your stabilizers plant,
avoids any expensive and obsolete spare parts
Replaces easily any fins control unit
Revolutionary weather data integration*

✓ **ENERGY EFFICIENCY**

*Reduces up to 60% stabilizers drag and consumption
Reduces fuel and CO2 emissions up to a general 2%
Can be added to the SEEMP*

✓ **VERSATILE**

*Easy to install
Installation can be performed also during ship operation
100% compatible with all stabilizers plant*

✓ **SUPPORT**

*Maintenance Package offers peace of mind
24h/24 phone and mail support
Care for ALL plant aspects
(MECH, HYDR, ELEC).
Remote diagnosis and
assistance over
internet connection*



PREDICT THE FUTURE

DISCOVER POSEIDON

Stabilizing Fins and Comfort-on-board are Pinfabb Srl core business: we repair any type of stabilizers since 1981.

From this experience we developed 3 generation of POSEIDON, a digital and computerized Stabilizing Fins Control projected and designed with the state of the art technology. It is suitable to control fins for both small and large ships, adapting itself to the existing mechanical, hydraulic and electrical parts of any stabilizing plant. The system is also equipped with a special Energy Saving Software, capable to reduce the stabilizers drag and consumption up to 60%, improving ship efficiency up to 2%.

✓ BRILLANT RETROFIT

Are you experiencing one of the below problems with your stabilizers system?

- ✗ Difficulties to find old and expensive spare parts?
- ✗ Not proper function of the stabilizers?
- ✗ High maintenance costs?
- ✗ Energy/speed consumption related to the stabilizers?

...then, you need to retrofit your stabilizers with POSEIDON.

The idea behind Poseidon is to create a modern, robust and digital system capable to retrofit very easily any stabilizers control, resolving all the active problems and bringing to the ship-owner/management some important advantages, like:

- ✓ Renovation of the entire plant with few, modern and reliable components.
- ✓ Removing obsolete units, the crew operations become smoother.
- ✓ Maintenance costs are reduced.
- ✓ Stabilizers efficiency is improved and their consumption reduced up to 60%.



✓ ENERGY EFFICIENCY

RENOVATION AND INNOVATION: **THINK GREEN**

Owners who choose POSEIDON demonstrate their propulsion in the improvement of the maritime technology, their attention to the environment and their attention in the passengers' comfort and safety on board their ships.

Due to the fact that, as commonly known, the use of the stabilizers can reduce the ship speed up to 1 knots (depending on ship design), some owners/operators face the problem to improve the fuel consumption and CO2 emissions or, in some case, to avoid the use of the stabilizers, deteriorating the comfort on board and consequently also the experience of the passengers, that could influence next potential guests decision to step on board their vessels.



Thanks to specially designed software, POSEIDON proved to reduce up to 60% of the fins drag and consumption, improving the ship speed up to 0.35 knots.

POSEIDON is the first stabilizers system able to integrate real time weather data collected through satellite communication with our weather partner WWO, which provides weather info and forecast for any geo-point in world thanks to a model which run along with other meteorological models like world meteorological organizations, NASA weather satellite imagery and NOAA GFS2

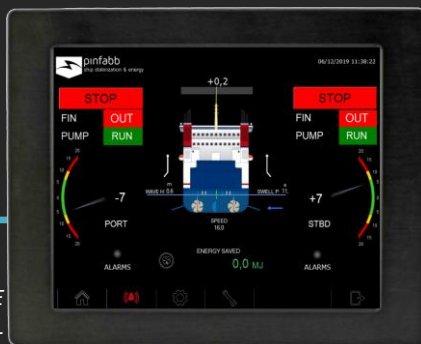
✓ **VERSATILE**

POSEIDON TYPICAL INSTALLATION

OLD AND OBSOLETE SYSTEM

WHEELHOUSE

BRIDGE
CONTROL
UNIT



MINIATURIZED
INERTIAL
PLATFORM

INTERNET



GPS



ECR
CONTROL UNIT

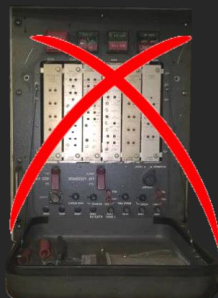


POSEIDON
CPU



ENGINE CONTROL ROOM

LOCAL CONTROL UNIT
PORT (FDA)



Ethernet Cable



Ethernet Cable

LOCAL CONTROL UNIT
STBD (FDA)



MOTION CONTROLLER
(PMC)



ON BOARD

WHEELHOUSE



BRIDGE CONTROL UNIT

It is usually installed on the same position as the old existing stabilizers panel. Poseidon Kits give the possibility to install the system using the existing Mechanical Frame. Understanding real time vessel roll movement and behavior are displayed on the screen.

