

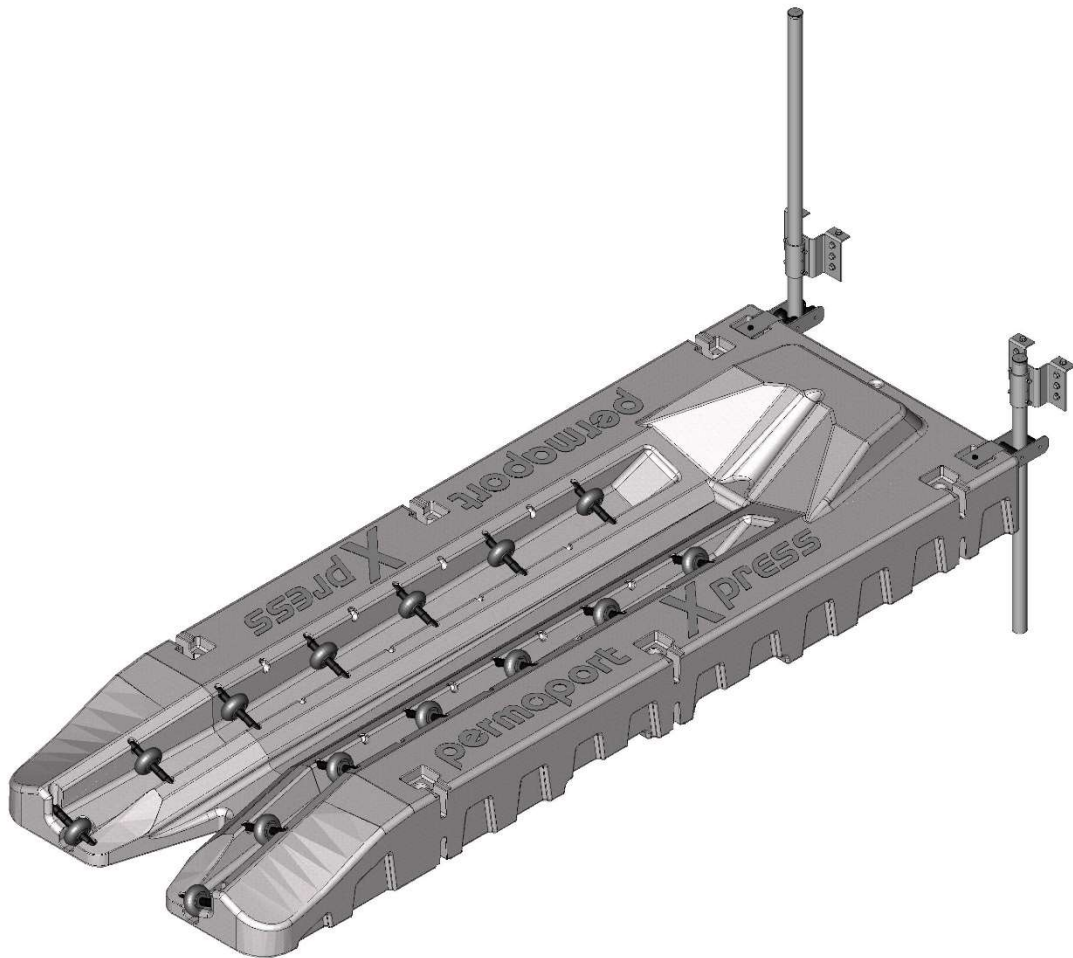


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PERMAPORT EXPRESS

ASSEMBLY, INSTALLATION AND MAINTENANCE INSTRUCTIONS



It is important that these instructions are adhered to in their entirety. Please read the instructions fully before starting installation or assembly.



