

Pipe Docks

Assembly Instructions

Stationary Pipe Docks
Rolling Pipe Docks

RECOMMENDED TOOLS



Wrenches or sockets:
M14 (or 9/16")
M15 (or 5/8")
M19 (or 3/4")



Cordless Drill



Rubber Mallet



Screwdriver
(Phillips)



Work Gloves



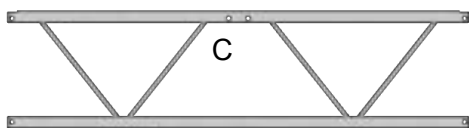
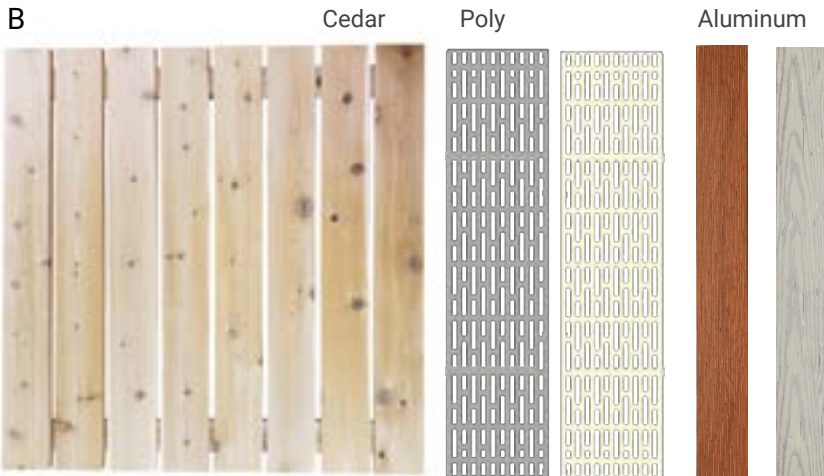
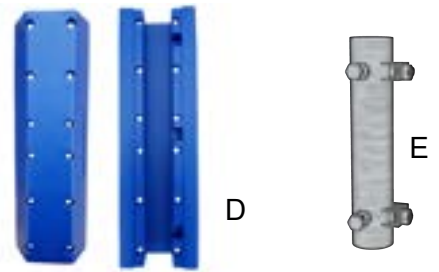
Pipe Docks

Components

POTENTIAL DOCK COMPONENTS

Each dock order includes different components and quantities. Refer to your packing slip for all components and quantities. This chart represents common parts in Stationary and Rolling Pipe Docks.

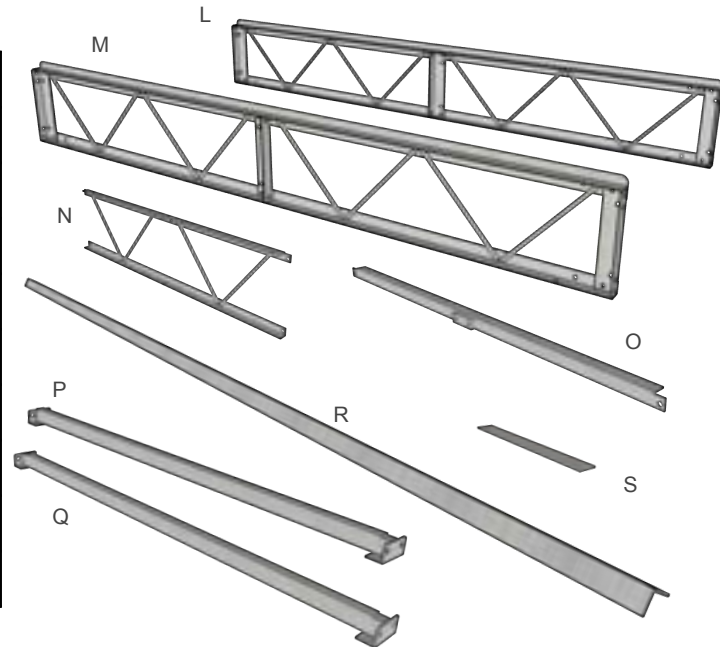
	Part Number	Description
A	10800	TRUSS FRAME KIT
B	10870/10851/10861/10957/10977	DECKING PANEL (CEDAR / GRAY POLY / TAN POLY / GRAY ALUM / BROWN ALUM)
C	10803	EXTRA EXTERNAL END RAIL
D	10886	DOCK BUMPER
E	10810	PIPE HOLDER
F	10811	FOOT PLATE
G	10820	AXLE CONVERTERS (PAIR)
H	10821	DOCK WHEEL
I	10854	CORK ROLL
J	10867/10868	DECK LOCKERS FOR POLY / ALUMINUM DECKING



Pipe Docks

Components

A. EACH FRAME PACKAGE COMPONENTS			
	Part Number	Description	Qty
L	10800-1	LEFT SIDE RAIL (Marked L)	1
M	10800-2	RIGHT SIDE RAIL (Marked R)	1
N	10803	END RAIL	2
O	10800-4	CONNECTING RAIL	1
P	10800-5	SHORT CENTER SUPPORT TUBE	1
Q	10800-6	LONG CENTER SUPPORT TUBE	1
R	10800-7	DIAGONAL BRACE	1
S	10802	TRUSS FRAME TRANSITION PLATE	1



PIPES

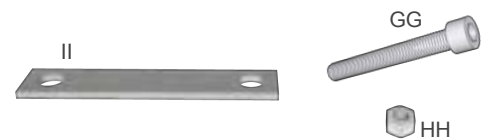
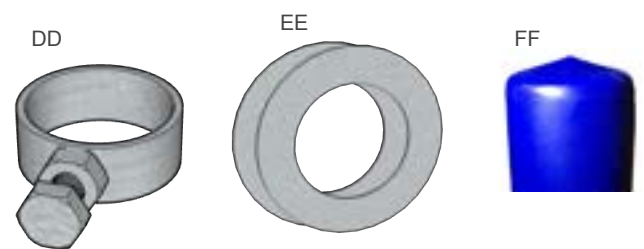
Note: Aftermarket 1-1/2" ID Schedule 40 Galvanized Pipe can be added at any length if standard pipe sizes are not long enough.

K	10812 10813 10814	4ft PIPE 6ft PIPE 8ft PIPE
---	-------------------------	----------------------------------

K



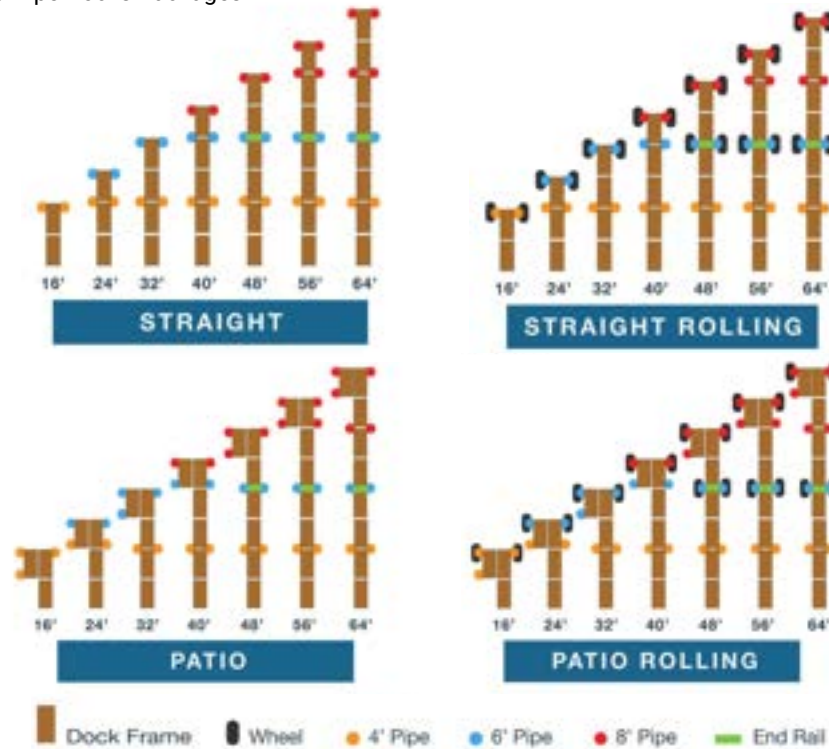
Each Truss Frame Hardware Description		Qty
AA	M10x35mm Flange Bolt	22
BB	M10 Flange Serrated Nut	24
CC	M10x40mm Flange Bolt (RED)	2
Additional Hardware		
DD	Stop Clamp Pair	1/wheel
EE	Wheel Washer	2/wheel
FF	Pipe Cap	1/pipe
Each Bumper Hardware Kit		
GG	Vinyl Bolts	4
HH	Vinyl Nuts	4
II	Backer Plate	2



Pipe Docks

General

16ft Rule: Patriot frames are engineered to be supported every 16 feet of linear dock. The shore end of the dock is to rest on the shoreline directly without feet (this is not always possible for every application), and two supports are required at least every 16 feet afterward in addition to unsupported corners on patio sections. Long sequences joining 8ft side to 8ft side will require a pair of supports every 8 feet. Some large platforms will require extra support under connections joining 4 or more frames (not included). Though designs are customizable, below are the support locations for Standard Pipe Docks Packages:

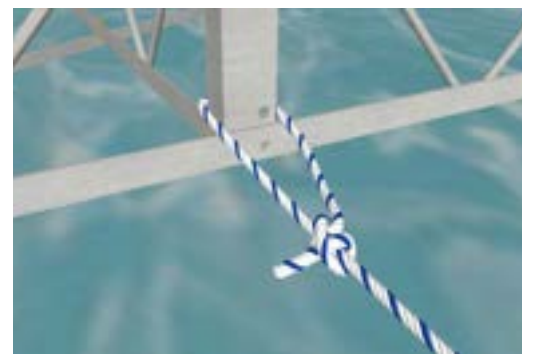


Modular design: Patriot Docks frames are designed to attach frames together in any orientation, given proper support. Some orientations may require drilling extra holes. Configurations can change as often as desired, but each frame kit is assumed to join to the next consecutive frame, so they share a 4ft End Rail. When adding another patio section to the side of the main dock, another 4ft End Rail is required in addition to the frame packages provided.



