



Aluminum Lake Truss Dock Instructions

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1. Dock Assembly and Set-Up

1.1 Quick Start

Your Bestmade Docks have been designed to be very simple and straight forward to assemble. Each dock has an aluminum frame, (2) cedar, Surestep, or PVC deck panels, and either 2 or 4 dock legs with foot pads. Use this Quick Start diagram to get set up very quickly.



Image 1

The following tools will be needed for dock installation...

- 4 ft level
- Combination wrench - 3/4"
- Combination wrench - 9/16"
- Combination wrench - 1/2"
- Utility gloves
- Grease or fastener lube (recommended for use on all fasteners)

1.2 Positioning Quick Clips

To connect one dock section to another we will use a pair of our Quick Clip dock connectors. Positioning the Quick Clips is the first step in the dock setup.

When installing a dock system in the water, one will typically start at the shore and work their way out into the water. Therefore, let's designate the end of a dock section closest to shore as the "Shore End" and the end of a dock farthest from shore as the "Water End". Because we're starting at shore, only the "Water End" gets Quick Clips. At the end of a dock system (farthest from shore) there will be no Quick Clips as there are no subsequent dock sections to be joined.

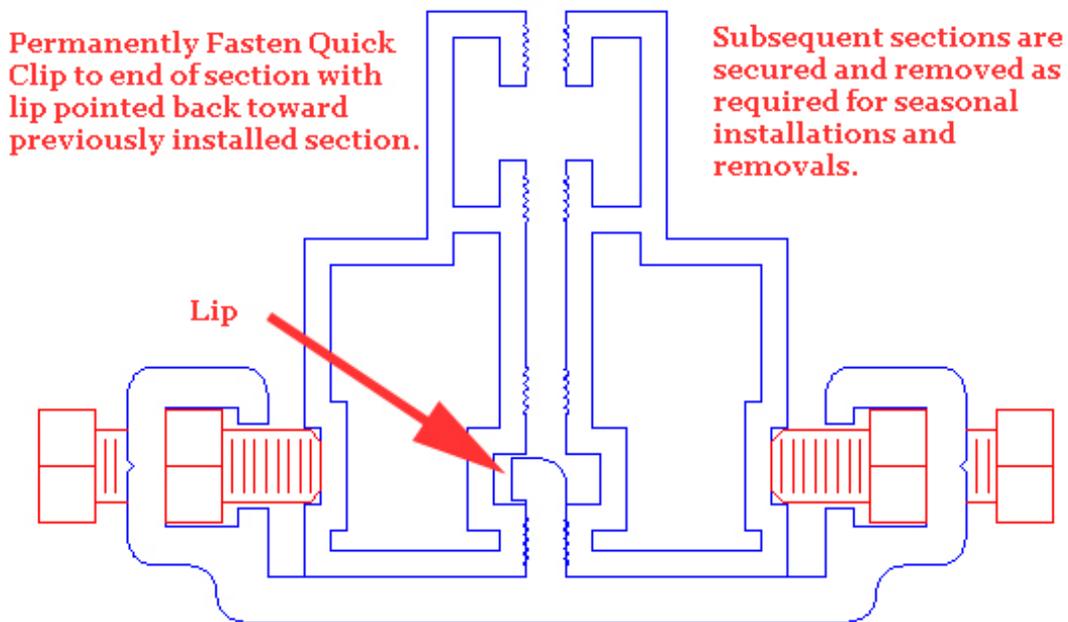


Image 2



Image 3

In Images 2 and 3, we can see how the Quick Clips secure sections together via the 5/16" x 1" long hex bolts and hex nuts. The Quick Clips can be mounted on both the ends and the sides depending on the dock system layout.

There are 2 methods to positioning the Quick Clips. Working from shore out into the water, when connecting 4ft wide dock sections to dock sections that are 4ft wide or larger, position the Quick Clips on the dock closest to shore by measuring 7.5" from each side. Working from shore out into the water, when connecting 8ft or 6ft wide dock sections to narrower dock sections, position the Quick Clips on the dock closest to shore by using the 33" center-to-center dimension.

