

Brewie - User Manual

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Getting started

1.1. Package Contents



A, 1x Brewie

B, 1x False bottom

(to separate the heated bottom of the tank from the ingredients)

C, 4x Hop Cages

(for hops and other spices)

D, 2x Low pressure hoses

(for draining the cooling water and the wort. 1/2 inch BSPP fitting)

E, 1x High pressure hose

(for water intake. 20mm [3/4"] Face-seal BSPP fitting)

F, 3x Mashing bag

(for your own ingredients)

G, 8x Detergent

(for full cleaning)

H, 1x Sponge

(for cleaning)

I, 1x Quick Setup Guide

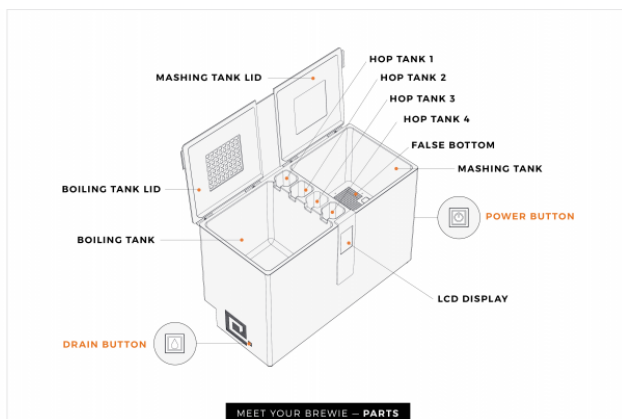
J, 1x Warranty card

1.2. Meet Your Brewie

For setting up your Brewie please, make sure you follow the instructions given by us. It is really important to avoid any problems and to ensure you can brew with the machine successfully.

In the next two chapters (Parts and Back Panel) you will find the basic information about the machine and the additional equipment.

1.2.1. Parts



• Boiling tank

On the left side of the machine. This tank contains hot water. In case of manual water intake and

manual cleans you have to pour water here.

- **Boiling tank lid**

Keep the lid closed. Open the boiling tank's lid during brewing at your own risk.

- **Mashing tank**

Place the false bottom and the mashing bag here. This tank contains hot water.

- **Mashing tank lid**

On the right side of the machine. Keep the lid closed unless manual action is required. Open the boiling tank's lid during brewing only if Brewie instructs you to manually add ingredients. Open the mashing tank's lid at any other time at your own risk.

- **False bottom**

The false bottom holds the mashing bag above the bottom of the mashing tank to minimize heat risks. Failing to put in the false bottom might damage your machine! After brewing the false bottom can be hot, so handle it with care!

- **Hop tank**

The hop cages fit into the hop tanks snugly. Do not force the hop cages. Never place anything into the hop tanks without enclosing it in a hop cage.

- **Main switch**

Flip the main switch (on the backside of the machine) to turn Brewie into standby mode or to turn it off.

- **Power button**

On the right side of the machine. Press and hold to turn Brewie on. The power button lights up and and beeps when Brewie is ready to operate. Press and hold the button if the machine is inactive to turn it off.

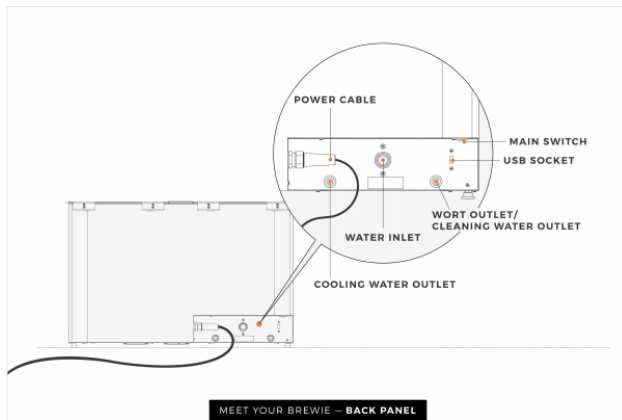
- **Drain button**

On the left side of the machine.

Press and hold to drain or restart draining. Short press to pause draining.

The drain button lights up when Brewie starts draining.

1.2.2. Back Panel



- **Water inlet**

Attach the high pressure water hose to this inlet to connect Brewie to the household water system. $\frac{3}{4}$ inch

- **Cooling water outlet**

Attach the low pressure water hose to this inlet to connect Brewie to the household sewage system. $\frac{1}{2}$ inch

- **Wort outlet/Cleaning water outlet**

Attach the low pressure water hose to this inlet to safely drain the wort into the fermentation container, or to drain cleaning water. $\frac{1}{2}$ inch

- **USB socket**

The most secure way to connect your machine to the internet is an ethernet USB transformer.

- **Display**

Displays Brewie's interface.

Essential Information

2.1. Important Safety Information

GENERAL INSTRUCTIONS

- **Caution!** Exercise common sense and your best judgement while operating Brewie.
- **Caution! Risk of injury!** Supervise Brewie carefully if children are present.
- **Caution!** Do not tilt the machine! It might damage your Brewie.
- **Caution!** Keep the display dry under any circumstances - do not use it with wet hands, since it might damage the display!
- **Caution!** If your Brewie has dust on its side(s) (near the logo), please, vacuum-clean it!

OPERATION

- **Caution!** For brewing and cleaning only use clean drinking water!
- **Caution! Risk of electric shock! Risk of fire!** Do not operate Brewie with any damaged part, such as a frayed cord or broken plug.
- **Caution! Risk of electric shock! Risk of equipment damage!** Test the ground fault circuit interrupt breaker for the circuit Brewie is on regularly, and ensure that the electrical wiring conforms with local safety regulations.
- **Caution! Hot!**

Brewie's surface can get extremely hot during the brewing cycle. Handle Brewie, hoses, and other tools with care.

- **Caution! Hot liquid!** After choosing manual water addition, always and only add water when Brewie instructs you to, in the precise amount you are instructed to.
- **Caution! Hot liquid! Risk of equipment damage!** Do not remove water hoses while Brewie is in operation.
- **Caution! Hot liquid!** Keep all lids closed unless you are manually adding ingredients at Brewie's instructions.
- **Caution! Hot liquid! Risk of equipment damage!** Do not remove the Brewie bag or the hop cages unless Brewie is paused or the brewing cycle is complete.
- **Caution! Hot!** The Brewie bag and the hop cages may be hot when removing them from the machine. Handle with care.
- **Caution! Hot! Risk of spoiling the brew!** After choosing automatic water addition, do not disturb Brewie while water is being cycled in or out of the machine. Disturbances can cause the weight sensor to report false data.
- **Caution!** Please make sure that the water tap is open during the whole brewing process. In case you close the tap before your brew is finished you will not have sparging nor cooling.

CLEANING

- **Caution! Risk of electric shock! Risk of equipment damage!** Do not immerse or soak the machine.
- **Caution! Risk of infection!** Clean Brewie after each use.

MAINTENANCE

- **Caution! Hot!** Allow machine to fully cool before removing, replacing, cleaning, or servicing any part.
- **Caution! Risk of electric shock!** Risk of equipment damage! Do not disassemble the Brewie. There are no user serviceable parts inside.

2.2. Warranty

The duration of warranty is 18 months after delivery.

We recommended you to keep the original package in case of transfer or warranty repair.

The following cases void warranty:

- If the warranty card is missing;
- Disassembling the machine;
- Any kind of improper use of the machine.

2.3. Brewing Equipment

2.3.1. False Bottom

Its purpose: Use the false bottom to separate the heated bottom of the tank from the ingredients. The false bottom holds the ingredients within the mashing bag above the bottom of the mashing tank, to minimize heat risks.

How to use: Before brewing, place the false bottom into the mashing tank, legs placed at the

bottom of the tank. The false bottom should be removed after each brew and washed in a dishwasher or by hand. After brewing, the false bottom can be hot, so handle it with care!

Caution! *Failing to put in the false bottom damages your machine, and voids warranty!*

2.3.2. Fermentables

Ingredients that you put into the mashing bag, such as malt, corn, et cetera are defined as fermentables.

Only Brewie mashing bags may be used with Brewie. Never place any solids into the mashing tank without bagging it!

Malt or other ingredients placed in the machine, outside the mashing bag can cause clogging and voids warranty!

Do not reuse damaged bags!

There are two types of mashing bags:

1. Single-use Mashing Bag

Brewie Pads contain a single-use, eco-friendly bag. Do not use damaged bags! Do not reuse this Brewie bag. After brewing, throw away the used bags. Treat waste properly.

2. Standard Mashing Bag

The three Zipper mashing bags, delivered with Brewie as well as available for separate purchase, are reusable. Do not reuse damaged bags!

Its purpose: Brewing with your own ingredients

Cleaning: Thoroughly cleaning the bag after each use is critical to ensure the quality and hygiene of both Brewie and the brew. Mashing bags can be cleaned both manually or by washing machines. Do not leave any malt in the bag and rinse it thoroughly!

2.3.3. Hops

Never place any solids into the hop tank without a hop cage. Place hops only into hop cages.

Only Brewie hop tanks may be used with Brewie.

Under no circumstances place loose hops into Brewie.

Recommended cage capacity:

Pellet: 30 g

Leaf: 15 g

2.4. Brewing Steps

The product of ten thousand years of brewing history and science, Brewie is one of the best tools of the 21st century for home brewing. Brewie is an automatic brewing device that follows the all-grain method and reproduces the steps of traditional brewing, from mashing through sparging and hopping to cooling authentically.

Brewie has the following steps:

- *Mashing*
- *Sparging*
- *Hopping*
- *Cooling*
- *Drain*
- *Fermentation*

2.4.1. Mashing

During the mashing phase, first, the water is heated. When it reaches the required temperature, it's transferred onto the malt. Due to the heat, the malt enzymes in the malt break down the starch in the malt into sugar, typically maltose, to create a malty liquid called sweet wort. There are several mashing methods, the three most popular methods are infusion, decoction, and single-step. In decoction and infusion brewing, temperature is raised in several discrete steps, achieving

the optimum activation of the mashing enzymes α -amylase and β -amylase on their activation temperature. Infusion and decoction mashing mostly differ in the method of raising the temperature, and together, they are called multi-rest or multi-step mashing. In single-step mashing, sweet wort is kept on a single temperature, usually around 65 °C or 150 °F.