Installing accessories: Patriot Docks accessories and aftermarket accessories all bolt to the frame of the dock, not the decking panels. Decking is drop-in style. This means that any accessory bolted to the decking is liable to be dislodged if the panel is not firmly bolted to the frame. New holes are required in the frame for nearly all Patriot Docks and aftermarket accessories.

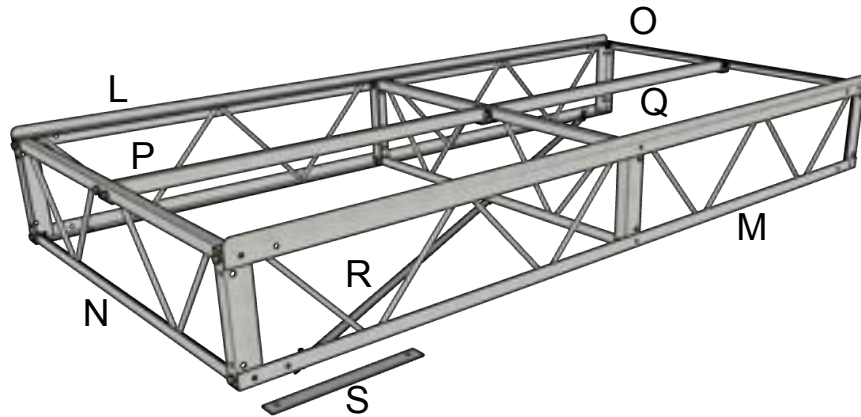
Mooring your boat: Boats can be tied to any part of the truss frame since all of the strength is in the frame, particularly the vertical angles. Cleats are not readily compatible with drop-in decking, but any cleat or top surface accessory can be mounted to drop-in decking as long as that deck panel is firmly bolted to the frame.



Pipe Docks

Frame Assembly Steps

TRUSS FRAME KIT COMPONENTS			QTY
L	10800-1	LEFT SIDE RAIL (Marked L)	1
M	10800-2	RIGHT SIDE RAIL (Marked R)	1
N	10803	END RAIL	2
O	10800-4	CONNECTING RAIL	1
P	10800-5	SHORT CENTER SUPPORT TUBE	1
Q	10800-6	LONG CENTER SUPPORT TUBE	1
R	10800-7	DIAGONAL BRACE	1
S	10802	TRUSS FRAME TRANSITION PLATE	1



Remember when assembling frames:

Shore to Lake Assembly: Start from the shore and built out towards the lake. Do not assemble individual frames first

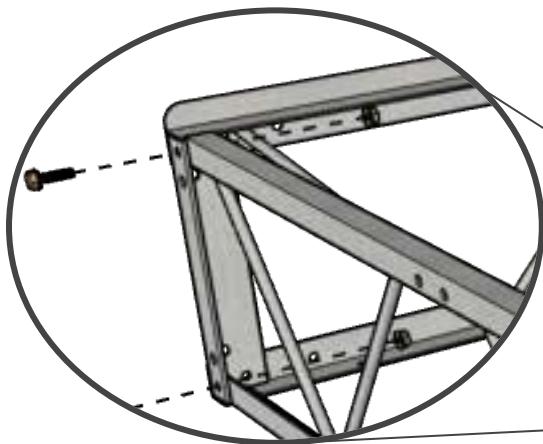
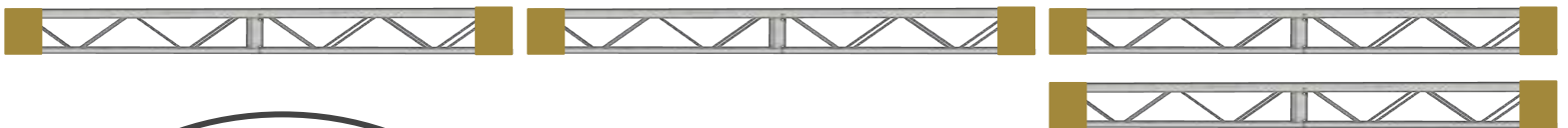
Start by hand tightening: Hand tighten all bolts and tighten with wrench or drill only after fitting the frame together

Drop-in Decking Panels: Decking panels drop in after frame is assembled and installed

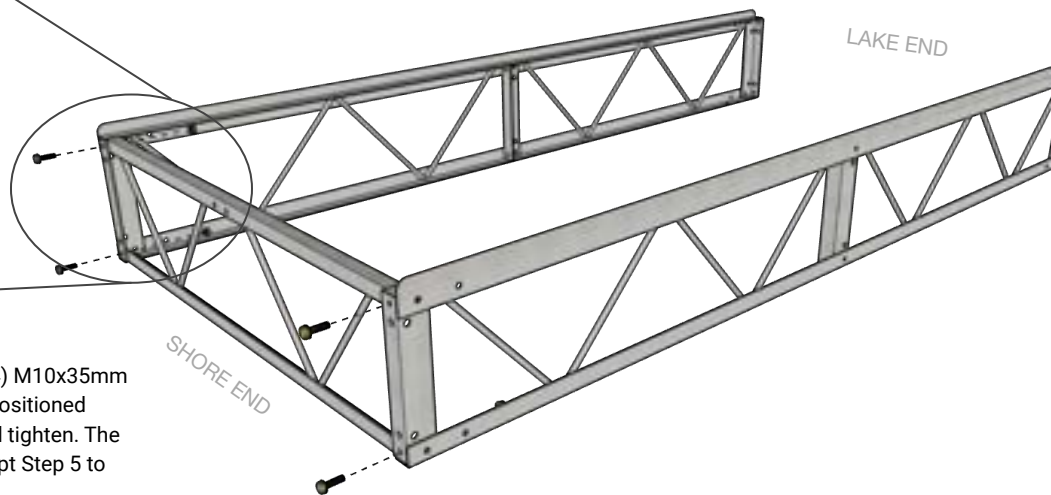
Long Bolts: The longer M10x40mm bolts are used to assemble the Connection Rail, leaving the rest of the bolts for all other connections

On Land Assembly: Assemble frames on land in the most level space available

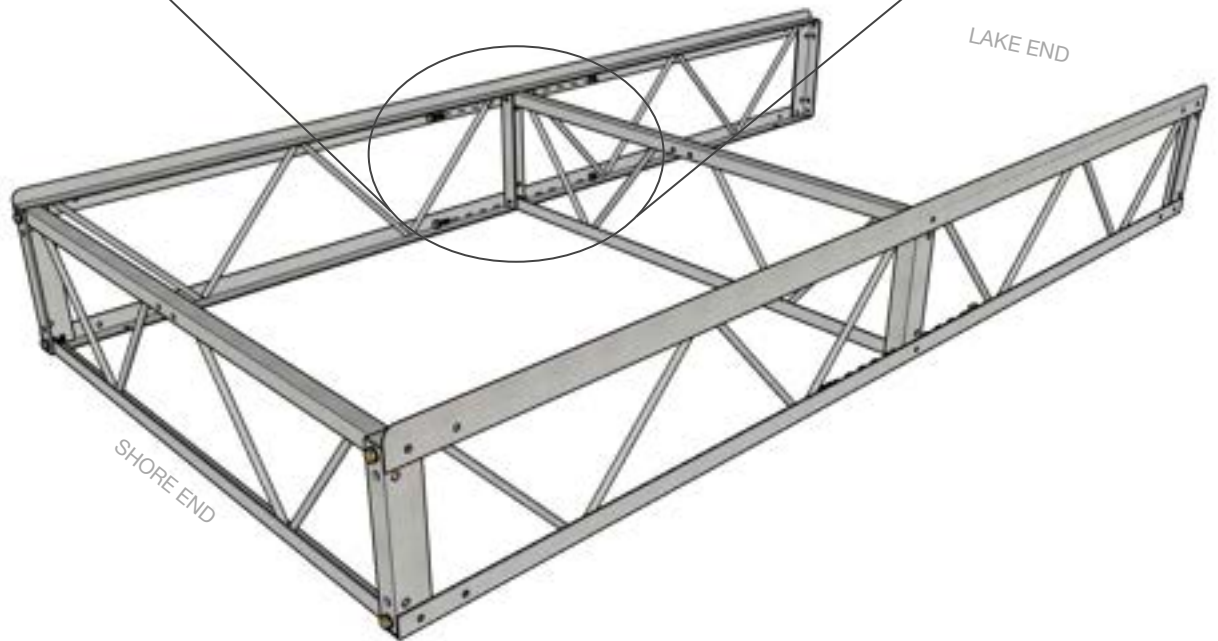
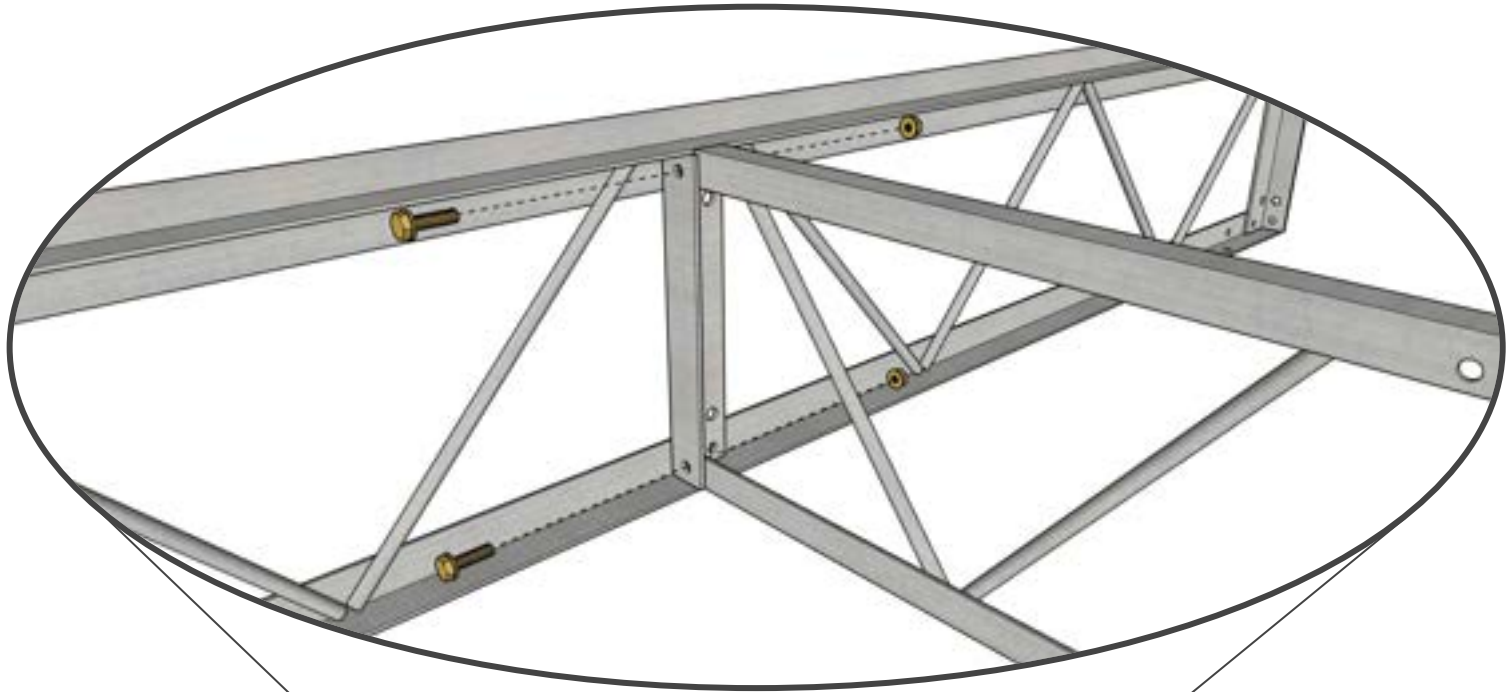
- 1 Lay out all frame packages (A) in the position where they will be located for your particular dock design. Open packages. Position Left Side Rail (L) on the left side with the lip pointing up, and the Right Side Rail (M) on the right side for each frame section. The example below is a layout for a 24ft Patio Dock.



