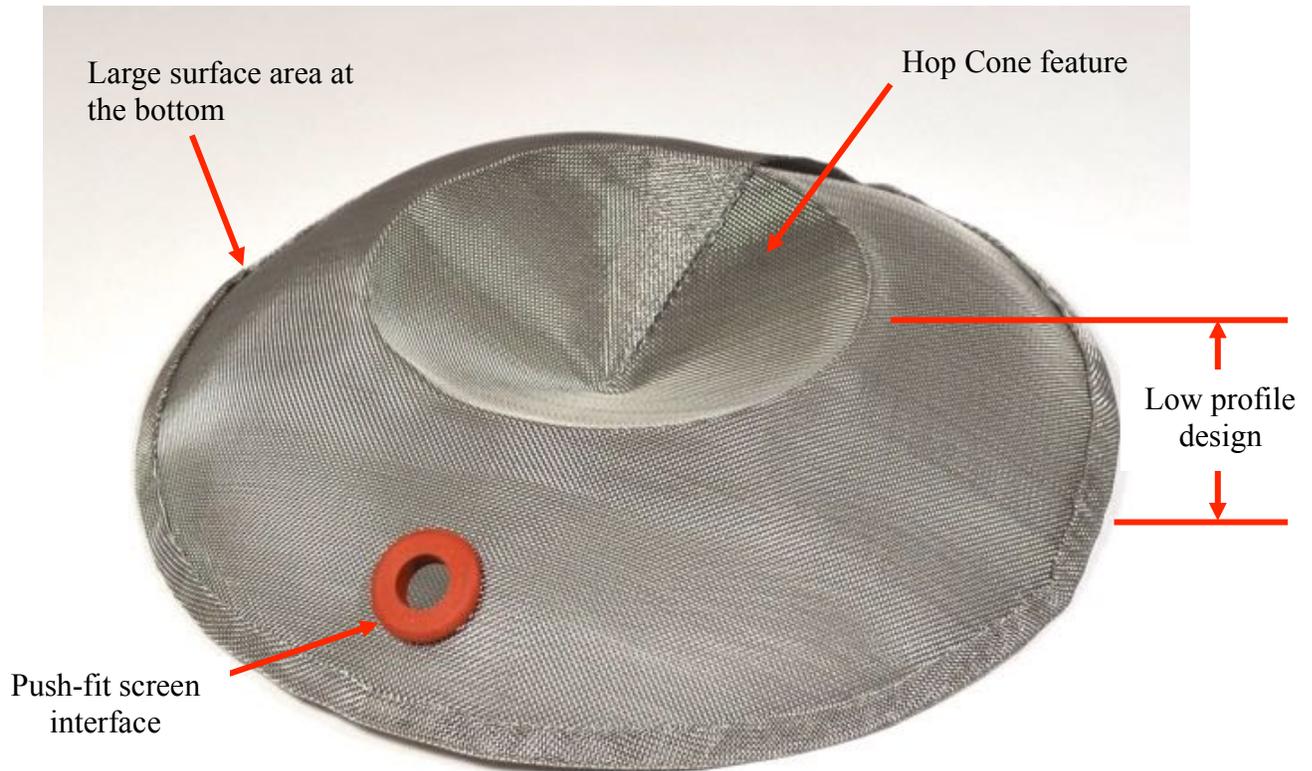


# The Hop Stopper™ 2.0 User's Guide

Designed and Manufactured by Innovative Homebrew Solutions

Congratulations! You are now the owner of the newest and best kettle screen offered to the homebrewer. The Hop Stopper™ 2.0 is a complete redesign of the original Hop Stopper™.



The new design incorporates several new features and improvements including:

1. Inverted design putting the largest filtering area at the lowest level in the kettle to provide maximum filtration at the end of draining where you need it.
2. Innovative “Hop Cone” feature provides a pocket for hops to settle while providing maximum screen area for filtration.
3. Improved performance for immersion chillers and recirculation processes.
4. Low profile design for tight spaces.
5. New push-fit dip tube interface eliminates all clamps and screws and can be used with virtually any existing dip tube.

