

# **EZ Trail™ Installation Instructions**

**Models: Multiple EZ Dock Configurations  
For Elevated or Floating EZ Trail™ Structures**

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For questions about features, operation/performance, parts, accessories or service, call your local dealer or your nearest EZ Dock distributor at 1-800-654-8168 or +1-417-235-2223 for international customers.

Additional information regarding EZ Dock products and services can be found on the internet at [www.ez-dock.com](http://www.ez-dock.com)



**The first dock of its kind...The last dock you will ever need.®**

## IMPORTANT! Assembly, Installation, Maintenance and Safety:

You should read these instructions thoroughly before assembling and installing your EZ Trail or EZ Dock System. Also reference [EZ Dock Floating Dock Installation Manual](#) and/or [www.ez-dock.com](http://www.ez-dock.com) for other installation details. Please adhere to all recommendations and cautionary suggestions appearing in this manual and always follow the instructions based on the needs of your installation and site requirements. Please save these instructions and refer to them as needed for future reference.

## Tools and Requirements:

As with any assembly and installation, some tools are required to assemble and install your EZ Trail. You may not need every tool listed below for your particular installation, but the following tools are generally helpful in the installation process (for professional installation, call your local EZ Dock dealer):

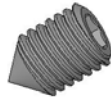
- 1/2" drive ratchet
- socket set (especially 1/2", 9/16", 5/8", 11/16", 3/4", 15/16" sq. HD. or 19mm - 12pt)
- open-end, boxed-end wrench set (above mentioned sizes)
- screwdrivers (Phillips and standard)
- pliers
- adjustable wrenches
- hammer
- pry-bar (small and large)
- rope (at least 3/8" braided nylon)
- power drill and bits
- utility knife
- Torque wrench (ft/lbs)

## Typical Hardware:

Auger  
(2-3/8" OD or 3-1/2" OD pipe)



5/8" Set Screw



3/8-16 x 3" Bolt



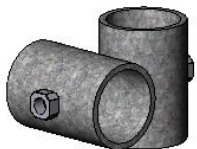
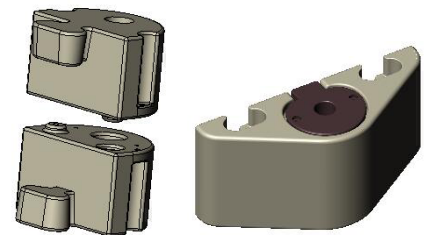
Flat and Lock Washer



3/8" Hex Nut



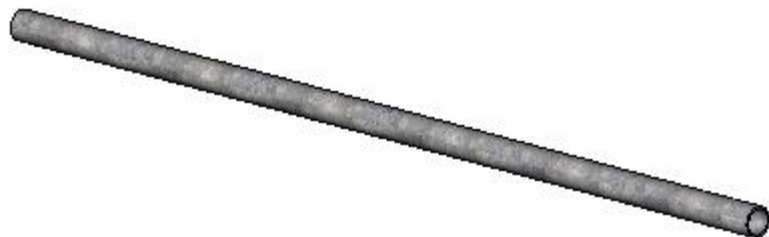
Pipe Bracket Set  
(130250/210350)



SD Pipe Clamp  
PN# S80097



HD Pipe Clamp  
PN# S80098



2-3/8" OD and/or 3-1/2" OD Anchorage Pipe

# Section 1

## Installation Site:

Each EZ Dock installation is site specific and needs to be configured specifically for the end user's intended application. Some factors to take into consideration when determining the components necessary for a proper installation would include intended usage, water conditions, soil and bed conditions, and climatic conditions. Listed are simple rules to follow.

Be certain that your installation configuration is designed to accommodate the daily intended use of your EZ Trail. Please take into account the following:

- Commercial application needs
- Public access requirements (ADA, Corp, or other)
- Private docking needs
- Scale of operation and use (number of people, etc.)
- Other special considerations affecting your daily use

Be aware of the unique characteristics of the specific location and consider how such conditions will affect the installation. Take into account:

- Overall location; (dry grounding with no potential water, seasonal dry/water conditions, and high and low water level changes.
  - Water depth (at the shore and at the furthest point from shore) if present and water level changes. Some locations may be floating or grounded. If this is the case
  - Normal and greatest wave action
  - Fresh, brackish, or salt-water
  - Normal ice thickness and movement
  - Lake bed and soil conditions (sand, rock, mud, etc.)
  - Determine whether your installation will be attended and inspected on a regular basis.
  - Become acquainted with the normal movement associated with floating structures.
  - Determine whether you are capable of performing your own installation or whether it is best to hire a professional.
- Sites with severe wave conditions need to arrange docks so pylons are parallel to wave action and vent holes are facing inside to minimize excess water collecting in docks.

