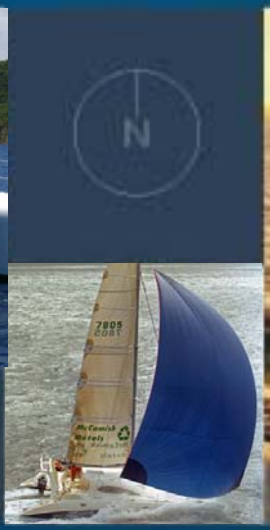
Schionning



ALASKAN 41 Study Plans

www.schionningmarine.com.au

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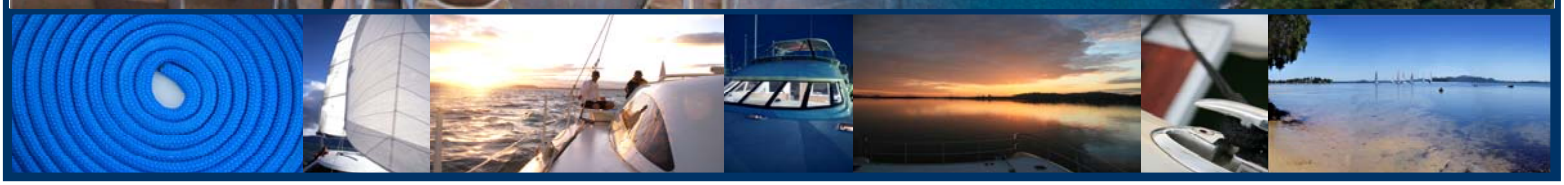


ALASKAN 41: Design Portfolio

Designed to turn heads with its plunging trawler style shear line this design breaks the boxy looking cat mould to give both great looks and performance.
A seaworthy passage maker, the Alaskan runs on very economical hulls, giving her cruising speeds of 16-17kts, and a top speed of 24kts pushed by just two 125hp Yanmar turbo diesels housed in separate engine rooms.

With such small Horse Power and very economical hull shapes the Alaskan has the fuel consumption figures to embarrass even the most frugal of monohull designs. Cruising at 16-17kts fuel consumption is 1.3ltrs per Nautical mile giving the Alaskan a range of close to 1000 sea miles.

A stylish stern with wide swim platform and open steps gives her a very easily accessed walkthrough cockpit and separate duck board area with plenty of room to wet a line and fight that fish. Hinged davits that integrate into the seat back keep the duckboard clear and stylish at anchor but offer a secure place for the dinghy whilst motoring.

Dividing the cockpit and duckboard is a bench height, BBQ/preparation area and ample seating for those out door social occasions.

The saloon design and ergonomics mirror modern housing trends with an open plan theme creating a very social and open environment in which to entertain friends and always be part of the conversation no matter what you are doing, from preparing hors d'oeurves to grabbing a drink.

Full 360 degree views help bring the outside world into this area with upright glass panels giving a great sense of security but excellent all round vision.
An "L' shaped galley with very generous bench space and chest freezer create a great environment to produce gourmet meals should you be so inclined. The galley is situated in front of a large drop down window which opens up into the cockpit. This allows the cook to be part of the conversation inside or out and facilitates easy cockpit entertaining.

An atrium ceiling increases the feeling of space and offers excellent provision for the on board air conditioner and ventilation system and with the right lighting creates great ambience for the quite dinners alone or when entertaining on board.
Going into the hulls, the forward cabins are mirror-imaged, with each cabin having the option of either an en-suite or walk in robe in the hull area forward of the double bunks. The 'island' style bunks are set on bridge deck level, with access down each side the beds are easier to make.

Alaskan 41 under way

Moving amidships in the hulls, starboard side, there is a workable nav station and office on the inboard side. Behind this is a day head/shower in the aft cabin.

In the port hull, aft there is a private double cabin and changing area, with easy access back into the main saloon area. ◇

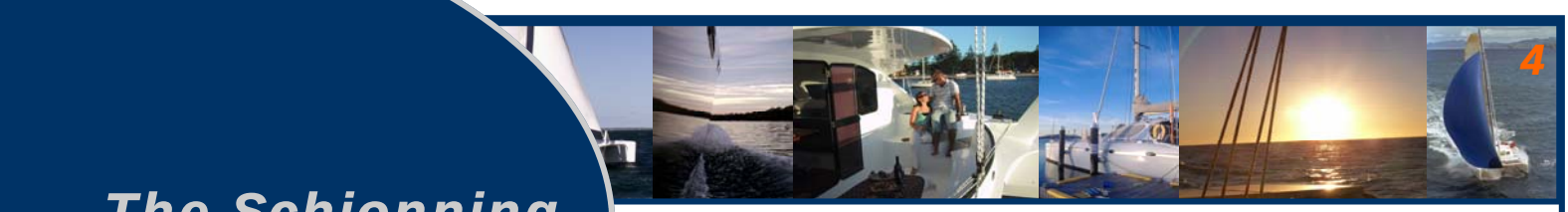
LOA……12.50 metres
BOA……..6.40 metres
DRAFT……...0.680 metres
HEIGHT……...5.40 metres
Headroom – Hulls……..1.9—2.3 metres
Headroom – B/Deck…….1.93 metres
Payload……...2800 kilograms
Displacement ..... 8800 kilograms
Immersion Rate .....172 kg/cm
Fuel Capacity .....1200 litres
Water Capacity .....400 litres
Bridge deck Clearance .....0.800 metres
Motor choice: …….2 x 160Hp Steyer
……. 2 x 125Hp Yanmar
……..2 x 110Hp Yanmar same ft print as 125's
Fuel Consumption……..1.2l/nm
Motor Speed cruising: .....15-17 knots
top:……..22-14 knots
Range:…… …approx. 1000nm
Building Hours using kit.....6500 approx
Cost Of Materials .....$280,000 estimate*
Waterline Beam to Length ratio 13.8:1
* This price estimate is based on a basic specification.

Up on deck the Alaskan has enough room forward for a great party. With the addition of a few bean bags the forward sunken deck offers a secure, safe place to entertain many friends in fine weather.
The fly-bridge is huge for a boat this size. This has allowed for plenty of seating surrounding the helm and provision for refrigeration. No longer does the helmsperson have to endure this duty alone, they can now share the view with everyone.

An extremely seaworthy design for coastal and offshore cruising the Alaskan 41 is very comfortable yet is still a good size to easily manage around tight Marina's. She offers enough accommodation to take extra friends or family along with you and room to entertain in style. She cruises faster than most other passage makers using half the fuel, offers shallow draft for exploring and is an extremely safe, solid vessel that can take you anywhere you wish to go. She's a 'no roll', ocean going vessel that can be beached anywhere on a strong straight hull bottom with full prop and rudder protection and to top it all off, she has aesthetic appeal that is hard to beat, no head remains unturned when she cruises by!

