

Design Concept

When Wayne Jones, of Streamline Catamarans, approached Noah Thompson, East Cape Marine, to design the Streamline 7000, he wanted a vessel that had the internal volume and comfort level to match existing 8m cats on the market today, but it had to do 30 knots, and it had to be trailerable.

At first this concept appeared to be rather difficult to obtain, as the construction weight in GRP or aluminium made the design too heavy to tow behind the average family car. The displacement of the design would also require twin 115 hp to obtain a speed of over 30 knots.

Having worked with DuFLEX Composite Panels on previous projects, Wayne suggested to Noah that DuFLEX/epoxy construction could be a viable option. Theoretical performance results based on DuFLEX construction showed that a massive weight saving could be achieved in the overall design, and this brought the original design concept within reach.

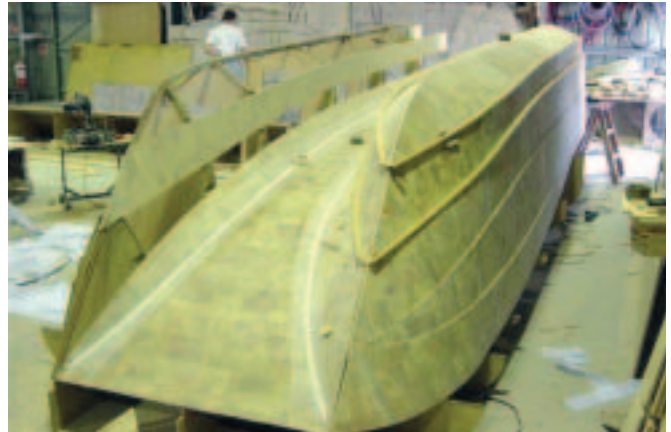
Construction

To take full advantage of the DuFLEX system, Noah worked with ATL Composites to supply the design as a kit, including pre-routed temporary frames, to optimise the build time for Streamline. The design was 3D-modeled in Autoship and flattened into developed panels, these were computer-nested and supplied to ATL to CNC rout the DuFLEX panels.

The DuFLEX panels used for the Streamline 7000 were cored with BALTEK® SB.150 end grain balsa and laminated with multiaxial E-fibreglass reinforcements, to provide good impact resistance and an extremely high strength-to-weight ratio. Hull shell, tunnel, bulkheads, soles and deck were all included in the kit.

A DuFLEX Z-Press was used to heat cure the Techniglue-CA epoxy adhesive used to bond the scarf-joints on the panels, curing the epoxy adhesive in approximately 12 minutes. 90° FRP Bonding Angles were also incorporated into the package to provide a quick and effective means for making right angle joints between the panels, in areas such as floor installation.

WEST SYSTEM brand resin, hardeners and powder modifiers were used for all the structural bonding, coating, coving and fairing applications, as well as for laminating the fiberglass tapes required in DuFLEX kit construction.



The Streamline 7000 is an extremely large volume power catamaran design, featuring a large forward cabin with separate bunks, and a separate, lockable toilet compartment built into the dash. It also includes a galley facility, ice box, fish holds, and plenty of additional stowage compartments.

The boat is powered by a set of twin 90 hp Yamaha outboards, giving a top speed of 35 knots under load. With twin tanks, and fuel capacity of 400 litres, the Streamline 7000 has good range with low fuel consumption.

The cat hulls have been tested in rough choppy water through to large rollers, and the owner of *Salt Shaker*, an avid fisherman, is very pleased with the performance.

Length	7.0 m
Beam	2.5 m
Draft	0.35 m
Weight inc.motors	1250 kgs
Fuel	400 litres
Water	100 litres
Engine	Twin 90HP Yamaha outboards
Launched	May 2005
Streamline Catamarans	www.streamline-catamarans.com
East Cape Marine Ltd	www.eastcapemarine.com

