# Girovap

distiller-pro2

Register your GIROVAP to **activate the warranty**

Free access to **techniques and recipes!**


MANUAL EN | V1 | 2024

# INTERACTIVE INDEX

Thank you for purchasing the **GIROVAP PRO2**, the new version of the Pro reduction distiller, designed and equipped for professional and gastronomic use with both food and drinks.

Following the resounding success of the first version launched in 2020, we have developed the new PRO2 version in 2024, incorporating innovative software that simplifies the machine's operation, along with other improvements in its engineering and components.
The addition of a proprietary operating system expands the range of users and profiles, from first-time users exploring GIROVAP technology to more experienced professionals who benefit from the enhanced day-to-day functionality.
The rotation system is another significant advancement, offering a 30% increase in traction and a detachable paddle as an additional element, enabling work with a variety of ingredients and reductions to achieve essences or resins.

We want to thank you for choosing the new GIROVAP PRO2, a reduction distiller designed and equipped for professional and gastronomic use with both food and beverages. The concept began when we realized that conventional rotary evaporators were designed for laboratory use and did not meet professional needs. For this reason, chefs and bartenders often face challenges such as insufficient vacuum power, high costs, difficult maintenance, and fragile materials when using them.
This improved version of GIROVAP not only addresses these issues but also makes it easier to learn and maximize its potential with its new software. It offers a durable, compact, productive, and easy-to-use solution. Discover new techniques in distillation, extraction, clarification, and low-temperature reduction.
GIROVAP PRO2 welcomes you to the next generation of gastronomic distillers.

Sincerely, **The 100%Chef Technical Team**

# Introduction

My name is Marc, and I am the technician responsible for guiding you through this training we have developed alongside my team to teach you all the techniques and applications of the products created with the **GIROVAP PRO2**. Follow the steps and instructions, and you will soon become an expert in this revolutionary technique.

# Read this manual carefully

Understand how this device works, and you will be able to operate it effortlessly within minutes. It is not complicated, but it is essential to familiarize yourself with all its parts on the first day. Take the necessary time for this brief training period and share the knowledge with your team members.
The GIROVAP is exclusively designed for professional and gastronomic use with both food and beverages. Its components are engineered to withstand the demands of professionals and can be quickly replaced or swapped out with various accessories and attachments.
We recommend keeping the original packaging. It is designed to transport the equipment if needed. Store it for at least 30 days or, if possible, keep it for any future transportation requirements.

Install the device on a sturdy, stable table to prevent unnecessary vibrations and noise. Ensure at least 30 cm of free space around it. Plug it into a socket with the correct voltage, and for your safety, choose an outlet with a grounding connection. Avoid mishandling the Girovap's parts or components.
It is essential to follow the instructions in this manual and not exceed the capacity and safety limits described herein.

**IMPORTANT:** Do not leave the device running unattended.

# First Use of Girovap Pro2

After unpacking and installing all components, it is essential to perform an initial distillation using only water. You can use tap water, and you will need at least 1 liter.

The distillation must be carried out at a temperature of 65°C / 149°F in the water bath for a duration of 60 minutes.

During this first distillation, residual particles from the coil may appear in the water. This is completely normal and occurs only during the initial use. Afterward, clean the components manually or in a dishwasher.

# Componentes de Girovap Pro2

## TERMAL BARH

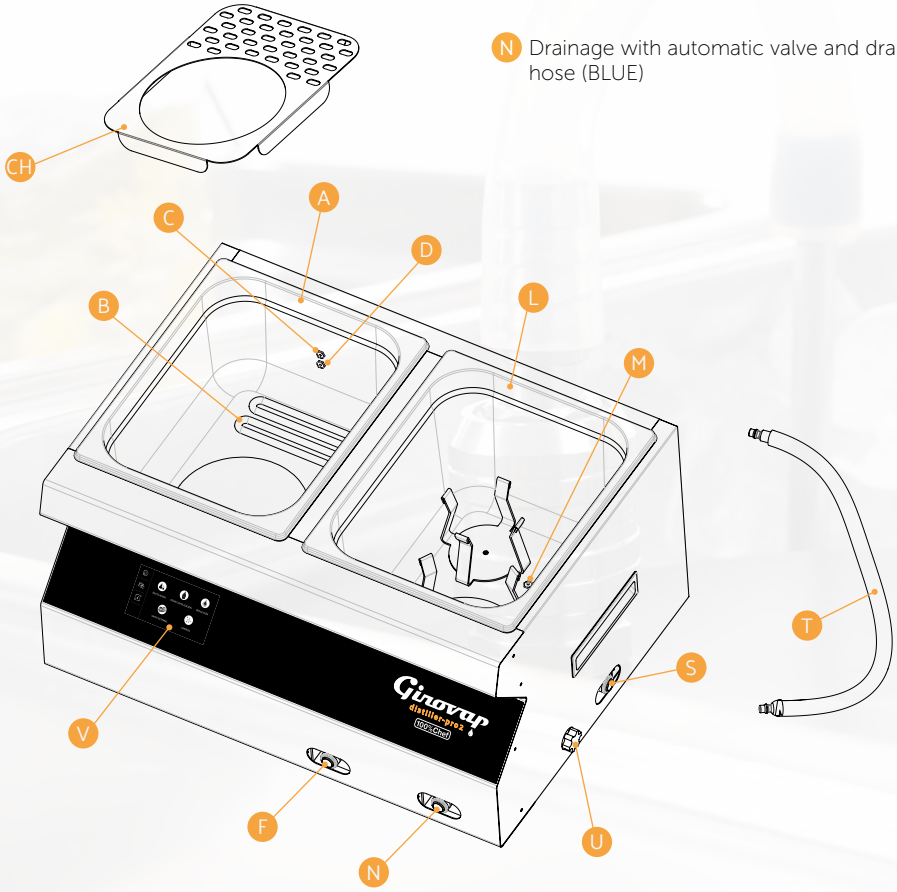
- A Tank lined with thermal insulation Maximum load 6 liters
- B 600W heating element (resistor)
- C Water level probe
- CH Protection bottom
- D Temperature probe, accuracy 1°C
- F Drainage with automatic valve

## FRONT CHASSIS

- S Vacuum connection
- T Connection hose for vacuum pump
- U Precision vacuum control tap.
- V LCD touchscreen

## COOLING BATH

- L Thermally insulated tank with Erlenmeyer clamps for cup and coil clamping
- M Temperature probe, accuracy 1°C / 33.8°F
- N Drainage with automatic valve and drainage hose (BLUE)



## REDUCER VESSEL

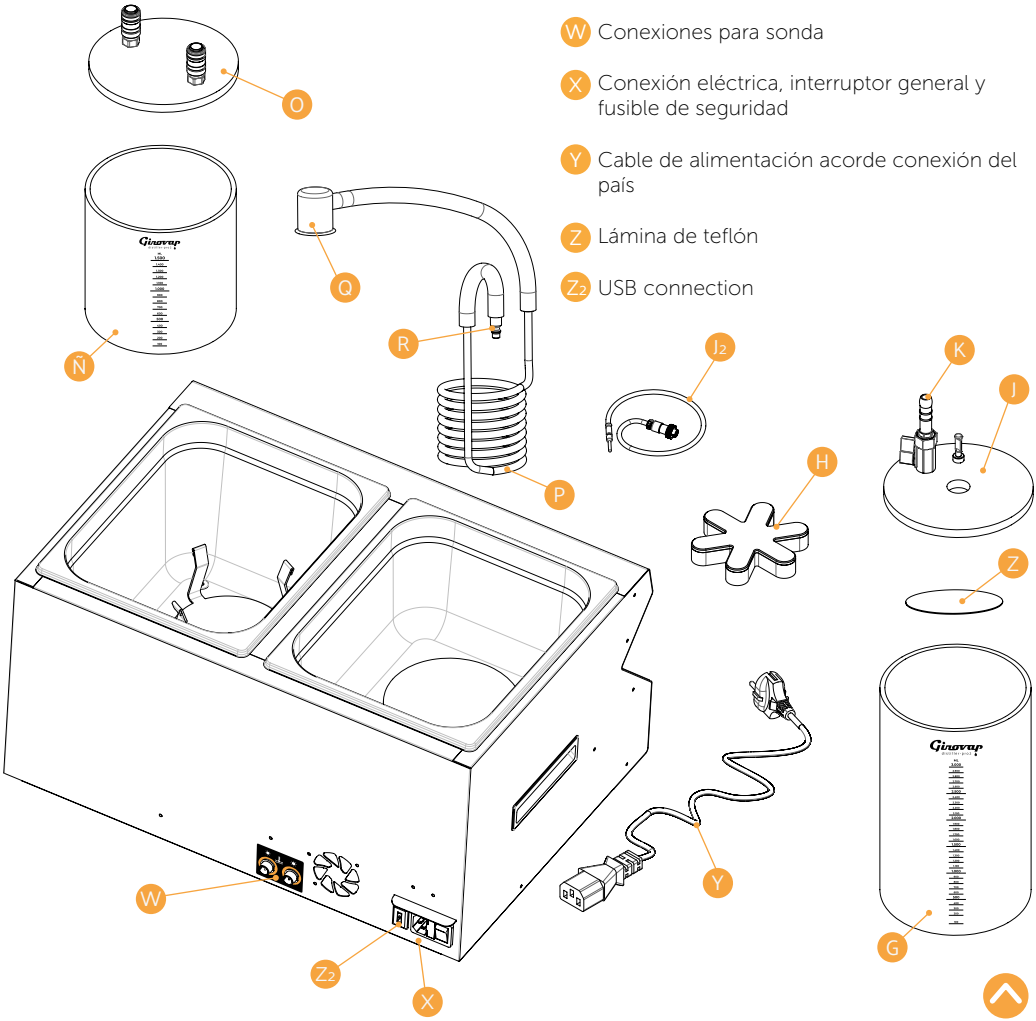
- G 3 liter glass with scale every 100 ml. Made of tempered borosilicate
  Maximum capacity: liquids 2.5 liters, thick creams 1.8 liters
- H Watertight magnetic rotating base with 6 prongs "Ninja Propeller"
- J Cover with tap and silicone vacuum seal
- J2 Temperature probe
- K Vacuum regulator (tap with pin)

## COOLING BATH COMPONENTS

- Ñ 1,5 liter collection cup with scale in ml. Made of tempered borosilicate
- O Cover with silicone vacuum seal and quick connections
- P Stainless steel coil for condensation (3 meters) Ø 8 mm
- Q Vacuum connection for reducing cup extraction
- R Cold Cup Connection

## REAR CHASSIS

- W Conexiones para sonda
- X Conexión eléctrica, interruptor general y fusible de seguridad
- Y Cable de alimentación acorde conexión del país
- Z Lámina de teflón
- Z2 USB connection



# The parts that make the GIROVAP PRO2 a completely different distiller from laboratory rotary evaporators

## 1 MEMBRANE VACUUM PUMP

The GIROVAP is equipped with a double-body diaphragm vacuum pump that achieves a suction rate of 15 liters per minute. Thanks to its two independent heads, although connected by a patented system, it can reach a vacuum level comparable to the best piston and oil bath vacuum pumps. The Girovap is equipped with an EAD pump that guarantees reaching -0.97 bar at ambient temperature (Relative Pressure), ensuring the removal of any moisture that may escape during distillation.

We have a video available to assist with its maintenance for your technical service. Since it is a diaphragm pump, it does not require continuous maintenance, and its diaphragm and head system allow the vacuum level to be regulated. The regulator tap can also be used to introduce more liquid into the vessel without interrupting the process. The precision vacuum control tap, located on the right side, enables exact control of the vacuum level required for each task.

## 2 DISTILLING GLASS

Conventional rotary evaporators have a vessel where the main ingredient is placed, known as the Flask. In benchtop units, the flask's capacity is typically 2 liters, and in some special cases, it can reach up to 3 liters. To increase the evaporation area, the product inside rotates, and manufacturers limit its load to half, reducing its capacity to 50%. In Girovap, the vessels do not rotate, so they can be filled up to 75% of their actual capacity. Girovap can work with 2.5 liters of product in its 3-liter vessel or up to 4 liters in the 5-liter accessory vessel.

The lid is completely airtight, and since no rotating sealing elements are involved, there are no seals or small leaks caused by material wear due to rotation, ensuring that the vacuum level remains consistent over time. Additionally, the vacuum level is always stable, and by working without loss, we can perform much more delicate distillations. The lid itself has a temperature sensor that measures the exact temperature of the vapor and the product before it exits the vessel. One of the most convenient features of Girovap is its 15 cm wide opening, making it extremely easy to remove the product and clean the vessel.

## 3 MAGNETIC ROTATION SYSTEM

One of the most innovative features of the Girovap, aside from its impeccable pump, is its rotation system, which ensures perfect temperature homogenization across all types of ingredients. It also enables the creation of a giant vortex to maximize the evaporation surface area. Its powerful traction, combined with various accessories, allows it to work with semi-solid ingredients.

Additionally, with the static vessels, the product rotates thanks to the propeller, ensuring that all the product rotates simultaneously, regardless of its density or volume. The six paddles allow for work at a high vacuum level, as they capture foam when working with foaming products, preventing them from escaping from the chamber and entering the collection area.

This chapter provides a description of the startup of the components and their assembly in the equipment and explains the essential details to ensure you get the most out of your first test. These preparations must be done or verified step by step in the assisted program.

## 1 Vapor Sensor Connection

Connect the sensor to the rear of the Girovap. The sensor with the larger terminal should be connected to the base (☀). NOTE: You can always leave this cable connected to the base and simply disconnect it from its JACK connection located on the lid to make cleaning easier. Remove the plastic plug from the lid by pressing on the perimeter ring of the lid connection. Once removed, store it and place the sensor tip into the hole you freed by removing the plastic lid. Remove the sensor in the same way before cleaning in the dishwasher. Remember, you will not be able to create a vacuum in the vessel if the sensor or the plastic lid is not properly placed.

The different temperature readings are directly connected: the hot bath sensor (D), the cold bath sensor (M), and the water level sensor (C). The rear connection marked as "cold" (AUX /❄) is a supplementary connection for making external measurements of other Girovap accessories.

## 2 Filling of the thermal bath

Fill the tub (A) of the water bath with 6 liters of preferably warm water. Place the circular Teflon sheet (Z) inside the vessel (G) so that it lies flat. Next, place the stirring paddle (H) inside the vessel (G). Then, place the vessel in the water. The magnetic propeller will hold the vessel submerged without it floating. Add the products to be distilled inside. Center the vessel in the middle of the perforated tub with the black bottom. The vessel will be held in place by the magnetic force of the magnets.

⚠ Never do this while the motor is running.

ⓘ **Warning:** if you want to remove the stirring propeller from the vessel after it has been installed in the bucket, it is preferable to first lift the vessel out of the bucket. This will release the magnet, allowing you to remove it easily. Always ensure the machine is in **STOP** position.

## 3 Assembly of the Distillation Cooling Bath

Place the condenser coil (P) into the small clip. Insert the collection vessel (Ñ) into the larger diameter clip, applying pressure until it is securely held at the bottom. Fill the bath with crushed ice or ice cubes, covering the condenser coil as much as possible and filling all available spaces. Always keep the bath filled with ice to improve results and prevent vapor or volatile leakage into the pump. Adding 200 ml of cold water with salt enhances heat transfer and increases the cooling level.

## 4 Partial Opening of the System and Restoration of Vacuum After a Stop

Stop the motor rotation and the heating system by pressing the STOP button. If you only want to open the vessel (G), disconnect the quick connectors attached to the vessel (O) from the vacuum pump and the condenser coil. The flask vessel will be pressurized again, allowing you to make any modifications or reposition the paddle.

## 5 Full opening of the system at the end of the distillation

Stop the motor rotation and the heating system by pressing the STOP button. If you want to fully pressurize the vessel circuit (G) and (O) again, open the tap (K) located on the lid of the vessel (G). By slowly opening the tap and re-pressurizing the vessels, they can be opened, and in the same way, recover any product that may have remained in the condenser coil, as the pressure entering through the tap will push the liquid remaining in the coil circuit.

## 6 Incorporation of fluids inside the reducing cup or hot cup

Some preparations require that, during the process, and without breaking the vacuum, you add liquids into the flask (G), whether to introduce more product, aromatic ingredients, or thickening agents during its reduction or distillation, without needing to stop or lose the vacuum level. This should always be done with the vacuum pump running and connected to the circuit.

To do this, connect a piece of hose to the vacuum regulation valve (K). Submerge the other end into the flask with the liquid to be added, and slowly open the valve. You will notice that, thanks to the vacuum, the liquid will be drawn into the flask. Open and close the valve repeatedly to ensure no droplets or residue remain inside the tube.

## 7 Thermal Bath Water Level Security System

The Girovap Pro2 is equipped with a sensor that detects potential malfunctions. If, by mistake, the heating element is activated and the water does not cover the heating element, the water level sensor will display a message on the screen and emit a warning beep. For proper operation, the optimal water level should be between 5 and 6 liters. It is essential to change the water in the water bath regularly to prevent the buildup of calcium. While distilled water can be used, never use deionized water, as the water level sensor will not detect it. To speed up the working time, it is better to add preheated water.

