Beginner Bundle

User Guide

Before You Brew

Please make sure you read the entire guide for complete setup instructions and to reference throughout your Brew Day.

How-To Videos

From "out of the box" to "ready to brew!"

Spike Solo Panel

Spike Flow Brew Pump

What's Included

Solo System
(includes lid, clamps, gaskets & tubing)

Basket

Solo Panel

Pump

Flex
(includes lid, clamps, gaskets)

Bottling Wand
(includes tubing and barb fitting)

48 Bottles
(includes bottle caps and capper)

Recipe Kit - Includes:
• Crushed grains • Hops • Yeast
• 1 Whirlfloc tablet • 1 Campden tablet
• Recipe Instructions • Spike sticker

Brewery Wash & Sanitizer

Priming Sugar Tablets
(use 1 per beer bottle; you will have some left over)

Other Items You May Want

While we've completely taken the guesswork out of Brew Day, there are still a few items you may be able to find around the house that can assist.

- Heatproof gloves: For when quick connect fittings get hot
- A large cooking spoon or mash paddle for stirring
- Spray bottle: Add sanitizer to easily sanitize small parts later without making a mess or spraying the fittings on your Flex.
- 5–gallon bucket for soaking equipment.
- A beer to enjoy while you're brewing!

Please Note

- Never use distilled water for your Brew Day. This will affect the taste of your beer.
- Caution: Quick connect fittings may be hot during and after Brew Day.

Congrats on your new Spike Beginner Bundle!

Welcome to the club! Beer brewing is a great hobby that is enjoyed by many. Whether you like ales, lagers, stouts, or sours, this kit will help guide you through the process of creating your own.

In this guide we will walk through how to properly setup and use your new Beginner Bundle as it comes out of the box.

Assembly

Ready to start brewing? This guide will show you how to assemble your bundle with step-by-step instructions and key visuals.
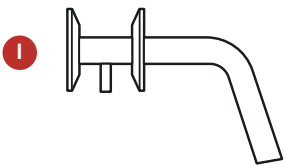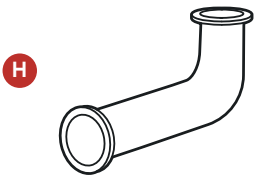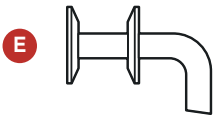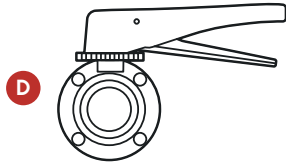
Solo

Pump

Hoses

Panel

Flex

Assembly –
Kettle

A

B

C

D

E

G

H

I

F
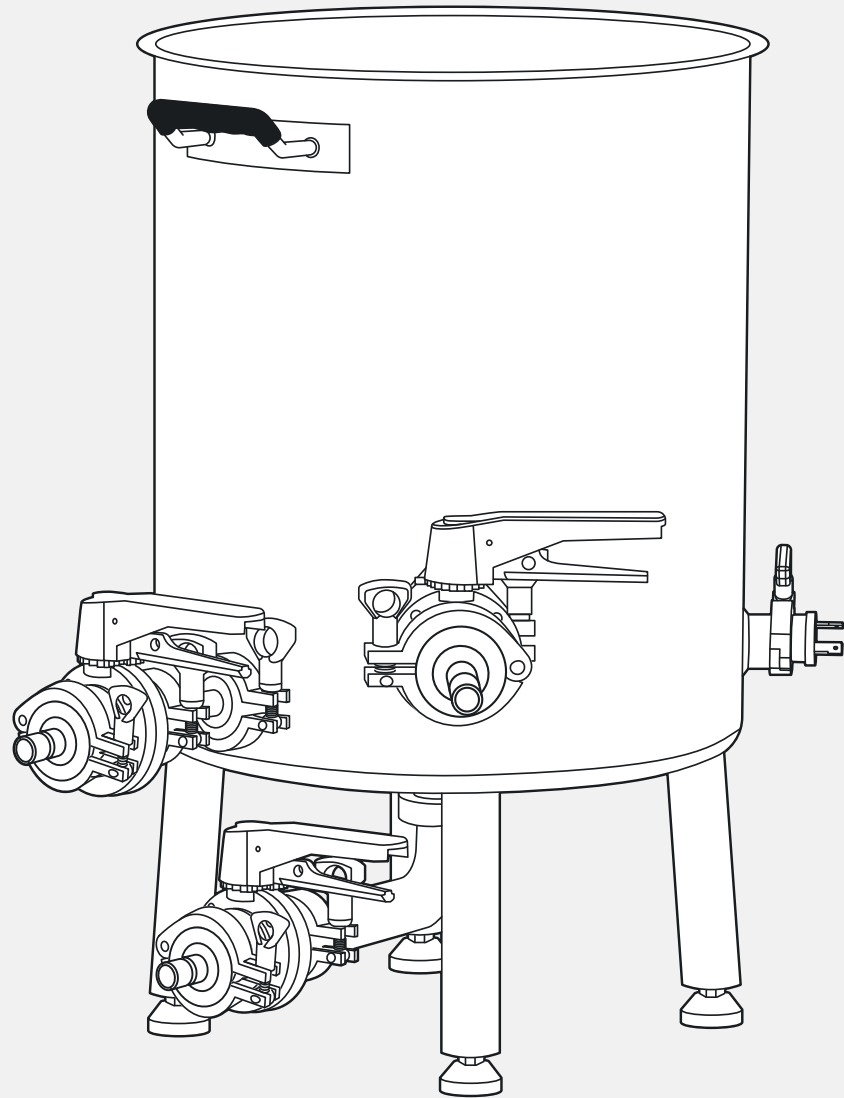
Assembly –
Kettle

ITEM	DESCRIPTION	QTY
A	1.5" TC X QC	3
B	1.5" TC Clamp	11
C	1.5" TC Gasket	11
D	1.5" TC Butterfly Valve	3
E	Spike+ Pickup Tube - Side	1
F	1.5" TC Element	1
G	1.5" TC Temp Sensor	1
H	Bottom Drain Piping	1
I	Boil Kettle Racking Arm	1

Temp Probe

Element

Whirlpool

Racking

Top View

Bottom

Assembly –
Kettle

Temp Probe

Element

Racking

Whirlpool

Temp Probe

Racking

Whirlpool

Element

Bottom
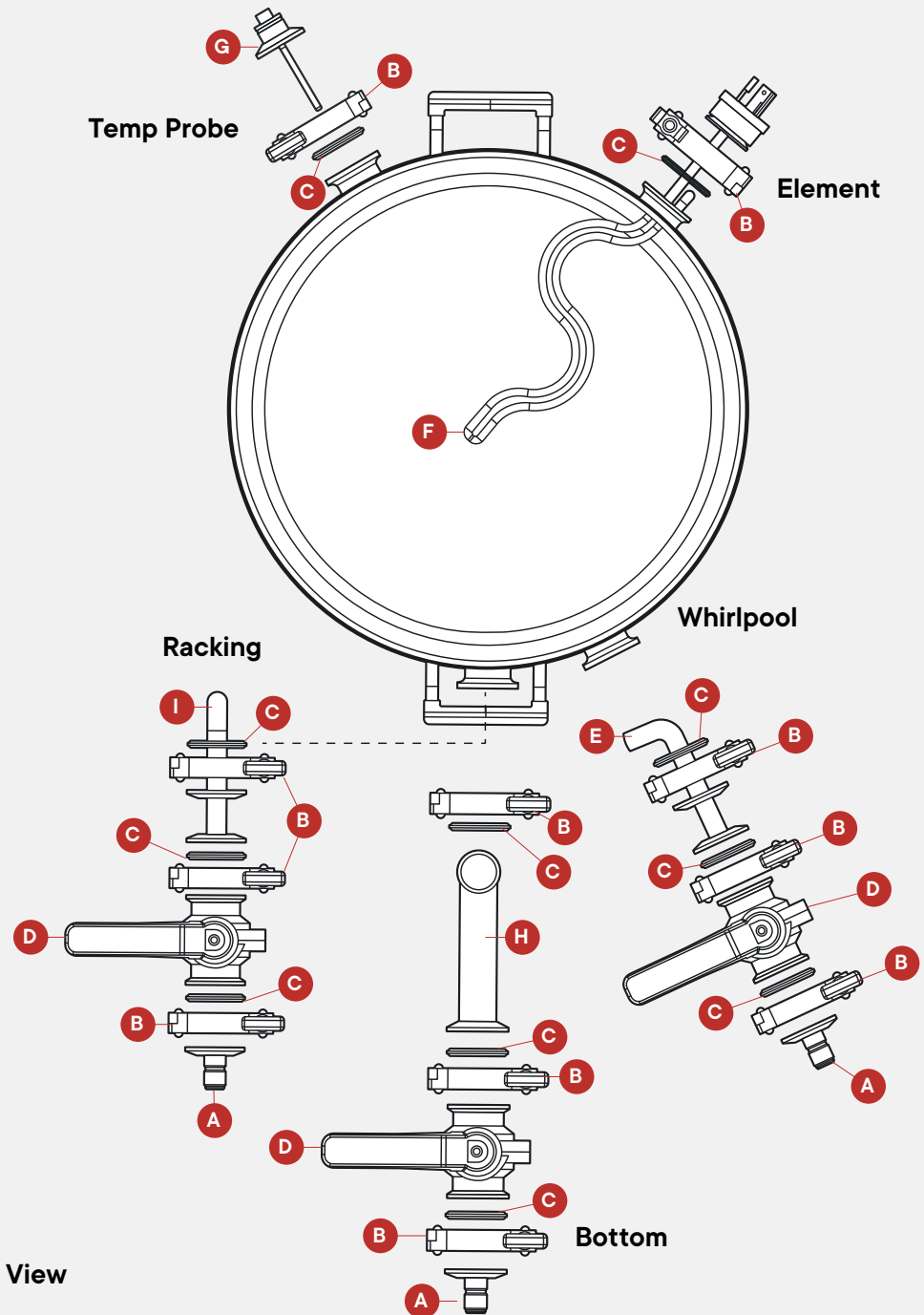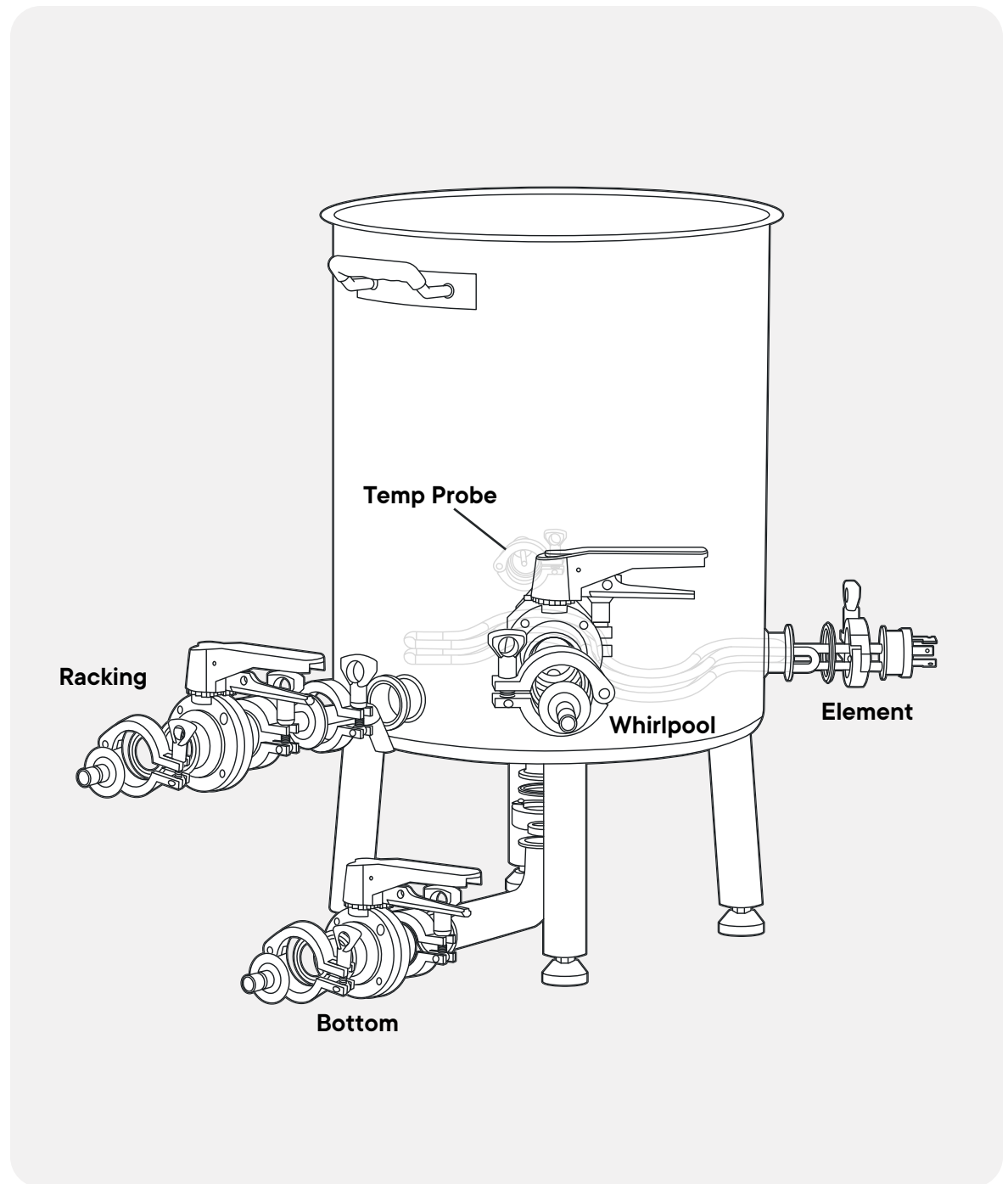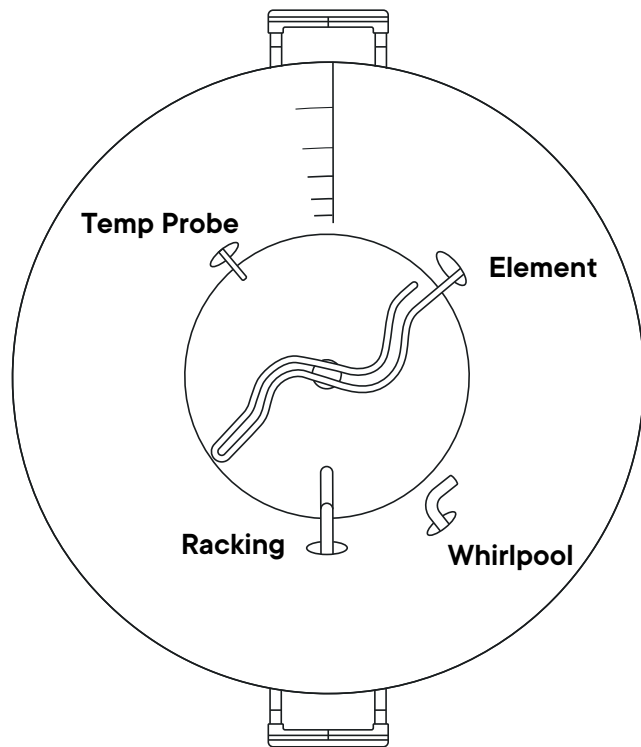
Assembly –
Basket

