

REVOLUTIONISING THE RIB

Yacht designer Christian Stimson enlisted the help of Gurit to work on a particularly challenging brief: to design a 7.5m tender that will fit into the 6m transom garage of a Farr 115 ketch. The vessel must be as light as possible, be able to reach high speeds, whilst remaining easy to store and handle on board the mothership.

With storage space at a premium, a RIB with a removable bow cone was proposed. As the vessel will be operating at high speeds, the bow will be subject to significant slamming, so it must be locked in place as securely as possible. Three tapered titanium pins, seated in solid carbon inserts are being used to attach the bow to the hull, therefore enabling the load to react on the bow at distinct points.

Each of these three fixing points has been designed to withstand an ultimate shear load of over 12 tonnes. The hull laminates will be reinforced locally to spread the concentrated loads into the hull structure efficiently.

To minimise weight, a sandwich structure has been used throughout the vessel. Gurit's SE 84 carbon prepreg combined with Gurit® Corecell™ and Nomex honeycomb cores will provide the lightest, practical laminates without compromising the vessel's toughness. The hull and deck will be female moulded to minimise the weight of fairing required and to facilitate the removable bow.

Gurit's optimisation of the structure's design and sophisticated use of advanced composite materials throughout the entire vessel has created a versatile and lightweight RIB with the entire composite structure weighing less than 330kg.