2.4.2. Sparging

The sparging phase also starts with water heating. When it ends, the machine washes the remaining substance out of the malt. The temperature of this process stops the enzymatic work, so there is no more starch to break down, and the wort is ready. During sparging, please avoid leaning on or even touching the machine except the screen, because the weight sensors might receive false information as they level the correct amount of wort in each tank.

2.4.3. Hopping

Hopping is a fundamental step of beer brewing, as it often gives beers their specific flavors. Other components of the hops are responsible for protecting the beer from infections and provides various health benefits. Hopping starts with heating the wort to near boiling temperature and continues by adding different hops. Hops have two main types, aroma and bitter.

Bitter hops, as their name indicates, are used to make the beer bitter due to their high α -acid content. The longer the hops are boiled, the more α -acid is released, so bitter hops are usually added at the beginning of the boiling.

Aroma hops are richer in aromatic oils than they are in α -acid, and usually are more responsible for a beer's fruity/spicy taste than its bitterness. The timing of each hop is important - released aromatic oils are fast to evaporate, so they are usually added to the brew later in the hopping phase, or even right before the cooling starts.

Protein coagulation also happens during the hopping phase, in which the proteins found in the

wort precipitate. If all proteins are removed from the wort, the risk of an infection during fermentation is lower.

2.4.4. Cooling

The purpose of cooling is to prepare the wort for the yeast, which would quickly die off in the hot wort. The faster the cooling is and the colder the cooling water is, the lower the risk of infection is. A fundamental task of preparation is to ensure that only the ingredients are used in the brewing without contaminants, and furthermore, and also that the brew only comes into contact with sanitized tools.

2.4.5. Drain

During drain process, the machine pumps the wort or the cleaning water out from itself. Make sure all hoses are still securely attached and unbroken!

2.4.5. Fermentation

Fermentation is one of the most delicate steps of brewing. During fermentation, yeast converts the carbohydrates contained in the wort to alcohol, carbon dioxide, and various aromas (esters). Different yeast species work optimally at different temperatures, but generally, higher than optimal temperature results faster fermentation and more esters, while cooler than optimal temperature results slower fermentation. Creating and maintaining the temperature during fermentation is essential to form the characteristics of each type of beer.

Hygiene is the most important aspect; as unintended microorganisms may infect the wort and cause a change in the taste or spoil brew.

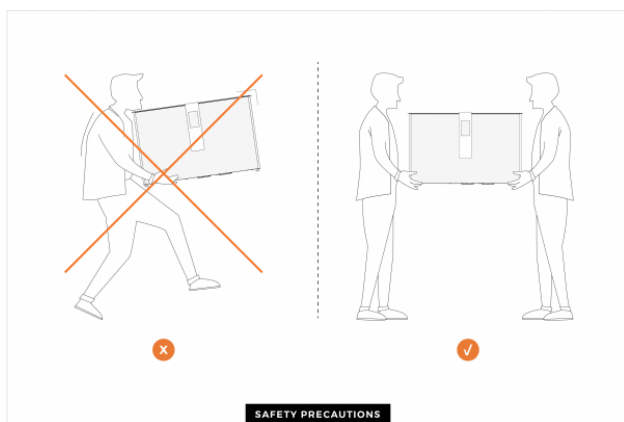
The state of fermentation can be observed by taking a look at the airlock. If carbon dioxide is still leaving through the airlock, fermentation has not finished yet. If there is no movement in the airlock, it's practical to measure the Final Gravity (FG) of the beer with a hydrometer. If the FG is around 1.010, and this does not change for 2 days, and its taste is not sweet or fizzy, you can start bottling. If the FG value changes, wait 2 more days with bottling, and check again. After reaching this point, fermentation can be considered finished, but this value is recipe dependent. If Original Gravity (OG) was measured at the start of the fermentation, alcohol by volume (ABV) can be estimated from the difference of the two.

2.4.6. Cleaning

The basic requirement of brewing is to have everything clean. Always inspect Brewie and all assorted beer brewing equipment for cleanliness before using it (*hoses, false bottom etc.*).

Setting up Your Brewie

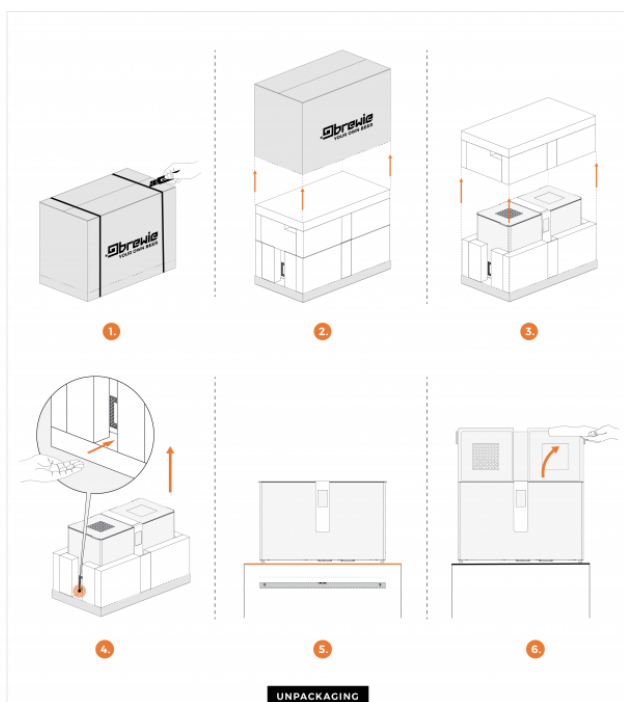
3.1. Safety Precautions



Never set up Brewie alone. Both the weight and size may lead to injuries. Otherwise, follow standard precautions for installing large household appliances.

3.2. Unpacking

Caution! Please, check if there are any external injuries on the packing and if the outer protective layer was damaged during shipping. If you find any bigger damages, please, contact Brewie Customer service.



1. Place the box on the ground, then carefully open the box with a box cutter. Do not place or store the box upside down!
2. Remove the top part of the cardboard box by pulling it upwards.
3. Remove the top part of the styrofoam by pulling it upwards.
4. Reach down into the foam and place your hands underneath Brewie on each side, and carefully lift it up.
5. Place Brewie on a hard, horizontal surface for the weight sensor to operate normally.
6. Open the lids and unpack the parts inside.

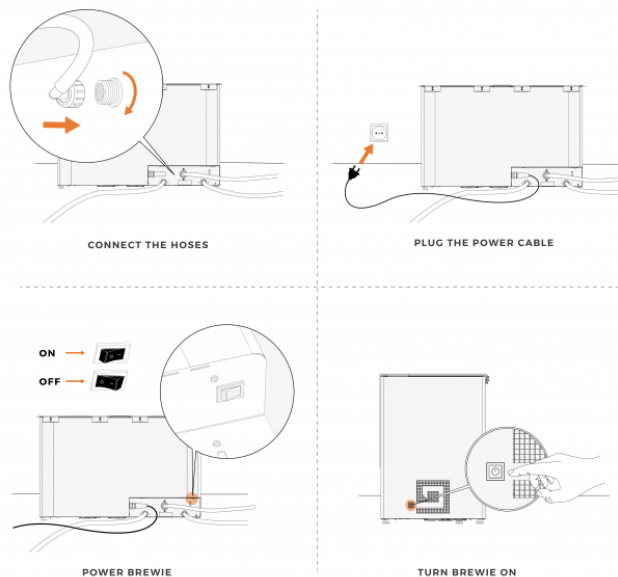
3.3. Installing and Starting

Caution! Risk of electric shock! Risk of equipment damage! *Test the ground fault circuit interrupt breaker for the circuit Brewie is on regularly, and ensure that the electrical wiring conforms with local safety regulations.*

1. Check if the gaskets are well-placed in the plugs.
2. Attach the high pressure water hose to Brewie's water inlet and to your household water system. Do not forget to make sure the household water valve is closed. Use extension hoses if necessary.
3. Attach the low pressure hoses to the wort/ cleaning and cooling water outlets respectively. Ensure that the drained liquid can be captured securely (*wort*) or transported away (*cooling water, cleaning water*).
4. Settle Brewie into the position you wish to use it in and make sure all hoses are still securely attached and unbroken.
5. Open the household water valve. Check the water pressure. Do not forget to close the water valve after brewing is finished!
6. Plug the power cable into the power socket. Make sure that the socket is rated a minimum of 10A at 230V or 15A at 120V. Use a grounded socket.

7. Turn Brewie into standby mode by flipping the main switch.
8. Turn Brewie on by pressing the power button. Keep the button pressed until it beeps and lights up.

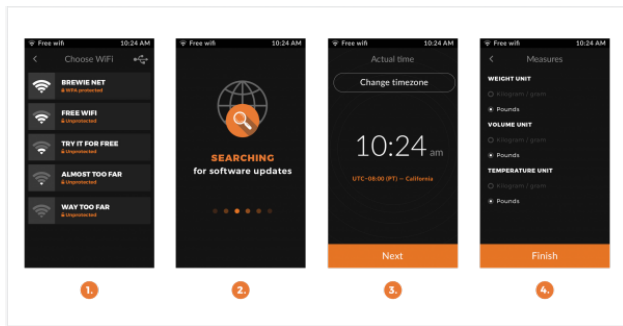
Brewie is designed to be connected to the **cold** water tap only. While connecting Brewie's water inlet to the hot water tap will not cause any permanent damage (input water temperature is safe up to 60°C), using a hot water input will prevent Brewie from being able to fully cool your wort. To reduce the total brew time by using pre-heated water, use manual water addition rather than connecting Brewie to the hot water tap and attempting to swap to a cold water tap during the brew.



INSTALLING AND STARTING

3.4. Initial software settings

Follow the instructions on the screen.



1. Selecting Wi-Fi

Select a Wi-Fi network.

Enter the password if required and choose connect.