CONSTRUCTION OVERVIEW

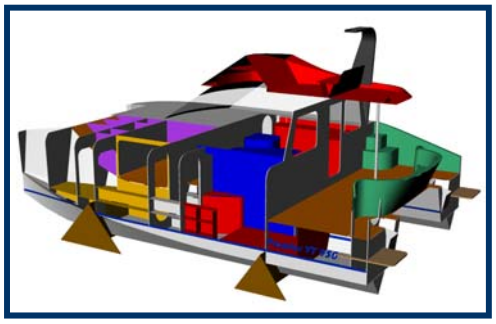
Designed in the CAD program CATIA used by such design giants as Boeing and Toyota the Alaskan is founded on the latest technology. The shell is a blend of light cored panels and multi-axial cloth bonded with epoxy resins as used in modern race boats. The construction and materials are high tech when compared to conventionally molded boats. However using our proven techniques and our pioneering CNC technology this design can be easily built by any amateur. With all flat surfaces in this design being pre-cut (including jigs and frames) all the 'think work' and time wasting has been taken out making the build quick and efficient for both professional or amateur builders alike. It is just like assembling meccano!
Plan details include assembly diagrams detailing the construction sequence of each of the pre-cut parts and how they fit in relation to other parts.
Being built the right way up from the start and having the ability to leave side panels off for access to internal areas for the majority of the build aids quick easy assembly.
The result is a light, incredibly strong, osmosis and fatigue free design that will hold incredible re-sale value in years to come.



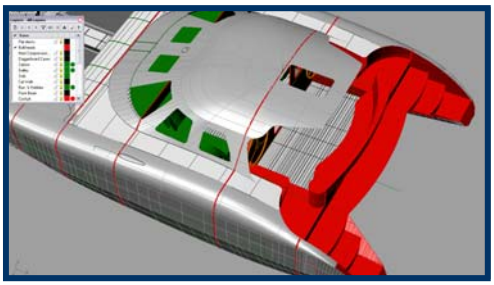
The Schionning Marine Team

Design:

Schionning Marine came to the forefront of Australian Design in the early 90's with Jeff's distinctive lines and shapes. Never before in multihull design had there been something that looked good but also performed well.



Jeff's extensive boat building knowledge and long sea miles allowed him to produce designs that where not only 'easy' to build but looked good and held their value when it came to re-sale value, wether an amateur or professional build.
Being a benchmark in design has given our designs a distinctive presence on the water and in the market place.



With an active design studio involving in house CAD drafting, boat building back up and every team member having an extensive background in sailing, gives our company a real passion for the products they produce as well as giving you, the customer, the security of being in experienced hands.

Being an active design studio means we are always looking at moving forward. This see's a continual refinement of our current design series as well as producing custom designs for those looking for something a little more out there.

Supply:

Rarely when dealing with a marine supply company do you deal with someone who knows boats let alone the design you are building. Not anymore.

Schionning Marine's supply arm makes it possible to retain all the products you need to build your dream under the one roof. Dealing with people that have a background in boating and design means you get the best product for the job at the best price available.

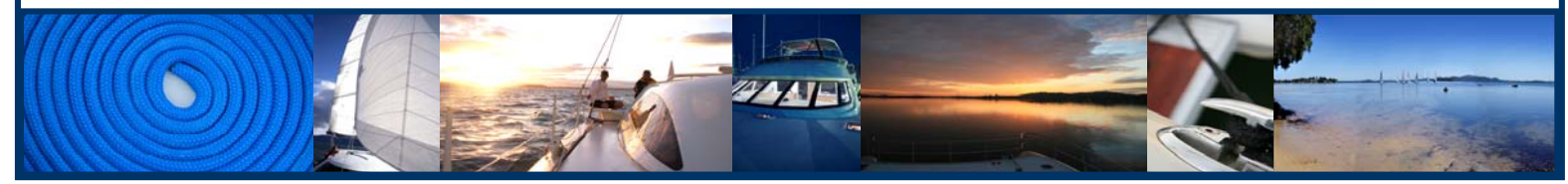
Being involved within the supply side of the industry allows us to know what the latest and greatest products are for use in our designs as well being able to advise on price.
It has also allowed us to secure new products exclusively to Schionning Marine. Things like Solara solar panels, hail proof, can be walked upon and directly stuck to most surfaces and Hypervent, the ultimate moisture stopper.

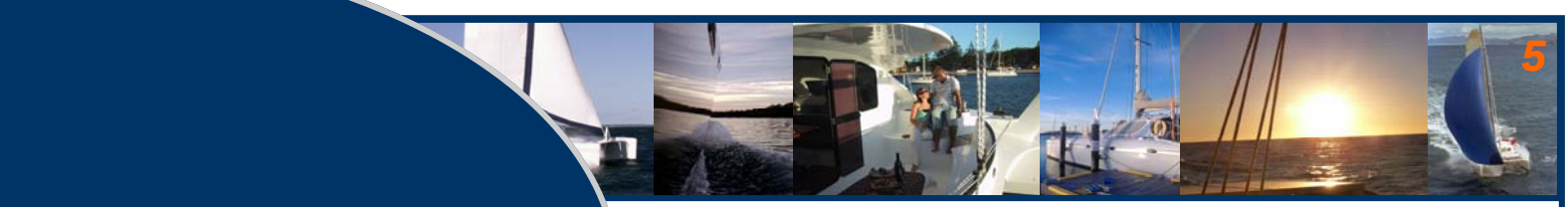
Shipping around the world on a weekly basis gives us clear supply channels making sure your products will arrive first time, on time, every time.

Dealing with a multitude of different suppliers on a regular basis gives us a close working relationship and a fantastic buying power which we pass directly down to our clients through cheaper prices and better advice.

Whether it be a nut, an engine or sails for your boat no matter what size or design Schionning Marine can supply it at the best possible price with the best advice from people in the know.

Offering both Design and Supply allows us to really produce a boat in a box. Everything you need for your project from the one company!





Kit Construction

When ***'kit'*** is mentioned in relation to one of our designs it means all the materials needed to get that particular design to a faired shell ready for paint.

A ***pre-cut 'kit'*** means that the kit contains as many components as possible cut to their final shape.

Pre-cut kit technology means the kit is supplied in the specified size DuFlex or Durakore panels, with bulkheads, soles and webs, hull panels (in the panel designs of the ***Wilderness*** and ***Prowler VT***) furniture, transoms and cockpits are pre-cut to there final shape held in place in the 2400 x 1200mm panel by small tags. The full size panels are scarfed ready to join and once glued and dry, the tags are cut to release the individual pieces. A set of plans is supplied for the pre-cut components showing the assembly of each component.

