

WOOD DOCK KITS CONSTRUCTION GUIDELINES

SAFETY FIRST

- Always wear personal safety protection such as safety glasses, work gloves and boots.
- Do not use corded electrical tools in or near water.
- Always be 2 adults or more to build and install your dock sections.
- Keep children and pets clear of work area during assembly.

Tools required :

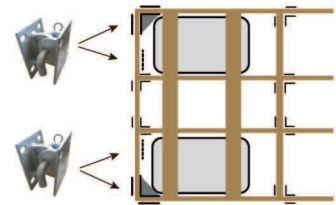
- Saw
- Hammer
- Tape measure
- Square bit screwdriver
- Drill with 7/16" drill bits
- 9/16" and 3/4" wrenches

- Build your dock section using 2" x 6" or 2" x 8" treated wood boards accordingly to the lumber listings supplied. If you want to modify your dock size to your precise needs, here is how to calculate the lumber :

Side pieces:	desired dock length
Inside joist(s):	dock length minus 3-1/4"
End pieces:	desired dock width minus 3-1/4"
Float supports:	desired dock width (some dock kits suggest extra boards to add sturdiness to the frame)
Decking boards:	desired dock width (slide dock in water or place it on its posts then screw on decking boards, starting with ends of dock section, cutting the last board width to fit the empty space left.)

Central cross members: take measurements between inside joists (at the end piece junction for precise lengths)

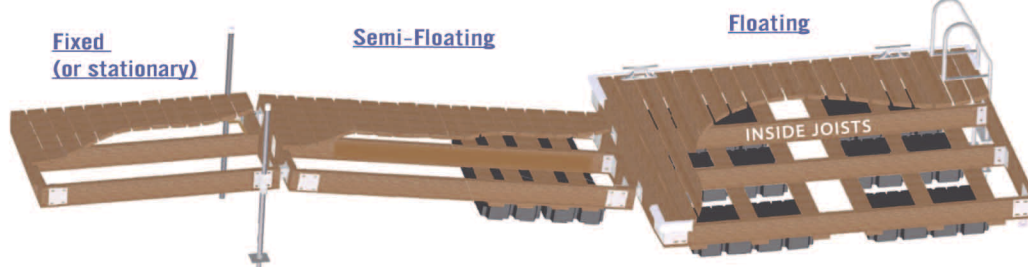
- If you plan to assemble a semi-floating dock ramp and a floating section, you will need hinges. We suggest item #19133 «Big-T» hinges (or 1 pair of #13303) that you will match with inside corners or back plates. They have 9/16" holes matching with the supplied hardware of your dock kit.



- You must have noticed different sizes in mounting hardware;
 - the smaller bolts (3/8" diameter) are to be installed with joists corners.
 - the bigger ones (1/2" diam.) with all the rest of steel hardware.
 - the floats will be installed with the lag bolts w/large flat washer.
- If you plan to add a skirt around the floats to hide them and add a little more sturdiness, note that it's not mandatory to match the bolts with some back plates for that purpose. If your dock kit includes the hardware to install a skirt, use the 2 1/2 in. long bolts instead of the 3 in. ones.
- You may want to add a finishing touch by adding a piece of wood and/or installing bumpers to complete edging.



- To install leg piles, insert posts in leg holders, insert & tighten base plates +/- 7" from the end of the post & pound the posts into the ground protecting the top with a piece of wood. Tighten posts in leg holders. Complete with PVC caps.



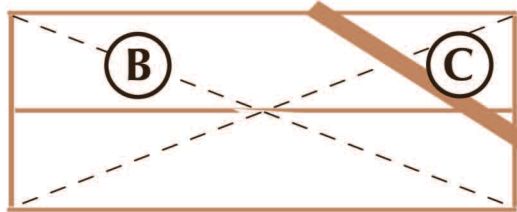
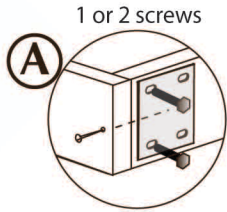
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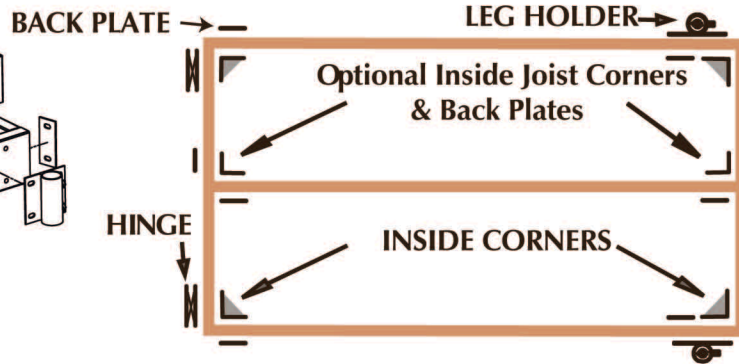
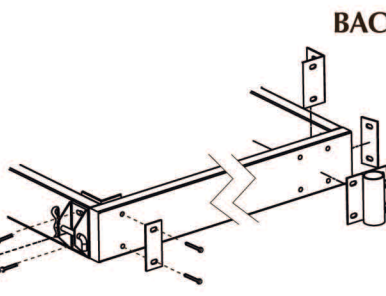


