

Aluminium specialist builds on success

As well as a top speed of over 37 knots, waterjet propulsion gives a series of Finnish troop carriers a draft of just 70cm, vital for safe operation in shallow water

For Finland's Coastal Defence Forces, missions have evolved from static defence to rapid reaction, resulting in a number of procurement programmes. The most important programmes for these mobile forces, known as the Nyland Brigade, is a new breed of Jurmo-class waterjet-propelled landing craft.

Thirty of these troop carriers can deploy a boat battalion of 600 men. Thirty-six are being built, with the second batch of eight entering service last summer. The boats were designed and built by aluminium boat builder Marine Alutech of Finland and developed in close cooperation with the Finnish Navy. The series is also known as the Watercat M12 class in Marine Alutech's range.

The Jurmo was designed to meet the Finnish Navy's requirement in the late 1990s and had to be capable of operating in all weather conditions. "The key to perfecting the design," says Heikki Haro, Marine Alutech's Chief of Design, "was our ability to build on the development of the aluminium hull design first used for the Uisko assault ship/workboats delivered to the Navy 10 years ago.

"Firstly we built a prototype and undertook a year of testing. Design changes were then implemented to improve the trim. We then built the three first production vessels for evaluation. With the three boats in service the final design improvements were made and we moved to batch production."

Not intended for direct amphibious assault, the new vessels

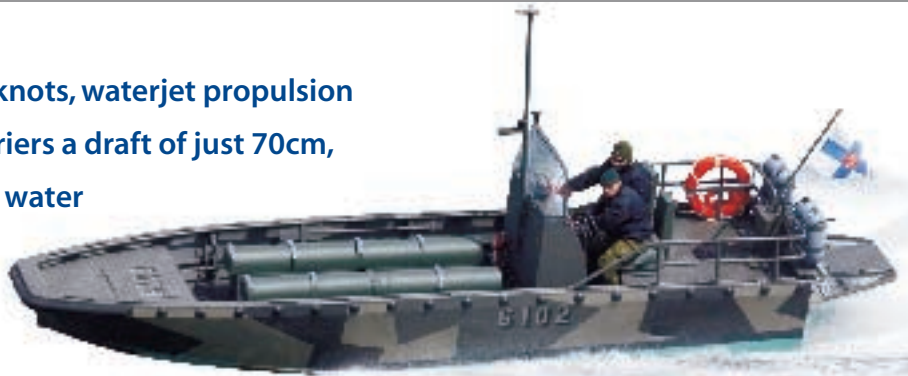
will be used to rapidly insert troops for area-denial operations in the Gulf of Finland and along the Baltic coast. Each can carry 22 fully equipped marines or over 3 tonnes of cargo. The 13m boats have a beam of 3.65m, a displacement of 13.8 tonnes and a top speed of 37 knots. Maximum range is 8 hours at a cruise speed of

Kamewa FF waterjet propulsion ensures excellent manoeuvrability and a top speed of 37 knots

30 knots. Power is provided by two 331kW diesels coupled to two Kamewa FF375 waterjets.

The waterjet propulsion system enables the bottom of the hull to be kept perfectly smooth and gives the boat a draft of just 70cm, vital for safe operation in shallow waters. The waterjets also deliver outstanding manoeuvrability and enable the boat to stop in just over a boat length from full speed.

Under the GRP foredeck cover are 20 individually damped seats.



The G-Boat can carry eight men and their equipment at a service speed of over 30 knots

Forward hatches and the hydraulically operated bow ramp facilitate rapid troop deployment or transfer of cargo. The central, resiliently mounted wheelhouse is ergonomically designed for maximum operator comfort and is exceptionally quiet (under 75dBA). It can accommodate three people including the skipper.

Marine Alutech is also well known for designing and building a range of specialised craft, including pilot boats, lifeboats and the successful small fast landing craft – the G boat, of which

over 120 are now in service with Swedish and Finnish defence forces. Designed to work with the larger Jurmo boats, the 7.2m craft can carry eight fully equipped marines at 30 knots powered by a 170kW diesel and Kamewa FF240 waterjet.



The 13m Jurmo-class landing craft can carry 22 fully equipped marines and has a top speed of 37 knots