ADVANTAGES OF PRE-CUT KITS

- ***SPEED***

  This is the quickest method to build a one off boat! The panels are pre-glassed and pre-cut. The panels are taped together with pre-cut (width) tape. A Wombat Junior wet-out machine eases this process further. Because of the pre-glassed nature of the panels, fairing is greatly reduced as well making it quicker to build.

- ***SIMPLICITY***

  There is no doubt, building a boat does not get any simpler than this. The computer generated pre-cut and pre-glassed panels just fit together perfectly.

- ***HEALTH***

  Because of reduced handling of epoxy and cloth, your exposure to hazardous chemical fumes and itchy dust is very much reduced.

- ***EASY TO HANDLE***

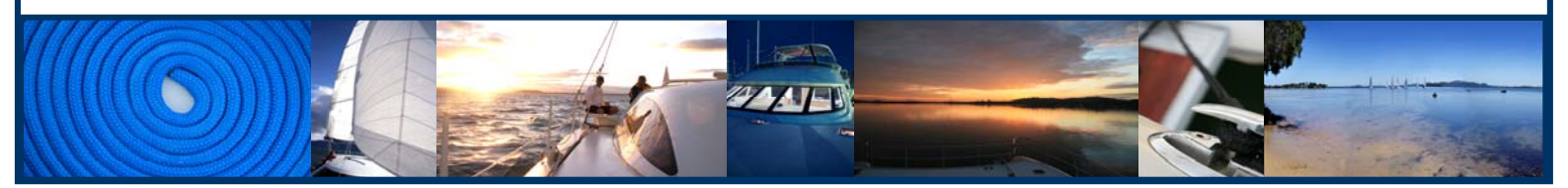
  The furniture can be assembled on the floor in the workshop and then when dry, taken on board and fitted in position, this makes the job much easier.

- ***LESS WASTAGE***

  The computer nesting ensures maximum use of material and minimal wastage.

- ***QUALITY END RESULT***

  One of the major pluses of using the DuFlex panels is that being pre-glassed under strict factory conditions, they maintain the correct resin to cloth ratio and so maintain the required and desired strength and weight.

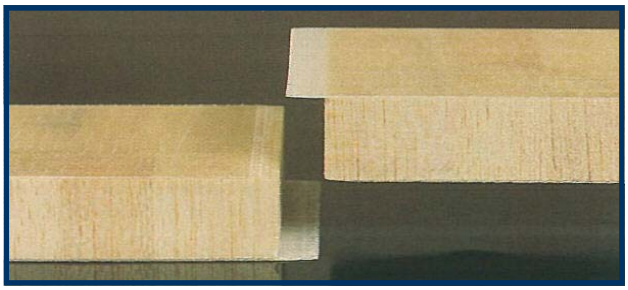


DuFlex Panel Explained

Developed to reduce construction time and to optimise structural weight, DuFlex Composite Panels minimise the experience required to produce a high performance composite structure.
Time-consuming laminating, coring and vacuum-bagging steps normally required to fabricate high performance composites are avoided, and material waste, labour and tooling costs are greatly reduced.

The Concept:

- High fibre fraction composite materials possess superior mechanical properties.
- It is safer and less expensive to make such a composite by automated means.
- Flat and developed shapes can be post formed with little or no tooling.
- Cutting is more accurate and less expensive by CNC equipment than manual processes.
- Design criteria are tightened and a greater percentage of project costs are fixed.



Z-Scarf

The Material

Standard DuFlex panels, 1200mm x 2400mm (Export size 1200 x 2400mm/47 inches x 87 inches), are available with rigid end-grain balsa, structural linear or cross-linked foam, and phenolic impregnated paper honeycomb cores laminated with a high performance epoxy resin reinforced with multiaxial E-glass or carbon fibre, and peel-plied.

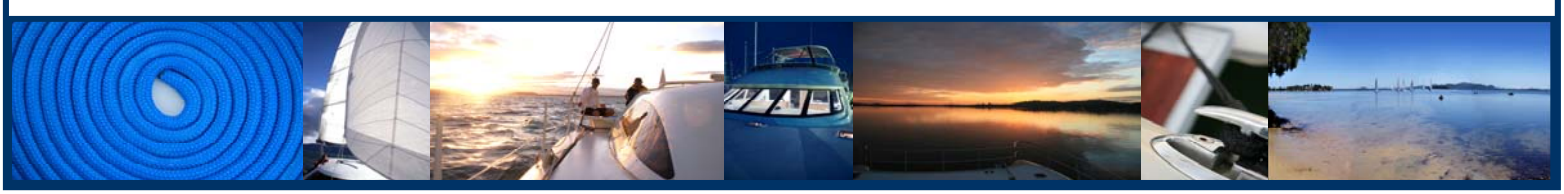
For our designs we recommend a balsa end grain core.

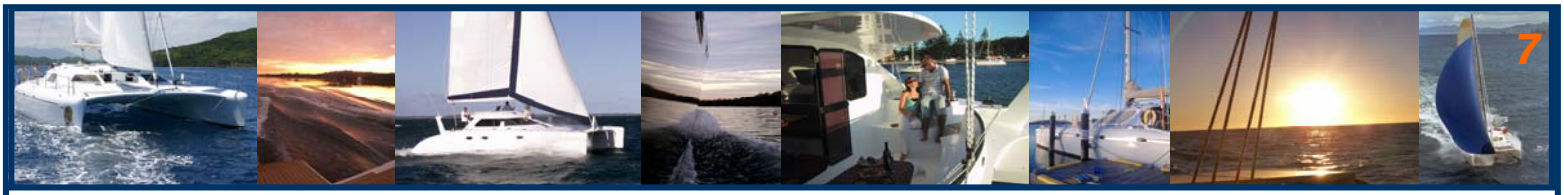
Unique Features

- Strength
- Durability and Damage Tolerance
- Economy
- Expandability
- Kits

Panel Manufacture

The core and laminates are co-cured in a hot press, a method that consolidates the laminate under pressure increasing the fibre volume and therefore the strength of the finished panel. The fibre content is approximately 62% by weight with E-glass in the finished DuFlex panel, compared to 15% by weight with spray-up and 25% with hand lay-up processes using chopped strand mat.
Core, fibre orientation and ply schedules are based on design or engineering specifications to best meet weight targets, stress and impact loads, and other design parameters.
By using epoxy rather than polyester resin as the matrix in DuFlex, a reduction of laminate thickness is achieved while improving damage tolerance. Epoxy exhibits better core adhesion, moisture and fatigue resistance, and has superior strain capabilities which provides DuFlex laminates with greater impact resistance than polyester/E-glass laminates that are up to 3 times thicker.
Greater stiffness allows wider frame spacing, while further reducing weight and building cost. Total weight savings can reach 50%. For boats and motor vehicles, this has a follow on effect for power and fuel requirements. Toughness and durability of the panels reduce general maintenance costs, and there is no chance of osmotic blistering occurring in the epoxy matrix.