1.3 Installing Dock Legs

After installing the Quick Clips, the next step is to install the leg holder set bolts and nuts. As we can see in Image 4, the 1/2" hex nut slides into the leg holder channel and the 1/2" x 1-1/4" long hex bolt spins into the nut. There are a pair of set bolts and nuts used on each dock leg.

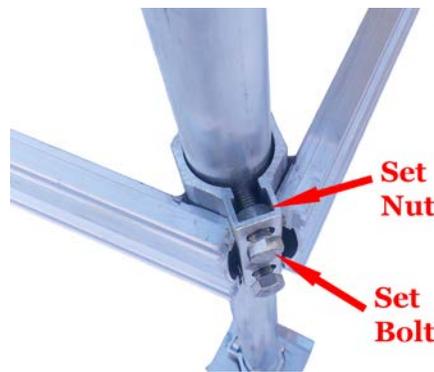


Image 4

As we can see in Image 4, the dock leg slides through the leg holder and is secured with the set bolt. To adjust the dock leg up and down, simply loosen the pair of set bolts, raise or lower the dock, and then re-tighten. Using a 3/4" wrench, a good rule of thumb to ensure the set bolts are tightened properly is to spin 1 complete turn past hand tight when the leg has been pushed up against the back of the leg holder.

In most dock systems, the first dock section (closest to shore) is considered a free-standing section and uses 4 legs. All additional dock sections as the system goes from shore out into the water use 2 legs, as they essentially share the previous section's legs by close proximity. The exception to the 2 leg rule on subsequent dock sections is when dock orientation changes. For example, suppose a system was 4 dock sections long with the first 3 sections creating a straight dock of 4' wide by 24' long. If the 4th dock section of the system was turned 90 degrees and centered on the end of the 24' (creating a "T" layout), this 4th dock section would need 4 legs.

Hidden Leg Posts

For dock layouts that require a dock leg on an interior portion of a layout that would otherwise require a leg sticking up through the decking surface in the middle of a walking area, a Hidden Leg Post can be used. A Hidden Leg Post is an extension of the

dock leg holders welded into each corner of the dock frames so that the adjustment range of a given dock leg can be moved underneath the dock frame.

A Hidden Leg Post will consist of a 12" long piece of attachment pipe that fastens into the dock frame leg holder with the top of the attachment pipe being flush with the top of the leg holder, resulting in 4" worth of attachment pipe sticking out on the bottom side of the dock leg holder. The Hidden Leg Posts are outfitted with drilled holes in each end that will accommodate the same 1/2"x 1-1/4" long hex bolts and nuts used in the dock leg holders. As seen in Image 5, one side will fasten to the 4" of attachment pipe bolted into the dock frame leg holder. The other side will be used as the adjustment point for the dock leg that will support the dock at that location. ** If exact water depth measurements are not provided for the location the Hidden Leg Posts are to be used, the dock leg in that location may prove to be too long and need to be field cut. **

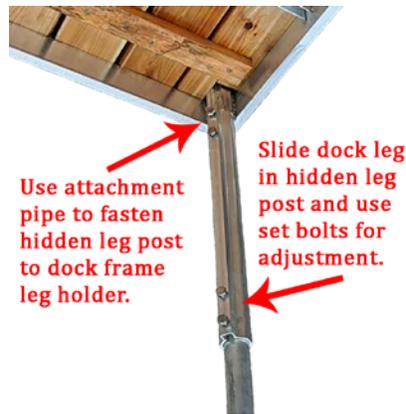


Image 5

1.4 Installing Foot Pads

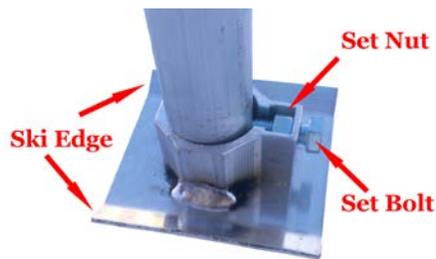


Image 6

In Image 6, we see the foot pads. On soft lake bottoms, support legs will begin to sink under the weight of the dock. To minimize this effect, you will be provided with foot pads as required. To install the foot pad, simply slide it over the bottom of the support leg and tighten the set-bolt. The foot pad has a "ski edge" on each end. This is to allow the dock to more easily exit the soft material on the lake bottom. The "ski edge" should

be lined up with the direction in which the dock was installed. For example, on a straight dock that runs north/south, the "ski edge" should also be lined up north/south.

