PLANNING GUIDE

How to choose your dock type?

Multinautic offers dock hardware and float kits that combine the most popular features for quality and safe residential dock systems. They are designed to be strong, modular and easy to assemble. You will create the configuration that meets your needs by combining fixed, semi-floating and floating dock sections. Your layout can also evolve as it can be expanded over time.

If you have a boat, a floating dock is usually required as the dock and boat will move together with the waves. If you have not yet decided on the type of dock that will best suit your shoreline and activities, here are some suggestions to help you decide.

FLOATING DOCK LAYOUT

A **floating dock** configuration should include a **semi-floating dock** section (also called a gangway). This section will provide the transition between the fixed dock (or land) and the floating section which will move with the waves occuring on body of water. For greater stability when moving on the dock, this semi-floating dock will have 1 or 2 floats at the junction with the floating dock section.

> A floating dock is ideal for lakes and rivers where the water level fluctuates periodically. Since the dock floats, it will always be at the same level above the water.

If the lake or river bottom has a gentle slope, use fixed dock sections near the shore until the water level is sufficient to install a semi-floating section (usually 3-4 feet deep) and then add one or more floating dock sections in deeper water.

If the lake or river bottom is dropping rapidly, start your setup with a semi-floating dock section. This layout will follow the water level.

> A floating dock is not recommended where waves higher than 3 feet can occur as it could be damaged as well as the boat that is moored to it.

> A floating dock is recommended in water deeper than 4 feet.

STATIONARY DOCK LAYOUT (FIXED DOCK)

> You can install a fixed dock in up to about 4 feet of water or it will be difficult to install. This is the ideal option for shallow water.

> A fixed dock is recommended if bad weather causes waves up to 3 ft. If this is the case, you will need to moor the boat away from the dock or use a boat lift.

> A fixed dock is usually installed without anchoring and should not be relied upon to hold your boat in a storm or to protect it from large waves created by other boats.

> A post dock (or fixed dock) is not recommended in water that often fluctuates more than 2 feet in a short period of time. A floating dock would be more appropriate in this case, otherwise you may have to adjust the height several times during the season.

> Note that posts can be cut with a metal saw, a grinder or a pipe cutter.







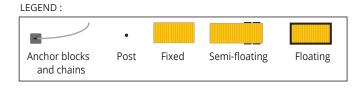








CONFIGURATION



FLOATING

DOCK SECTION

Here are some things to consider when configuring a wood dock system.

> Think about how you will use your dock to choose the right freeboard height for your recreational and boating activities.

> A floating section placed in a "T" shape at the end will add stability to the layout.

> You will need chain and concrete blocks to anchor a floating dock. See our Anchoring Suggestions to determine your needs and get the appropriate material locally.

> When planning a fixed dock layout with many sections, plan their sizes taking into account the location of the corners with which the hinges will be combined.

> To prevent low boats like kayaks or canoes from sliding under the dock, or if you would like to cover the floats, you can add a skirt all around by installing boards that will be attached to the main structure using 2" x 4" wood pieces bolted inside the frame.

If you need to add a fixed dock section to achieve the minimum water depth required for the floats or to extend your dock area, move the posts supplied with the semi-floating dock kit to the fixed section. This will allow the semi-floating dock section to adjust even more efficiently to the movement of people and waves:

SEMI FLOATING

DOCK SECTION

PRODUCT SUGGESTIONS AVAILABLE ON

FIXED DOCK SECTION

- To create your own dock layout, chose a combination of the following dock hardware kits : Model # 19217 High FreeBoard Floating dock kit Model # 19212 High FreeBoard Semi-Floating dock kit Model # 19206 Stationary dock kit

- Connect your dock sections with kits of two "Big-T" hinges. They are compatible with inside corners #13305 and back plates #13300. Model # 19133

- Equip your dock with a heavy-duty aluminum tubular ladder that has a capacity of 400 lbs (180 kg). Model # 15513

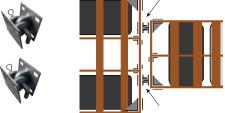
- Kids will love our ladders with small square uprights (shown). Both our straight and angled versions (popular with the less flexible folks) have ingenious hooks for easy removal from the water (250 lbs (113 kg) capacity). Model # 15013 / # 15520-21-22

- At the same time, get the bumpers that will protect your boats, canoes, kayaks from the steel hardware that will be at the dock level such as PVC corner bumpers, ideal for protecting the hull of boats when docking. Model # 15042 / # 10520

- Add one or more sets of wheels with galvanized steel hubs to simplify winter storage and spring installation or to move the dock forward or backward as water levels change. Model # 22005

- Get mooring accessories to secure your watercrafts. Think of the friends who will be visiting you on the water. Type "Multinautic" in <u>homedepot.com</u> Search field to complete your waterfront installation with quality products.