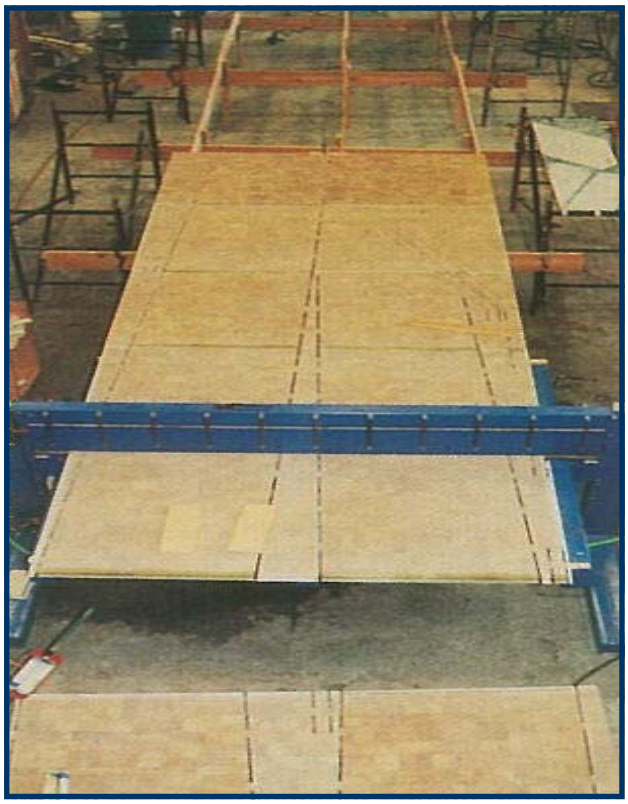
Expandability
To offset their individual size, DuFlex panels can be supplied with both long edges pre-machined to facilitate joining. This Z-joint is structurally effective and achieves a smooth and fair surface profile.

The joint is analogous to a weld in aluminium structures and has mechanical characteristics that can be accommodated in an engineered design.

The Z-joint transforms DuFlex panels, on-site into large monolithic plates.

To streamline the joining process, a Z-Press can be used. The press applies heat and pressure to cure the epoxy adhesive used to bond the Z-Joint. Joins are fully cured in 4 minutes and panel length can be increased at a rate of 1.2m lineal metres per join.

The Z-Press is designed for rugged practicality from rectangular hollow section steel, and is shipped in a 'ready to assemble' form.



Z-Press

Balsa Core

Balsa end grain (150 kg/cubic metre) has exceptional qualities, very high compression strength, very good sheer capabilities and very good sheer stiffness.

Compressive strength is the resistance to collapsing when pressure is applied perpendicular to the surface as when pushing directly onto the material with the tip of your finger. Balsa is far stronger than Foam (80 kg/cubic metre) in compression. Foam is stronger than honeycomb both paper and plastic.

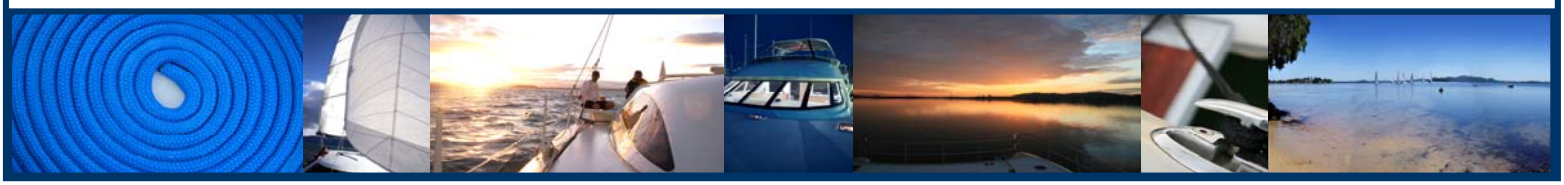
Balsa is also far better than foam or honeycomb in sheer. This is when the core sample is held flat between your hands, one hand slid one way and the other slid the opposite way. When the core tears through the middle it has failed in sheer. The amount of stretch you feel before the core shears is sheer stiffness. To compensate for sheer weakness the core is made thicker so 13mm Balsa may be equal in sheer to 19mm Foam.

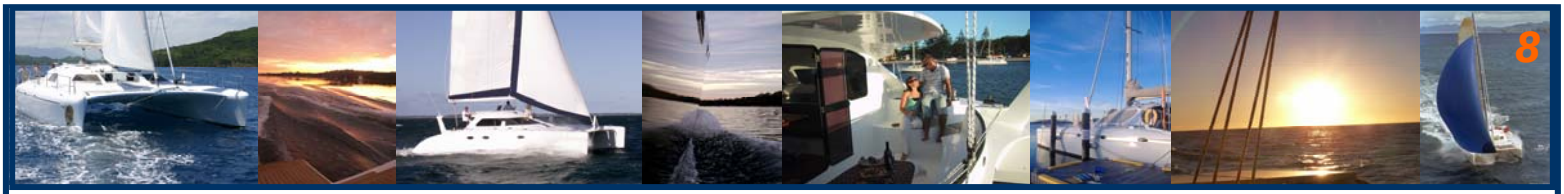
Paper Honeycomb (50 kg/cubic metre) is very efficient and lighter than the other core choices. This can be used for external use but needs extreme care to prevent water penetration. Ideally, it is used for all internal furniture and smaller bulkheads. Should water get into the core, you lose 50% of its values. It can be suction dried and restored back to full strength. Paper Honeycomb has similar strength and sheer ability in the vein lines and about 80% across the veins compared to Foam. Plastic Honeycomb is about 1/2 the value of foam and of similar weight

Our hull skin thickness is quite thin, we therefore find the core works harder and its stiffness is noticed in the finished structure (sheer stiffness). Generally a balsa or WRC shell is noticeably stiffer than a foam boat using equivalent laminates.

COMMON SENSE SUMMARY

Core Weights:	Balsa End Grain	150kg per cubic metre
	SuperLight Balsa	80kg per cubic metre
	Foam	80kg per cubic metre
	Paper Honeycomb	50kg per cubic metre
	Plastic Honeycomb	80kg per cubic metre
	Western Red Cedar	360-380kg per cubic metre





Balsa has very good values and we can produce a shell using a very light laminate. It will be very stiff and very resilient to fatigue.

Our boats can be built using Balsa, Foam or Western Red Cedar. Combine strength, stiffness, lightness and cost, with ease of use - it just makes good sense!

End-grain balsa, we think, has far more going for it than against.

