**Pump Instructions**

These instructions are for using the TotalBoat calibrated pumps to measure the correct mix ratio of resin to hardener. To ensure the proper mix ratio, do not use any other pumps with these products.

**Dispense only 1 pump of RESIN to 1 pump of HARDENER**

1. **ID YOUR MATERIALS**

   **RESIN PUMP**
   - (White)
   - Use with:
     - TotalBoat Traditional 5:1 Epoxy Resin
   
   **HARDENER PUMP**
   - (Black w/ Green Dot)
   - Use with:
     - TotalBoat Crystal Clear & Tropical 3:1 Epoxy Hardeners

2. **SET UP AND INSTALL YOUR PUMPS**

   Trim the Hardener pump using an angled cut, as shown below. Cutting length is indicated from the BOTTOM of the tube. Initially, both pumps are the length to be used with GALLON containers. After trimming, insert the plunger as deeply as possible, without physically touching the bottom.

   **RESIN PUMP**
   - Group Size A (qt.) — Insert the white plunger into the container and screw tightly. You do not need to use the Pump Extender.
   - Group Size B (gal.) — Attach the Pump Extender to the white plunger. Insert the assembled plunger into the container and screw tightly. Do not trim the pump.

   **HARDENER PUMP**
   - Group Size A (10 oz.) — Trim by 4-1/2"
   - Group Size B (42.3 oz.) — Trim by 2"

3. **PRIME YOUR PUMPS**

   Before dispensing, push down and release the head of each pump several times until you get a steady stream of liquid, without any air pockets.

4. **DISPENSE AND MIX YOUR EPOXY**

   Dispense the resin and hardener into a clean, dry container. For every 1 full pump of resin, dispense 1 full pump of hardener. Mix THOROUGHLY for 2-3 minutes, taking care to scrape the sides and bottom of the container to blend the mixture completely. Do not adjust mix ratios or tamper with pumps. A proper cure is dependent on using the exact recommended mix ratio. Adding more hardener to make the epoxy set faster will actually prevent it from curing properly.

**REMEMBER: DISPENSE ONLY 1 PUMP OF RESIN TO 1 PUMP OF HARDENER**