

# Steam Bottler

This manual also applies to individual Filter/Finisher/Bottler Pans and Steam Trays.



#### No More Sugar Sand In Your Finished Product!

The Steam Tray helps you eliminate the hot spots in your pan which would generate sugar sand.

#### Versatility

This one piece of equipment can be used for may tasks: filtering, finishing and bottling.

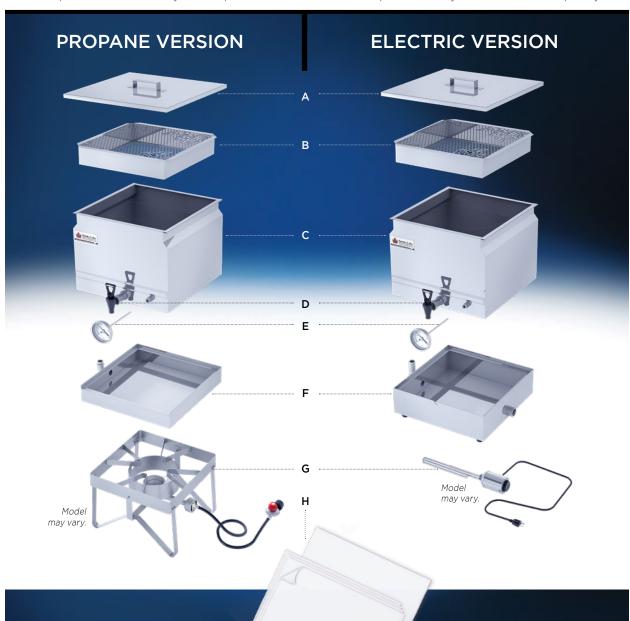
- Lifetime Limited Warranty on TIG Welds
- Smooth, Hemmed Edges
- Handcrafted by Smoky Lake Artisans in Hilbert, Wisconsin

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## What's Included...

Below are expanded views of the Smoky Lake Complete Steam Bottlers. Individual components of this system are also available separately.



- A | Lid with Handle
- B | Laser-cut Filter Tray
- c | Filter/Finisher/Bottler Pan
- **D** | Drip-Resistant Tomlinson Valve
- E | 0 250°F Thermometer
- F | Steam Tray with Fill Tube (The electric version is deeper to accommodate a heating element, and it includes rubber feet.)

#### **G** | Heat Source

(Either a Propane burner with stand OR Electric Heating Element for the Steam Tray)

#### H | Pre-Cut Flat Filter Set

The perfect size for gravity filtering:

- 16" x 16" Steam Bottler = 18" x 18" Filter Set
- 12" x 12" Steam Bottler = 14" x 14" Filter Set

#### **OPTIONAL ADD-ONS:**

- J | Valve Reducer...
- K | Valve Extension Fitting.
- | Vacuum Filter Applicator System (See SmokyLakeMaple.com)



## Electric Heating Elements

Applicable to Electric Steam Bottlers only.

For more information and operation guidelines specific to your particular electric heating element, please refer to the separate manual included from the Heating Element's manufacturer.

#### **INSTALLATION**

- Apply plumber's tape to threads to prevent binding and enhance the seal.
- Insert the coils of the Heating Element into the fitting on your Electric Steam Tray. (See p 5.)
   In some cases, you may need to pinch the coils together to fit through the fitting.
- When installing the element into the tray, there may be an initial resistance as you screw it into the fitting. Once you get past the initial "bead" it will turn smoother.
- Simply turn the Electric Heating Element into the fitting until snug. The fitting on your Steam Tray is tapered. Thus, the element is not intended to be threaded in the entire way.
- For best results, the sensing element should be facing upwards. (See element manual.)

#### **OPERATION**

- Plug the unit into a grounded 115V outlet only.
- Turn the adjustment knob clockwise to the high limit stop. Do NOT force the knob past the limit stop.
- The unit is heating when the pilot light is on.
- Periodically check the Steam Tray's refill tube to make sure there is ample liquid in the tray. The heating element MUST be covered with water when it is on.
- Never leave unattended.

#### **MAINTENANCE**

- Remove any mineral scale build up from the heating element and probe
- NEVER immerse the control head in water or otherwise expose it to excessive moisture. Simply wipe with a damp cloth.



# Warnings

- NEVER apply direct flame/intense heat to a pan that does not contain liquid. Water in the Steam Tray can be checked/added at any time using the refill tube.
- NEVER leave your Steam Bottler unattended.
- ALWAYS use plumber's tape on all threaded connections to enhance the seal and prevent thread binding.
- ALWAYS wear protective clothing such as rubber gloves to protect yourself from hot syrup.
- ALWAYS keep a fire extinguisher handy when working with fire. Make sure all of your helpers know where it is and how to operate it.
- NEVER immerse a thermometer dial or a control head of a heating element in water nor expose it to excessive steam. Clean with a clean, damp cloth.
- NEVER attempt to carry nor otherwise move a full vessel of hot syrup.
   Spills are painful to both your skin and your heart.
- An additional, separate manual has been included with every Propane Burner and Heating Element. Please carefully read and follow these manufacturers' guides for safe operation.