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Safety Instructions (Installation)

- Many of the parts of the permaport are heavy; do not lift any parts that are beyond your capability, use additional help to maneuver parts into position.
- When working near the water it may be advisable to tie a line to any parts that are liable to sink until they are attached. These should be attached to inanimate secure objects only.
- Installation to the dock requires holes to be drilled and possibly wood to be cut, these operations should only be carried out by competent persons.
- Water and electricity do not mix well, do not use corded power tools, hand tools are preferable or battery powered. Battery powered tools up to 20v are safe but will be damaged if submerged.
- If you have any doubt about installing the Permaport consult the Dock Specialist that supplied the unit.

Safety Instructions (Use)

- The Permaport has Heavy Duty Steel attachments for long life and durability. These components are heavy and extend below the water line below the Permaport. It is inadvisable to swim near, under or from the Permaport due to the possibility of entrapment or injury from protruding parts.
- Entry onto the Permaport is designed to be a low speed operation; it is advisable that the Watercraft be brought to a complete standstill in line with the Permaport with the bow keel touching the centered between the first set of rollers. A small amount of throttle is all that is required in order to propel the watercraft on to the Permaport. Do not vacate the watercraft until it is fully stationary and the engine is turned off. **WARNING:** Over throttling the watercraft upon entry can result in impacting the dock or sliding too far forward on the Permaport.
- Do not load or unload the watercraft with passengers other than the driver.
- Ensure that there are no obstructions or persons in the water near the Permaport or on the Permaport when loading or unloading the watercraft.



- Stop engine as soon as the Watercraft is on the Permaport, do not allow engine to run while out of the water. Do not start the engine while the watercraft is on the Permaport. Refer to Watercraft owner's manual for further details.

Mounting Hardware

Permaport Xpress is designed to be mounted at the front. Out of preference side mounting is possible but is not optimal

The standard hardware is suitable for both side and front mounting the Permaport to both fixed and floating docks. In the case of extremely rough water or unusual conditions there may be additional or alternative parts required.

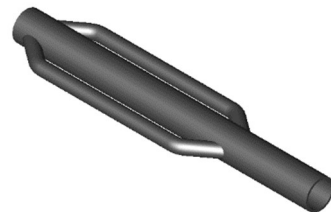
It is advisable that this dock be installed by a professional dock builder. Failure to mount the dock in accordance with the manufacturer's instructions will invalidate the warranty.

Tools required

The Permaport has been designed to be installed with the minimum amount of assembly and requiring only basic tools.

Note: It is essential that any electrical tools used outdoors be protected by adequate GFCI protection, we recommend that only hand or Battery operated tools be used in close proximity to water

- 3/4" Wrench or Long Reach Socket and ratchet drive (Preferred)
- Drill and 9/16" Drill Bit
- Wrench or Socket and Ratchet Drive
- For a fixed dock installation the vertical support poles need to be driven into the lake bed, it is recommended that at least a manual fence post driver be utilized for this purpose.



Maintenance

The only maintenance that is required is the periodic greasing of the Roller Axles. A spray on dry lubricant is recommended for this purpose. (available from most Hardware



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stores). We recommend that this be carried out once a year or if the rollers appear to be stiff in operation.



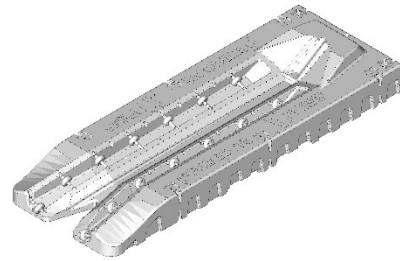
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Permaport Parts List

Ensure that all of the parts are available before starting assembly.

- Permaport Hull Including 14 Fitted Rollers and 6 void fillers.



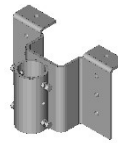
- One permaport Bracket with contoured rollers



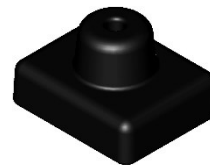
- One Permaport Bracket with straight rollers



- Two Dock Brackets



- Four Shock Absorbing Inserts



- Two 1/2" x 14" Stainless Steel Bolts



- Two 1/2" Brass Lock Nuts



- Four 1/2" Stainless Steel Washers





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- Two raised Washers and Plastic caps



- Two Pipe caps
lanyard
Xpress Step



Other Parts required (Not Included)

- 2" Diameter Schedule 40 Galvanized Pipe (Length to suit).
- Due to variances in dock design and materials used, screws for attaching the dock hardware to the dock are not supplied.

