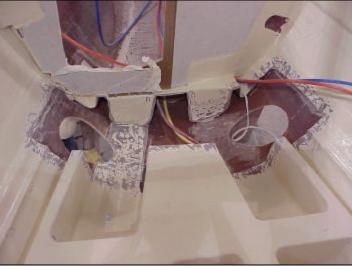
## 450 BOW THRUSTER TUBE INSTALLATION Page 1 of 2



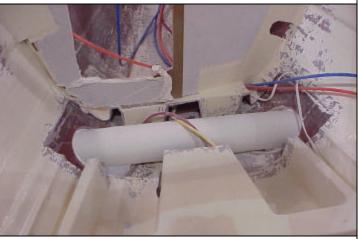
Mark & cutout hull to receive bow thruster tube.



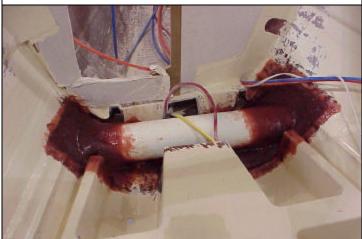
Cutout pan & grind gelcoat away around the edge.



Insert bow thruster tube.



Check for fit, tube will need to be high enough for shower hose to go under but low enough for floor to go over.



Bond bow thruster tube into position.



Grind 1" radius around outside edge of tube then gelcoat & buff

## 450 BOW THRUSTER TUBE INSTALLATION Page 2 of 2

- 1. The top of the bow thruster tube will be 18-1/2" down from the water line on the hull. The front of the tube will be back 70-1/4" from the bow of the boat. The tube needs to be high enough for the shower hose to go under the tube and low enough for the sub floor to go over.
- 2. NOTE: Use the fiberglass template to obtain the shape of the cutout only, the template will not give the correct location. Mark where the top and front of the cutouts should be then place the templates in position and mark the outline of the cutouts. Cut the hull using a diamond cutoff saw.
- 3. Cut the pan to allow the tube to be installed. Grind the gelcoat off from around the cutouts to allow a good bond.
- 4. Insert the tube thru the hull and check to make sure the it is positioned correctly vertically and aft to forward. If necessary grind the hull to obtain the correct location.
- 5. Once the tube is in & level, glass the tube into place on the inside of the hull, both port & starboard side. Make this a thick bond as it will have a 1" radius cut into it from the outside. On the outside of the boat cut the tube flush with the hull then grind a 1" radius along the entire edge of the cutout, both port & starboard side. Fair radius in then gelcoat the hull & buff.
- 6. Gelcoat the bonds on the inside of the boat.