

Building a Transfer Box with Folding Lid

Materials Needed:

One 4'x8' sheet of ½" Cabinet Grade plywood (this is enough for 2 boxes) – See attached sheet for cutting diagram

10' of 1 ½" diameter PVC40 pipe cut into 6 (six) x 20" pieces

4 (four) 1 ½" Elbow PVC EL 90 degrees

8 oz. can of PVC glue

8' length of 2"x 4" Stud cut into 8 (eight) 12" lengths

4 (four) 3 ½ - 4" hinges (360 degree swivel) stainless steel

Box of Deckmate #8 star flat head Screws 1 ¼ " long

4 (four) rigid non-marking 2" rubber casters

8 (eight) ½" stainless steel #10 pan head screws for casters

8 (eight) 3/8" X 5 " Carriage Bolts stainless steel

8 (eight) 3/8" Flat Cut Washers stainless steel

8 (eight) 3/8" Lock Washers stainless steel

8 (eight) 3/8" Hex Nuts stainless steel

2 (two) pieces of twist or braid line ½" diameter 14" long

Electric Drill, drill bits (3/32; 7/64; 3/8; 1/2)

Screw drivers or screw driver drill bits for: Star; Flat; Phillips head

Adjustable wrench; vice grips and/or 3/8 socket

Pencil or Marking pen

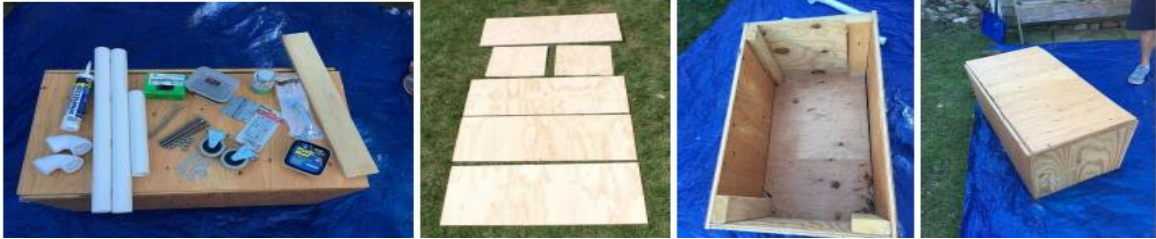
Ruler/Straight edge and Tape Measure for marking Plywood for cutting

Table Saw or circular saw

Construction:

- Cut all pieces of equipment to the above lengths
- Attach (Screw) 2 x 4 pieces to each of the 12" X 17" end pieces lining up the 2" edge flush to the 12" edge of the end piece. This will form the inside of the ends of the box.
- Line up the 12" x 24" sides of the box with the end pieces, so that the 12" edge lines up flush with the entire end piece. Screw into the 4" pieces of the 2x4.
- Screw on top of box (smooth finish side of 18" x 24" piece) to the top of the 2x4 studs in the corners. You may also put screws along the edge of the box, but be careful to center them so as not to split the sides of the box (may not be necessary). Counter sink the screws and make sure that the screw heads are flush with the surface.
- Fit the PVC Elbows onto three of the PVC pieces of pipe (Do NOT glue yet). Line up the PVC Handle with the back side of the box to ensure that the holes for the Carriage bolts will line up with the 2x4 studs. Adjust the PVC lengths to ensure fit. Holes should be approximately in center of studs (one about 2" down from the top of the box, and the other about 2 ½" up from the bottom of box. Once fitted, glue elbow joints. Drill holes 3/8" through the PVC and score box with drill bit. Drill holes 3/8" through the box side and studs. Attach PVC handle to the box with Carriage Bolts placing a flat washer on the outside of the PVC tube below the carriage bolt head and place a lock washer on the bolt with the hex nut. Tighten all Nuts/Bolts
- Attach the "Flip Top" to the top of the box using the hinges and the second piece of 18" x 24" of plywood. Make sure that the second piece of plywood has the cabinet grade finish facing up when the lid is flipped open. If you are ambitious, you can countersink the hinges.
- Now you can attach the casters. Line the casters up so that the plate is ½" above the bottom of the box and approximately 3" from the edge of the box. Screw in with ½" SS pan head screws.
- In the opposite end of the box (on the 12" X 17" panel), drill 2 (two) ½" holes 5" down from the top about 8" apart for the rope handle. Insert the 14" piece of rope and knot it off on the inside of the box. Adjust the length for comfortable fit for pulling.
- Now your box is complete. You can construct your second box the same way, but if you do, put the PVC handle on the opposite side to accommodate sailors who may find it more comfortable to transfer from the opposite direction/using the opposite arm to lead the transfer.
- You should paint the box to prevent weather damage, and can round the box edges by sanding them with a sanding block or by using a router if you so desire.

Transfer Box Assembly Images



2 Transfer Boxes cut from one- 4' x 8' sheet of 1/2" cabinet grade plywood

6" WASTE	END 12" X 17"	SIDE 12" X 24"	TOP 18" X 24"	TOP 18" X 24"	SIDE 12" X 24"	END 12" X 17"	6" WASTE
	END 12" X 17"	SIDE 12" X 24"	BOTTOM 18" X 24"	BOTTOM 18" X 24"	SIDE 12" X 24"	END 12" X 17"	
	14" WASTE					14" WASTE	

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	14" WASTE		