

DO IT YOURSELF ADVANCED DRY BAGS

By Brian Hunter

Having lots of small dry bags uses the odd spaces in a kayak much more effectively than a few large ones. Having multiple small bags also makes organizing, packing and finding your gear easier, but buying enough commercial bags can become really expensive!

Did you know you can make your own dry bags to fit a particular place in your boat or to fit specific items such as sleep pads, chairs, etc. for much less money? All that's involved is taking a few measurements and making allowances for seams, the roll-down closure and the bottom pleat, if you want one.



Dry bag with an expanding pleat in the bottom

Specializing the bags to fit their contents and your boat perfectly by measuring your gear and adding a bottom pleat to produce a better fit for your items are what make these dry bags *advanced*. They're advanced, but not difficult at all. Here are the instructions, with helpful photos, for a sample first project:

TOOLS AND MATERIALS:

1. Basic sewing machine with needles and thread
2. Iron and ironing board
3. Heat sealable Oxford or similar heat sealable waterproof material; see page 30 for sources.
4. 3/4" polyester web and a 3/4 inch parachute buckle. One inch wide web and buckles may be used if you allow more length for the closure. I like to use 3/4 inch wide web on small opening bags that are less than 12 inches) and 1 inch wide web on large opening bags. Nylon webbing may be used but polyester does not tend to wick water as nylon does and is more appropriate for dry bag use.
5. Tape measure, scissors, metal binder clips, straight edge and a pencil or tailors' chalk.
6. Cigarette lighter or candle to melt the end of your closure web to prevent fraying.

STEPS TO DESIGN AND MAKE A SPECIALIZED DRY BAG:

1. DETERMINE THE DIMENSIONS TO CUT THE FABRIC AND WEB STRAP FOR YOUR CUSTOM-SIZED BAG:

For this project I will make a dry bag for my cell phone and wallet. Stacked on top of each other, they are 6" long x 3.5" wide x 1.5" inches thick. I will be incorporating a pleated bottom to accommodate their depth. The flat finished bag will be 6.5" by 12" and the buckle loops will extend 1" from the sides.

The total fabric length will be 26.5". That's 6" for the wallet length + .75" to act as half of the top of the pleat + 5.75" for the roll-down closure...times two sides. (The closure needs a minimum of four turns but five or six is better. For a .75" wide closure strap 5.75" length will provide five roll-down turns.)



Figure 1

STEPS TO DESIGN AND CREATE A SPECIALIZED DRY BAG, CONTINUED:

1. DETERMINE THE DIMENSIONS, CONTINUED:

The total fabric width will be 6.5". I need 3.5" for the wallet and phone's width + .75" x 2 for the seam allowance on both sides + .75" x 2 to accommodate the wallet and phone's thickness.

The roll-down closure strap is cut to 17" (fabric width of 6.5" x 2) + 2" x 2 for the buckle extensions. When folded and tacked the strap portion will be 8.5" as seen in Fig. 2.



Figure 2

2. CUT YOUR MATERIAL:

Lay out the fabric with the shiny side down; it's the bondable side and will be the inside of the finished bag. Find the center of the length and draw a line across the width of the fabric on the dull side with the pencil or tailors' chalk. This will be the middle of the pleat on the bottom of the bag. Draw parallel lines .75" on each side of the center line to identify the edge of each pleat.

3. ASSEMBLE THE CLOSURE STRAP AND SEW IT TO THE BAG FABRIC:

Fold the strap ends to the center with the buckle halves on each end. Check to make sure that they are threaded on so they will buckle. Seal the strap ends with a lighter or a candle to prevent them from fraying. At this point it is helpful to sew a 2" tack across the strap ends to form a loop.

Place the strap assembly on the dull (outside) side of the fabric .75" from the top edge. This extra .75" of material will allow for a fold of fabric over the roll-down strap. See Figure 3. The strap with buckles should extend an additional 1" from the sides of the fabric.

