

# REMOVING WATER FROM A SHAFT AND REPAIRING LEAKS

Materials Needed	Procedure Overview
<ul style="list-style-type: none"><li>• Water</li><li>• Source of air pressure</li><li>• 1/16" drill (for bonded handles)</li></ul>	<ul style="list-style-type: none"><li>• Remove the water</li><li>• Find the source of the water leak</li><li>• Repair the leak</li></ul>

There are several causes for water in the shaft. If you have an adjustable handle the water most likely got in around the adjustable handle, especially if the whole oar was in the water or stored vertically in the rain with the blade down. If you must store your oars outside be sure the blade is up. If you have a bonded wood or composite handle any water in the shaft is most likely caused by a leak. If you drain the water from an oar with an adjustable handle and it fills again, it is most likely a leak.

## Procedure

1. Drain the water
  - a. To drain the water from an oar with an adjustable handle simply remove the handle and hold the oar vertically with the blade up until the water drains out. Replace the handle and you are ready to go.
  - b. To remove the water from an oar with a bonded handle, drill a small (1/16" diameter) hole through the shaft about 4" from where the handle enters the shaft on side of the shaft that aligns with the top or bottom of the blade. Let the water drain out. Most oars with white sleeves have a set screw in the sleeve, in this case you may simply remove the screw and use that hole.
2. Locate the leak by submerging the blade and lower part of the shaft in water and blowing air (either compressed air or you can use your lungs) into the drilled hole (end of the shaft for the 10 cm adjustable system, adjusting screw hole for the 5 cm adjustable system). Watch for bubbles to pinpoint the leak location. Mark the spot.
3. The method of repair depends on the size and location of the leak. See instructions below for each type of leak. If you have any questions about the best method to use, please call Concept2.

**Blade leak** – Patch the blade with epoxy following the instructions in the blade section. If the leak is large, you may want to replace the entire blade.

**Shaft leak** – If the damage is not severe, repair the shaft following the instructions in the shaft section.

**Seam leak** – If the leak is in the blade – shaft seam and is not too big, it can be repaired as follows:

- a. For a very small leak, simply dry the area and fill with "Crazy Glue" or other waterproof low-viscosity glue available at your local hardware store.
  - b. For a slightly larger leak, pick the area with a knife to clean it and create a pocket large enough to patch with epoxy or Concept2 two-part urethane glue. Dry the area thoroughly and fill it with the glue, as much as one would fill a tooth cavity.
4. After the glue has set, retest the leak by submerging in water as in Step 2.
  5. When all patches pass the leak test, patch or tape over the 1/16" drill hole near the handle, or replace the set screw.