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### For Suspended Dock Sections:

- The image below represents a high water view of a suspended dock. (see figure 1a) At high water levels, the dock section is floating, and as the water levels drop, the dock section will rest on the horizontal pipes and clamps (see figure 1b)

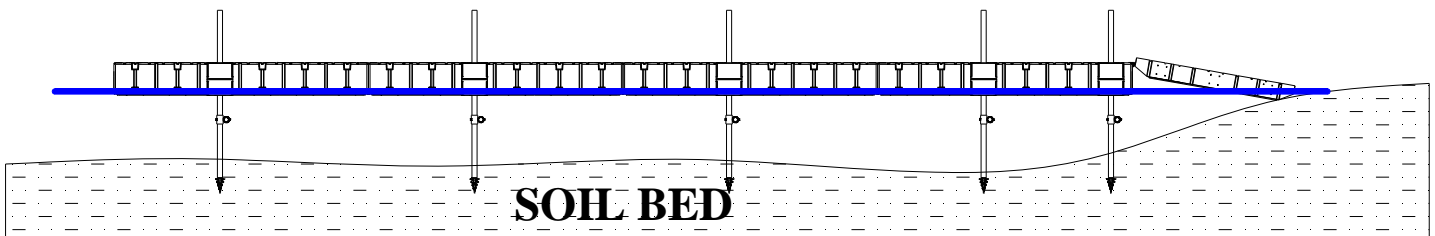


Figure 1a

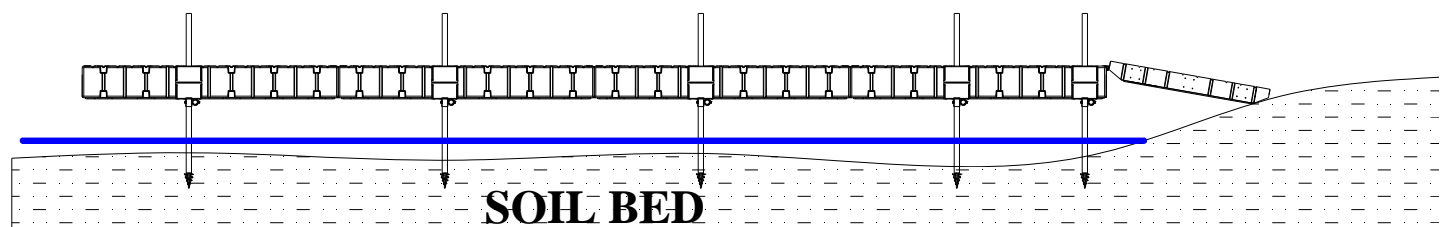


Figure 1b

## For Non-Suspended Dock Sections

Below, a high water view of a non-suspended dock, (see figure 2a). At high water levels, the dock section is floating, and as the water levels drop, the dock section will rest on the soil bed, (see figure 2b). Use caution and perform proper site preparation to ensure that the soil bed is free from rocks, tree roots, and any debris that may make for an unstable or un-level walking surface, or may damage the bottom of the dock section.

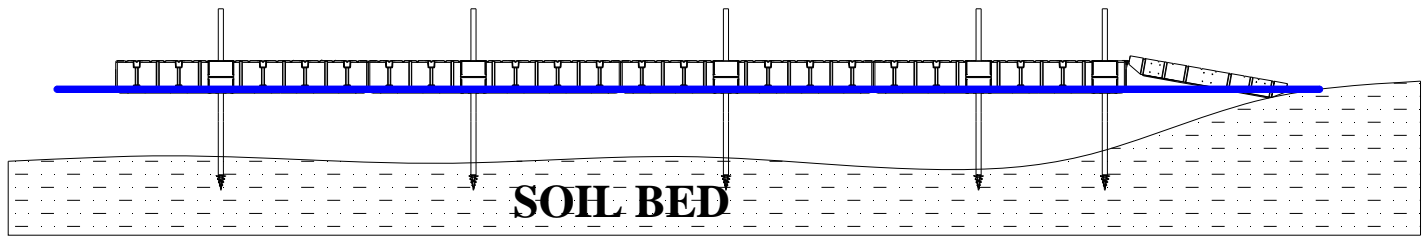


Figure 2a

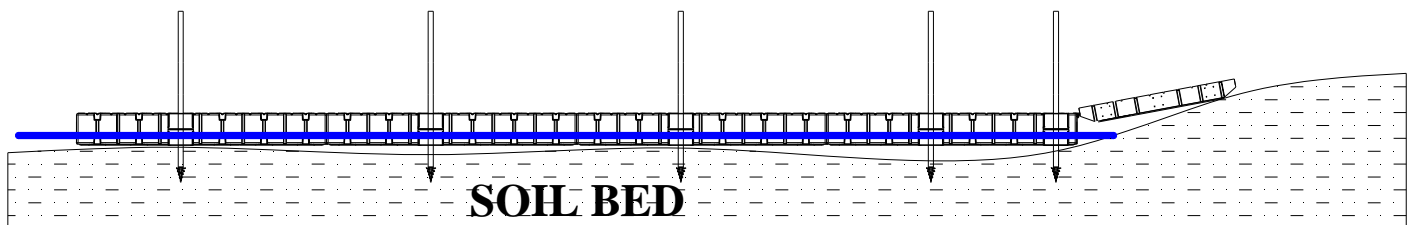


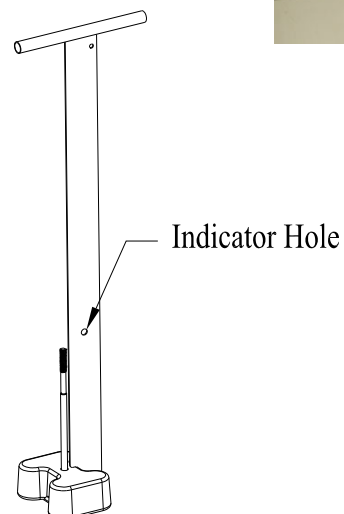
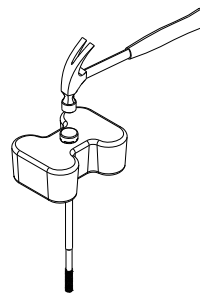
Figure 2b

## Section 2

### Coupler Installation (301100)

**Helpful Hint:** To make assembly and disassembling easier, rub a bar of hand soap on the coupler rods to lubricate them.