2. Update

The machine will automatically update the software after turning on.

3. Timezone

Choose your timezone.

4. Measurement System

Choose the preferred (*metric or imperial*) measurement system.

3.6. First Safety Cleaning

You have to do this only once, before your first brew.

It is really important to run this program before you start your first brewing with enough water as it will get rid of the contamination that could have occurred during manufacturing or shipping. Also, some tools of the machine will only work properly after this cleaning as they need the water surface for the basic settings.

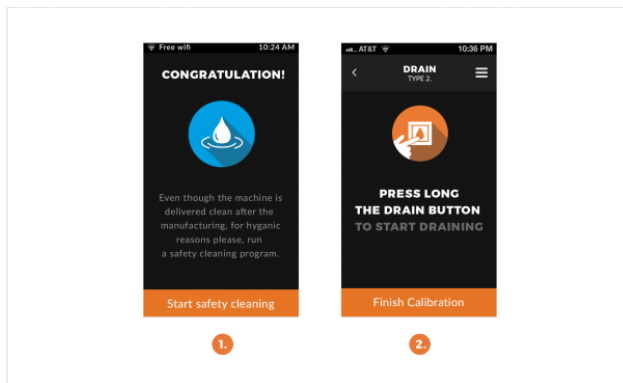
Skipping this step may cause serious errors and damages in the system! As these would be the result of improper use, we won't be able to repair it under the warranty!

Before starting the program, please check if:

- Hoses are connected
- No ingredients or cages in the tanks and containers
- No false bottom in the machine
- 5 liters of drinking water in the boiling tank

Press Safety Cleaning program and follow the instructions.

1. Press Start cleaning
2. Prepare for draining



Brewie is now ready to brew! Happy brewing!

3.5. Calibration

CALIBRATION

Calibration is available from the Home/Settings menu. Keep in mind to calibrate the machine as often as you can - but at least once after every 3 brewings.

After you have chosen Calibration, four notification windows will appear. You can skip them by pressing “Skip all”, but we highly recommend to read them carefully at least for the first 3-5 occasions of calibration.



The first four panels will include information about the calibration: to empty the machine (including the false bottom); why we need calibration; the new, twophased process and a reminder of preparations. After pressing “Done” on every window, you will receive a box in which you can type how much water will you use up for the primary calibration. This amount must be between 7000-10000 grams of water. If the number is in this range, the window will turn green and you can continue. If it is not, the window will turn red.

After pressing “Set”, a window will remind you to pour in the previously set amount of water.

IMPORTANT: Only press “Done” after you have poured the water inside the boiling tank. After pressing “Done” the primary calibration phase will start.

IMPORTANT: Do not touch the machine during the calibration phase. If the Calibration was successful, you will be directed onwards. If not, calibration ends and you need to restart the process. When primary calibration ended, the secondary calibration phase starts, where you need to add exactly 2000 grams (or 2 liters) of water to the boiling tank. If you’ve added the water and pressed “Done” the secondary calibration process starts.

IMPORTANT: Do not touch the machine during the calibration phase. If the Calibration was successful, you will be directed onwards. You will find a “Drain” button. After pressing it, you can start draining the remaining water any time by long pressing (app. 3 seconds) the button on the left side of the machine.



Software & Recipes

4.1. Software structure

The software's manu consists of the following:

HOME

The Home menu displays any current brewing processes.

RECIPES

Includes all previously uploaded or created recipes and the recipe creation.

Find more information about recipes at 4.2 of the User Manual.

EXTRAS

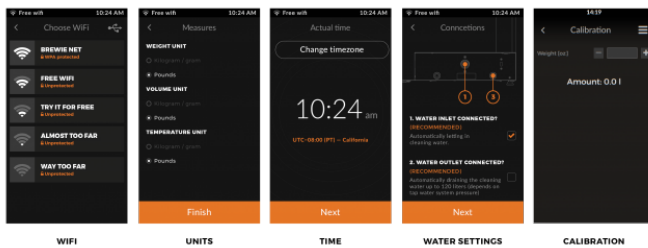
The Extras include cleaning, draining and unclogging programs. You can find more information about Cleaning and Draining below.

- Short Clean
- Sanitizing Clean
- Full Clean
- Drain After Brew
- Full Drain
- Unclogging

SETTINGS

You can adjust the basic settings here.

- **Wifi:** Choose your WiFi network here. Enter the password if required and choose connect.
- **Units:** Here you can adjust the weight, volume and temperature.
- **Time:** You can set the time zone here.
- **Water settings:** You can choose between manual and automatic water inlet.
- **Calibration:** You can find more information about the Calibration below.



4.1.1. Home

The Home menu displays the current brew, to which you can return with pressing the batch's name.

4.1.2. Recipes

The recipes menu includes every information regarding your options with recipes.

The main body is consisted of all previously uploaded and created recipes. You can read more about Recipes in 4.2 of the User Manual.

The Recipes menu also includes the Recipe Creator, in which you can create and save the recipes

you wish to brew.

4.1.3. Extras

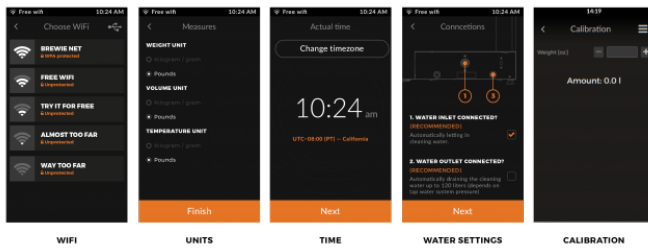
All programs that are not part of the brewing process can be reached from here - cleaning, draining and unclogging programs as well.

- Short Clean
- Sanitizing Clean
- Full Clean
- Drain After Brew
- Full Drain
- Unclogging

4.1.4. Settings

You can adjust the basic settings here.

- **Wifi:** Choose your WiFi network here. Enter the password if required and choose connect.
- **Units:** Here you can adjust the weight, volume and temperature.
- **Time:** You can set the time zone here.
- **Water settings:** You can choose between manual and automatic water inlet.
- **Calibration:** You can find more information about the Calibration: 3. topic: Setting up Your Brewie



4.2. Recipes

4.2.1. Recipe parts

When choosing a recipe from the Recipes menu, you can check all parts of the chosen recipe by pressing the "🔍 Brewing" button.

If you've pressed the button, four panels will pop up, all of which include part of the current recipe.

Mash in and sparging water

The first panel includes the temperature of the mashing water **before** it starts mashing. This is important since if you set it to a given temperature (in Celsius), the water will (and can) not be cooled back to a lower degree. You can also add the volume of the mashing water here, with which all steps of mashing (regardless of any vaporization) will be concluded.

You'll be able to set up the sparging parameters (if you wish to use this option). Sparging will need to be set by length, temperature and volume - the automatic water inlet will gather all sparging water and pour it on the malt when it reached the given temperature for the given time.

Mashing steps

To efficiently wash out all components from the malt, many steps (or "rests") can be used with Brewie - on different temperatures. In this panel, you can adjust the length and temperature of the different mashing steps, washing out the starch and sugar from the malt.

Hopping

The wort's flavour is highly characterized by the proper use of hops during brewing. To use the aroma and bitter hops as efficiently as possible, Brewie's four hop cages can be separately adjusted to how long and on what temperature the hops should be washed through to the wort on boiling temperature.

Also, pre-hop boiling can be added before starting the hopping process - in this way, if a recipe needs it, the wort can be boiled for an added length before the first hop is added to it.

Cooling

Lastly, the goal temperature for the wort is also adjustable. Different beers demand different end temperatures (for extra hopping, etc.) which can be reached by adding the temperature here. The lowest temperature to where Brewie cools down the wort is original temperature of the added water +5°C.

4.2.2. Creating a Recipe

Although our software developers are currently working on creating a fully functioning recipe section, you don't need to necessarily add the types of hops in a newly created one.

Right now, to create your own recipe in Brewie, you have to follow these steps:

Create new recipe

First, you need to add the name for the recipe. Remember, that as of yet, you have no option to delete or rename recipes, so optimally don't fill the machine with test1, test2 etc. recipes, but with ones you named intentionally for brewing. And with ones you can find later.

Mash in and sparging water

As the premier settings, you can add the amount of mash in and sparging water. In this section, you can set the temperature to which the machine will firstly heat up the water. This will be the starting temperature of the water which will NOT be cooled, so never set a higher temperature than your first mashing step!

To sparging, you can not only add the temperature and amount of the sparging water, but also the time as long you wish the machine to sparge. To avoid overflowing, look at the following document on ideal mashing/sparging water amounts in Brewie.

Automatic water addition examples					
for brewing 20 liters of beer depending on malt amount					
FOR MAXIMUM MASHING AMOUNT			FOR MINIMUM MASHING AMOUNT		
A	B	C	D	E	
MALT KG	MASHING WATER (L) MAX.	SPARGING WATER (L) MAX.	MASHING TANK (L) MIN.	SPARGING (L) MAX.	
1	20,33	2,67	5	18	Small malt amounts result attenuated wort, which has few fermentable sugar.
2	19,5	4,5	7	17	
3	18,66	6,34	9	16	
4	17,8	8,2	10	16	For brewing around 20 liters of beer, use these amounts*
5	17	10	12	15	
6	16,1	11,9	14	14	Using these amounts of malt can cause loss in efficiency. Adding a handful of rice for every 2 kg of malt can help.
7	15,3	13,7	15	14	
8	14,5	15,5	17	13	

same with US rates:

Automatic water addition examples								
FOR MAXIMUM MASHING AMOUNT				FOR MINIMUM MASHING AMOUNT				
A	B	C		D	E			
MALT LBS	MASHING WATER (GAL) MAX.	SPARGING WATER (GAL) MAX.		MASHING WATER (GAL) MIN.	SPARGING WATER (GAL) MAX.	UNBOILED WORT (GAL) AUTOMATIC	BOILED WORT (GAL) AUTOMATIC	
2.2	5.4	0.7	OR	1.3	4.8	5-5.5	4.5-5.3	Small malt amounts result attenuated wort, which has few fermentable sugar.
4.4	5.1	1.2		1.8	4.5	5-5.5	4.5-5.3	
6.6	4.9	1.7		2.4	4.2	5-5.5	4.5-5.3	
8.8	4.7	2.2		2.6	4.2	5-5.5	4.5-5.3	For brewing around 4.5-5.3 gal of beer, use these amounts
11	4.5	2.6		3.2	4	5-5.5	4.5-5.3	
13.2	4.3	3.1		3.7	3.7	5-5.5	4.5-5.3	Using these amounts of malt can cause loss in efficiency. Adding a handful of rice for every 2 lbs of malt can help.
15.4	4	3.6		4	3.7	5-5.5	4.5-5.3	
17.6	3.8	4.1		4.5	3.4	5-5.5	4.5-5.3	

How does the chart work?