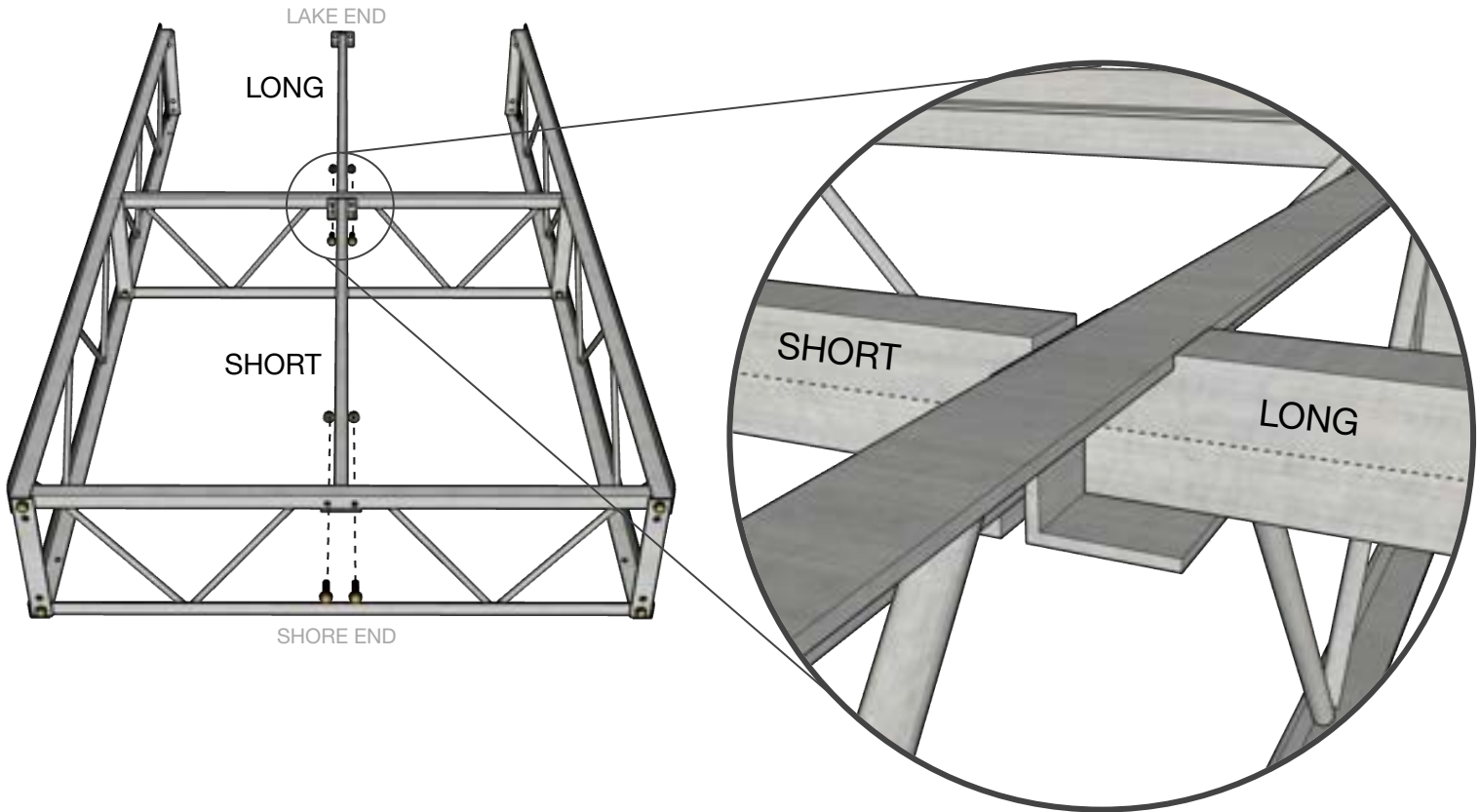
- 2 Bolt Side Rails (L&M) to Shore End Rail (N) using (4) M10x35mm bolts (AA) and serrated nuts (BB). The End Rail is positioned inside the Side Rails with center holes on top. Hand tighten. The M10x35mm bolts are used on the entire dock except Step 5 to add the Connecting Rail.



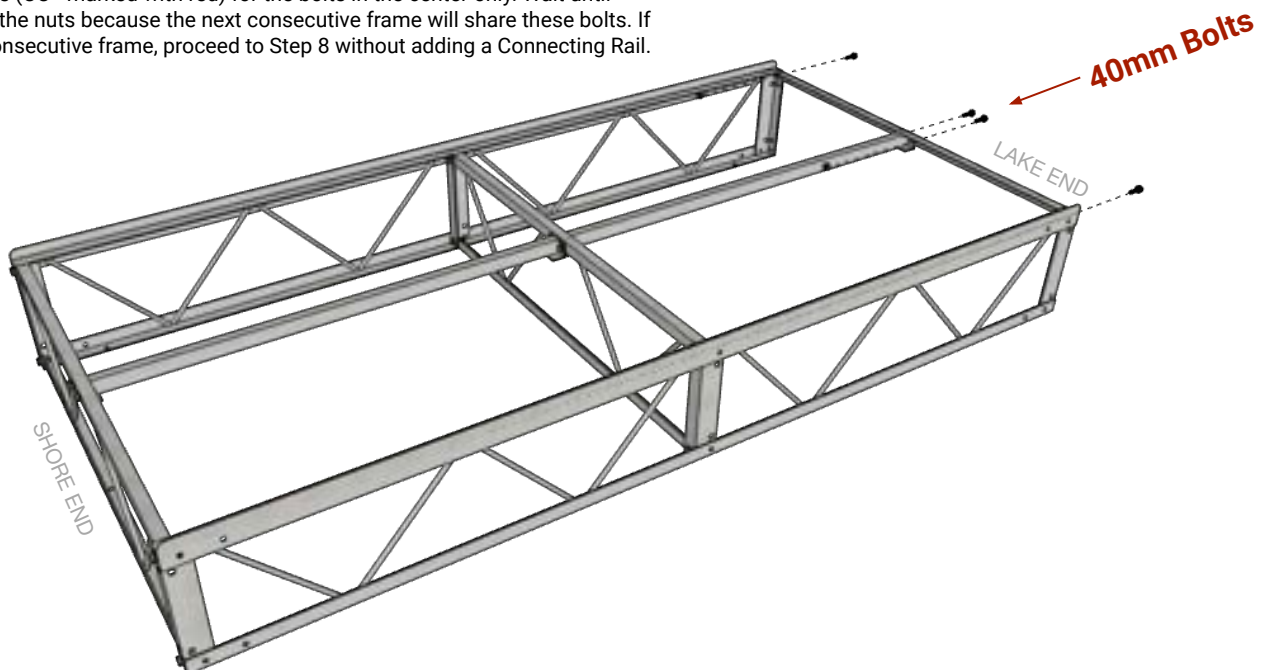
- 3 Bolt Middle End Rail (N) to Side Rails with (4) M10x35mm bolts (AA). End rail fits inside Side Rail Angles. Hand tighten.



