



RINA **marine**

ships in service
design and construction

Green Plus Yacht

Design solutions for green excellence





Benefits

for the shipyard:

- Great flexibility in design choices, possibility to introduce highly innovative technologies

for the owner and managers:

- Great added value given by a prestigious “state of the art” environmental certification.
- Operative cost savings thanks to adoption of consumption reduction solutions.

for the personnel onboard:

- Detailed guidance on environmental onboard management

for passengers and guests:

- The guarantee to be sailing on the ultimate environmentally friendly yacht

green performance beyond the standard

Innovative technologies for a cleaner world

RINA has further strengthened its commitment to environmentally friendly shipping by launching a new goal-based class notation, GREEN PLUS. The voluntary notation will be based on an environmental performance index which covers all aspects of the vessel's impact on the environment, including carbon emissions.

The new class notation will be granted to new vessels which make a significant investment in design solutions, onboard equipment, and operational procedures which contribute to an improvement in

environmental performance beyond the minimum levels required by international regulation on environmental protection.

The goal-based approach, rather than prescriptive one, ensures sufficient in-built flexibility to allow designers the latitude to choose those tools which they deem to be most appropriate, subject to achieving an assigned value in an environmental index.

This is particularly thought to encourage the introduction of new technologies, which RINA experts will evaluate on a case by case basis.



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1. M/Y GREEN VOYAGER

Shipyard "Kingship (Hong Kong)" LOA 44 m

The first RINA Green Star Plus superyacht to be built in China

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The Green Plus Yacht Certification addresses twelve different pollution sources, and lists, for each, a set of operative and design solutions which can help prevent them. Each item is associated to a score, which adds up to the calculation of a ship environmental index, the value of which will be significant for the assignment of the GREEN PLUS YACHT certification.

- Oil from Machinery Spaces
- Sewage
- Grey water
- Garbage
- Other sea pollution sources (ballast water, antifouling systems, etc)
- Ozone-depleting Substances
- Greenhouse gases and pollutants
- NOx
- Sox
- Particulates
- CO₂
- Yacht materials and building procedures



Further recognition will be granted to those who wish to go even further investing in environmental excellence, with the top of the tops certifications

- **GREEN PLUS YACHT GOLD**
- **GREEN PLUS YACHT PLATINUM**

www.eco2care.org
Emission trading

The ship manager can also choose to quantify and compensate the CO₂ emissions produced by the operation of his vessel, by means of buying green credits in projects certified in accordance to the Kyoto

protocol. CO₂ emissions will be evaluated based on technical specifications approved by RINA and periodical onboard verifications.



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o n b o a r d e n e r g y m a n a g e m e n t

2. M/Y CANDYSCAPE II

Shipyard "Viareggio Super Yachts (VSY)" LOA 61.8 m

This superyacht designed according to the highest standard of environmental performance and energy efficiency has obtained RINA new additional notation Green Star Plus Yacht.

Win-win solutions for the ship manager and the environment

RINA, in cooperation with some cruise operators, has developed a special **energy management package** which addresses both design and operational aspects in order to monitor and reduce the fuel consumption on board, with obvious benefits for the ship owner and manager, and positive impact on the ship's emissions in the environment.

- **energy consumption monitoring and collection of information in a database, to allow fuel budgeting, and to compare and test proposed energy saving measures;**

- **implementation of energy saving measures affecting personnel behaviour, onboard management of energy production and consumption, evolution of onboard systems and plants.**

The main objectives of this package are:

- **enhancement of energy conservation culture among the onboard and shore company's personnel, through awareness, training and motivation;**

RINA: more than 140 years of service to the marine industries

RINA is one of the oldest classification societies in the world. It is a joint stock company in charge of the operational activities of the foundation Registro Italiano Navale, a private, non-profit-making institution established in Genova by a group of shipowners and underwriters in 1861. At present, RINA is authorised to act on behalf of the Italian Administration in accordance with EU directive 94/57 and by approximately 70 other flag administrations.

Lifetime Service

The experience, technical knowledge and professionalism accumulated over the years enables the RINA Group to offer the maritime industries, in addition to standard classification and certification activities, a wide range of technical assistance services.



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