

USER'S GUIDE

# SousVide™

PROFESSIONAL  
CHEF SERIES

PRECISE TEMPERATURE COOKING SYSTEM



 **PolyScience®**  
Innovative Culinary Technology

110-493 081315

# Contents.

Important Safeguards	2
Introduction	5
Advantages of Sous Vide Cooking	5
Features & Benefits	6
Controls & Components	7
Quick-Start	9
Set-up	10
Day-to-Day Operation	12
Advanced Operation	13
Cleaning & Storage	15
Fault & Warning Messages	16
Troubleshooting	17
Disposal	18

# Important Safeguards.

When using electrical appliances, basic safety precautions should always be followed, including the following:

1. Do not operate this Circulator with a damaged power cord or plug, or if it has been dropped, damaged, or malfunctions. Return the Circulator to PolyScience Culinary for examination and/or repair.
2. Do not let power cord touch hot surfaces or hang over the edge of table or counter.
3. Unplug from electrical outlet when not in use.
4. To avoid the possibility of personal injury, always unplug the Circulator from the electrical outlet before cleaning the unit.
5. To protect against the risk of electrical shock, submerge only the heater/pump portion of this Circulator in liquid. The maximum submersion depth is indicated on the housing of the unit. If the Circulator or power cord falls into liquid, unplug the power cord from the electrical outlet immediately. **DO NOT REACH INTO THE LIQUID.**
6. Do not use an extension cord with this Circulator.

7. This Circulator is intended for indoor use only; do not use outdoors.
8. Do not let this Circulator come in direct contact with food. All foods to be prepared with this Circulator should be placed in FDA approved boilable bags.
9. Carefully review the safety section in included literature.
10. This appliance should not be used by children. To avoid accidental injury, close supervision is necessary when this appliance is used where children may be present.
11. Do not operate in the presence of explosive and/or flammable fumes.
12. Never operate the Circulator without the pump/heater housing cover securely in place.
13. Always turn the Circulator OFF and remove it from the liquid before making flow adjustments.
14. Do not use this Circulator for other than the intended use of preparing foods.
15. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
16. This appliance is intended to be used in household and similar applications such as:
  - Staff kitchen areas in shops, offices, and other working environments;
  - Farm houses;
  - By clients in hotels, motels and other residential type environments;
  - Bed and breakfast type environments
17. Read all instructions carefully.

# Save These Instructions.

## Notice.

This Circulator is equipped with a grounded power cord which must be plugged into a properly grounded power outlet. Do not use the appliance if the grounding prong on the plug is missing or damaged or with a grounding adapter. Contact a qualified electrician if the plug does not fit into the electrical outlet you intend on using.



**IMPORTANT:** Your Sous Vide Professional is equipped with an automatic over-temperature safety that will disable the heater in the event of a heater fault or if it is run with insufficient cooking liquid for too long a time period. If this safety cannot be reset, the unit must be sent back to PolyScience Culinary.



**IMPORTANT: COUNTERTOP PROTECTION**  
Some countertop materials may not be able to withstand the prolonged exposure to heat required for sous vide cooking. To safeguard against damage to your countertop, PolyScience Culinary recommends that you always place your cooking vessel on a trivet or other insulating material before you begin heating the cooking liquid.

# Introduction.

Thank you for choosing the PolyScience Culinary Sous Vide Professional Thermal Circulator. Properly cared for, it will provide you with the precise and reliable temperature control you need for low temperature sous vide cooking.

We recommend that you begin using your Circulator immediately to confirm that it is operating properly. In the unlikely event that the unit was damaged during shipping or does not operate properly, contact:

## **PolyScience Culinary, a Division of Breville USA**

19400 S. Western Ave

Torrance, CA 90501 USA

Phone: 1-844-765-9724

Email: [askus@polyscienceculinary.com](mailto:askus@polyscienceculinary.com)

Web: [www.polyscienceculinary.com](http://www.polyscienceculinary.com)

Be sure to activate your new Sous Vide Professional warranty at

**<http://www.polyscienceculinary.com/activate>**

## Advantages of Sous Vide Cooking.

- Significantly reduces shrinkage when cooking meats, fish, or poultry.
- Because food is vacuum sealed in a pouch, nutrients, flavor, and fat cannot escape as it does with other cooking methods. Sous vide cooking requires less fat and oil, making for healthier meals. It also generally reduces the amount of seasoning (except salt) required.
- Set it and forget it convenience. Once you place the food in the cooking bath, you can leave it to cook unmonitored and tend to other kitchen tasks.
- Once you've established the desired cooking temperature and time for a sous vide dish, you can repeat it exactly every time.
- Sous vide cooking produces textural qualities that cannot be achieved with other cooking techniques.