Use 2 feet of your silicone tubing to create a sparge arm from the top recirc port. The tubing will float on top of the grain bed allowing for an even recirculation.

A

B

C

D

E
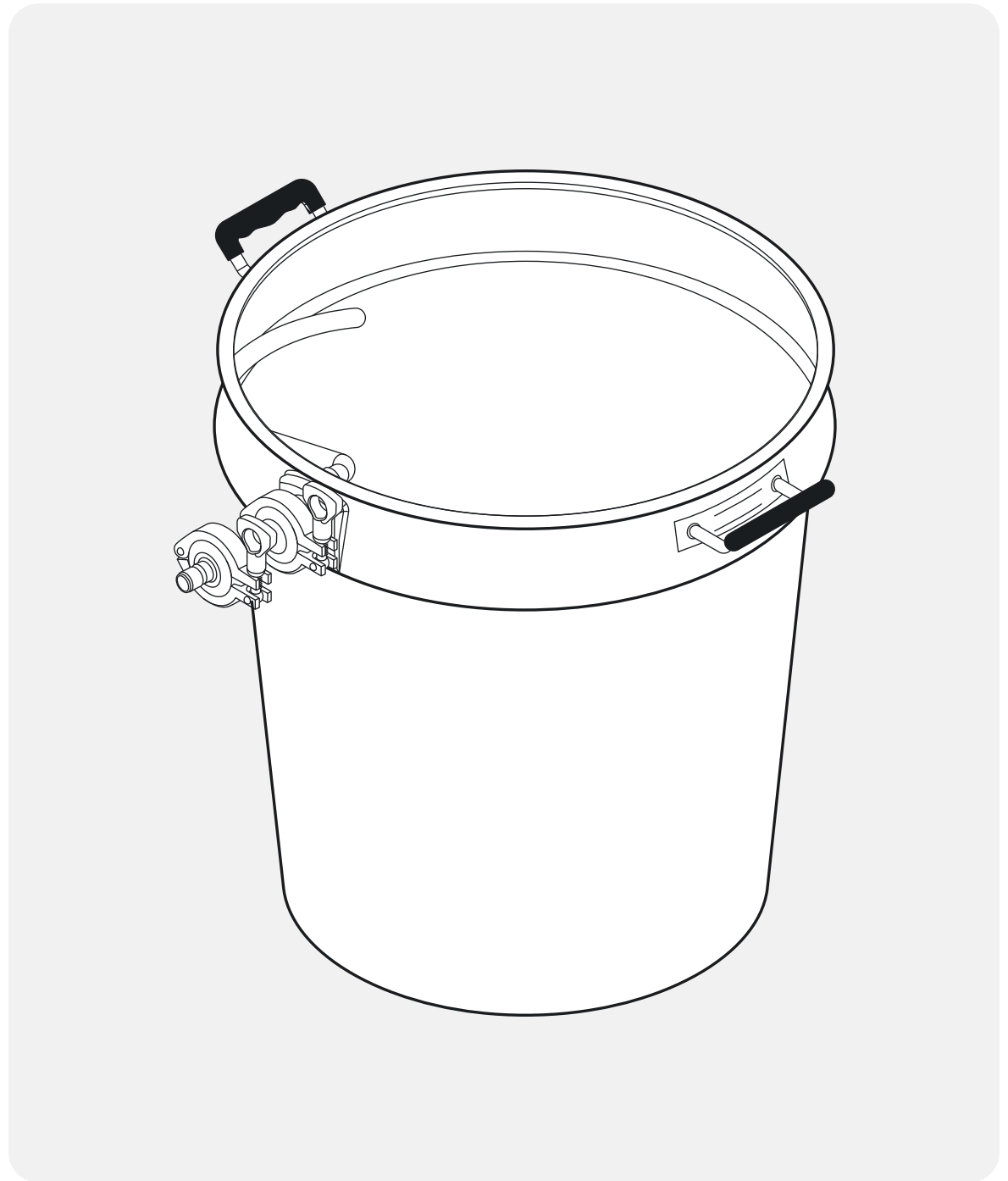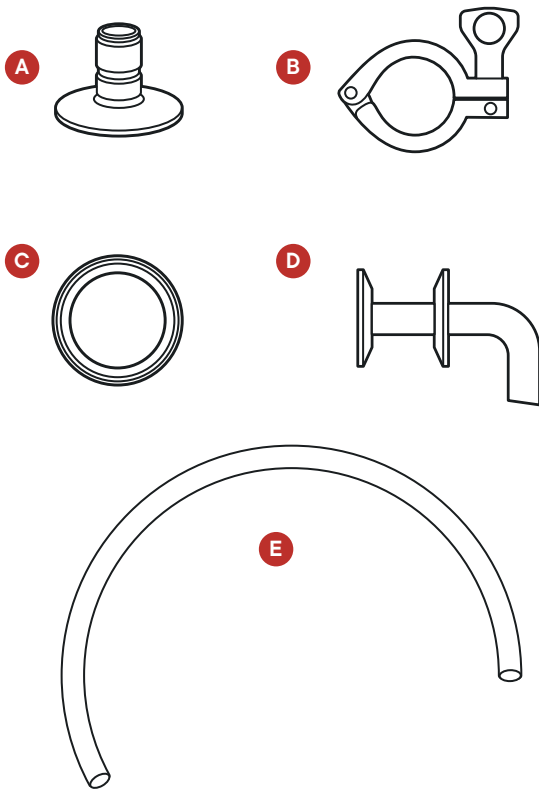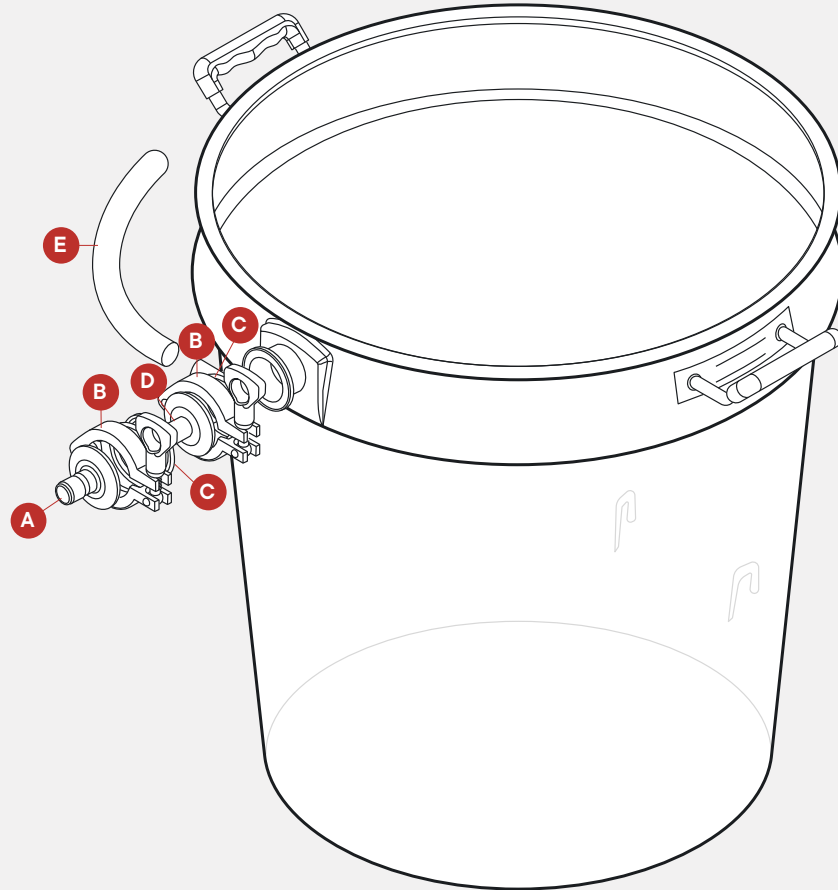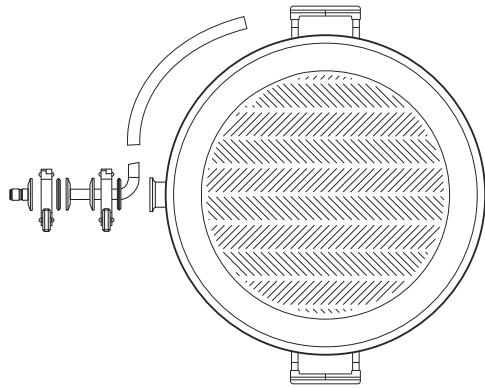
Assembly –
Basket

ITEM	DESCRIPTION	QTY
A	1.5" TC X QC	1
B	TC Clamp	2
C	TC Gasket	2
D	Spike+ Pickup Tube - Side	1
E	Mash Recirculation Hose	1