An optional dip and compression connector fitting are available depending on your kettle configuration and can be specified when ordering.

This guide covers the following topics:

1. Installation
2. Using the Hop Stopper™ 2.0
3. Rinsing and Storing
4. Periodic Cleaning
5. Frequently Asked Questions
6. Troubleshooting
7. Warranty

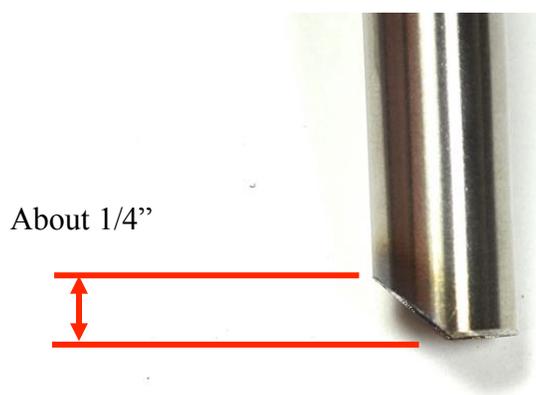
## Installation

The installation section covers five different scenarios depending on the Hop Stopper™ configuration that is ordered:

- Hop Stopper™ 2.0 using your existing dip tube.
- Hop Stopper™ 2.0 on a Blichmann brand kettle.
- Hop Stopper™ 2.0 with a custom dip tube.
- Hop Stopper™ 2.0 with custom dip tube and compression fitting.
- Hop Stopper™ 2.0 for use in a converted keg (keggle).

### IMPORTANT NOTE:

In all cases, the Hop Stopper™ 2.0 requires the use of a dip tube. The dip tube needs to sit vertically and perpendicular to the bottom of the kettle. To make sure that free wort from the inside of the Hop Stopper™ 2.0 screen cavity can flow into the dip tube, a notch or bevel is required on the tip of the tube. An example of this can be seen below:



The notch or bevel can be made using a number of methods including a file, a Dremmel with a grinding attachment, or a belt sander. About 1/4" is all that is needed for this feature. If your Hop Stopper™ 2.0 came with a dip tube, this feature is already on your dip tube.

## Installation Using Your Existing Dip Tube

If your Hop Stopper™ 2.0 did not come with a dip tube and you plan to use your own, installation requires no tools and is very straightforward. Please note the need for a notch on the pick-up end of your dip tube as explained at the bottom of Page 2.

1. There is a silicone grommet in the surface of the screen. The diameter of the hole in the grommet should correspond to the outside diameter (OD) of your dip tube that you specified during the ordering process.
2. Remove the dip tube from the outlet port.
3. Insert the pick-up end of the tube through the hole in the grommet.



4. With the dip tube inserted in the hole, install the dip tube as normal into the outlet port. There will be some slight flexing of the grommet as it conforms to the dip tube coming into it at a slight angle. This is normal and actually helps form a seal between the grommet and the outside diameter of the dip tube.
5. The Hop Stopper™ is now ready to use.

## Installation on a Blichmann Brand Kettle

If you ordered your Hop Stopper™ 2.0 for use with a Blichmann brand kettle, your Hop Stopper™ will come with a dip tube specifically made for this kettle. This configuration requires no modifications to your existing Blichmann dip tube so as to preserve its original configuration. However, because the Blichmann outlet port has a special collar for the connection, it will be necessary to transfer this collar to the Hop Stopper™ dip tube as follows:

1. Using a hex wrench, loosen the screw on the Blichmann collar, then slide the collar off.



2. Retrieve the Hop Stopper™ dip tube and slide the collar onto the non-notched end. Push the collar on until about 1/2" of the dip tube extends past the end of the collar. Rotate the collar so that the alignment pin is at the 6 o'clock position relative to the dip tube in the installed position. Tighten the screw to lock the collar in place on the new dip tube.