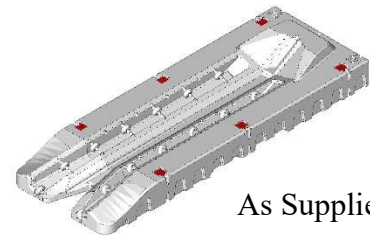
Basic Assembly Applicable to all Applications

It is recommended that the basic mounting kit be applied to the Permaport away from the water to avoid the possibility of loss of components

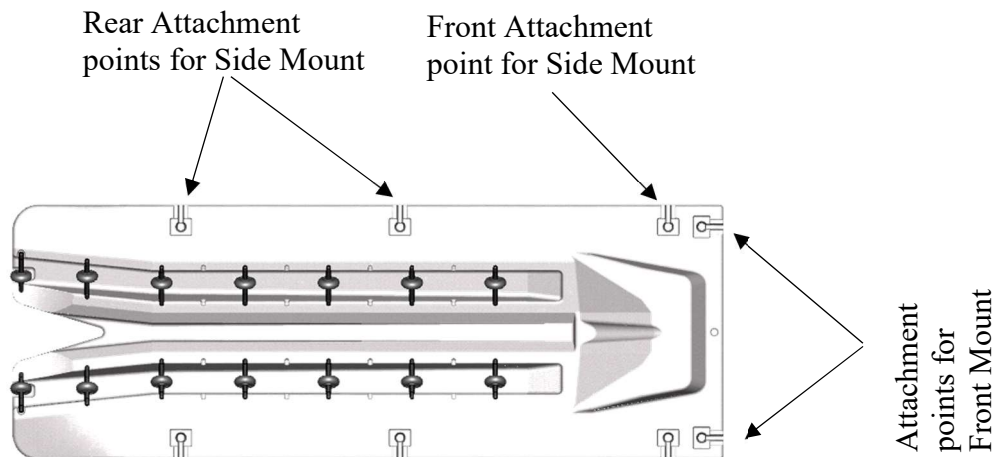
It is essential that all threads are coated with an anti seize compound prior to assembly, failure to do so will complicate any future disassembly that may be required and will invalidate the warranty.

There are large holes placed along the edges. Select the holes to be used, for front mount use the two on the front edge, for side mount select two holes on the side edge, the front point and one of the rear points, it is preferable to use the rear most position if possible.

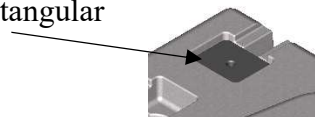
The Permaport Xpress is supplied in a front mount configuration, there are void fillers in the side holes. To use for a side mount remove the void fillers from the holes to be used for mounting and re-position then in the front holes. To remove the fillers, use a screwdriver to pop off the black caps and remove the bolt using a 9/16" socket and a 9/16" wrench. Replace them in the front positions using the same assembly as used in the side holes.



As Supplied



Place a shock absorbing insert in both the top and bottom rectangular recesses on the selected holes

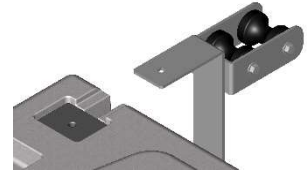




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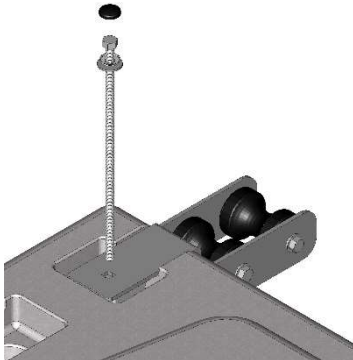
Install a Permaport Bracket by sliding over the inserts



Assemble the 14" long Stainless steel bolt as shown. Do not attach the plastic cap.



