

## Head Office

Via Genova, 1 - 34121 Trieste (Italy)  
ph. +39 040 3193111 - fax +39 040 3192305

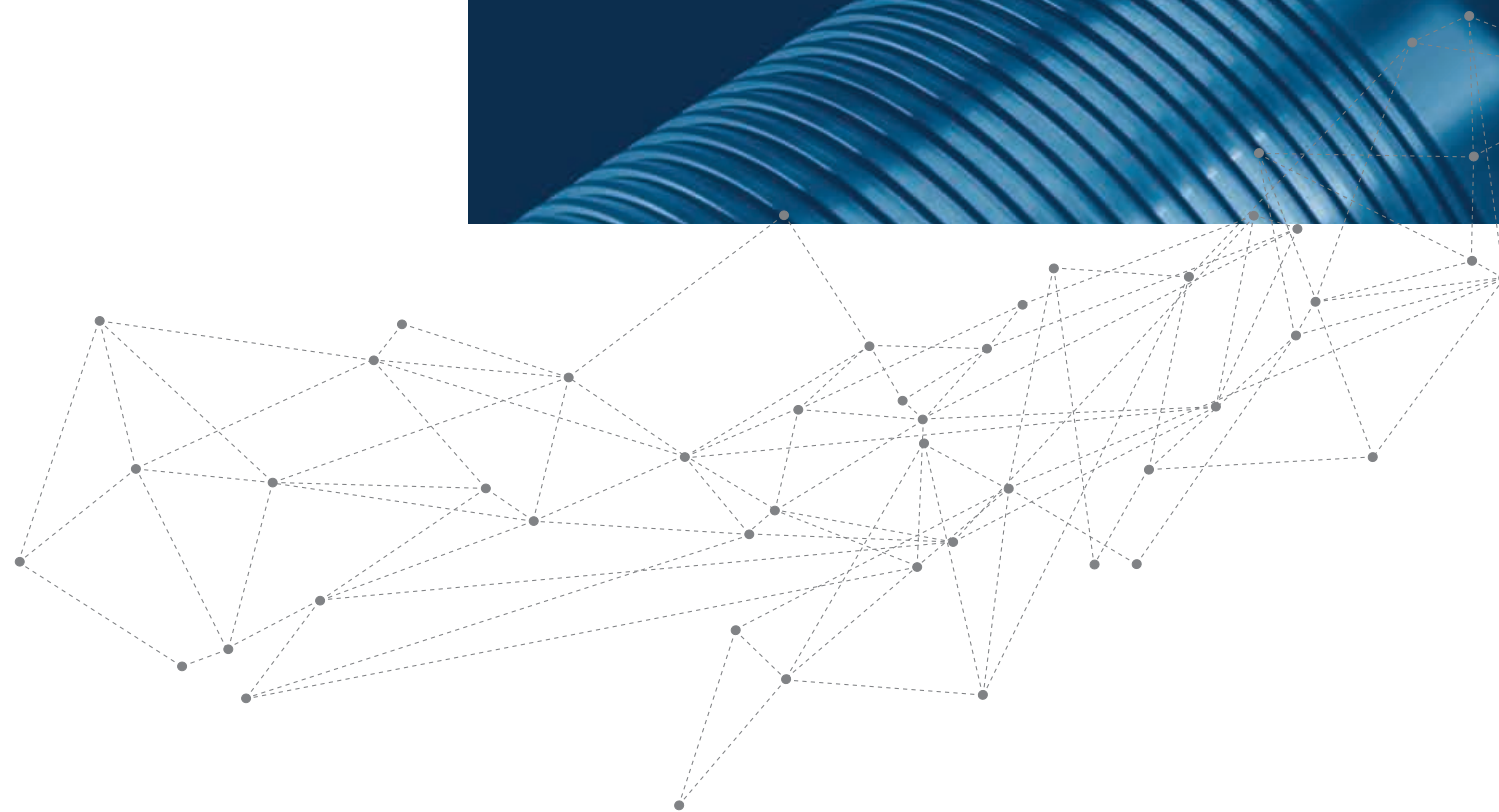
## Marine Systems and Components

Via Cipro, 11 - 16129 Genova (Italy)  
ph. +39 010 59951 ext. 5510-5430-5584-5754  
marinesystems@fincantieri.it

fincantieri.com



Just like at sea, we are committed to environmental sustainability ashore too:  
this information is printed on forest-friendly paper.



