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TANK CONSTRUCTIONGeneral Hints

1. Old or scrap glass may be used providing it is not deeply scratched or contains air bubbles. All glass must be cut absolutely square.
2. When calculating sizes of panels ensure that:-
 - a) End and side panels always stand on top of the base
 - b) Cut base slightly larger to give at least $\frac{1}{8}$ " projecting all round
 - c) If an oblong tank - always fit ends inside sides
3. All raw edges must be rubbed down with fine pumice stone or grindstone.
4. All surfaces should be completely clean and free from grease and finger prints. Use a non-fluffy cloth soaked in meths. or alcohol.
5. Lay out all cleaned panels on a free standing bench to allow access to all sides (important when constructing very large tanks). Bench should be long enough to allow the two end panels and one long side panel to be placed in a row.
6. Work in a warm, dry and well ventilated room and remember that, on completion, the tank must remain unmoved for at least 36 hrs.
7. Read carefully all instructions on the pack of silicone rubber.
8. When the tank is finished, great care must be taken to ensure that it is placed on a firm, level stand and is supported over the whole area of its base before filling with water.
9. 1 cu. ft. of water weighs approximately $62\frac{1}{2}$ lb.

Method

10. Taking each long side panel of glass, attach at least two strips of good quality linen backed adhesive tape to each end, leaving half their length (not less than 5 ins) projecting. Place one panel flat on the bench with the tapes, sticky side up, and put the other sheet temporarily to one side.
11. Taking each end sheet in turn, place edge on to the long side sheet, hold at 90° and firmly attach the loose ends of the adhesive tape. Place each end sheet now attached by the tape, onto the bench.

12. Taking silicone gun, run a thin bead of rubber $\frac{1}{8}$ " away from each end of the side sheet.
13. Lift each end sheet back into position on top of the long side thereby sandwiching the silicone rubber.
14. Maintaining their position (90° to the longside) lift the two end panels with the attached side panel into an upright (and free standing) position on the bench.
15. Taking the silicone gun, run a thin bead of rubber around the base plate, $\frac{1}{8}$ " from its edges.
16. Lift the 3 part - assembled sheets from the bench and place them accurately on top of the base plate and silicone rubber.
17. Take silicone gun and run a thin bead down the side edge of each end sheet.
18. Lift second long side panel, with its 4 or more attached adhesive tapes outwards, into position on the open side of the tank. Hold in place by attaching the loose ends of the adhesive tapes to the two end panels.
19. Square-up the entire assembly, ensuring that the base plate is projecting equally all round.
20. With all the panels now in position, gun silicone rubber inside the tank, first around the base, then the corners, taking great care not to press too heavily against the glass. Before the silicone starts forming a skin (usually 5 mins) use a finger to spread the bead carefully to form a gentle radius across the corners formed by the glass. Gun a small quantity of rubber around the projecting base outside the tank and smooth with the finger. Leave the assembled tank to cure for at least 36 hrs.
21. Strips of glass 2 - 3" wide may be attached to the top lip of the tank to give support and prevent "bowing" when the tank is filled. It is a good idea to cut the corners off some of these strips and assemble them in such a way that access to the rear corners of the tank (for such things as air-lines, electric leads etc) is not precluded. Large pieces of polystyrene are often useful for holding the glass strips in position prior to applying the silicone rubber.