3. The completed assembly should look like the photo below.



4. Insert the pick-up end of the tube through the hole in the grommet.



5. With the dip tube inserted in the hole, install the dip tube as normal into the outlet port. There will be some slight flexing of the grommet as it conforms to the dip tube coming into it at a slight angle. This is normal and actually helps form a seal between the grommet and the outside diameter of the dip tube.
6. The Hop Stopper™ is now ready to use.

## Installation with a Custom Dip Tube

If you ordered your Hop Stopper™ with a custom dip tube only, then your kettle is equipped to directly install a 1/2" OD dip tube into the outlet port. You will have already specified the vertical distance from the center line of the outlet port to the bottom interior of the kettle during the ordering process and your Hop Stopper™ dip tube will come made to that specification. Follow the instructions for Installation Using Your Own Dip Tube, just use the supplied dip tube.

## Installation with the Custom Dip Tube and Compression Fitting

This option is for kettles equipped with NPT threaded connections on the outlet port. If this option is ordered, your Hop Stopper™ will be shipped in one of the two options shown below:

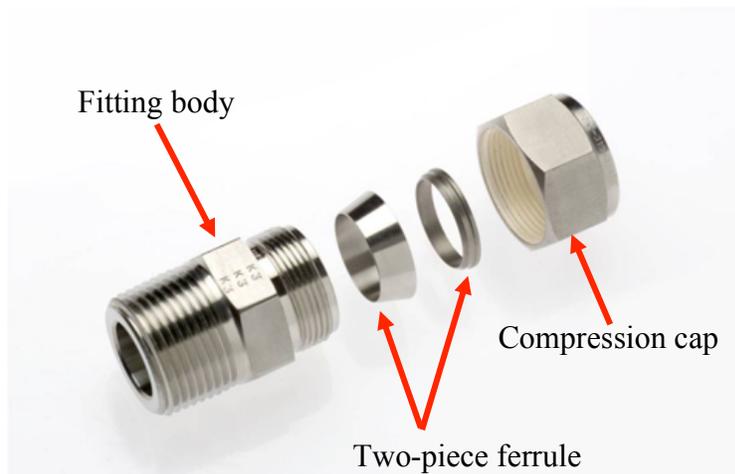


Hop Stopper™ 2.0 with Dip Tube and Male Connector Fitting



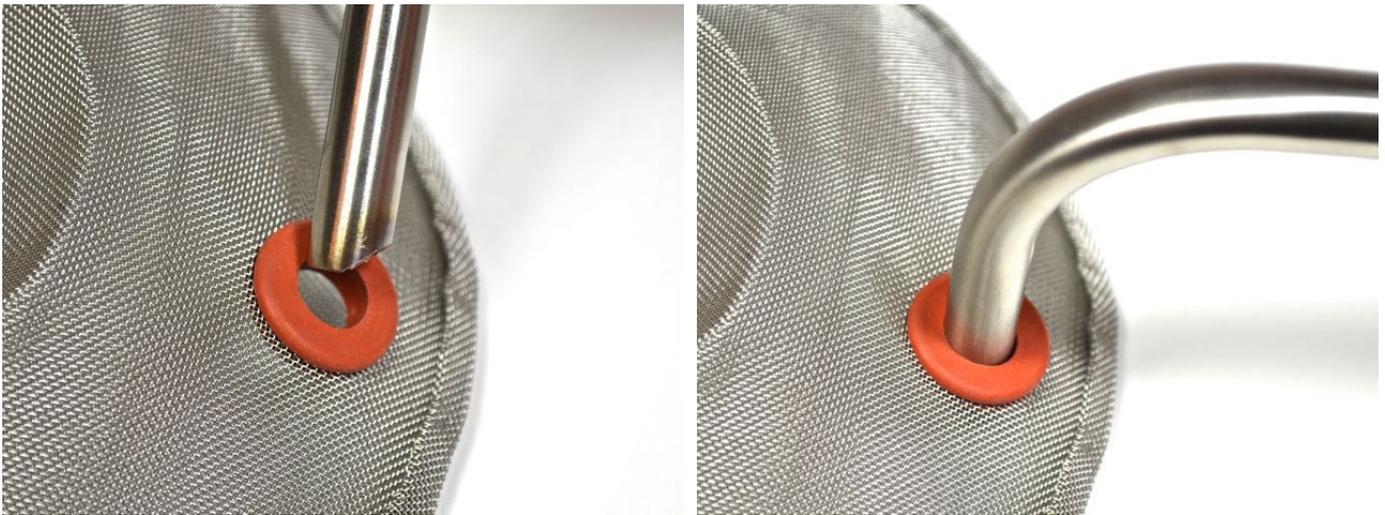
Hop Stopper™ 2.0 with Dip Tube and Female Connector Fitting