1.5 Installing Cross Braces

As water depths get deeper, dock sections can become a bit wobbly. To mitigate wobble, Bestmade Products provides cross braces as required.

A cross brace consists of (1) aluminum cross bar, (2) tie clamps, and (2) carriage bolts and nuts (Image 7). The cross brace is designed to go across a section from low to high at an angle (Image 8). When installing a cross brace on shore for the first time, tighten the tie clamp on the low side but leave the tie clamp on the top side installed but loose until the dock has been leveled in the water. The reason for this is that lake bottoms are often uneven. Legs cannot be adjusted independently if both tie clamps are tight. Once the dock is leveled the tie clamp on the top side can be tightened.



Image 7

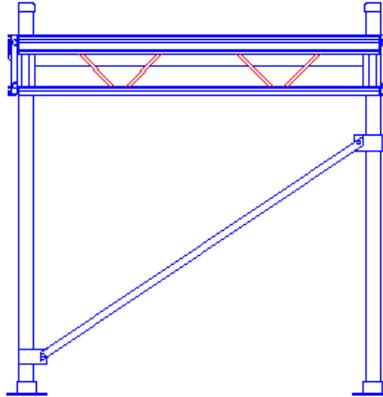


Image 8

It's good practice to alternate orientation of cross braces from section-to-section. For example, if a dock system consisting of 4 dock sections had cross braces on dock sections 3 and 4, dock section 3 might have the low side tie clamp on the left side while dock section 4 would have the low side tie clamp on the right side.

Deeper water depths will get progressively longer cross braces with a steeper angle. For example, 5 to 7ft long legs on 4ft wide docks typically get a 4ft brace, where as longer legs might get a 5 or 6ft long brace. Also, braces are typically contained within a section of dock meaning a given dock section is not braced to another. For example, patio dock sections with legs on a given 8ft side will get an 8ft brace.

1.6 Installing Docks into the Water

Before installing your Bestmade docks, the annual inspection procedure should be followed per section 4.2 of this text. This includes checking for rotted, cracked, split, or

broken members, along with a thorough inspection of all fasteners to check for excessive corrosion or stripped or jammed threads. The deck panels should also be inspected for defects of any kind, including broken, split, or unsecured boards, and fasteners should be checked for proper and sufficient lubrication.

1. Once sections 1.2 through 1.5 have been completed, dock sections may be installed into the water. For first time installation, all legs and cross braces should be positioned by best estimates based on where they will be on the water. This can be done on shore. Dock frames should be high enough out of the water as to avoid waves hitting them with regularity. For example, if a lake has 1ft maximum wave heights, the dock frame should be more than 1ft out of the water.
2. Carry the first dock section, without the decking installed, into the water. Place it in its desired location, level, and tighten all set bolts (as well as the top side of any cross braces).
3. Once the frame is leveled and the dock legs have been tightened, place the deck panels into the frame and secure to the frame with the provided decking clips. Decking clips slide into the upper frame track from the end of the frame to the appropriate position (Image 9)

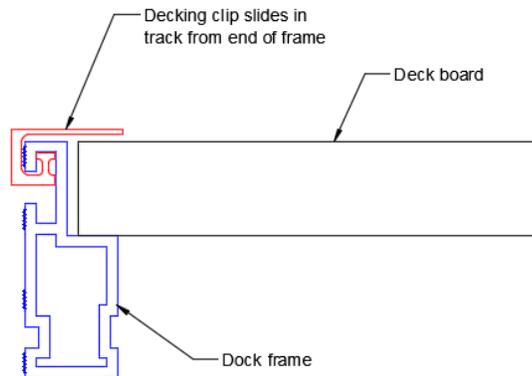


Image 9

Most standard dock sizes have (2) deck panels per section of dock. Deck panels can be made out of cedar, poly panels (Surestep), or PVC. Each deck panel is secured to the frame via a pair of deck clips which slide into the frame track. Deck clips should be used on the center of the 2nd boards on opposite corners for cedar and PVC panels (Image 10). For poly panels, deck clips should be placed roughly 10" from the panel ends on opposite corners.