1) Choose how many kilograms/lbs of malt you wish to brew with in Column A

Sparging water is optional, but it increases the yield. The brewer team at Brewie recommends to use sparging water every time!

The optimal and expedient amount of malt to brew with is 3-6 kilograms/6,6-13,2 lbs.

We recommend milling malt with 0,70-0,85 mm/2,76-3,35 inches gap in case of a two cylinder.

2) You have to now define the amount of Mashing water. [Column B] Its maximum amount in case of 4 kg malt is 17,8 liters/8,8 lbs malt is 4,7 gal. This amount will completely cover the malt with a safe tolerance level.

3) Define the amount of sparging water. [Column C] If we have used the maximum amount of mashing water with 4 kg/8,8 lbs malt, the volume of the sparging water can not exceed 8,2 liters/2,2 gal. This volume can be 0 – but the less the sparging water, the less wort we get at the end.

It's important that it is possible to brew with more water, but using this chart ensures that it will surely not overflow the machine.

4) If you wish to use the minimum amount of mashing water, use [Column D]. These amounts of water will just cover the crushed malt. While using minimum mashing water, sparging water can be added but it's not mandatory, only recommended.

5) In cases of minimum mashing water, the amount of sparging water can be found in [Column E].

IMPORTANT: These ratios have been created for two-row barley malt. For unmalted ingredients and adjuncts (corn, rye, oat) the chart is not valid! Furthermore, this chart was created during brews without additional enzymes.

Mashing steps

Different beers need different mashing steps on different temperatures. Fortunately, on the second stage of recipe-making you are able to set as many mashing steps as you wish - their temperature and length (in minutes) will be saved. Important: Don't set a starting step with lower temperature than the mash in water's, since the Brewie will not cool down the water before initiating mashing!

Hopping

Brewie includes 4 hopping cages, which can let you set up to four different hopping steps in any of your recipes. Hopping with more than 4 stages is yet in progress, but all 4 cages can be set for an amount of time and for a set temperature.

The hopping steps include 0 grams for all cages (yet), but don't worry, it will not affect your recipe. Also, the screen will not display all hopping steps separately. It will show you the full length of the hopping and will add hops when the given time is REMAINING. So if hopping is set at 60-40-20-5 minutes, the screen will display 60 minutes, as the whole time of hopping, add the second hop cage after 20 minutes, the third after 40 minutes and the last cage after 55 minutes of the process.

In this phase, you can select Delayed hopping, and add extra time of boiling before the hopping phase commences.

Cooling

From the 1.9 update, an adjustable cooling temperature is optional to add. You can cool your wort to any temperature - but when this given temperature is reached, cooling stops and the brewing process ends.

Remember, that this cooling temperature can not be lower than the temperature of the initially added water +5°C.

4.2.3. Modifying Recipes

You can modify any of your own recipes, any time you wish to.

You cannot modify recipes created by a different user, but you can create your own copy.

To modify a recipe, choose it from the Recipes menu, press "Brewing". Here, you can choose whichever part you wish to modify, whether it's part of:

- Mash-in and sparging
- Mashing steps
- Hopping
- Cooling

Press "Modify" in any of the abovementioned sub-pages to modify information on it.

Once you've modified the recipe, press Save.

4.3. Brewing

RECIPES

You can reach all uploaded recipes of the Brewie at the Home/Recipes menu. Recipes in the Brewie are cut into four panels. After choosing a recipe, you can reach these panels by pressing the "Brewing" button. You can modify anything in the recipe by pressing the Modify button on the appropriate page. Let's see the different panels of the recipes, in a recipe creating walkthrough! First, you need to add the name for the recipe. Remember, that as of yet, you have no option to delete or rename recipes, so optimally don't fill the machine with test1, test2 etc. recipes, but with ones you named intentionally for brewing.

Mash in and sparging water

As the premier settings, you can add the amount of mash in and sparging water. In this section, you can set the temperature to which the machine will firstly heat up the water. This will be the starting temperature of the water which will NOT be cooled, so never set a higher temperature than your first mashing step! To sparging, you can not only add the temperature and amount of the sparging water, but also the length of time you wish the machine to sparge. To avoid overflowing, look at the following document on ideal mashing/sparging water amounts in Brewie.

Automatic water addition examples							
FOR MAXIMUM MASHING AMOUNT				FOR MINIMUM MASHING AMOUNT			
A	B	C		D	E	D	E
MALT (KG)	MASHING WATER (L) MAX.	SPARGING WATER (L) MAX.		MASHING WATER (L) MIN.	SPARGING WATER (L) MAX.	UNBOILED WORT (L) AUTOMATIC	BOILED WORT (L) AUTOMATIC
1	20.33	2.67		5	18	19-21	17-20
2	19.5	4.5		7	17	19-21	17-20
3	18.66	6.34		9	16	19-21	17-20
4	17.8	8.2		10	16	19-21	17-20
5	17	10		12	15	19-21	17-20
6	16.1	11.9		14	14	19-21	17-20
7	15.3	13.7		15	14	19-21	17-20
8	14.5	15.5		17	13	19-21	17-20

optimal

OR

Small malt amounts result attenuated wort, which has less fermentable sugar.

For brewing around 17-20 liters of beer, use these amounts

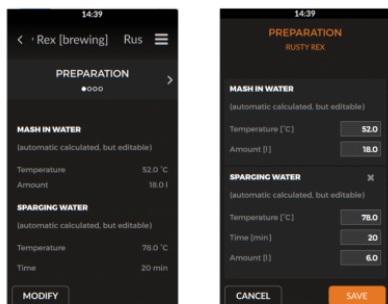
Using these amounts of malt can cause loss in efficiency. Adding a handful of rice for every 2 kg of malt can help.

How does the chart work?

1. Choose the amount of malt you wish to brew with in Column A Sparging water is optional, but it increases the yield. The Brewie team highly recommends to use sparging water every time! The optimal and expedient amount of malt to brew with is 3-6 kilograms.
2. Now define the amount of Mashing water. [Column B] The maximum amount will completely cover the malt with a safe tolerance level.
3. Define the amount of sparging water. [Column C] If you used the maximum amount of mashing water with 4 kg malt, the volume of the sparging water can not exceed 8,2 liters. This volume can be 0 – but the less the sparging water, the less wort we get at the end. Keep in mind that it is possible to brew with more water, but using this chart ensures that it will surely not overflow the machine.
4. If you wish to use the minimum amount of mashing water, use [Column D]. These amounts of water will just cover the crushed malt. While using minimum mashing water, sparging

water can be added but it's not mandatory, only recommended.

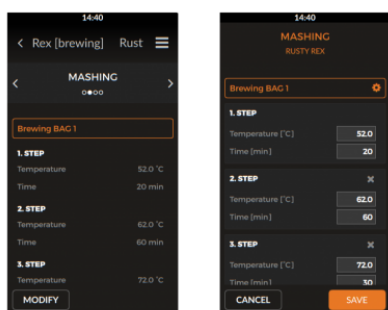
5. In cases of minimum mashing water, the amount of sparging water can be found in [Column E].



IMPORTANT: These ratios have been created for two-row barley malt. For unmalted ingredients and adjuncts (corn, rye, oat) the chart is not valid! Furthermore, this chart was created during brews without additional enzymes.

Mashing steps

Different beers need different mashing steps on different temperatures. Fortunately, on the second stage of recipe-making you are able to set as many mashing steps as you wish - their temperature and length (in minutes) will be saved.

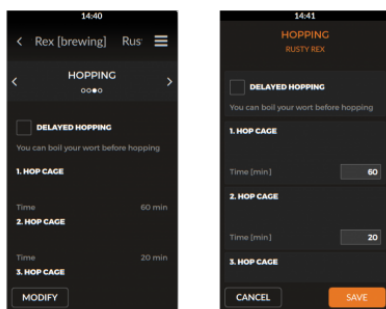


IMPORTANT: Don't set a starting step with lower temperature than the mash in water's, since the Brewie will not cool down the water before initiating mashing!

Hopping

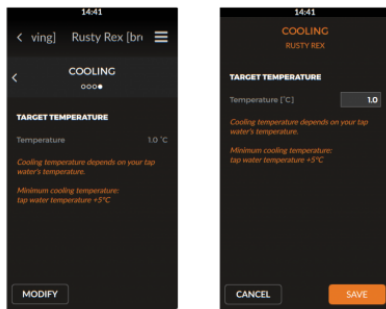
Brewie includes 4 hopping cages, which can let you set up to four different hopping steps in any of your recipes. Hopping with more than 4 stages is yet in progress, but all 4 cages can be set for an amount of time and for a set temperature. The hopping steps include 0 grams for all cages (yet), but don't worry, it will not affect your recipe.

Remember, the screen will not display all hopping steps separately. It will show you the full length of the hopping and will add hops when the given time (in the recipe) is REMAINING. So if hopping is set at 60-40-20-5 minutes, the screen will display 60 minutes, as the whole time of hopping, add the second hop cage after 20 minutes, the third after 40 minutes and the last cage after 55 minutes of the process. In this phase, you can select Delayed hopping, and add extra time of boiling before the hopping phase commences.