The connector is a compression fitting. Should the fitting become disassembled, it is assembled as shown below. Note the orientation of the two-piece ferrule, it is critical that the orientation is correct prior to assembly:



Compression fitting components and orientation of two-piece ferrule

1. Remove any existing fittings from the outlet port on the interior of the kettle. If a ball valve is attached on the exterior of the outlet port, this can be left in place. Clean the threads thoroughly.
2. If your kettle has female NPT threads on the interior, your Hop Stopper™ will come with a male connector fitting. Wrap the male threads with 3-4 wraps of Teflon tape. If your kettle has male NPT threads on the interior, then your Hop Stopper™ will come with a female connector fitting. Wrap the male threads on your outlet port with 3-4 wraps of Teflon tape. Do not apply Teflon tape to the threads between the compression cap and the fitting body.
3. Using an adjustable wrench, tighten the fitting using the large hex flats on the body of the fitting. Tighten the fitting with the wrench until it is snug, do not over-tighten. Typically, 1 to 1-1/2 turns past finger tight is sufficient.
4. Insert the notched end of the dip tube into the grommet on the Hop Stopper™ screen as shown below.



5. With the compression fitting in the assembled state (hand tight only) and the dip tube inserted into the grommet on the screen, slide the un-notched end of the dip tube completely into the fitting until it stops.
6. Adjust the dip tube so that the tip is facing downward toward the bottom of the kettle.
7. Tighten the compression cap until finger tight, then, using an adjustable wrench, tighten approximately 1 full turn. This step crimps the ferrule to the dip tube and seals the connection.
8. Loosen and remove the compression cap along with the dip tube. The ferrule(s) should be mechanically locked to the dip tube. The ferrule(s) may spin in place, but not move back and forth. If the ferrule(s) are not locked in place, reassemble the compression fitting and tighten as before and add an additional 1/2 turn. Remove the cap once again and check the ferrule(s). Repeat this process until the ferrule(s) are locked in place.
9. The Hop Stopper™ is now ready to use.
10. To remove the Hop Stopper™, simply loosen the compression fitting cap with an adjustable wrench and disengage the threads, then pull the dip tube free. The compression cap will be held captive on the dip tube by the mechanically locked ferrule(s).
11. After the crimping process, reinstallation only requires about 1/4 to 1/2 turn past finger tight to get a seal on the fitting. This configuration can be removed and installed hundreds of times.

## Installation of the Hop Stopper™ for Use in a Converted Keg (Keggle)

There is a special configuration of the Hop Stopper™ for use in a converted keg as shown below.



In the photo, the grommet is located toward the center of the screen inside the hop cone. Since converted kegs have a domed bottom, it is necessary to position the dip tube so that the pick up point is in the center of the kettle to maximize draining.

Regardless of whether you are using your own dip tube or one that has been supplied with your Hop Stopper™, be sure to make whatever modifications are necessary to the dip tube to make sure the pick up point is located in the center of the kettle. If any trimming of the dip tube is necessary, make sure to debur any rough edges so the dip tube can be inserted into the outlet port without causing damage to O-rings or other sealing elements.