1. Insert the composite coupler bolt into coupler. Align the mark on the head of the bolt so the splines line up into the notched pockets in the coupler.
2. Using a hammer, seat the bolt into the coupler.
3. Install coupler with seated bolt on the in-water installation tool.
4. Align dock sections so coupler pockets are adjacent to each other. Next, using the in-water installation tool, insert the coupler and bolt assembly into the bottom pocket with the bolt pointing upward.



- Pull up on the in-water installation tool to seat the bottom coupler. (NOTE: The dock sections must be sitting level on the water and at the same elevation for the coupler to properly seat into the bottom pocket. Sometimes it is helpful to ballast the opposing ends of dock sections to keep the adjoining ends from dipping. This can be done by having someone stand on the opposite ends of each dock section, or by standing on an elevated beam or board (as shown) placed perpendicular with the dock section to span the seam being connected. When coupling seams together, it is better to start at the center of the seam and work to the edges.

Dock sections are typically installed in the water using the in-water installation tool, however, an alternate method is to install the dock sections on the shore line and push them into the water. A local boat ramp or sandy beach area is an ideal location.

### In-Water Coupler Installation Tool (9000010)

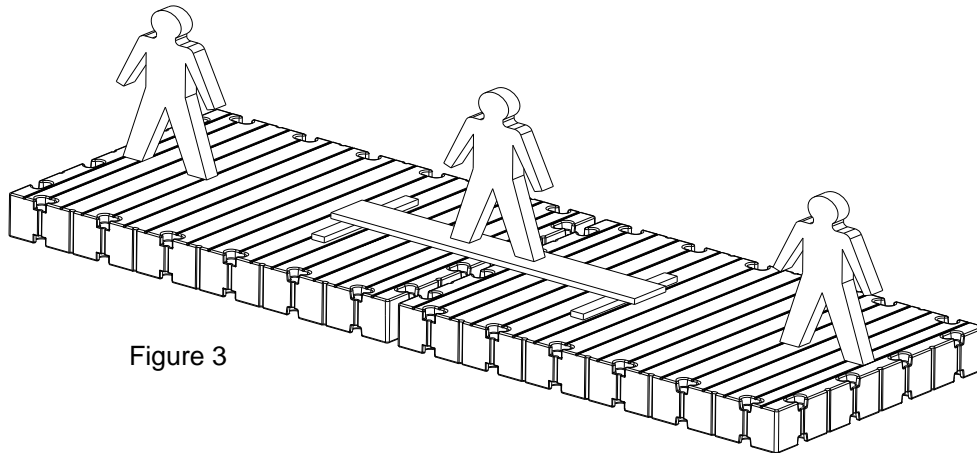
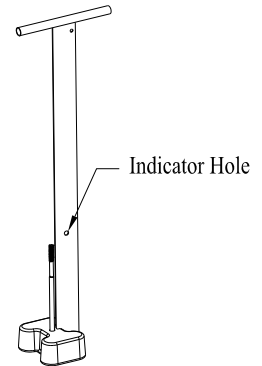
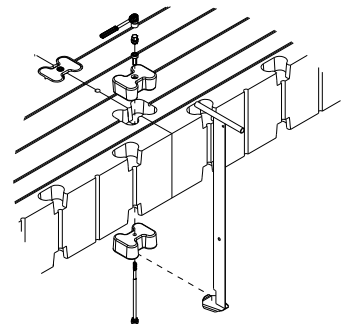


Figure 3



- Align and butt the adjoining ends of the dock sections .
- Insert the bottom coupler and bolt assembly onto the in-water installation tool, firmly pulling up to seat coupler.
- Hold the top handle and lower the tool with coupler into the water until the rod is completely below the bottom surface of the dock section. (If the rod hits the dock section, the coupler, may fall off the tool).
- While maintaining the proper depth, slide the tool between the dock sections until you reach the pocket to be connected.
- Lift the tool upward while aligning the rod to come up between the opening between the pockets. The tool has a 1/2" hole on the long flat part of the handle that maybe seen above the deck area and will indicate the bottom coupler is properly in position. Insert a rod or screwdriver into this hole to hold the tool and coupler in place while connecting top coupler.
- Place top coupler into position, thread on coupler nut, and draw the connections together tightly.
- To release the installation tool, remove pin from hole and push down tool, sliding it between the docks and begin your next.



**DO NOT OVER TIGHTEN THE NUT!  
Torque to 15 ft lbs.**

**! DANGER**



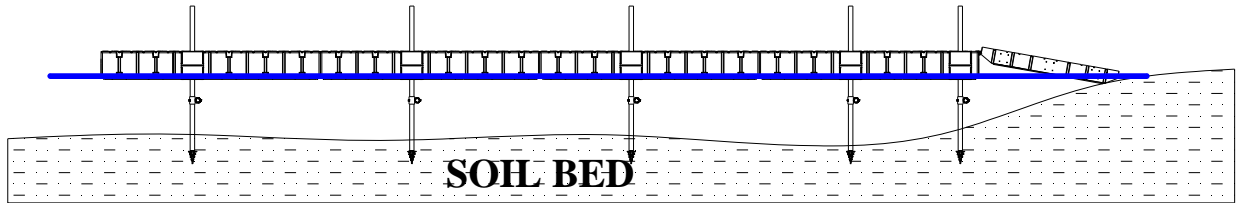
#### **Drowning Hazard**

Swimming under and/or attempting to breathe in cavities under EZ Dock docks and ports while performing in-water installation of docks, ports and couplers can result in accidental drowning and death.