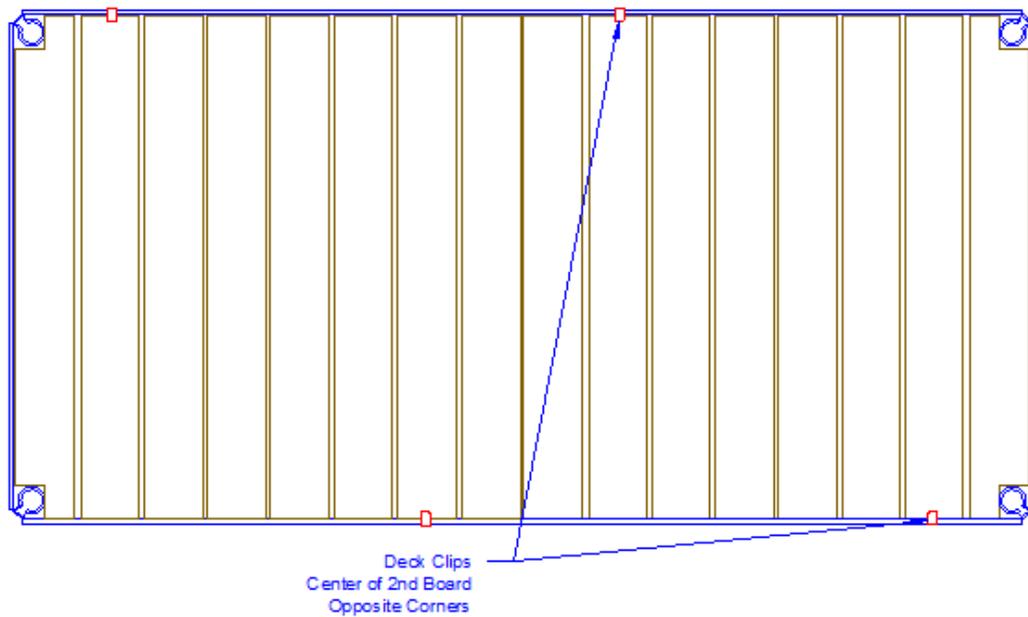


Image 10



Image 11

For 6ft wide dock sections using the Surestep deck panels, there are (4) panels used of 3ft wide each as opposed to the typical (2) at 6ft wide each for docks decked with cedar. Therefore, there is a need to also secure the deck panels in the center of the frame.

As seen in Image 12, the Surestep deck panels are also to be secured at 2 locations in the center of the dock as shown via the center rail decking clip assemblies. These assemblies will be used between the panels and through the pre-drilled holes on the center rail of the dock frame. A larger washer will be used on the top side of the assembly with a large washer and wing nut used to secure under the dock frame center rail. Sequence becomes important on these panels in order to be able to access the center rail decking clip assemblies. For installation, panels 1 and 2 should be installed, then the first assembly, then panels 3 and 4, then the second assembly. Reverse order during removal.

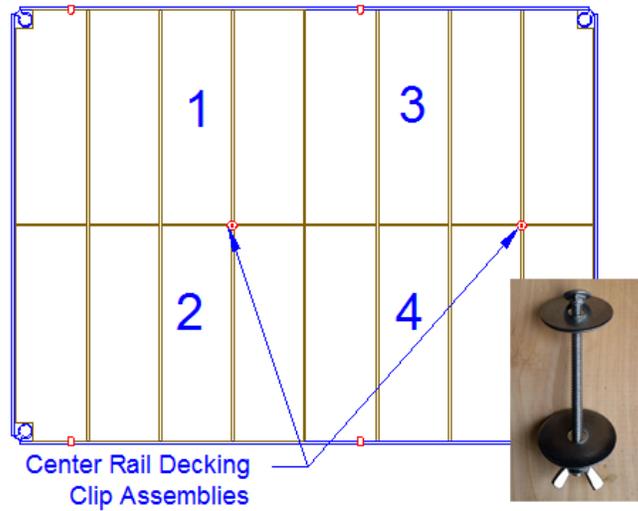


Image 12

Once the deck panels are installed, any unused leg holders can be covered with a black vinyl cap as seen in Image 13. Round vinyl caps can also be installed on the top of all legs.