Insert a 14" long x 1/2" stainless steel bolt through the assembly and attach the 1/2" Brass Lock nut and washer on the bottom.



Tighten the nuts using a 3/4" wrench or Long Reach Socket, do not over tighten the nuts, they need to be snug without causing undue compression of the Permaport. Finally, snap the Plastic caps over the bolt heads onto the contoured washers.

There are two different types of rollers, on a front mount application the position is unimportant. On a side mount application, it is important that the straight rollers are in the rear position.





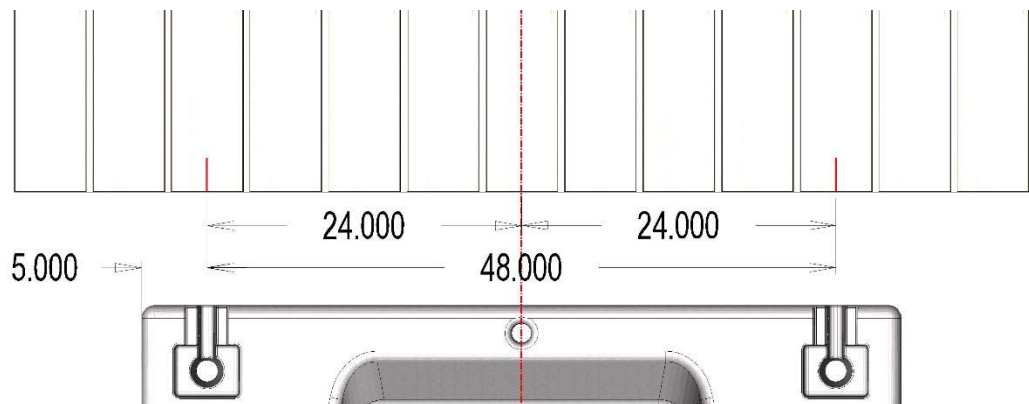
Attaching the Dock Hardware

*It may be necessary to remove part of the Dock Planking in order to adequately fix the brackets on this assembly, Lag screws should not be used, it is critical that bolts and washers are used to mount this assembly. The permaport should not be attached to stringers that are less than 2" x 6" or in a decayed or damaged condition. **Take care not to drill through the floats under the dock***

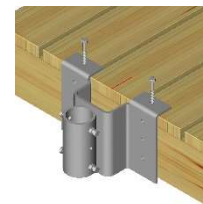
When Mounting to a fixed Dock it is essential that the water level is not able to come to within 15" of the top of the dock. If there is a possibility this may occur the installation needs to be adapted to accommodate this situation.

Front Mount

Determine the position that the Permaport is to be attached and mark a line on the stringer representing the center of the Permaport. Mark a line 24" from the center line to both the right and the left hand sides, these are the center lines of each of the Dock Brackets. Alternatively, mark one line 5" from the edge of where the Permaport is to be positioned and then a second line 48" from the first.



Position the Dock Bracket so the center of the tube lines up with the line drawn on the dock, ensure that the bracket is firmly against the stringer and drive in the two wood screws supplied (Note: If necessary, chamfer the top front edge of the dock).



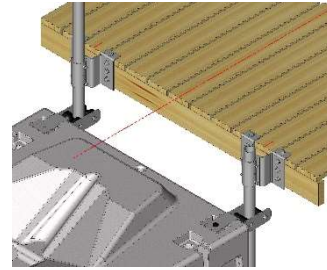


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Repeat for the other dock Bracket, float the Permaport up to the dock and ensure that the Permaport brackets line up with the dock brackets by sliding a piece of the 2" schedule 40 pipe in the dock brackets and into the Permaport brackets. If everything lines up insert the remainder of the bolts in the front of the Brackets.

It is unimportant which type of roller is on which side.