It is strong, about 150kg/m3 in density compared with most PVC brands of foam being around 80kg/m3. This equates to a much stiffer and stronger structure. We can and do help customers who prefer foam for one reason or another with laminate schedules. Usually we will add up to twice the laminate in areas subject to impact, such as hulls and underwater sections to reinforce for beaching.

When it comes to a tough cruising boat that can take its fair share of punishment, balsa is the only way to go. In a minor impact situation foam will generally absorb the damage and depending on the force, leave the inner skin intact. However, if the force is more severe it will puncture much easier than balsa, through both skins. Balsa on the other hand, will resist damage of the outer skin up until impact will break through both skins but will take much more impact to achieve this and the downside there will be more damage than foam.

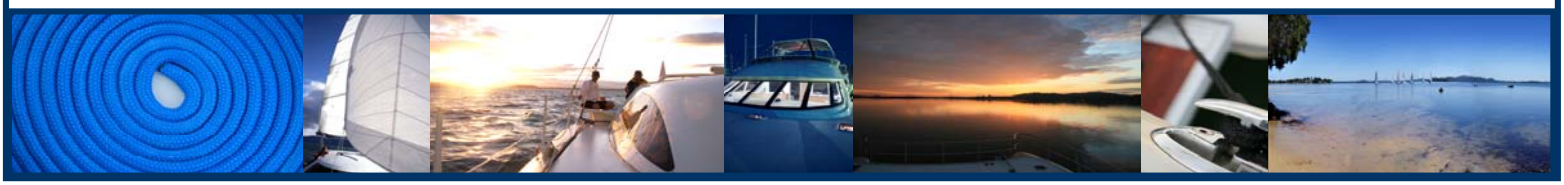
Looking at the normal operational life of a cruising boat, taking into account general wear and tear, the odd bump into the jetty, beaching, rafting up etc, we feel it's far better to engineer a boat for this application. Damage is something to be avoided no matter the material used.

We have hands on experience with these materials, building and sailing our designs and also repairing in some cases. This has been invaluable in designing, as we are not just looking at lists of specifications but have a feel of how these materials can be blended and maximised in their use.

As with any core material, keeping moisture out of the core is essential, balsa is no exception. We specify squeegee sealer coats be applied on all surfaces. This doesn't add much extra weight but guarantees the life of your boat. Another important procedure with any core material is back -filling. This is done by removing the core exposed in any cut-outs through the core material and replacing with epoxy filler, such as hatches, windows, through-hulls etc. It all comes down to care and attention when building. Being builders ourselves, we have seen varying degrees of build quality, often the material choice has nothing to do with problems suffered during the life of the boat, most repairs we have seen are due to bad build quality.

Back-filling applies to deck fittings too. In this case, wherever a fastener enters the core, this hole must be back-filled with epoxy filler. This way, even if one of these fittings leaks, it won't damage the surrounding material.

In summary, we feel end-grain balsa is a great product. Coupled with Durakore and DuFlex panels, your boat will be strong, durable, stiff and lightweight



Join The Family

With 22 years of Design, construction support and now material supply our company is specifically tailored to support individual builders and their projects.

Back Up

A 5 day a week back up service where you can access an in house boat builder to help guide you through your project. By phone, internet link, email or fax you can ask your question and get a timely response.

The 'Club'

Events like construction seminars are held regularly to get that one-on-one contact you can't get over the phone.
Annual events like the Muster regatta help to introduce you to the ***Schionning*** family of builders and owners which is now over 295 strong.
A extensive network of local builders within every corner of Australia gives an on the ground support network that is not available else where.
Need advice... it is only around the corner!

MUSTER Fun!

Professional Build

For those seeking a professional build we have a network of recommended builders throughout the world that are assured to deliver the type of service and quality you expect from a professional. With our supply arm this means easier co-ordination between supply and design for this avenue, helping take out a lot of the headache of project management.

A Professional Build

The Team

Our Design office is always open where you'll find a warm and friendly welcome should you visit any time. You will often see one of our staff if we are travelling anywhere near you and can spare the time, we really do like to keep in close contact and hands on with our builders everywhere.

The Team

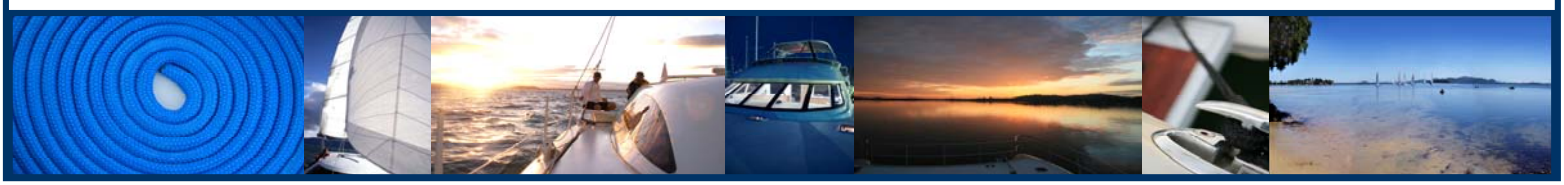
Construction Plans

The actual plans themselves are tailored to our market as well. With more build processes included within the schematics and clear CAD drawn plans using software the same as giants like Boeing and Toyota, you can be assured of a high quality construction set.
Product data sheets and a step by step 150 page A4 construction manual are included with every set to help with the process of building your own boat.
All plans, plotting and construction processes are done in house, so again when you talk to us, you are talking to people who know their product.

Plan Excerpt

Stand Out From The Crowd

Besides the above points it is most important to think about re-sale value of the end result. A ***Schionning*** designed boat is your stamp of approval in the market place. With over 22 years in the industry, being at the forefront of design, technology and service the ***Schionning logo*** is your ability to sell your investment at top dollar.
Our longevity in the industry and our good name world wide ensures your boat will be known any where you sail and will always turn heads for the right reasons.



