

# Professional High Production Molds Instruction Manual



Model: PSC-MD09

## **Important Safeguards**

To reduce the risk of personal injury or property damage, when using electrical appliances basic safety precautions should always be followed, including the following:

- Read all instructions.
- Make sure nothing is turned on or plugged in until the water is completely covering the element.
- The outside of the tank will get HOT, use caution and keep children and pets away.
- Unplug from outlet when not in use and before cleaning. Allow cooling before putting on or taking off parts, and before cleaning.
- **SAVE THESE INSTRUCTIONS**

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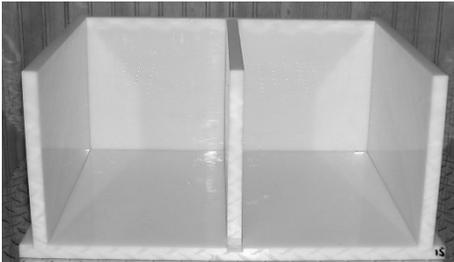
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Manual Soap Cutter Pro-Mold

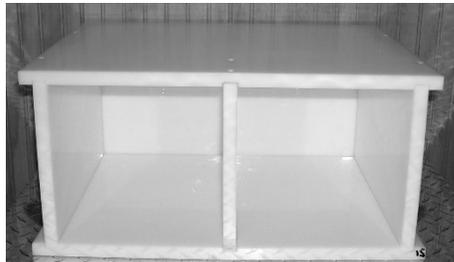
- Do not use anything but a rubber mallet to assemble your molds.
- Take one of the Sides (largest piece with grooves) & lay the grooved side up on a flat area.
- Place the Bottom piece in the bottom groove of the Side and visually center it between the end piece grooves. On Manual Molds, the Bottom has one groove in the center and on Air Cutter Molds; this has many small grooves for the cutter wires.

**Tip:** Sometimes the grooves are very tight they will loosen in time. It may help to put a little oil or shortening on the edges to ease them in.

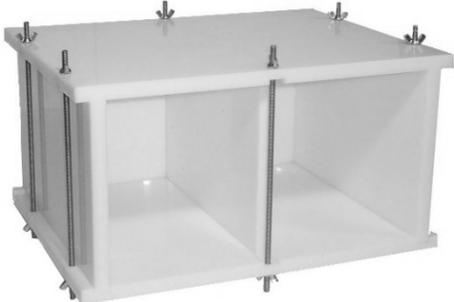


- Place the End pieces (these have one groove at the bottom edge) into the grooves on each side of the Side piece. Angle the End into the Side groove and at the same time aligning its groove with the edge of the Bottom piece, tap in place.
- Now place the Divider into the center grooves. You might try sliding this in later, just before you tighten the wing nuts.

**Tip:** The Bottom piece may be easier to work into the groove by starting at the corner and tapping it in as you work along the groove.



- Place the other Side on top of Ends and Bottom edges, lining these up to the grooves. Tap the Sidepiece, starting at one End, working the edges into the groove until you get to the other End piece. Finish seating the pieces into the grooves.
- Gently tap all into place. We make the grooves as tight as possible.



- You can now insert the rods. You may stand the mold upright or let it hang off the edge of the table and insert a couple rods to hold it together before setting upright.
- Finish placing the rods and loosely apply the wing nuts.
- The Divider can now be slipped into the center groove if you have not placed it already. You can now tighten the wing nuts.



- Do not over tighten the wing nuts; just snug them up. Snug means; the rods do not rattle when you shake the mold. Tightening too tight can cause a leak at the corners.
- When your mold is not in use; store it assembled, this will keep it straight and warp free. If you must store your mold unassembled, lay the sides on top of each other, then the bottom, the ends and finally the divider if you have one.

**Tip:** If on the first try you get a slight leak, use a little soft soap to push into the corners, 2", or 3" out each way, on your next pour. Pouring at a heavier trace will solve the problem.

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## Using Molds

### What Comes With Your Mold:

- **Air Cutter Molds**
  - Four threaded rods and four wing nuts
  - Two sides, two ends, one grooved mold bottom
  - The two sides have reinforcing channels along the top and bottom.
- **Manual Cutter Molds**
  - Six threaded rods and Six wing nuts
  - Two sides, two ends, one bottom, one divider

### Lining the Mold:

The best liner to use is standard parchment paper (baking tray liner, pan liner), and last, in line, plastic-lined Freezer Paper.