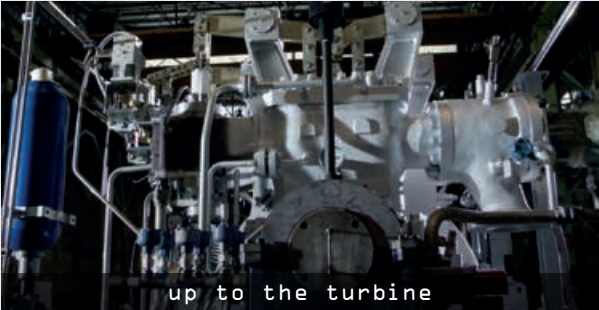
steam turbines  
FOR MARINE APPLICATIONS





riva trigoso. the special place where our steam turbines take shape.

— Engineering, Design, Expertise, Technology and Know-how. 100% Italian quality.



our people follow the lifecycle from design to delivery and beyond.



# fincantieri mechanical systems and components for marine applications: steam turbines

— Fully designed and built in Italy in Riva Trigoso, Fincantieri Steam Turbines combine long-standing experience, state-of-the-art technology and the continuous feed-back and support of our worldwide clients enabling us to constantly improve.

The Steam Turbine design concept is modular, and every detail of the design can be customized according to our clients requirements with the constant support of our engineers and technicians.



## an advanced technology tailored to on board application



- range

  - Complete power range from 200 kW to 50 MW
- Fully designed and built in Italy.

More than 100 years' experience - 2,000 units installed worldwide

- type
- Microgeneration
  - Single Stage
  - Multistage
  - Condensing/backpressure

a green heart  
in the blue sea



steam turbines type	power range	
	L	from 25 MW to 50 MW
	M	from 10 MW to 25 MW
	S	from 1 MW to 10 MW
	XS	from 200 kW to 1 MW

## steam evolution

### marine propulsion

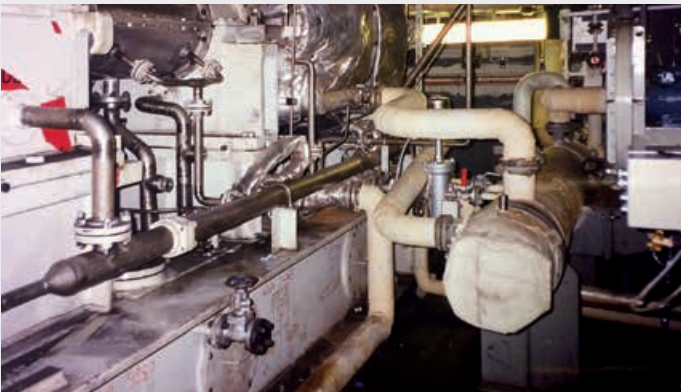
- Complete steam propulsion plants: Military, Merchant, LNG Carriers



— LNG Ierici

### COGES plants

- Combined Heat and Power generation from Gas turbine propulsion plants



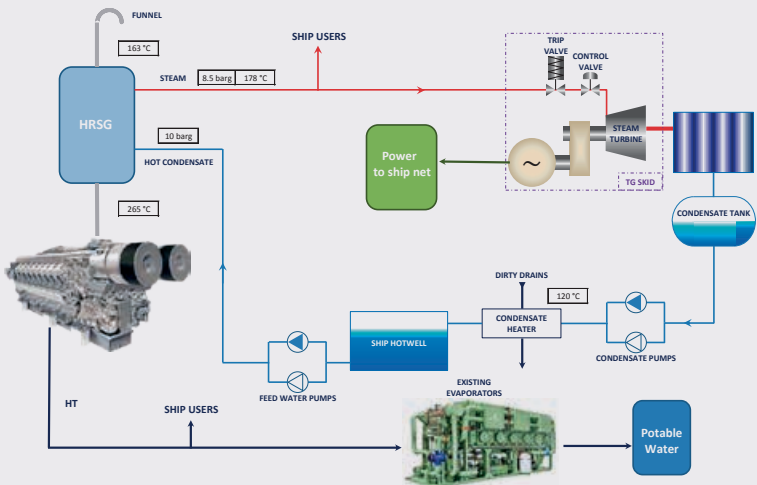
- Jewel of the Seas
- Serenade of the Seas
- Brilliance of the Seas
- Radiance of the Seas