Cooling

From the 1.9 update, an adjustable cooling temperature is optional to add. You can cool your wort to any temperature - but when this given temperature is reached, cooling stops and the brewing process ends. Remember, that this cooling temperature can not be lower than the temperature of the initially added water +5°C. This will also be the goal temperature, when no cooling temperature, or a lower temperature was added.



BREWING WITH A BREWIE PAD

When you receive your Brewie Pad, starting the batch is much more easier. You can easily choose the Pad's recipe from the Recipe menu. If you have chosen the recipe, press BREW at the bottom of the screen, walk through the preliminary conditions of the brewing, and you can start brewing your own beer! Keep in mind that in some cases, Brewie Pads might include extra ingredients or methods - dry hopping, enzymes, spices, etc. In these cases the Brewie Pad will always include how to add these ingredients.

PRELIMINARY CONDITIONS

Before you start brewing, make sure that everything is in place. First of all, check that all hoses are connected safely to the machine - especially the high-pressure hose to the water inlet!

If the hoses are connected, and your Brewie is calibrated appropriately, you can start preparing for brewing.

Put the false bottom into the mashing (right) tank, with standing still on its legs. Make sure that the malt is in a Brewie Bag and it is not damaged - thus no malt will fall out into the machine, clogging the tubes and tanks. Place the malt bag onto the false bottom, with all four corners of the bag adjusted to the tank's corners. Put the hop cages with hops in them (and only in them) into the appropriate hop tanks.

If all ingredients are placed, you can start brewing by pressing the "Brew" button at the bottom of

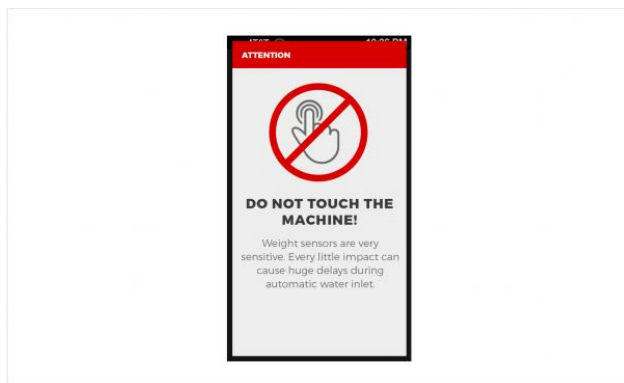
a recipe's page.

After pressing the “Brew” button, a preliminary checklist pops up - here you can doublecheck if you want automatic or manual water inlet and if everything is in place. If you press ‘Done’ for all these windows, brewing will start.



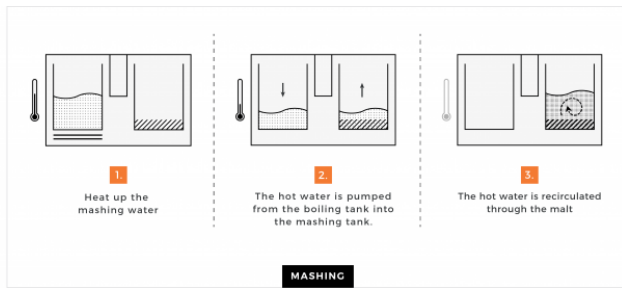
THE BREWING METHOD

Once started, Brewie will automatically guide you through the steps of the brewing. You only need to pay attention if you have chosen manual water addition - in these cases, Brewie will inform you on when to add water to the machine. If automatic water inlet is selected, Brewie will start the brewing process with adding the water to its boiling tank. Remember, not to touch the machine, since it might misalign the weight sensors.



Mashing

During the mashing phase, first water is heated. When it reaches the required temperature, it's poured on the malt.

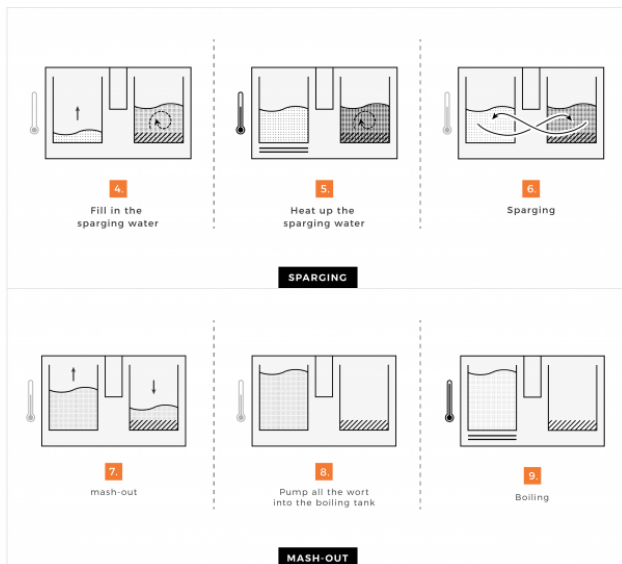


Sparging (optional)

During sparging, extra water is added to the mashing tank and is circulated throughout the machine.

Do not disturb Brewie while water is being circulated in the machine.

Disturbances can cause the weight sensor to report false data.



Hopping

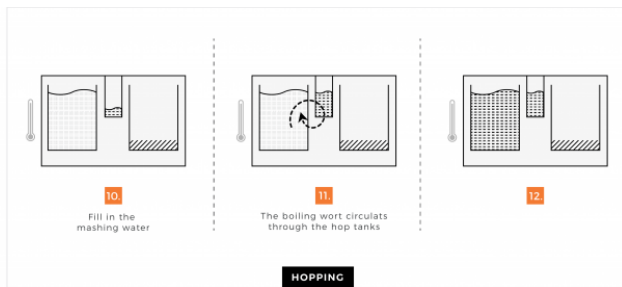
You can delay hopping in the recipe - in this case, hopping will start after the time you added in the recipe.

During hopping, the water is being pushed through the hop tanks. The hopping time will be of the longest hopping the recipe includes. All other hopping will start when the remaining time equals to the hopping time in the recipes.

Do not put hops anywhere but into a hop cage.

The Brewie will get hot during the process. Do not open the lids unnecessarily.

Hop cages could rise as a result of that.



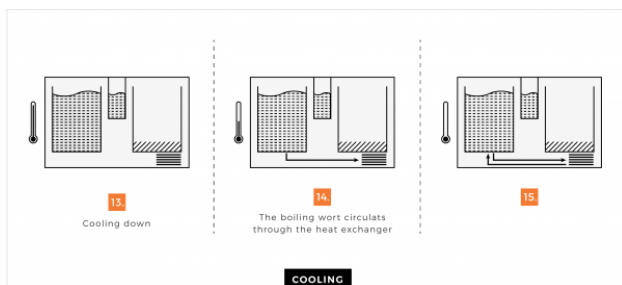
Cooling and sedimentation

Depending on water temperature and water pressure, cooling is usually between 10-20 minutes. Expect a large amount of water, up to 150 liters (40 US gallons) depending on brewing parameters. You can choose the temperature to which Brewie should cool the wort in the recipes, but the lowest cooling temperature is the temperature of the cold water supply + 5 °C (9 °F).

Additional water's temperature might change during brewing, causing the wort's temperature to change from brew to brew.

Cooling is only possible when your Brewie is connected to your household water system, so make sure the tap is open!

When cooling is done, the Brewie will take some time for sedimentation.



FINISH BREWING

When Brewie finished with the cooling and sedimentation phases, it will display the "Brewing is finished" window. After acknowledging it, you will be able to drain the wort out of the machine.

For this, you can choose from two different draining functions - Leave sediment or Full drain. The former will leave most of the sediment at the bottom of the boiling tank - unfortunately, with about 2 liters of wort -, but the latter drains down everything through the draining tube, leaving only a thin layer of moisture at the bottom of the tank.

4.3.1. Brewing Preparation

PRELIMINARY CONDITIONS

Before you start brewing, make sure that everything is in place. First of all, check that all hoses are connected safely to the machine - especially the high-pressure hose to the water inlet!

- If the hoses are connected, and your Brewie is calibrated appropriately, you can start preparing for brewing.
- Put the false bottom into the mashing (right) tank, with standing still on its legs. Make sure that the malt is in a Brewie Bag and it is not damaged - thus no malt will fall out into the machine, clogging the tubes and tanks.
- Place the malt bag onto the false bottom, with all four corners of the bag adjusted to the tank's corners.
- Put the hop cages with hops in them (and only in them) into the appropriate hop tanks.

If all ingredients are placed, you can start brewing by pressing the “Brew” button at the bottom of a recipe's page.

After pressing the “Brew” button, a preliminary checklist pops up - here you can doublecheck if you want automatic or manual water inlet and if everything is in place. If you press ‘Done’ for all these windows, brewing will start.



4.3.2. Brewing on the screen



Brewing

5.1. Choose recipe

1. Press the Menu button
2. Press 'Recipes'
3. Choose recipe
4. Press Brew

5. Choose automatic/manual water inlet and cooling
6. Make sure that all preliminary conditions are met

Risk of spoiling the brew! *After choosing automatic water addition, do not disturb Brewie while water is being cycled in or out of the machine. Disturbances can cause the weight sensors to report false data.*

Follow the instructions on your Brewie's display.

5.2. Adding ingredients

Follow the instructions on the screen.

If you have chosen manual water addition, pour the needed amount of water into the boiling tank. Never add water to the mashing tank!

1. Place the false bottom into the mashing tank, legs straight at the bottom of the tank.

- Never brew without the false bottom. The false bottom holds the ingredients within the mashing bag above the bottom of the mashing tank, to minimize heat risks. Skipping this step will risk the success of the brew and might damage the machine. As it is an operator fault, the Brewie won't be repaired under warranty.
- The false bottom should be removed after each brew and washed in a dishwasher or by hand.

2. Place the fermentables

You can choose from two options:

A, using the Brewie Pads' single-use Mashing Bag

Place the malt bag on the false bottom, inside the mashing tank.

- Align the four corners of the mashing bag with the four corners of the mashing tank.
- Never add water to the mashing tank.

Do not use damaged bags!