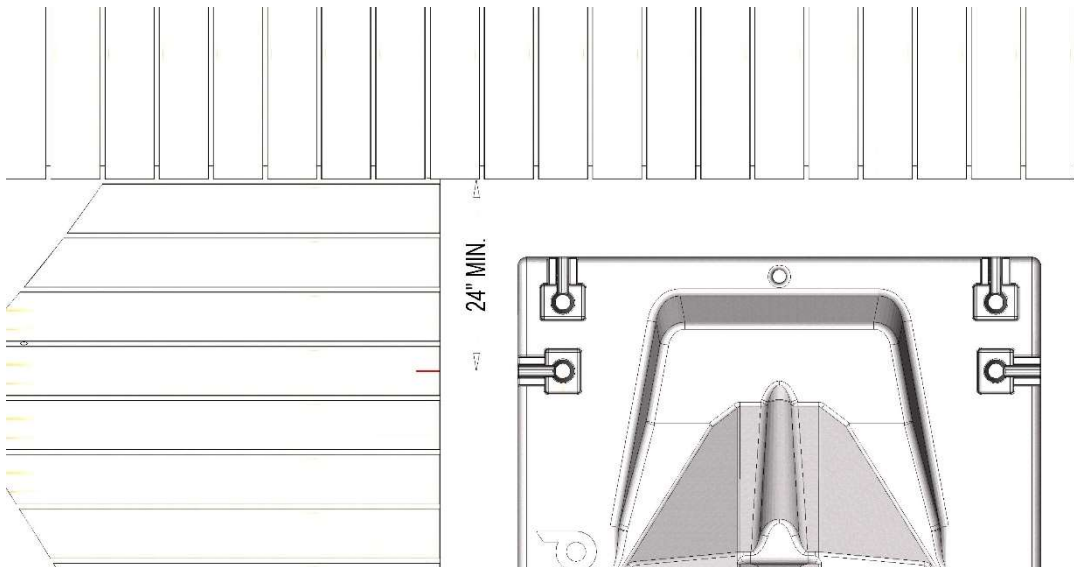


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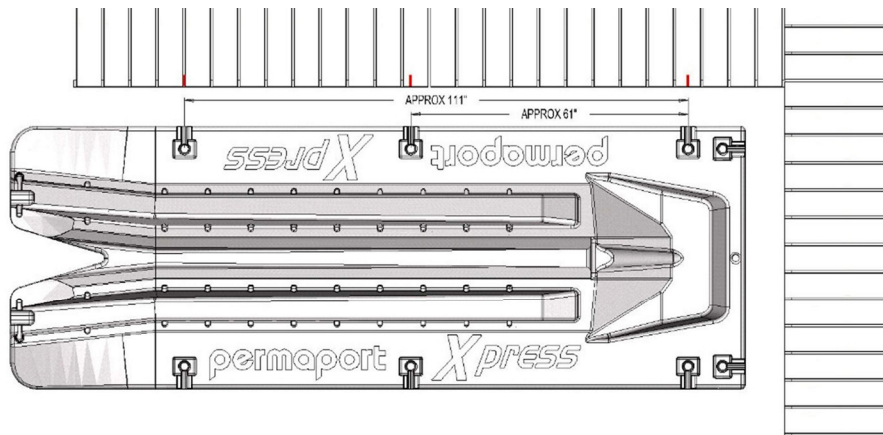
Side Mount

Determine the position that the Permaport is to be attached and mark a line on the stringer representing the center of the forward attachment point. This **MUST** be a minimum of 24" from any adjoining dock at the front.



There are two options for the rear attachment, the one toward the rear is the preferential position but the position in the center of the Permaport is acceptable if the dock configuration makes it necessary to use that position.

After deciding on the second position to be used, it is necessary to take an actual dimension from the Permaport in order to determine the exact position for installing the dock brackets. Measure the exact dimension between the centers of the holes, having determined that dimension Mark a Line on the dock as shown. Do not use the approximate dimensions.



Position the forward most dock Bracket so the center of the tube lines up with the line drawn on the dock, ensure that the bracket is firmly against the stringer and drive in the two wood screws supplied (Note: If necessary, chamfer the top front edge of the dock).

