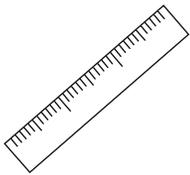


BoatFramer Assembly Instructions

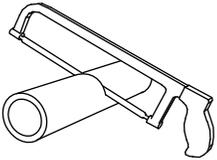
Read these Assembly Instructions in their entirety before beginning construction.

①



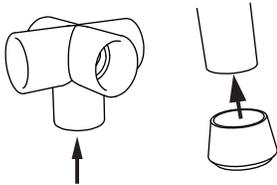
Starting at the bow, measure your boat to determine the dimensions of your frame. Make a rough sketch to guide your construction. Refer to the calculator at www.penbaymarine.com or the table on the reverse side of these instructions to estimate the number of 10-foot sections of PVC pipe required for your project.

②



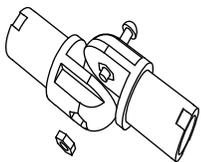
Cut the first vertical leg of the frame using a hack-saw with a standard blade or a chop-saw,

③



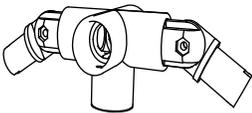
Insert leg in bottom of a 5-Way Tee and add a Rubber Upright Foot Cap to bottom of leg.

④



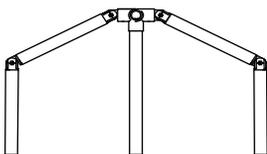
Arrange two Adjustable Elbow Components, as shown, and insert a nut into the cavity on one side and secure with a machine screw on the other side to form an adjustable elbow fitting. Tighten with a Phillips screw-driver until snug.

⑤



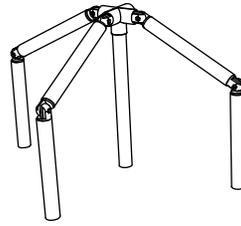
Assemble another elbow fitting and insert the two elbows into a 5-Way Tee as shown. Note that the elbow fittings snap into the tee with the correct rotational alignment.

⑥



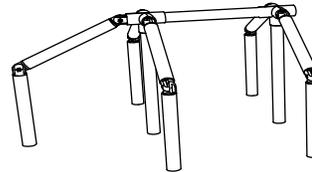
Cut rail uprights and diagonals and connect with elbow fittings to form the bay structure shown at left. Attach Rubber Upright Foot Caps to rail uprights.

⑦



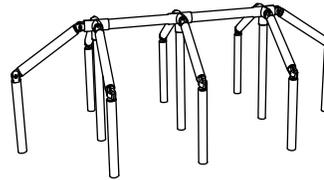
Cut bow diagonal and upright and attach to the structure above with elbow fittings to form the bow frame shown at left. Attach a Rubber Upright Foot Cap to the bow upright. At this point the frame should stand upright without other support.

⑧



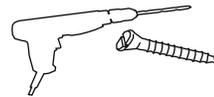
Construct a second bay as in ⑥. Attach this second structure to the bow frame with an approximately 4-foot length of PVC pipe to form the structure shown. Add bays until you have reached a distance of approximately 4 feet from the stern.

⑨

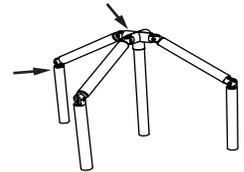
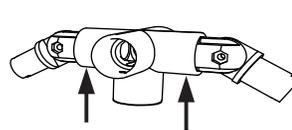


Construct a stern frame similar to the bow frame constructed in ⑦. Attach the stern frame to complete the cover-frame structure.

⑩



Using the supplied twist-drill and self-threading screws, screw all joints together. Use the pilot holes on the undersides of the Tee's, and take care that all elbows are properly oriented. Finally, attach the circular labels provided to ensure proper re-assembly in the future.



Notes: The **BoatFramer** system provides smooth, fair edges and supports both tarp and shrink-wrap covers in a uniform manner. If a shrink-wrap cover is to be applied that is especially tight, it may be prudent to provide additional cushioning. The split-foam covering that is used to insulate 3/4 inch water pipes is ideal for this purpose. It can be secured with tape or with wire-ties. To prevent movement of the completed frame during the covering process, it is useful to attach the frame to stanchions or other fixed points on the boat with wire-ties or tape. In the Materials Estimator shown overleaf, a pitch angle of 45° is assumed, but lesser pitches may be appropriate in some climates. Because each frame is custom tailored to the needs of its boat owner, structures can be designed to accommodate working aboard under cover and other applications. When dis-assembling the frame for storage it is necessary to remove only a few screws, as most of the structure can be folded by loosening the machine screws in the adjustable elbows

See reverse side for Materials Estimator →