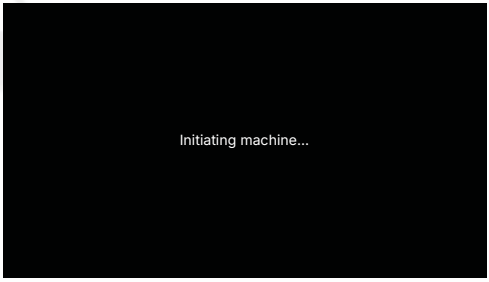
## 8 Precise Vacuum Control

This new version of the Girovap Pro2 features a new and precise tool that allows us to regulate the vacuum level with an accuracy of 1 mbar. To activate it, once the maximum vacuum of -0.97 bar is reached, slowly turn the wheel counterclockwise to control the vacuum level displayed on the screen. To reset it, close the needle valve by turning it clockwise until it stops.

# Software Structure

This chapter provides an overview and description of the GIROVAP PRO2 user interface. To configure your distiller or perform any operation, follow the procedures below, divided by sections:

## Startup

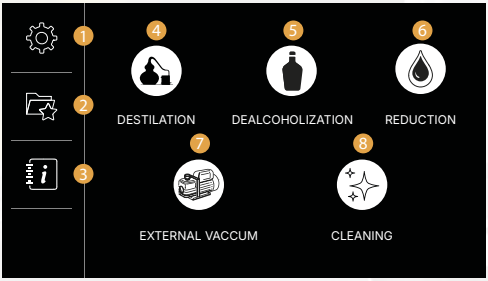




## Main menu

### *Assisted Mode*

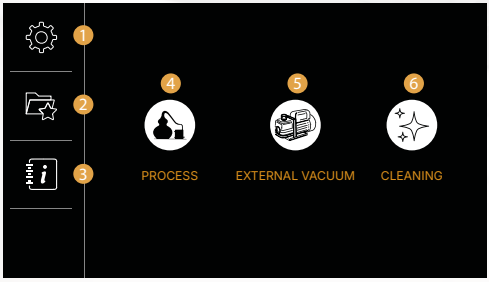
You should choose this mode only if you are an inexperienced user or using this equipment for the first time. Our assistant will guide you and indicate how to proceed according to each need.




1. Settings
2. Favorites
3. Manual
4. Distillation
5. Dealcoholization
6. Reduction
7. External Vacuum
8. Cleaning

### *Technical Mode*

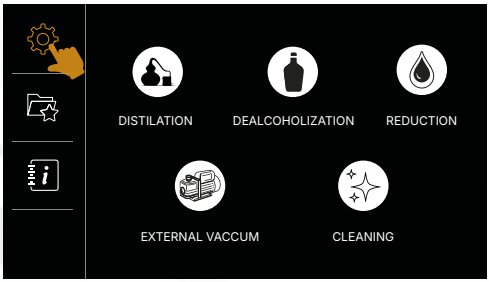
You can choose this mode if you are an experienced user or regularly use this equipment.



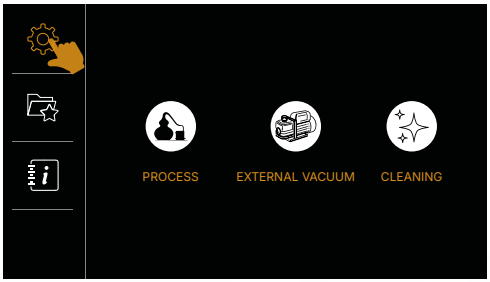

1. Settings
2. Favorites
3. Manual
4. Process
5. External Vacuum
6. Cleaning

# 1 Settings

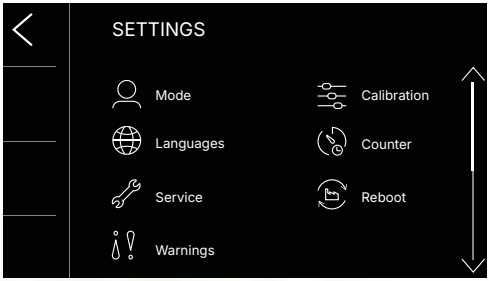
Assisted mode




Technical mode




Select "**Settings**" from the main menu.




Settings that can be selected in the menu


**Mode: Select the mode you want to use to interact with the machine.**

- **Assisted:** in this mode, the interface guides you with clear and informative steps, ideal if you are new to distillation with Girovap. As you interact, the machine shows step-by-step instructions, helping you understand what is happening at each stage.

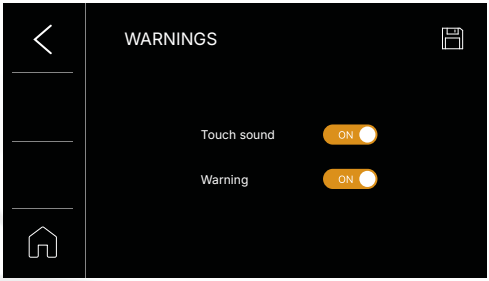
- **Technical:** this mode enhances interaction for more experienced users, offering an interface simi like previous version but more intuitive, thanks to the larger screen.

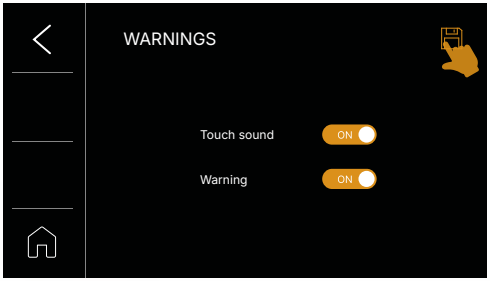
**Warning:** when selecting the operating mode, the interface automatically changes, displaying 5 icons in assisted mode and 3 in technical mode. If you return to the main menu without saving, the machine will revert to the last saved state upon restarting. However, if you save the newly selected mode, the machine will retain it each time it is powered on.
The machine is configured with assisted mode as the default setting.


**Languages:** select the operating language from the options: English, Español, Italiano, and Français.

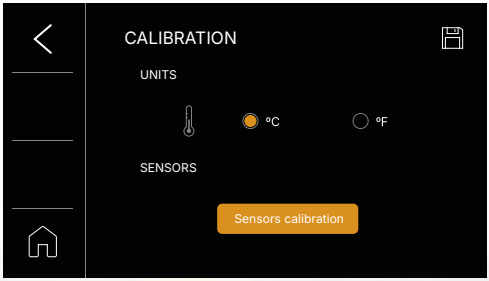

**Service:** displays the expiration controller for the next maintenance service, the date of the last service, and the registration data, along with the software version.

**Warning:** depending on the remaining hours until the next service, the clock will count down. This clock has three states: white when there are between 5840 and 24 hours left, orange when 24 hours remain, and red when it reaches 0 hours, potentially showing negative values.




**Warnings:** select whether you want to enable or disable the touchscreen sounds, as well as the warning and error sounds. Both settings are enabled by default. If you exit this screen without saving, the machine will return to the previous state upon restarting. If you save, the selected settings will be retained.

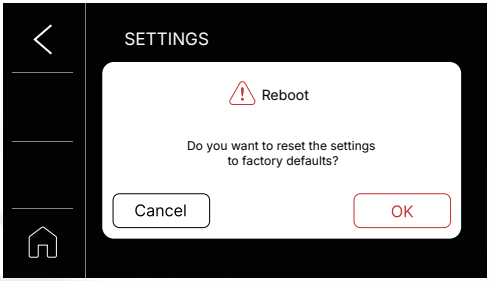



**Calibration:** select the unit of measurement you want to use to display temperature values: degrees Celsius **°C** or degrees Fahrenheit **°F**. If you exit this screen without saving, the machine will return to the previous state upon restarting. If you save, the selected settings will be retained.

**Warning:** to access the sensor calibration, you must contact technical support to obtain the access code.


**Counter:** in this screen, you can view the usage time of your Girovap, including total time, time for processes, and cleaning times.

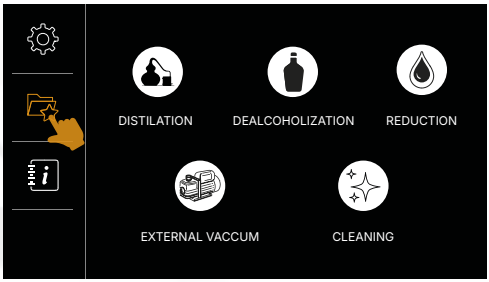
**Warning:** remember that each time the software version is updated, this counter will reset to zero.

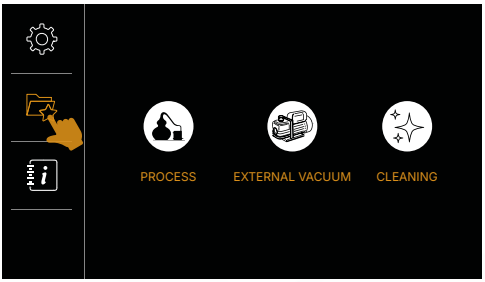



**Reboot:** when you press the reset button, this screen will appear informing you that all settings will return to the factory default configurations.

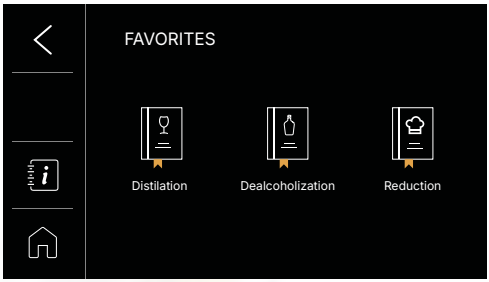
**Warning:** the values that will be reset are the mode, the language, the sensor calibration, and the warnings.

## 2 Favorites




Each time the following icon appears, press it to access the recipe library saved in your Girovap's memory.

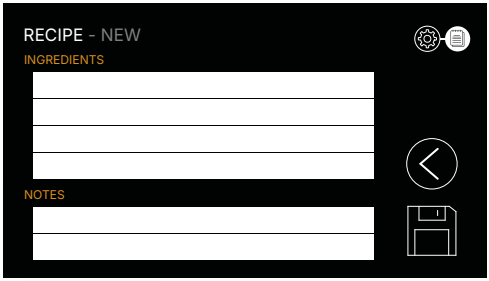



Girovap has 3 storage libraries, each with a maximum of 15 recipes. In this new version, during distillation, dealcoholization, or reduction processes, Girovap can save the different presets configured by the user. Additionally, it includes a section to record the initial product, the resulting product, ingredients, and any notes.

At the end of each process, press the save button to record these values and create the corresponding recipe.

**Warning:** depending on the process performed or selected at the time of saving, the recipe will be stored in the corresponding library, with a limit of 15 recipes per process.


The saved recipes are displayed in this format within each library; in this case, the distillation library is shown. From this screen, you can create new recipes by pressing the button 1 or select a saved recipe 2 to view its summary.

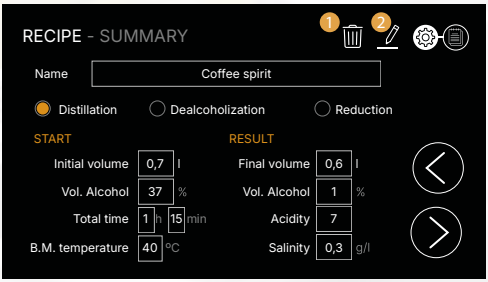

The visualization, creation, and storage of recipes are organized into two screens:

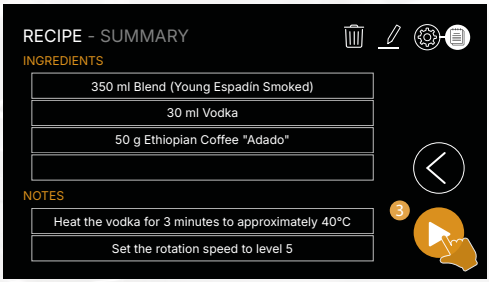
**First Screen:** allows you to assign a name to the recipe being created or saved and record the characteristics of the initial product placed in the flask vessel, such as the initial volume, alcohol percentage, water bath temperature, and, in the case of a new recipe, assign a time. On this same screen, it is also possible to note the characteristics of the product obtained at the end of the process.

**Second Screen:** its primary function is to record the ingredients and any relevant notes to consider for making the recipe.

To input information into the fields, you can use text lines or numerical values. Depending on the selected field, either a full keyboard or a numeric keypad will appear.

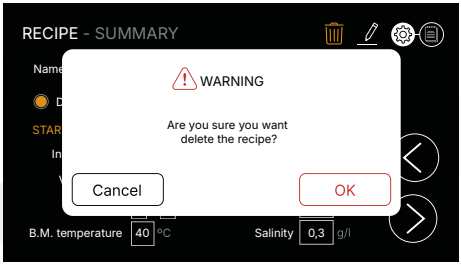
Example of Recipe Screens:



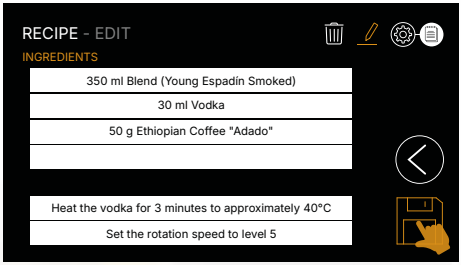



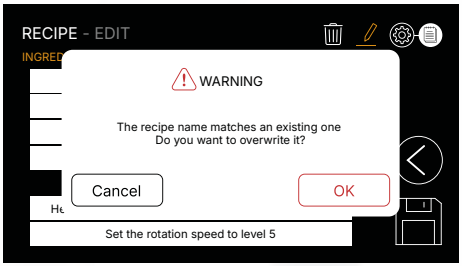

When selecting one of the saved recipes, you will see a summary of it, and you can delete it 1 , edit it 2 or start it 3 .

**Warning:** the following points are important to keep in mind for the correct functioning of the Favorites library.



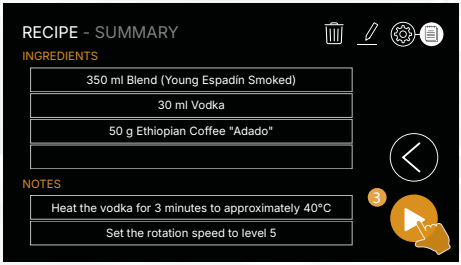

1. When deleting a recipe from the memory, it cannot be recovered. Make sure you truly want to delete it before confirming the action.



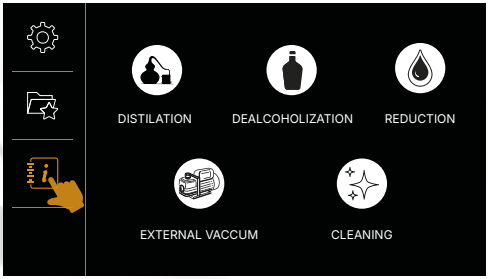

2. When selecting the option to edit the recipe, make sure to press the **Save** button to apply the changes to the parameters.

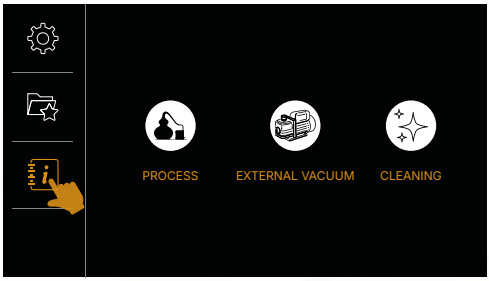
   If you try to save or change the recipe name to one that already exists, you will receive a notification.



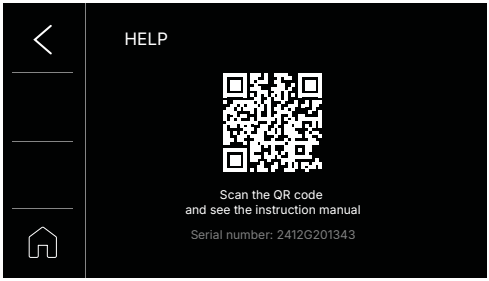

3. To start a saved recipe, make sure that the water bathtub has enough water and that the vessels are properly placed with their corresponding lids. When pressing the **Play** button, the machine will change to the next screen, automatically adjust the recipe parameters, and activate the vacuum pump.

# 3 Manual




Press the marked button to access the QR code for the online manual directly.




**User Manual:** scan the QR code to access the updated instruction manual for the Girovap Pro2.

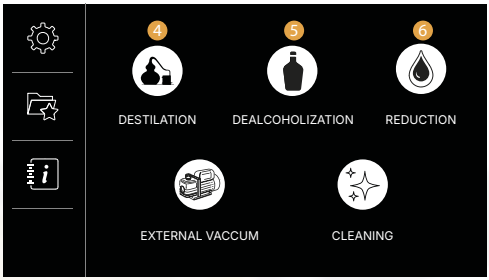
# 4 5 6 Distillation / Dealcoholisation / Reduction

**Warning:** this manual will explain the **distillation** process in detail and will only highlight the specific preset adjustments that differ in the **dealcoholization** and **reduction** processes.