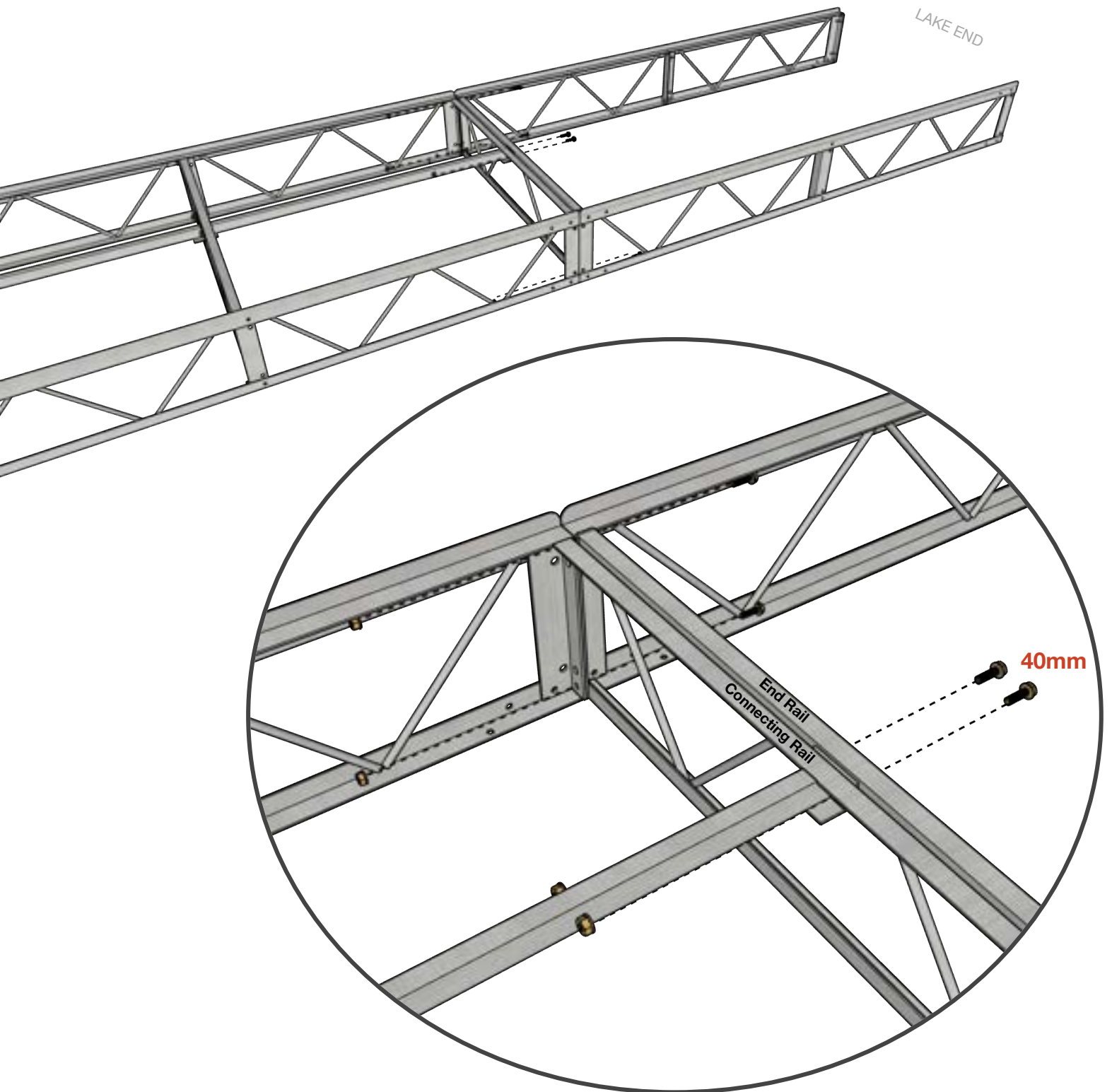
- 4 Bolt Short and Long Center Support Tubes (P&Q) to End Rails (N) with M10x35mm bolts (AA). The Short Center Support Tube (P) has one notch facing up, and the Long Center Support Tube (Q) has two. Hand tighten bolts.



- 5 If you are continuing to build another consecutive frame to the dock length, add Connecting Rail (O) to Side Rails and Long Center Support Tube (P&Q). Use **M10x40mm** bolts (CC - marked with red) for the bolts in the center only. Wait until step 6 to secure the nuts because the next consecutive frame will share these bolts. If this is the last consecutive frame, proceed to Step 8 without adding a Connecting Rail.



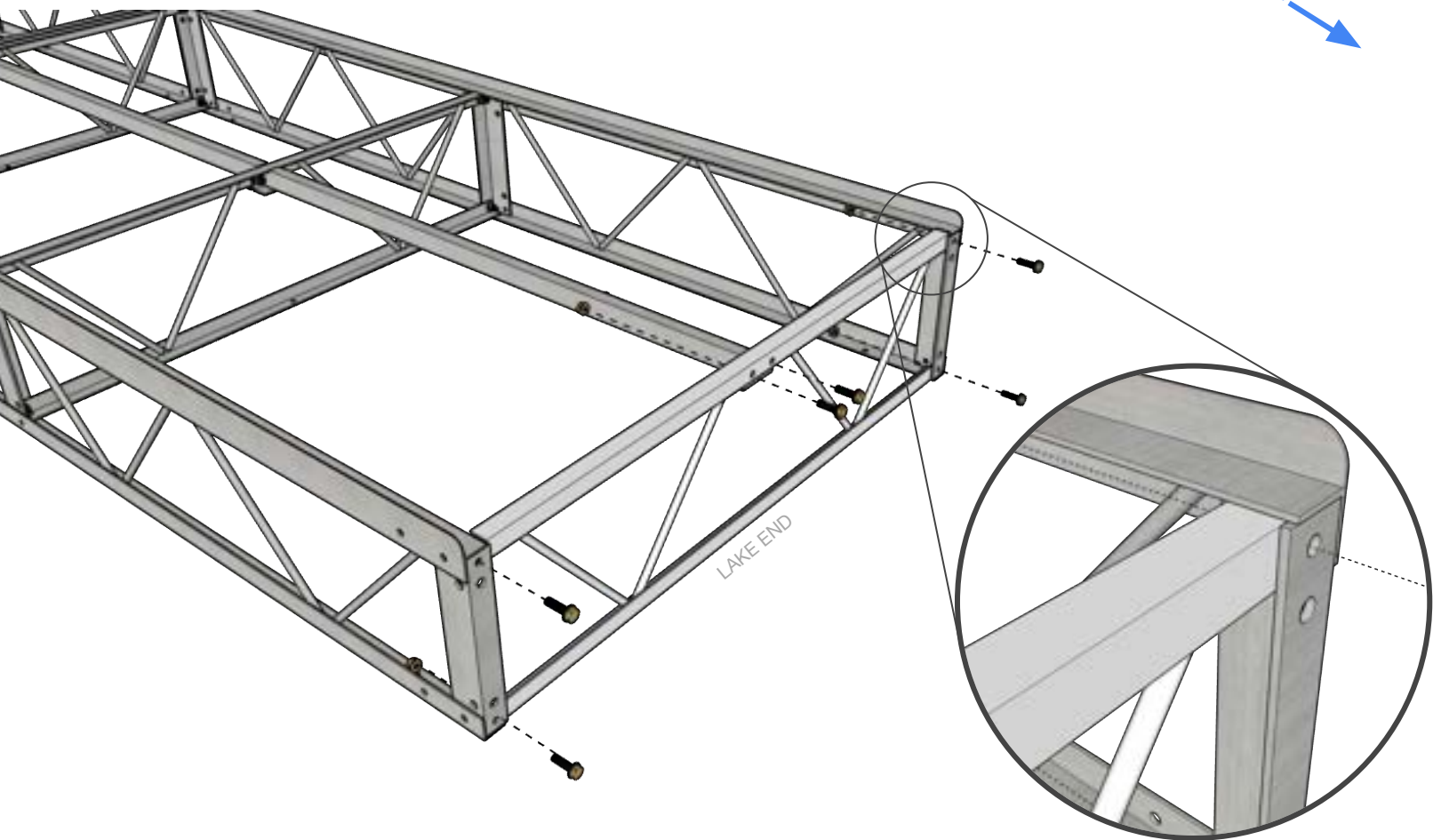
- 6 Bolt the next frame's Side Rails (L&M) AND bolt previous Connecting Rail (O) to the next frame's Shore End Rail (N) using the bolts from step 5 and additional hardware. Do not assemble frames individually; rather join all frames together from the shore end to the lake end, then add patio side sections.



