

Shipbuilding

Fincantieri

Digital planning boosts shipyards' efficiency

Product

Tecnomatix

Business initiatives

Commonization and re-use
Production efficiency

Business challenges

Ensure high quality
Limit costs
Meet delivery times

Keys to success

Scientific approach to production planning
Ability to simulate production alternatives
Common library for production data
Standardized production documentation

Results

Closer cooperation between shipyards
Optimized production capacity at each shipyard
Reduced development costs
Better ability to meet delivery dates



Tecnomatix production planning software helps shipbuilder optimize production across multiple facilities, reducing development costs and ensuring on-schedule deliveries

Ambitious targets

Fincantieri is one of the biggest shipbuilding companies in the world, with particular expertise in the production of cargo and cruise ships. In 200 years of its history, the company has launched more than 7,000 ships and is the leader in supplying hulls, surfaces and submarines at a global level. Divided into six business areas (cruise ships, cargo ships, military ships, mega

yachts, ship repairs and remodels, ship systems and components), the company employs 9,200 people, with at least twice as many working for its supplier companies. Production takes place at nine facilities across Italy.

Fincantieri invests five percent of its turnover into research and development to ensure its leadership position into the future. Along with goals for increasing in both size and market share, the company is working to reduce costs through the adoption of digital manufacturing.

Planning revolution

Fincantieri has implemented the Tecnomatix® digital manufacturing

solution from Siemens PLM Software to enhance production planning, to integrate production systems so that the entire organization functions as one shipyard, and to transform strategic goals into operational activities. All of this is aimed at providing the highest quality services, at lower costs and meeting delivery times.

The adoption of Tecnomatix created a revolution in the production planning process, starting with production engineering and extending through shop floor operations. The starting point was a new way of breaking down a hull to best exploit the capabilities of the various plants without exceeding their limits. This begins as a top-down process that divides the ship into areas, sections, blocks, sub blocks, panels and so on. Then the process reverses, that is it becomes bottom-up, to plan the production of every single object, including constraints (material availability, type, weight, sizes and delivery date) and optimize the work of the individual shops.

The use of the Tecnomatix suite allowed Fincantieri to achieve a dramatic reduction in planning time for the hull construction and provided the ability to investigate more process and planning alternatives as well as analyze each project on the basis of the shipyards' production capacity – simulating the same process on the various yards.

Innovative approach

The Tecnomatix implementation, which was performed by Fincantieri along with representatives from Siemens PLM Software, introduced an innovation into the company's way of working. "The most interesting result is a more scientific approach to production planning through all of our plants," adds Alessandro Nevierov, methods and technology development manager at Fincantieri. "Also, Tecnomatix led to the adoption of a common method as well as the creation of a reference library that makes it possible to share production analysis data with the various plants. It has also enabled us to standardize our planning documentation."

The use of Tecnomatix has reduced development costs as well as the risks associated with missing delivery dates. The most significant results of the new approach have been time and cost savings resulting from the increased quality of the planning.

Simulation optimizes production

In the production of a hull, the use of the Tecnomatix Plant Simulation enables production engineers to analyze multiple production strategies in relation to the machinery and labor constraints of the distinct workshops or Homogeneous Technological Areas (HTAs). This type of analysis makes it possible to optimize each shipyard's throughput and more easily

“The use of Tecnomatix has opened the way to closer collaboration between the various shipyards.”

Alessandro Nevierov
Methods and Technology Development Manager
Fincantieri

Solutions/Services

Tecnomatix

www.siemens.com/tecnomatix

Customer's primary business

Fincantieri is the world's leading supplier of cruise ships and large ferries, and among the leading companies in the field of hull supplies.

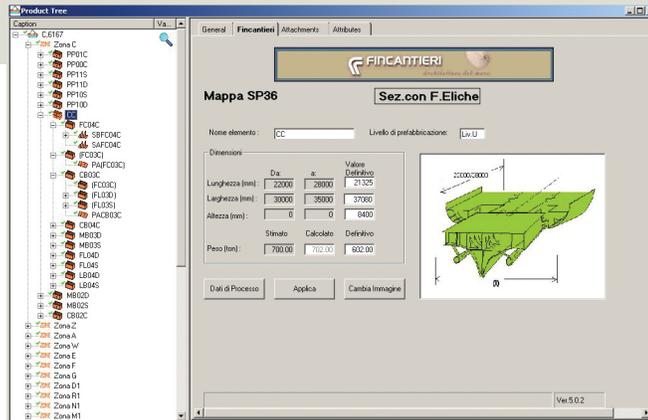
www.fincantieri.com

Customer location

Trieste and Genova
Italy

"The use of Tecnomatix has opened the way to closer collaboration between the various shipyards."

Alessandro Nevierov
Methods and Technology
Development Manager
Fincantieri



balance the allocation of materials and capacity across multiple sites.

The introduction of Tecnomatix has allowed Fincantieri to centralize the initial planning process while improving decision making. It also fosters the re-use of data, thus shortening the development time for detailed production plans.

"The use of Tecnomatix has also opened the way to closer collaboration between the various shipyards by allowing the

exchange of the data," says Nevierov.

"Transfer times for construction documentation from one plant to another have been reduced to the minimum, to days instead of months." Moreover, the automatic production of product planning reports and summary documents has eliminated a significant amount of time-consuming compulsory work.

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