Assembly –
Kettle & Basket
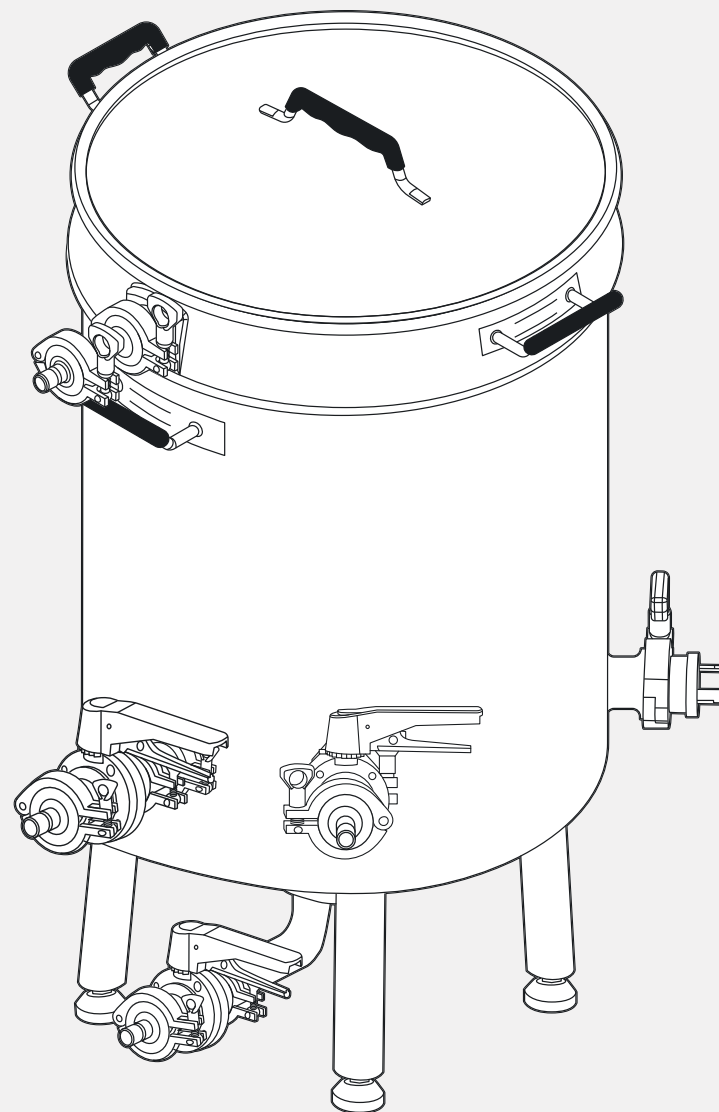
Assembly –
Kettle & Basket
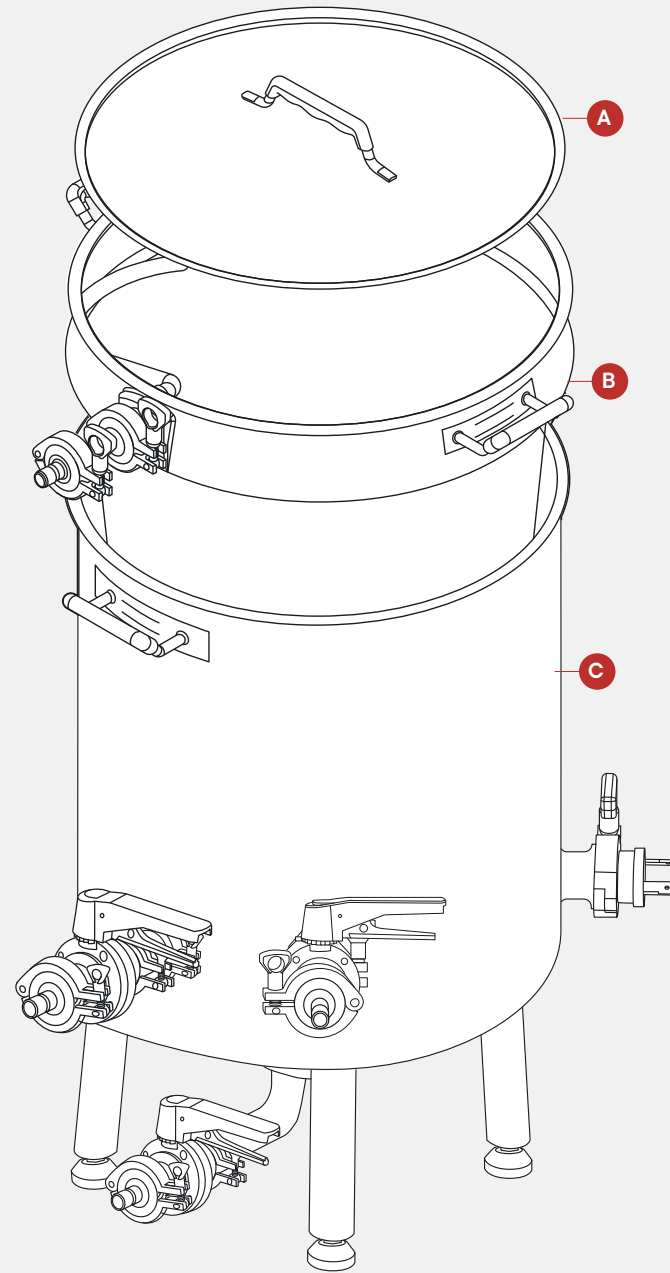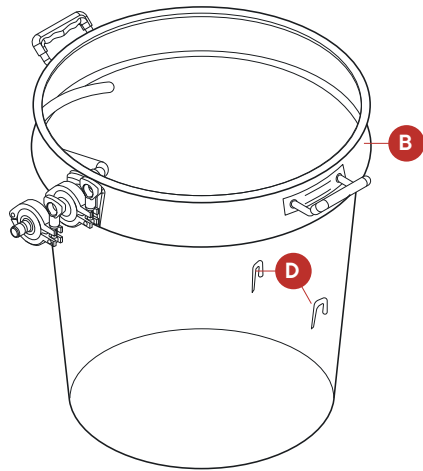
ITEM	DESCRIPTION	QTY
A	Lid	1
B	Basket	1
C	Kettle	1
D	Basket hooks	2

Assembly –
Pump

Assembly –
Pump

A

B

short side is down/vertical position

C

D

E

F
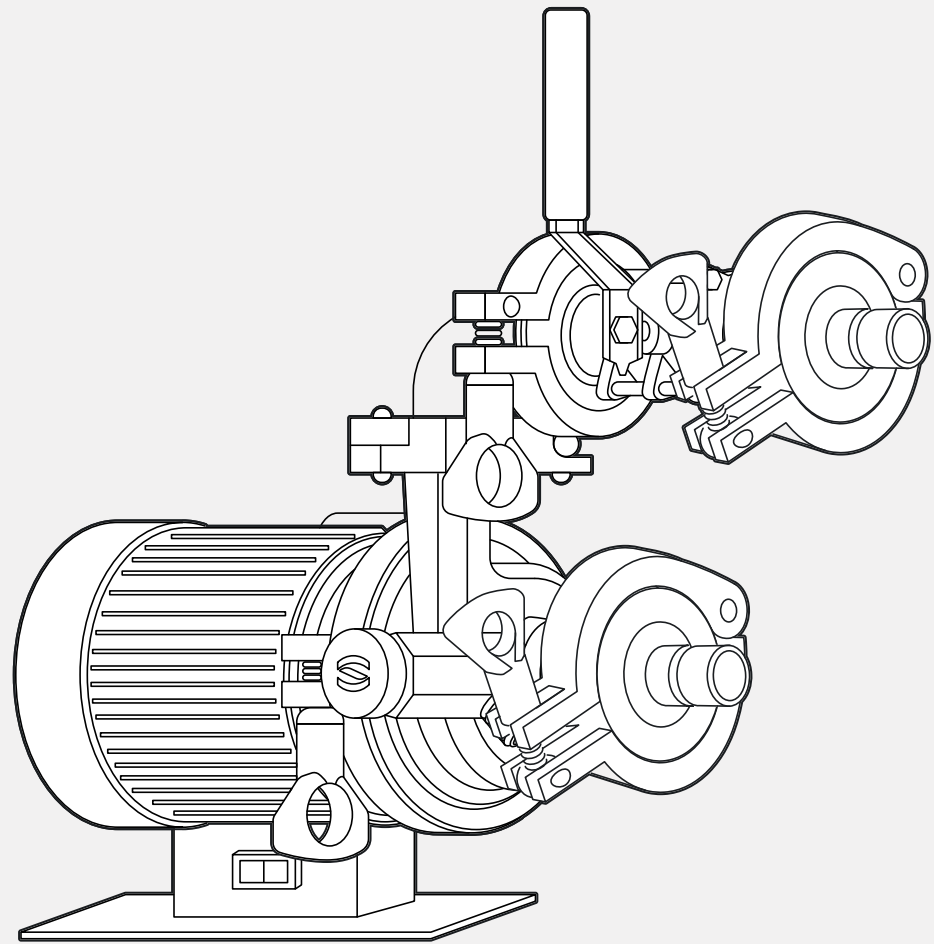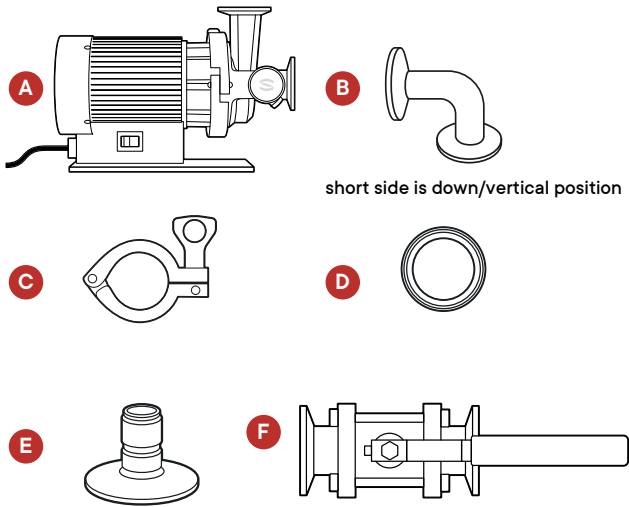
ITEM	DESCRIPTION	QTY
A	Spike Flow Pump	1
B	90 degree elbow	1
C	1.5" TC Clamp	4
D	1.5" TC Gasket	4
E	1.5" TC X QC	2
F	TC 3pc Valve	1
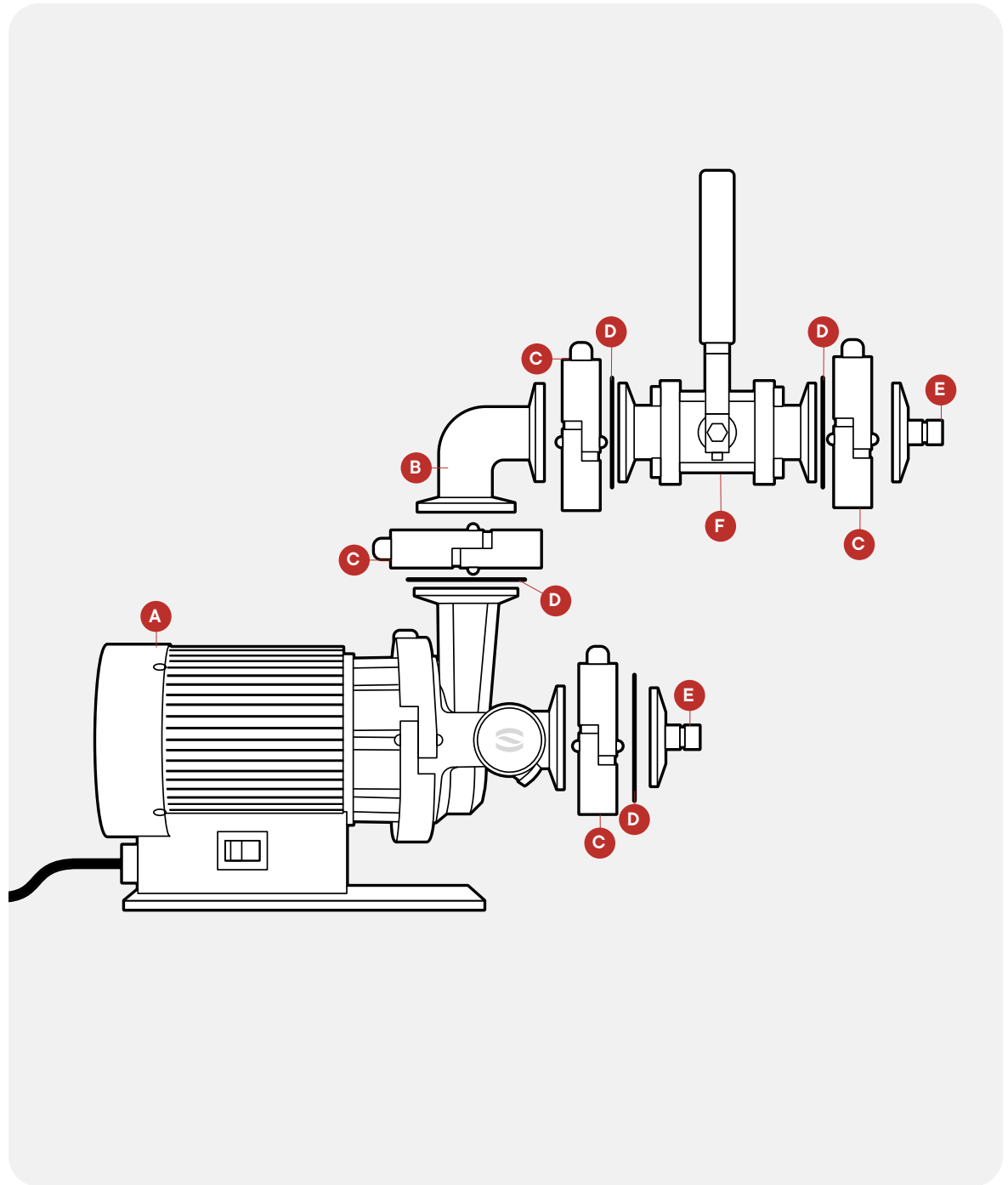
Assembly –
Hoses