Image 13

4. Carry subsequent dock sections into the water, working from the shore to the farthest sections of the dock. Dock sections are secured to one another via the Quick Clips installed in section 1.2

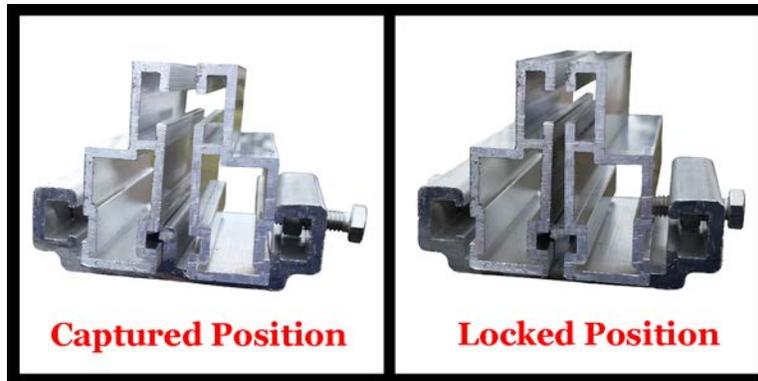


Image 14

In Image 14, we can see that the Quick Clips have a "Captured" and "Locked" position. When adding dock sections to a system, a subsequent dock section will be rested on the previous section's Quick Clip. This is the "Captured" position. To secure the dock sections together we use a set bolt and nut. The 5/16" nut slides into the channel in the Quick Clip and uses the 5/16" x 1" long hex bolt to pinch the sections together. Once the set bolt is hand tight, an additional turn will secure the sections together.

Repeat steps 3 and 4 with subsequent sections until the dock is complete.

5. Some dock systems are ordered with a ramp section. A ramp section can be used to change the angle of approach from shore to the finished dock height over the water. Ramp frames and Cottage Style Dock frames are identical, they just use different hardware for connecting sections. Ramps are also sold without dock legs, foot pads, and cross braces. When installing a ramp, Section 2 (a 4-leg dock section) is installed into the water first at the appropriate dock height, with the ramp (Section 1) then installed. A ramp will be supported on the shore side by the shore itself, and on the lake side by a hinged connection between the ramp and Section 2.

To install the ramp hinge, first install the ramp bar to the shore side of Section 2 via (3) 5/16" carriage bolts, washers, and hex nuts in the upper track. Take care to make sure the ramp bar is centered on the dock frame. From there, the ramp section will be fastened to Section 2 via (2) ramp hinges which fasten to each side of the ramp frame via (2) 5/16" carriage bolts, washers, and hex nuts each as shown in Image 14 and 16. The ramp should be positioned as close to Section 2 as possible to minimize the gap between the frame of the ramp section and Section 2.