SHORE END

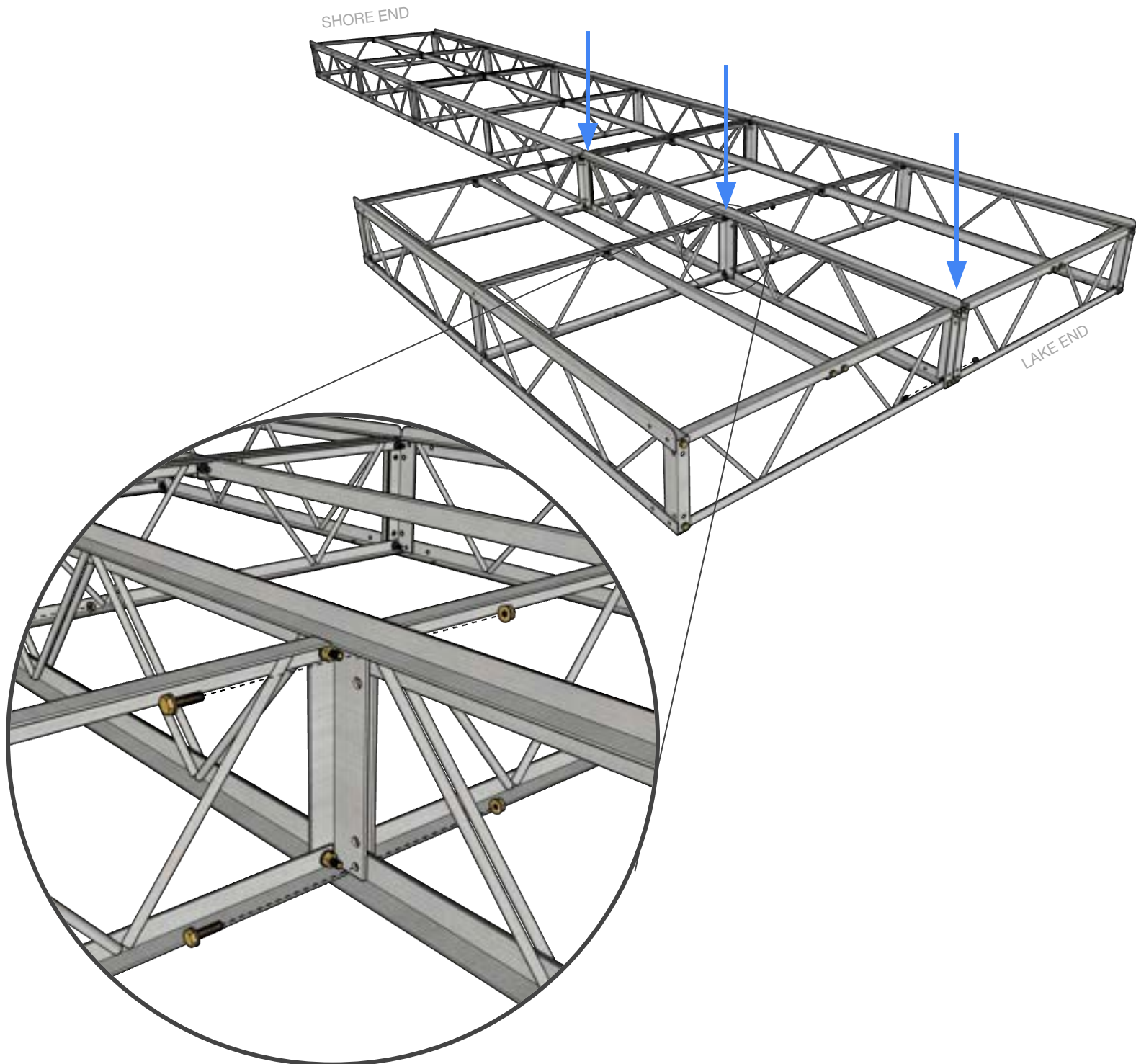
- 7 Continue to assemble the main length of dock until the desired length has been reached. On the last frame, the connecting rail is not added.

- 8 Bolt Lake End Rail (outside of all frame packaging) to the terminal end of your dock instead of a Connecting Rail. There will be left over Connecting Rail(s), hardware, and other parts depending on your dock layout.

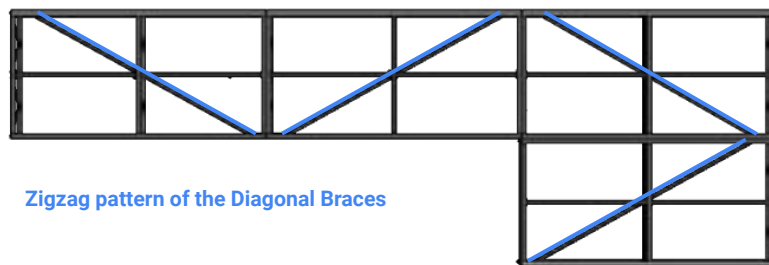


9 For Patio (side frame) sections, assemble one complete frame (Steps 1-5 and Step 8). Then bolt the completed Patio frame to the Side Rail of the terminal dock frame with (6) M10x35mm bolts (AA). Patio sections can be mounted to either side of the dock. Patio sections can join to the straight dock with the 4ft side if you drill (6) holes and support all corners properly.

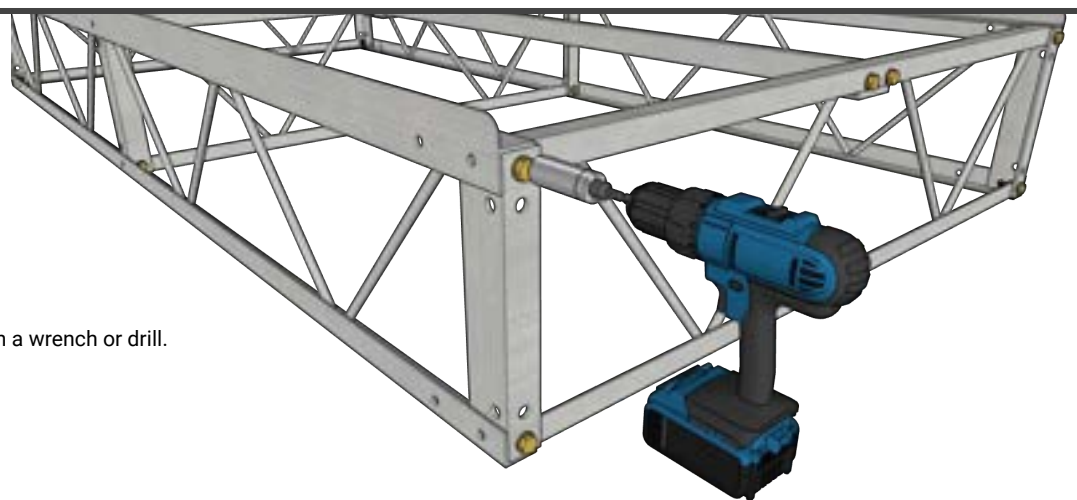
10 For T-shaped and custom dock designs, proceed to add frames as in Step 9, to the other side of the dock.



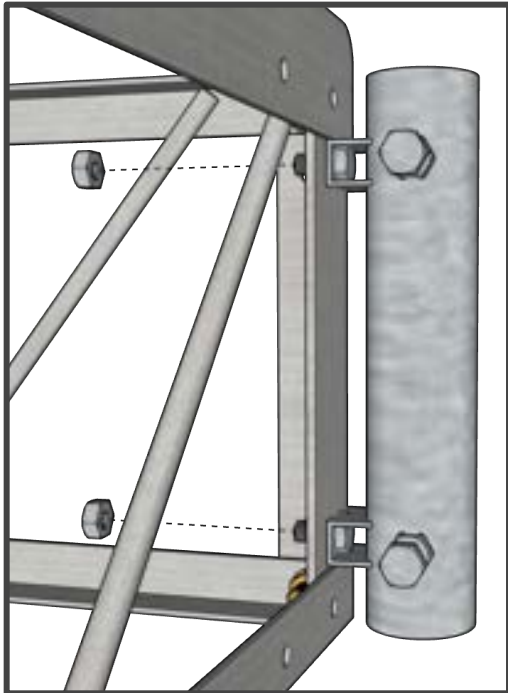
- 11** Add Transition Plates (S) to all frame joints which will not have supports or patio sections and Diagonal Braces (R) in a zigzag pattern under the entire dock design. Hand tighten.



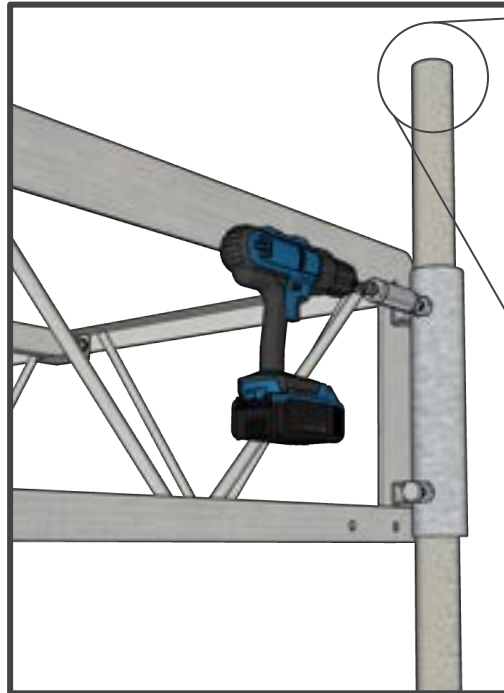
- 12** Tighten all bolts with a wrench or drill.



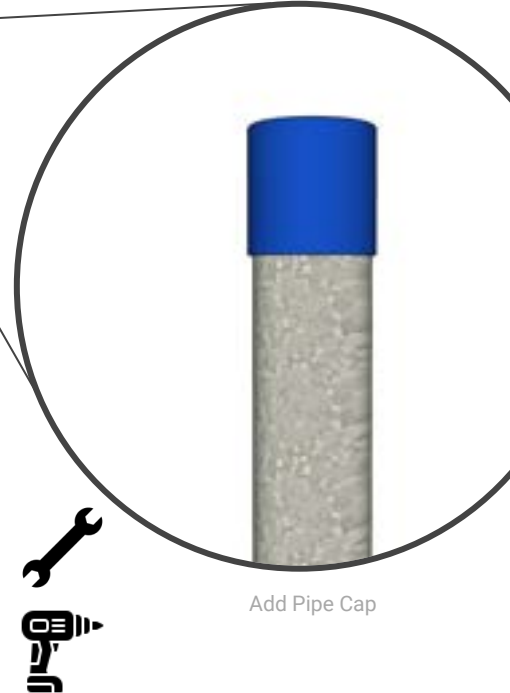
- 13** Add supports to the frame by bolting the Pipe Holder (E) to the outside of the Side Rail according to the dock layout using provided hardware. Tighten with wrench or impact driver. Supports are required every 16 feet of linear dock. The shore end is assumed to rest directly on the shore without supports. All outside corners of Patio frames must be supported (see "16ft Rule"). Insert the correct length of Pipe (K) into each Pipe Holder as vertical supports. Slide the Pipe Cap (FF) to the top of each vertical pipe.