We use oversized barbs, which creates a secure attachment without the need for sharp hose clamps. The quick connect fittings also use a full port design which doesn't restrict the flow through the fitting resulting in a quicker brew day.
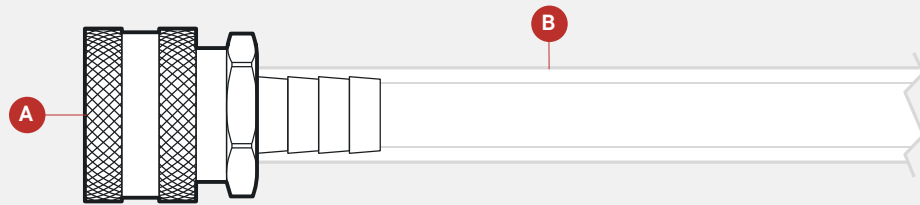
ITEM	DESCRIPTION	QTY
A	FQC x Barb	4
B	Hose - 4'	2

Assembly –
Panel

NOTE: This panel is designed to use the following receptacles -

120V: NEMA 5–15 3–prong on 15A breaker
240V: NEMA 14–30 4–prong on 30A breaker
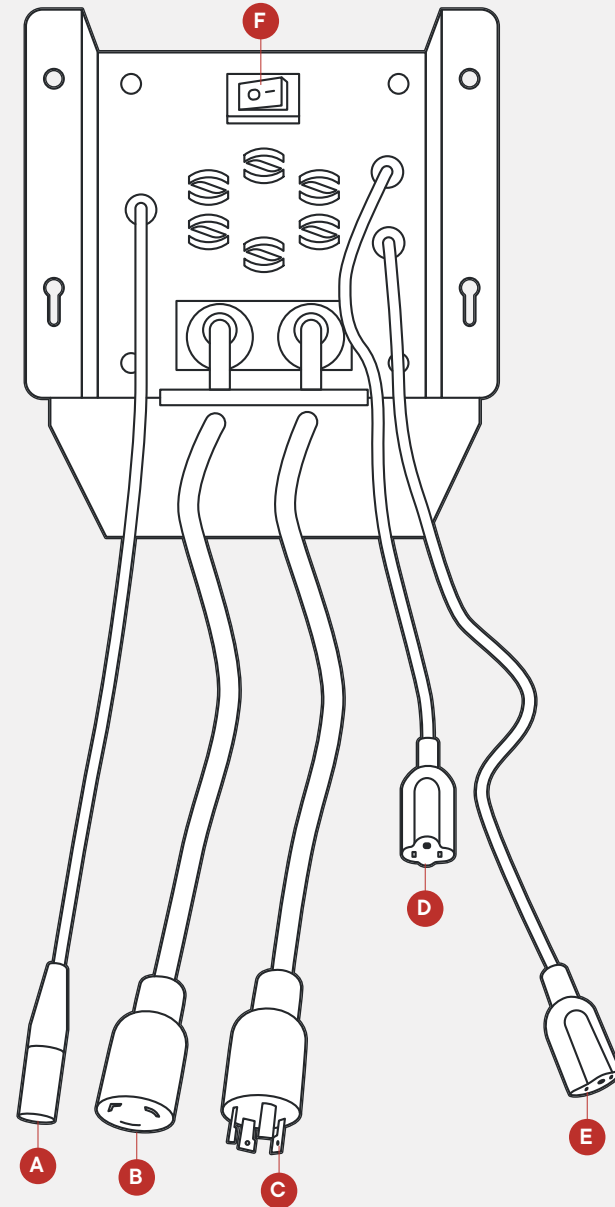
ITEM	DESCRIPTION
A	Temperature Probe Plug
B	Heating Element Plug
C	Power Plug
D	Pump Plug
E	Auxiliary Plug
F	Power Switch

Assembly –
FLEX Body
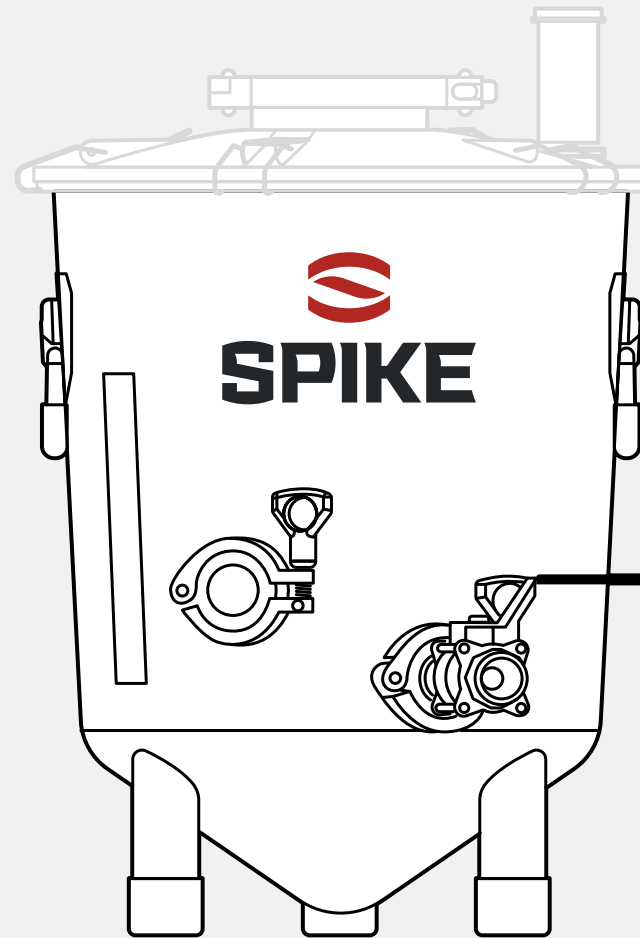
Assembly –
FLEX Body
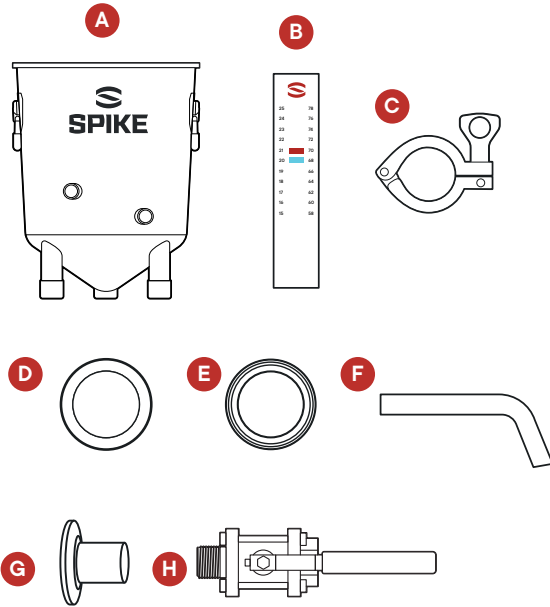
ITEM	DESCRIPTION	QTY
A	FLEX Body	1
B	Stick on Thermometer	1
C	1.5" TC Clamp	2
D	1.5" TC Cap	1
E	1.5" Gasket	2
F	Racking Arm	1
G	1.5" TC x 1/2 NPT Adapter	1
H	3pc Valve	1
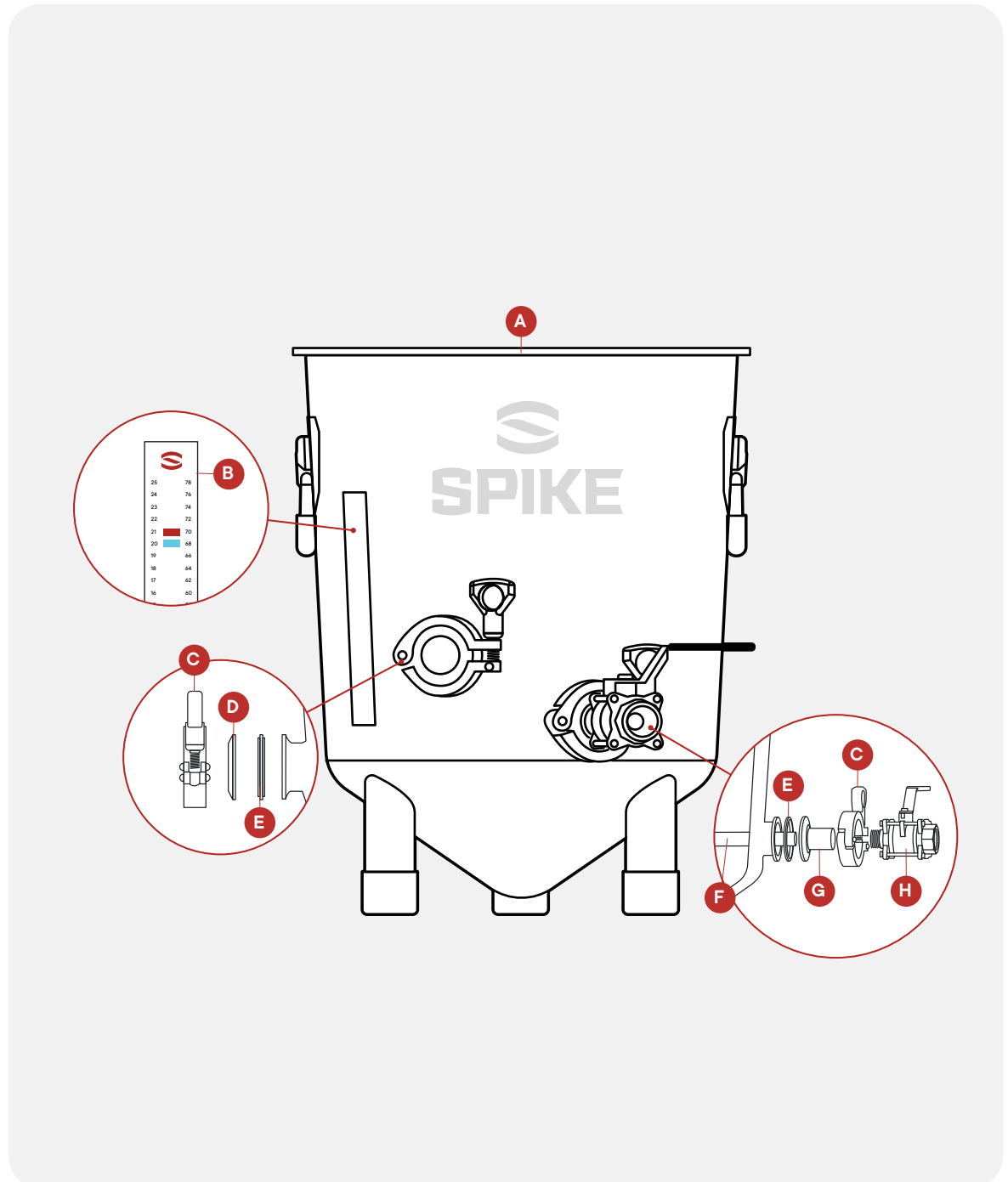
Assembly –
FLEX Lid
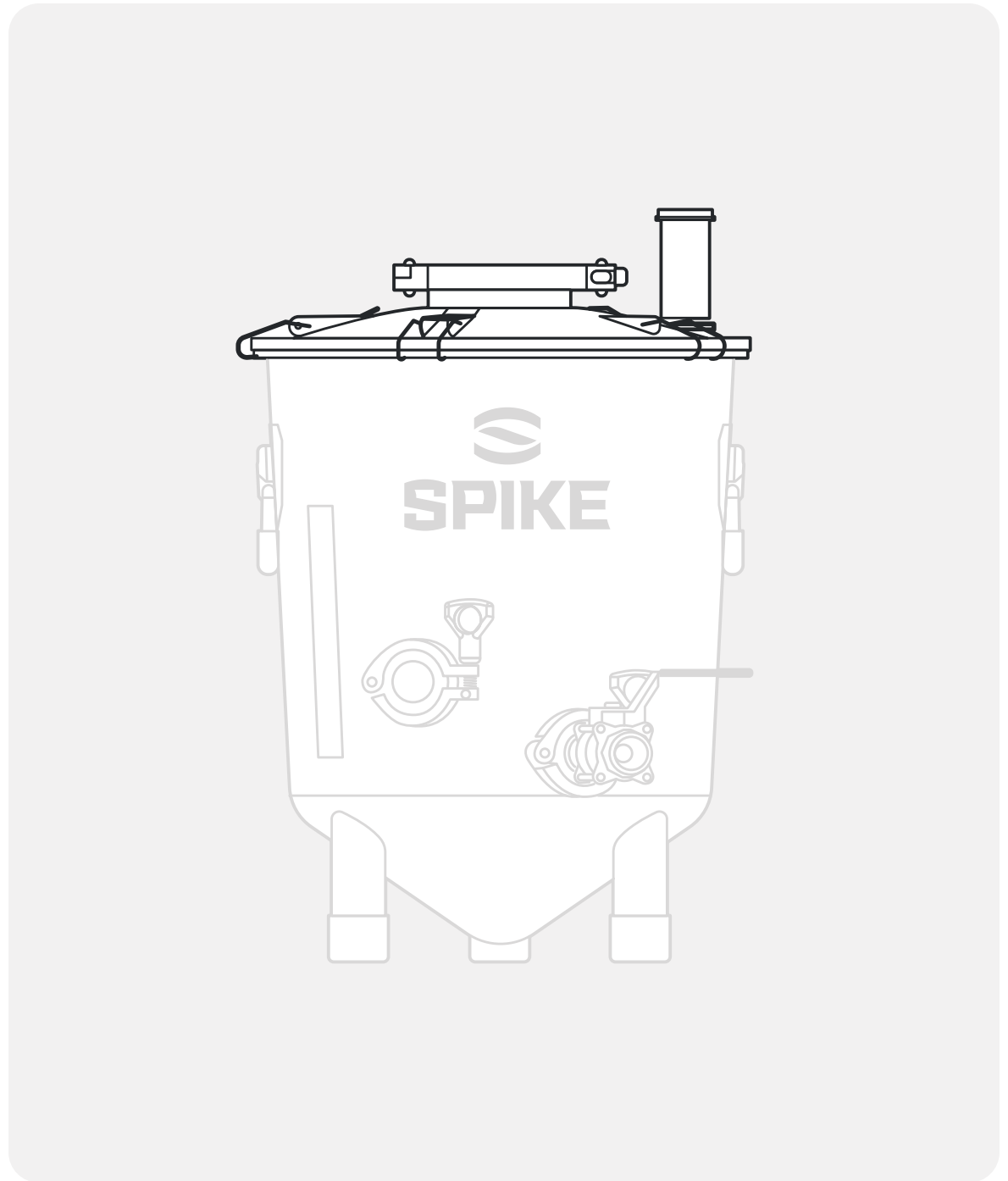
Assembly –
FLEX Lid