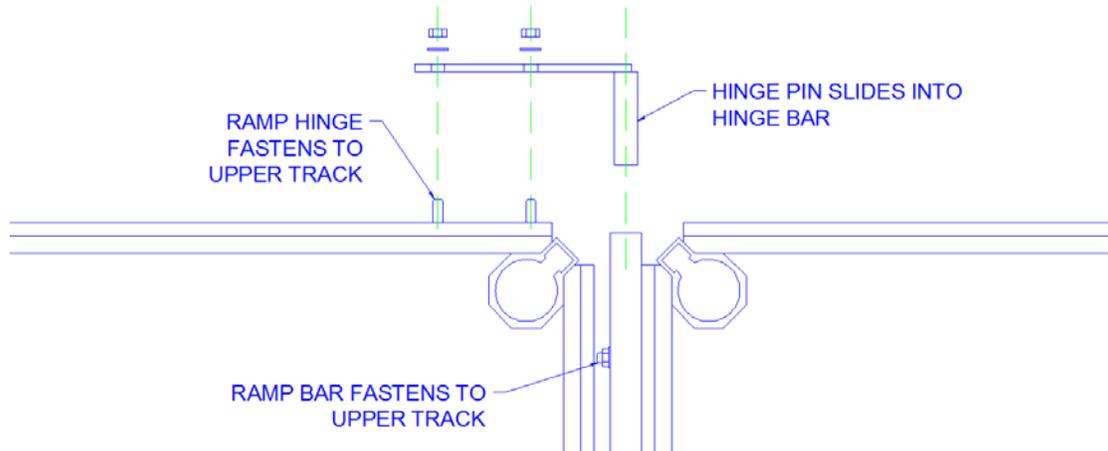


Image 15



Image 16

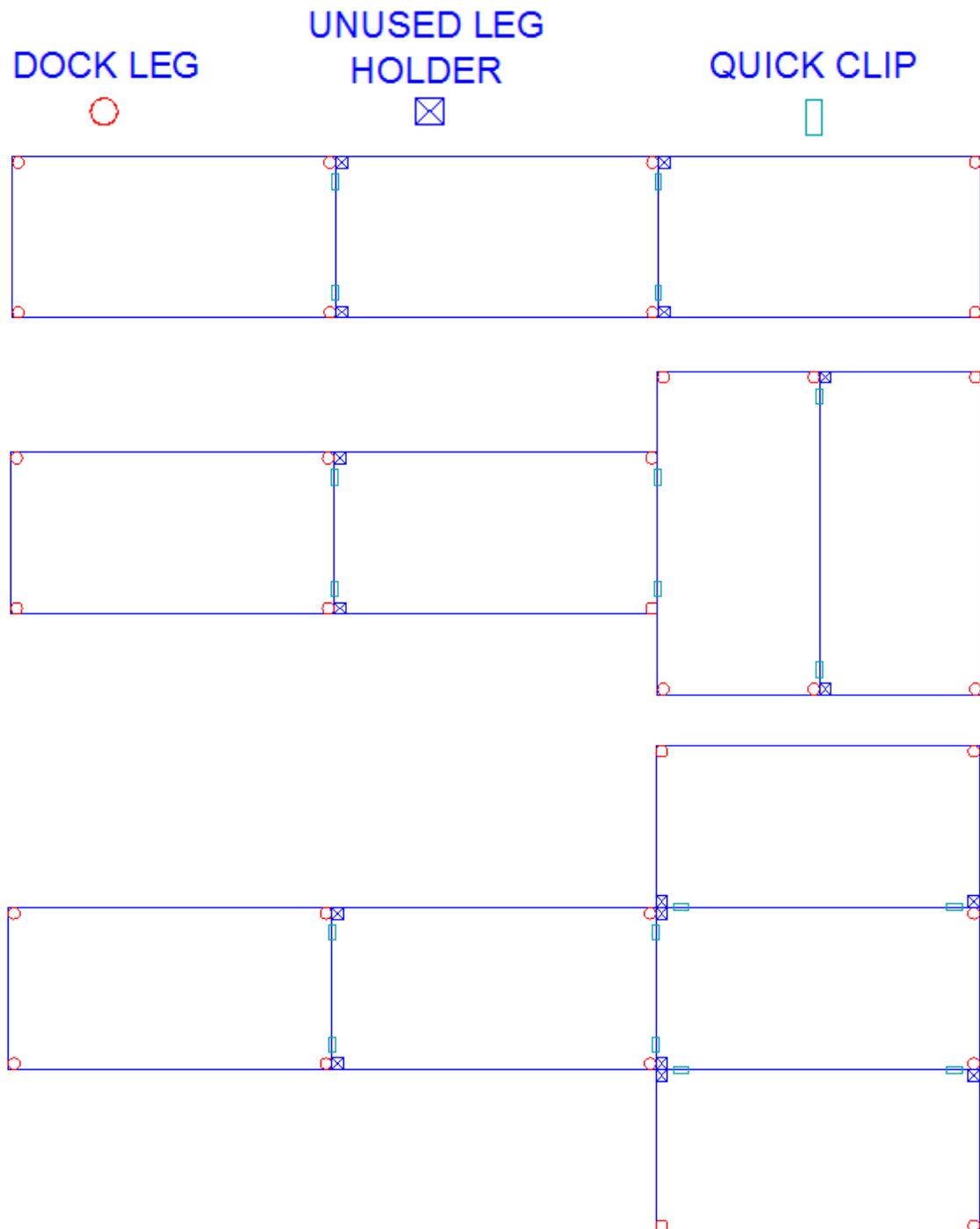
6. In soft lake bottoms, your dock may settle in the first 1-2 weeks. When this occurs, the dock should be leveled. To level the dock, loosen the set bolts on a given leg holder and raise or lower the section, then re-tighten the set-bolts.

