

1975 C&C 30 Custom 110L Holding Tank

Thought this might be helpful to all those folks out there with CC30 or CC27's with stinky recalculating holding tanks or bladders.

If you want something that fits and has useful volume without paying a fortune or having to use a measuring tape this might work for you...

Remove all port head components/cabinetry...



Cabinet removed – lots of space for replacement tank



1/8" smooth particle board roughly screwed in place to form bottom, front & rear of tank with window caulking to make joints round and smother. Make sure that the low point is where the pump out pipe will be located... just to the left of the screw driver. Have the edges stick out as well... they will be trimmed later.



3-5 coats of mold release wax on all 5 sides. It is impossible to use too much wax.



Laying dry cloth (24oz Cloth Biaxial cloth with stitched mat)



Laying cloth – overlap of 1-2 inches on flats and 2-4 inches on corners



After first coat of resin applied with disposable bristle brush



4 layers later and carefully popped out of hull form



Don't try and add more layers to the outside... the fiberglass might not want to stick to all the wax residue from the mold. One may want to use Interlux 202 solvent wash where more layers are needed.



cut off rough edges so it will fit flat against the tank wall (starboard vertical surface of tank)... measurements should be done with tank in boat and mark were the inside wall would/should be... leave a bit of play because if tank is too big it will be very difficult to make it smaller once inside wall is created!



Apply all inside face layers and their reinforced joints from the inside face which is still wax free.



Top of tank... oversized by a few inches with will be easily trimmed off once glassed into place.



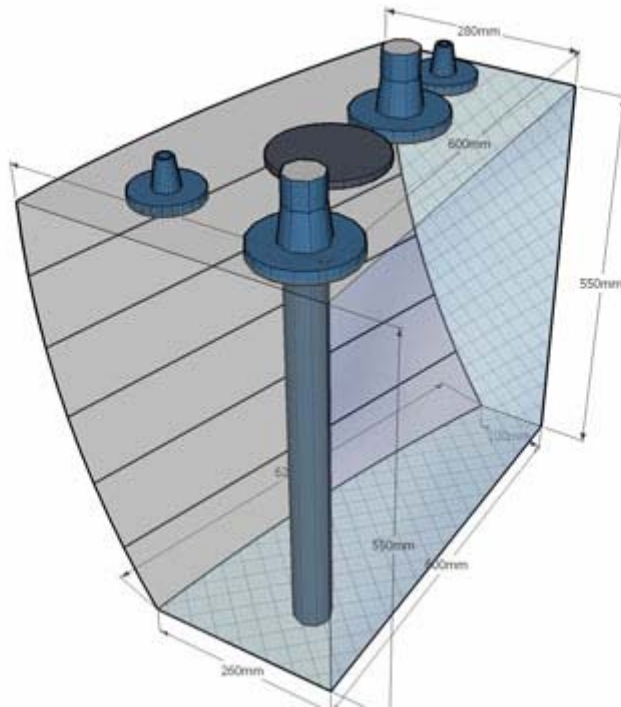
Finished tank without lid and baffle installed (in background)

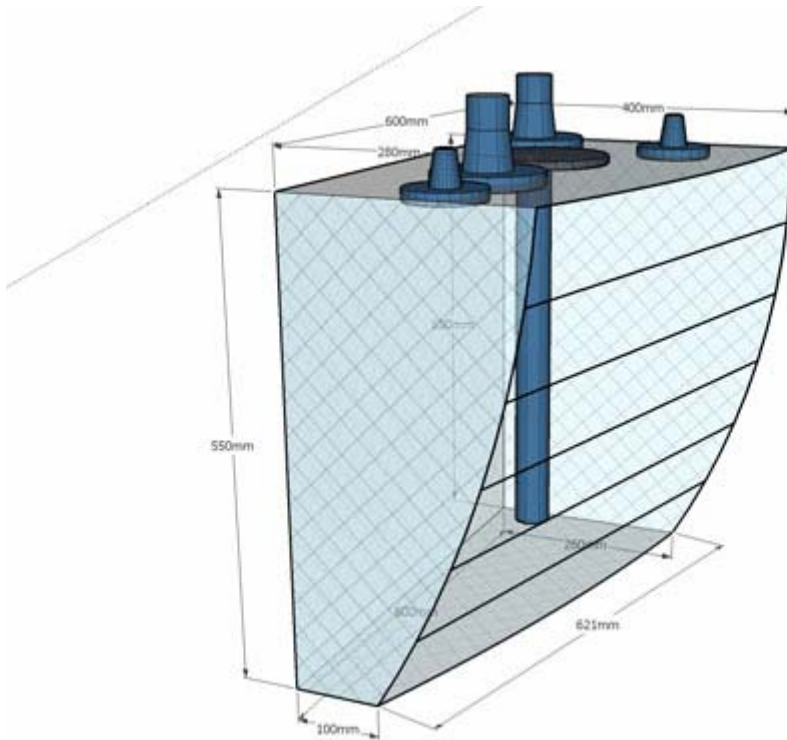


Finish the inside's top tab (not shown) with the help of a steel L bar to hold the vertical shape to receive the top.



Lid installed with fiberglass resin mixed with milled fiber to ensure good bond between lid and tank. Extra cloth put in areas where lid meets tanks and where fittings attach.





SketchUp showing fittings - all fitting on top of tank. Hoping this provides less chance of leakage from fittings and easier to service once installed behind head wall. Also easier to add a pump from tank to overboard if ever needed latter. Note: pickup tube should be installed in lowest part of tank.



Fittings installed – two venting holes to ensure tanks vents effectively



Tank in head – strong frame underneath and a tube of 4200 between hull and tank



Finished head... and no leaks

Approximate Materials...

24 oz Fiberglass Cloth Biaxial 6 yards X 51"

Biaxial fiberglass cloth - one side is chopped mat the other side is biaxial woven to hold everything together. It may have been cheaper to use a schedule of woven roving with fabric.

3 Gallons of un-waxed fiberglass resin and hardener - wear the best mask and filter you can get... un-waxed fiberglass is much more toxic than regular waxed polyester. Un-waxed polyester remains open and additional coats can be added days or weeks later without sanding or washing off of waxing agents between coats.

1 Quart of Interprotect 2000E... just in case there was any chance of pin holes or resin misses (leaks) I mixed and painted a quart into bottom half of the inside of the tank

Here's a link to a plug mold method...

<http://www.boatus.com/goodoldboat/sanitation.asp>

The Fundamentals of Fiberglass

<http://www.fibreglast.com/contentpages-fundamentals-41.html>