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Smoky Lake
MAPLE PRODUCTS™
SMOKYLAKEMAPLE.COM

Drop Flue Pan Set

STANDARD CONFIGURATION

MADE IN USA

Check Out Our Instructional Videos On YouTube.

INCLUDES

A | **Sanitary Draw-Off Valve w/Food-Grade Gaskets**

B | **Positive Draw-Off Boxes**

C | **Ten 7" Flues** *(On the 2' wide pans)*

D | **Angled Thermometer Ports w/Maple Thermometer**

E | **Three Stainless Steel Plugs** *(¼")*

F | **Built-in 360º Handles**

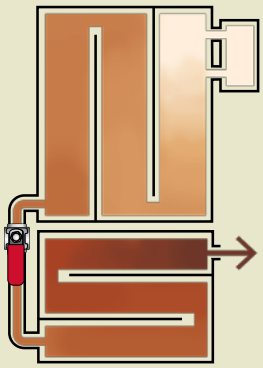
G | **Float Box w/Fittings & Drain**

H | **Flue Pan Drain Manifold**

J | **Two Stiffened Gaskets** *(Not visible in this photo. See page 2.)*

K | **Optimal Rear Syrup Draw-Off** *(Finished syrup is drawn off at the rear of the Syrup Pan where the heat is most concentrated)*

- **Reversible Front Pan**
- **Structurally Formed-in Syrup Pan Dividers**
- **22 ga. Mirror Finish Stainless Steel**
- **Lifetime Limited Warranty on TIG Welds**
- **Smooth, Hemmed Edges**
- **Handcrafted in USA**



PATH OF THE SAP

- The sap is introduced to the system via the inlet float box which is located near the rear of the evaporator.
- Next, sap will travel through 3 consecutive channels in the flue pan.
- Sap enters the front pan via the Transfer Pipe.
- Sap completes the system by traveling through the three channels in the front pan.
- Syrup draws off at the back of the front pan where there is the highest concentration of heat.
- See page 4 to reverse flow in the front pan.

STIFFENED GASKETS

- One gasket should be placed between the front pan and the flue pan. The second should be placed behind the flue pan.
- For more information, see our video: SmokyLakeMaple.com/stiffened-gasket

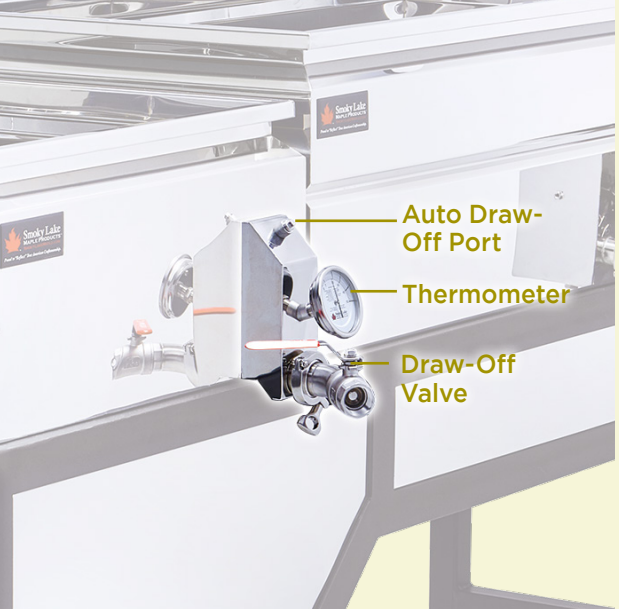
CONTINUOUS FLOW

- Rather than waiting for the entire pan to become maple syrup in one big batch, this pan set will allow you to draw off syrup a little bit at a time throughout the boiling process.
- A “Density Gradient” will develop in the pans. (See illustration to the left) As the sap works its way through the channels, it becomes darker and darker (more condensed). The sap near the draw off valve has been in the system for the longest period of time and is closest to completion.
- Your end product should be between 66º – 66.9º BRIX. See Maple Thermometer OR Auto Draw-Off System instructions for details regarding using temperature to monitor progress. Before bottling, it is recommended to fine tune syrup density using a hydrometer and Murphy Compensation Cup.

