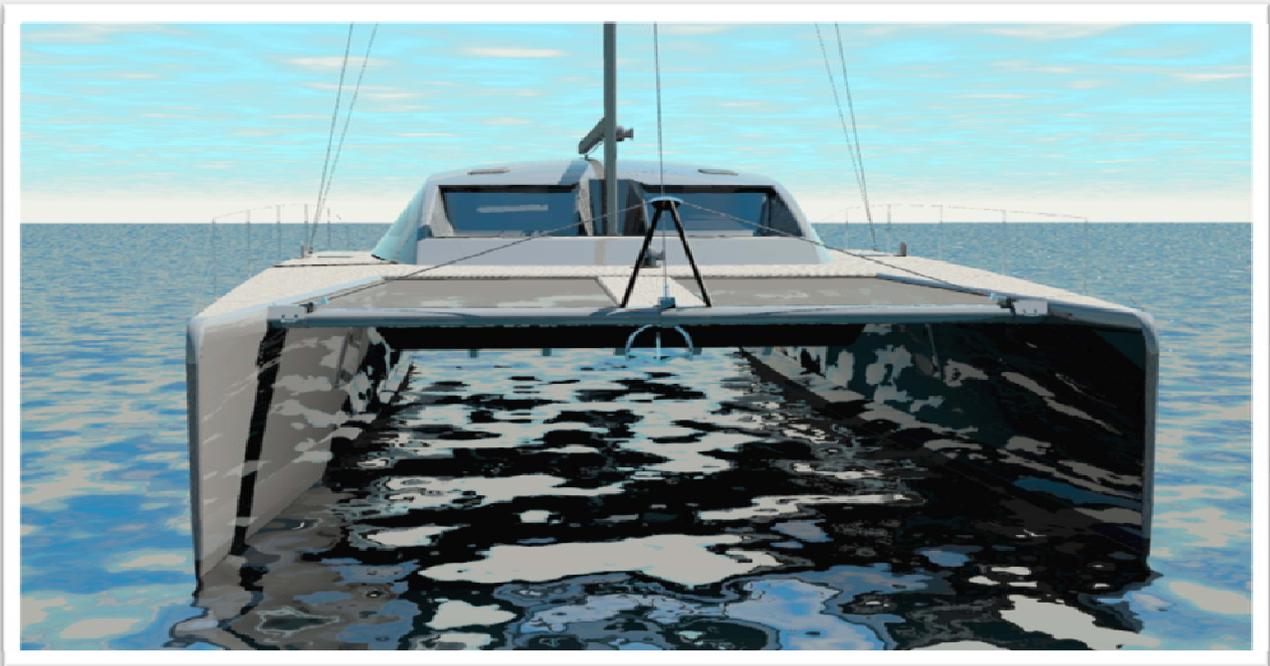


Volans 49

Design overview

The Volans 49 is based on the well proven Schionning Wilderness 1500. The design concept is to provide the ideal synthesis of seaworthiness, performance and comfort to create the ultimate long range live aboard performance cruiser. The Volans and Wilderness designs have many points in common and the following information should be read in conjunction with the Wilderness 1500 study plan which is available at www.schionningdesigns.com.au



The Volans bows have a very fine entry to slice through the waves without losing momentum. Flare in bows inboard side panels and buoyancy carried forward in the hull shoes prevent burying the bows in severe conditions.

Decks are sloping to shed water but flat for better footing and a modern style

In front of the mast there is a large area to safely work the mast lines or as added deck area to enjoy in calm days.

To increase up wind performance and reduce drag daggerboards are provided. Daggerboards when retracted also improve safety in heavy seas by reducing the hulls lateral resistance and the chances of capsizing.

To obtain comfort underway and seaworthiness the Volans offers an unobstructed 90 cm bridgedeck clearance even in fully loaded conditions.

The boat strength is guaranteed by the well proven original design the Volans is derived from, by the structural engineering which has been performed by ATL Composites and in addition by compliance with CE Category A rules and ISO 12215.

These rules call for extra structural strength by increasing laminates throughout and by adding stringers and stiffening members. To compensate for the added laminate weight and to provide higher durability foam was chosen over the original balsa as the composite core.