ENGINE CONTROL ROOM



ECR CONTROL UNIT

It is usually installed in the Engine Control Room. This is usually installed as Slave Control but can be switched to Master when/if needed. Diagnostic tools are available on the screen, including the revolutionary remote assistance /monitoring software.

FINS LOCAL



PINFABB MOTION CONTROLLER

It is one for both the fins and it's composed with industrial and military grade components, which give superlative precision and velocity in the stabilizers movements.

FIN DIGITAL AUTOMATION

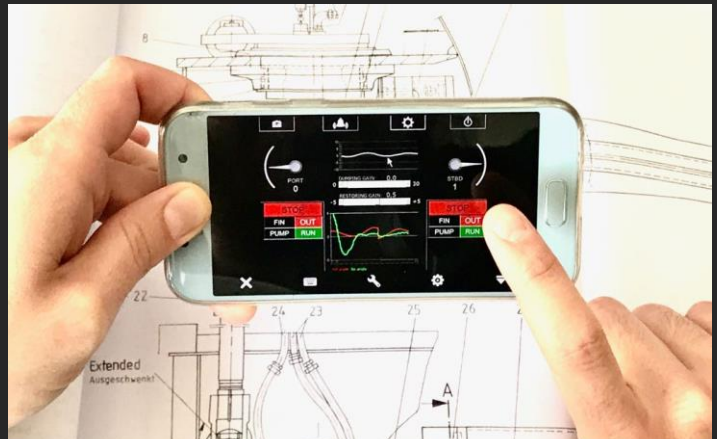
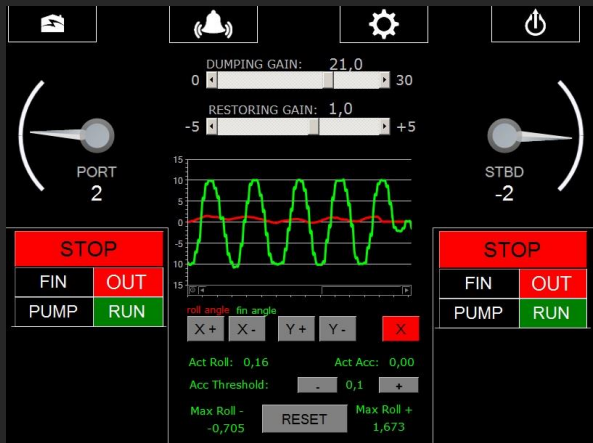
There is one FDA for each fin and from this panel it's possible to operate the relative fin locally. The local systems have been designed with attention to all the diagnostic and service procedures both for crew and technicians' use

SEA TRIALS AND RESULTS

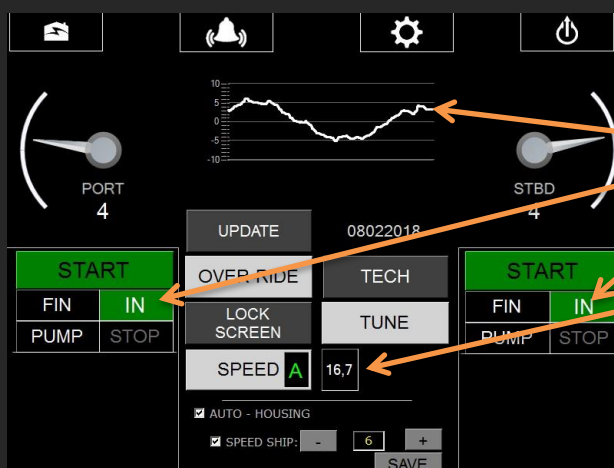
After every installation, Pinfabb Engineers follow the ship in one navigation to test the system with the collaboration of the ship crew. During the sea trials engineers and Captain/Crew exchange their experience and technical point of view in order to find the most effective and efficient tuning of the fins.