FLOAT BOX

See our video for more details: SmokyLakeMaple.com/inlet-float-box

- On the outside of the Flue Pan, there is a bracket upon which you will hang your Float Box.
- You will connect the two 1-1/2″ ports to the Flue Pan with Sanitary Clamps and Food Grade Gaskets (provided).
- On the bottom of the Float Box you will find a 1/2″ port to which you will attach either a drain valve or the Deluxe Sight Glass. Always use plumber’s tape on threaded connections to enhance seal and prevent binding. Do NOT over tighten.
- Connect a head tank of sap to the 3/4″ Inlet Port on the top of the Float Box. Never exceed 10′ of head pressure.
- **IMPORTANT**: **We recommend maintaining 2″ sap depth throughout the system; especially until you have gained experience.** (In the flue pan, measure depth ABOVE the flues.) This will protect your pans from warping and prevent your maple sap from scorching. Before starting, make sure your pans are level so that depth is consistent throughout the pan set.



DRAW-OFF CONNECTIONS

- When standing facing the door of your firebox, the Draw-Off Box is located at the back the Front Pan.
- The upper 1/4" port can hold the Syrup Temperature Probe from your Auto Draw-Off System. (Optional) When not in use, the port can be plugged.
- The lower 1/4" port will hold your Maple Thermometer. The Thermometer allows you to monitor the progress of your syrup.
- The Draw Off Valve is attached with a Sanitary Clamp and Food Grade Gasket (provided).

TRANSFER PIPE

A Transfer Pipe and Sanitary Clamps connect the Flue Pan to the Front Pan. Use one Food Grade Gasket with each connection (provided). **The valve MUST be OPEN while you are boiling.**

CLEANING

Prior to First Use

Make sure all of the protective vinyl has been removed from the stainless steel (if applicable). Then, rinse the pan with clean water.

After Use

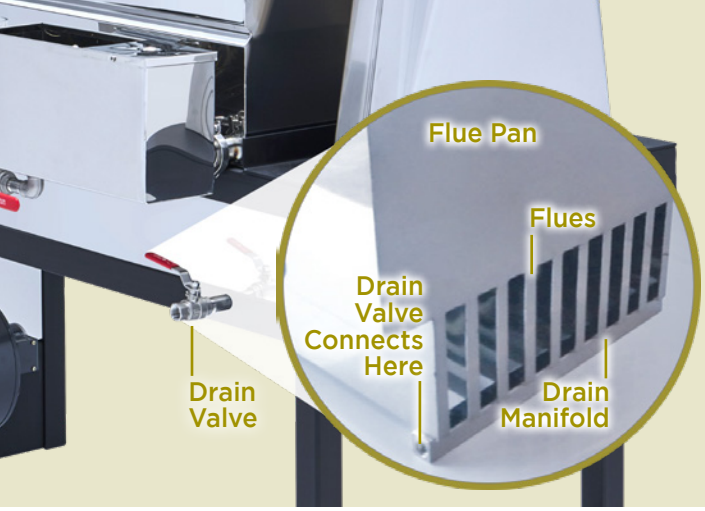
- **Natural Method:** PRE-mix a 50/50 solution of white vinegar and hot water. Soak for up to 24 hours, drain and spray out with a hose.
- **Barkeeper's Friend:** Many folks have had good results with this common household product. The manufacturer's website confirms that it is safe to use on cookware.

More Tips

- Visit SmokyLakeMaple.com/cleaning-pan
- In addition to cleaning the pans, periodically clean all hardware and connections. Eliminate all nitre build-up.
- NOTE: Excessive exposure to **any** cleaning agent/acid — including vinegar — could harm stainless steel.