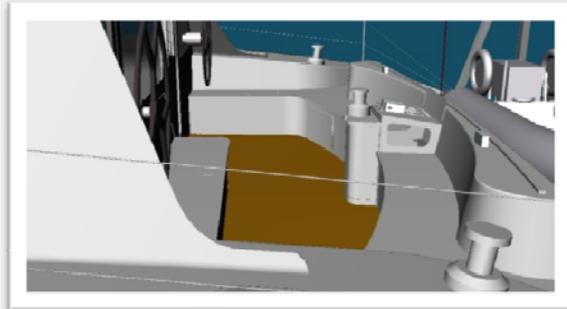
The boat's structural design consists of 4 major side-to-side bulkheads, additional bulkheads, floor framing, and longitudinal stringers which are partly integrated in the interior furnishing. The hulls have a round bilge and feature watertight compartments to provide reserve buoyancy and prevent flooding in case of bottom damage. The bottom grounding area of the hull is reinforced with extra layers of glass.

Length Overall	14.99 m
Beam Overall	7.61 m
Beam of hull at CWL	1.10 m
CWL Length/Beam ratio	13.56
Draft, hulls, fully loaded	0.56 m
Draft with dagger boards down	1.82 m
Wetted area (hulls)	39.5 square meter
Bridge Deck clearance	0.90 m
Head room	1.96 m Bridge cabin / 1.86 m in hulls
Sail area, upwind	123.7 square meter
Rigging	Fractional Bermuda Sloop
Mast	L 19 m / 21 m over water
Displacement fully loaded	9000 kg
Engines / Propulsion	2 x Inboard Diesel 39 - 55 HP, sail drive
Fuel	2 x 350 l
Fresh water	2 x 300 ltrs
Cruising Speed	sailing 10 - 15 kts under motor 8 kts.



Construction details

Except for the crossbeam which is strip planked in western red cedar the entire boat is made of PVC cross linked foam sandwiched in glass/epoxy laminates. The structural part uses foam AIREX® C70.75 (80 Kg/m³) and the interior furnishing AIREX® C70.55 (60 Kg/m³). The chain plates and other highly loaded areas are made of carbon fiber. Except for the hull bottoms, cabin roof and hull-deck joint which are foam strip planked and glassed separately, most parts are produced from CNC cut DUFLEX® panels. CNC cut panels offer very precise and fast assembly of the components. Precut panels are joined and post cured using ATL Z-press. Additional laminates are applied using vacuum techniques.