Do not attempt in-water installation without EZ Dock in-water coupler installation tools.

## Section 3- Anchoring

Pipe anchoring is our most popular anchoring method, using a small diameter pipe to provide the horizontal support necessary to keep the docks in place. The use of pipe will allow the docks to move up and down with most water fluctuations, and will require less maintenance. It includes a heavy-duty and a standard-duty pipe bracket— they are typically used in most private and some light duty commercial installations. The size and number of pipes needed will be determined by the site conditions encountered. You must determine the length and size of pipe needed, and the bracket locations.



Pipe is normally embedded or screwed a depth of three to eight feet (roughly 1/4 to 1/3 the total depth of the pipe). For 2-1/2" OD pipe, wave action at the site should not exceed three feet, and water depths should not exceed 12 feet.

- Pipes are used to secure an EZ Trail system. When pipes are used, they must be sufficiently embedded or screwed into the lake, river or ocean bed to a minimum depth of three feet. The EZ Trail will not hold the pipe upright, rather the pipe should remain vertical and hold the EZ Trail in place.
- Except in rock or shell bottoms, it is recommended to use pipe augers to make installation easier. Augers allow the pipe to be turned into the lake, river or ocean bed like a cork screw using a pipe wrench or by drilling the hole for the pipe and using a T-handle.
- Pipe diameter: Pipe brackets are available for two pipe sizes- 2-1/2" and 3-1/2". A 2" bracket is designed to use pipe that measures 2-1/2" in outside diameter, and a 3" bracket is designed to use pipe that measures 3-1/2". The installation process is the same for either pipe size.

### Section 3a: Anchoring SD Pipe Bracket Install (Suspended)

- To be used for suspended dock systems with water depths less than 12ft, weight loading max of 16 lb/sqft, and maximum suspended height of 4 ft above soil bed (see figure 4) (**Note: maximum weight loading assumes that pipes have been properly installed**)
- To be used with 2-3/8" OD SCH 40 galvanized pipe

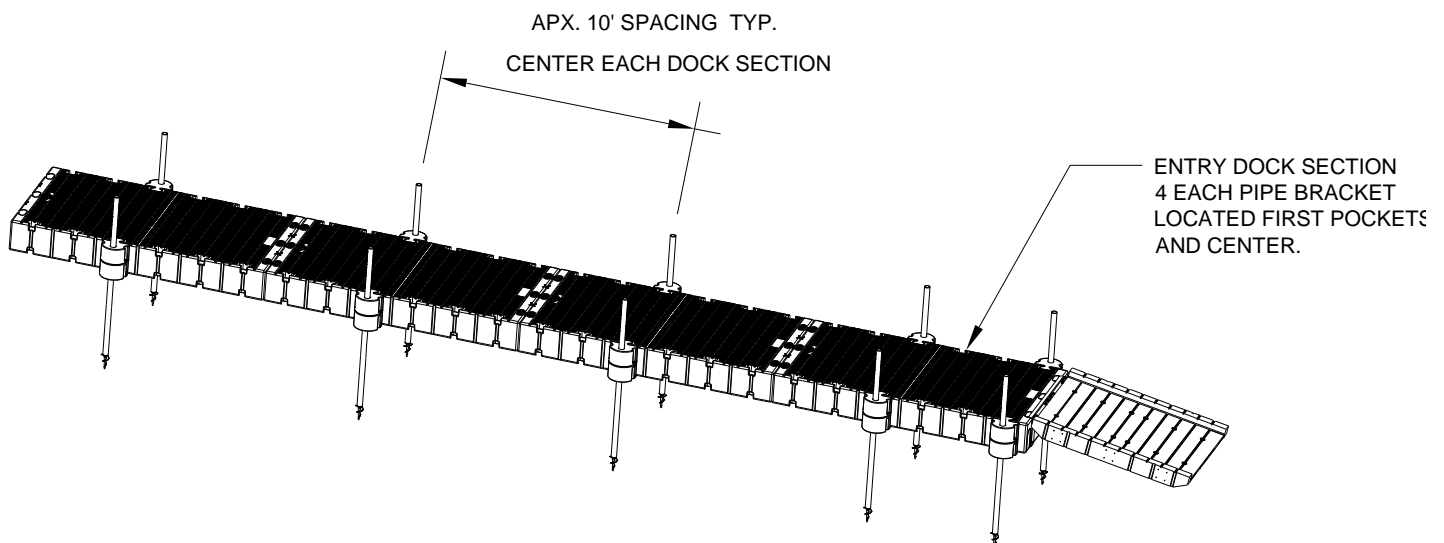


Figure 4

### Section 3b: Anchoring SD Pipe Bracket Installation (Non-suspended)

- This method should be used for non-suspended dock systems with water depths less than 12ft and weight loading max of 62.5 lb/sq ft (see figure 5)