Alaskan 41 Photos

Distinctive, proud shear line. Above

From the rear. Right

Bow on. Right

The sunken side deck. Below

Left. Sunken foredeck looking back

Classic trawler style lines with high proud bows. Below

Low wake and effortless, move-ment through the water. Right

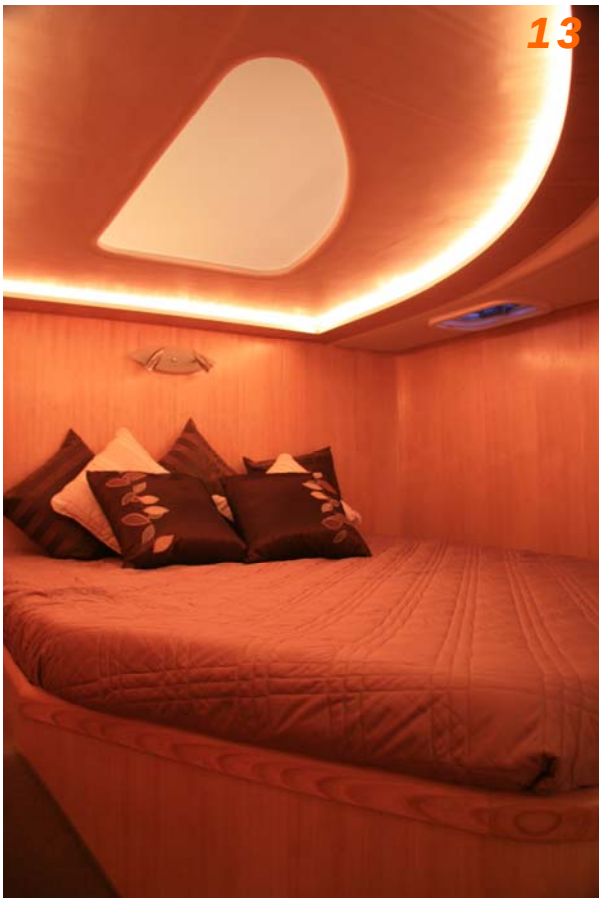
Cockpit seating and BBQ area Above

Side deck steps and walk thru. Above Foredeck and fly bridge. Left

Separate engine compart-ments, with deck access to the engine room. Left

Helm station on fly bridge, protected area with plenty of seating. Right

Saloon looking towards the big 'L' Galley. Above Port hull midships office area looking forward. Below