# Using a Steam Tray (Gas)

**PURPOSE OF THIS STEAM TRAY:** Maintain syrup temperature for bottling while protecting the syrup from hot spots which would generate more sugar sand.

**COMPATIBLE HEAT SOURCES:** Gas-fired burner (outdoor use) or a stove top.



#### Inner Shelf

(The Filter/Finisher/Bottler Pan sits here)

#### Front

(The front of your Filter/Finisher/Bottler Pan must be facing this direction. This is the side of the Steam Tray which does NOT have a lip on the top rim)

#### Lip on Top Rim

(Located on the left, right and back sides. This holds your Filter/Finisher/ Bottler pan securely in place)

#### Refill Tube



Filter/Finisher/ Bottler Pan

Steam Tray

Propane Burner w/ Stand and Regulator

#### PROPANE BURNER

For the most complete and up-todate information about your specific propane burner, please refer to the instruction guide that was packaged with the burner. Models of Propane Burners may vary slightly compared to what is pictured above.



## INSTALLING THE REFILL TUBE

Use plumber's tape on all threaded connections to prevent binding and enhance seal.

#### BENEFITS OF THE REFILL TUBE

- Look into the Refill Tube to determine the water level inside the Steam Tray. Keep at least 1 - 2" of water in the tray at all times during operation. Otherwise heat could warp/ damage the tray.
- The Refill Tube allows you to top off the Steam Tray with additional water without moving your Filter/Finisher/Bottler Pan.
   A funnel can be used if desired.

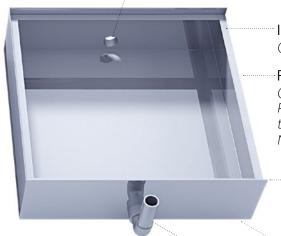
# Using a Steam Tray (Electric)

**PURPOSE OF THIS STEAM TRAY:** Maintain syrup temperature for bottling while protecting the syrup from hot spots which would generate more sugar sand.

**COMPATIBLE HEAT SOURCES:** Electric Heating Element (provided)

#### 1" NPT Fitting

(Heating Element is installed here. See p 3)



#### Inner Shelf

(The Filter/Finisher/Bottler Pan sits here)

#### Front

(The front of your Filter/Finisher/Bottler Pan must be facing this direction. This is the side of the Steam Tray which does NOT have a lip on the top rim)

#### Lip on Top Rim

(Located on the left, right and back sides. This holds your Filter/Finisher/ Bottler pan securely in place)

#### Non-skid Rubber Feet

(Pre-installed on the bottom of the Tray)





## ELECTRIC HEATING ELEMENT

See page 3 for more information about installing Electric Heating Elements. Also, please reference the separate Heating Element guide that was packaged with your Bottler.



# INSTALLING THE REFILL TUBE

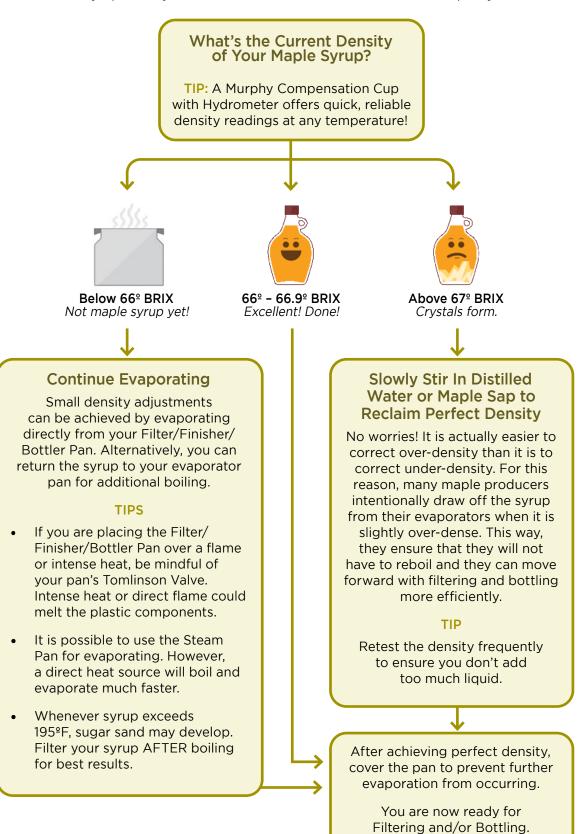
Use plumber's tape on all threaded connections to prevent binding and enhance seal.