Differences Between the Modes:

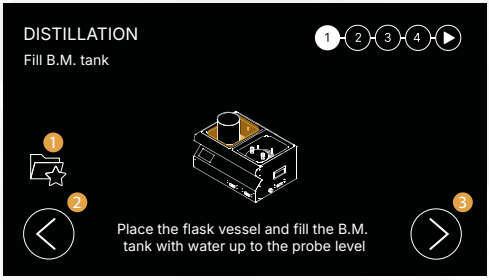
- **Assisted Mode:** designed to guide the user through each step. The machine automatically handles many of the settings and provides detailed instructions for each step.
- **Technical Mode:** for experienced users, it offers greater manual control over the parameters. There is no on-screen assistance, and the user must know how to configure and adjust the values as required by the process.

ASISTED MODE




1 **Menu:** select the process you wish to carry out: 4 **Distillation**, 5 **De-alcoholization,** or 6 **Reduction**.

**Warning:** follow the procedure as indicated on the Girovap screen.





2 **Fill the B.M. Tub:** place the flask vessel with the paddle and Teflon, and fill the water bathtub with water up to at least the level of the upper sensor.

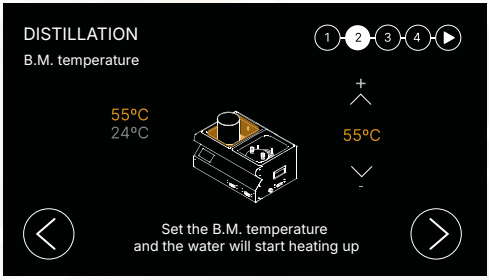
## Thermal Bath Water Level System:

**Girovap** is equipped with a water level sensor that detects potential malfunctions or errors. If, by mistake, the heating element is activated without the water level covering the element, the water level sensor will display a warning message on the screen and emit a beep.
To ensure proper functioning, maintain the water level between 5 and 6 liters. It is crucial to periodically replace the water in the water bath to prevent the buildup of limescale. You can use distilled water, but not deionized water, as the sensor will not detect its level. To reduce heating times, it is recommended to fill the tank with hot water.

**Warning:** It is recommended to fill the tub with 6 liters of water, preferably hot, to optimize performance.

Explanation of the Buttons on Screen:

1. Favorites: Allows direct access to the recipe library.
2. Back: Returns to the previous screen each time it is pressed.
3. Forward: Advances to the next step when selected.



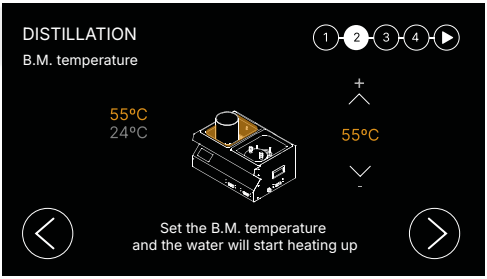

3. **B.M. Temperature:** select the temperature of the water bath, and the water will begin to heat up. On the screen, the current water temperature is displayed gray, and the desired temperature that has been set is shown in orange.
The programmable temperature range is from ambient temperature up to 100°C / 212°F. If Girovap is in operation, it will not be possible to modify the bath temperature.

**Warning:** the machine will not allow you to set a temperature that is 10°C lower than the current temperature displayed on the screen. If you need to lower it further, it is recommended to drain some of the water from the water bath and add cold or hot water.

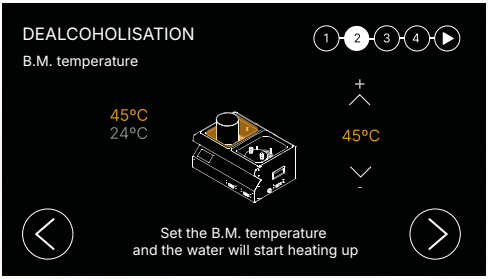
As you proceed to the next screen, the water bath heating element will activate to heat the water to the programmed temperature. This design ensures that once all steps are set, the machine does not require long waiting times to reach the desired temperature, thus optimizing the process.

Preset Temperature Settings:

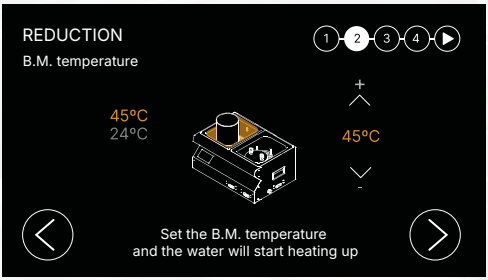
Depending on the process you are configuring, Girovap has preset settings. For this reason, in Assisted operating mode, the main menu is divided into 3 main processes:



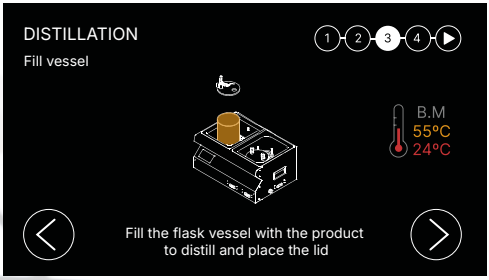

**1) Distillation** Girovap shows 55°C by default




**2) Dealcoholisation** Girovap shows 45°C by default




**3) Reduction** Girovap shows 45°C by default




4 **Fill Vessel:** fill the flask vessel with the product to be distilled. Place the Teflon sheet inside the vessel, ensuring it lies flat. Then, place the magnetic paddle, and finally, attach the lid to the vessel.

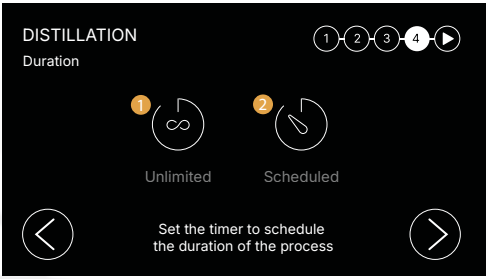
**Warning:** on the screen, you will see that, on the right, the indicator lights up in red when the heating element is active and heating the water during the setup. Once the desired temperature is reached, the indicator will change to gray. The target values you set will appear in orange, as mentioned earlier.

If you wish to remove the propeller from the vessel after it is installed in the tub, first lift the vessel out of the tub. This will free the magnet, and you can easily remove it.

When placing the lid, you will notice a connection cable for the vapor sensor, which is responsible for monitoring the temperature of the vapor generated in the flask vessel. Connect the sensor's terminal to the corresponding base at the back of the Girovap ( ☀ ).

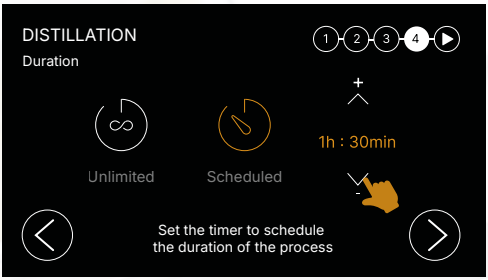
If you do not wish to control the vapor temperature, you can disconnect the sensor from its attachment in the machine or remove it from the lid and insert the attached plastic plug.

*In general, the higher the temperature, the more vapor is generated, and the production will be greater. However, some products are more sensitive to high temperatures. We must strive for a good balance between these two options - bath temperature - internal temperature*




5 **Duration:** select whether you want to program the duration of the process or not.

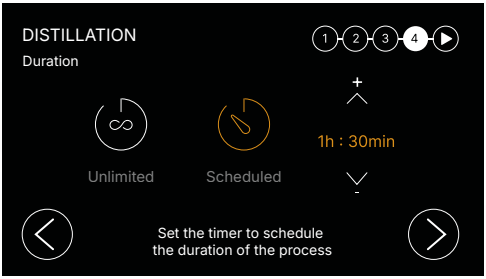

1 **Unlimited:** when you select **unlimited duration**, the process will continue indefinitely until you decide to stop it manually.



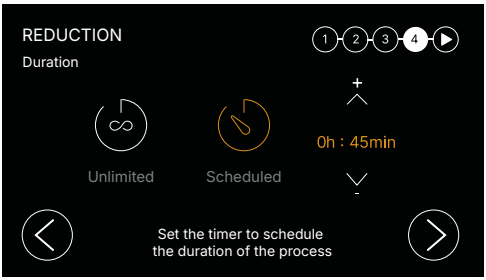

2 **Scheduled:** when you select the **scheduled duration**, you can increase or decrease the total time in 5-minute intervals by pressing the arrows. If you hold down the button, the value will change more quickly.
In this scheduled mode, once the selected time has elapsed, the machine will stop automatically.

Preset Duration Settings:

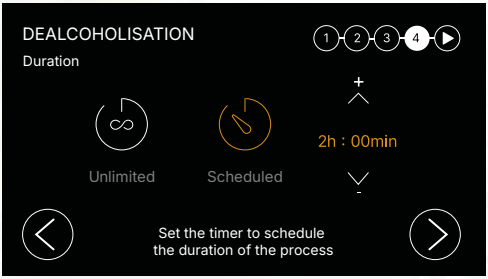
Depending on the process, GIROVAP has preset settings. For this reason, in assisted mode operating mode, the main menu is divided into 3 processes designed for a 1.5-liter load. The time value should be increased or decreased depending on the process or the amount to be distilled:




1) **Distillation** Girovap shows 1 h 30 min by default




2) **Dealcoholization** Girovap shows 45 min by default

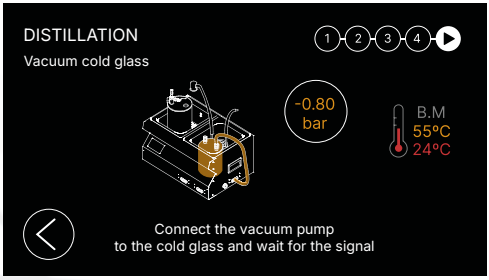



3) **Reduction** Girovap shows 2h by default

**Warning:** remember that when you select the scheduled duration, Girovap will start a countdown, which will begin once the water bath (B.M.) reaches the programmed temperature.

Once the process has started, you can switch between the scheduled or unlimited duration modes. This allows you to edit the time during the operation if the process has already begun.

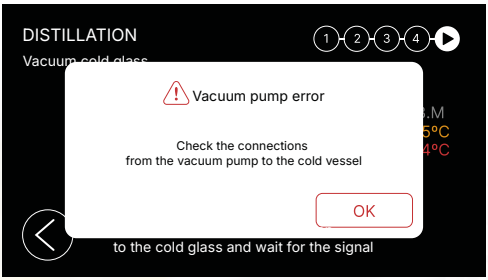
In both modes, the maximum operating time of the machine is 24 hours. To help you track the actual elapsed time, a stopwatch will appear on the screen, starting when Girovap begins the process.



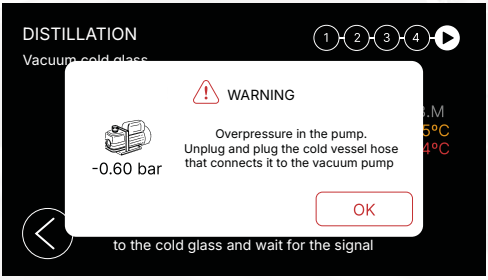


6 **Vacuum Cold glass:** place the cold glass inside the larger diameter clip, applying pressure until it is securely held at the bottom. Connect the quick connector of the suction hose to the pump. Next, place the lid centered on the vessel and connect the other end of the hose to the right connector on the lid. Apply a small pressure to the lid to assist in creating the vacuum. Then, wait for the signal. Once the vacuum level reaches **-0.80 bar**, Girovap will emit a sound and automatically move to the next screen.

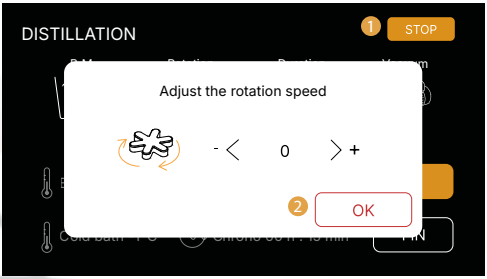
**Warning:** you must follow the instructions displayed on the screen correctly. Otherwise, Girovap will generate a **warning**.




**Vacuum Pump Error:** If it takes more than **1 minute** to create a vacuum in the cold vessel, a **warning** will be triggered. Once validated, the pump will turn back on.




**Warning: Over-pressurized Pump:** if, at the start of a process, Girovap detects that the cold vessel has an absolute value greater than **-0.3 bar**, a warning will be triggered. Follow the instructions displayed on the screen to resolve the issue.



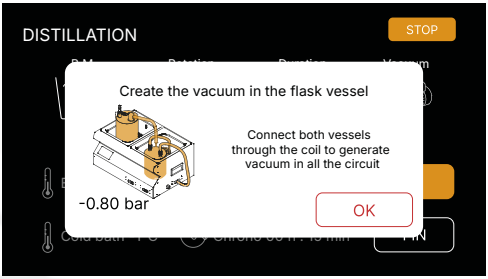

7 **Adjust Rotation Speed:** in this step, you can adjust the motor speed of the paddle using the arrows displayed on the screen, where **0** indicates the **OFF** state of the motor and **9** represents the maximum rotation speed. Once you have adjusted the speed, press 2 **OK** to proceed to the next screen.

**Warning:** as the vacuum level increases, certain products may begin to boil uncontrollably. This phenomenon, known as bumping, occurs when the product traps air bubbles, contains fibers, or its density increases when released from pressure, causing false boiling.

To avoid this issue, we recommend adjusting the rotation speed of the motor in this step. If the speed is not properly adjusted, the product may rise so much that it could be drawn into the vacuum suction system, negatively affecting the pump's maintenance and requiring cleaning and a restart of the process.

Liquid or alcoholic products do not present this problem. Their boiling begins when the temperature and vacuum levels generate vapor. Alcohol is more volatile than water, so their boiling starts at a lower temperature than that of water-based products.

In this step, the only way to stop the machine is by pressing the button ( 1 ) **STOP**, which will redirect you to the main menu, or by turning off the machine. In all screens where this button ( 2 ) appears, it is used to quickly exit the process configuration.



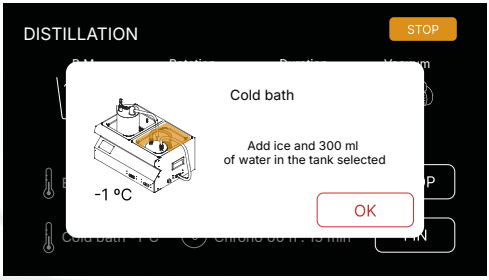

8 **Create the Vacuum in the Flask Vessel:** place the condenser coil inside the small clip, and connect both vessels with the coil to create a vacuum throughout the circuit.

When making the connections, as shown on the screen, ensure that the vent **valve on the flask vessel lid is closed** to prevent the vacuum from being broken.
To connect correctly, the coil should be placed in its anchor on the B.F. It will be easier to make the connection if you first position the suction bulb of the coil in the hole on the flask vessel lid with your left hand, and with your right hand, grab the other end of the coil. While connecting it to the cold vessel, apply pressure to the black head.
You will notice a slight drop in vacuum. The machine will not continue the process automatically until it registers an absolute value greater than **-0.8 bar.**

*i* **Warning:** if, after 2 minutes, the expected vacuum level is not reached, check that the lid valve of the flask vessel is fully closed and that all connections are securely fastened.

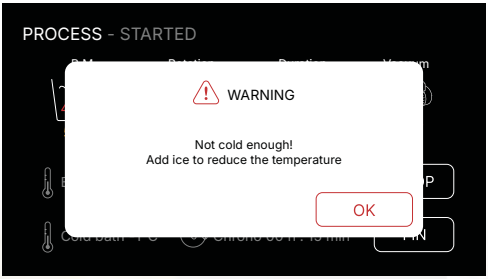
A If **false boiling** occurs as mentioned in the previous step when creating the vacuum in the **flask vessel**, and even after setting the desired rotation speed, if it is not sufficient, you should repeatedly release the vacuum level using **the lid valve of the flask vessel** until the bubbling and explosions fully stabilize. You can even leave the valve slightly open, maintaining a medium vacuum level during the first few minutes, working at **-0.70 bar**. Once the refluxes are stabilized, close the valve and continue normally until reaching the maximum vacuum.

B If following the previous steps breaks the vacuum in the **cold glass**, disconnect the **coil** and regenerate the vacuum in the cold flask. Then, repeat the steps above to create a vacuum in the **base product glass**.

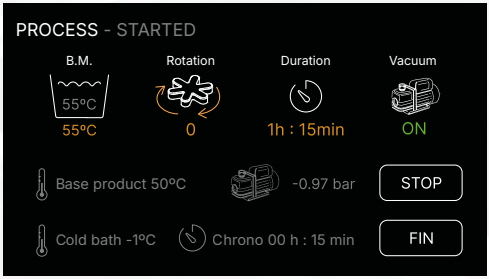



9 **Cold Bath:** secure the condenser coil inside the small clip and add crushed ice or ice cubes, covering the coil and all available spaces as much as possible. To improve the cold transmission, add 200 ml of cold water.