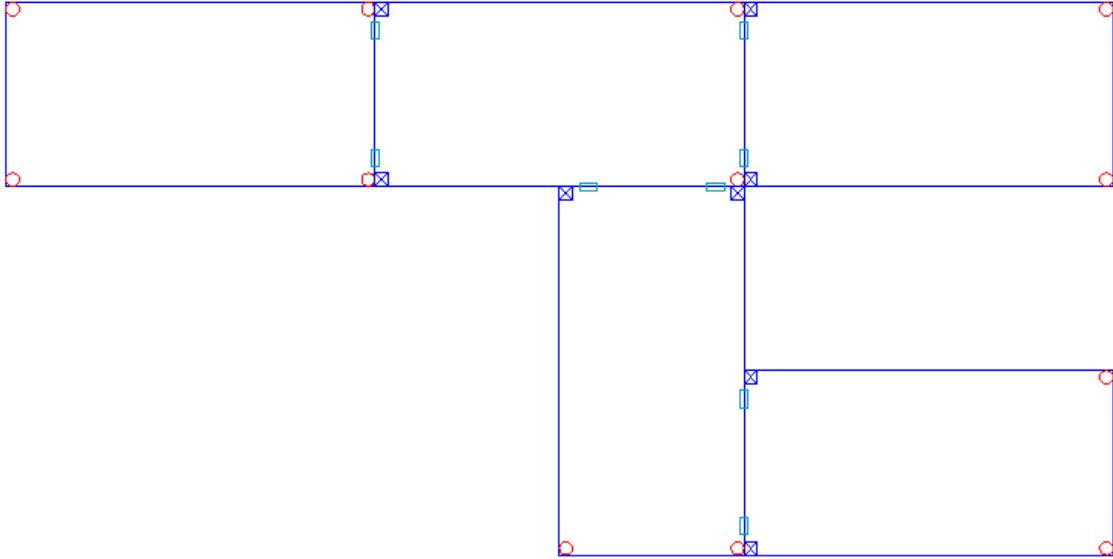
****IMPORTANT NOTE**** Only loosen the set bolts on 1 leg holder at a time! Loosening all the set bolts at the same time would cause the dock to collapse. You should not be standing on docks when any set bolts are loosened.

7. For removal, reverse steps 4 through 2. It is best to store decking in a dry area out of the weather. Frames, legs, foot pads, caps, and cross braces don't need to be removed from the frame each year. Sections can be stacked on shore as individual units without decking.

1.7 Sample Layouts

The majority of customers will use some variation of the following layouts. Use this as a reference for how to position dock legs and Quick Clips.





2. **Safety**

2.1 **Safety Introduction**

Your Bestmade Docks were designed to provide a lifetime of safe and enjoyable use. However, even the most carefully developed products are not without their limitations. As such, this safety section has been introduced to not only educate the owner about the proper use of their product, but also to introduce warning signs of a potential dock malfunction. This entire document should be read thoroughly and any questions or concerns about the safe use of your docks should be addressed to Bestmade Docks directly.

2.2 **Safety Definitions**

The safety messages outlined in this document are in place to alert dock owners and users of potentially dangerous situations. If a situation or item is addressed in this text in regards to a safety concern, it is in place to prevent the possibility of damage of equipment, mild or severe personal injury, or even death. General safety practices as outlined in this text should be performed at all times.

2.3 **Personal, Operating, and Installation Safety**

Do not walk, stand on, or use the docks under any of the following conditions:

- The dock shows signs of damage.
- The dock is not in its fully assembled state.