HOW TO BUILD A WOODEN DOCK IN 4 STEPS

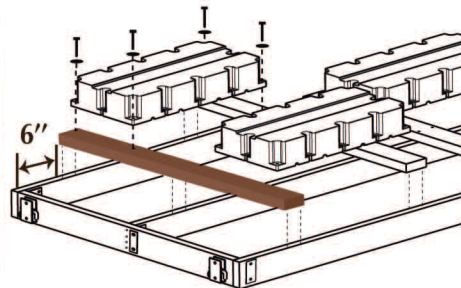
1 Mount the dock upside down on a flat surface in order to easily install floats. The boards need to be flush on the bottom side to install decking properly in last step. Lay down boards, best side out, and screw together. The screws should not be aligned with holes you will make for hardware (A). Check squareness by measuring an "X" from corner to corner (+/- 1-4") (B). You can lock the position by screwing or nailing a diagonal piece temporarily on the frame (C).



2 Starting with corners, align parts, mark holes with a pen, drill, then install hardware with bolts. Note that parts may vary from drawings. For a stationary dock, go to Step 4-B.



3 For a floating dock section, spread 2" x 6" float supports and floats evenly on the frame (to evaluate where they will be installed). Mark the frame and supports (for lag screws) accordingly. Remove floats and screw on the support boards. Screw down floats to the supports.

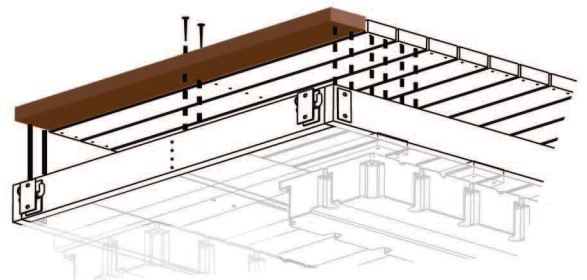


LAG SCREW
FLAT WASHER
FLOAT

FLOAT SUPPORT



4 A) Before installing the decking, you will need help to flip the structure over to avoid any back injuries. Carefully flip the structure top side up.
B) Reconfirm squareness. Lay down, space and screw on decking planks along each side and joists.





SUGGESTIONS ON HOW TO ANCHOR A DOCK

STATIONARY DOCK

Normally, (except in areas where large waves can hit the dock) it is not required to anchor the stationary dock itself. Piles being driven into the lake bed ensure stability. You should anchor all boats with separate moorings (A) in a way that they will not hit or rub on the docks, therefore protecting the boat and the docks. If your docks are installed in a shallow area, you should be able to install some anchoring blocks easily. Some places require a boat lift installation. In rough areas, plan ahead for diagonal braces (B) and/or anchoring.

FLOATING DOCK

A floating dock system absolutely requires an anchoring system at the end of the dock and every +/- 30 feet. It is the anchoring weights that will hold the docks in place since there are no piles and that the docks are submitted to lateral pressures by wind, waves and boats. Anchoring chain holders (C) should be installed everywhere you plan on anchoring.

MINIMUM ANCHORING EXAMPLES IN CALM WATER AREAS

- Small crafts, less than 15', e.g. Canoes, Kayaks, Aluminum Boats or PWC (maximum of 2 crafts):
+/- 250 lb per chain on each side.
- Pleasure crafts less than 19' or around 2500 lb each (maximum of 1 craft):
+/- 375 lb per chain and on each side.
- Pleasure crafts, Ski or Wakeboard Boats, less than +/- 23' or +/- 4000 lb each (maximum of 1 craft):
+/- 500 lb per chain and on each side.
- Pontoon boat with camper roof, which will catch in the wind:
+/- 650 lb per chain and on each side.

If you expect to host other boats during summer, evaluate your needs accordingly. Take note that the concrete will loose one third of its weight under water. That's why we suggest that much.

TYPE AND CHOICE OF ANCHORING BLOCKS

Your local concrete products retailer should be able to provide necessary weights, which could be used as anchors. Your local hardware store will have the chain in stock. Make sure you are up to code with local regulations when using concrete as anchors, otherwise replace the material.

The blocks should be a combination of multiple weights of around 125 lb each and of square shape (+/- 1' x 1' x 1') in order to limit their movement once on the bottom (filling a pail is not a good idea as it will roll once on its side). A length of chain with a bolt or a knot at the end can be used as a hook (when pouring concrete blocks yourself, include in the concrete to attach to it later). Different types of bottom such as clay may also affect the capacity of the anchor holding, so adjust accordingly. A muddy bottom usually offers a very good anchoring.

The chain should be rated as: 5/16" galvanized, grade 30 (regular). Suggested chain length equals 2 to 3 times the water depth. We also suggest that you use galvanized shackles as the underwater attachment, not a zinc plated quick link!

It is also suggested to anchor the dock system at all 4 corners of the dock on which the boats are attached to (F).