Follow the steps from the previous sections depending on whether you are using your own dip tube, a custom dip tube, or a dip tube and compression fitting.

## Using the Hop Stopper™

Once the Hop Stopper™ is installed, it is ready for use. Simply boil the wort as usual and the heat of boil will sanitize the Hop Stopper™. The dip tube on the Hop Stopper™ works on the “siphon” principle. Since the dip tube on the Hop Stopper™ extends lower than the outlet fitting on the kettle, it will be necessary to install a tube on the kettle outlet valve that extends below the bottom of the kettle to maintain the siphon. Without this tube, the kettle will not be able to drain wort below the level of the outlet valve.

When the boil is complete, it is not necessary, nor recommended, to whirlpool. The Hop Stopper™ is designed with a very large filtering area capable of filtering large amounts of hops. Since whirlpooling is typically employed to avoid trub in the runoff, the ability of the Hop Stopper™ to filter hops and other debris makes the whirlpool process completely unnecessary.

If the whirlpool is employed for other reasons in your process, it is likely that a pump will be used to recirculate wort and the return line will be directed tangentially inside the kettle to create the swirling effect. **In cases where a pump will be employed, it is recommended to keep the flow rate below 1 GPM.** The reason for this is to avoid compacting trub on the surface of the screen and potentially drawing a negative pressure inside the screen cavity. A pump makes it possible to flow wort through the screen faster than it can naturally flow which can pull negative pressure inside the screen cavity and potentially collapse it. Keeping the flow rate below 1 GPM will help keep this from happening.

When the kettle valve is first opened, it is normal for the wort to contain some debris for the first 10 seconds or so. This will dissipate and the wort should run clear fairly quickly. If you are using an immersion chiller, it is possible that the wort may appear cloudy. This is cold break, not hop material. Cold break will not harm your wort and is perfectly fine to drain into your fermenter. When the kettle is almost empty, you may notice that the wort will again pick up some debris much like at the beginning of draining. This is also normal. The kettle will run dry within about 10 - 20 seconds of this debris appearing.

### **Rinsing and Storing the Hop Stopper™**

It is not necessary to use cleaners on the Hop Stopper™ after every use. A thorough rinsing is all that is needed most of the time. Periodic cleaning with cleaners is described in the next section. Once the draining of the kettle is completed, just remove the dip tube from the outlet port with the screen intact. Turn the screen so that the grommet is facing downward and then pull the dip tube out of the grommet. This will keep any debris from accidentally falling into the grommet hole. The dip tube can be scrubbed and/or rinsed as needed.

It is typical, especially when using pellet hops, that some debris will find it's way into the screen. The debris can be removed easily by using a garden hose with your thumb partially over the end of the hose to create a high velocity spray of water. Simply hold the screen and tilt it accordingly, using the spray to direct any accumulated debris out of the grommet hole or through the mesh of the screen. This should only take a couple of minutes. It is not necessary nor recommended to remove the grommet.

Once thoroughly rinsed, the Hop Stopper™ needs to be dried before storing. Water can be trapped in the folds of the screen where it can mildew if stored wet. There are a couple of methods to dry the screen:

1. Put it into a 250 °F oven for 15 minutes.
2. Use a high velocity air source such as a blow gun from an air compressor to blow out the folds and crevices of the screen and the dip tube.

Once the Hop Stopper™ is dry, it can be stored installed in the kettle or separately. Just make sure that the area it is stored in is dry and free of mold.

### **Periodic Cleaning**

After a few uses, the Hop Stopper™ screen will become slightly discolored and may appear to look like rust. This is not rust. It is a normal result of wort that has caramelized on the wires of the screen. The screen can be used in this condition without worry of contamination. However, it is recommended that the screen be cleaned approximately every 10 - 15 batches of beer. **DO NOT USE CHLORINE BLEACH UNDER ANY CIRCUMSTANCES.** Bleach is extremely corrosive to virtually any metal and should be avoided at all costs. The recommended cleaner is Powdered Brewery Wash (PBW) which is made by Five Star Chemicals. As an alternate, Tri-Sodium Phosphate (TSP) or regular dish washer detergent can also be used. Observe all manufacturers warnings and instructions for each product.