WARNINGS

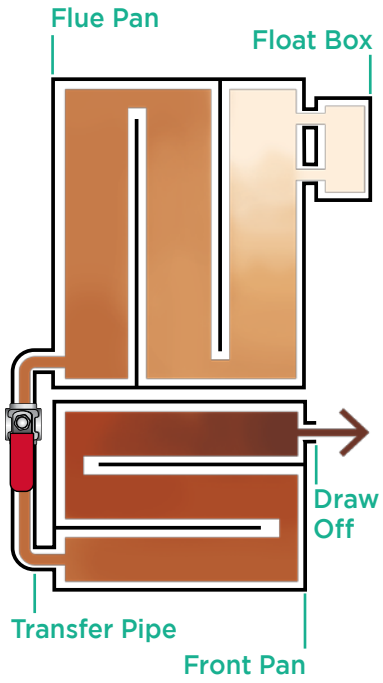
- **We recommend maintaining 2" sap depth throughout the system; especially until you have gained experience.** *(In the flue pan, you need to maintain 2" ABOVE the flues.)*
- Use plumber's tape on all threaded connections to enhance seal and prevent binding.
- BEFORE lighting the evaporator, run through the Start Up Checklist. SmokyLakeMaple.com/start-up
- Wear protective clothing such as leather gloves and a face shield.
- Keep a spare bucket of sap or water on hand in case the pans run low or overheat.
- Keep a fire extinguisher nearby. Make sure all of your helpers know where it is located and how to operate it.



DRAIN MANIFOLD

- The flues can be drained completely.
- The drain manifold is easily accessed via a valve which will extend through the side of your arch.
- Use plumber's tape on the threaded connections to enhance seal and prevent thread binding. Do NOT overtighten.

REVERSING THE DIRECTION OF THE FLOW.



- **WHAT IS NITRE?**
  In the front pan, it is very common for nitre — also called sugar sand — to build up on the floor of the pan. This collection of minerals precipitates as the sap becomes more condensed. You will find that the amount of nitre in the sap will vary geographically. Some regions will encounter more nitre than others.
- **WHY IS IT IMPORTANT TO REMOVE THE BUILD UP?**
  A large build-up of nitre can harm your front pan and create off flavors in your maple syrup.
- **WHY CHANGE THE DIRECTION OF THE SAP FLOW?**
  When less dense sap travels in the opposite direction it is able to pick up some of the nitre from the pan floor.
- **HOW DO I CHANGE THE DIRECTION OF FLOW?**

1. Make sure the fire in your arch is completely extinguished. There should **not** be any intense heat during this procedure.
2. Close the valve on the Transfer Pipe (the pipe which connects the Flue Pan to the Front Pan).
3. Collect several clean, food grade buckets and label them 1, 2, 3, and so on. Draw off the sap from the front pan into bucket 1. This is the sap of highest sugar density. Continue drawing off sap into the consecutive buckets, so the higher the number on the bucket, the lower the sugar density of the sap. Drain enough sap to be able to disconnect the Front Pan from the Transfer Pipe. The Transfer Pipe should remain connected to the Flue Pan.
4. After disconnecting the Front Pan, turn it 180º. The port which had previously been used for draw off will now be used to connect to the Transfer Pipe and vice versa.
5. After reconnecting your pans, and moving your Draw-off Valve and other accessories to the new draw-off location, you will be ready to reintroduce the sap to the Front Pan. Starting with the highest numbered bucket (the least dense sap), gently pour the sap into the Front Pan at the draw-off location. Continue slowly pouring each consecutive bucket into this location. With each new bucket you pour in, the less dense sap is being pushed back further into the channels. By pouring the sap back into the pan in this fashion, you are reestablishing a gradient.
6. **IMPORTANT! REOPEN the valve on the Transfer Pipe before lighting your evaporator! This is critical!**

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