



# Hybrid Pan

ALL-IN-ONE DROP FLUE + FINISHING PAN



MADE IN USA



## INCLUDES

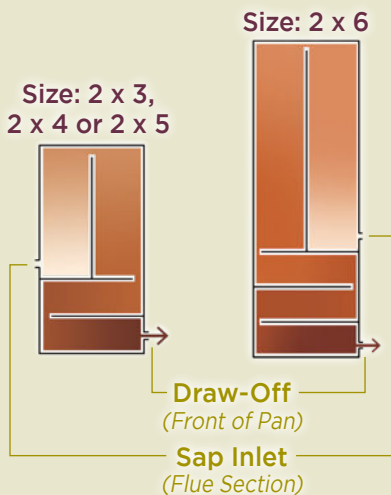
- A | Stainless Steel Ball Valve w/SS Nipple**  
*Food Grade. Easy-grip handle. NEVER nickel plated.*
- B | Angled Port w/Maple Thermometer**  
*3" dial, 0-50 scale, 6" stem*
- C | Angled Port for Optional Auto Draw-Off System**  
*Includes 1/4" stainless steel Hex Plug*
- D | Built-in, Full Length Handles**
- E | Structurally Formed-in Dividers in the Syrup Pan**
- F | Stainless Steel Inlet Port for Optional Float Box**  
*3/4" stainless steel Hex Plug included.*
- G | Drain Manifold w/Valve (for Flues)**  
*This is a feature of model SKU SL-HYBPRODRN. Not visible in this photo.*

- ✓ **22 ga. Mirror Finish Stainless Steel** *(Superior heat transfer compared to competitors' thicker gauges of stainless)*
- ✓ **Lifetime Limited Warranty on TIG Welds**
- ✓ **Smooth, Hemmed Edges**
- ✓ **Handcrafted in Hilbert, WI**



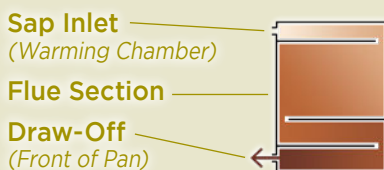
Check Out Our Instructional Videos On YouTube.

## HYBRID HOBBY PRO



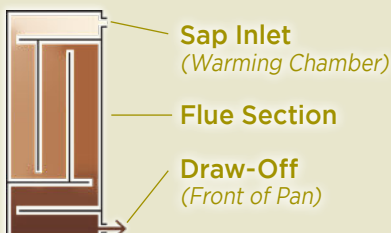
## FULL PINT HYBRID

Size: 2' x 33"



## DAUNTLESS™ ALL-IN-ONE HYBRID

Size: 20" x 4'



## PATH OF THE SAP

- The sap is introduced to the pan at the inlet port
- Sap in a Full Pint or Dauntless will begin in a Sap Warming Chamber
- Next, sap travels through channel(s) of drop flues.
- Syrup will finish as it travels through the two flat-bottom channels located at the front of the pan.

## CONTINUOUS FLOW

- Rather than waiting for the entire pan to become maple syrup in one big batch, this system 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.
- See Thermometer Set Up below for more information on drawing off finished syrup.
- At the end of a boil, the sweetened sap remaining in your Hybrid pan can be drained into food grade buckets. Preserve this sap by keeping it very cold until you are ready to boil again.

## SET UP

**Remove all protective vinyl and instructional stickers.**

Vinyl and stickers can melt to the side of the pan during boiling if they are not removed.

### Draw-Off Port (Front of Pan)

- At the front of the pan, connect the 3/4" stainless steel Ball Valve with the 3/4" stainless steel Nipple. (A Nipple is a piece of hardware that has male threads on both ends.) Use plumber's tape on these threaded connections to enhance seal and prevent binding.



### Thermometer Port (Front of Pan)

- To the right of your Draw-Off Valve, connect the Maple Thermometer into the lower, angled, 1/4" port. Use plumber's tape on this threaded connection to enhance seal and prevent binding.



boiling. When the thermometer reaches 7°F above the boiling point of water, syrup is ready to be drawn off the pan. See your Maple Thermometer instruction sheet for additional details and double check density with a hydrometer and Murphy Cup.