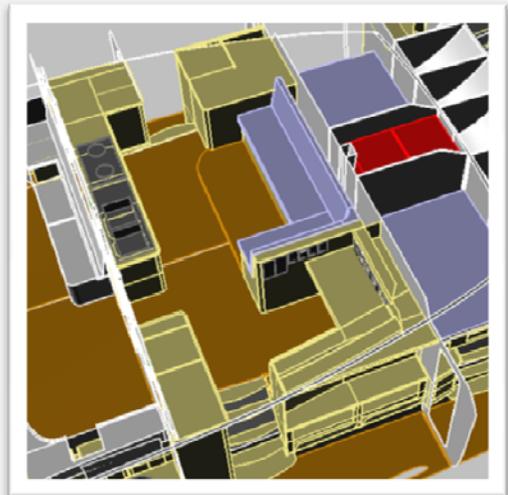


Layout and features

Salon

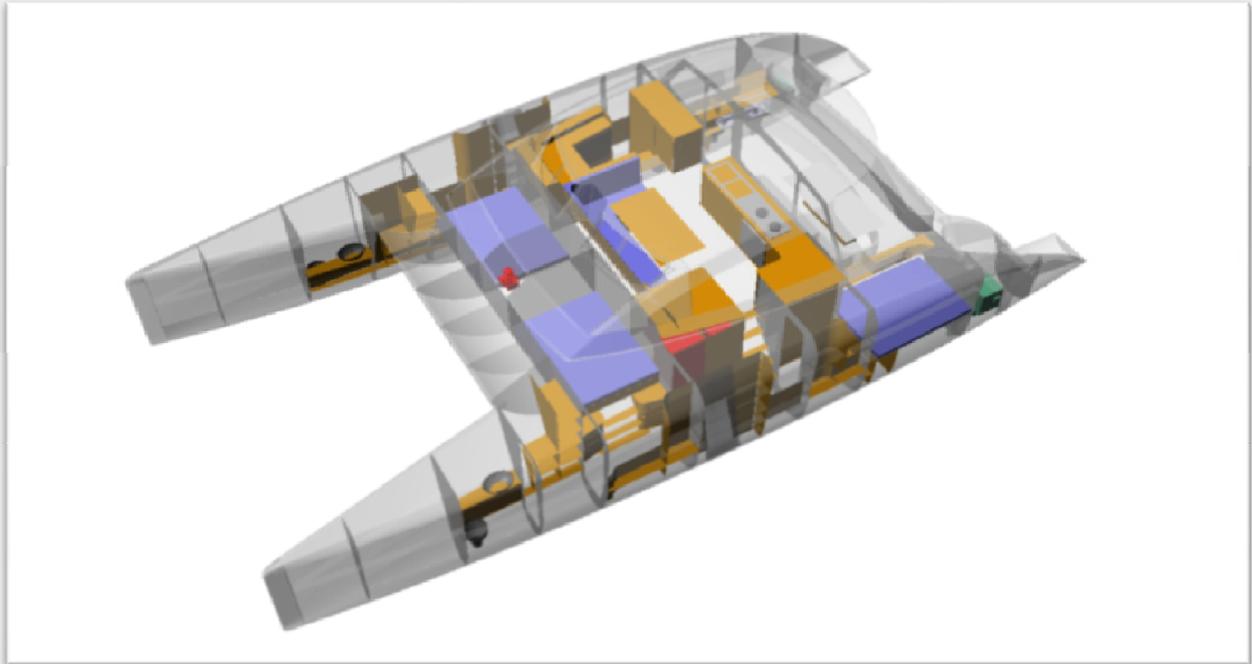
The saloon floor is raised in way of the settee to allow 360 deg views while seating. The table is extendable to 3 different sizes. The large galley is located along side the aft bulkhead and conveniently close to the settee and table. The fridge and freezer are located in the port forward corner next to the settee. On starboard there is a large navigation table and wrap around instrument console.

In order to maximize ventilation and visibility forward the cabin front is composed of four vertically sliding flat windows made of tempered glass and controlled individually by rope and tackle.



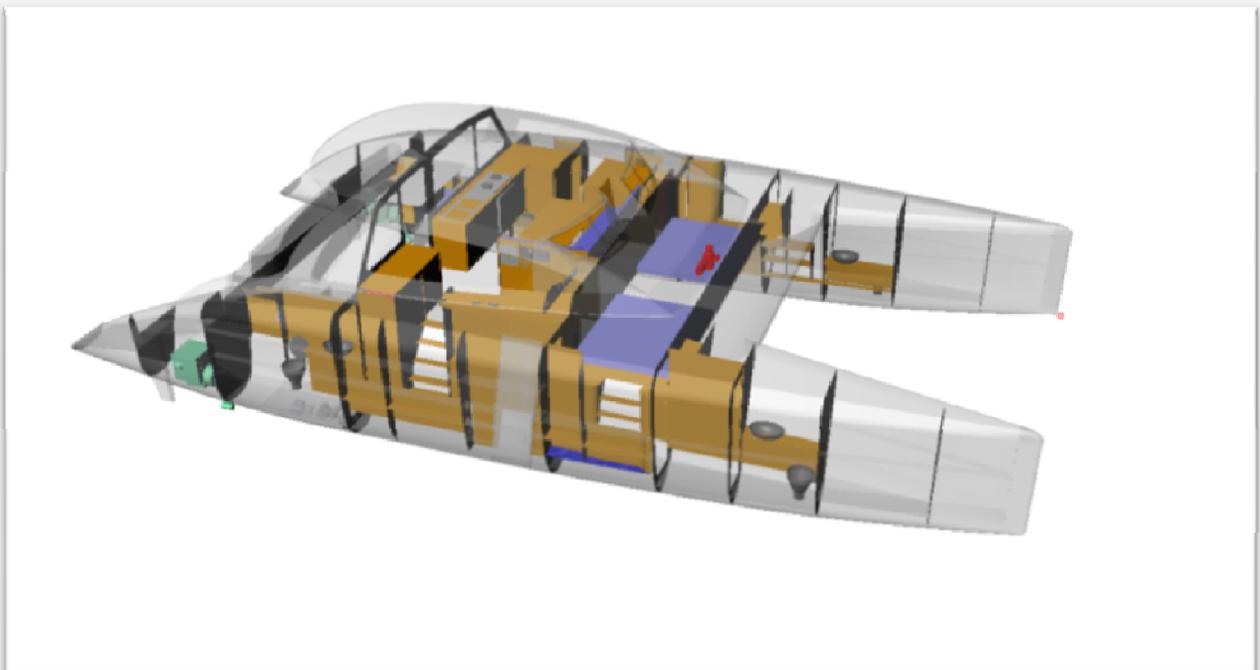
Port hull

The companionway steps lead to the laundry area and storage cabinets. Going aft the door opens to the aft cabin wardrobe area. Further aft there is the double bunk with drawers and shelves. Forward of the laundry area the door opens into a double cabin with a separate walk-in wardrobe and ensuite head.