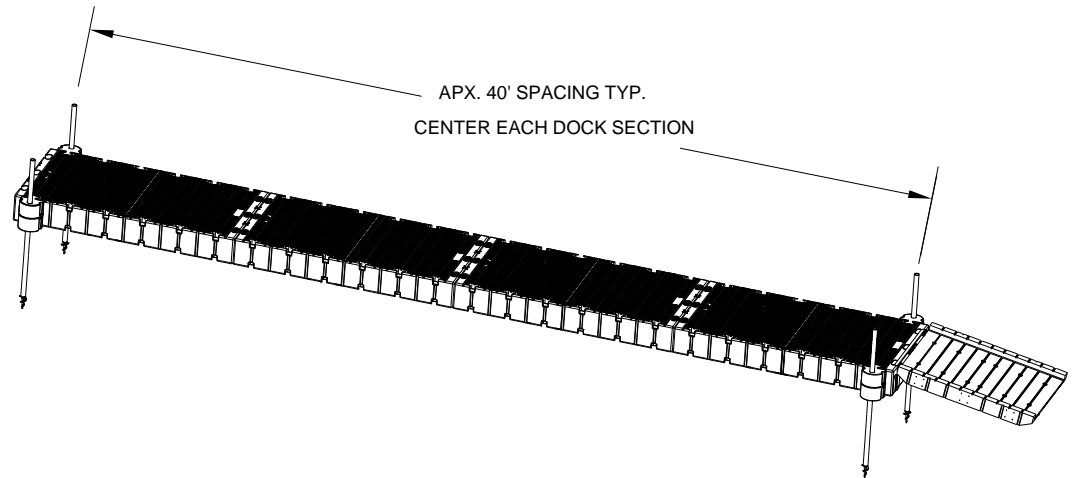


Figure 5

### Section 3c: Anchoring HD Pipe Bracket Installation (Suspended)

- To be used for suspended dock systems with water depths less than 17ft, weight loading max of 24 lb/sqft, and maximum suspended height of 7 ft above soil bed (see figure 6) (**Note: maximum weight loading assumes that pipes have been properly installed**)
- To be used with 3-1/2"

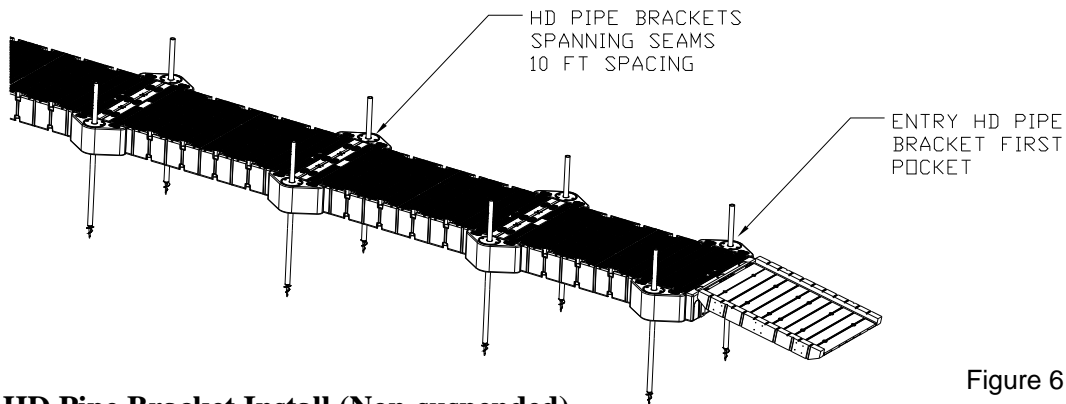


Figure 6

### Section 3d: HD Pipe Bracket Install (Non-suspended)

- To be used for non-suspended dock systems with water depths less than 17ft and weight loading max of 62.5 lb/sq ft
- (see figure 7)

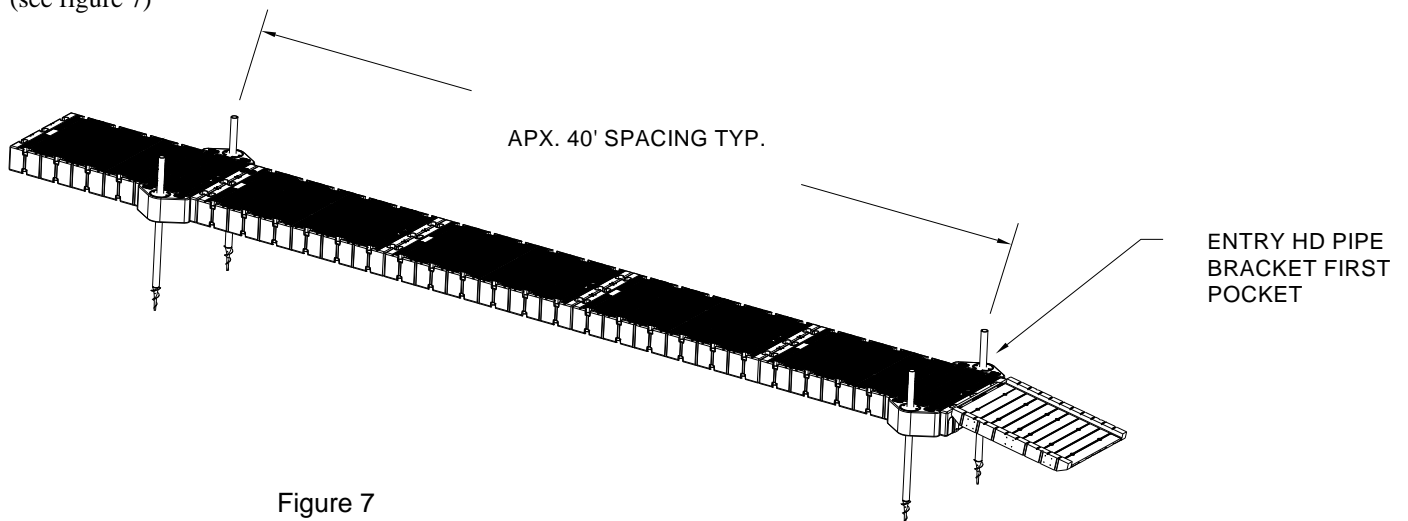


Figure 7

## Section (4) for Suspended Dock Sections Only

### Horizontal Post and Clamp Assembly

Once the dock is positioned and firmly anchored with all pipes completely embedded, it is now necessary to install the horizontal supporting pipes and clamps.