- Celebrity Constellation
- Celebrity Summit
- Celebrity Infinity
- Celebrity Millennium

### heat recovery systems

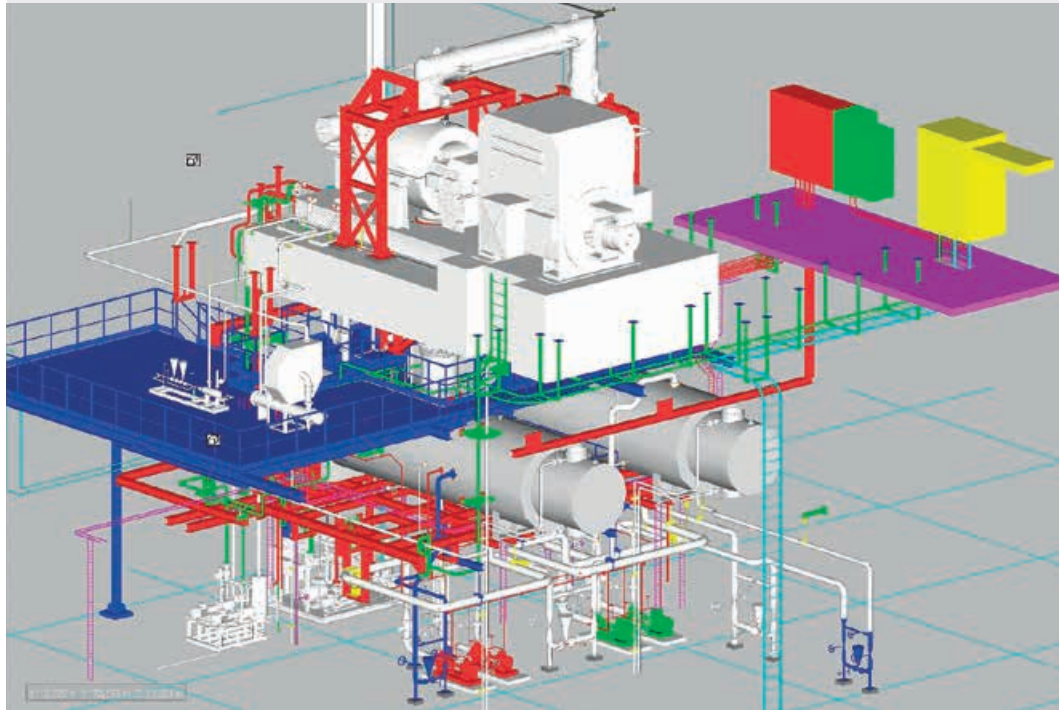
- Power generation from wasted steam
- Turbogenerator and auxiliaries design
- Ship Integration Engineering





## turn key plants

— Fincantieri is experienced in supplying complete power islands integrating all mechanical and electrical auxiliaries and components.