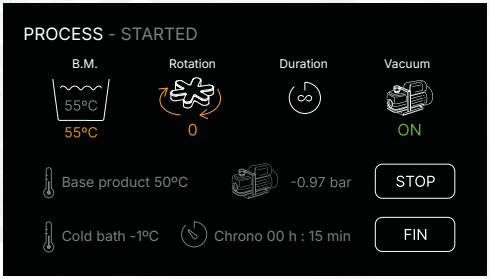
**Warning:** once you press **OK**, the machine will check every 5 minutes if the temperature of the cold bath is above 10°C. If this is the case, it will generate a visual and audible warning on the screen, indicating that you need to add more ice.




**Cold Bath Warning:** not cold enough! Add ice to reduce the temperature.
**Recommendations:** always keep the ice bath full to improve results and prevent possible vapor or volatile leaks into the pump.



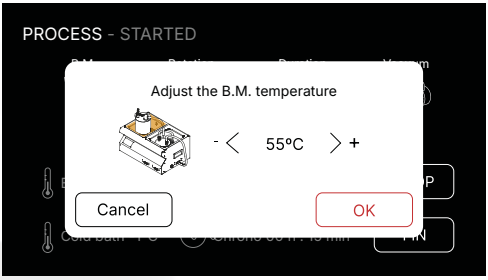

Scheduled Duration




Unlimited Duration

10 **Distillation Started:** this is the main screen when Girovap is in operation, displaying the different parameters managed by the machine and allowing you to make modifications to the presets initially configured. Depending on whether you selected the unlimited or scheduled duration when programming the process, you will see one of the two operation screen options.

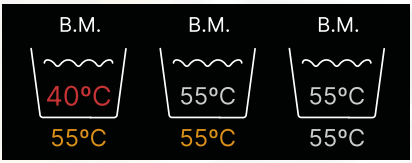
*Possible modifications:*




A **Adjust the B.M. temperature:** this pop-up window allows you to modify the programmed temperature of the bath (B.M.). Remember that the machine will not allow you to lower the temperature by more than 10ºC from the currently registered temperature, and the maximum temperature is 100ºC.

All processes begin once the B.M. water reaches the programmed temperature. At that moment, the countdown starts if a scheduled distillation duration has been set. In the case of unlimited duration, the elapsed time stopwatch will start once the target temperature is reached

To check the B.M. status, the following graphic is displayed on the screen, representing the tub.

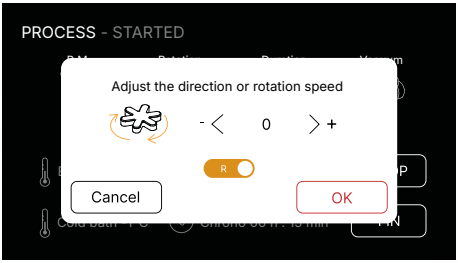


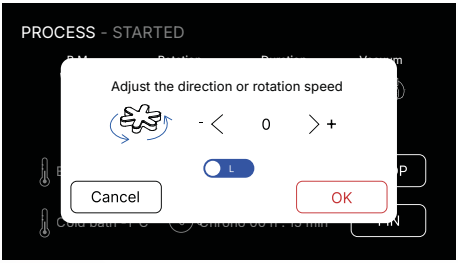

B **B.M. States:** the current temperature state is displayed inside the tub, with two differentiated states: in red when the heating element is on, heating the water to reach the programmed temperature, and in gray when the heating element is off.

The programmed temperature is shown outside the tub in orange.

As you can see, the temperature values are presented as whole numbers, without decimals. In this case, it has been configured that the B.M. sensor has a margin of error of ± 0.5ºC. This means there may be times when the sensor registers a value 0.5ºC higher than the programmed temperature and remains in the **on** state (red), or a value 0.5ºC lower and does not turn on, staying in the **off** state (gray). When the process is paused, both temperatures will appear gray.

**Recommendations:** if you wish to lower the temperature by more than 10ºC from the current temperature, it is recommended to empty the tub slightly and add cold water to achieve the desired adjustment.

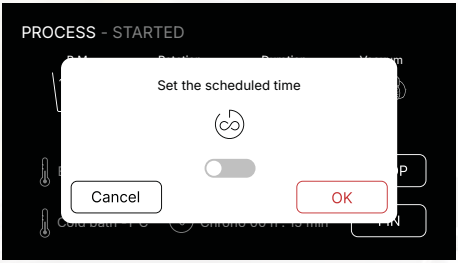


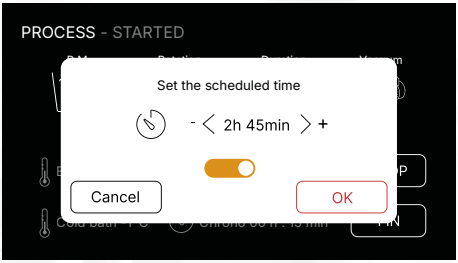




C **Adjust the rotation speed or direction:** in this screen, you can adjust the rotation level and speed of the motor, where **0** turns off the motor and **9** represents the maximum speed.

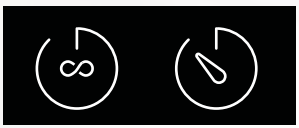
By default, the machine rotates to the right, but you can reverse the direction if needed. When pressing the slider, the motor will automatically change direction, gradually reducing the speed until reaching level **1** in the opposite direction. Once the direction is reversed, you can increase the rotation level again.

**Motor:** rotation direction states

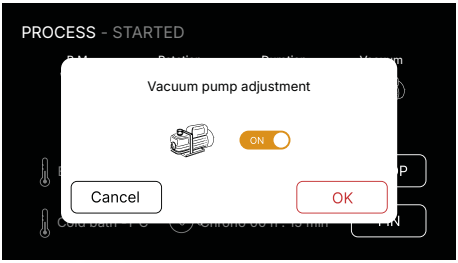


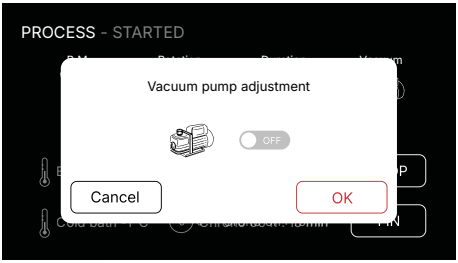




D **Adjust the Programmed Time:** in this screen, you can edit the duration of the process. As mentioned in the setup step, if a time has been preset at the start and later it is determined that it will not be sufficient, this is where you can modify it by adding or reducing time by 5-minute increments.
Additionally, you can switch between a scheduled process and an unlimited one whenever needed.
This option is especially convenient when working with an unlimited process, as it allows you to set the remaining time if you need to step away from the machine for any reason. Once the time is up, the machine will stop automatically.



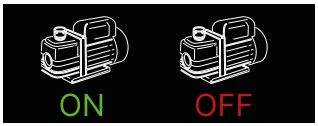
**Duration:** states according to the programming.



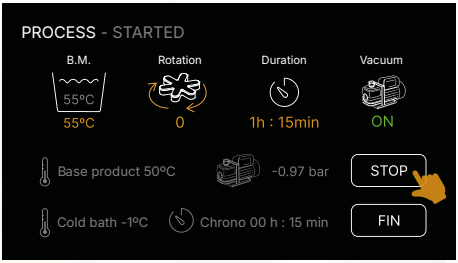




E **Vacuum Pump Adjustment:** unlike the other adjustable parameters, the vacuum pump control can only be accessed through the pop-up window when in an unlimited duration distillation process. Once the window is open, you can turn the vacuum pump on or off.

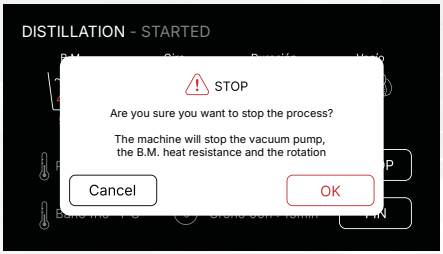
It is important to note that when starting any process, whether scheduled or unlimited, the pump is activated automatically.




**Vacuum:** Pump states




F **STOP:** once Girovap is in operation and you wish to pause the process, pressing the **STOP** button will stop the heating element, motor, stopwatch, and pump. If you are running a scheduled process, the remaining time will also be paused.





When you press **OK** in the pop-up window, the process will stop and enter pause mode. In this state, the Girovap action screen will only allow you to resume/continue the process or finish it.

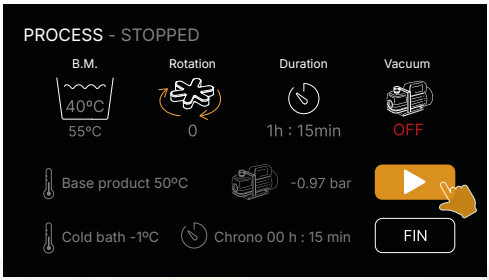
On the other hand, if you press **Cancel** in the **STOP** pop-up window, the process will not pause and will continue running.

11 **Uses of Pausing the Process:**

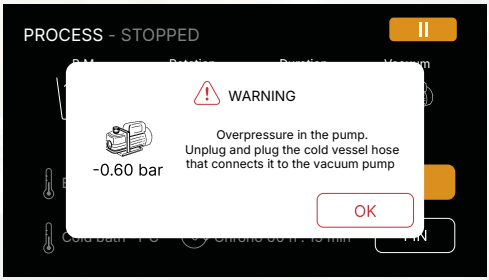
- When the process is paused, you can break the vacuum to sample the contents of both vessels.
- In case of an emergency where you need to step away but don't want to lose the ongoing process, you can pause the machine and resume the process later without losing any data or progress.
- Etc.: Any other similar situation that requires temporarily stopping the process without losing progress.

**Resume Process:**

Once the process is stopped and the necessary checks or concerns have been addressed, if you wish to resume the process, press the indicated key and follow the steps shown on the following screens.

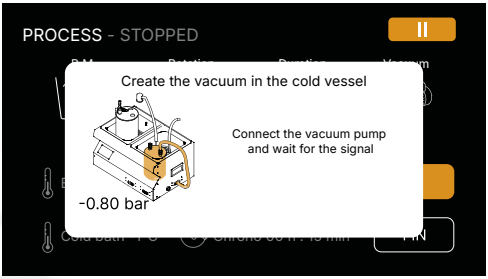



12 Press Resume

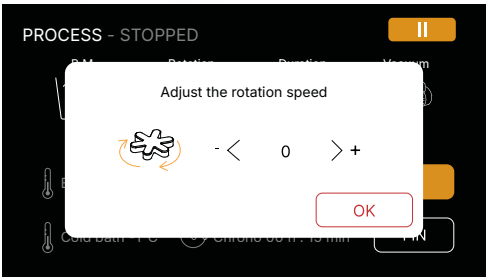



12 If the vacuum has not been broken, and Girovap has an absolute value greater than **-0.3 bar**, this pop-up window will appear, as mentioned earlier. Follow the instructions displayed on the screen.

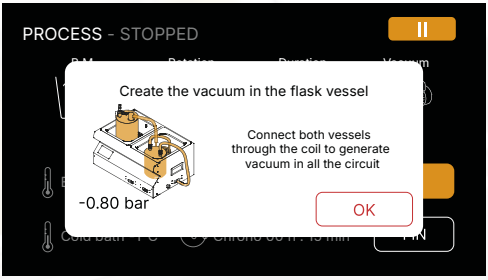
Just like when configuring the process, the only way to exit this phase is by pressing the pause button shown at the top of the screen, which will take you back to the pause screen. During this reconfiguration, this option will be provided in case you decide not to continue with the process.




13 Create the vacuum in the cold vessel

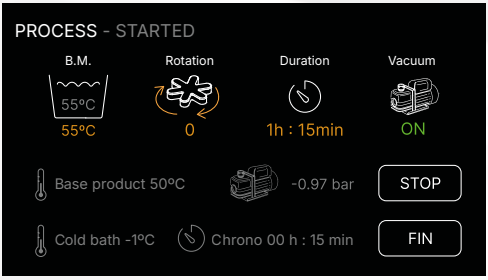


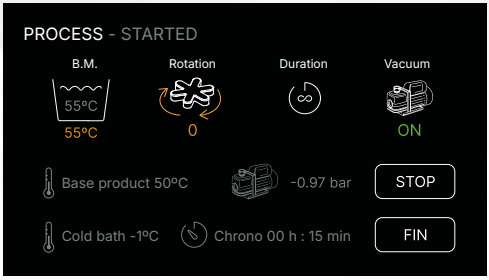

14 Set the rotation level

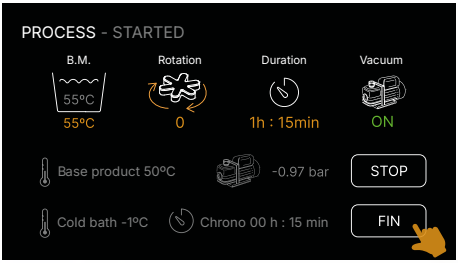


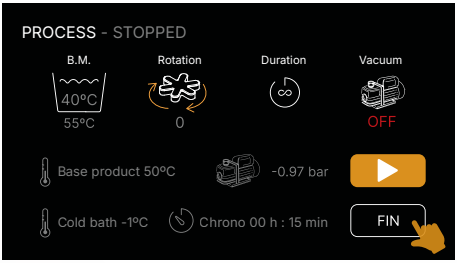

15 Create the vacuum in the flask vessel

Once these steps are completed, it will return to the process window, maintaining the previous parameters. The stopwatch will continue, and if the duration is scheduled, the countdown will resume from the point where it was stopped.

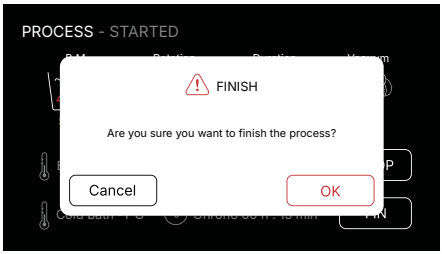





G **FIN:** this button allows you to finish the selected process, whether the process is in the STARTED or STOPPED state. When pressed, a confirmation pop-up window will appear.



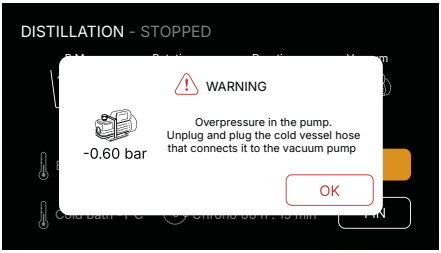

Upon validating the process, the "Process Finished" window will appear.

**Reminder:**
If you are running a scheduled process, once the preset time has elapsed, the process will automatically finish. If you wish to manually finish the process, you must press the **FIN** button.

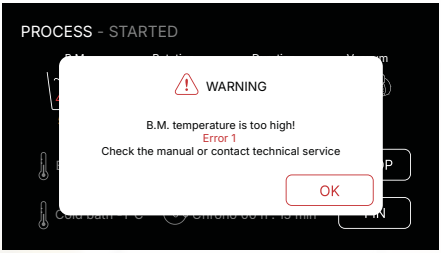
For an unlimited process, it can only be finished manually after 24 hours or by switching to scheduled duration and assigning the desired time.

**Aviso:** the title of the screen always displays the current state of the process being carried out.

DISTILLATION / DEALCOHOLISATION / REDUCTION - STARTED / STOPPED / FINISHED /

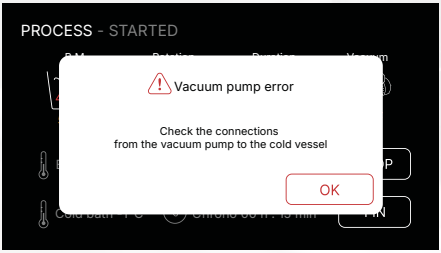



**Over-pressurized Pump:** this pop-up window appears when GIROVAP detects that the content intended for vacuuming has an absolute pressure value greater than **-0.3 bar**. Follow the steps displayed on the screen to resolve the issue.
Before activating the vacuum pump, GIROVAP reads the absolute pressure value. If this value is greater than **-0.3 bar**, this window will appear. Otherwise, the machine will activate the vacuum pump directly.

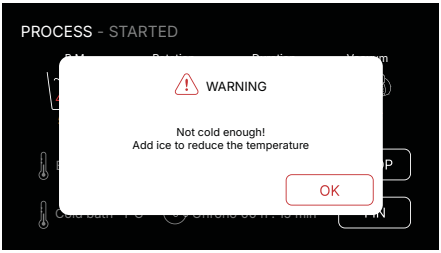



**Warning Error1:** if the heating element does not turn off when the programmed temperature is reached and continues heating, the B.M. sensor will stop the entire machine when it registers a value 11ºC above the set temperature. At that moment, the process will become irreversible, and the following warning will appear on the screen.

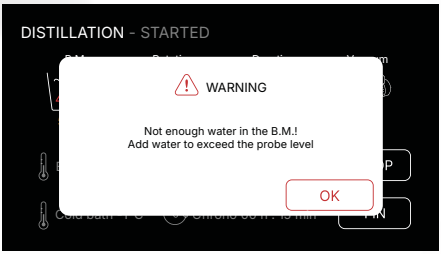
When this screen appears, it means that one of the machine's safety systems has been activated. In this case, you should contact technical support to explain the steps to follow. Alternatively, you can access the **WARNINGS AND ERRORS** section in the manual for more details on how to proceed.