As Poseidon is the most advanced stabilizers system in the market, from its tuning page it's possible to tune the fins reactions and behavior, in order to find the custom stabilization and obtain the perfect comfort.

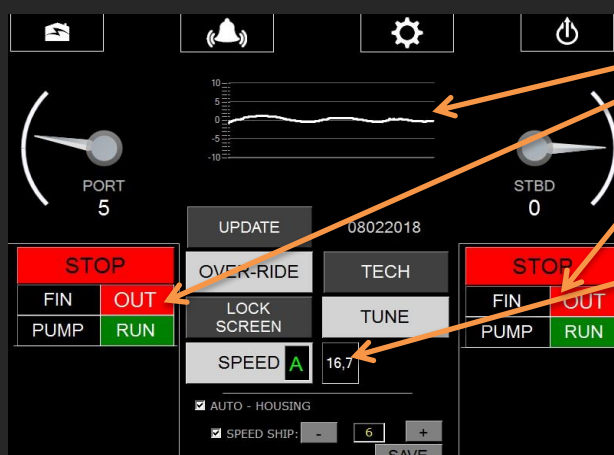
The below results are examples of POSEIDON installation benefits.



In some case remote commissioning session can also be performed simply using the POSEIDON REMOTE CONNECTION, simplifying the process and without travel cost for boarding engineers when the weather conditions are perfect for a commissioning session. During the tests, POSEIDON demonstrated to reduce significantly the roll motion and roll accelerations of the ship. It was also found how much POSEIDON can reduce the Fins Drag & Consumption, improving the ship efficiency without affecting the cruise speed also when fins are extended and in use.



- Fins are IN and the ship starts rolling
- Ship cruise speed with FINS-IN is 16,7 knots

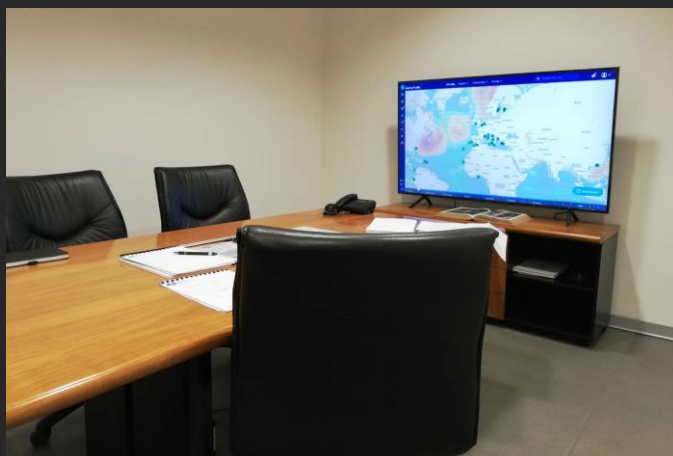


- Fins are OUT and controlled by POSEIDON: roll motion of the ship starts to decrease
- Ship cruise speed with fins out can remain stable. POSEIDON provides stabilization saving the cruise speed, that is usually decreased by traditional controls up to 1 kn.



✓ SUPPORT

WORLDWIDE SERVICE AND REVOLUTIONARY REMOTE ASSISTANCE “PINFABB SERVICE ROOM”



Pinfabb Service Room is a space created in our Head Office where Pinfabb engineers provide the remote assistance and online diagnostics services to ships and crew. The room is composed with complete Pinfabb systems and all simulator which recreate the real on-board conditions. When the remote assistance connection is enabled by the ship, our engineers help the crew with fault finding, repairs and remote commissioning, exactly like being on board, saving to the Owner service costs thanks to the integration of the MAINTENANCE PACKAGE in the Poseidon orders.



Agencies:

Athens, Greece
Riga, Latvia
Tallinn, Estonia
Lisbona, Portugal
Singapore
Miami, Florida
Buenos Aires, Argentina

PINFABB SRL

Via Borzoli 90E r 16153 Genova

Ph: +39 010 881 426 Fax: +39 010 813 271 E-mail: info@pinfabb.com

www.pinfabb.com