

Composite superstructure



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Reduce weight – improve performance

Derived from the Visby-class corvette's 100-percent carbon fibre hull construction, Saab has successfully introduced the composite superstructure concept on the market for surface combatants.

Driven by an ever-increasing trend to put sensors and weapons high up in the ship, a composite superstructure enables ship designers to reduce top weight and improve stability.

A modern high-tech laminate of carbon fibre is one of the strongest, but lightest, materials known to mankind.

Saab composite superstructure concept is an affordable lightweight non-corroding alternative to steel or aluminium structures that saves around 50% in structural weight.

Key benefits:

- Optimized metacentric height, with improved sea-keeping, stability and roll characteristics as a result
- Less power (and fuel) to achieve contractual speeds – or higher speed can be achieved if same power is applied.
- Substantially lower follow-on maintenance and painting costs
- Carbon fibre inherently shields against a wide range of electromagnetic signals and is therefore an important component to the Visby-class corvette's phenomenal stealth properties.

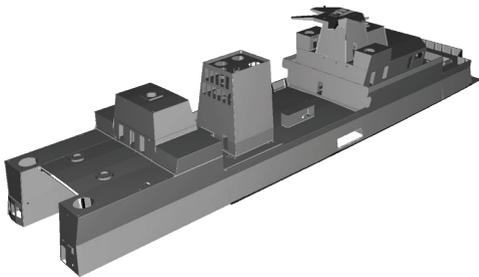


Saab Visby-class corvette made out of 100 % carbon fibre



P28 Corvette for Indian Navy

Saab has delivered two composite superstructures to INS Kiltan and INS Kavaratti, for the Indian Navy P28 corvette program. The P28 Kamorta class are 109-metres and 2,500-ton ASW corvettes, built by Indian Garden Reach Shipbuilding and Engineering (GRSE) in Kolkata. The Indian superstructures almost equals the size of Visby-class corvettes.



Singapore LMV

Saab has delivered eight composite superstructures to Singapore shipyard STM (Singapore Technologies Marine) for the Littoral Mission Vessels (LMV) built for the Singapore Navy. The carbon fibre structures were fabricated in Sweden and shipped to Singapore, where they were installed to the steel hulls made at STM. The LMV class are 80-meters and displace at 1,200 tons.



Modules, interface and support

Saab has developed a complete package for the introduction of a composite superstructure concept into an existing design and production environment for steel hull ships.

Existing steel drawings are input to a weight-optimized composite structure that fulfils all the requirements set up for the original design.

The structure can be fabricated in modules, hence making the modules easier to handle and enables them to be shipped by ordinary cargo transport means, to the ship construction site.

A special-developed composite-steel interface has been developed, to facilitate efficient installation by the local shipyard. Saab provides the necessary training and support to the local yard in the installation process.



You can rely on Saab's thinking edge to deliver innovative, effective products and solutions that enhance your capabilities and deliver smarter outcomes.

Specifications subject to change without notice. Published March 2020.

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