

## Ch 4 - Gluing the Frames

The frames of the boat are made up from the 18mm parts of Marine Ply. These should be glued up before the moulds are mounted so that it can be done "on the flat" - much easier than trying to do it when the moulds are vertical.

Before removing the frame parts from the plywood, ensure that they are all labelled.

The frames can be made up in two ways.

The first allows the inwales to be easily added - in this, the last sections are glued together, but not glued to the rest of the frame. When the inwales are glued in place, these small sections are given a final fairing so that they fit snugly over the inwales, then glued in place.

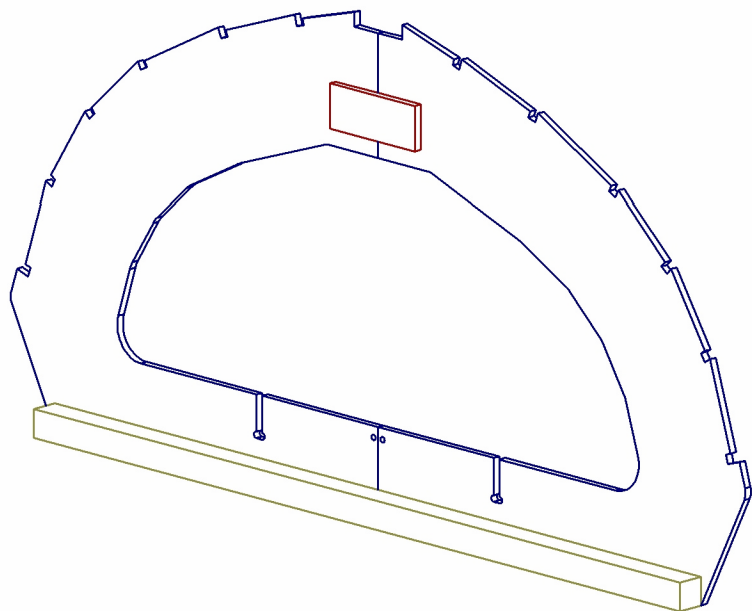
The downside on this method is that you may end up with the underside of the inwales being slightly out of kilter, and trying to plane these flat is not an easy job.

The whole of the frame assembly can be glued up at the start, but this will mean that they need to be modified on the boat to fit the inwales, the last section of which will need to be fitted very snugly, and may be quite difficult and messy to fit.

### 1. *Preparing the Moulds*

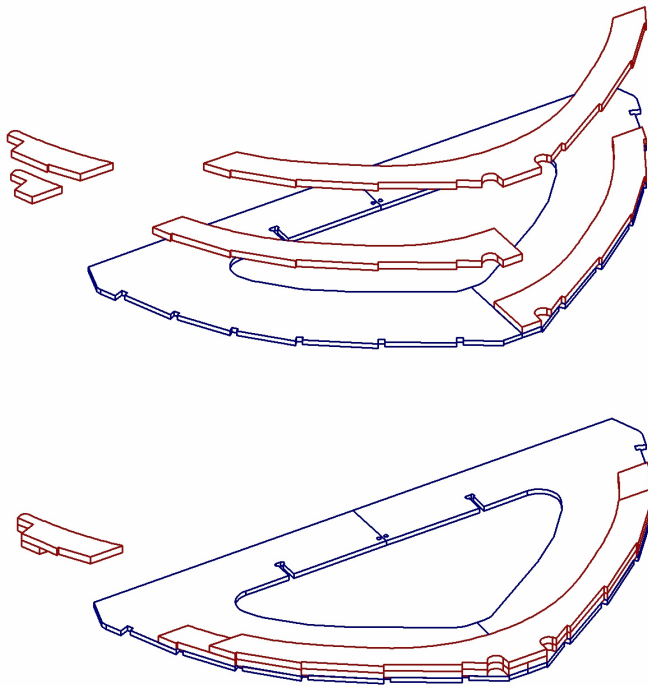
Cut the moulds out of the sheets and remove the tabs. Match up each pair of moulds, and screw each pair to a spall, making sure that they are carefully aligned across the bottom. At the join of the moulds above the hog, secure the two pieces using some scrap plywood screwed through from both sides. Make sure that the joining plywood is clear of the frame location.

Cover the edges of the moulds with packing tape or polythene to prevent the frames being glued to the moulds.



## 2. *Gluing the frames*

Dry fit the parts to make sure that the tabs have been completely removed, and that you will achieve a very tight fit.



When gluing the frame sections, make sure that they are properly wetted out before joining, especially the end grain of the butt joints. Apply neat mixed epoxy to the end grain, let it soak in, then apply more if it is required. Ideally, you should have a glossy appearance to the butt joints.

The face veneers on all parts also need to be wetted.

Mix some more epoxy and add microfibres to make it a "runny ketchup" consistency. Spread thinly but evenly across all of the area to be glued on one face only.

Align the parts over the moulds, then clamp them

together, ensuring that they are aligned as perfectly as possible, and with the moulds. Do not over-tighten the clamps, as you do not want to squeeze all of the epoxy out of the joint.

Scrape off the excess epoxy as soon as possible, and you can then use this in other joints, as long as it has not started curing.

## 3. *Cleaning Up*

Before unclamping the assembly, check that the epoxy has cured by trying to indent it with your thumbnail - do not unclamp it until your thumbnail does not make any impression.

When it is ready to unclamp, remove all the excess epoxy - especially the sharp edges which will be found on the polythene and packing tape.