1. Grease the entire interior of the mold with a thin layer of shortening or vegetable oil. Cooking spray will work for some people but shortening works best. This keeps your liner tight to the sides. You can use a paper towel to spread the shortening. Do not use Petroleum Jelly.
2. Line your mold with a good paper product. Do not use garbage bags, saran wrap, drop-cloth plastic, some types of Mylar, etc. Be careful what you use. Some types of plastic react with oils, lye, and heat. Ensure that the liner you use is Food Grade.
3. You might want to pre-cut the bottoms, so you can just drop them in; this can be accomplished by stacking or folding the paper so there are 5 or 6 layers. Then using a razor blade or box cutting knife, cut through all the layers at once. A template made of paneling, Masonite, etc. makes a good pattern. Cut a bunch of them, this is most efficient.
4. For lining the sides: If using roll paper measure the perimeter of your mold cavity and subtract a ¼" (5mm). Cut enough paper to wrap the entire inside.
5. Roll the paper up so you can stick it down into the mold.
6. Use a, 4" or 6" wide, plastic putty knife to smooth out the paper.
7. Start in one corner and smooth the paper as you go.
8. Work the paper tight into each successive corner until you arrive back where you started.
9. Using a razor blade knife or box cutter knife, trim any excess paper.
10. If there is excess paper above the mold, you can slit it at the corners and fold over the sides.

You can caulk your molds with soft Soap scrap if you experience leakage. Pouring at a thicker trace will eliminate the need to do this.

You may find that you only need to line the sides and put shortening only on the ends. Having a waste cut makes this more possible. If you have a waste cut, you might try it.

### Pouring Your Soap:

1. We recommend pouring your soap into molds that are room temperature.
2. When your soap reaches a medium to thick trace, pour into your mold.
3. When pouring into your mold, hold a paddle under the stream and direct it towards the end of the mold reducing the speed of fall and fanning it out. This helps to prevent bubbles and air pockets in your soap.
4. You may find a small dolly will make it easier to move your mold around.
5. If you are using Air Cutter Molds, it is essential that the bottom is supported. This is generally done using an Air Cutter Mold Dolly, You can make them yourself. If you do not want to use a dolly, you still want to put a block of wood, Styrofoam, something to help support the bottom. The bottom is grooved and needs support.
6. You may have been given an Ideal Pour Depth when you placed your mold order. This is the most efficient use of your mold. Due to the wide variety of ingredients, you may add to your soap, you may have to find the best average for your pour depth, to batch weight.
7. Cover your soap with a heavy blanket (quilted moving pads work well)
8. In very cold conditions, a piece of Styrofoam under your mold will help. You can also put a piece of plywood or Styrofoam over the top to help insulate and keep out dust. If you experience pocketing on a Manual Cutter Pro-Mold at the divider, go for more coverage, not less. If you place your mold

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on a concrete floor or find discoloration towards the bottom of your mold, insulate the bottom. Styrofoam, foam board, pads, anything to keep the floor from drawing heat out of your mold.

9. If you are only pouring one side of your Manual Cutter Mold, add a block of Styrofoam next to the divider or stuff the empty cavity with a towel to insulate.

### **Cutting Your Soap:**

1. It is very important when using a wire cutter to cut the soap as soon as possible. Letting the soap cure and harden too long will result in breaking or stretching the wires.
2. Misting your soap; until you get the hang of when to cut or if you spaced it and forgot, try misting the top of your soap. Put a piece of wax paper, food wrap, etc. on top to keep the moisture in. Wait an hour or two and then cut. Uncured soap will absorb moisture quickly and soften up.
3. At first, start checking Manual Cutter Molds after about 16 hours. They will usually be ready between 24 and 36 hours but this can vary greatly. Start checking Air Cutter Molds after about 24 hours. Air Cutter Molds are usually ready at about 48 hours. They can go for 72 hours but it is very, very rare. The main thing here is to start observing early on and take notes on your first few pours. This will eliminate mistakes.
4. Smaller pours require less cure time. Many factors affect curing time. These range from but are not restricted to; environmental surroundings, humidity, air temperature, insulation method, and your soap recipe.
5. You may test your soap by pushing on the top center of the pour. If it is spongy, it is not ready. If it is firm, yet still soft, it is ready.
6. You can also test with a thermometer. Check in the center about mid-way down from the top. It should be ready when the temperature is below 90 degrees (F) or 32 degrees (C). After a while, you will know by the look and feel of your pour.