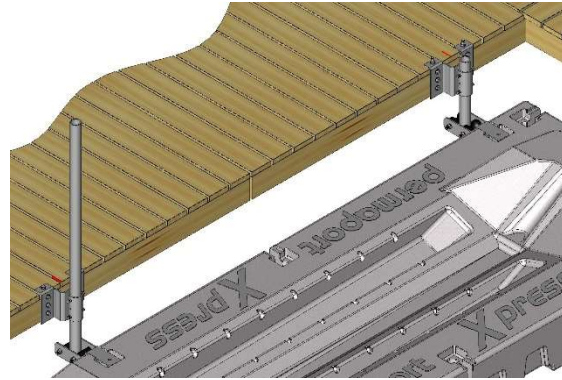




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Repeat for the other dock Bracket, float the Permaport up to the dock and ensure that the Permaport brackets line up with the dock brackets by sliding a piece of the 2" schedule 40 pipe in the dock brackets and into the Permaport brackets. If everything lines up insert the remainder of the bolts in the front of the Brackets





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Attaching to a Fixed Dock

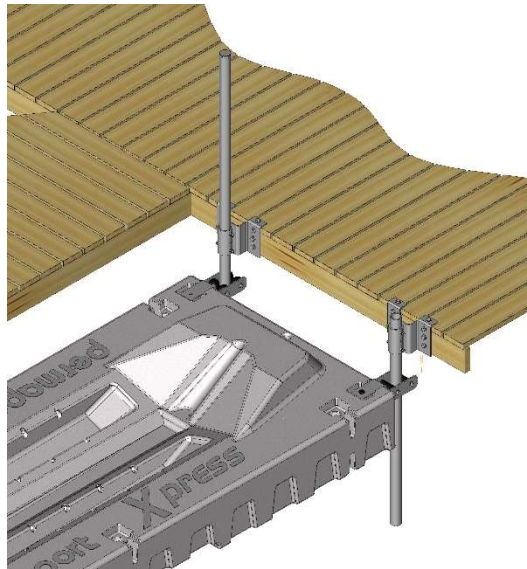
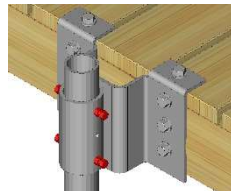
This System Must Not Be Used If There Is a Possibility Of The Water Level Rising To Within 15" Of The Bottom Of The Pipe Brackets, contact your supplier for alternative instructions

It is essential that the poles on the fixed dock are both Parallel and Upright, if the poles are not parallel then the Permaport could bind as the water rises and falls, this could cause damage or loss to the Permaport, the watercraft or injury to persons.

It will be necessary to use 2 lengths of 2" schedule 40 Galvanized Pipe that are at least 24" longer than the water depth when measured from the top of the Dock.

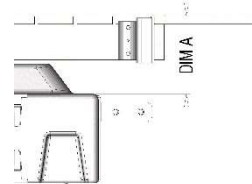
Position the Permaport under the Dock brackets as shown and slide the two lengths of pipe through the dock bracket and the Permaport brackets ensuring they are upright and parallel. Drive the pipes in to the lake bed to anchor them. It may be preferable but not essential to leave the Pipes long to form a handle to assist in accessing the permaport. Two pipe caps are supplied in the kit if this is decided upon.

Tighten the locking screws on the Dock Brackets and lock with the nuts.



