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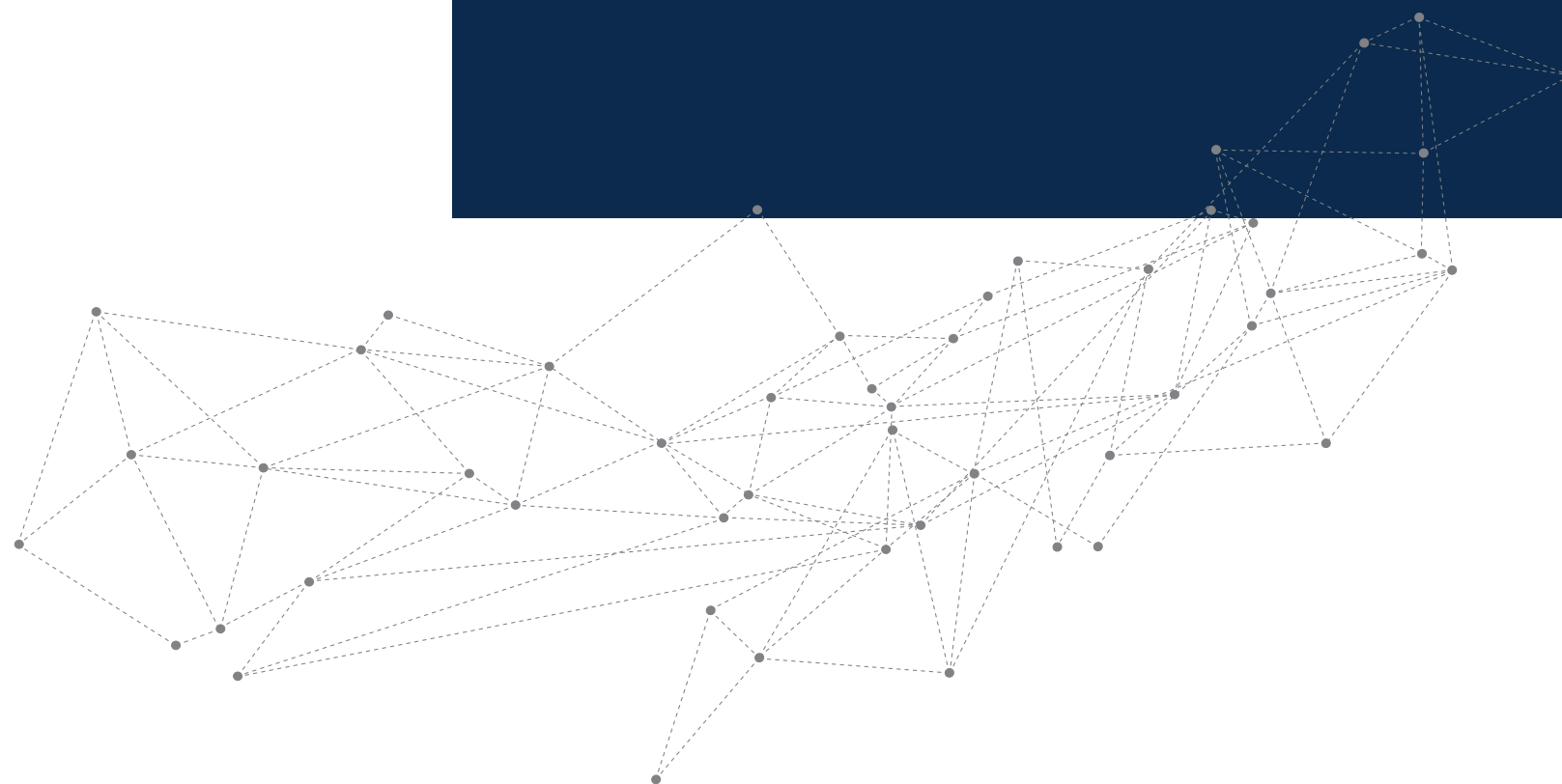
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ELEMENTAL
CHLORINE
FREE
GUARANTEED



fin stabilizers
FOR MARINE APPLICATIONS



FINCANTIERI

a cutting-edge global group

— Fincantieri is one of the world’s largest shipbuilding groups and number one in terms of diversification and innovation. It is a leader in cruise ship design and construction and a reference player in all high-tech shipbuilding industry sectors, from naval to offshore vessels, from high-complexity special vessels and ferries to mega yachts, as well as in ship repairs and conversions, production of systems and mechanical and electrical component equipment and after-sales services. The Group has around 20 shipyards in 4 continents, over 19,000 employees and is the leading Western shipbuilder. Among its clients it counts the world’s major cruise operators, the Italian and the US Navy, in addition to several foreign navies, and it is partner to some of the main European defense companies within supranational programs. In over 230 years Fincantieri has built more than 7,000 vessels.



fincantieri mechanical systems and components for marine applications: fin stabilizers

— Fincantieri has more than forty years of experience in the design and manufacture of fin stabilizer systems.