Soak the Hop Stopper™ in the cleaning solution for a few hours and then scrub gently with a toothbrush or other small cleaning brush. A bottle brush can be used on the dip tube. Rinse and dry the screen thoroughly before storing.

## Frequently Asked Questions

1. What is the maximum amount of hops the Hop Stopper™ can handle?

This depends on the processes and the brewery in which it is being used. The Hop Stopper™ 2.0 was designed to offer filtering performance regardless of your processes, however, things like immersion chilling and recirculation create an added workload for the screen. In general, the Hop Stopper™ should be able to handle just about any reasonable hop load for kettles up to 30 gallons. For larger kettles or situations requiring an extra amount of filtering, the Hop Stopper™ 2.0 XL is available which is substantially larger than the standard Hop Stopper™ 2.0 (14.25” dia vs. 9.75” dia). The larger size provides more than double the surface filtering area.



If the Hop Stopper™ 2.0 XL is selected, note that even though your kettle may accommodate the overall diameter of 14.25”, be sure to take into account heating elements in your kettle that may make it difficult to maneuver the Hop Stopper™ 2.0 XL into place. In particular, the Blichmann 20 gallon kettle equipped with heating elements will not accept the Hop Stopper™ 2.0 XL even though the overall diameter of that kettle is nearly 18”.

I welcome any and all feedback on your experiences with the Hop Stopper™ 2.0 in the area of hop amounts used. Please contact me at [ihbinfo@ihomebrewsolutions.com](mailto:ihbinfo@ihomebrewsolutions.com) to tell us how far you have taken the Hop Stopper™.

2. Can I use the Hop Stopper™ in my mash tun?

The Hop Stopper™ was specifically designed for use in a boil kettle. It is possible that it could be used in a mash tun, but it is not recommended nor warranted for this use. The weight of the grain bed may collapse the screen or cause other problems. Use of the Hop Stopper™ in this manner is at the sole risk of the end user and will not be warranted for this use.

3. Should I ever take the grommet out of the screen?

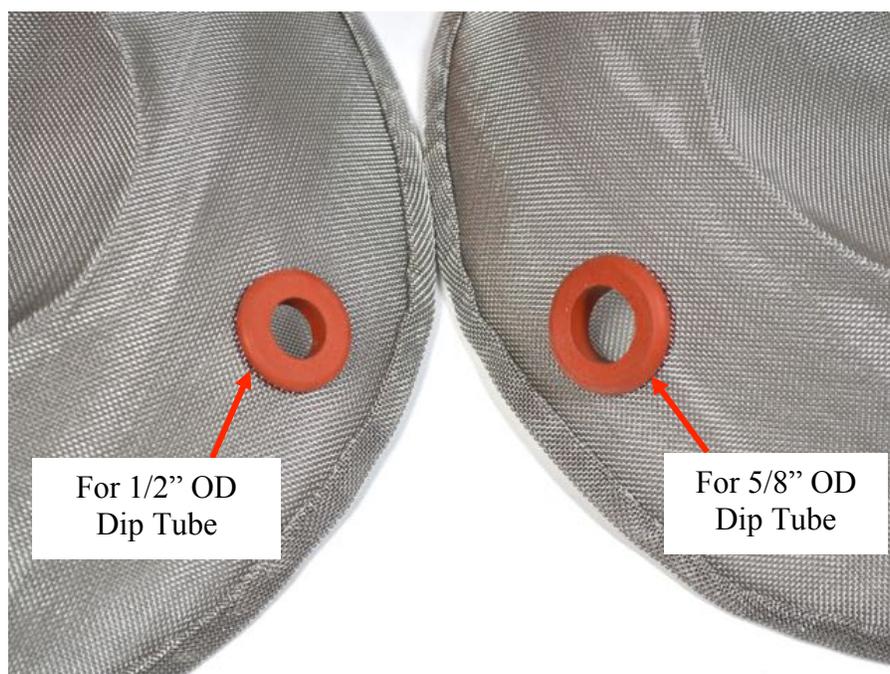
It is not recommended to remove the grommet from the screen. While it is possible, the jagged edges of the screen can damage the grommet during the removal and reinsertion process. Also, with the extremely sharp edges of the screen exposed, cuts or other injuries could occur. In short, there is really no reason to take the grommet out so resist the temptation.