B, brewing with your own ingredients with a Standard Brewie Bag

- Grind your malt (in case you use a two-cylinder grinder, we recommend adjusting the cylinders to a 0,7 mm distance)
- Make sure that the mashing bag is undamaged.
- Place the malt into the mashing bag.
- Make sure that you close the mashing bag properly.
- One bag can hold a max. 8 kgs of malt.
- Never place any solids into the mashing tank without bagging it.

3. Place the hop(s)

1. Place the hop(s) into the hop cage(s)
3. Close the hop cage(s)
4. Put the hop cage(s) into the hop tank(s)

Pay careful attention to the symbols of the tanks to ensure that the hops are added in the correct order.

When you're brewing with Brewie Pads, pay attention to the signs on the hop bags to place them in the right cages.

- Never place any solids into the hop tank(s) without hop cage(s).
- A maximum of 4 hop cages can be automatically used during a brewing cycle.
- You can add more than one variety of hop into a single container.

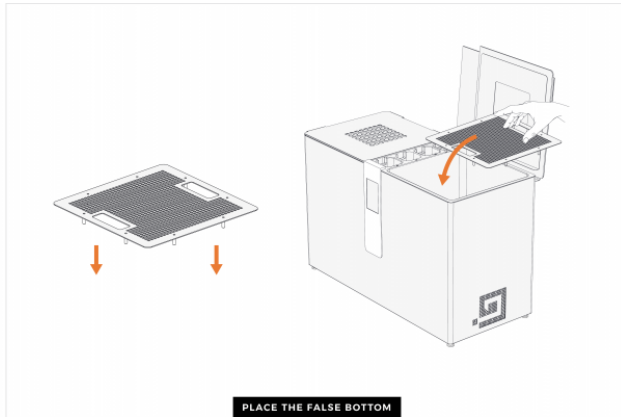
Optional: The capacity of the hop cages is 30 g of pellets or 15 g of whole hops. A maximum of 40 g of pellets or 20 g of whole hops can be used.

4. Close the lids

The mashing lid must be closed during the whole process! If opened, the hop cage(s) might rise up and the wort might spill.

Brewing with opened lids will result a higher water loss (*with appr. 2-3 l*).

5.2.1. False bottom



Place the false bottom into the mashing tank, legs straight at the bottom of the tank.

- **Never brew without the false bottom!**

The false bottom holds the ingredients within the mashing bag above the bottom of the mashing tank, to minimize heat risks. Skipping this step will risk the success of the brew and might damage the machine. As it is an operator fault, the Brewie won't be repaired under warranty!

- The false bottom should be removed after each brew and washed in a dishwasher or by hand.

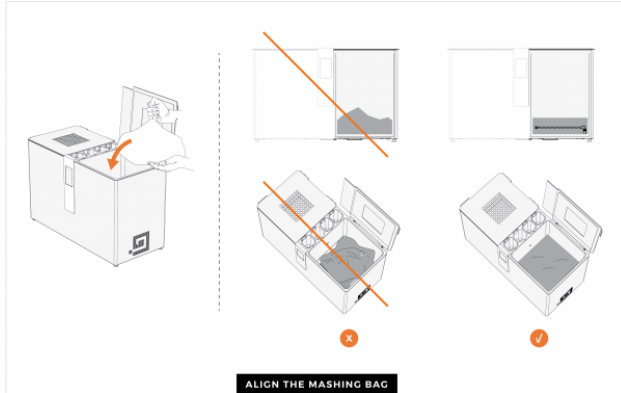
5.2.2. Place the fermentables

Never place any solids into the mashing tank without bagging it.

You can choose from two options:

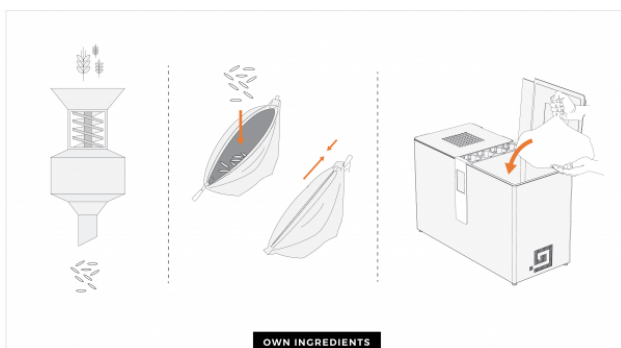
1. Use Brewie Pad single-use Mashing Bag

- Place the malt bag on the false bottom, inside the mashing tank.
- Align the four corners of the mashing bag with the four corners of the mashing tank.
- Never add water to the mashing tank.
- Do not use damaged bags!



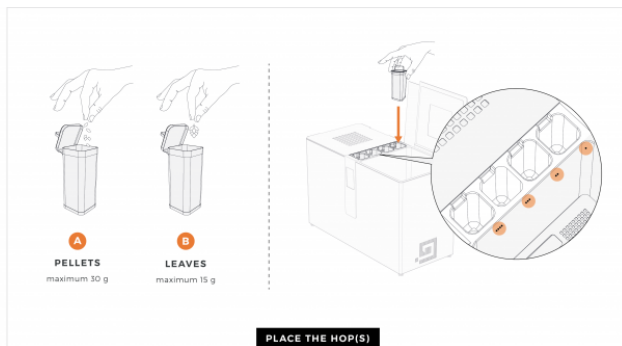
2. Brewing with your own ingredients with Zipped Mashing Bag

- Grind your malt (in case you use a two-cylinder grinder, we recommend adjusting the cylinders to a 0,7 mm distance)
- Make sure that the mashing bag is undamaged.
- Place the malt into the mashing bag. One bag can hold a max. 8 kgs of malt.
- Make sure that you close the mashing bag properly.
- Place the malt bag on the false bottom, inside the mashing tank.
- Align the four corners of the mashing bag with the four corners of the mashing tank.



5.2.3. Place the hop(s)

1. Place the hop(s) into the hop cage(s)
2. Close the hop cage(s)
3. Put the hop cage(s) into the hop tank(s)



Pay careful attention to the symbols of the tanks to ensure that the hops are added in the correct order.

When you're brewing with Brewie Pads, pay attention to the signs on the hop bags to place them in the right cages.

Never place any solids into the hop tank(s) without hop cage(s)!

A maximum of 4 hop cages can be automatically used during a brewing cycle.

You can add more than one variety of hop into a single container.

optional: The capacity of the hop cages is 30 g of pellets or 15 g of leaves. A maximum of 40 g of pellets or 20 g of leaves can be used.

5.2.4. Add water

- **If you chose manual water inlet:**

Pour the amount of water specified in the recipe into the boiling tank.

- **If you chose automatic water inlet:**

The hoses must be connected to Brewie's inlet and cooling water outlet.

Brewie automatically fills up the boiling tank with certain amount of water.

Risk of spoiling the brew! *After choosing automatic water addition, do not disturb Brewie while water is being cycled in or out of the machine! Disturbances can cause the weight sensor to report false data!*

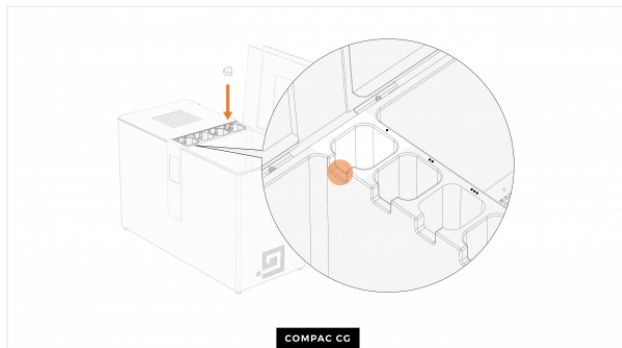
5.2.5. Add extra ingredients

COMPAC CG

Description: Compac CG is the granulated form of the species *Euchema cottoni*. The tablet makes your wort clear and produces a beer with improved characteristics.

Usage: Place half of the tablet onto the marked area on the bridge at hop container #1 marked with a ●

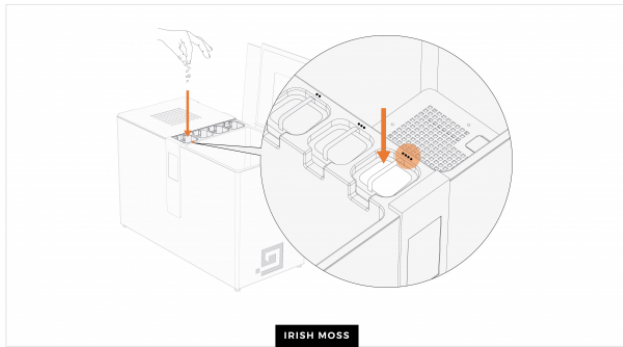
When: before brewing, when adding the other ingredients



IRISH MOSS

Description: Irish Moss is an edible seaweed that grows along the rocky Atlantic coasts. The moss makes your wort clear and produces a beer with improved characteristics.

Usage: After you placed the hop cages into the hop tanks, pour the content of the bag on top of hop container #4 marked with a ●●●●



5.3. Starting the brew

Before starting brewing, it is important to check:

- the machine is calibrated
- the hose connections
- if the water valve is open
- if the false bottom is inside
- the ingredients (malt bags, hop cages) are prepared.
- if the drained liquid can be transferred securely.

Close the lids for the whole process. Note that brewing with opened lids will result a higher water loss (with appr. 2-3 l).

If you have checked everything, press Brew.

5.4. How it works

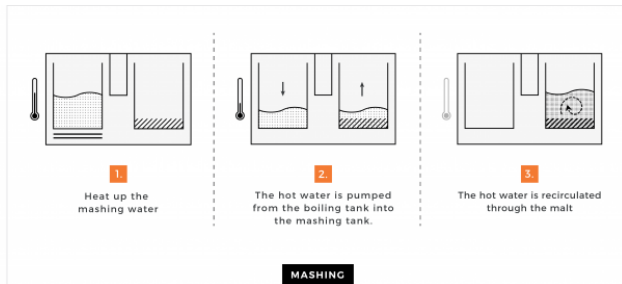
Caution! Hot! Brewie's surface can get extremely hot during the brewing cycle. Handle Brewie, hoses, and components with care.