- Leg holder set bolts are not fully tightened.
- All bolts and nuts are not fastened securely per Bestmade Docks' specifications.
- The dock has been modified or repaired by an individual unauthorized by Bestmade Docks.
- The weather is severe including, but not limited to, excessive rain, wind, or waves.
- The dock has ice, snow, or other potentially hazardous conditions on its walking surface.

Additional Safety Recommendations:

- Never use the docks beyond the rated maximum weight capacity, as specified in this document.
- Do not allow anyone to swim under or near the dock at any time.
- Before allowing anyone to use the docks, be certain they fully understand the proper procedure for safe use.
- Keep people and pets clear during removal and installation of docks.
- Check the dock periodically as specified in the general maintenance section of this document for excessively corroded or rotted members, or any other condition in which safe use of the dock has been compromised.
- Wear heavy leather gloves when handling the docks during removal and installation, or during any adjusting. Insufficient hand protection when handling the docks can cause serious personal injury.
- Do not attempt to make any adjustments to the docks while they are in use.
- Never use the docks under the influence of drugs, alcohol, or medication.
- Dock maintenance schedule must be followed to avoid possible equipment failure or personal injury. See the maintenance section of this text for more information. Failure to perform proper maintenance can result in equipment damage or failure.
- Do not exceed the maximum torque rating on all bolts as specified in this document.
- Do not exceed the maximum weight rating on the docks.
- Never allow children to be on, near, or in the vicinity of the docks unsupervised. Failure to do so could result in serious personal injury or death.
- Never add additional equipment or products to the docks without prior authorization by the Bestmade Docks.

2.4 Mooring and Docking Watercraft

Often times one of the primary functions of a lake front dock is to tie or secure a watercraft to the dock for mooring purposes. If done correctly, your Bestmade Docks can certainly handle the pressures exerted on the docks by a light watercraft being tied on directly. Since the docks are installed in a variety of locations, with varying water levels, wave heights, and wind directions, Bestmade Docks can neither specify safety

limitations, nor take responsibility for damages or personal injury associated with any improperly moored watercraft. The best choice is to avoid securing a watercraft to the dock directly, and instead place the watercraft on a properly sized hoist.

3. Specifications

3.1 Specifications Introduction

Your Bestmade Products dock has been engineered to perform at a high level over the lifetime of the product. To ensure the docks are used in the correct way, and for reference, the following specifications have been made.

3.2 Specifications Table

Specifications List	4'x8' Dock	6'x8'Dock
Frame Weight *	60 lbs	70 lbs
Width	4 feet	6 feet
Length	8 feet	8 feet
Maximum Recommended Depth of Water	7 feet	7 feet
Number of Deck Inserts per 4x8 Section**	2	2
Deck Insert Weight **	40 lbs	60 lbs
Fully Assembled Dock Section Weight**	165 lbs	215bs
Capacity	1200 lbs	1200 lbs

****Deck insert weights can vary dramatically with material choice and condition. Cedar used in table. Leg lengths can also alter fully assembled dock section weight.**

3.3 Rated Load Capacity

The maximum rated capacity for any one section of dock in its installed position, whether connected to other docks or not, is 1200 lbs. Exceeding this maximum rated weight limit could result in equipment failure which could lead to personal injury or death.

4. Inspection and Maintenance

4.1 Inspection and Maintenance Introduction

To ensure your Bestmade Dock performs at an exceptional level for the lifetime of the product, and to prevent compromising the safety of the dock, the following preventative maintenance should be performed.

4.2 Annual Inspection

At least once a year, the docks must be thoroughly inspected using the following procedure:

1. Check all bolts and fasteners are tightened properly and in good working order.
2. Check the docks for rotted, cracked, split, or broken members.
3. Check all parts of the frame and deck thoroughly for defects of any kind.
4. Lube all leg set bolts as needed with a good quality marine grade anti-seize.

4.3 Storage Procedure

When storing your docks, use the following procedure:

1. Protect your docks as best as possible from airborne fallout, chemicals, tree sap, ice, or other weather hazards.
2. Never use the docks to lift or hang any auxiliary equipment such as boating hardware.
3. Do not allow anyone to swim, wade, or play near the stored docks at any time.