4. There are little bits of hop debris in the folds of the screen, can I unfold the seam to get them out?

No. Under no circumstances should you ever unfold the screen. This is akin to trying to get toothpaste back into the tube. If any hop debris is bothersome to you, rely on chemical cleaners like PBW and the like to dissolve the debris or use a mechanical means like a stiff brush. In reality, the heat from the boil will take care of any potential contamination and small particles like those that might reside in the folds of the screen are inconsequential compared the mass of debris present in every batch of beer you brew.

5. I have a 5/8" diameter dip tube on my kettle, do you have a Hop Stopper™ that will work for me?

Yes! While the standard sized dip tube for most situations is 1/2" OD, the 5/8" OD dip tube is becoming more popular. While Innovative Homebrew Solutions cannot supply a 5/8" OD dip tube, a Hop Stopper™ that can accommodate a 5/8" OD dip tube that you already have can be supplied. This option can be specified during the order process.



## Trouble Shooting

1. The threads on the compression fitting don't fit my kettle, what gives?

The compression fitting comes in 1/2" NPT. You must have threads available on the interior of the kettle. If you have NPT male threads, these will be pretty obvious. If you see female threads on the interior but can't thread in the fitting, it might be because you only have a half coupling as your outlet port. A half coupling is only threaded from one end - the end on the exterior of your kettle. A half coupling in 1/2" NPT is only about 3/4" long. You need to have a full coupling

(about 1-1/2" long) or some other type of outlet port that provides the NPT threads on the kettle interior.

If you are positive that the threads are available, then the threads in your kettle are likely something other than 1/2" NPT. Regardless of what you have, contact Innovative Homebrew Solutions at [ihbinfo@ihomebrewsolutions.com](mailto:ihbinfo@ihomebrewsolutions.com) and we'll work with you on a solution.

2. The kettle drains to the level of the outlet valve and then stops.

One of two things is wrong. First, make sure you have a tube attached to the outlet of your kettle that extends down a few inches below the bottom of the kettle. The dip tube on the Hop Stopper™ works on the siphon principle, so unless the discharge of wort is below the level of wort in the kettle, it won't drain past the level of the outlet valve. Second, there might be a leak somewhere between where the dip tube is connected and the end of the discharge tube. Make sure all the connections are tight and make sure there are no leaks at the kettle outlet valve.

3. The screen clogged.

If recirculation is part of your boiling and chilling process, make sure that your flow rate is no more than 1 GPM. If this is still a problem, try reducing the flow even further. Avoid abrupt changes in flow rate to avoid shifting trub piles in the kettle - when opening/closing the outlet valve, do it slowly to gradually start/stop the flow. Also, kettle adjuncts like fruit, spices, or grains can put an added strain on the screen.

4. For additional discussions on troubleshooting, contact me at [ihbinfo@ihomebrewsolutions.com](mailto:ihbinfo@ihomebrewsolutions.com).

## Warranty

The warranty on the Hop Stopper™ is only valid from the original purchaser of the product from Innovative Homebrew Solutions or The Electric Brewery. If the workmanship is faulty on your Hop Stopper™, let me know right away so I can replace it and save you any inconvenience on brew day. If you use the Hop Stopper™ and it doesn't perform as advertised, I'll personally work with you to resolve your problem. If no solution is found within 1 year of purchase, we'll refund the purchase price of the product. No returns are honored after 1 year of original sale.