ITEM	DESCRIPTION	QTY
A	5 Clip Lid	1
B	Lid Gasket	1
C	4" TC Cap	1
D	4" TC Clamp	1
E	4" TC Gasket	1
F	Airlock	1
G	Airlock Bung	1
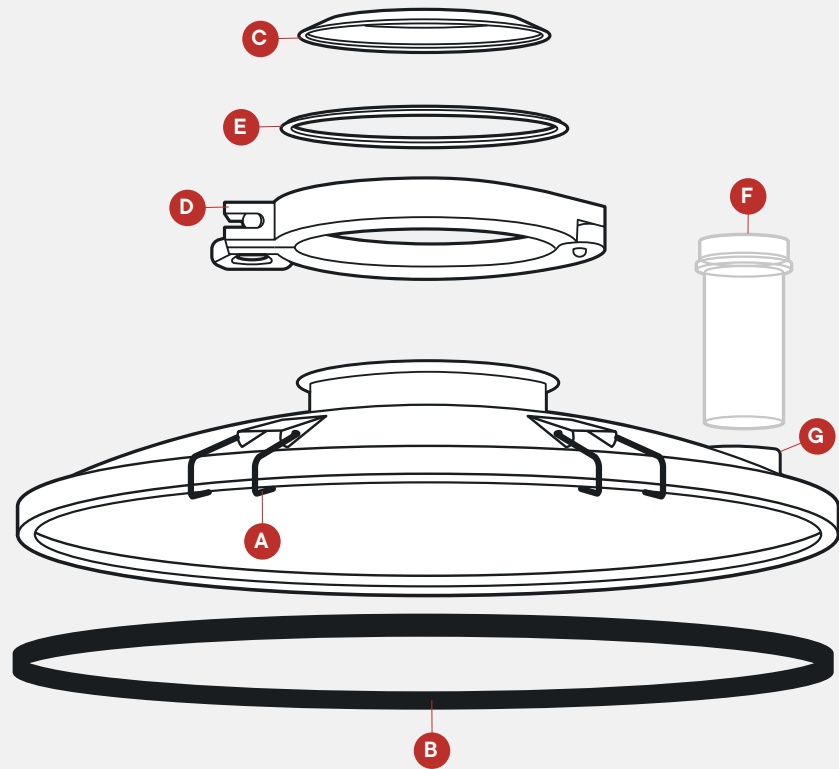
Assembly –
FLEX Lid

Gasket Installation

1. With the lid in front of you, take the gasket and push the gasket into the rim at the furthest side from you (12 o'clock). (see **Figure 1**)
2. Push the gasket into the rim directly in front of you (6 o'clock).
3. Push the gasket into the rim on the right side (3 o'clock), then the left side (9 o'clock).
4. Push the gasket in all the way around so it is fully seated.

Clamp Installation

1. Center the FLEX lid on the FLEX body. We recommend running your fingers around the FLEX to make sure it's sitting perfectly centered. (see **Figure 2**)
2. Clip all five lid clips to the Flex body to secure it in place.

Airlock Installation

1. Push white airlock grommet into the hole in the lid.
2. Insert airlock body into white grommet.
3. Fill with sanitizer to the fill line marked on the clear body.
4. Insert cup into airlock body.
5. Snap airlock lid on airlock body.

A. White grommet
B. Clear airlock body
C. Airlock cup
D. Cap

Figure 1
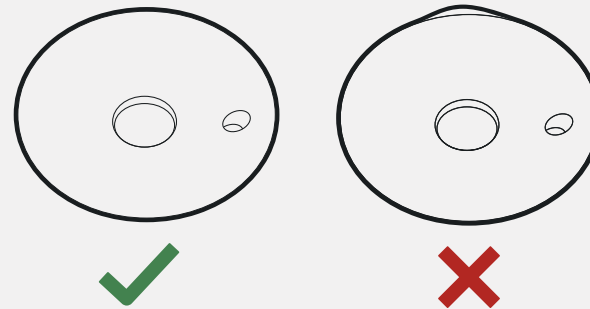
Figure 2
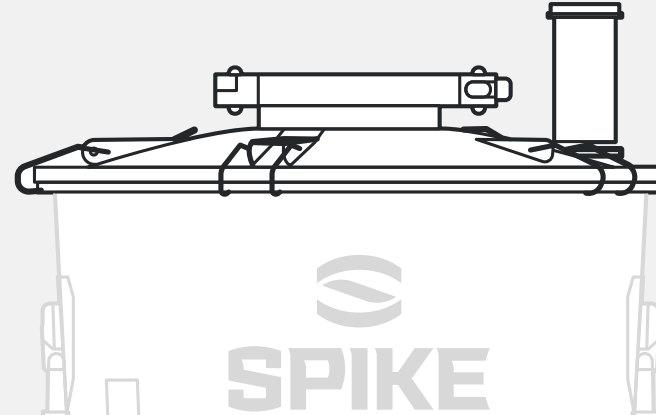
Figure 3
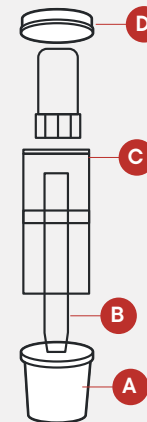
Brew Day Guide

Now that your Solo is fully assembled, it's time to get brewing.

Follow the steps in this user guide for a simple and easy Brew Day experience.

Using the Control Panel

Heat Strike Water

Mashing

Drain

Boil

Whirl Pool

Transfer

Cleaning

Using Your Solo Control Panel

A. **Element Switch** - turns on your heating element.

B. **Pump Switch** - turns on your brew pump.

C. **Aux Switch** - turns on whatever you connect to your auxiliary outlet.

D. **Temperature / Power Dial** - rotate the dial to adjust the temperature or power percentage. Be sure to push the dial to confirm the new set point. The number will be yellow while you adjust it. When it turns white, it is set.

E. **Heating Mode Dial** - change between Boil and Mash modes. For Mash Mode (typically used for mashing), set your temperature and the controller will heat up your batch to that temperature and maintain it. For boiling, use Boil Mode. When you're ready to start the Boil, press the button and set the percentage to 100% to get to a boil as fast as possible. After reaching a boil, you can lower the percentage to get a less aggressive boil (80–90%).

Off —— On
A Element

Off —— On
B Pump

Off —— On
C Aux

D

Mash
E
Boil

SPIKE
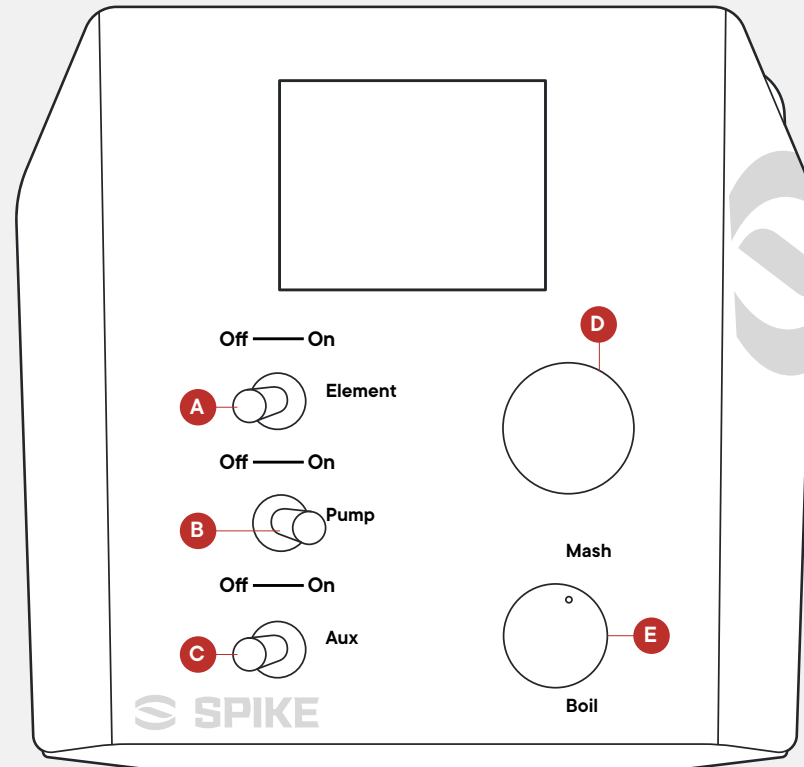
Setup –
Solo Panel

Getting Started

Your panel is ready to use out of the box! No need to autotune the panel.

1. Remove the panel from the box and place it in your desired location.

2. Attach your element cord to the element and control panel.

3. Connect your pump to the panel in the labeled outlet.

4. Connect your temperature sensor to your panel and to your temperature probe.

5. Lastly, plug the panel power cable into the wall and panel.

6. To power the panel, flip the switch underneath the front. The display will turn on and after a few seconds the home screen will appear.

PRO TIP:
• Make sure your temperature probe quick connections are clicked in all the way.
• The panel has an internal cooling fan, which creates a soft hum when turned on.
• Do not turn on your element unless it is submerged in liquid.

Controlling Your Mash

Ready to Mash in? The panel has 2 temperature control options, Mash and Boil. " Mash Mode" allows you to set a specific temperature, and the heating element will hold the liquid at that temperature.

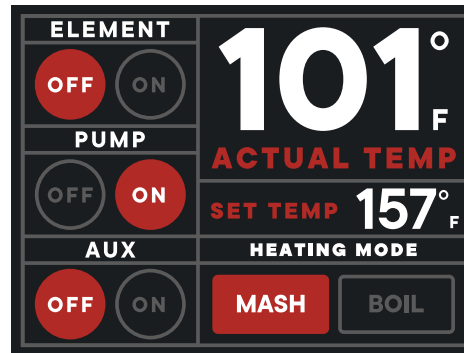1. Rotate the small knob in the lower right hand corner to MASH. The display screen on your panel will highlight "MASH" as shown in the Graphic.

2. Rotate the larger knob to adjust your "Set Temp". The value will blink yellow.

3. Once the temperature value you want is showing, push the knob down one time. The value will no longer blink yellow. This means the value is entered.