Thanks to using all the experience it has gained, Fincantieri has developed a wide range of fin stabilizers, guaranteeing:

- highest roll reduction percentages at designed speed
- high reliability
- minimum noise and vibration
- limited hull water drag in order to achieve high fuel savings



ensuring stability for comfort, ship stability and seakeeping through a world-leading product

— We can provide the best solution for each application offering tailor-made products based on vessel shape, speed, position in the hull and size to meet any

specific customer requirements and preferences. We are constantly committed to continuous Research and Development to achieve one-step-ahead performance.



cruise shipowners



merchant shipowners

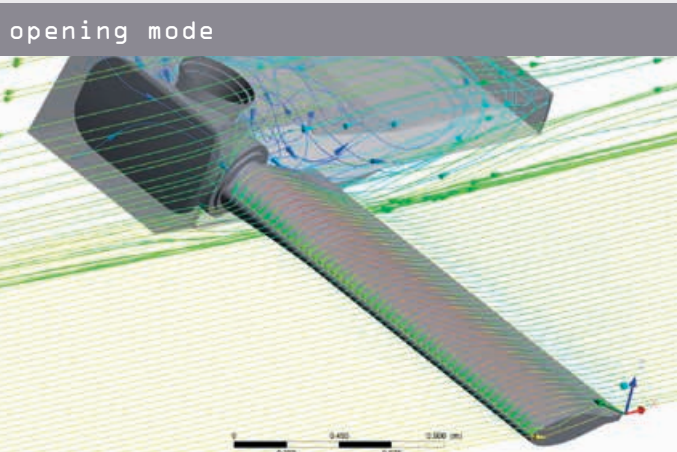


mega-yachts



main navies

green package 



experience for the future

- Fincantieri stabilizers guarantee the best performance:

 - State-of-the-art technology
 - Highest hydrodynamics efficiency
 - Highest stabilization performance
 - Minimum noise and vibration
- Looking towards the future:

 - Green and Energy saving products
 - Continuous innovation

in a wide range of applications, allowing easy installation and maintenance and minimal internal dimensions, thanks to a reliable and robust design and construction.



non retractable (SF type)



retractable (SR type)

applications

main features

- Wide range and size:
- Fixed (SF) and retractable (SR) type
 - Flapped/ unflapped
 - Opening mode "stern to bow" or vice versa
 - Stabilization at anchor (SZ Mega-Yacht application)



SR Type-Cruise/R0PAX application						
Retractable fin	SR-0	SR-1	SR-2	SR-3	SR-4	SR-5
Fin surface (m²) each	2,0 – 3,0	4,2 – 5,0	5,0 – 8,0	10,0 – 13,0	12,5 – 17,0	19,0 – 22,0
Installed electrical power (kW per shipset)	50 – 60	70 – 90	90 – 110	130 – 150	150 – 180	180 – 220



SF type for naval application					
Fixed fin	SF-0	SF-1	SF-2	SF-3	SF-4
Fin surface (m²) each	1,3 – 1,8	2 – 4	4 – 6	6 – 12	13 – 18
Installed electrical power (kW)	30 – 40	40 – 60	60 – 80	80 – 130	130 – 150



SZ type-MYacht application				
At Anchor	SFZ-0	SFZ-1	SFZ-2	SFZ-3
Fin surface (m²) each	3	7,5	10	13
M/Y LOA (m)	<50	50 - 60	60 - 90	90 - 150

innovation



A flapped version of the largest fin stabilizer size developed in order to **improve stabilization capability** for large ships



Yachting, Research, Exploration: **stabilization at anchor**

fin stabilizer evolution

— Benefits are guaranteed in terms of hull resistance and consequent fuel consumption:

- **When the fin is out:** incoming water flow isn't affected by turbulence or vortexes due to a forward hull opening (typical of stern to bow opening), thus resulting in more efficient hydrodynamic behaviour of the fin.
- **When the fin is in:** the fin closes most of the recess, recreating a close-to-uniform hull shape.