These drawings, plans and/or technical specifications are only general information and can in no way replace, in whole or in part, certified engineering drawings. Please refer to the "Important information and disclaimer" section of our website.

STATIONARY DOCK

Normally, it is not necessary to anchor a fixed dock except in areas where high waves may hit the dock. Posts driven into the ground will ensure its stability.

You should, however, moor your boat in such a way that it cannot rub or bump on the docks, thus protecting the structure and the boat.

> Since your dock is in shallow water, it will be easy for you to install blocks to allow for a detached mooring from the dock (**A**).

- > For more demanding conditions, you can add diagonal braces (B).
- > Some will prefer the installation of a boat lift.

FLOATING DOCK

A floating dock system is required to have anchor blocks at the end of the dock, or approximately every 30 feet. When the dock is subjected to lateral pressures created by water, wind or boats, the blocks hold the dock in place. You should evaluate their positioning to avoid interfering with docking or swimming. Chain hooks must be installed at each anchorage point.

> To launch them into the water, concrete blocks will be deposited and bundled on the floating dock section. To protect the dock surface, place a cardboard or piece of wood on the dock before placing the blocks.

> The chain will then be attached to the blocks (**C**). Calculate the width of the dock plus the depth for each chain to create the necessary "**X**", but do not cut it right away.

> Once your floating dock section is over the first location you have determined, you will tilt the group of blocks into the water (**D**). Beware of chain movements that will quickly follow the blocks as they fall!

- > Then hook this chain to the attachment in the opposite corner without tension.
- > Cut the chain, keeping an extra 2 ft. to allow for adjustments.
- > Repeat the steps on the opposite side and this time tighten the chain as much as possible.

ANCHORING MATERIAL

Your local concrete products dealer will probably have heavy enough weights to serve as anchors or they can make them for you from unused concrete. Be sure to comply with municipal by-laws regarding the use of concrete at the bottom of the water. You may have to choose a different material. Your hardware dealer will provide you with the necessary chain.

> Different types of soil, such as clay, can affect the stability of your anchors, so be careful. Muddy soil will provide a good grip for anchoring.

> The chain used to connect the blocks to the dock should be made of galvanized steel, size 5/16" and grade 30 (regular). Choose galvanized shackles for underwater fastening. Avoid zinc-plated quick links for this use.

> Blocks should weigh about 125 lbs. each and be rather square (+/- 1' x 1' x 1') to avoid movement on the bottom of the water (filling a bucket with cement is not a good idea since it will roll on the bottom of the water). If you make your own blocks, make an attachment point by placing a piece of chain with a bolt or a knot at its end for a better grip in the concrete.

> Note that the concrete will lose about one third of its weight once underwater. This is why we recommend as much (below).

MINIMUM ANCHORAGE EXAMPLES IN CALM WATER AREAS

It's advisable to anchor the dock at the 4 corners of the section where the boats will be moored (**E**). If you plan to accommodate other boats during the season, estimate your needs accordingly.

- > Small boats under 15' such as canoes, kayaks, rowboats or personal watercraft, (maximum of 2 boats) at least 250 lbs. per chain, on each side;
- > Pleasure craft less than 19' or approximately 2500 lbs,

(maximum of 1 boat) at least 375 lbs. per chain, on each side;

- > Pleasure boat less than +/- 23' or +/- 4000 lbs. for water skiing or wakeboarding, (maximum of 1 boat) at least 500 lbs. per chain, on each side;
- > Pontoon with a canvas roof, (which can catch in the wind), at least 650 lbs. per chain, on each side.

> Visit our website for additional helpful documents such as maintenance and winterizing suggestions.



These examples are intended to guide you as best as possible in planning your project. But some areas may require more anchors or a different method; we cannot list them all here. We cannot be held responsible for any incidents or damage that may occur as a result of using the techniques suggested in this document or on our website.