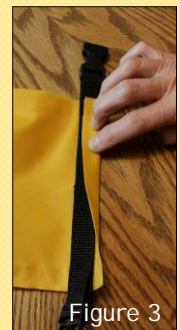


Figure 3

Sew the roll-down strap assembly onto the fabric with two parallel seams, stopping at least .75" from each end. This space at the ends is needed to heat seal the edges of the bag. In Figure 4 notice both the .75" allowance at each end of strap for the heat-seal weld and the .75" allowance at top of bag to start the fold when closing bag



Figure 4

4. HEATSEAL THE SIDES OF THE BAG:

Cut a few strips of fabric about 1" wide and 3" to 4" long to test your iron for the correct heat setting. I have found that the hottest linen setting with a contact time of about 5 seconds has worked well on three different irons. Use a *dry* iron and don't allow the steam holes to stay in one place or you might not get a good weld in that spot. Allow the test fabric to cool completely before trying to pull it apart to check the strength of the weld.

4. HEATSEAL THE SIDES OF THE BAG, CONTINUED:

Fold the bottom pleat on the lines and use metal binder clips [Figure 5] to hold it in place. Use more small metal binder clips to hold the sides of the bag in place as you heatseal the edges, or carefully make several tacks with the iron. *Do not* use pins or anything that would puncture the fabric. Iron both side seams of the bag from bottom to top making bonded welds about .5" to .75" wide.



Figure 5

In Figure 6, notice the use of a board to keep the seam allowance even at .5" to .75".



Figure 6

In Figure 7, see why a .75" seam allowance was used and how to make a continuous weld seam from bottom to top.



Figure 7

Open the pleat and iron the .75" seams on both sides of the center line separately. [Figure 8] Pay special attention to getting a good weld in the pleat. I found that 5 to 8 pounds of pressure produced the best weld. Press down on the iron about as hard as it takes to lift an 8 pound weight.



Figure 8

Sew a bar tack or tight zigzag stitch at the ends of the roll-down strap over the heat welded area to strengthen it. [Figure 9]



Figure 9

4. TEST THE DRY BAG:

After the bag has cooled, put your hand inside and try to pry it apart to test the integrity of the weld.

I also suggest that you fill the finished bag about half full of water, roll the top down and apply light pressure to look for leaks. If you discover a leak, dry the bag overnight and iron that area again with a little more pressure.

To be sure my bag was waterproof I wrapped a rock about the size of my wallet and phone in a paper towel, put it in the bag and submerged it in a bucket of water for 12 hours. A small amount of water entered the first two wraps of the closure but no water got to the towel-wrapped rock.

This water might have seeped through the stitches that attached the closure strap, so I sealed that stitching on the inside of the bag mouth [Fig. 11] with a product called Tear-Aid Type A. You should have some Tear-Aid in your repair kit; it is the best flexible adhesive repair tape I have found.



Figure 10

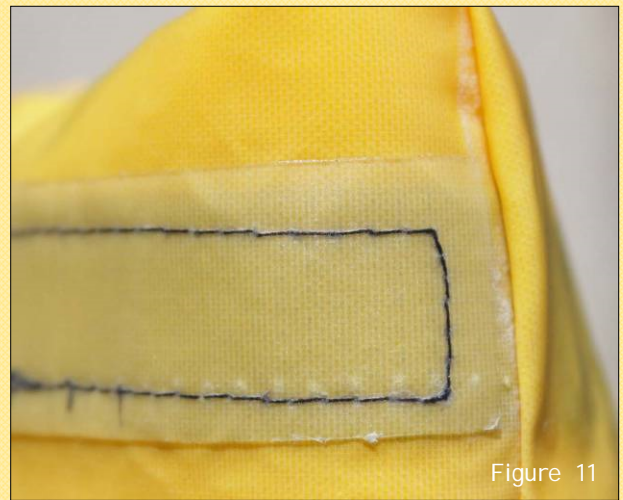


Figure 11

I have made many different styles of dry bags. For example, there are times when a pleated bottom is not necessary; a simple envelope bag would be better for a flat item you want to slide into that space between bulky items and the hull. However, I found these steps consistently produced the best results.

Regardless of how you design them, do-it-yourself dry bags cost a fraction of the price of commercial bags, can be made to your exact needs, and are easy to do. Pick up where I left off and come up with your own improvements.

On the next page you'll find guidelines for taking the measurements necessary to make an odd-shaped dry bag to take advantage of all the space in the bow of a kayak.

On the page after that there's a list of sources for the materials you'll need for these projects.

MEASURING FOR A CUSTOM-FIT BOW DRY BAG:

Figure 1: Measure the circumference of boat where the dry bag will begin.