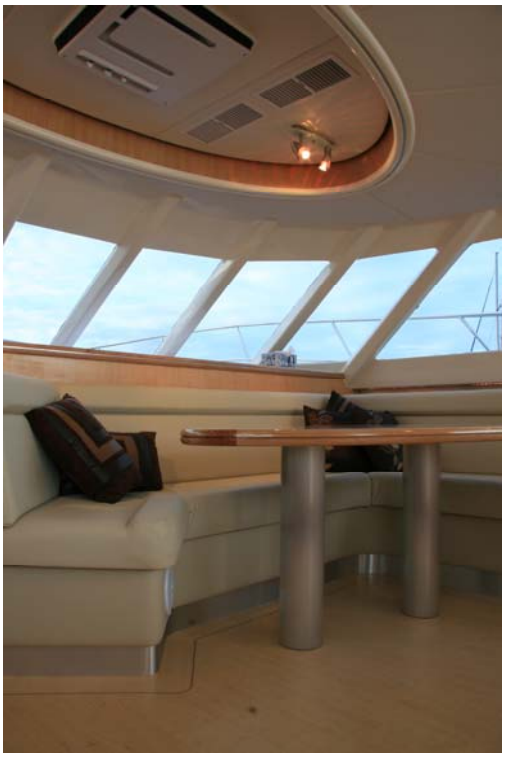


Forward Island Dbls Above

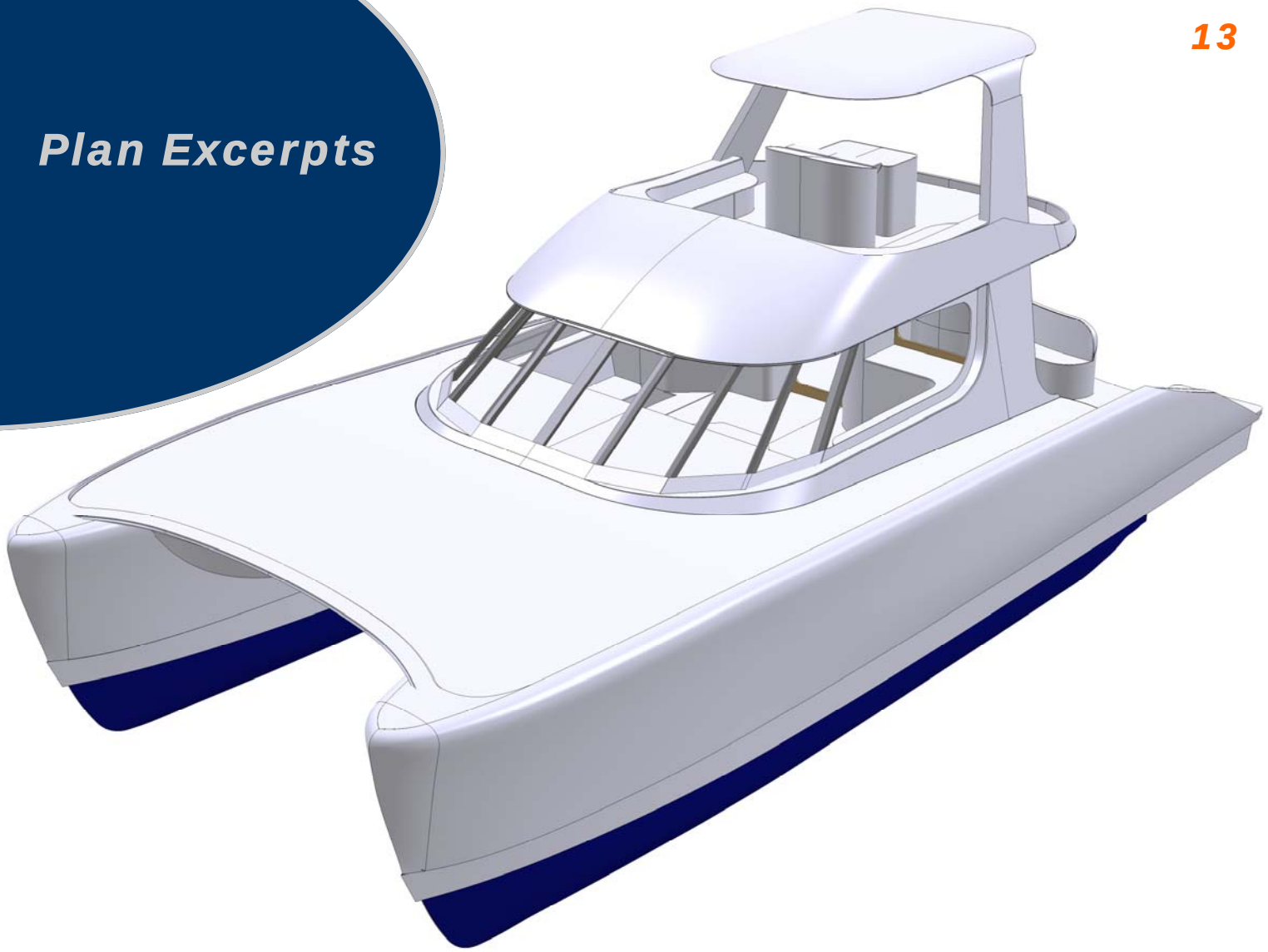
Basin and Tap ware Below

Looking forward from the forward doubles towards shower Below

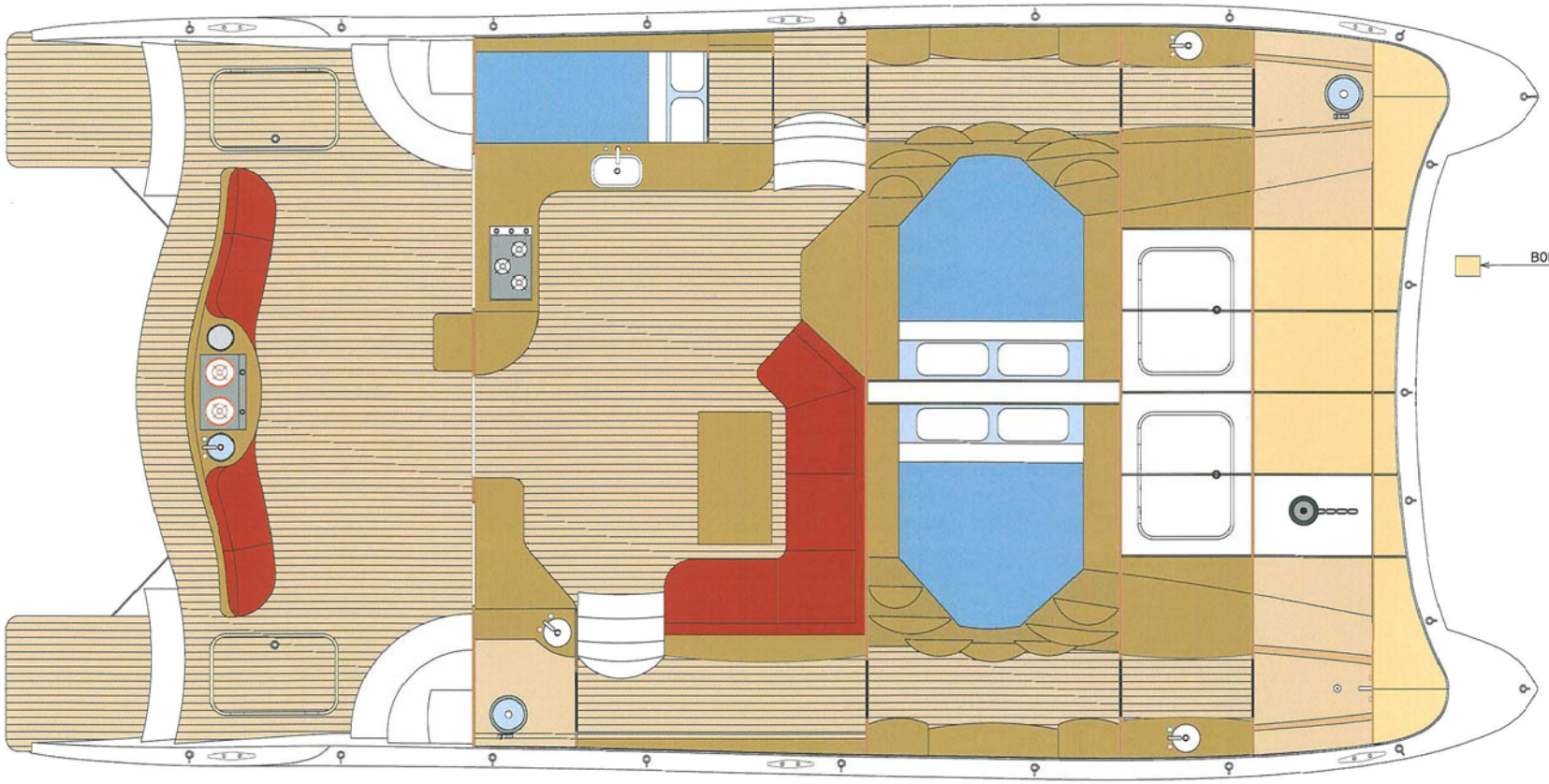
Pantry above Atrium ceiling below



Plan Excerpts



From CATIA 3D Model to on the water A41



COCKPIT	MIDSHIP	FWD CABINS	BOW
ENTERTAINING AREA / BBQ / SEATING	GENERAL LIVING AREA	MASTER BEDROOMS	ENSUITE / STORAGE

Scale: 1:40

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DRAWN BY: NATHAN MILLS
cad@schionningdesigns.com.au