Add Pipe Holders to the frame using provided set bolts



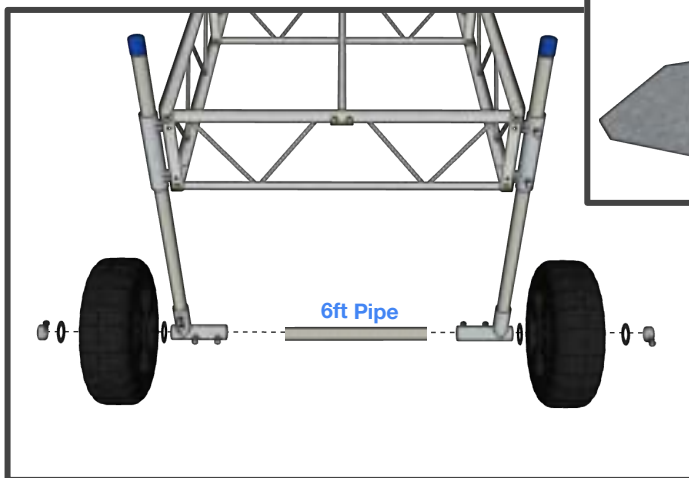
Slide Pipes into Pipe Holders and cinch down provided set bolts



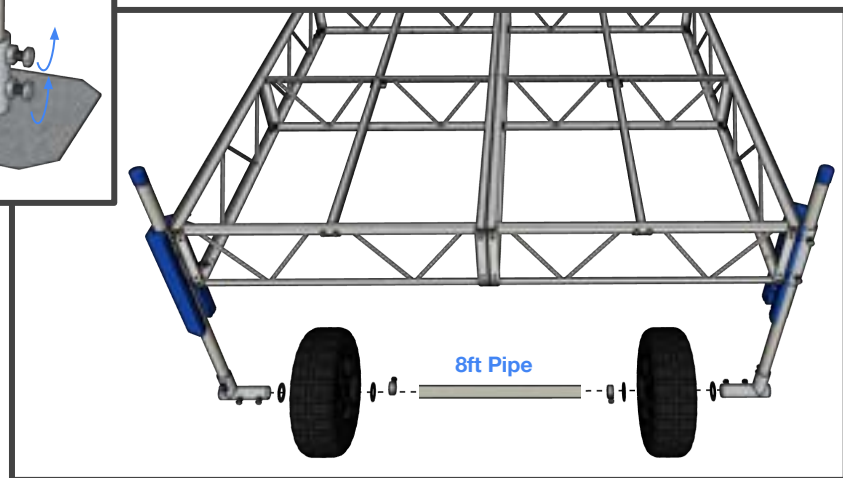
Add Pipe Cap

- 14** Secure either a Foot Plate (F) or a pair of Axle Converters (G) with an Axle (K) to the bottom of your vertical supports with set bolts provided. The wheel assembly includes an Axle Pipe (K), 2 Wheels (H), 2 Wheel Washers (EE), and a pair of Stop Clamps (DD). Note:
- Each Pipe Holder, Foot Plate, and Axle Converter includes dual ½" set bolts.
 - Wheels require 6ft Axle pipe under docks with a width of 4ft (Straight Docks). Wheels are positioned outside the dock.
 - Wheels require 8ft Axle Pipe under docks with a width of 8ft (Patio Docks). Wheels are positioned under the dock.
 - All pipe lengths can be manually adjusted along the full length of your pipe for fine tuning the height of your dock.
 - Rolling Dock packages include a set of wheels at the end of each small dock (equal to and under 40ft). Larger Rolling Dock packages have a second set of wheels in order to roll out two sections easily. Docks can be further customized for unique requirements.

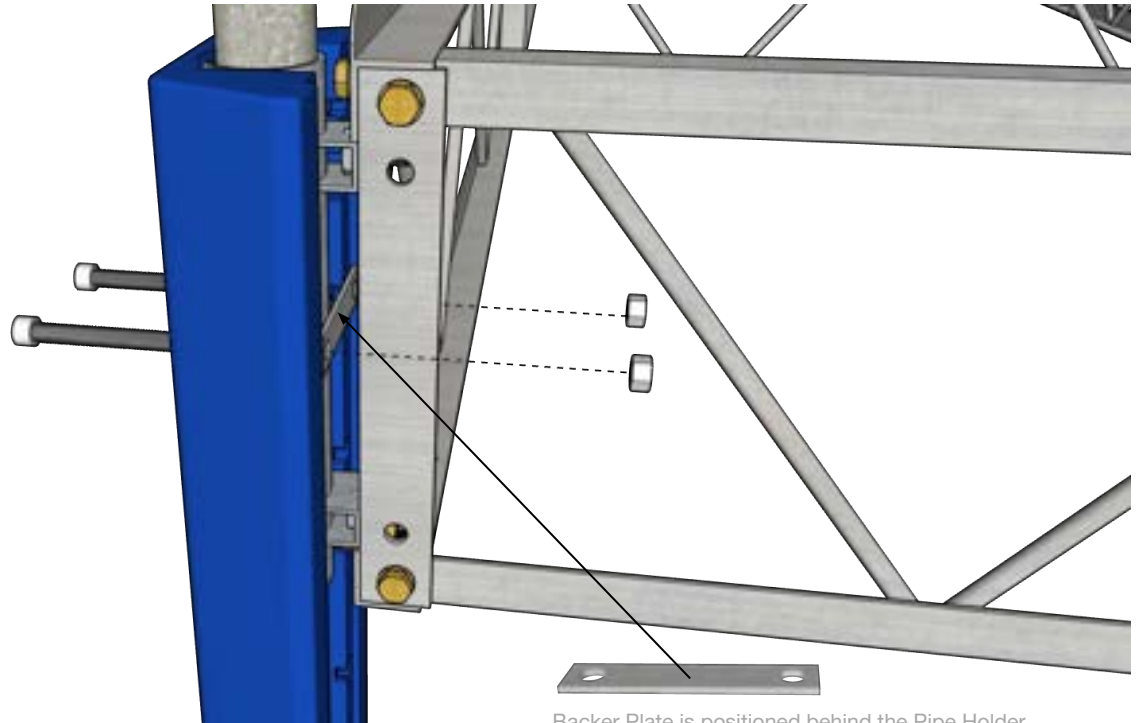
Wheel Assembly for Straight Rolling Docks



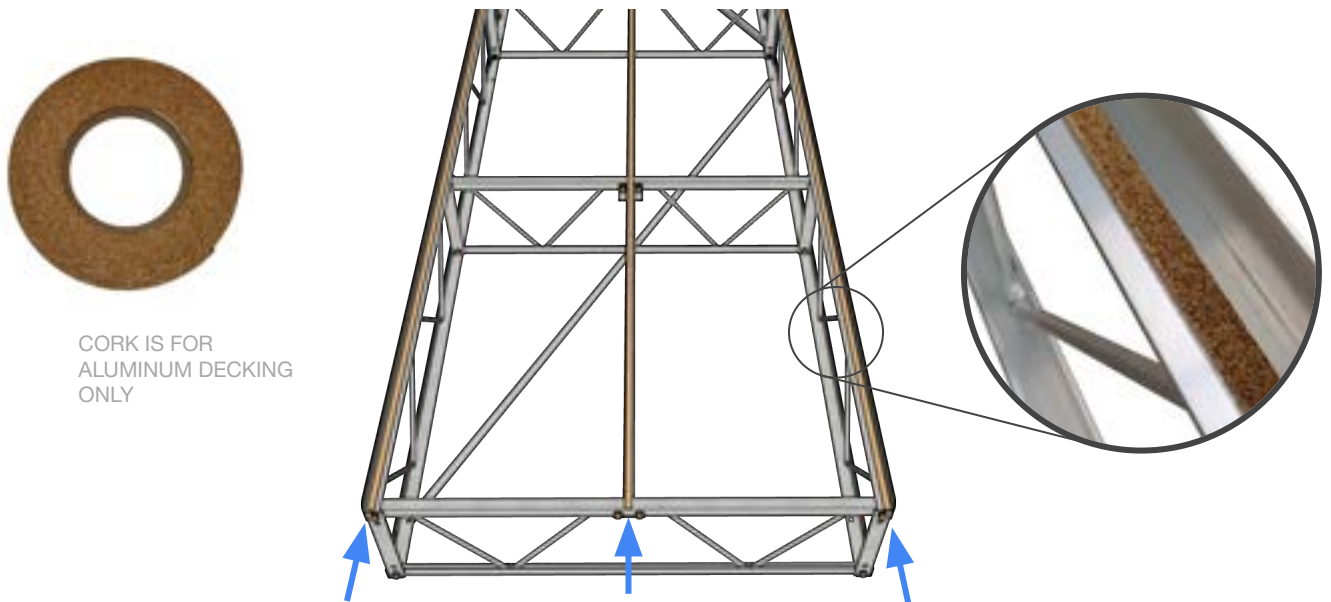
Wheel Assembly for Patio Rolling Docks



- 15** Bolt the Bumpers (D) to your Pipe Holders with the provided Vinyl Bolt (GG), Nut (HH), and Backer Plate (II). Not every hole is available for mounting. Hand tighten only.