1. All pipe brackets will need to be disassembled and removed from the dock.
2. Referring back to section 1 (site planning) and (figure 10), the post clamps will need to be slid over the vertical anchorage pipe to their proper positions. This position will represent the dock's lowest dock section height while suspended. Level both clamps and tighten set screws, once the horizontal supporting pipe is aligned through both clamps. It is important that all clamps are level and set at the height below the water line. Never swim under the dock sections or EZ Trail system. The position of the clamps will need to be positioned by reaching into the water. As the water levels drop, the clamps can be readjusted.
3. Ensure that all set screws are tight. (Minimum torque to be 55 ft/lbs)
4. Reinstall all pipe brackets onto the dock sections and pipe. (see figures 13-14)

#### Alternate method:

Depending on the water level at the time of install, it may be necessary to install the EZ Trail system at a low water level.

1. All pipe bracket will need to be disassembled and removed from the dock.
2. Referring back to section 1 (site planning) and (figure 10), the post clamps will need to be slid over the vertical anchorage pipe to their proper positions. The dock sections will need to be hoisted or lifted above the determined height. Hoisting can be done by hooking a come-a-long at the top of the pipe and around the horizontal pipe(s) and lifting the dock section up the anchorage pipe.
3. Once the dock sections are above the suspended heights the pipe clamps can be leveled and but into place. Slide in the horizontal supports and tighten all set screws.
4. Lower the dock section onto the horizontal pipe.
5. Ensure that all set screws are tight. (Minimum torque to be 55 ft/lbs)