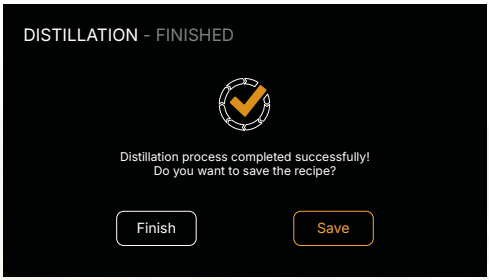

**Vacuum pump error:** this alert is triggered when, during the process, the vacuum drops to an absolute value lower than -0.3 bar. When this screen appears, GIROVAP automatically pauses the process. To resume the process, you must follow the instructions displayed on the screen and ensure that the vacuum conditions are correct before continuing.




**Warning Cold Bath:** this screen serves as a reminder to add ice to the machine, as the cold bath sensor has detected that the temperature has exceeded 10ºC. The warning does not stop any process, but it will appear periodically every 5 minutes, accompanied by a "beep" sound.




**Water level warning:** this screen appears when the water in the B.M. does not cover the level probe. Check that the beaker flask is in place. If it is and the water does not reach the probe, add more water. Without the flask, as in the descaling process, more water volume will be necessary.

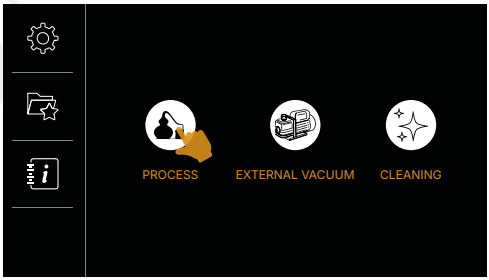



16 **Distillation Completed:** once the process is finished, this screen will appear, where you can choose to **save** the recipe or press **Finish** to return to the main menu.

If you choose to **save**, the following screens will appear, allowing you to complete the relevant information to save the recipe. By default, it will be saved in the library corresponding to the process performed, but if desired, you can modify the location by pressing the **Other Process** button.


## TECHNICAL MODE

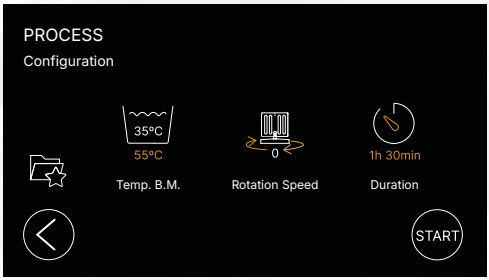
**Warning:** when switching the operating mode to **Technical**, we recommend that you have previously experimented with GIROVAP for an extended period, until you fully understand its operation and processes. This will ensure that you can manage advanced settings appropriately and resolve potential issues without risking the equipment or the process results.




1 **Menu:** as you can see, in **Technical** mode, the menu only shows one of the processes, unlike **Assisted** mode, as it stays on the machine's main function: **Distillation**. However, when saving recipes, you can select the library where you want to store it, allowing you to organize and access its previous settings efficiently.

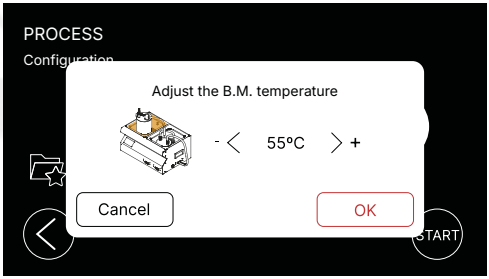
When saving recipes, you can choose the library for the process you did: distillation, reduction, or dealcoholization. This makes it easy to organize and find your previous settings.

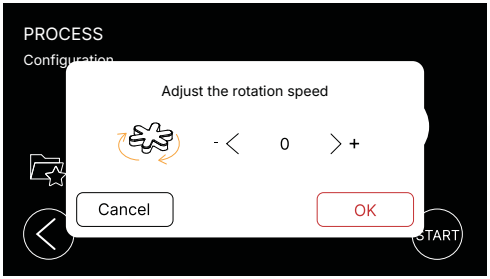
**Warning:** it is essential to follow the step-by-step instructions as indicated on the GIROVAP screen to ensure the process is carried out correctly. Each step is designed to guarantee optimal performance and prevent potential errors during the Distillation, Dealcoholization, or Reduction process.

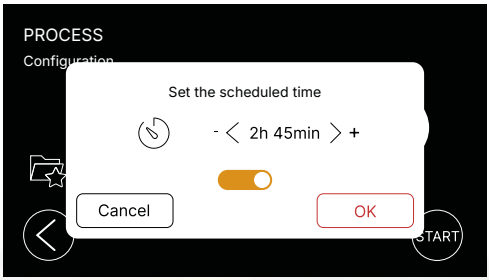



2 **Distillation Configuration:** press each icon corresponding to the parameter you want to modify. For example, if you want to change the temperature, rotation speed, or duration, simply click on the corresponding icon.

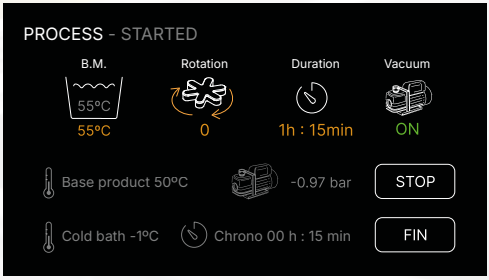
**Pop-up Screens:** when you press an icon, a pop-up screen will appear, allowing you to modify the values as needed. On this screen, you can increase or decrease the value depending on the requirements of the process. Be sure to make the adjustments correctly according to the specifications of the process you are configuring. Once the parameters are adjusted, confirm each modification by pressing the **OK** button or the equivalent option to save the changes made.

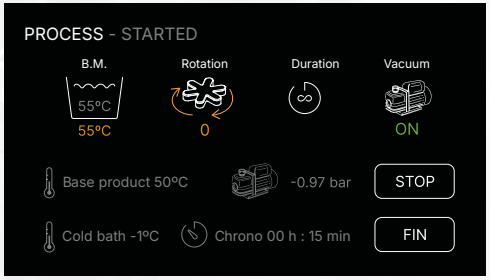



**Start Process:** finally, when all the settings are correct, press the **START** button to begin the process.



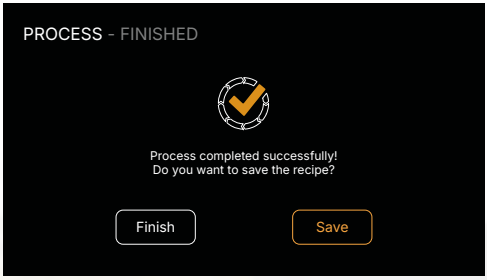

3 **Destilation:** once you press the **START** button, GIROVAP will begin the process and the pump will activate. Unlike Assisted mode, in technical mode, no instructions will appear on the screen to guide you step by step. It is essential that you are already familiar with the procedures or have consulted the manual instructions to perform the necessary actions during the process.

Remember, in this mode, you will need to monitor the machine's parameters and make any interventions or adjustments as needed based on the progress of the process, such as controlling the temperature, vacuum, or motor speed, among others.

If at any point you have doubts about the operation of the machine, you can refer to the "Warnings and Errors" section in the manual to resolve common issues.

**Warning:** from this screen in Technical mode, you can control the different parameters of GIROVAP by pressing the corresponding icons. Each icon will allow you to adjust specific settings, such as temperature, rotation speed, or vacuum.

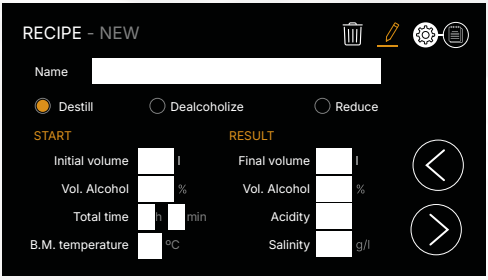
If you need more details or specifications on each parameter and how to adjust them correctly, we recommend consulting step 10 of the process explanation in **Assisted mode**, where the steps and adjustments are described in greater detail. This will provide you with a complete guide on the actions you can take on this screen and how to interact with the machine effectively.




4 **Destilation ended:** once the process is finished, a screen will appear where you can choose to either save the recipe or press **Finish** to return to the main menu.

If you decide to save the recipe, the following screens will appear to enter the relevant information. Unlike Assisted mode, in this case, you will need to manually select the library in which you want to store the recipe. By default, the distillation library will be selected, but you can change it based on your preferences.

Make sure to enter all the pertinent information so that the recipe is saved correctly, and you can access it again in the future.




## 7 External Vacuum

One of the features offered by Girovap is the ability to use the machine as a vacuum sealer. This allows you to create a vacuum in any container that can be connected to the compatible hoses or connections. For more information, we recommend visiting our website, where you will find related products and explanatory videos on techniques and applications of this machine function.

External Vacuum Conexion

Sous-vide Cooking Bags

Vacuum Storage bags

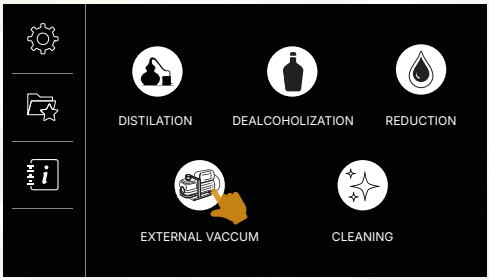
Infusion Bowl

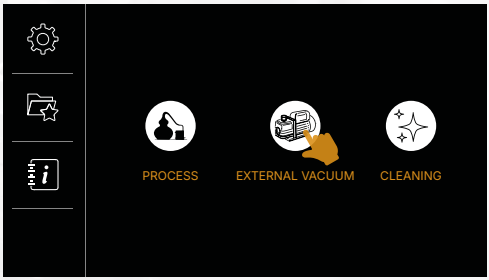
GN BrickVac

1. Select the container in which you wish to store the food for vacuum preservation.

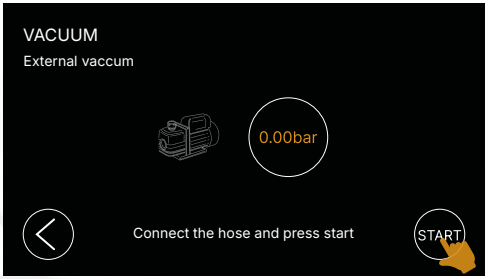
**Warning:** Make sure the container is compatible with the machine's original connections.

2 Connect the external vacuum hose or accessory to the vacuum pump inlet and place the other end in the container where you wish to generate the vacuum.

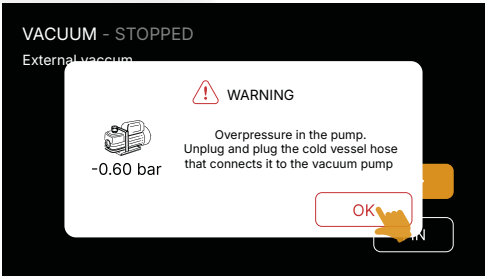


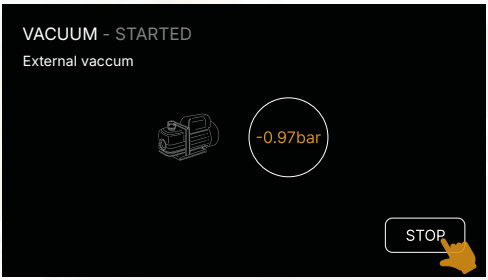

3 In the main menu, select the "External Vacuum" option; this function is the same in both Assisted and Technical modes.



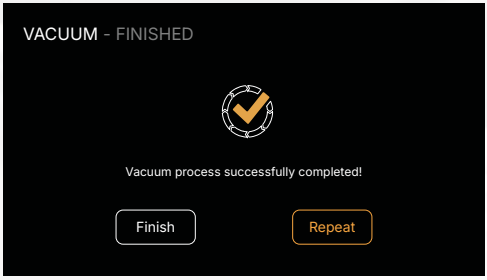

4 Press the **START** button to begin the process and activate the vacuum pump.




**Warning:** if GIROVAP detects that the container exceeds a value of **-0.3 bar**, the **Over-pressurization Warning** will appear. Follow the steps displayed on the screen to resolve the situation.situación.




5 Once the value on the screen reaches **-0.97 bar**, indicating that the maximum vacuum has been reached, press **STOP** to finish the process.




6 When you press **STOP** Girovap will stop the vacuum pump and display a confirmation screen. From there, select "Finish" to return to the main menu or "Repeat" to go back to the initial External Vacuum screen.

# 8 Cleaning

Cleaning is essential both for the preservation of the equipment and for achieving high-quality and hygienic products. With this new version of Girovap, we have developed a complete program focused on the maintenance of your machine, where each step is explained in detail, screen by screen.

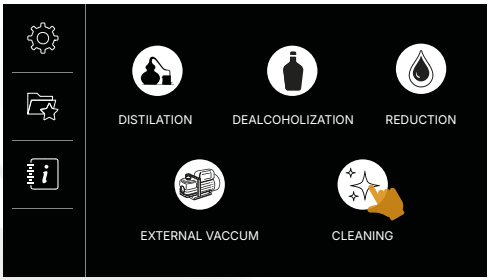
**Warning:** the following cleaning procedures must be carried out regularly to maintain the functionality of the machine and ensure hygiene.

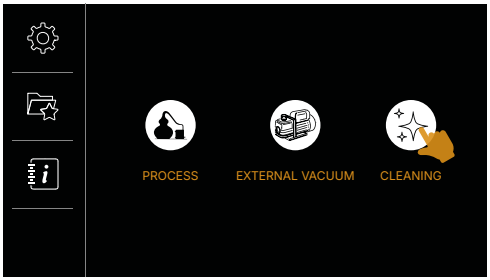
- **Before initial startup:** perform a complete cleaning cycle.
- **At the end of the workday:** perform a complete cleaning cycle, place all components in a washing basket (vessels, lids, seals, tubes, and condenser). All these components can be washed in a machine and then dried by hand with a cloth. While hand cleaning ensures reaching all corners, it is recommended to rinse with hot water and a disinfectant for safe cleaning.
- **After prolonged downtime:** if the equipment is not used frequently, we recommend performing a cleaning just before using it again.
- **Replacement of silicone tubes:** they should be replaced with new ones whenever you notice mold stains or odors that may contaminate the results.
- **Drains:** do not leave stagnant water in the baths; empty the trays every day. Connect the blue-marked drainage hose to the connections located on the front of the equipment. Then, dry with an absorbent cloth and polish with alcohol to remove any residues adhered to the stainless steel.

**You might also be interested in:** Cal Attack - Ref: 80/0110


Clean the limescale and oxidation from the heating elements, water pumps, sensors, metal or plastic materials in the precision thermal baths, water baths from the pass or buffet, dishwashers, water heaters, etc.

*Starting the Cleaning Process*



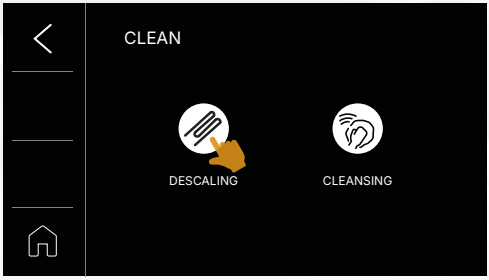




**Cleaning:** in the main menu, select the "Cleaning" option; This function is the same in both Assisted and Technical modes.

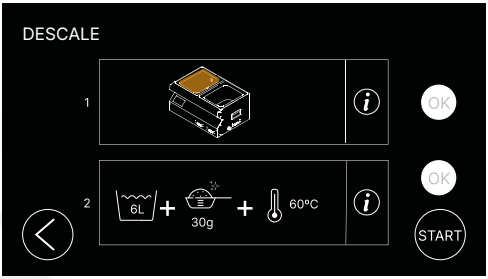

The cleaning program is divided into two subprocesses: **Descaling** and **Cleansing**.

**Descaling:**
The main function of this process is to remove the limescale buildup on the heating element located in the water bath (B.M.), ensuring proper functioning and extending its lifespan. It is recommended to perform this process after every 100 hours of use.

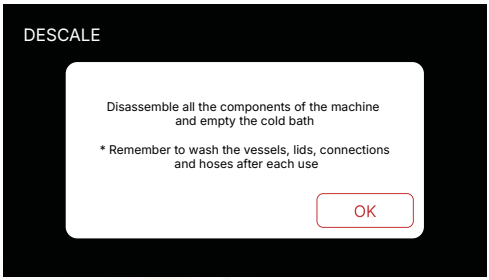
Below is the explanation of how the process works:



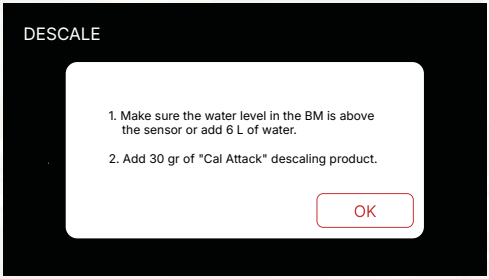

1 Select **Descaling** on the next screen.




2 The next screen displays the steps to follow to carry out the descaling process. By pressing the information key for each step shown on the screen, you will find a brief explanation of what you need to do.