- 16** Your dock frame is now assembled. For docks with aluminum decking, adhere the Cork (I) to the top outside face and top middle tube of the frame. Remove the sticker back, and stick the cork to the surface, removing more sticker back as you unroll the material. Cut to length with scissors or a utility knife. Docks with cedar and poly decking do not require cork.

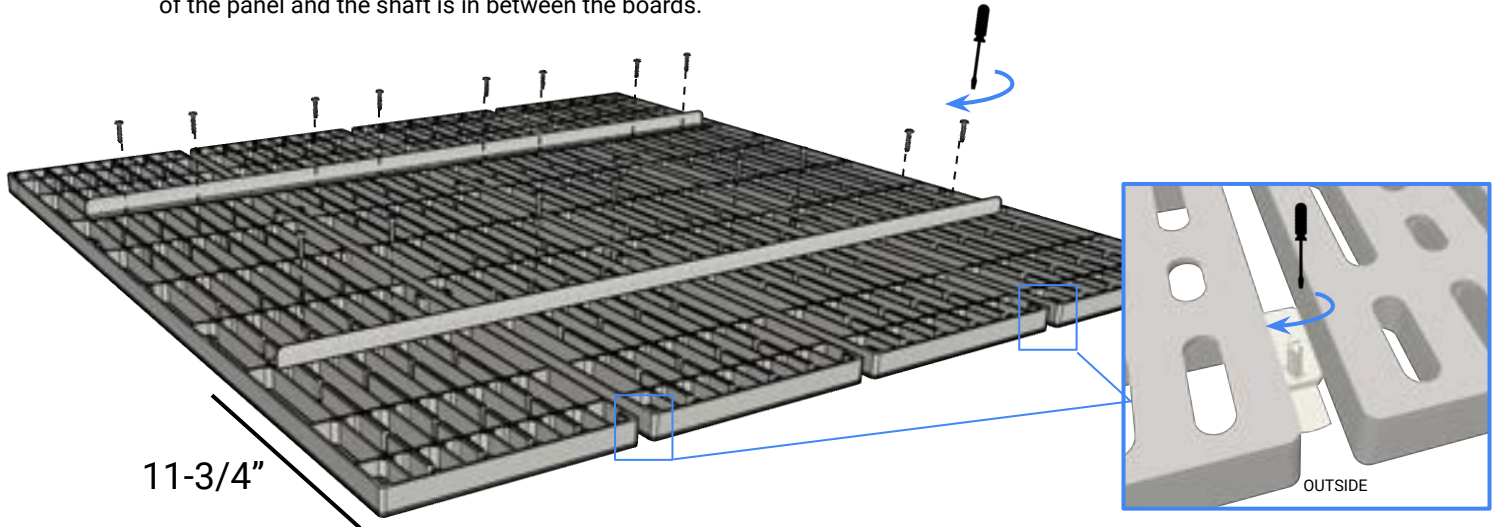


Pipe Docks

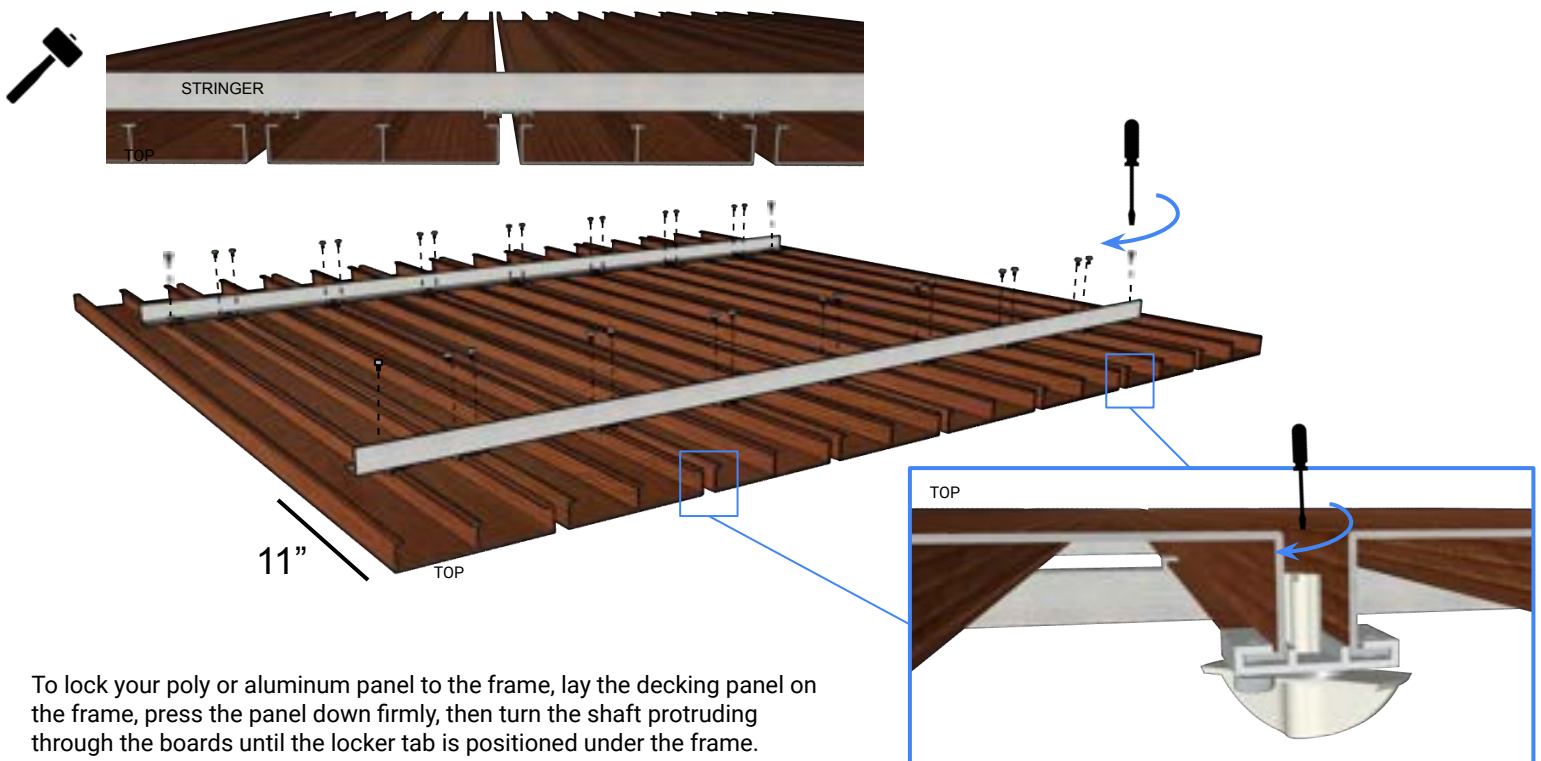
Assembly Steps

17 Assemble each 4x4 Decking Panel (B).

- **Cedar Panels** are pre-assembled. At this point, panels can be sealed with deck sealer for longest life.
- **Poly Panels** are assembled by screwing the stringer to the back of (4) boards. The stringer is screwed to the panels 11- $\frac{3}{4}$ " from the outside edge of the panels using (8) screws. Poly Deck Lockers (I) can then be mounted to the board gaps near each of the 4 corners of the 4x4 panel. Use (2) screws provided in the deck locker package to screw the locker so the tab is facing the outside of the panel and the shaft is in between the boards.

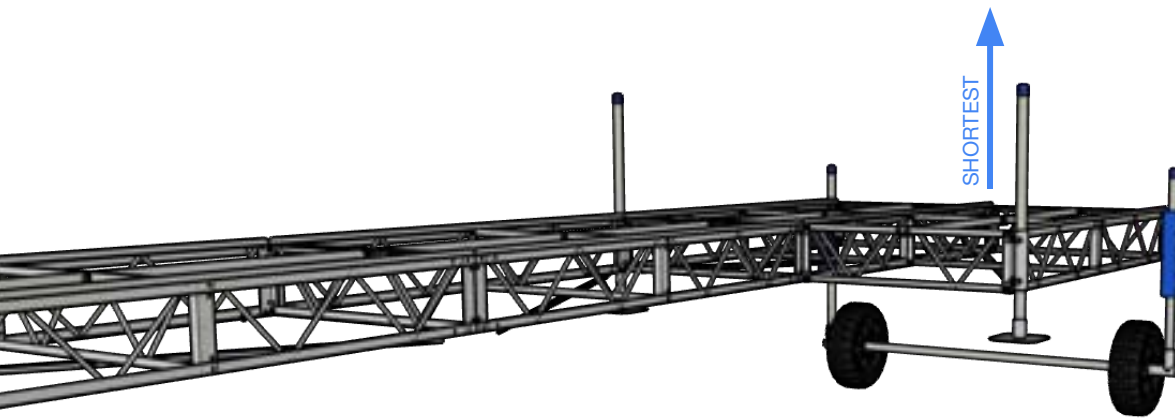


- **Aluminum Panels** are assembled by screwing the stringer to the back of (8) boards. The stringer slides on the boards so that the stringer clips accept the bottom tongue of each board tightly. A rubber mallet may help to tap the stringer into place so that it is positioned about 11" from the outside edge of the panel. Once in position, the (16) set bolts in the stringer tighten down onto the panel. Do not overtighten or strip the bolt heads by tightening quickly. This is best done with a screwdriver by hand. Aluminum Deck Lockers (I) can then be mounted to the board gaps near each of the 4 corners of the 4x4 panel. Tap the locker onto the panel and slide it 1- $\frac{1}{2}$ " from the edge of the board. Use (1) screw provided in the deck locker package to screw the locker so the tab is facing the outside of the panel and the shaft is in between the boards.