#### 4a SD Horizontal Post and Clamp Assembly

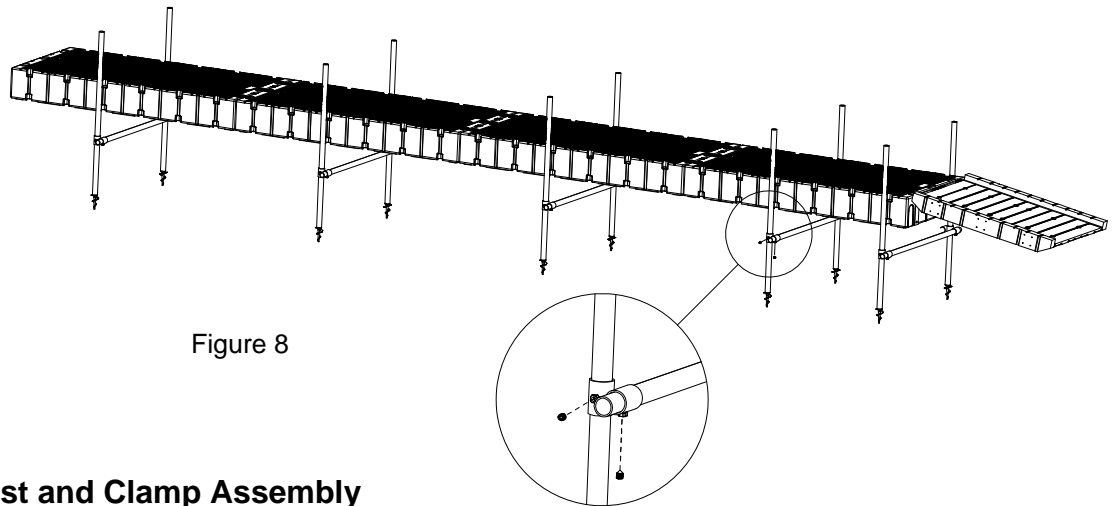


Figure 8

#### 4b HD Horizontal Post and Clamp Assembly

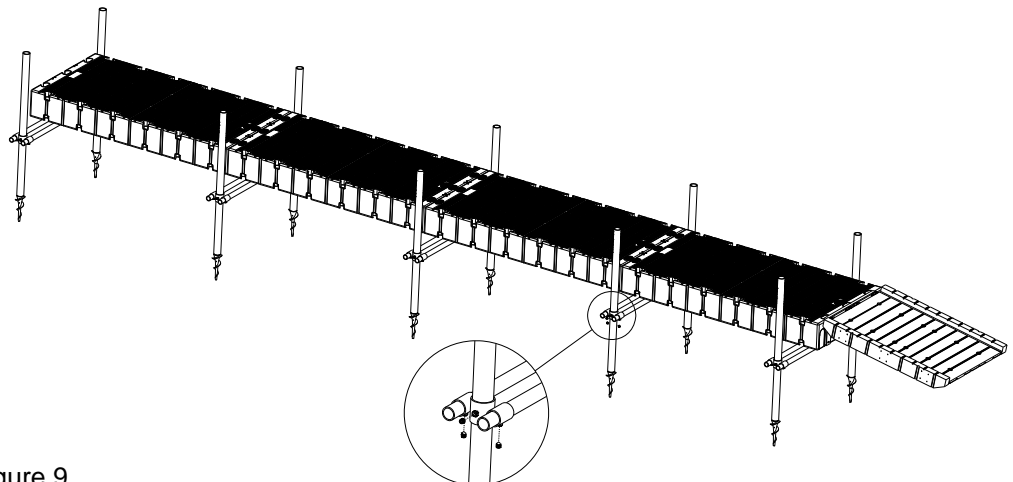


Figure 9



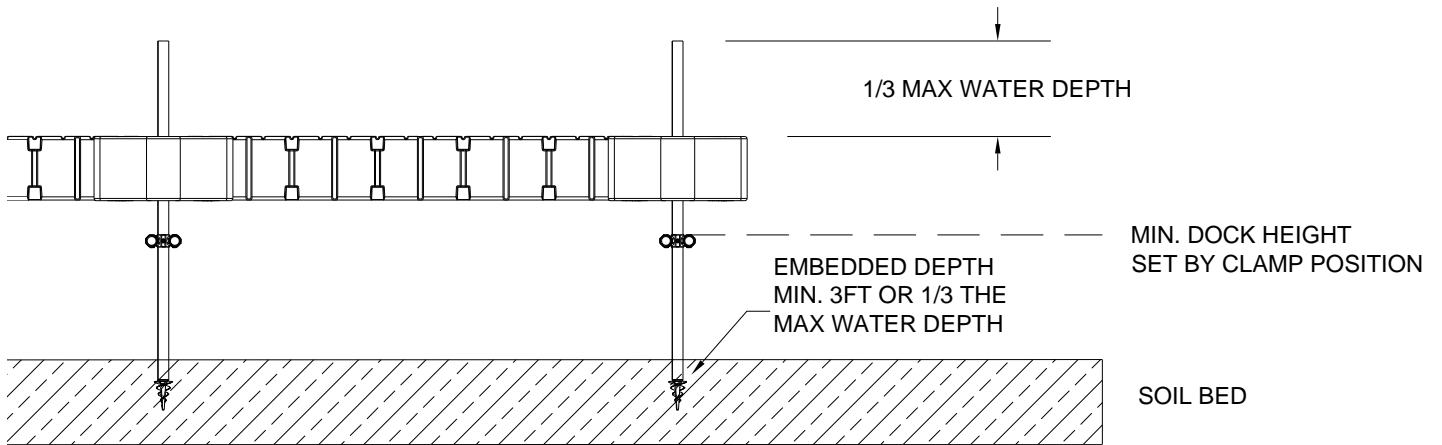


Figure 10

**Positioning and Leveling the Horizontal Pipes :**

1. All pipe clamps and horizontal supporting pipes need to be leveled and at the desired depth below the water line. (see figures 10-11)
2. Secure all set screws prior to allowing the dock sections to rest on the horizontal supporting pipe

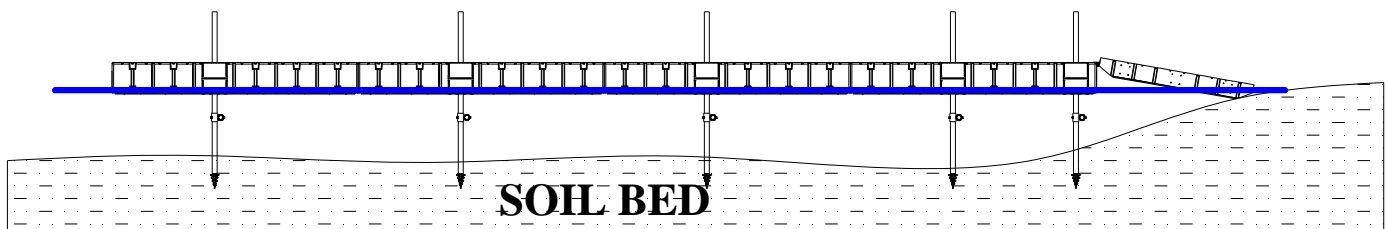


Figure 11

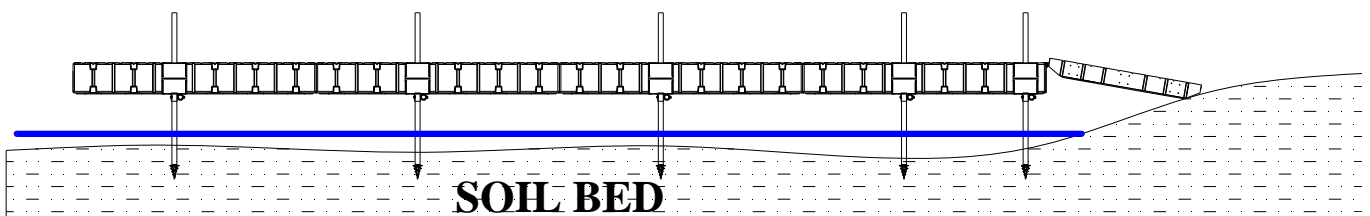


Figure 12

# Section 5 Re-Install the Pipe Brackets:

- 1. Re-attach all pipe brackets.