## Features & Benefits.

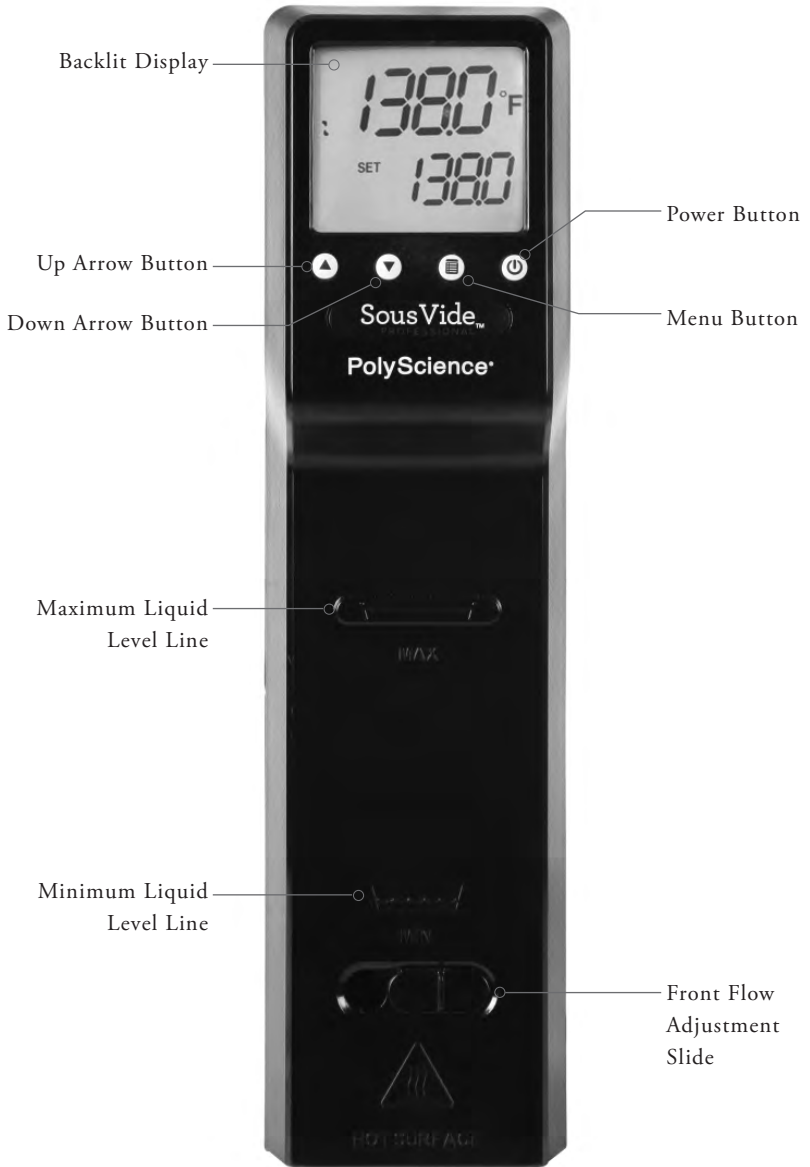
Your Sous Vide Professional Thermal Circulator combines design innovation with highly intuitive operation to deliver convenient and accurate temperature control for sous vide cooking. Here are some of the features that make the Sous Vide Professional so kitchen friendly:

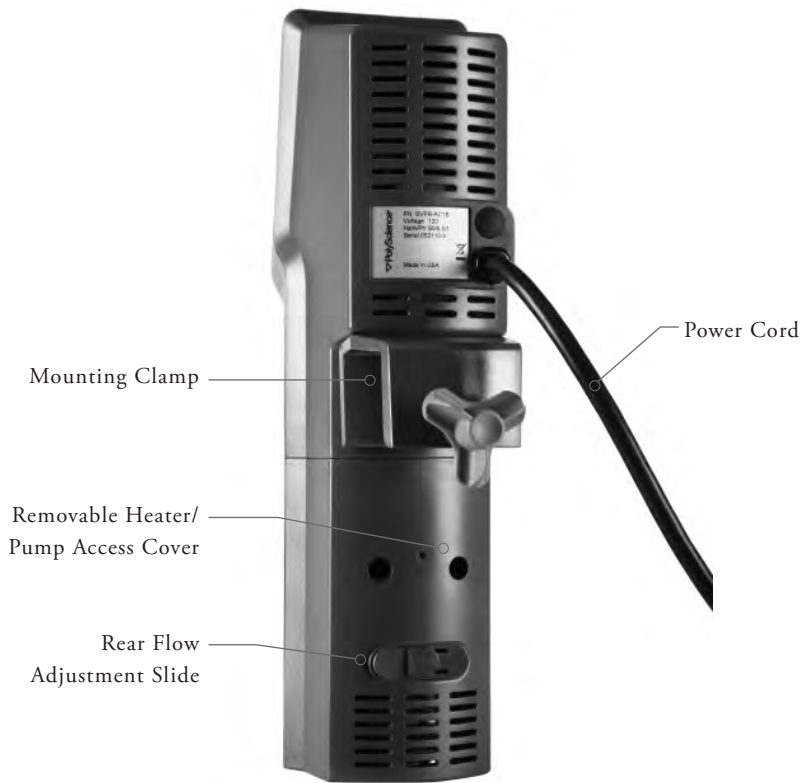
- Extremely easy to use – increase or decrease cooking temperature with just the push of a button.
- Exceptionally precise – maintains sous vide cooking temperatures up to 200°F / 95°C with  $\pm 0.1^\circ\text{F}$  /  $\pm 0.06^\circ\text{C}$  stability.
- Easy-to-monitor -- extra-large LCD lets you view cooking temperature from across the room.
- Consistent – powerful pump keeps liquid temperature throughout the cooking bath uniform, helping ensure that individual portions cook evenly and at the same rate.
- Flexible – clamps securely to stock pots, hotel pans, and other cooking vessels; turns vessels up to 30 liters / 30 quarts into a sous vide bath.
- Integrated – fully enclosed housing prevents cooking pouches from direct contact with pump and heater, yet removes easily for inspection and cleaning.
- Sturdy -- impact resistant construction stands up to day in, day out use.
- Compact -- stores easily in a drawer or cabinet when not in use.

## Food Safety Warning.

The food safety issues in cooking sous vide are different from more conventional forms of cooking. Do not start to cook before you fully understand the specified food handling practices to prevent, eliminate, or reduce the food biological, chemical, and physical hazards to a safe level.

# Controls & Components.








# Quick-Start.

See Set-up for additional information.

1	<b>Attach your Sous Vide Professional to the cooking vessel</b>	
2	<b>Fill the vessel with tap water and cover with plastic wrap or lid</b>	
3	<b>Connect the power cord to an electrical outlet</b>	
4	<b>Turn the Sous Vide Professional "ON"</b>	
5	<b>Enter desired cooking temperature</b>	

# Set-Up.

Your Sous Vide Professional Thermal Circulator is easy to set up:

1. **Place the flow adjustment slides on the Circulator to the desired positions.** These slide controls allow you to easily adjust the force with which the cooking fluid circulates. For maximum circulation (recommended), open the front slide control and close the rear slide control.

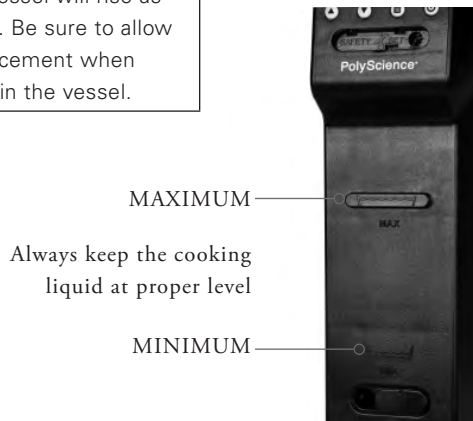


**WARNING:** To avoid the potential for burns and/or electrical shock, do not change the position of the flow adjusters while your Circulator is immersed in liquid. For safety, turn power to the unit OFF, unplug from the electrical outlet, remove Circulator from reservoir, and allow the housing to cool to room temperature before making adjustments.

2. **Attach the Circulator to the cooking vessel** (user-supplied). The mounting clamp on the back of the unit will mount it securely to both flat and rounded vessel walls. Allow a minimum of 0.5 inch / 1.3 cm clearance between the bottom of the Circulator housing and the bottom of the cooking vessel.
3. **Add the tap water to the cooking vessel.** The depth of the liquid in the cooking vessel should be kept somewhere between the “Maximum” and “Minimum” liquid level lines embossed on the heater/pump housing.