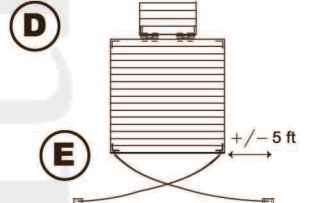
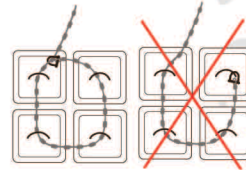
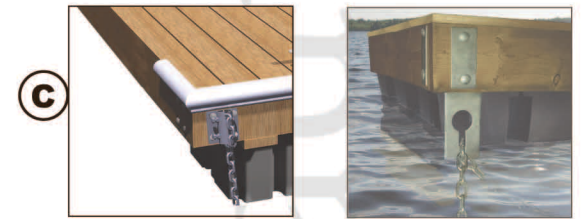
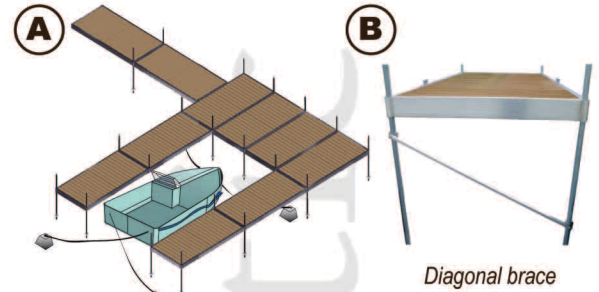
INSTALLATION

- To install the anchoring weights, group the appropriate amount of weights for each corner on the floating dock with a piece of cardboard or wood to protect the decking (D).
- Attach the chain to the blocks. Calculate around the width of the dock plus the depth to create the "X" shape (E) for each chain but don't cut it in lengths yet.
- Move the dock over the desired spot and then drop the first bundle in the water holding the other end of the chain. Keep a little tension on the chain, attached it to your chain holder at the opposite corner then cut it, keeping 2 extra feet for further adjustments.
- Do the same steps on the opposite side.

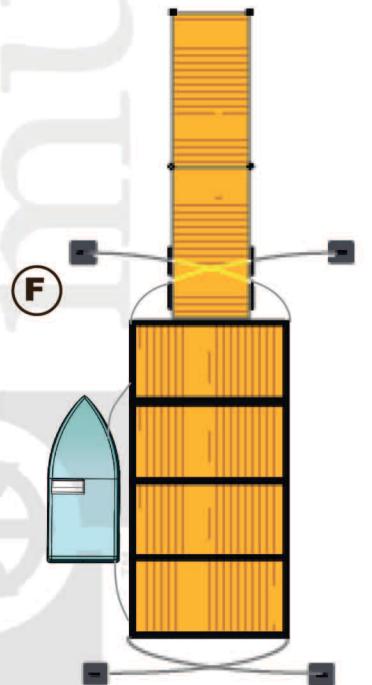


WARNING:

We try to do our best to guide you with your project. However, some areas may require different anchoring methods than described here and we cannot account for all circumstances. Multinautic cannot be held responsible for any incident or damage that may occur because of the use of the techniques described in this document or on our web site.



Evaluate the positioning to avoid interfering with berthing or bathing !



These technical drawings, illustrations and /or information are not to be substituted at any time, in whole or in part, for certified engineered drawings and are intended as general guidelines only.

Dear Dock Owner,

In response to the frequently asked question: *"can we leave our docks in the water for the winter"?* ... There's really no clear cut answer, however we strongly recommend taking them out. It's not the freezing of the water that can damage your dock and floats; it's the actual ice movement. So as a general rule, wherever lakes or rivers freeze over, it is **strongly suggested that all docks be removed from all lakes and rivers, for the winter.** No matter the dock or float model, brand or composition; whoever decides NOT to remove their dock from the water for the winter, is definitely taking a risk.

- Imagine in the spring the ice is melting and there's that big remaining patch of ice in the middle of the lake... one day the winds pick up and push this big mass of ice blocks directly towards your shoreline ! Make no mistake, the weight of these big blocks of ice will push your dock against the shoreline or any obstacle and create much damage (see photos), or even destroy your dock by crushing it completely. Some small lakes or protected bays may have no ice movements at all, these could be an area where the risk is smaller.
- Another important concern is if the water level of your lake or river fluctuates during the winter months. Maybe your dock is placed over a rock that is very well submerged during the summer, but if the water level dropped in the fall, is suddenly only a couple of inches below the ice surface. If the ice cracks or moves, this could leave your dock vulnerable to being cracked or bent by the rock or ice itself.
- Interesting note: Ice cracks are often seen not too far from shorelines; these are usually created where the ice starts to float, versus where it's frozen through and sitting on the shallow shoreline lake bottom. If your dock happens to be in this crack line, when the ice drops, your dock is at risk of irreversible damage....further out or closer to shore could be less risky!
- Before making your final decision on whether or not to remove your dock from the water for the winter, take a good look at your neighboring docks. If they've been left in the water all year, for many years, without being subjected to any ice damage, then the odds could be on your side... but do keep in mind that Mother Nature has a mind of her own, so there's always a risk.
- As for fixed or stationary docks, these MUST always be removed from the water for the winter. No if or buts about it !