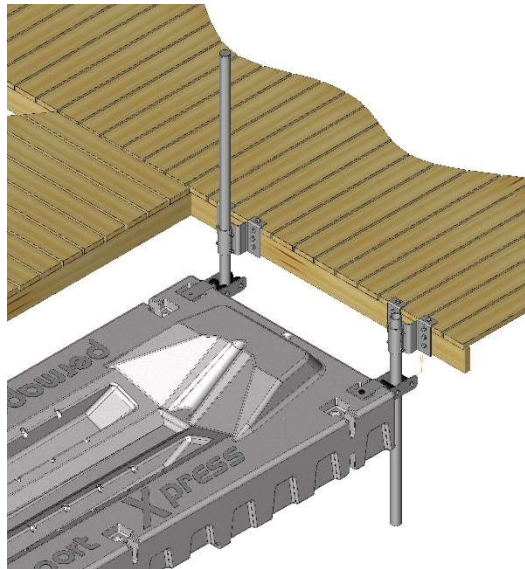
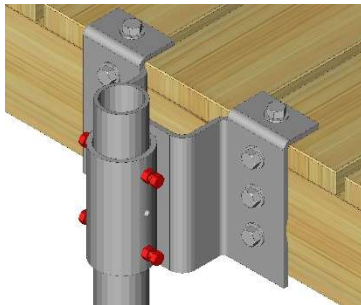
Attaching to a Floating Dock

It will be necessary to use 2 lengths of 2" schedule 40 Galvanized Pipe. Measure the distance between the top of the dock and the top of the permaport (Dim A). You will need 2 pieces of 2" Diameter, schedule 40 galvanized pipe that is at least 36" longer than that dimension. If you want to leave the pipe above the dock to act as a handle to assist in accessing the Permaport that needs to be added to the length of the pipe.

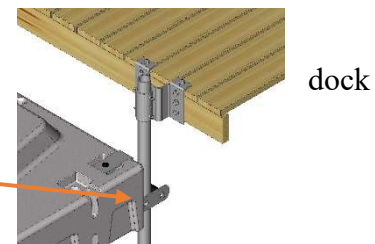


Position the Permaport under the Dock brackets as shown and slide the two lengths of pipe through the dock bracket and the Permaport brackets ensuring that they protrude at least 20" below the Permaport bottom face.

Tighten the bolts and locking nuts on the brackets



Note: On some floating dock installations where the free board is low the Permaport bracket may come close to the bracket, in that instance, it is permissible to install the permaport Brackets reversed as shown



For floating docks that are subject to rough water conditions there is additional hardware supplied in the separate hardware box.

The directions for utilizing this additional feature are contained in the hardware box. Should we send another Urethane clamp and a diagonal arm for rough water??



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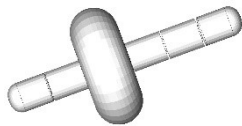
Adjusting the Rollers

Note: all of the component parts of the wheel axle assembly will sink in water, use care when removing the assembly.

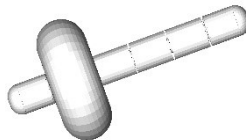
As supplied the rollers are positioned such that they will accommodate the majority of PWC's on the market. However, it may be necessary to change the position for use with certain PWC's where the rollers interfere with the contours of the hull.

The two entry rollers are not changeable and are tighter than the rest of the rollers, do not remove these rollers unless it is for service replacement, in which case will need to be replaced in the same configuration.

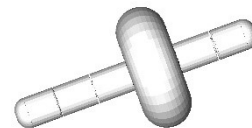
The rollers can be reconfigured to one of three positions on each axle and placed into any of the positions on the Xpress port.



As Supplied



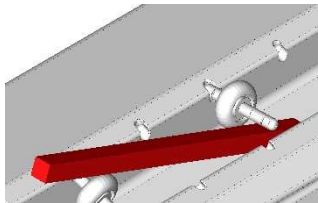
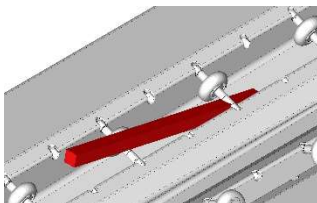
Lowest Position



Highest Position

Removal of Wheels

To remove a wheel assembly use a lever such as a 2" x 2" piece of wood. Ensure that there are no sharp parts that may puncture the body of the Xpress. Insert the end under the axle as shown and gently but firmly apply upward pressure until the whole assembly comes free from the main body.





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Re-Assembly of Wheels

Slide one end of the assembly into a recess and then using a protective piece of wood or plastic drive the other end into the opposing recess using a hammer as shown. Do not apply lubrication as an aid to insertion.