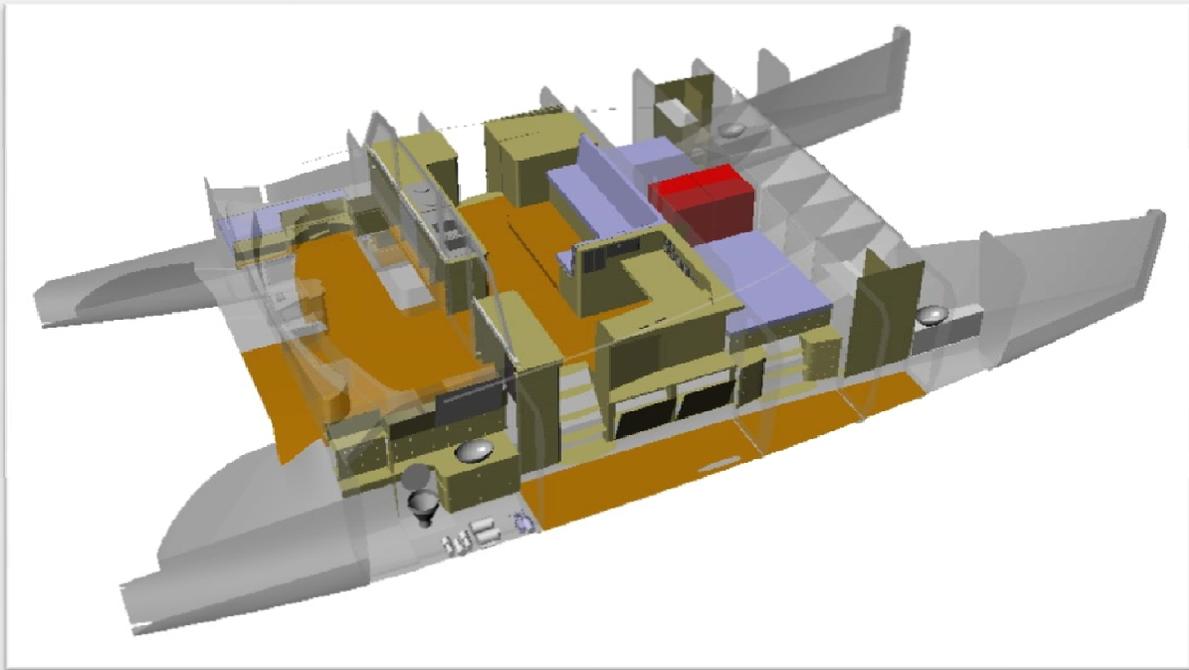
Starboard hull

The forward cabin mirrors the layout of the port hull. Aft of that there is a large inboard shelf that can be used as a sea berth or workshop bench. Above that there is the electrical area where most large electrical components are mounted. Going aft the door opens into a large head and separate shower.



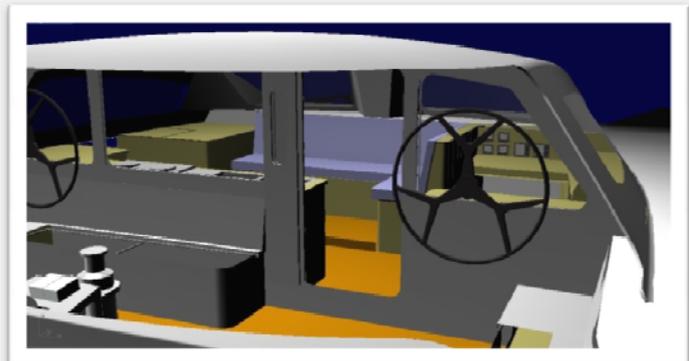
Lay out concept

To increase comfort and functionality the living spaces have been located mostly on port side whereas the technical/working areas are on starboard. The operation of the boat by the person on watch does not disturb or interfere with the use of the galley, the sleeping and seating areas. On starboard side the navigation table, door entrance, and main steering station are close to each other and located above the workshop/seaberth area and the large aft toilet which doubles as auxiliary machinery room. Here a dedicated compartment under the sole houses all the pumps and a cabinet houses the water maker. Any noise is isolated from the accommodation. This aft toilet also provides additional sound and heat isolation from the sleeping area while motoring on starboard engine only.



