Building a Floating Dock

Below is a plan that details our method for building floating docks. This plan can be used to build a floating dock from 5’ to 6’ wide and up to 12’ long using pipe slides to attach the dock to a fixed dock or bulkhead. The plan serves as a general template and can be adapted and modified to different sizes and configurations. Links to view and print materials list based on planned dock size are available at www.docksidemarinesupply.com > Waterfront Construction > Choosing Materials: Floating Docks These plans are provided as a courtesy for use by experienced builders. The use of these plans does not convey or imply any warranty.

1. Build the outside frame using 2x8s

   1. Using nails or screws, (2 or 3 each end) build the frame
   2. Place 1 Billet in each corner for spacing purposes.
   3. Set your stringers so that they “box” in the billets.
   4. Remove billets

2. Attach 2x6 subframe

   Screw the 2x6 directly into the 2x8 flush with the top of the frame.

   In step 4, Billets will fit inside the 2x8 frame and lag into the 2x6 subframe.
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3a. Use carriage bolts to bolt outside corner to inside corner through the frame flush with the top of the frame.

3b. Use carriage bolts to bolt WD-A angle to two-hole backer plate through the frame flush with the top of the frame.

3c. Attach pipe slides through frame with carriage bolts.
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4. Attach billets using lag bolts; lag into 2x6 subframe. (Bottom view)

5. Flip the dock over and attach decking.

Cross Section

This design requires 2” x 6” decking. For 5/4” decking see additional configurations below. Local regulations may require a minimum gap between deck boards.
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Additional Configurations

Larger Floating Docks
Wider or longer floating docks may require additional billets, and the frame should be configured to accommodate these. *See Figure A and B below for diagrams.*

We recommend limiting the length of a floating dock to 20’ to limit flex. Longer configurations can be achieved by hinging two floating docks together. For stability, floating docks should be at least five feet wide.

Hardware Options
The plan utilizes many of the components available at Dockside Marine Supply. You may substitute or omit some of these components; for example, washers can be used instead of backer plates. You may also choose to add accessories such as rub rail or cleats.

Decking
The plan specifies 2x6 decking. PVC or composite decking adds durability and a great look to a floating dock. If you want to use a 5/4 deck board, add a 2x6 joist across the center of the billet. *See Figure C below.*

Connecting Floating Docks
To link two or more floating docks together, you can use male and female outside corners and/or T-hinges. *See Figures D and E below.*

Blue Billets
We no longer carry blue Styrofoam billets. Foam filled black billets are more durable and versatile.

Different Designs
If you or your builder wants to use a different method to build a floating dock, this plan is by no means the final word. Another design might be right for your location or the way you intend to use your floating dock.

Figure A

5’ to 6’ wide, 16’ to 20’ long.
Add two or four billets in line with the billets in the corners.
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Figure B

8’ to 10’ wide, 10’ to 12’ long. Add a third 2x8/2x6 box in the center of the frame.

Figure C

Joists added across billets to support 5/4 decking.

Figure D

Connecting two parallel floating docks with male and female outside corners.
Connecting two perpendicular floating docks with male and female outside corners and T-Hinge.