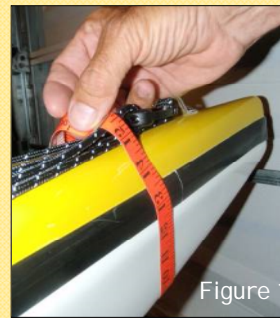


Figure 1

Figure 2: Measure the circumference where the dry bag will end when the closure is rolled down.



Figure 2

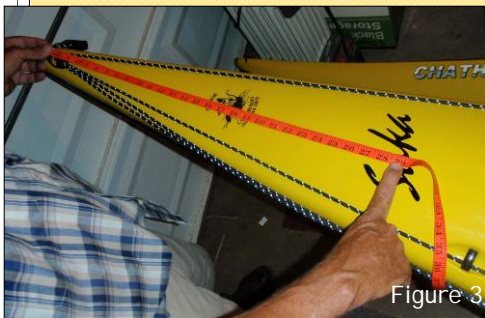


Figure 3



Figure 4



Figure 5

Figure 3: Measure the length of the area to be filled by the dry bag when it's closed

Figure 4: Copy the belly needed in the bag to match the bow shape with a flexible curve or simply draw the shape onto cardboard.

Figure 5: Begin to transfer the belly curve and one half of each circumference [Fig. 1 and Fig. 2] to a folded piece of heatseal fabric with the fold as the top of bag. But, before you draw the lines, allow for extra material along the fold. The width of the extra fabric should be one-half the width of the kayak where Figure 2 was measured. This extra fabric will be formed into a pleat at the pointed end but will be loose at the roll-down end to make the opening larger and easier to use.

Figure 6: Fold the pleat into the pointed, or closed end, of the bag. The finished pleat will form an inverted triangle along the top of bag.

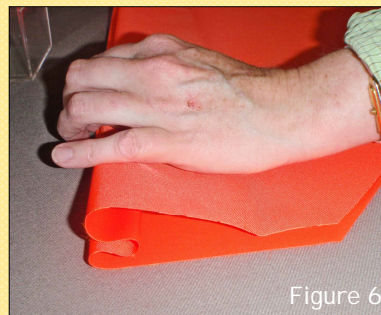


Figure 6

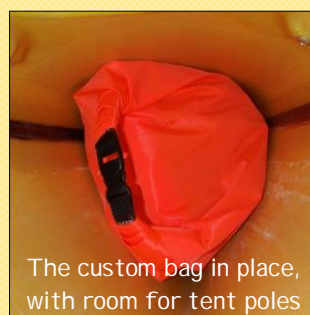
Figure 7: Iron the pleat in the closed end just like the pleats in the basic dry bag directions.



Figure 7



The completed bow bag



The custom bag in place, with room for tent poles



Marsha Dougherty, photographer and model

SOURCES OF HEAT-SEALABLE FABRIC

SEATTLE FABRICS: http://www.seattlefabrics.com/dry_bag.html

Seattle Fabrics will provide another article on making dry bags: Issue 24, Spring 1990; page 63:
Do-It-Yourself: Dry Bags by Joe McKinstry

QUEST OUTFITTERS: <http://www.questoutfitters.com/coated.html#HEAT%20SEALABLE>

Look on the left side of Quest Outfitters site to find buckles and web strap.

SKIN BOAT SCHOOL: http://www.skinboats.org/skinboats/contact_us.html

You will need to e-mail or call Skin Boat School because the heat sealable fabric is not listed on their site. Call 1-360-299-0804 or 1-360-420-6270

ROCKYWOODS: <http://www.rockywoods.com/Fabrics-Kits/Heat-Sealable-Nylon-Fabrics>

THE RAIN SHED, INC: <http://www.therainshed.com/index.htm>

There is no shopping cart on this site which keeps your cost down. If you can't find it call:

Phone: 1-541-753-8900

Fax: 1-541-757-1887

Email: therainshed@gmail.com

TEAR-AID: <http://www.tear-aid.com/index.htm>

Be sure to request your free sample of this product. I am sure you will be amazed.

EDITOR'S NOTE: Although they are blue and underlined, these links are not live. That's misleading but I couldn't get the Publisher to make them in plain black letters.

If any of you know how to create working links in a pdf document, please let me know.