4. Turn your element to "ON" using the dedicated toggle switch. Your element will now heat to the set temperature.

PRO TIP:
• The controller can be set from 0–215F/0–105C
• Your element will not turn on in "Mash Mode" until your temp probe is plugged into the panel and reading the temperature properly.

Controlling Your Boil

Ready to boil? Be sure to change your setting to "Boil Mode" which will allow us to control heating output by percentage instead of actual temperature. The panel will fire the electric heater at the % duty cycle displayed, which allows your kettle to reach a rolling boil quicker than if it were set to temperature control mode.
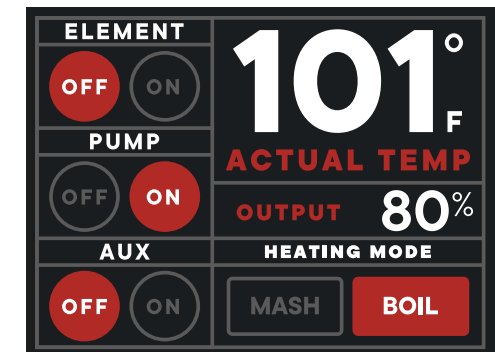

1. Rotate the small knob in the lower right hand corner to BOIL. The display screen on your panel will highlight "BOIL" as shown in the graphic.

Setup –
Solo Panel

1. To adjust the desired % output, rotate the large knob. The value will blink yellow.

2. When the % output is showing your desired % on your panel, push the knob down one time. The value will no longer blink yellow. This means the value is entered.

3. Turn your element to "ON" using the dedicated toggle switch. Your element will now heat to the set output.

> **PRO TIP:** The controller can be set between 0–100% output.

Changing the Temperature Display Units

The Solo panel can display temperature in Fahrenheit and Celsius.

DEVICE SETTINGS

UNIT	**F-degree**
TEMP OFFSET	0°F
ABOUT	
BACK TO HOME SCREEN	

1. Push down the large knob for 3 seconds. The "DEVICE SETTINGS" screen will appear.

2. Rotate the large knob to highlight the "UNIT" line.

3. Press the knob to move to the units you are looking for. You will see the screen display switch from "F-degree" to "C-degree" depending on what you choose.

4. Use the knob to highlight "BACK TO HOME SCREEN". Press the knob down to return to the main screen.

Adding a Temperature Offset

The Solo Panel can apply a temperature offset to the sensor value displayed on the main screen. This is used to accommodate differences sometimes found between the temperature sensor and the middle of the grain bed.

DEVICE SETTINGS

UNIT	F-degree
TEMP OFFSET	**5°F**
ABOUT	
BACK TO HOME SCREEN	

1. Push down and hold the large knob for 3 seconds. The "DEVICE SETTINGS" screen will appear.

2. Rotate the large knob to highlight the "TEMP OFFSET" line. Press the knob down once.

3. Rotate the knob to the desired offset value. The value will blink yellow.

4. Once your desired value is showing on your panel

screen, press the knob down one time. The value will no longer blink yellow. Your value is set.

5. Use the knob to highlight "BACK TO HOME SCREEN". Press the knob down. You will return to the main screen.

> **PRO TIP:** The panel can adjust your temp offset +/- 25 degrees

Using the Toggle Switches

There are three toggle switches in your panel – Heating Element, Pump, Aux. These switches act as simple controls to turn your plugged in devices on and off. The display screen will correspond and highlight to show which mode of ON/OFF you are in.

***NOTE: The Heating Element will not switch on and operate in MASH mode unless there is a proper temperature sensor plugged in reading the correct value. This is a safety precaution to make sure there is always an acceptable value within range for the temperature control algorithm to function properly.***

Brew Day –
Heat Strike Water

During this step you'll heat all the water needed (called strike water) to add your crushed grain which will make your mash.

Figure 1
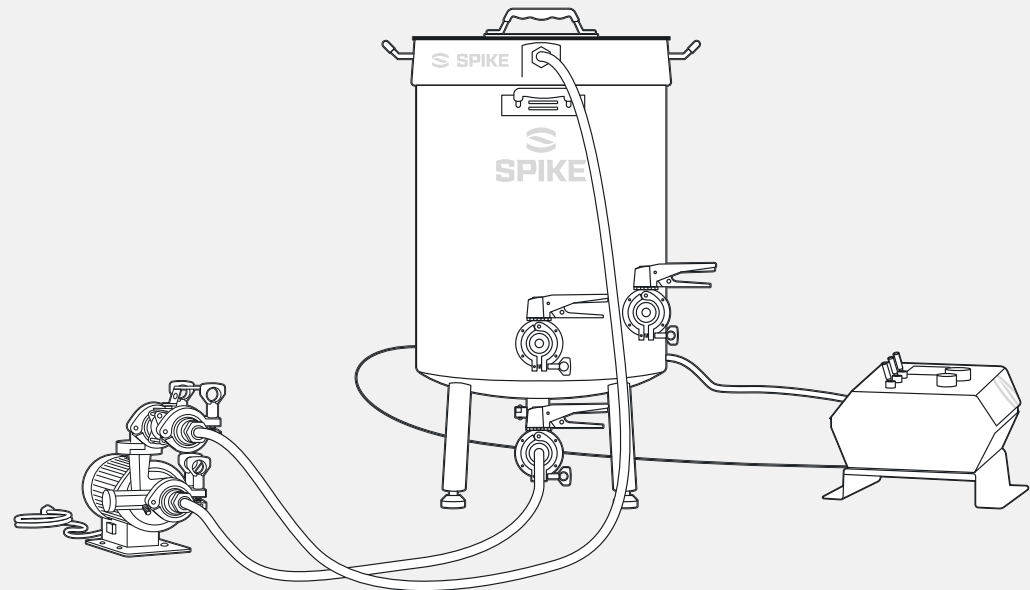
1. Fill your kettle with the entire volume of strike water as prescribed by your recipe. Use the etched volume markers inside the kettle.

2. After filling the kettle with the correct amount of strike water place the basket into the top of the kettle.

3. Connect one hose from the bottom drain valve to the inlet on the pump.

4. Connect the other hose from the pump outlet to the inlet port on the basket. (see **Figure 1**)

5. Open the kettle drain valve and the pump valve.

6. Set your controller to the desired mash temperature and turn the element on.

> **PRO TIP:** Set your controller roughly 3–5 degrees higher than your desired mash temps. Since the grain is colder than mash temps it will lower the temperature inside the kettle/basket once the grain is poured in.

7. Turn the pump on and let the kettle heat up until it reaches the desired temp. Put the lid on to help retain heat and speed up heat up times. The constant recirculation from the pump will make sure the temps are consistent throughout the entire kettle and basket.

> **PRO TIP:** When priming your pump make sure the pump outlet valve and kettle valves are open so liquid can flow through the pump which will push any air out of pump head. If the pump head has air inside it will not work properly.

Brew Day –
Mashing

During this step the crushed grain will be added to the hot water creating a mash. This hot water converts the starches in the grain into sugars. Eventually these sugars will be 'eaten' by the yeast and alcohol will be created.

1. Ensure your hoses are properly set up (see **Figure 2**).

2. Turn the pump off, element off and remove the lid. The lid can conveniently hang on the back kettle handle.

3. Slowly start pouring your crushed grain into the basket. Either have a brew partner stir while you pour the grain in or pour a little at a time and stir in between pours. This stirring will make sure all the grain gets into contact with the strike water and no dough balls are created.

> **PRO TIP:** We recommend letting the grain rest for 5–10 minutes to fully hydrate before turning the pump and element on. This will reduce grain pass through and reduce the change of a stuck mash.

4. Set your controller to your desired mash temps and turn the element on.

Figure 2
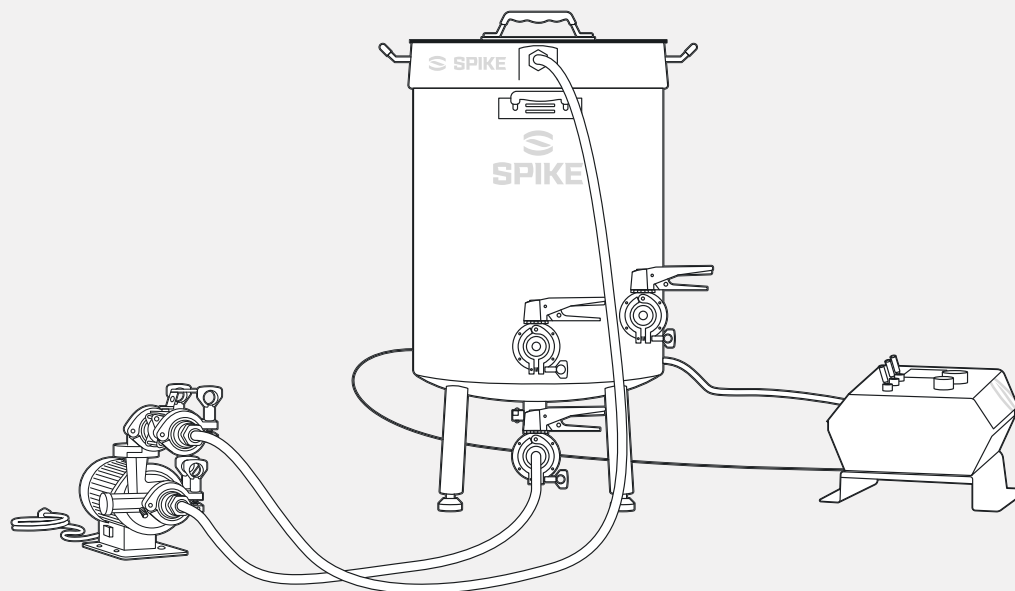
5. Turn your pump on and slowly open the ball valve on your pump. Restrict the flow to about ¼ of full flow.

> **PRO TIP:** Always use the ball valve on the pump to restrict the flow. This valve will control the flow most accurately. Never restrict the flow to the pump as it will starve the pump of liquid and can cause premature wear.

> **PRO TIP:** We recommend a constant recirculation during the entire mash as it helps maintain the most consistent temperatures, as well as helps raise brewing efficiency.

> **PRO TIP:** The volume in the basket should stay at roughly the same height throughout the mash. If the volume starts to increase, there is most likely a stuck mash meaning the filter at the bottom of the basket is clogged with grain. If the liquid level increases, simply turn off the pump, stir the mash for a minute and then turn the pump back on. This should unclog the filter!

> **PRO TIP:** Turn the pump off the last 5 mins to let all liquid start draining out of the basket.

Brew Day –
Drain

Now it's time to separate the grain from the sugar water that was created (wort). The spent grain can be used for baking, dog treats, fertilizer, etc while the wort will be boiled.

Figure 3
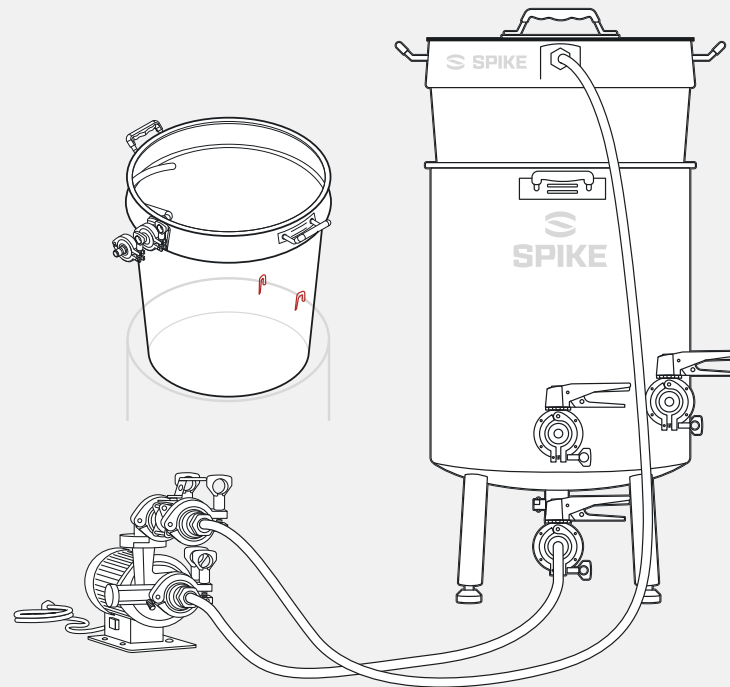
1. Turn the element and pump off.

2. Lift the basket out of the kettle and carefully rest the basket on top of your kettle with both hooks secured over the top lip of the kettle. (see **Figure 3**)

CAUTION: We recommend having two people lift the basket and placing on the kettle for safety reasons.