Caution! Hot liquid! Risk of equipment damage! Do not remove water hoses while Brewie is in

operation.

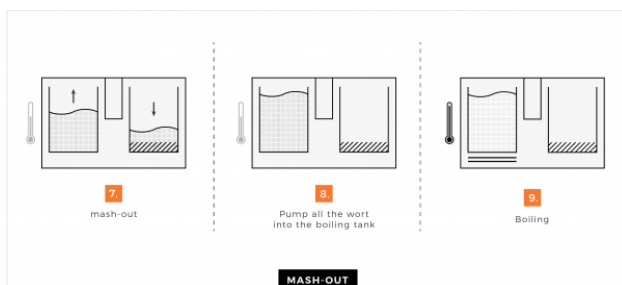
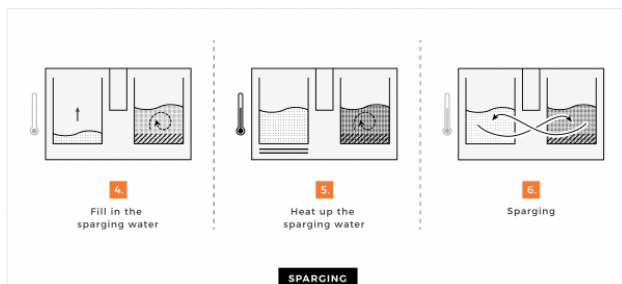
MASHING

During the mashing phase, first, water is heated. When it reaches the required temperature, it's poured on the malt.



SPARGING (optional)

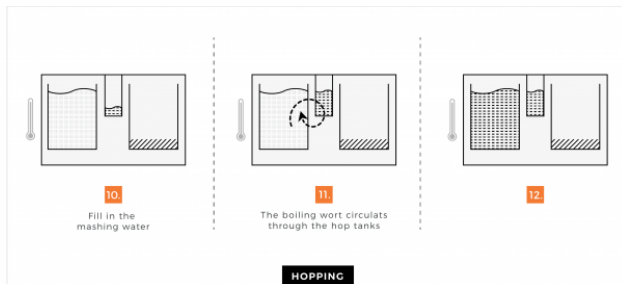
Sparging is only allowed if automatic water addition has been chosen and the hoses are connected. Do not disturb Brewie while water is being cycled in or out of the machine. Disturbances can cause the weight sensor to report false data.



HOPPING

Do not put hops anywhere but into a hop cage. Do not put hop cages anywhere but into the hop tanks.

The Brewie will get hot during the process. Do not lean on the machine, and open the lids of the hop cages carefully. Hop cages could rise as a result of that.



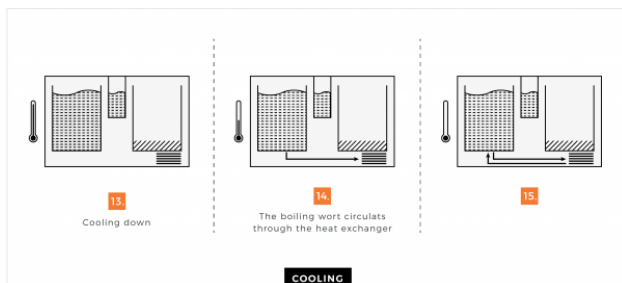
COOLING (optional)

Depending on water temperature and water pressure, cooling is usually between 10-20 minutes. Expect a large amount of water, up to 150 liters (40 US gallons) depending on brewing parameters.

The maximum cooling temperature is the temperature of the cold water supply + 5 °C (9 °F).

Additional water's temperature might change during brewing, causing the wort's temperature to change from brew to brew.

Caution! Cooling is only possible when your Brewie is connected to your household water system and make sure the tap is open!



Finish Brewing

Confirm that the brewing is finished and only start draining then.

5.5. Drain

Draining programs are used for draining the wort or remnant water from all tanks of the Brewie.

Draining is important when

1. You wish to drain off your finished wort
2. After cleaning programs
3. If the power source was cut off in any program which you can not resume
4. After unclogging programs
5. After calibration

During drain process, machine pumps the wort or the cleaning water out.

As soon as the brewing is ready, drain the wort! Do not leave the wort in the machine. The sooner you drain it, the less chance the wort has to get infected.

You can choose from two different draining programs: Full drain or Drain after brew

5.5.1. Full Drain

Full drain: use it for after cleaning programs or if your brewing has been interrupted. This fully drains every tank.

Important! Before you start draining, please check that you:

- Placed the fermentation bucket lower than the Brewie wort outlet.

- Make sure all hoses are still securely attached and unbroken.

Press and hold the drain button to start draining. The drain button will lit up when draining has started. Press the button to pause draining at any time, press and hold to re-start. Due to the form of the tanks there might be some (appr. 1-2 dl) water/wort left in them. You can easily wipe it out with a rag.

5.5.2. Drain after brew

Drain: use it to drain the wort. This consists of 2 phases:

1. step: Leave sediments Protein and other dry matter will not be drained. Wort may remain in Brewie.

2. step: Drain all Protein will also be drained.

Important! *Before you start draining, please check that you:*

- Sanitized the hoses and the bucket as well - everything that will interact with the wort.
- Placed the fermentation bucket lower than the Brewie wort outlet.
- Make sure all hoses are still securely attached and unbroken.
- Did not open the lid (because the wort may get infected).
- Closed the tap of the fermentation bucket.

Press and hold the drain button to start draining. The drain button will lit up when draining has started. Press the button to pause draining at any time, press and hold to re-start. Due to the form of the tanks there might be some (appr. 1-2 dl) water/wort left in them. You can easily wipe it out with a rag.

Brewmaster's Tips

- Use vinegar in the airlock to deter small insects. Pour a small amount of 40° alcohol or 10% vinegar inside the airlock.
- Proper temperature is essential for yeast.
- For reasons of hygiene, Brewie starts draining the wort through the hop tanks, putting the hottest part of the liquid (also the deadliest to yeast) at the bottom of the container, pouring the cooled wort above, so the yeast can be added after about half the wort has been drained from the tank.
- There are multiple methods to pitching the yeast. Brewie recommends adding the dry yeast to the wort pouring out of the drain hose, so of the water helps to distribute the yeast.
- The start of fermentation can be sped up if you pinch the drain hose with your fingers and spray the surface of the fermentation tank with the wort after pitching the yeast. This carries extra oxygen to the yeast, speeding up its metabolism.

5.6. Fermenting

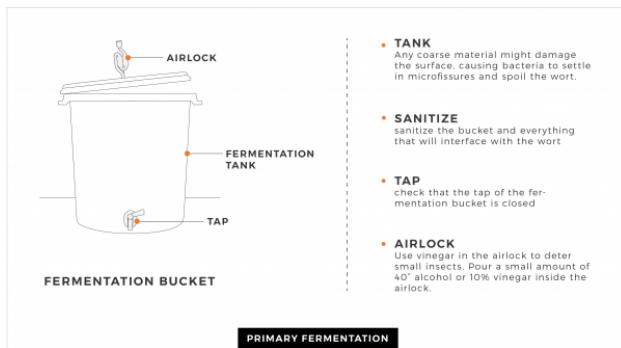
After draining the wort into the fermentation vessel, add the yeast. Attempt to cover as much of the wort's surface as you can. Air-seal the fermentation tank and place the airlock. Ensure the required constant fermentation temperature for your container.

You can measure the Original Gravity (OG) at this point to check the efficiency of brewing.

5.6.1. Primary fermentation

Primary fermentation generally takes 7-10 days. Alcohol and carbon dioxide forms during this critical phase. Also, during the main fermentation, foam is formed, which consists of approximately 20% of the full amount of the beer – for this, a „foamspace“ might be let empty. You can notice the end of the main fermentation phase, when the fermentation lock stops clucking, and the beer does not taste sweet or fizzy.

Equipment fit for fermentation: Fermentation bucket or tank



5.6.2. Secondary fermentation

Conditioning usually happens in bottles or kegs. In this phase carbon dioxide still forms, but the taste starts to clear out. Although there is already alcohol and carbon dioxide in the beer, its taste is still not whole, so it pays off to wait out this phase. Depending on the beertype, it might last 2-8 weeks, but even more in some cases.

The amount of sugar is usually between 5-10 g/l - use only 5 g/l for bottles and 10 g/l for kegging.

Equipment fit for conditioning: Bottles, Party keg, Cornelius



Cleaning & Care

6.1. Cleaning and Care

Cleaning is the least pleasant and the most essential part of brewing, but Brewie eases the task by washing itself. However, cleaning and sanitizing fermentation vessels and other tools is a task that remains in your hands. Pay attention to cleaning; an improperly cleaned fermentation bucket containing different bacterial species from a previous brew can easily infect the brew and change its taste, or even spoil it.

Special attention must be paid to spaces where yeast can easily settle but are hard to reach and clean, such as corners, pipes, stirrers, and taps. Each item used during fermentation should be soaked in a Chemipro Oxi solution for several minutes. The aforementioned cleaning agent does not need to be rinsed off, as it forms a thin layer on surfaces, keeping microorganisms away.

6.2. Cleaning equipment



- **CHEMIPRO** (*Sanitizer*)

Description: Chemipro Oxi guarantees hygienic cleaning after the brewing process is finished. sanitize the bucket and everything that will interface with the wort. ChemiPro does not substitute detergent, it only serves for disinfection.

Use it for: fermentation tank, party keg, bottles,

- **TABLETS** (*Detergent*)

Where to place: 1st and 2nd hop tanks

When: while using a full clean program

Usage: Before starting a full clean program, put 1-1 tablets in each of the 1st and 2nd hop tanks, and close the lid. Follow the instruction on your Brewie's screen.

- **PBV - Powdered Brewery Wash**

Description: Environmentally friendly alkali cleaner. Safe for use on metals, rubber gaskets, tubing, plastic parts, and your skin.

Usage: How to keep Brewie clean with BPW If you have chosen 'Full clean' or 'Sanitising clean', add 6 tsp PBW evenly to the hop tanks. The 'Full clean' program starts with a 'Short clean' to rinse out all contamination left behind from brewing. Only add BPW when the 'Short clean' has finished. (This stands for all types of detergents.)