#### BENEFITS OF THE REFILL TUBE

- Look into the Refill Tube to determine the water level inside the Steam Tray. The Heating Element coils should always be fully immersed.
- The Refill Tube allows you to top off the Steam Tray with additional water without moving your Filter/ Finisher/Bottler Pan. A funnel can be used if desired.

## **How to Perfect Syrup Density**

THE GOAL: Syrup density should be between 66 - 66.9° BRIX for best quality.



# **How to Filter (Gravity Method)**

1. Place the Filter/Finisher/Bottler pan on a sturdy, level surface. Insert the Filter Tray on top of it.



2. Place a set of Pre-Cut Flat Filters in the Filter Tray with the thicker, main filter (AKA Orlon) on the bottom and the prefilters on top. The filters should create a bowl shape in the tray.

#### TIP #1: PRE-WET THE FILTERS.

Dampening the filters before use will help start the flow of maple syrup through the filters.

#### TIP #2: UP IS ALWAYS UP.

On each filter, mark the corner to indicate which side is "UP". That way if there is any sediment left in the filters, it will not get flushed out into your syrup the next time you filter.

#### TIP #3: SECURING THE FILTERS.

Some folks choose to use a clothespin or a binder clip to clip the filters together in the corners. This may help prevent the edges of the filter papers from falling over into the tray.

3. If you have the optional Valve Reducer (to fill bottles with small mouths with ease) install the Valve Reducer inside the Tomlinson Valve now. (Instructions are packaged with the reducer.)

- 4. Connect the Tomlinson Valve and Thermometer to the front of the Filter/Finisher/Bottler pan. Always use Plumbers Tape on threaded connections to prevent binding and to enhance the seal.
- 5. To maintain syrup temperature after filtering, see "USING A STEAM TRAY". Otherwise, if you are not going to be bottling your syrup right away, the Steam Tray is not necessary.



**6.** Pour your syrup into the Filter Tray while it is HOT. Use a lid to maintain warmth in the tray and to prevent further evaporation.



#### TIP #4: STAY UNDER 195°F.

If the syrup is hotter than 195°F after it passes through the filters, sugar sand may precipitate. Be mindful of temperature for best results.

- 7. When the top prefilter clogs with sediment, shimmy it out and the syrup will flow through again. When the next prefilter clogs, shimmy out that prefilter and so on. The prefilter material is composite and can be used over and over. They rinse very well. Never run your syrup directly into the base filter unless you have very little to filter.
- 8. Flat Filters are reusable. Clean with hot water or the steam from the evaporator. Do NOT use soap. Do NOT wring dry. Store in a clean, dry, odorless place.

### How to Bottle

**NOTE:** Before bottling, your maple syrup should be filtered (See p 7) and your density should be perfected (See p 6).

1. Assemble your Steam Bottler as pictured on pages 1, 2, 4, 5.

> TIP #1: Use plumber's tape on all threaded connections to prevent binding and enhance seal.

TIP #2: Unless you will be filtering and bottling simultaneously, you may set aside your Filter Tray during the bottling process.

TIP #3: The optional Valve Reducer should be installed if you are going to be filling bottles with small mouths.

- 2. Place the Complete Steam Bottler on a sturdy surface and make sure the Steam Tray is filled with water within 1/2" of the tray's inner shelf. (See USING A STEAM TRAY for details
- 3. Allow the Steam Tray to heat the maple syrup. Use the thermometer on the front of the Filter/Finisher/Bottler Pan to monitor/maintain the temperature between 180 - 190°F.

TIP #4: If you are starting with cold syrup, heating the syrup with the Steam Tray can take about 2 hours. It is fastest to put the syrup into the pan while it is already hot and then use the Steam Tray to MAINTAIN the proper temperature.

4. Use the Tomlinson Valve to fill your clean, food-safe bottles/cans with syrup. Leave a small amount of air at the top of each container. Shake each container to allow the syrup to coat the inside of the bottle and neutralize any bacteria that may have been present. It is NOT necessary to lay the bottle on its side after shaking. Laying the bottle on its side can make it difficult for some caps/tamper resist seals to adhere securely and could cause a leak.

## Video **Tutorials**

1700 Filtering & Bottling Class SmokvLakeMaple.com/barrel-to-bottle



You put so much time and love into making your maple syrup, and your end product should reflect that! This video series will help you avoid some common pitfalls in the filtering and bottling process and show you how you can overcome them.

- Avoid sugar sand by using proper temperatures
- Avoid sugar crystals by perfecting density
- Tips for best presentation of your product

SCAN ME



SmokyLakeMaple.com/barrel-to-bottle