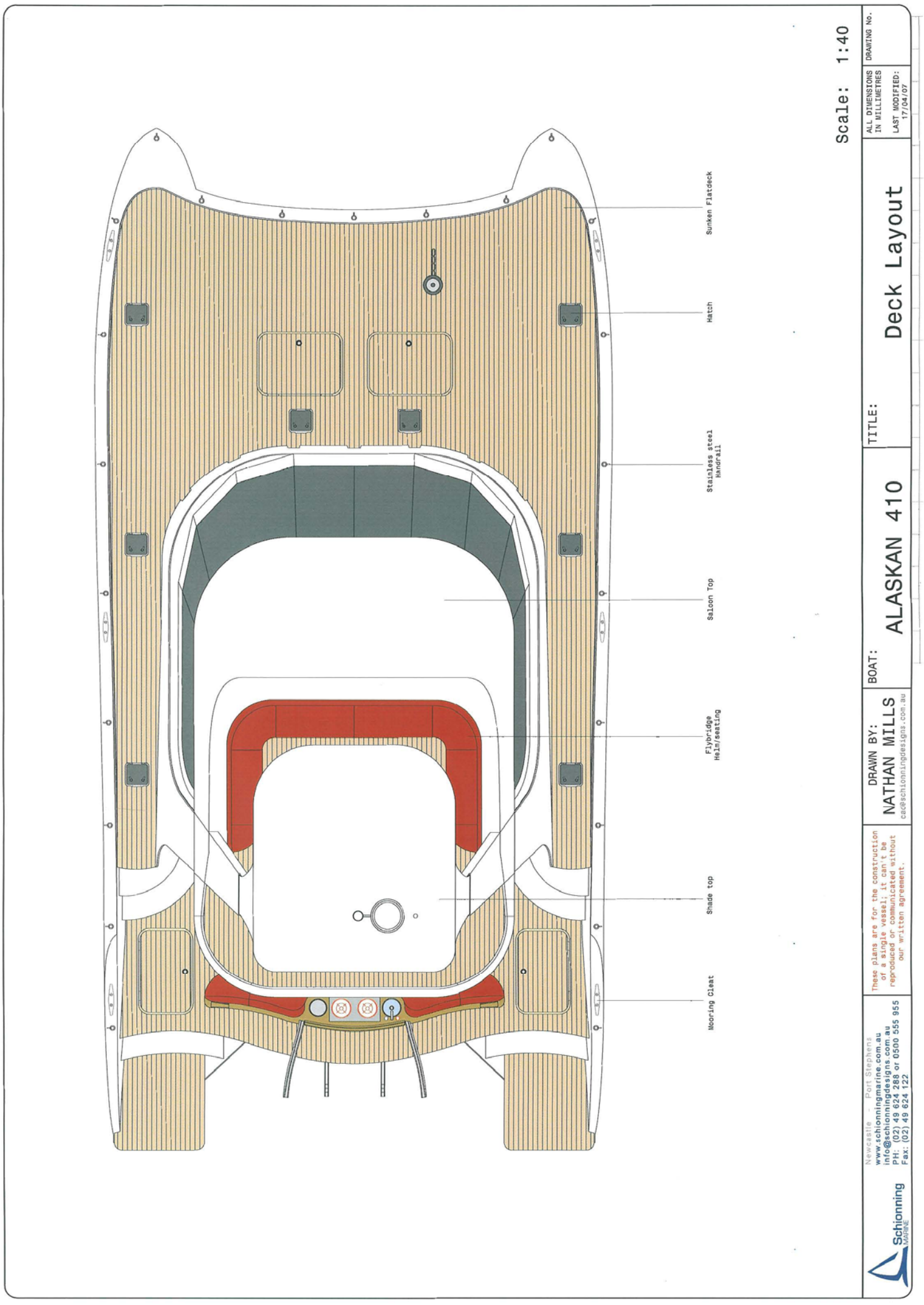
BOAT: ALASKAN 410

TITLE: Internal Layout

ALL DIMENSIONS IN MILLIMETRES

LAST MODIFIED: 17/04/07

DRAWING No.


Sunken Flatdeck
Hatch
Stainless steel Handrail
Saloon Top
Flybridge Helm/seating
Shade top
Mooring Cleat
Scale: 1:40
DRAWING No.
ALL DIMENSIONS IN MILLIMETRES
LAST MODIFIED: 17/04/07
TITLE: Deck Layout
BOAT: ALASKAN 410
DRAWN BY: NATHAN MILLS
cac@schionningdesigns.com.au
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Schionning MARINE
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PH: (02) 49 624 288 or 0500 555 955
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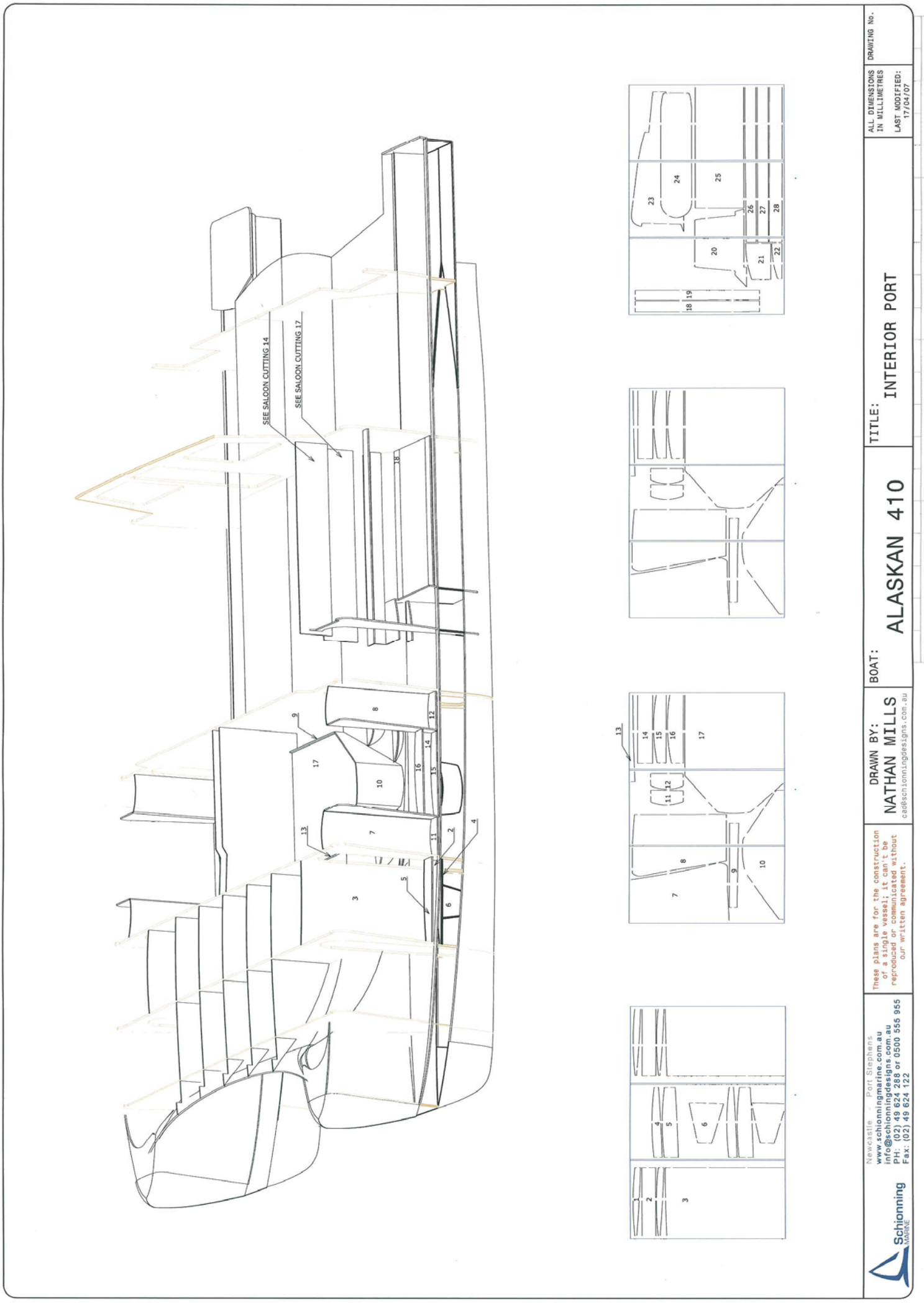
SEE SALOON CUTTING 14
SEE SALOON CUTTING 17
DRAWN BY:
NATHAN MILLS
cad@schionningdesigns.com.au
BOAT:
ALASKAN 410
TITLE:
INTERIOR PORT
ALL DIMENSIONS IN MILLIMETRES
LAST MODIFIED: 17/04/07
DRAWING No.
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Contact

Schionning MARINE

Contact:

For more information in relation to this design or anything to do with our boats, please don't hesitate to contact one of our helpful staff at Schionning Marine.

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The Schionning Team looks forward to helping you with your project.

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