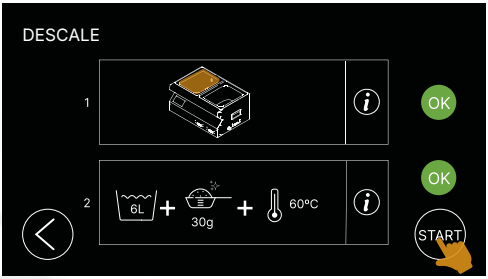



**Step 1:** review the informational text at the beginning of this section, which details how to clean the removable components of the machine.

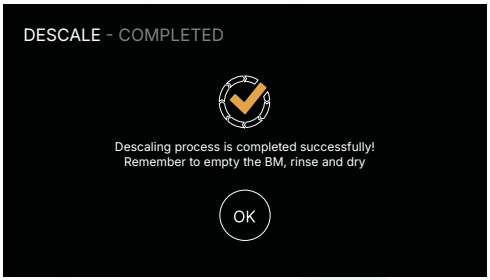



**Step 2:** if you do not have "Cal AttacK," you can use 100ml of vinegar (never with the vessels in place), although we recommend using the mentioned product as it is more effective and better protects your machine.

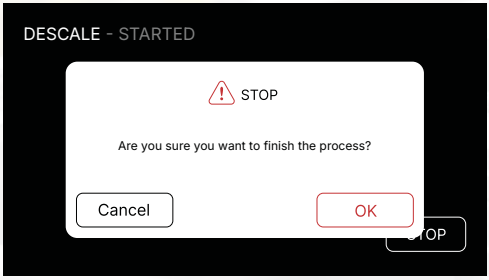
**Warning:** if the heating element is somewhat discolored, once the descaling process is complete, use a "Scotch Brite" type scrubber to polish its surface.
For the machine's vessels, it is recommended to clean them once a year with water and a solution of 50 ml of vinegar to remove any limescale residue that may affect the transparency of the borosilicate glass.




3 Once the two steps mentioned above have been completed, press the **OK** button, and its status will change to green. To press the **START** button, both **OK** buttons must be green.


4 Once the descaling process has started, the heating element will be automatically set to 60ºC and will begin heating the water. After the 30 minutes are completed, the process will end successfully.



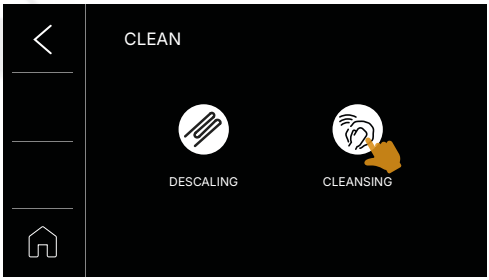

**Warning:** If the programmed time is not allowed to elapse and the process is manually stopped, the machine will not recognize this process as completed. Neither the counter nor the log will reflect it.

Empty the water from the bucket and rinse it. We also recommend washing the machine's components or accessories by hand or in a dishwasher

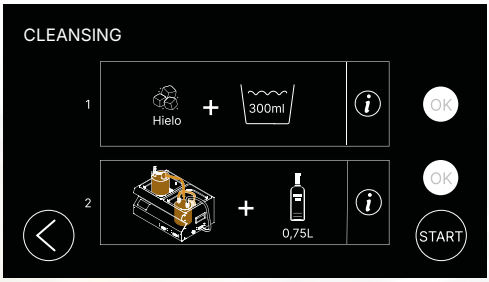
**Cleansing:**

We are referring to the process focused on cleaning impurities and aromas, among others, that may occur in the distillation circuit. This sanitization consists of a 30-minute distillation using a bottle of vodka or similar. This will help to clean and disinfect the coil, flasks, and rubber tubes intensively. The alcohol serves multiple purposes.

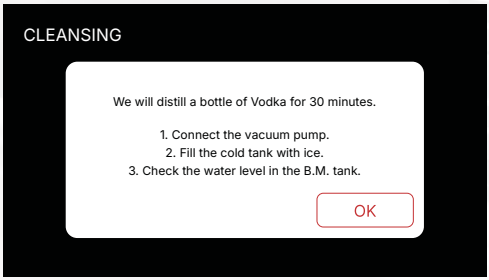
Below is the explanation of how the process works:



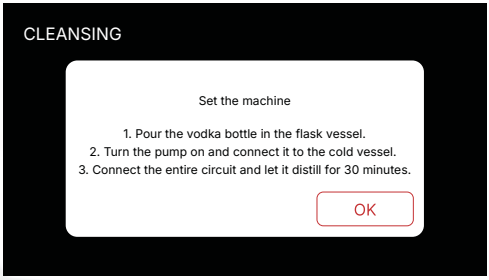

1 Select **Cleansing** on the next screen.



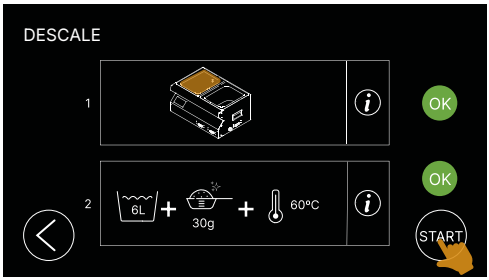

2 The next screen displays the steps to follow to carry out the sanitization process. By pressing the information key for each step shown, a brief explanation of what you need to do will appear.



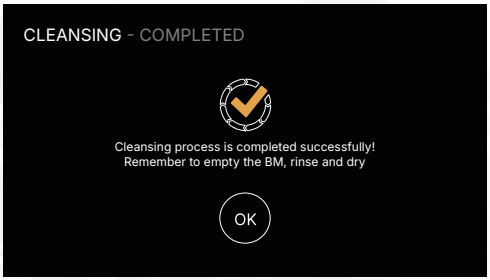

**Step1:** in this first step, the actions and checks you need to perform are detailed



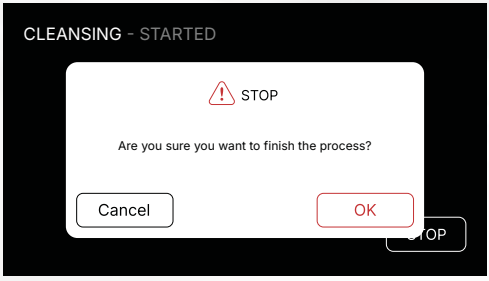

**Step 2:** prepare the machine as indicated in the images and follow the steps described on the screen.




3 Once the previous two steps are completed, press the **OK** button. This will change its status to green. In order to press the **START** button, both **OK** buttons must be green.


4 When the Sanitization process starts, the heating element will be automatically set to 60ºC and will begin heating the water. The rotation will be set to level 3, and the pump will turn on. After the scheduled 30 minutes, the process will successfully complete.

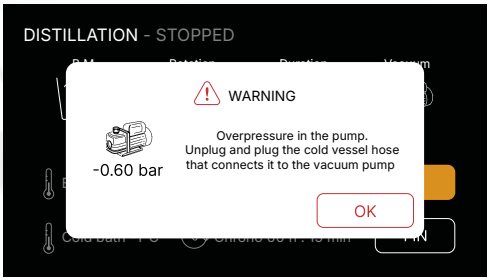


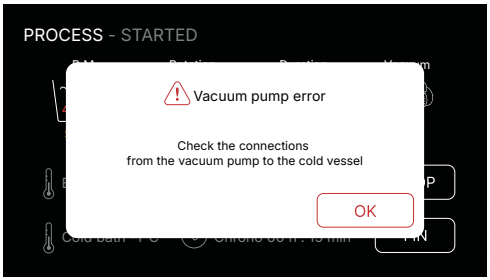

**Warning:** if you manually stop the process before the scheduled time elapses, the machine will not recognize the process as completed. Both the counter and the log will not reflect this process.

Once finished, rinse the components.

# 9 Warnings, Errors and Solutions

## *Vacuum Pump*



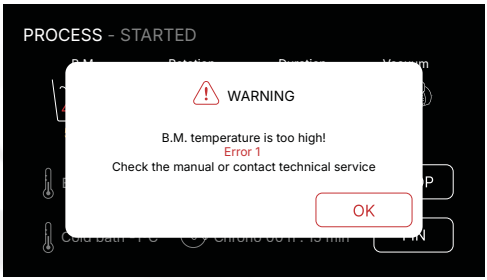

1 **Overpressured Pump:** before turning on the vacuum pump, Girovap takes a reading of the current absolute pressure value. If this value is greater than **-0.3 bar**, this screen will appear. Otherwise, the machine will turn on the vacuum pump directly.
When you see this screen, disconnect the vacuum hose from the cold vessel and reconnect it. By doing this, Girovap will read a pressure value of **-0.0 bar** and turn on the pump.

2 **Vacuum Pump Error:** during any distillation, de-alcoholization, or reduction process, if Girovap detects that the vacuum level drops below **-0.3 bar**, this screen will appear and the process will pause.

Check the positioning of the lids, ensure that the valve knobs are tightly closed, and verify the hose connections. By pressing "OK," you can resume the process from where it was paused. If the issue persists after checking the components mentioned, make sure that neither of the vessels is damaged.

3 **Not enough vacuum is generated:** to check where the vacuum leak is occurring, start by reviewing the circuit from the beginning. Place tube (T) on the outlet (S), put a finger on the tip, and check for suction. Next, check the lid (O) of the vessel (Ñ) to ensure the gasket is properly placed. The lid should be well centered, flat, and not tilted. Perform the vacuum only in the vessel (Ñ). Then, check that the two tubes of the condenser coil are properly positioned at both ends. Verify that the suction bulb (Q) has its silicone gasket in place. Fully close the valve (K) on the lid (J), then place it on the vessel (G), ensuring that the gasket is properly placed and in good condition. At the same time, connect the suction bulb to the vessel and the quick connector of the condenser coil to the free connection on the lid (O). If a vacuum leak is detected at this second connection, the problem is with this component. Check that the edges of the vessel are not cracked. Check that the tubes are not cracked and are securely attached to the terminals. The pump may not be working correctly due to accumulated moisture. Run the pump for one hour with only tube (T) connected to the pump, making sure it draws air from the environment.

## *Bain Marie – B.M.*




1 **Warning Error 1:** when this screen appears, it means that one of the machine's safety systems has been activated, specifically the water bath (B.M.) heating element. This occurs because the heating element does not turn off when the programmed temperature is reached and continues heating, causing the B.M. sensor to register a value 11ºC higher than the set temperature.

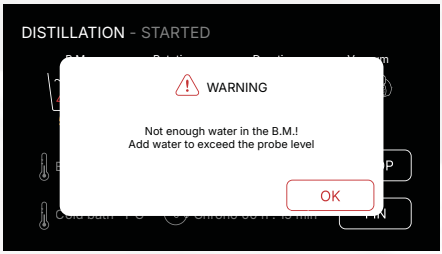
Turn off the machine using the rear switch (X). Cool the water in the water bath by about 10 degrees. Then, reconnect the machine using the rear switch (X). If the error message is repeated, consult technical support or contact 100%Chef.

Email: orders@100x100chef.com
Phone: +34 934296340 (9:00 AM – 1:00 PM, Monday to Friday)

**Warning:** remember that if you program the machine to heat the B.M. water to a specific temperature and then add water that is 11ºC hotter than the recorded value, this **ERROR 1** will also be triggered.

2 **The heating element does not turn on and the water is not heated:**

- The water in the thermal bath is not heating. It may be that the selected temperature is set below the current water temperature.
- The machine is not in START mode.

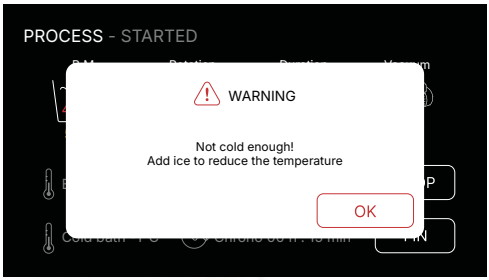



3 **Low Water Level Warning:** this screen appears when the water in the B.M. does not cover the level probe. Verify that the round-bottom flask is in place. If it is and the water does not reach the probe, add hot water until the level probe (C) is covered. Without the flask, such as during the descaling process, a larger volume of water will be needed

4 **The propeller doesn't spin:**

- Stop the rotation system using the STOP button and restart it.
- Accelerate and decrease the speed several times.
- The material or product inside the vessel is blocking the rotation. Unclog it.
- The material inside is too dense, and the magnets cannot move it.
- If the material has dried and is too thick, stop the distillation. If necessary, open the vessel, press the contents, and remove part of the solid to allow further extraction. Then, continue the distillation.
- If there is product beneath the magnetic rotor preventing traction, remove it.

### *Baño frio – B.F.*




1 **Cold Bath Warning:** this screen serves as a reminder to add ice to the machine, as the cold bath sensor has detected that the temperature has exceeded 10ºC. The warning does not stop any process but will appear periodically every 5 minutes, accompanied by a "beep" sound.

2 **The Cold Vessel Floats:** apply pressure to the tub clamp with your hand to ensure it presses down on the vessel.

3 **No distillate flows from the condenser coil to the cold vessel:** if after about 10 minutes no liquid is seen coming from the condenser coil, there could be several reasons:

- The temperature is too low, and no vapor is being generated. Increase the bath temperature by 5°C / 41°F until vapor is produced.
- Check that the vacuum is between -90 and -97 bar. If so, apply the solutions from the previous point.
- Check that the vacuum is at maximum.
- A vacuum depression has been created. Open the valve (K) slightly for 5 seconds to allow a leak. Close the valve.
- The condenser coil is filled with vapor, and the pump doesn't have enough force to remove the distillate. Remove the coil from the cold bath and place it upside down to help empty it manually. Once empty, return it to its normal position.
- The bath temperature is below 0°C / 32°F, and ice has formed inside. Remove the coil from the bath for about 2 minutes, continuing the distillation process so that the vapor defrosts the plug.

### *Other problems*

1. **Water doesn't drain from the baths:**

   - If water doesn't flow from the drain hose, it could be because the hose outlet is higher than the water level. Lower the height of the drain.
   - A residue may have clogged the drain. Connect the hose with the blue terminal and blow from one end to clear the residue obstructing the water outlet.

2. **When the main switch is turned on, the screen doesn't light up:**

   - Check that the power cable is properly positioned in the base and correctly connected to the electrical outlet.
   - The fuse in the rear power socket (Y) might be blown; a spare fuse is in the same box. The fuse is 10 A.

If these issues persist despite attempts to resolve them, please send an email describing the problem or malfunction so that our technical department can recommend the best course of action:

Email: orders@100x100chef.com
Phone: +34 934296340 (9:00 AM – 1:00 PM, Monday to Friday)

# Basic distillation guide

**Selecting and Controlling Temperature for Better Results**

Depending on what we want to achieve, we need to know the boiling points and work with a pressure and temperature table as a guide. It's not the same to work with a fresh product like fruit puree, a hydrosol, a sauce or broth, a dairy product, or an alcoholic beverage, etc.

Products that we want to concentrate with a water base should be treated at lower temperatures to avoid altering their flavor and color (fruit purees, delicate hydrosols). If it's a product with a high fat content, and we want to extract the aqueous part, we can use a medium temperature (meat broths or consommés, creams, lactic-based sauces, herbal hydrosols), and if we are redistilling or extracting alcohols, we can work at a higher temperature. Also, the more liquid we put in to distill, the greater the production will be.

To get a rough idea of the temperature at which we should set the water bath to distill a specific product, we'll follow this guideline. The difference between the water bath and the vapor is usually 20°C / 68°F, although this will depend on the amount of liquid or base product, the temperature of the cold bath... but what's more important is the vacuum pressure we're working with. We can start by taking those 20°C / 68°F as an average. This table will give us a more exact idea of what temperature to set the water bath if we want to obtain vapor at a certain temperature according to the product. It also indicates the approximate amount of distillate or extract we will obtain. If we start with an alcoholic base: We will take Gin as a base, a beverage with 40% ethyl alcohol. Its boiling temperature with a vacuum of -0.97 bar is 18°C / 64.4°F.

| | °C BATH | °C STEAM | ºC COLD | ml/h | |
|---|---|---|---|---|---|
| H20 | 75 | 40 | 2 | 600 | HIGH |
| H20 | 65 | 36 | 1.5 | 400 | MEDIUM |
| H20 | 55 | 31 | 1.5 | 320 | LOW |
| GIN 40% | 75 | 40 | 2 | 800 | HIGH |
| GIN 40% | 65 | 36 | 1.5 | 700 | MEDIUM |
| GIN 40% | 65 | 31 | 1.5 | 600 | LOW |

This extremely low temperature generates a low vapor ratio, and re-distilling at this temperature doesn't make much sense as the alcohol won't lose any of its qualities. Most likely, if we increase the temperature, we'll accelerate the evaporation significantly, reducing the working time. For alcohol-based products, if we select a bath temperature of 75°C / 167°F, we'll achieve a distillation temperature of the liquor at 37°C / 98.6°F, distilling about 800 ml in an hour.