PRO TIP: With the basket raised out of the wort and hanging from the basket hooks the pump can be turned back on at about ¼ flow. This is called a 'vorlauf' and will help with wort clarity. The grain acts as a filter and recirculating the wort in the kettle back through the grain will allow the clear liquid to flow through while the solids are trapped in the grain bed. We recommend doing a vorlauf for 10 minutes.

3. Let the basket hang on the kettle until it stops dripping wort. This should take 5–10 minutes. However while the basket is draining you can proceed to Step 4 and turn on the element.

Brew Day –
Boiling

Follow these steps to keep things rolling during the boiling step. We will boil the wort we just created, which helps evaporate off flavors and concentrate the wort.

1. Close all the valves.

2. Disconnect the hose from the basket inlet valve and attach it to the whirlpool (upper) port on the kettle. Disconnect the hose from the bottom drain valve and attach it to the racking (lower) port on the kettle. (see **Figure 4**)

3. Set your controller to Boil Mode, set the output to 100% and turn on the element. (see **page 22 section: controlling you Boil**)

> **PRO TIP:** The controller will be changed from 'mash' mode to 'boil' mode during this step. In mash mode the controller will precisely control the temperature which is beneficial during the mash step. However during the boil step we're more interested in getting a good rolling boil. The controller in boil mode will let you precisely adjust the output to get a good rolling boil.

4. After the basket is done dripping remove it from the kettle.

5. Allow the element to bring the wort to a boil. Once at boil the controller can be dialed back so a steady rolling boil is achieved.

Figure 4
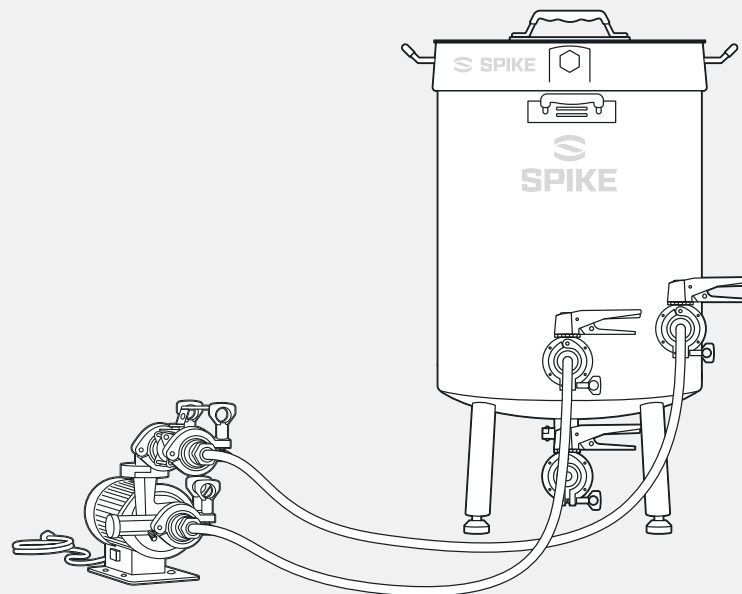
> **PRO TIP:** When wort is about to reach boiling an issue called 'hot break' can occur. The wort can begin to rise and boil over the top of the kettle. This is very similar to boiling pasta. If this starts to happen simply turn the element off and stir the wort. You may need to repeat this a few times but it should subside once your 5 minutes into the boil.

6. Add your hops as needed and boil for the recommended time the recipe calls for.

Brew Day –
Whirlpool

Let's take that wort out for a spin. During this step the wort will be run into the pump and back into the kettle at an angle. This will create a "whirlpool" inside the kettle, causing the sediment like grain, hops and proteins to collect at the bottom center of the kettle. This step allows for a clear wort transfer into your fermenter.

1. Turn off the element.

2. Open the racking valve on the kettle, the valve on the pump and the whirlpool valve on the kettle

3. Turn the pump on.

4. We recommend whirlpooling for 10–15 minutes.

5. Turn the pump off and close all the valves.

6. Allow the kettle to sit for 5 minutes after turning the pump off, so the whirlpool can finish dropping all sediment.

Figure 5
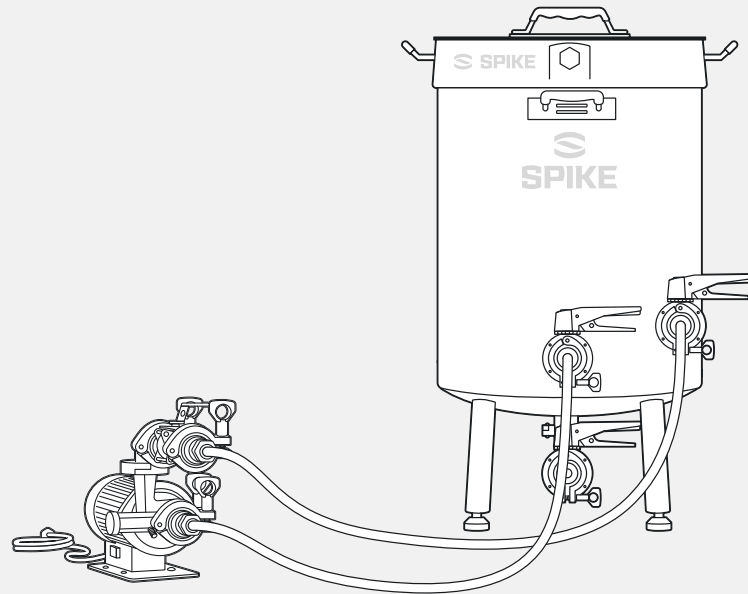
Brew Day –
Transfer

During this step the wort is transferred to the Flex fermenter. The wort will be hot and you will want to wait until it cools down to a temperature where yeast can be added without causing it harm. Typically 70F is a good yeast pitching temp.

Figure 6

1. Make sure your Flex fermenter is sanitized. This can be done by mixing up some sanitizer solution and pouring it into your Flex. Swish the solution around to cover all of the inside surfaces.

2. Open the racking valve on the kettle and the valve on the pump so it is about halfway open. When chilling you'll want the flow rate to be very slow.

3. Turn the pump on.

4. Once the kettle has been completely drained into your fermenter close all the valves. You will see the sanitizer in the airlock bubbling as the air inside the Flex is pushed out by the hot wort.
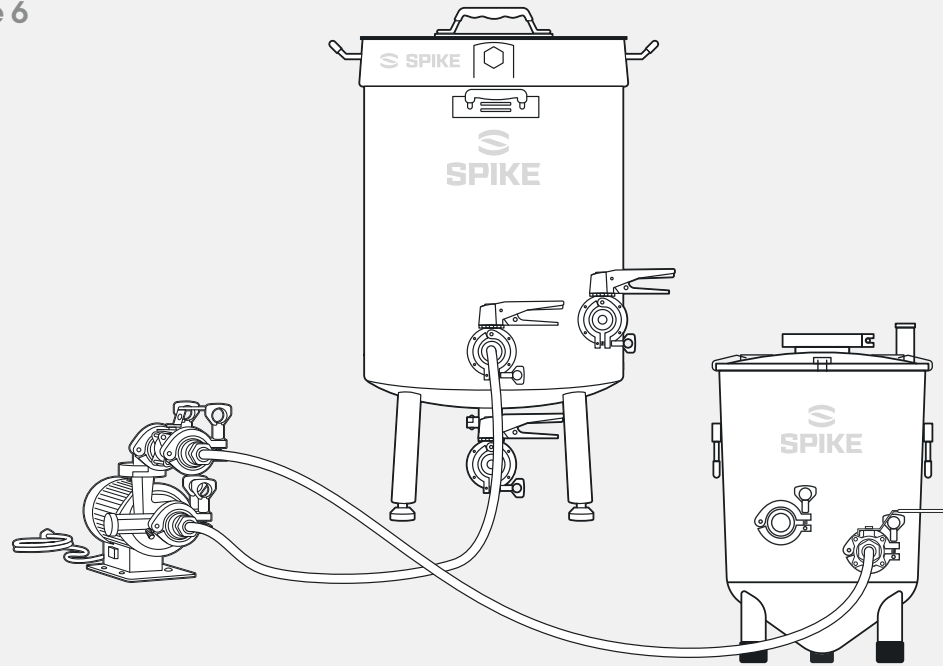
Brew Day –
Cleaning

Follow these steps to speed through the cleanup process and keep your equipment running smoothly for your next Brew Day.

Kettle

1. Dump remaining trub and hop material out of your kettle.

2. Rinse the kettle out to remove large particulates.

3. Fill your kettle about 1/4 full with hot water and add your brewery wash.

4. Connect the tubing (see **Figure 7**) and open the valves.

5. Turn the pump on and allow to run for about 5 minutes while you scrub the inside of the kettle clean. This will clean the tubing, pump and hardware internals.

6. Connect the hose currently connected to your racking port to the bottom drain port. (see **Figure 8**) Turn on the pump for 5 minutes to clean the bottom drain then turn off the pump. Be sure to restrict the outlet of the pump enough to prevent a whirlpool from forming. A whirlpool with a small amount of liquid could create a vortex in the bottom drain that allows air to get into the pump and cause it to malfunction.

PRO TIP: Open and closing the valves a few times will help clean them more throughly.


Figure 7
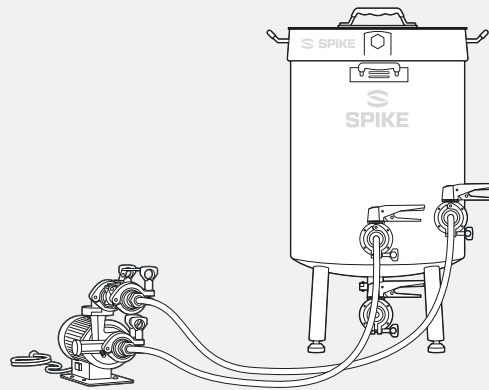
PRO TIP: Run some of the brewery wash through the baskets inlet to help clean the hardware internals.

7. Once the kettle and hardware are clean, attach a hose from the pump outlet to the wort chiller outlet, and drain the kettle. This will backflush the chiller and clean it for your next brew day.

8. Repeat the above steps with clean water to rinse the cleaner.

PRO TIP: You can add Star San with your rinse water to rinse and sanitize at the same time.

Figure 8
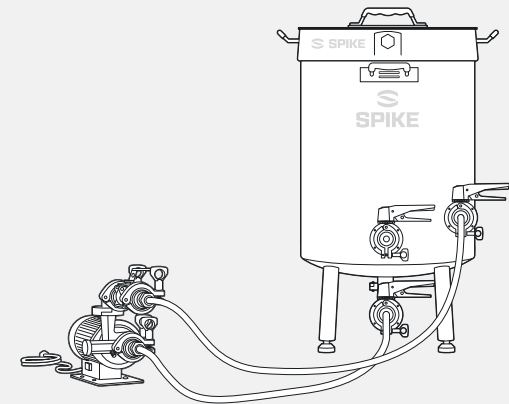
Basket

1. Scoop or dump grain out of the basket.

2. Rinse the basket off.

3. Scrub the basket clean with brewery wash or dish soap.

4. Rinse the cleaner off the basket.

Fermentation Guide

First Cleaning and Sanitizing

How to Fill & Pitch Yeast

Monitor activity and gravity

Racking

**Post Bottle Fill Cleaning**

Now that your FLEX Fermenter is fully assembled, it's time to fill it up with beer!