Cleaning the fermenting vessel: Fill the vessel up with water and dissolve 1 tsp PBW/liter. Leave it for half a day and drain it. Rinse with hot water.

- **SPONGE**

Use it to clean your Brewie, its accessories and the fermenting equipment, to wipe away bigger stains.

- **BRUSH** (*part of the Starter Kit*)

Use it only to clean the hop tanks and hop cages. Do not use the brush to clean your Brewie, the fermentation tank or any fermentation equipment, since it might damage their surface, causing bacteria to settle in microfissures, and spoil the wort.

- **PROTECTIVE GLOVES** (*recommended*)

The skin's direct contact with reagents might cause injuries, so wearing rubber gloves while cleaning is highly recommended!

- **HIGH PRESSURE CLEANERS** (*recommended*)

Universal cleaning device. It is the most efficient way to disinfect the equipments.

Use it for: Fast, efficient and gentle cleaning of the inside of your Brewie. Disinfecting barrels, kegs (while cooling outside with water - but preventing it from flowing inside)

6.3. Cleaning programs

Cleaning your Brewie after every brew is important, so Brewie has built-in cleaning programs to aid you.

Use a non-abrasive cloth or sponge to clean Brewie. For cleaning, follow the instructions on the screen. Except for the touchscreen, non-aggressive surfactants can be used if necessary. Check detergent manufacturer label for information on applicable surfaces. Brewie's outside surfaces are made of stainless steel and plastic.

Before launching the cleaning program, make sure Brewie is connected to the water system and take everything out of the machine (brewing bag, false bottom, hop cages). The items may be hot when removing from the machine. Handle with care!

Caution! *During the cleaning process excessive amount of waste water is drained through the wort/cleaning water outlet. We advise you to place the outlet tube into a sink or attach it to the household wastewater system.*

Caution! *Automatic cleaning is only possible if Brewie's water inlet is connected to the household water system and the tap is open.*

Caution! Hot! Risk of spoiling the brew! *After choosing automatic water addition, do not disturb Brewie while water is being cycled in or out of the machine. Disturbances can cause the weight sensor to report false data.*

Caution! *Never add water to the mashing tank!*

6.3.1. Short Clean

Manual or automatic cleaning options can be chosen.

when: after every brewing or if the next brewing will start within two hours

target: to remove contaminants

how: wipe out with a non-abrasive cloth or sponge (*no chemicals, no hot water*)

duration: 6 minutes, excluding draining

next step: you can start brewing after the Short clean or start Sanitizing or Big clean depending on what you'll do with Brewie. Pick the relevant step from the illustration. (....)

Follow the instructions on the screen:

1. Set your cleaning parameter (*automatic or manual water inlet*)
2. Connect the hoses
3. Pour water into the boiling tank (*if you choose manual water inlet*)
4. Before you start please check:

- No ingredients in tanks and containers
- No hop cages in containers
- No false bottom in mashing tank
- Hoses are connected
- 8 liters of water in the boiling tank

1. Wipe the surface of the tanks with a wet sponge

a non-abrasive sponge should also be used to wipe down any remaining particles and grime from the sides of the mashing and boiling tanks.

1. Prepare for draining. Place the fermentation bucket lower than the Brewie wort outlet.
2. Short clean is ready.

IF needed, repeat the process.

6.3.2. Sanitizing Clean

Manual or automatic cleaning options can be chosen.

when: after short clean or if you didn't use the machine recently

target: disinfecting

how: hot water, be careful!

duration: 90 minutes, excluding draining

next step: you can turn off and leave the machine

Follow the instructions on the screen:

1. Set your cleaning parameter (*automatic or manual water inlet*)
2. Connect the hoses
3. Pour water into the boiling tank (*if you chose manual water inlet*)

If you have chosen automatic water inlet, the machine will start adding water automatically.

4. Before you start please check:

- No ingredients in tanks and containers
- No hop cages in containers
- No false bottom in mashing tank
- Hoses are connected
- 8 liters of water in the boiling tank

5. Your Brewie will boil the water and circulate it in the tanks. Do not reach inside! Hot Liquid!

6. Prepare for draining

7. Sanitizing clean is ready

6.3.3. Full Clean

In version 1.9 the Full clean program is only available with automatic water inlet.

when: after every 5th brewing or if you haven't used the machine recently

target: disinfecting the machine and the tubes

how: dishwasher tablets + hot water + wiping

duration: 2-2,5 hours, excluding draining

next step: you can leave the machine or start a new brewing

Follow the instructions on the screen:

Before you start please check:

- No ingredients in tanks and containers
- No hop cages in containers
- No false bottom in mashing tank
- Hoses are connected

1. Set your cleaning parameter (*automatic or manual water inlet*)
2. Connect the hoses
3. Take everything out of the machine (*hop cages, brewing bag, false bottom*)
4. Pour water into the boiling tank (*if you chose manual water inlet*)
5. Press full clean
6. Wipe the surface of the tanks with a wet sponge
7. Prepare for draining
8. Place 2 dishwasher tablets (either those included with Brewie, or any readily-available dishwasher tablets - preferably unscented) into the first and the second hop tanks

9. Your Brewie will heat the water to cleaning temperature (60°C) and circulate it in the tanks. Do not reach inside! Hot Liquid!
10. Prepare for draining and press Drain button

Full cleaning is ready!

6.5. Unclogging program

target: To solve smaller cloggings

when to use:

- mash-in: after water is added, but it's not been added to the malt (at mashing temperature)
 - mashing: if you can not see wort circulating during the mashing phase
- if wort is circulated from a recipe-defined hop tank.
- cooling: if all conditions are met for cooling, but you still can not see wort circulating
- draining: if your Brewie does not drain the wort.

how: with manual water inlet

duration: 2 minutes

next step: inspect the contamination in all tanks and wipe them out.

In case the clogging is averted, start a Short Clean program

Unclogging program _(manually only)_:

1. Take out everything from your Brewie
2. Clean your Brewie as much as you can
3. Manually pour 5-5 litres of water into both tanks
4. Start unclogging every time with the mashing tank (*Unclogging one tank takes up 20 seconds*)
5. Repeat the program until water flow is continuous

6. Start unclogging the boiling tank
7. Repeat the program until water flow is continuous

If it still fails to work properly, restart the program.

If clogging still occurs, please, contact Brewie customer service

You can remove the remaining water with the "Drain all" program from Home/Extras

6.4. Cleaning the Parts

The basic requirement of brewing is to have everything clean. Always inspect Brewie and all additional beer brewing equipment for cleanliness before using it (hoses, false bottom etc.). If inspection skipped, the wort might get infected. Certain parts of your Brewie need manual cleaning. The hop cages and the false bottom in the mashing tank must be taken out and washed with standard hand-use dishwashing liquid and a non-abrasive sponge or in a dishwasher.

6.4.1. Hop cages

Hop cages should be removed after each brew and washed in a dishwasher or by hand. Use standard hand-use dishwashing liquid and/or wash in dishwasher at 70 degrees.

Clean the hop cages with brush, to get rid of the contamination jammed in the cage. Separate disinfection is not needed.

6.4.2. False bottom

The false bottom should be removed after each brew and washed in a dishwasher or by hand

6.4.3. Hoses

Boil them in a kettle for 3 minutes.

6.4.4. Standard Mashing Bag

Thoroughly cleaning the bag after each use is critical to ensure the high quality and hygiene of both Brewie and the brew. Mashing bags can be cleaned both manually or by washing machines. Do not leave any malt in the bag and rinse it thoroughly!

6.4.5. Fermentation tank

Tap:

Disinfect after every use.

1. Take it off the fermentation tank.
2. Open the tap and place the screw carefully in it, then boil them for 3 minutes.

Airlock:

Disinfect after every use. Boil it for 3 minutes

Caution! *The airlock can soften by heat. Take care to place it in the water to avoid deformation!*

Fermentation bucket+lid:

1. Wipe the sides with a sponge to get rid of bigger stains. Use only non-abrasive sponges for cleaning! Any coarse material might damage the surface, causing bacteria to settle in microfissures and spoil the wort.

2. After disinfecting the tap, place it back and tighten the nut.
3. Pour 1 l of 100 C° water inside, but keep the tap closed!
4. Put 2 teaspoons of ChemiPro/PBW or 1,5 ml StarSan inside.
5. Carefully dissolve the disinfectant with circular motions.
6. Close the lid and shake the bucket, so the liquid can reach every part.

Caution! Hot! Risk of spilling hot water! *Do not shake it too much, since the top can drop off!*

7. Pour all the water out.

Important: If you are using Iodophor for sanitizing your equipment, use about 0,75 ml per liters and use it only in cold water!

Now it is ready-to-use!

Brewmaster's Tips

Before bottling, pour out approximately 3 dl wort through the tap (yeast will be the first to pour out, let it, until the wort starts pouring out), then turn the tap sideways and disinfect it with 100°C water.

6.4.6. Bottle

Useable for secondary fermentation.

Use only clean bottles, or clean a bottle in the following way:

1. Dissolve 2 teaspoons of ChemiPro/PBW or 1,5 ml StarSan in 1 l of hot water.
2. Rinse the bottle with ChemiPro water.
3. If the ChemiPro you pour out from the bottle is dirty, do not use that for further cleaning.
Make new solutions.
4. Put on rubber gloves and use hot water and a brush to clean all contaminants from the

bottle.

5. Hold the bottle against light and look into it. If there is still contamination inside, repeat the process.

Important: If you are using Iodophor for sanitizing your equipment, use about 0,75 ml per liters and use it only in cold water!

6.4.7. Partykeg

Useable for secondary fermentation.

1. Dissolve 2 teaspoons of ChemiPro/PBW or 1,5 ml StarSan in 1 l of hot water
2. Pour it into the keg, then shake it. **Caution! Do not open the tap!**
3. Pour it out of the keg.

Important: If you are using Iodophor for sanitizing your equipment, use about 0,75 ml per liters and use it only in cold water!