**Example starting with an aqueous base:**

The boiling point of water at actual atmospheric pressure is 100°C; however, the evaporation temperature of a water-based product at -0.97 bar is 21.3°C / 70.34°F. This very low temperature generates a limited amount of vapor. Distilling at this temperature is also not very interesting unless what we want is to extract the water from the product to discard it and keep a concentration as natural as possible to preserve the aromatic components and color, which are more sensitive to temperature.

| bar | °C | °F | bar | °C | °F |
|---|---|---|---|---|---|
| 0 | 100.0 | 212.0 | -0.3 | 90.1 | 194.2 |
| -0.01 | 99.7 | 211.5 | -0.31 | 89.7 | 193.5 |
| -0.02 | 99.4 | 210.9 | -0.32 | 89.3 | 192.7 |
| -0.03 | 99.1 | 210.4 | -0.33 | 88.9 | 192.0 |
| -0.04 | 98.8 | 209.8 | -0.34 | 88.5 | 191.3 |
| -0.05 | 98.5 | 209.3 | -0.35 | 88.1 | 190.6 |
| -0.06 | 98.2 | 208.8 | -0.36 | 87.7 | 189.9 |
| -0.07 | 97.9 | 208.2 | -0.37 | 87.3 | 189.1 |
| -0.08 | 97.6 | 207.7 | -0.38 | 86.9 | 188.4 |
| -0.09 | 97.3 | 207.1 | -0.39 | 86.4 | 187.5 |
| -0.1 | 97.0 | 206.6 | -0.40 | 86.0 | 186.8 |
| -0.11 | 96.7 | 206.1 | -0.41 | 85.6 | 186.1 |
| -0.12 | 96.4 | 205.5 | -0.42 | 85.1 | 185.2 |
| -0.13 | 96.1 | 205.0 | -0.43 | 84.7 | 184.5 |
| -0.14 | 95.8 | 204.4 | -0.44 | 84.2 | 183.6 |
| -0.15 | 95.4 | 203.7 | -0.45 | 83.7 | 182.7 |
| -0.16 | 95.1 | 203.2 | -0.46 | 83.2 | 181.8 |
| -0.17 | 94.8 | 202.6 | -0.47 | 82.8 | 181.0 |
| -0.18 | 94.4 | 201.9 | -0.48 | 82.3 | 180.1 |
| -0.19 | 94.1 | 201.4 | -0.49 | 81.8 | 179.2 |
| -0.2 | 93.8 | 200.8 | -0.50 | 81.3 | 178.3 |
| -0.21 | 93.4 | 200.1 | -0.51 | 80.7 | 177.3 |
| -0.22 | 93.1 | 199.6 | -0.52 | 80.2 | 176.4 |
| -0.23 | 92.7 | 198.9 | -0.53 | 79.7 | 175.5 |
| -0.24 | 92.3 | 198.1 | -0.54 | 79.1 | 174.4 |
| -0.25 | 92.0 | 197.6 | -0.55 | 78.6 | 173.5 |
| -0.26 | 91.6 | 196.9 | -0.56 | 78.0 | 172.4 |
| -0.27 | 91.3 | 196.3 | -0.57 | 77.4 | 171.3 |
| -0.28 | 90.9 | 195.6 | -0.58 | 76.8 | 170.2 |
| -0.29 | 90.5 | 194.9 | -0.59 | 76.2 | 169.2 |

*Relation between atmospheric pressure and boiling temperature*

| bar | °C | °F | bar | °C | °F |
|---|---|---|---|---|---|
| -0.60 | 75.6 | 168.1 | -0.8 | 59.2 | 138.6 |
| -0.61 | 75.0 | 167.0 | -0.81 | 58.0 | 136.4 |
| -0.62 | 74.4 | 165.9 | -0.82 | 56.8 | 134.2 |
| -0.63 | 73.7 | 164.7 | -0.83 | 55.6 | 132.1 |
| -0.64 | 73.0 | 163.4 | -0.84 | 54.2 | 129.6 |
| -0.65 | 72.3 | 162.1 | -0.85 | 52.8 | 127.0 |
| -0.66 | 71.6 | 160.9 | -0.86 | 51.3 | 124.3 |
| -0.67 | 70.9 | 159.6 | -0.87 | 49.8 | 121.6 |
| -0.68 | 70.2 | 158.4 | -0.88 | 48.1 | 118.6 |
| -0.69 | 69.4 | 156.9 | -0.89 | 46.2 | 115.2 |
| -0.70 | 68.6 | 155.5 | -0.9 | 44.3 | 111.7 |
| -0.71 | 67.8 | 154.3 | -0.91 | 42.1 | 107.8 |
| -0.72 | 67.0 | 152.6 | -0.92 | 39.7 | 103.5 |
| -0.73 | 66.1 | 151.0 | -0.93 | 37.1 | 98.8 |
| -0.74 | 65.2 | 149.4 | -0.94 | 34.1 | 93.4 |
| -0.75 | 64.3 | 147.7 | -0.95 | 30.6 | 87.1 |
| -0.76 | 63.4 | 146.1 | -0.96 | 26.4 | 79.5 |
| -0.77 | 62.4 | 144.3 | -0.97 | -21.3 | 70.3 |
| -0.78 | 61.4 | 142.5 | -0.98 | 14.2 | 57.6 |
| -0.79 | 60.3 | 140.5 | -0.99 | 3.0 | 37.4 |

*Relation between atmospheric pressure and boiling temperature*

Once the pressure and temperature variations are understood, we will go on to describe the main techniques in a basic way that can be useful for any professional.

## Alcoholic re-distillation with the addition of flavors and aromas

If we re-distill a commercial alcohol, we will evaporate some of the alcohol with the most volatile aromas, and some of the water from the distillate itself. Once we stop the machine we will be able to observe that the remaining alcohol no longer contains almost no alcohol with only some gustatory residue.

The normal proportion is to stop the distillation of an alcohol once we have obtained 80% of the product.

This resulting 80% will have increased the percentage of alcohol. This increase in alcohol content will depend on the point at which we have stopped the re-distillation process and the % alcohol volume of the product at the beginning. To have a much more exact idea you should measure the resultant with an alcoholmeter Item 30/0052 So we will have obtained a priori a distillate with a higher alcohol content, which obviously we will have to compensate later.

We should not suffer from unwanted methyl alcohols or alcohols as the initial product (commercial alcoholic beverages) no longer contains them by law, and in the re-distillation they could not be created.

In order to create and personalize new distillates, we must incorporate olfactory elements or flavors to the alcohol. Once re-distilled, we will be able to incorporate nuances and flavors to the alcohol, obtaining a transparent liquor.

We will be able to add: fresh fruits, skins of fruits and vegetables, fresh herbs, spices, roots flowers, aromatic woods, skins of animal, etc. If we use fruits or fruit purees it is better to dehydrate them or better to use high quality lyophilized products.

It is essential that, in order to obtain a better final product, we put the alcohols in a rigid vacuum container ("Brick Vac" or "Click-it") or in sous-vide bags and thus achieve a good cold impregnation of the flavors and aromas after a few hours of rest. One formula to accelerate and increase the power of this marinade is to use an ultrasonic bath.

The infusions made with alcohol are called "Tinctures". Re-distil at product temperature between 35°- 40°C / 95°- 104°F and maximum vacuum, making sure that the cold glass is always covered with ice to prevent the aromas from escaping.

If necessary, once the process is finished, measure with the alcoholmeter and balance the alcoholic graduation with an alcohol of lesser graduation, with distilled water or hydrolats.

The mixture obtained is truly a new and totally unique drink. It is very difficult to decipher your recipe so it is important that if you want to repeat it, follow a recipe booklet while methodically noting all the details.

It is important to take into account that when we re-distil 1 litre, the times, quantities and alcoholic graduation will be different if we do it with more quantity, depending on the amount of alcohol that we re-distil, for example 2 or 3 litres the recipe and times have to be different and adequate for each quantity, it is not valid to multiply the times to get the same product.

### Breakdown and recomposition of alcohols

We can use and manage the distillation produced from some fermentation by separating harmful alcohols such as methanol (distillation cut-off) from ethanol thanks to its volatility difference of almost 14°C / 57.2°F.

These are the boiling points of the different alcohols at atmospheric pressure 1 bar (1 atm) and can be used as a guide to apply the vacuum so that we can perform this separation or cut in the distillate and purify the quality of the alcohol.

Methanol boiling point (burning alcohol) 64.7°C / 148.46°F
Ethanol (ethyl alcohol) boiling point 78.37°C / 172°F
Ethanol weight 0.78 g Inflammation 13°C / 55,4°F

### Extraction of alcohols (wines, liquors and perfumes)

This application of the Girovap serves to extract the alcohols from the drinks without affecting their organoleptic properties, for example, from a liquor or a sweet wine. As water and ethanol have different boiling points we can make a controlled distillation at low temperature with the intention of extracting pure alcohol and leaving the remaining product without alcohol.
These are the boiling points of the different liquids at atmospheric pressure 1 bar (1 atm) and can be used as a guide to apply the vacuum so that we can carry out this separation and use the remaining product in sauces, or halal and kosher dishes, alcoholfree cocktails, etc.

Although it can be extremely interesting to use it in ice cream.

Water boiling point 100°C / 237°F
Ethanol boiling point 78.37°C / 172°F

### Hydrolat distillation

When we add a vegetable product with some proportion of water and we carry out a distillation we will obtain a very aromatic aqueous product called hydrolat (hydrosol).
To do this we must cut the products into small pieces or liquefy them with a Slow Juicer or grind them with a blender. Bear in mind that there are products that oxidize very easily after contact with air and that their particularities can change. Once cut or ground, vacuum seal the glass to delay oxidation.

This hydrolat contains aromatic elements, vegetative water of the food and, depending on the distilled product, essential oils.
Depending on the product and its percentage we will obtain a more or less aromatic product. It is key to achieve the maximum concentration so we recommend using a very small amount of water.

Just the right amount to facilitate evaporation and movement within the rotating glass.

Sometimes, when you want to work with very dense products that make it difficult to turn the blades, it is better to stop the rotation and perform the distillation while standing still. The steam is generated equally, somewhat slower but in the end the result is the same.

Some elements contain a small amount of essential oil that once distilled we can separate by decantation. Although it is true that the product is very good, the quantities obtained are small and sometimes it is not so much work. These hydrosols are a by-product that can be used to great effect. It is as if we have a palette of colors but with a sense of smell.

Food perfumes that we can incorporate into hundreds of recipes, savory, sweet or cocktail. Incorporating hydrolats or essences directly into alcohols is a practice that allows us to produce many different products in large quantities and in a very short time (floral, botanical, essences). In addition, we will always be able to give unique touches to all the cocktails, water for the elaboration of ice, etc. all of them of form very quickly.

### Reductions and cold concentrations

When distilling a product under vacuum, we will manage to extract the water in the first instance, concentrating the initial product to the point of obtaining a thick product.

When concentrating using a very low temperature, for example 30°C / 86°F we will reduce the percentage of water and we will also be able to observe that the colors will be much more alive and gustatory the flavors will be much more intense.

The lipids (fats), fibers, sugars, pigments will remain inside the product and only the volatile parts, that is some aromas and the water will be extracted by evaporation and depression. For example, from a fruit puree we can extract the water obtaining a highly concentrated product, with a high concentration of sugar almost like a jam.

In this type of reduction, certain interesting volatiles are usually lost during the first minutes of distillation.

These first vapors that are generated usually contain the most delicate aromatic parts. In order to recover them and add them to the base product, a two-phase distillation must be carried out. In the first phase, the purpose is to capture these volatiles, and in the second phase it is to extract the remaining water for disposal.
In the first phase we will start the distillation with a lower temperature in the bain-marie, about 10°C / 50°F less, making sure that the bain-marie is well charged with ice in order to avoid the leakage of these volatiles to the pump.

To do this, we can use the usual glass or acquire a 700 ml fractionating glass with which this operation is much easier.
After the first 5 minutes, disconnect the glass and remove and preserve any essences that may have been trapped in the glass.
Then proceed with the normal reduction by increasing the temperature of the bath again by about 10°C / 50°F more. At the end of the process, add the essence to the reduction.

### Extraction of water in marinated oils or fats

An oil or grease can be the element where we can use as a sponge and fix aromas that are difficult to trap with other methods. Ancient perfumery treats this technique as **enfleurage.**

It is based on putting flower petals between pressed layers of fat and then mixing that fat with alcohol and making a distillation. It is a somewhat delicate technique and of scarce production, although we can reinvent taking advantage of it.

Separating the watery part of a fat is very easy without having to distil by decantation but if there is some kind of emulsion for example to have turbine some water containing a fat we can extract all its water (100%) although this was emulsified.

**What products and in what state can we distill them?**

Liquids, juices, creams, purees, relatively thick pastes. Solid products such as spices, roots, leaves, skins are best cut up or passed through a cutting machine, and add a certain amount of water or alcohol, depending on the use. (Between 50%) If the product has a lot of fiber it is better to use the mixing accessory " Blade for solids with shaft" and do not put more than 1 kg. of product in the glass.

In the case of having to add more water it is preferable to make a concentration in a second distillation to improve the product.

**Elaboration of "Concrets" extracts**

In the production of concentrations, there is a special section for the preparation of extracts. An extract is a very dense concentration of the flavor, color, and aroma of a product. This is first done by reducing the product into a paste, similar to cream. To do this, we should crush the product based on its nature, add pure alcohol for making liqueurs, and perform a maceration that lasts for a period depending on the product. This can also be done at a temperature below 40ºC and inside a bag or glass container.

Afterward, filter it through a Claribag with 100 microns.

Place the product in the distillation vessel and work at speed 2 with the B.M. at 50ºC until all the alcohol is extracted, achieving a very dense paste resembling resin.

Working with this technique using the Girovap makes it much easier to extract from the flask, and the paddle helps emulsify the residues and concentrate them into a paste. In rotary evaporators, the resin would remain stuck and dry on the walls of the flask.

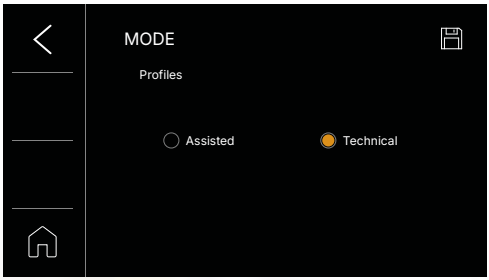
**Cold impregnation**

To do this, we will place the food to be infused along with the dominant liquid into one of the vessels, connect the vacuum hose, and establish a manual vacuum. Once the vacuum is achieved, we can leave the vessel under vacuum for a period, or if we want immediate impregnation, we will repressurize the vessel again, ideally in one go, and repeat the process as many times as needed to achieve a better result.

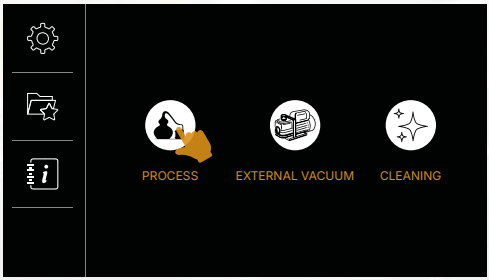
### Use of the thermal bath as “Sous Vide”

Often, we will need to perform some type of infusion at low temperatures, both in vacuum-sealed bags and small pasteurizations in glass containers. With Girovap, we can use the thermal bath as if it were a "Sous Vide" bath, even though it lacks water circulation. This lack of circulation means the temperature may vary by a few tenths of a degree (1° to 5°C) / (33.8° to 41°F) depending on the part of the bath. If the preparation does not require such precise control, we can use it with full confidence. However, if higher precision is needed, we should place the **FOAM KIT Stone** (Ref. 50/0052) inside. This air compressor is enough to generate movement within the water and homogenize the temperature. To use this function, make sure the **Girovap motor rotation level** is set to 0, meaning the motor should be off.

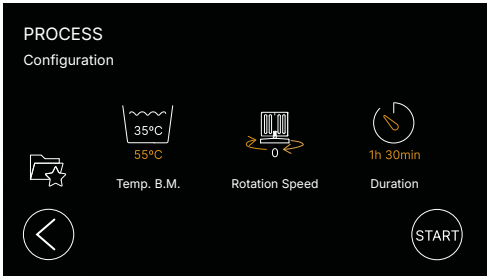
*Configuration for Sous Vide:*




1 **Mode:** to perform this technique, we recommend going to settings and changing the operating mode to Technical.



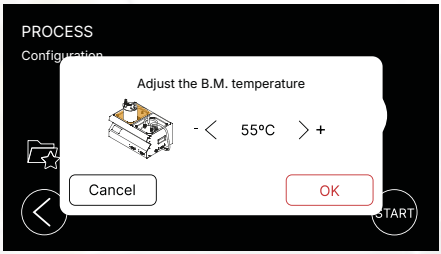

2 **Menu:** in the main menu of Technical mode, select the Distillation function.