Follow the steps in this user guide for a simple and easy fermentation experience

Fermentation –
First Cleaning & Sanitizing

1. We recommend cleaning all your parts with hot water and dish soap to break down any manufacturing residue.

2. On brew day, sanitize your equipment according to your sanitizer's directions. Once your stainless is sanitized, we need to avoid any bacteria from getting in contact with our beer!
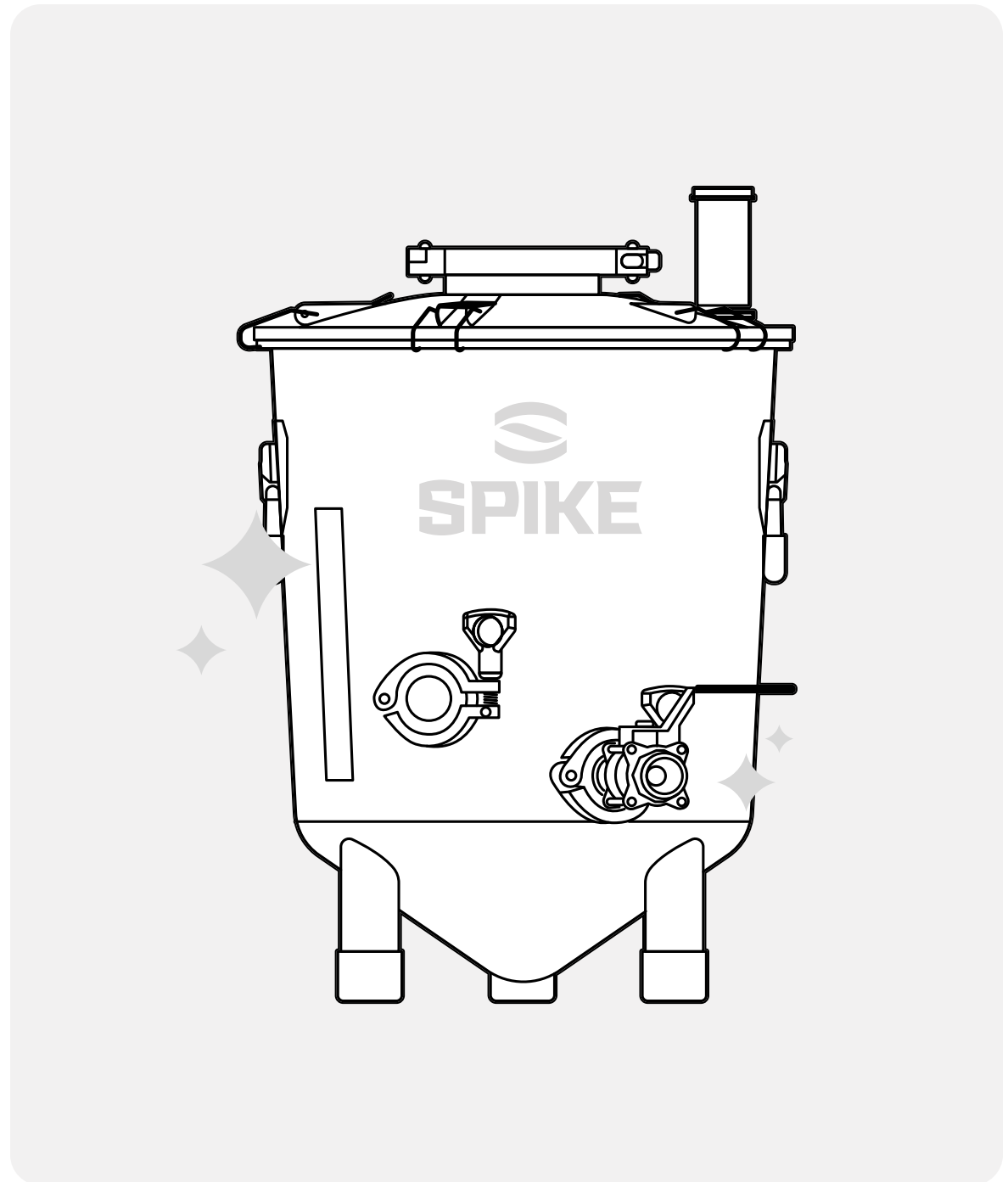
Fermentation –
Filling Your FLEX and Pitching Yeast

The simplest way to fill the fermenter is to pump it directly from your Solo.

1. Attach tubing from your Solo racking arm outlet and into the valve on the bottom of your Flex. (see **Figure 5**)

2. Open the valve on your pump to about halfway and turn on your pump.

3. As you near the end of the transfer, watch the bottom of the Solo for when the liquid is mostly gone and it's just leftover grain (trub) left. temperature range for your yeast. (see **Figure 6**)

> **PRO TIP:** You want to leave as much of the leftover grain (trub) in the bottom of the Solo as possible. This will make sure you get clear beer!

4. Add your yeast through the 4" port once the temp of your wort is between the recommended temperature range for your yeast (see Recipe Instruction card).
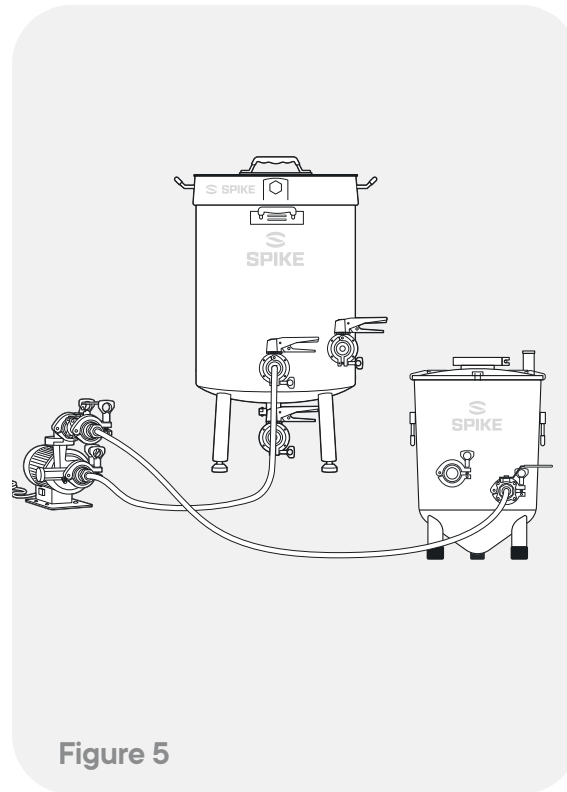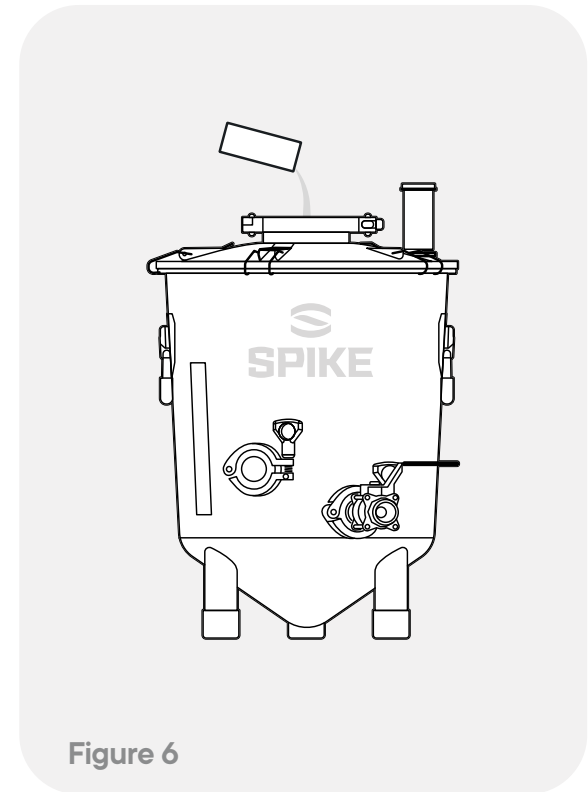

Figure 5

Figure 6

Fermentation –
Bottling

1. When transferring, remove the airlock from the fermenter lid. This will help the beer drain better into the bottles.

2. Take 2–3 feet of the remaining silicone tubing, and install a female quick connect barb fitting on one end, and then slip the silicone tubing over the end of the bottle wand on the other end. No clamps needed! This can be easily connected to the end of your fermenter valve when you are ready to bottle.

3. Attach your bottle wand to the valve on the Flex. Open up the valve. Some beer will flow into the wand but won't come out until you push the tip down into the bottle.

4. Make up a bucket of sanitizer solution and dip your bottles and caps into the sanitizer.

5. Put one carb drop in each bottle post-sanitizing and before filling.

6. Put your wand in the bottle first, then push the wand into the base of the bottle to start the flow of beer.
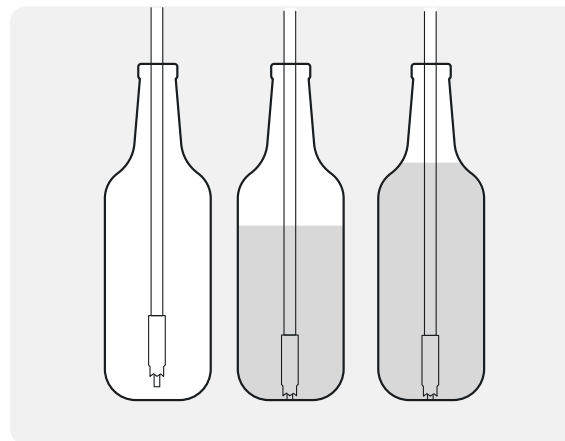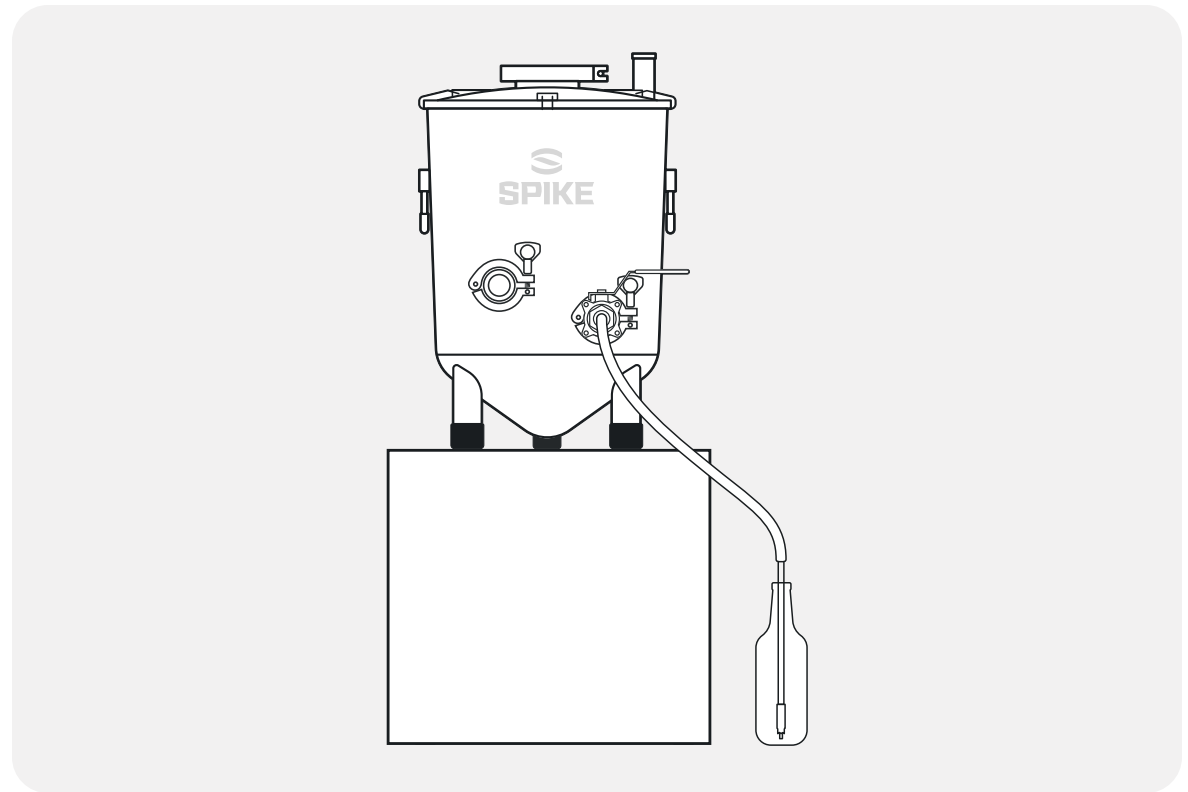
7. Apply and crimp the cap using the bottle capper provided.
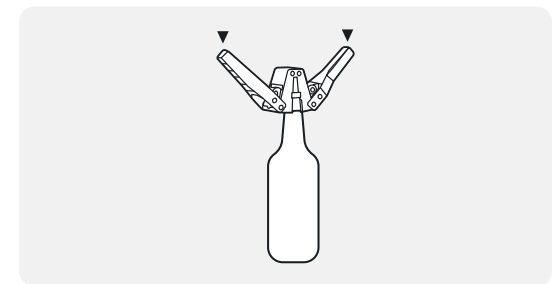
8. Repeat until the fermenter is empty! This could fill between 42–48 bottles per batch.

9. Store bottles in a warm dry place for 2 weeks.

10. Move bottles to a fridge, cooler or cold location to chill.

11. Pop open a bottle and enjoy!

Fermentation –
Post Bottle Fill Cleaning

1. Clean your fermenter ASAP to make it easy

2. Rinse it out with hot water. Then partially fill the fermenter with more water and add a caustic cleaner like Alkaline Brewery Wash. Use a rag to clean all parts of the body with the caustic solution. Use a brush to scrub any areas with debris such as the ring of krausen up top.

3. Empty the liquid into a bucket.

4. Rinse off the caustic from the body with hot water

5. Disassemble the fermenter and soak the smaller parts in the caustic solution then rinse them off with water.