### **Basic Information and Tips:**

- When De-Molding your soap, use a rubber mallet to lightly tap the mold sides loose from the liner paper. There will usually be a little suction holding them tight to the block of soap. After the sides are removed, tap off the end pieces.
- When cutting your first blocks, keep track of your cure time in the mold. Do this for as long as it takes to know when the best time is to cut. By cutting at the right time and not over stressing, your wires can last indefinitely.
- You really do not need to wash your molds. You can scrape them off with a putty knife. Remember they heat up to 160-170 degrees (71 to 77 C) during saponification and you are using sodium hydroxide, which should pretty well kill anything there.
- Do not over tighten your wingnuts... snug only.
- If on the first try you get a slight leak, use a little soft soap to push into the outside corners, 2", or 3" (5cm to 7cm) out each way. Pouring at a heavier trace will solve the problem.

### **Trouble Shooting:**

- **Soap rising up in the mold (Volcanoing). Dips in soap:**
  - Your soap will get hot, some formulas more than others. Honey, beeswax, fragrances oils, some essential oil, and some base oils will create more heat. Heat is good, your soap will rise, and this is called volcanoing. It means you are getting maximum saponification and conversion of oils to soap and glycerin. Temperatures can get to 160 F to 170 F (71C to 77C) in a mold.
  - If you are getting a dip or sag, after the volcano erupts, then right after you pour, drag soap into the middle and in from the sides. Usually, a ¼" (7mm) lower at the sides tapering into the middle will compensate for the sag. The same putty knife you use to line the mold works great.
  - Volcanoing can also be somewhat controlled by using Covers. If you do not have Cell Covers, you can wrap plastic around a piece of cardboard and place on top of the soap.
  - If your soap cracked a little due to heat, just before cutting would be a good time to take a block of wood or even the palm of your hand to press and level out your soap and close up those cracks.

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- **Soap pulling away in the middle on Manual Cutter Molds:**
  - Sometimes the soap will pull away from the middle of the mold if using a Manual Cutter Mold. This is usually caused by not covering the mold. The plastic divider draws off the heat and is, therefore, colder than the surrounding material, which is very hot. The soap draws away from this as it cools and rises up, moving away from divider. The hot soap draws away from the cooler surface.
  - The top and bottom will cool quicker by not being covered and kept warm, they both cool prematurely and become harder, preventing the entire batch from rising evenly. The hot liquid in the center, therefore, has no way to go but up and cracks the top in expansion, like a volcano.
  - Cover it well, with a heavy moving pad, quilt, old heavy blanket or put some Styrofoam around the sides and on top. It will volcano but that will not matter as it will be soft due to the heat and settle down.
- **Pouring Temperature:**
  - Remember large block pours really heat up. If you have problems with separation and use fragrance oil, clove, cinnamon, rose geranium, honey, castor oil, some types of shea butter, just cool down the mixing temp to below 100 F (38 C). Many times this will take care of it.
  - If you get pockets of oil or veins in your soap this is usually due to alcohol in the fragrance oil. It will heat up and create pockets or sometimes veins. Try a cooler pour temperature.
  - Goats Milk Soap, try to stay around 85 F. (29.4C)
- **Edges and Corners are Whitish or Light Colored:**
  - This caused by slowed or arrested saponification.
  - Generally, it is due to not being wrapped well enough but can also occur from too cold a room temperature. In either case, the cold is penetrating the mold first at those points. The warm center draws heat into it pulling heat away from the corners. In a sense, it is similar to hyperthermia where the body heat draws into the body, leaving the limbs first.
  - One mistake that is made the most often, in covering and insulating a mold, is forgetting to insulate the bottom of it.
- **Leaking at the Corners:**
  - There are primarily two reasons your mold might leak.
    - Not pouring at a medium to thick trace.
      - Soapers new to pouring large batches sometimes can get a false trace. This is where the mixture seems to thicken and then once in the mold, slacks up, and goes thin.
      - Sometimes using Fragrance Oils or EOs that seize, we get anxious and pour sooner than we should. The best thing here is to test the reaction on a small quantity of soap so you are not risking problems with a big batch.
      - Whatever you do, pour at a medium to thick trace to start, then if you want to pour at thinner traces, gradually work up to it.
    - Tightening the Wing Nuts too tight.
      - If you have tightened the wingnuts, tight, they can bow the corners and create a leak right at the corners.
      - This can eventually ruin your mold and bow it permanently.
      - Over tightening will eventually stress the plastic and crack it along the groove.
      - Do not overtighten. They should be snug only, just past a rattle.
    - Less likely reasons for leaks are;
      - Not supporting the bottom of an Air Cutter Mold. This allows it to cup and draw away from the groove in the sides and ends.
      - Not putting your molds right back together after de-molding or storing in such a way that allows them to warp.



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