Cockpit

The port side of the cockpit offers seating around 3 sides of a foldable table. The large opening bulkhead window provides air flow and direct access to the galley for serving purposes. On starboard there is the main steering station. While at the steering wheel, view forward can be achieved while standing on the seat



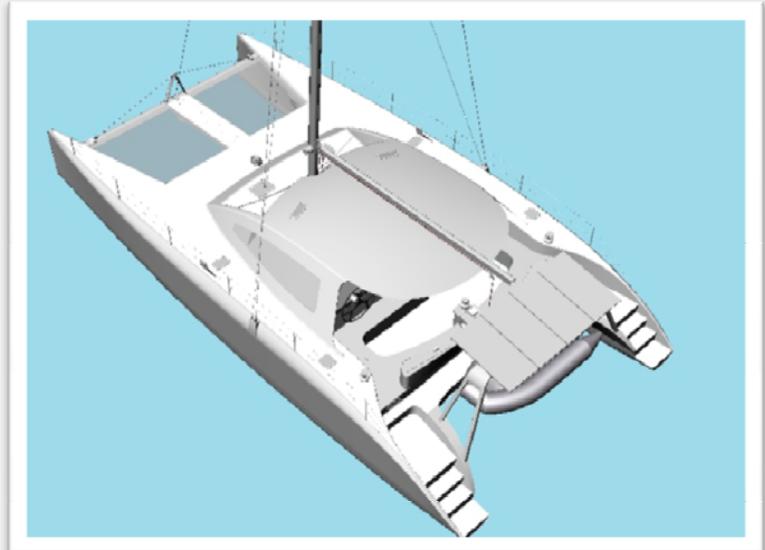
and or through the cockpit bulkhead and salon forward windows. On port side there is the option to have a removable secondary steering station to be used while docking or racing. The aft end of the self draining cockpit floor has a slight camber to prevent water pooling. A centre winch station is provided in the aft end of the cockpit. Lines storage is available under the side cockpit seats and centre winch station.

Lockers and storage

Outside there is one locker in each bow, two in the deck aft of the trampoline and one under the duckboard aft. Inside in addition to two large wardrobes throughout the boat there are plenty of lockers and shelves. Space has been allocated for installation of most equipment to be expected on a boat of this size including three air conditioners.

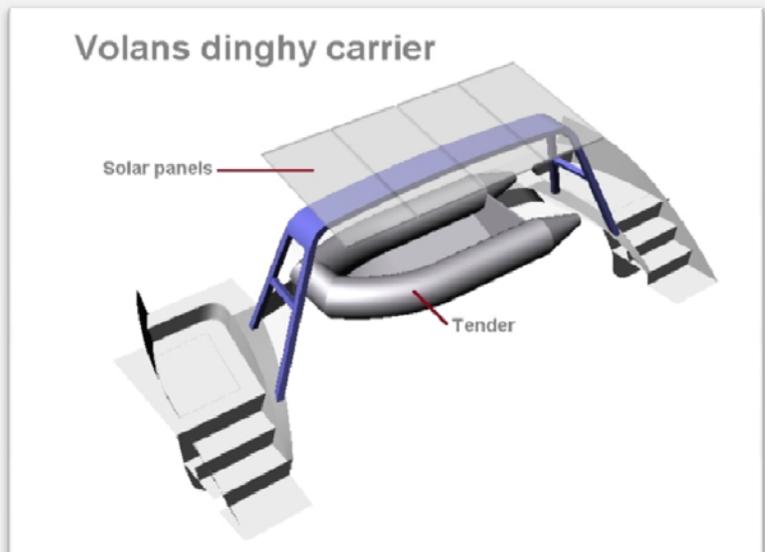
Transoms

Stern platforms close to the water and opened inboard allow very easy boarding from the dinghy. The nearby dinghy arch and duck board provide a holding point and facilitates the loading and unloading of people and provisions. The platforms' closeness to the water allows boarding from the water without the use of the ladder and makes them ideal for swimming and snorkeling activities. Large engine room hatches ensure easy access for maintenance purposes. The engine room deck is well above the water line to reduce down flooding risk and maximize engine compartment head room.



Dinghy carrier

The composite dinghy carrier can take up to 3.5m dinghy and 20 HP outboard. Four 240 watt Sanyo solar panels can be mounted on the carrier to provide shade for the dinghy and enough power to run the boat systems. The height of the arch is such that it does not obstruct the view aft.



Duckboard

The transoms are bridged by the duckboard to provide side to side access and an alternative entrance in the cockpit. The duckboard also provides plenty of locker space for snorkeling equipment, wet gear and long items