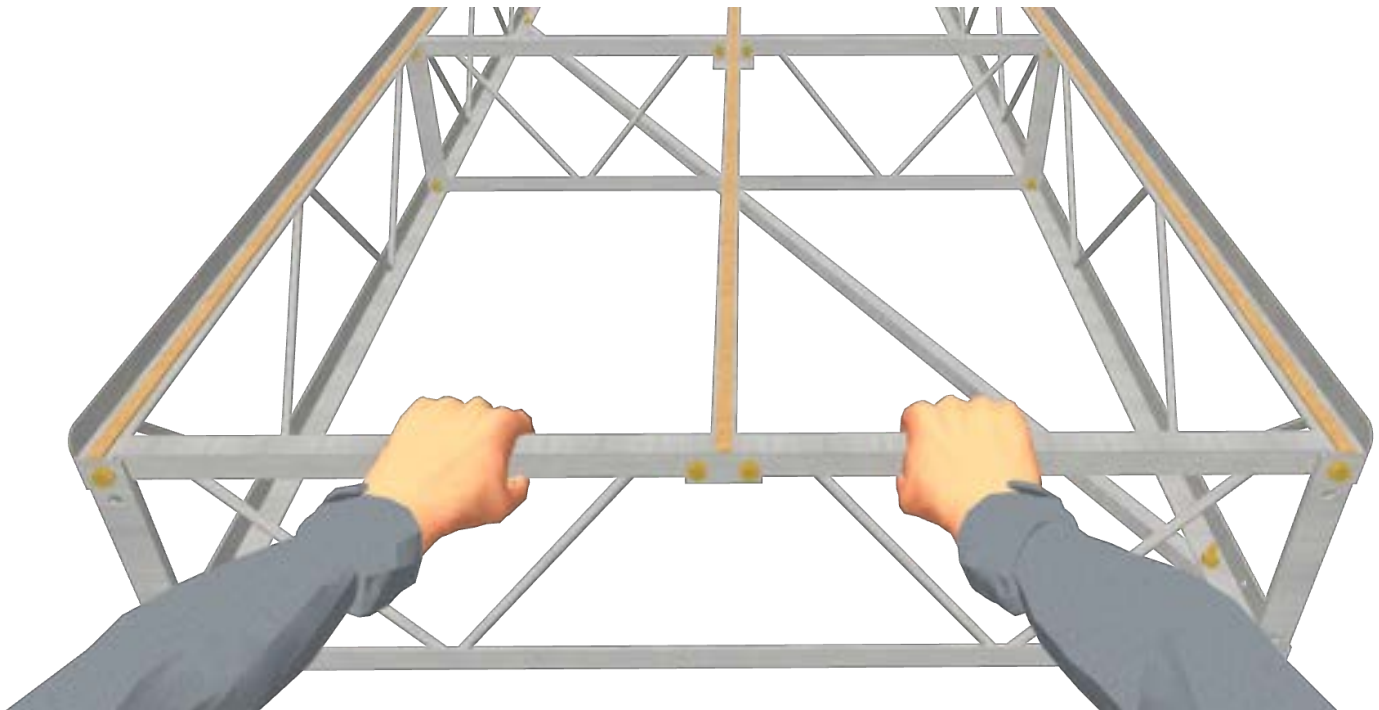


To lock your poly or aluminum panel to the frame, lay the decking panel on the frame, press the panel down firmly, then turn the shaft protruding through the boards until the locker tab is positioned under the frame.

- 1 Prior to adding decking, position your completed dock frame with supports right side up. Shorten the pipes with foot plates.



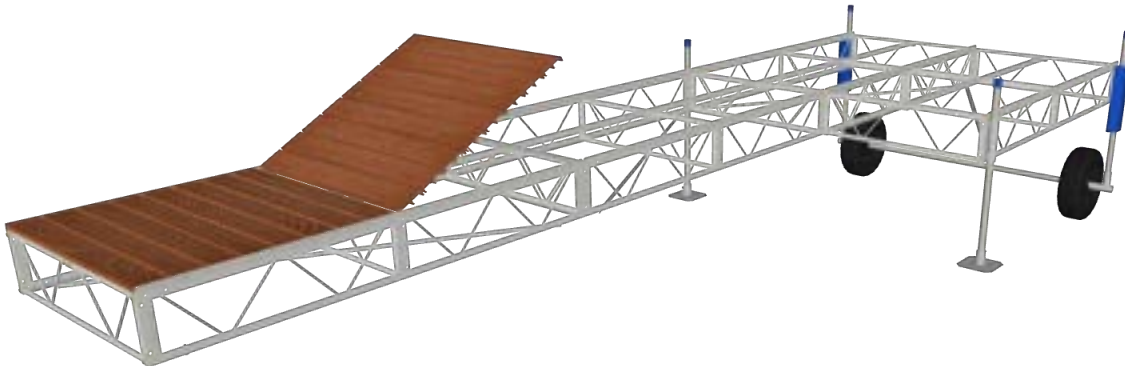
- 2 Rolling Docks can be installed in the water by lifting the shore end of the dock, and rolling the dock frame into place like a wheelbarrow. Stationary Docks can be installed in the water with two people but lifting the frame into position. Note:
 - Dock packages always limit the longest dock section length to 40 feet so that each section can be easily rolled or lifted in place. For docks that are longer than 40 feet, the shallowest section of dock is installed first, then the deepest section of dock is installed second.
 - Multiple completed dock sections are joined together by bolting the deeper section to the shallower section, or using Quick Connects, if applicable.
 - Warning: Do not use machinery or winches to install your dock as damages are not covered under warranty!



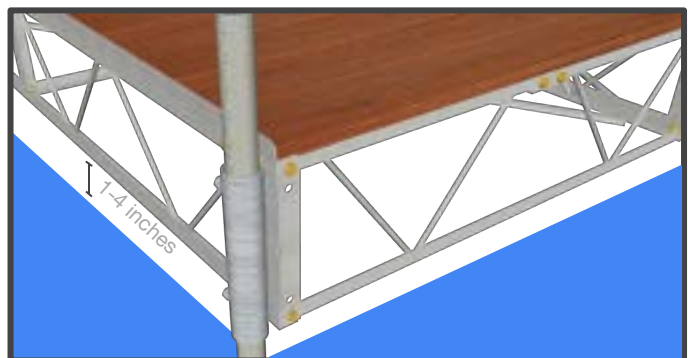
- 3 Situate the dock frame on the shore as desired for the easiest entry.



- 4 Add decking panels to your assembled and installed dock frame. Start with the shore end, lay a decking panel down into the nest in the frame, between the outer lips of the frame. Continue to lay down panels from the shore to the lake end until all panels cover the dock. If you have lockers can be turned to the lock position so the turn handle is positioned under the frame.



- 5 Level your Pipe Dock so the frame is lowered to the optimal distance from the water. Generally, this is at the height where the frame is a couple of inches out of the water at the peak of a wave. It is not a problem if the water touches the frame or sits in the water.



- 6 Your dock is now assembled, installed, and ready for use! Adjust the height of the legs as needed by loosening the set bolts on the Pipe Holder, manually lifting or dropping your frame, and reattaching your set bolts. The dock does not need to be removed to make adjustments. Add decals to the frame.

**Winterization:**

Pipe Docks are designed to be removed in all bodies of water that freeze. Freezing water can heave and ruin the whole dock.

**Frame height over water:**

The general recommendation is to keep the bottom of the frame a couple of inches above the highest expected water mark. It is recommended to remove the dock when flooding is expected.

**By-hand installation:**

Pipe Docks are designed to be installed in the water by hand. Decking panels are removable to drop the weight in half for this reason. Use of machinery and winches can damage your dock, and all damages associated with installations that are not done by hand voids the warranty.

Currents and tides:

Pipe Docks dock packages can handle some moving water and fluctuating water with proper anchoring (not provided with any dock package). Augered dock posts should be twisted into the ground at least 12 inches. Salt water will increase the rate of corrosion. Not all applications for rivers and tidal waters are appropriate for standard models.

**Max weight capacity:**

The maximum weight capacity for your dock can be calculated by multiplying the number of 4x8 frames by 1000 lbs.

**Extra parts:**

It is expected that you have some extra hardware and parts, particularly the connecting rails. This is intentional.



Severe Storms: In the event of an expected severe storm, it is recommended that the dock be removed from the water or at least the decking removed and stored safely inside and away from extreme winds.





Quick Connect Kit (10808)

Hook your frame sections together instead of bolting them. These Quick Connects make joining longer pieces of dock together faster and easier. One kit requires End Rails on both sides of the connection.



Dock Ramp Kit (10340-10353)

Add a shore ramp to your dock to make the entry point an easier step or slope. The Ramp Kit comes in 4ft or 8ft lengths with all the decking options. Ramps slope up or down.



Shoreline Supports (10873k) and Rolling Shoreline Supports (10874k)

Add supports to your shoreline to prop up your dock in the event that you cannot rest the frame on the shore. Stationary Supports feature a simple adjustable leg system. Rolling Shoreline Supports offer a rolling support for very shallow water. No vertical adjustment is required for this kit.



Kayak Rack (10931)

Pipe Docks

Suggested Products

Dock Levelers
(10840,10819)



Dock Ladder (10827)



Pipe Auger (10806)

Mount to the base of a pipe support and twist it into the lake bottom to anchor your dock.



Dock Stairs (10922-10926)

Stair Kits allow you to safely enter the water with no-slip treads and safety handrails. Comes in 2, 3, 4, 5, and 6 Steps.

Dock Bench
(10832-10837)





PATRIOT
DOCKS