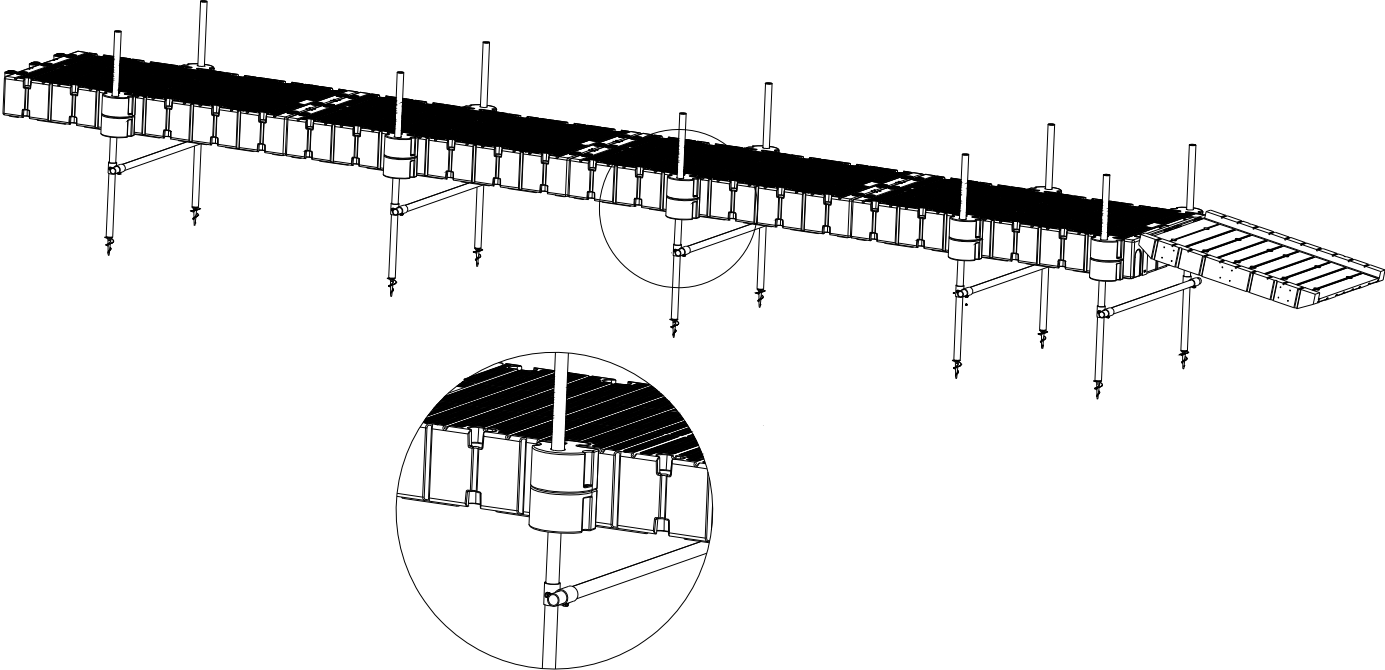


Figure 12

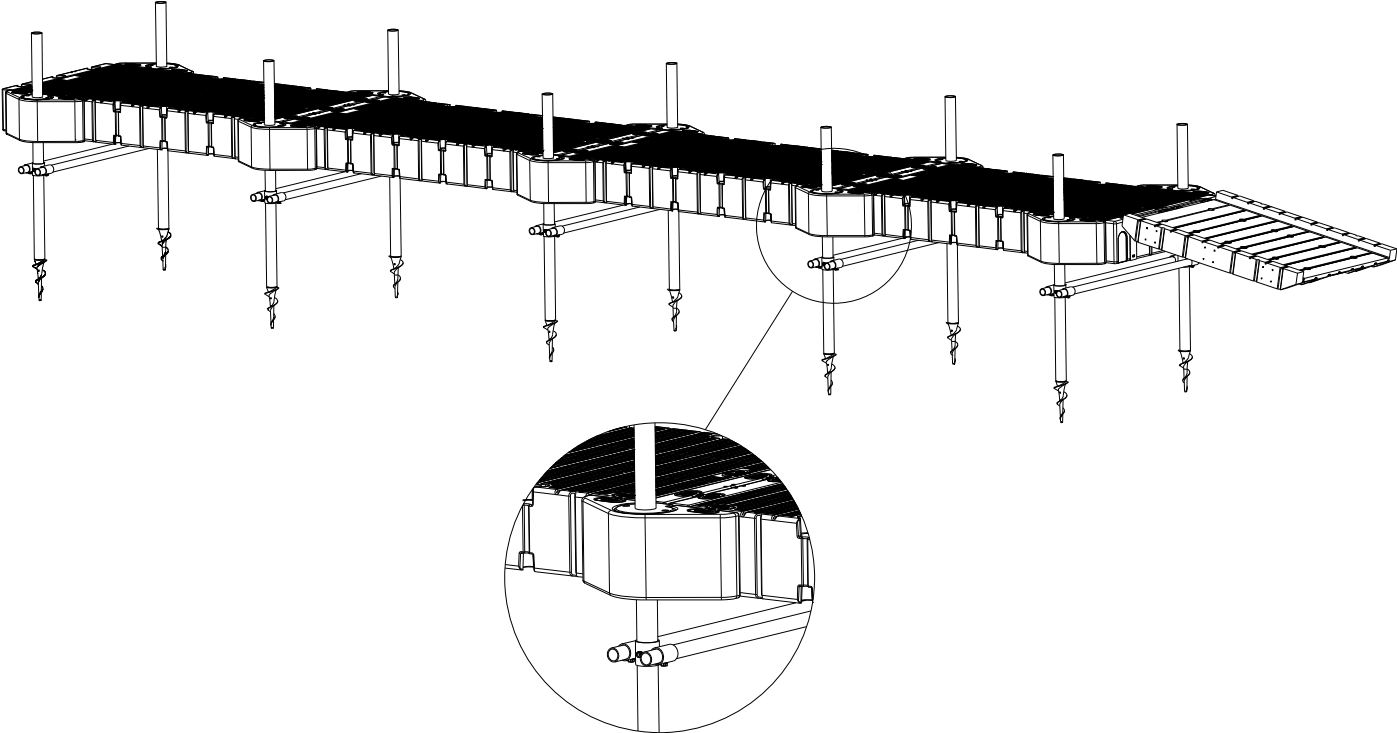


Figure 13



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