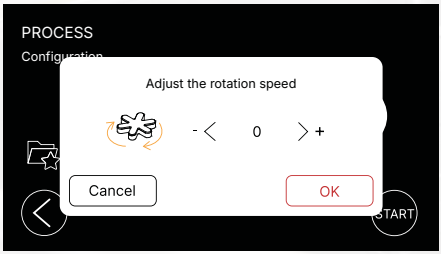


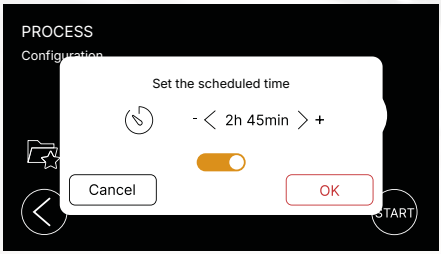

3 **Distillation - Configure "Sous Vide":** adjust the B.M. temperature parameter based on the food you wish to process, and if you want to program the cooking time, set a value. If not, configure the Unlimited duration.

Pop-up Screens: When you click an icon, a pop-up screen will appear, allowing you to modify the values as needed. In this screen, you can increase or decrease the values depending on the requirements of the process. Make sure to adjust the settings correctly according to the specifications of the process you are configuring.

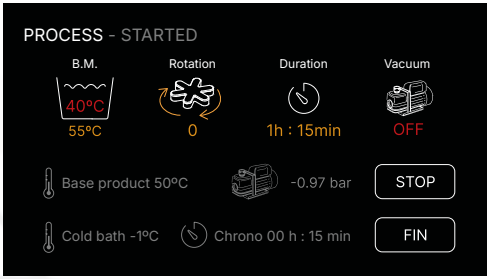
**Warnings:** remember that in the "Sous Vide" configuration, the motor must be off, so set the rotation **level to 0.**

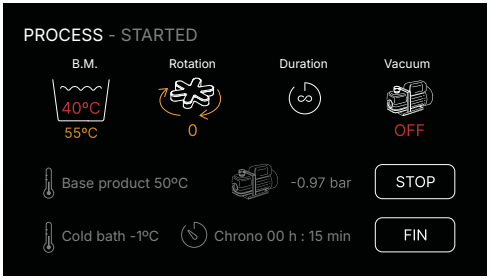



**Start Process:** finally, when all the settings are correct, press the **START** button to begin the process.




4 **Distillation:** once you press the **START** button, Girovap will begin the process and activate the pump. Since we don't want the pump to stay on, click the pump icon to turn it off.

In this screen, you can adjust the temperature, enable or disable the timer, and turn the vacuum pump on or off. **Do not modify the rotation; it should always be set to 0.**

**Warning:** once the technique has been applied to the desired food, remember that you can pause the process if you need to apply it again later. If you prefer to finish, press "Finish".

At the end of the process, you can save this technique as a "Sous Vide" recipe, so the machine will store the preset parameters.

**Remember:** this sous-vide technique can also be applied during a distillation, dealcoholization, or reduction process by placing vacuum-sealed bags inside the B.M.. This allows the machine to perform multiple tasks simultaneously, as shown in the image below.

## *Hydrolates*

| INGREDIENTS | QUANTITY | H20 | B.M. | STEAM °C | TIME |
|---|---|---|---|---|---|
| LIME PEEL | | NO | 55°C | 35°C | 1 H |
| ORANGE PEEL | | NO | 55°C | 35°C | 1 H |
| LEMON PEEL | | NO | 55°C | 35°C | 1 H |
| CUCUMBER PEEL | | NO | 55°C | 35°C | 1 H |
| COFFEE BEANS | | SI | 55°C | 35°C | 1 H |
| CITRONELLA | | SI | 55°C | 35°C | 1 H |
| BERGAMOT | | NO | 55°C | 35°C | 1 H |
| BAY LEAVES | | SI | 55°C | 35°C | 1 H |
| KAFFIR LEAVES | | SI | 55°C | 35°C | 1 H |
| ROSEMARY | | SI | 55°C | 35°C | 1 H |
| LEMON THYME | | SI | 55°C | 35°C | 1 H |
| OREGANO | | SI | 55°C | 35°C | 1 H |
| MINT | | SI | 55°C | 35°C | 1 H |
| BASIL | | SI | 55°C | 35°C | 1 H |
| LAVENDER | | SI | 55°C | 35°C | 1 H |
| DILL | | SI | 55°C | 35°C | 1 H |
| EUCALYPTUS | | SI | 55°C | 35°C | 1 H |
| CLOVE | | SI | 55°C | 35°C | 1 H |
| JUNIPER | | SI | 55°C | 35°C | 1 H |
| CURRY | | SI | 55°C | 35°C | 1 H |
| GINGER | | SI | 55°C | 35°C | 1 H |
| CINNAMON | | SI | 55°C | 35ºC | 1 H |
| STAR ANISE | | SI | 55°C | 35°C | 1 H |
| FENNEL | | NO | 55°C | 35°C | 1 H |
| CELERY | | NO | 55°C | 35°C | 1 H |
| GREEN PEPPER F. | | SI | 55°C | 35°C | 1 H |
| CAPERS | | NO | 55°C | 35°C | 1 H |
| GREEN BELL PEPPER | | NO | 55°C | 35°C | 1 H |
| RED BELL PEPPER | | NO | 55°C | 35°C | 1 H |
| CHILLI PEPPER | | NO | 55°C | 35°C | 1 H |

*Product*

All products must be absolutely fresh and their harvesting point must be optimal and in season. The result can vary a lot.

*Mixtures*

If we combine several products we will obtain more complex flavors and aromas, apple and mint, thyme and orange peel.

*Tintures*

If we add alcohol (Vodka) instead of water we will get some flavored tinctures, these products will keep longer but will also be more volatile. Better if we let it marinate for a while. Recommended proportion 500 g product / 100 gr alcohol (except coffee).

## *Alcohol reductions*

| INGREDIENTS | QUANTITY | H20 | B.M. | STEAM °C | TIME |
|---|---|---|---|---|---|
| P. XIMENEZ | 750ML | NO | 30°C | 15°C | 30' |
| ANIS | 750ML | NO | 30°C | 15°C | 30' |
| COINTREAU | 750ML | NO | 30°C | 15°C | 30' |
| BRANDY | 750ML | NO | 30°C | 15°C | 30' |
| CAMPARI | 750ML | NO | 30°C | 15°C | 30' |
| RED WINE | 750ML | NO | 30°C | 15°C | 30' |
| RIELING | 750ML | NO | 30°C | 15°C | 30' |
| VERMOUTH | 750ML | NO | 30°C | 15°C | 30' |

## *Concentrations*

| INGREDIENTS | QUANTITY | H20 | B.M. | STEAM °C | TIME |
|---|---|---|---|---|---|
| MEAT JUICE | 1L | NO | 55°C | 35°C | 1H |
| MILK | 1L | NO | 55°C | 35°C | 1H |
| CREAM | 1L | NO | 55°C | 35°C | 1H |
| C.BOLETUS | 1L | NO | 65°C | 40°C | 1H |
| COCONUT MILK | 1L | NO | 55°C | 35°C | 1H |
| FRUIT PURÉE | 1L | NO | 60°C | 38°C | 1H |
| JUICE | 1L | NO | 55°C | 35°C | 1H |

### *Low temperature cooking*

| INGREDIENTS | GIN | GR. | VACUUM | B.M. | TIME |
|---|---|---|---|---|---|
| CRYSANTHEMUM | 1L | 22 | MAX. | 52°C | 2H |
| CUCUMBER PEEL | 1L | 220 | MAX. | 52°C | 2H |
| EARL GREY TEA | 1L | 22 | MAX. | 52°C | 2H |
| GRAPEFRUIT PEEL | 1L | 50 | MAX. | 52°C | 2H |
| LEMON PEEL | 1L | 22 | MAX. | 52°C | 2H |
| LAVENDER TEA | 1L | 15 | MAX. | 52°C | 2H |
| ORANGE / CINNAMON | 1L | 15/20 | MAX. | 52°C | 2H |
| BLACK TRUFFLE | 1L | 10 | MAX. | 52°C | 2H |

### *Re-Distillations*

| INGREDIENTS | GIN | GR. | B.M. | STEAM °C | QUANTITY | TIME |
|---|---|---|---|---|---|---|
| LIMA KAFFIR | 1L | 10 | 55°C | 35°C | 750ML | 1H |
| CORIANDER | 1L | 50 | 55°C | 35°C | 750ML | 1H |
| SHISO | 1L | 50 | 55°C | 35°C | 750ML | 1H |
| CITRONELLA | 1L | 180 | 55°C | 35°C | 750ML | 1H |
| PANDAN | 1L | 40 | 55°C | 35°C | 750ML | 1H |
| CHOCOLATE 70% | 1L | 100 | 55°C | 35°C | 750ML | 1H |
| GREEN PEPER | 1L | 15/40 | 55°C | 35°C | 750ML | 1H |
| BASIL | 1L | 22 | 55°C | 35°C | 750ML | 1H |

# Accessories and complements

### *Daily use, measurement and experimentation with new techniques*

- Ref. 30/0051 Decanter, clamp and foot (500 ml)
- Ref. 30/0052 Alcoholmeter with measuring cylinder 100 ml
- Ref. 80/0025 External connection Vacuum Pro y Girovap Pro2
- Ref. 80/0091 CLICK- IT KIT valves. Vacuum any container with a threaded
- Ref. 30/0076 10 Graduated glass droppers 0.5 ml and 120 ml bottle
- Ref. 160/5003 24 Speakeasy 200 ml flask bottles
- Ref. 30/0081 Graduated 5-litre jar
- Ref. 130/0005 Easy Dens
- Ref 130/0006 Smart Ref

### *Spare parts*

- Ref. 30/0077 Silicone hose roll 4 metres
- Ref 30/0157 Quick release plug
- Ref. 30/0079 3 Gaskets VA032 for Sucker
- Ref. 30/0156 2 Gaskets Glass Ø 15 cm
- Ref. 30/0070 3-litre graduated glass (G)
- Ref. 30/0071 1.5-litre graduated glass (Ñ)
- Ref 30/0081 5-litre graduated glass
- Ref. 30/0152 Cover with complete probe and regulating tap (J)
- Ref. 30/0153 Collector cap with quick connectors (O)
- Ref. 30/0155 Pump hose with terminals (T)
- Ref 30/0102 Teflon discs 2 pcs.
- Ref. 30/0158 Drain hose
- Ref. 80/0110 Cal Atack (descaler for heating element and taps)
- Ref. 30/0154 Complete coil (P)
- Ref. 30/0161 Temperature probe
- Ref. 30/159 Ninja Propeller (H)
- Ref: 30/0160 Motor 6 magnet holder

### *Already included with Girovap Pro2*

- Vertical transparent polyethylene measuring cup 1 liter
- Polyethylene measuring jug 1 liter
- 1 funnel

# 1 YEAR LIMITED INTERNATIONAL WARRANTY

This product comes with a 1 year warranty.

- The warranty does not cover damages caused by misuse or factors unrelated to CSL.
- The warranty does not cover breakage of the glass vessels.
- Any manipulation of the equipment by unauthorized personnel or the breakage of the seal will automatically void the warranty benefits.

No machine will be accepted for repair unless it is properly cleaned and disinfected. Claims or repairs will not be accepted without the signed authorization form for entry into the SAT service, provided by your distributor.

CSL commits to:

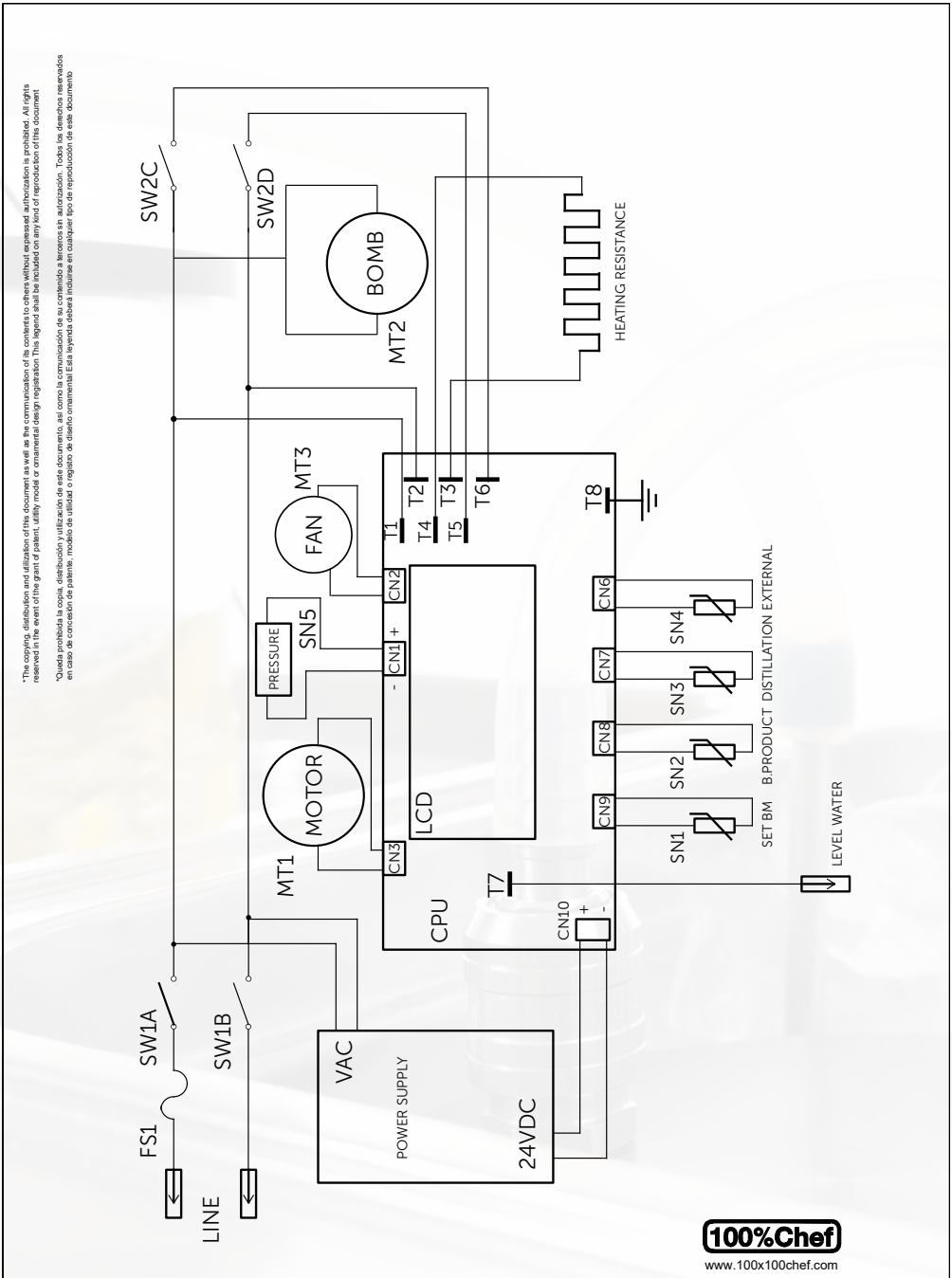
- Repairing or, at our discretion, replacing any part of this device found to be defective.
- The user will be responsible for the cost of labor and replacement materials resulting from misuse or consumer negligence.
- The user will bear the cost of diagnostics when the issue is due to misuse or negligence, if the consumer declines the repair estimate to determine the defects.
- Whether within or beyond the warranty period, the transportation costs for repair services, including delivery and/or return of the device, will be borne by the user.

***For any claims, you can contact your distributor or email orders@100x100chef.com***

*Si necesitas enviar tu máquina para mantenimiento o reparación, asegúrate de embalarla y protegerla cuidadosamente. Recuerda que la garantía no cubre los daños ocasionados durante el transporte.*

Register your GIROVAP to **activate the warranty**

Free access to **techniques and recipes!**

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# "CE" Declaration of Conformity

Cocina Sin Límites, S.L., Declara que: | Déclare que: | Declare that: | Dichiaramo che:

Código | Code | Code | Codice prodotto
**GIROVAP**

Modelo | Modèle | Type | Modello
**DISTILLER PRO2**

Cumple las directivas siguientes: | Accomplit les directives suivantes:
Meet the following directives: | Soddisfa le seguenti direttive:

**73/23/CEE**
Seguridad eléctrica | Securité électrique | Electrical safety | Sulla sicurezza elettrica

**89/336/CEE**
Compatibilidad electromagnética | Compatibilité électromagnétique Electromagnetical compatibility | Compatibilità elettromagnetica

**Directiva 98/37/EC Regl. 852/2004/CE**
Requisitos esenciales de seguridad y de salud relativos al diseño y fabricación de las máquinas y de los componentes de seguridad I Exigences essentielles de sécurité et de santé relatives à la conception et à la construction des machines et des composants de sécurité I Essential health and safety requeriments relating to the design and construction of machinery and safety components I Requisti essenziali di sicurezza e di salute relativi alla progettazione e alla costruzione delle macchine e dei componenti di sicurezza.

Cumple las siguientes normas: | Accomplit les normes suivantes:
Meet the following standards: | Soddisfa le seguenti normative:
**EN50081-1 | EN50082-1 | EN61010-1 | EN61326 | EN61010-2-020 | EN61010-2-041 EN1672-2**

Àngel Salvador Esplugas
General Manager

100%Chef

Diciembre 2024| Décembre 2024 | December 2024 | Diciembre 2024




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