**SEE VIDEO:** [SmokyLakeMaple.com/draw-off-syrup](http://SmokyLakeMaple.com/draw-off-syrup)

## WARNINGS

- **Maintain 2" sap depth throughout the pan; especially until you have gained experience.** (2" ABOVE the flues)
- Use plumber's tape on all threaded connections to enhance the seal and prevent thread binding.
- BEFORE lighting the evaporator, review the Start Up Checklist. [SmokyLakeMaple.com/start-up](http://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.
- Keep a fire extinguisher handy. Make sure all of your helpers know where it is and how to operate it.

## SET UP CONT'D



### Sap Inlet Port (On the Pan)

- This 3/4" port can either be plugged or connected to an optional Smoky Lake Float Box. (Photo above. See video at [SmokyLakeMaple.com/inlet-float-box](http://SmokyLakeMaple.com/inlet-float-box).)
- To plug this port, use the provided 3/4" stainless steel Hex Plug. Use plumber's tape to enhance the seal and prevent thread binding.

### Auto Draw-Off Port

- Above the thermometer port is a second angled, 1/4" port which can be used for an optional Auto Draw Off System Syrup probe.
- To plug this port, use the provided 1/4" stainless steel Hex Plug. Use plumber's tape to enhance the seal and prevent binding.

## SAP LEVEL

### While You Are Boiling...

The main purpose of boiling sap is to remove water to condense the maple sugars. The water is removed through steam. This means that **in order to maintain 2" of depth in your pan, you will need to continuously add more sap.** See "Ways to Maintain Depth" below.

### Beware of Foam



Foam will periodically develop on the surface of the sap, masking the actual liquid depth. Eliminate the foam by adding ONE DROP of vegetable oil to whichever compartment needs it.

## WAYS TO MAINTAIN DEPTH

**A) Feed Pan (A.K.A. Warming Pan)**  
Trickles prewarmed raw sap into the Hybrid Pan. Rate of flow is manually adjusted with a valve. See Fig A



**B) Float Box**  
Automatically adds sap to the Hybrid Pan as it is needed to maintain a constant preset depth. See Fig B



**C) Periodically add sap by hand**  
Slowly pour sap into the pan at the location of the sap inlet port. Set a timer to remember to do this every few minutes! Adding small amounts at regular, constant intervals will protect your pan and your syrup. In contrast, large dumps of raw sap will kill your boil and make it difficult to establish/maintain a density gradient.



# GASKETS

## Rail Gasket

- This gasket lays on the top rail of your arch, underneath your pan. (Do NOT glue.)
- Rail Gaskets increase efficiency by preventing cold air from being pulled underneath the pan while boiling.
- Corsair™ Evaporators with Hybrid Pans work well with a fluffier gasket called “Insulated Rail Gasket”. Alternatively, “Braided Rope Gasket” also works great for 2' x 4' or smaller Corsairs.
- StarCat™ and Dauntless™ Evaporators were designed to be more straight forward and can certainly function without gaskets. That being said, the 1"-wide Rail Gasket with adhesive is a popular upgrade and will increase boil rate. See SmokyLakeMaple.com for details.



## Stiffened Gasket

- This style gasket is applicable to Smoky Lake Corsair™ evaporators. It is placed behind the pan to prevent cold air from entering and exhaust from escaping the arch.
- For more information, see our video: SmokyLakeMaple.com/stiffened-gasket



# CLEANING

## Prior to First Use

Make sure all of the protective vinyl has been removed from the stainless steel (if applicable), and 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

- SmokyLakeMaple.com/cleaning-pan
- NOTE: Excessive exposure to **any** cleaning agent/acid—including vinegar—could harm your pan.

# NITRE

## • WHAT IS NITRE?

Nitre is a collection of minerals that has “fallen out” of the sap as it became more condensed. Learn more at SmokyLakeMaple.com/sugar-sand

## • WHY IS IT IMPORTANT TO REMOVE THE BUILD UP?

A large build-up of nitre can harm your pan and/or create off flavors in your maple syrup.

## • HOW TO REMOVE NITRE?

1. Extinguish the fire completely and allow the pan to cool. Then, drain sap from the Draw-Off Port into consecutively numbered, food grade buckets. The higher the number on the bucket, the lower the sugar density of the sap. Depending on your pan model, use either the pan's Drain Manifold or a siphon to remove sap from the flues.
2. After draining all the sap, clean the pan.  
(See *CLEANING* section above)
3. After the pan is cleaned, rinsed and dried, reintroduce the sap at the draw-off location, starting with the highest numbered bucket. Continue slowly pouring in each bucket in order. 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 your gradient.