A robust design even in unexpected challenging conditions: if the fin hits a foreign object, stern to bow opening is a safer solution, reducing the risk of hull plating damage by the fin; if the foreign object, such as a net or a cable, are pulled along there the fin can be retracted allowing the water flow to remove the object.

stern to bow opening & hydrodynamic shield



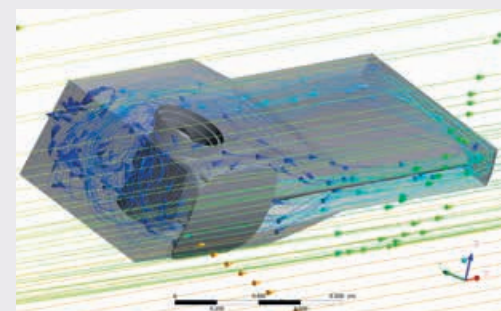
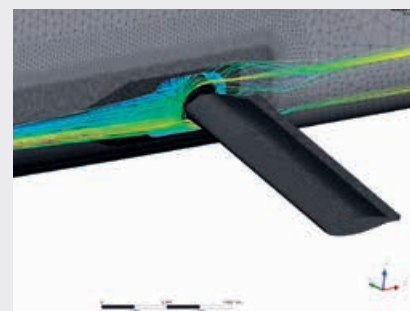
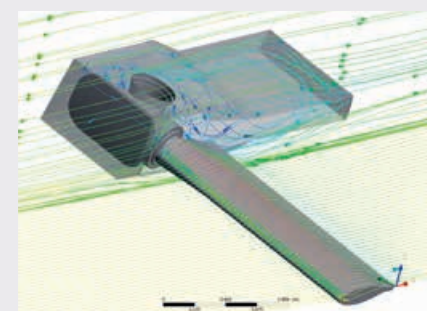
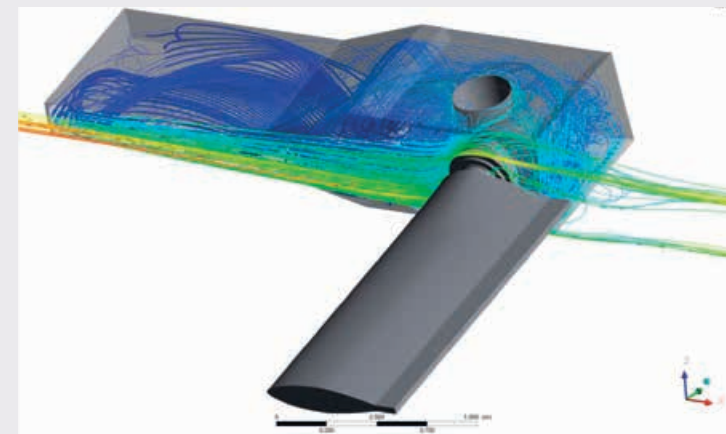
stern to bow opening



bow to stern opening



HYDRODYNAMIC EFFICIENCY



grease lubrication

green package

2013: Fincantieri was ready to use Bio-oil on its components even before the **Vessel General Permit (VGP)** was issued by the Environmental Protection Agency (EPA).

2015: Fincantieri patented its Grease lubrication system which **prevents oil leakage in sea water**.

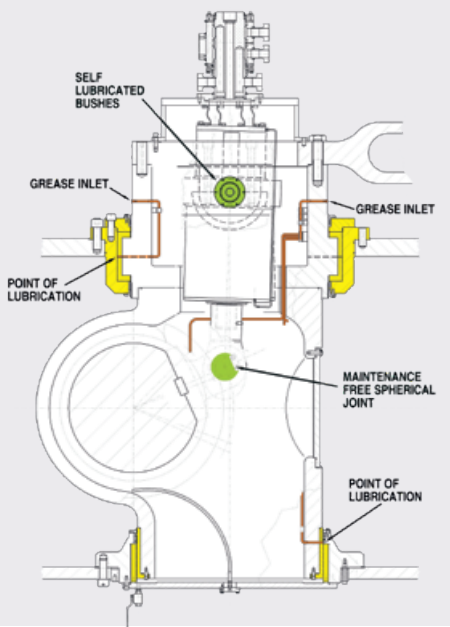
The system:

- is an environmentally friendly solution;
- saves operating costs for the shipowner;

By:

- eliminating oil from inside the **fin box**;
- **replacing oil with grease** to lubricate bearings;
- reducing to a minimum re-greasing activities.

The Fincantieri patented solution is designed to be retrofittable on existing operating plants.



main references



leisure



transportation



defence