\_ 3D design of a power island in Sweden

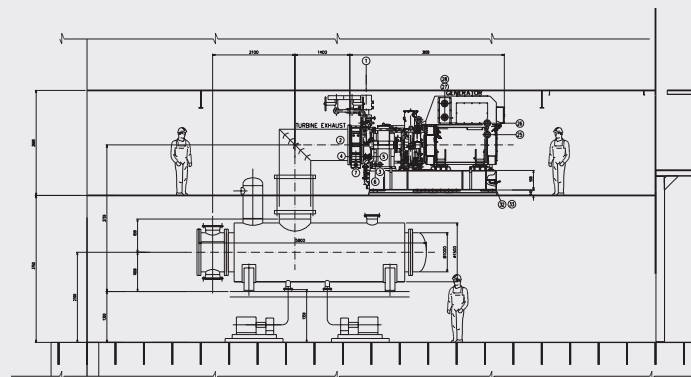
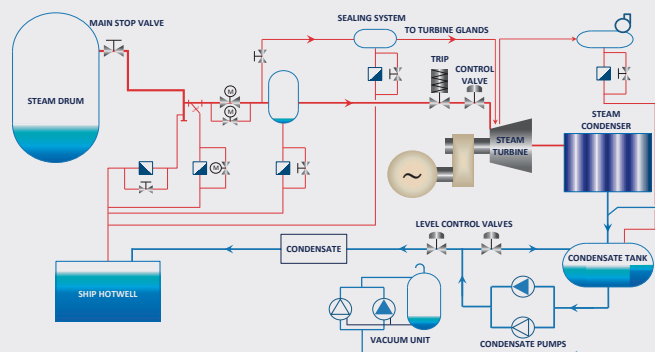
## on board integration

— “Thermal cycle” integration:

- Heat balance
- General arrangement with space optimization
- Automation system

— Customer support for the investment assessment:

- Steam excess evaluation based on ship operating profile
- System selection
- Energy recovery estimation
- ROI related figures calculation

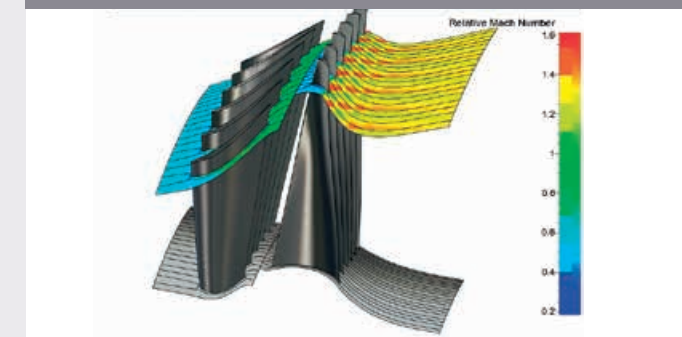


## research and development

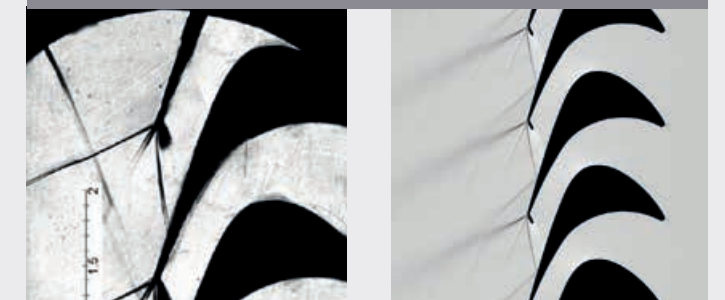
— Fincantieri continuously invests heavily in Research and Development.

Innovative blading, designed in-house by specialized engineers, allow efficiencies to be achieved allow maximum efficiency to be achieved. The design is executed using state-of-the-art tools, validated through extensive experimental testing carried out by prestigious Italian and European facilities.

### state of the art design tools



### experimental validation of design

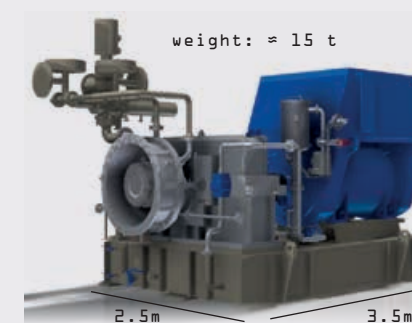


\_ Experimental Output

\_ Numerical Output

## fincantieri HRS plus

- Compact Design
- Small and Light
- Suitable for on board steam purity
- High resistant materials against erosion/corrosion
- Efficient and reliable
- Fully automatic
- Fast start/stop procedure
- Reduced life cycle costs



weight: ≈ 15 t