**IMPORTANT:** The water level in the cooking vessel will rise as food is added. Be sure to allow for this displacement when placing liquid in the vessel.





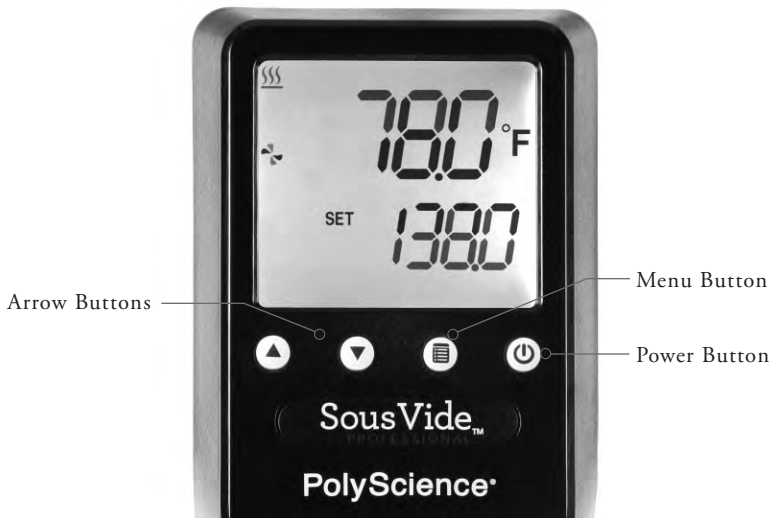
4. **Plug the power cord into a properly grounded electrical outlet.**

The LCD will light and the word "Standby" will appear on the display.




	<p><b>WARNING:</b> Make certain that the electrical outlet is the same voltage and frequency as your Circulator. The correct voltage and frequency are indicated on a label on the back of the unit. The use of extension cords is not recommended.</p>
---	---

5. **Turn power ON.** Press ; all characters and symbols on the LCD will momentarily light.

The Circulator will begin running, actual and set point temperatures will be displayed, and the word "SET" will be continuously lit. The pump symbol (  ) will also be lit and the heat symbol (  ) may also be flashing.



6. **Select the temperature units.** Your Circulator can be set to display temperature in either °F (factory default) or °C.



To change from °F to °C, press  once and then press . To accept the change, press  or wait for the LCD return to the main operational display (approximately 10 seconds).

You are now ready to begin cooking with your Sous Vide Professional Thermal Circulator!

# Day-to-Day Operation.





## Turning the Unit ON


Press the  button.

All characters/symbols on the LCD will momentarily light. When the Circulator begins running, the actual and set point temperatures will be displayed and the word "SET" will be continuously lit. The pump symbol () will also be lit and the heat symbol () may also be flashing.



## Setting Cooking Temperature

Press the  or  button. The word "SET" will begin flashing. Continue holding or repeatedly press  or  until the desired set point temperature is displayed.

To accept the displayed set point temperature, press  or wait for the word "SET" to stop flashing (approximately 10 seconds).








**IMPORTANT:** Always allow the cooking liquid to reach the set point temperature before adding the sous vide cooking pouches to the cooking vessel. For optimal heating and performance, cover the cooking vessel with plastic wrap or a lid (DO NOT COVER THE CIRCULATOR).

## Loss of Power

In the event that electrical power is disrupted during use, your Circulator will begin operating automatically when power is restored. The message "FAIL POWER" will also appear on the digital display to alert you that there was a disruption in power.






# Advanced Operation.

Your Sous Vide Professional Thermal Circulator also features two more advanced functions. These are accessed by pressing the Menu (  ) button:

Advanced Function	Display Icon	Choice or Range	To Change Value
Temperature Unit	°C/°F	°C or °F	 for °C  for °F
Offset Calibration	OFFSET CALIBRATE	-3.0°C to +3.0°C	 or 

## Temperature Units

Your Sous Vide Profession can display the set point and cooking liquid temperatures in either °C or °F.







To change from °C to °F, press  once and then press . To change from °F to °C, press  once and then press . To accept the change, press  or wait for the LCD return to the main operational display (approximately 10 seconds).


## Offset Calibration



**IMPORTANT:** Before changing the Offset Calibration value, take into consideration that the RTD sensor used in the Sous Vide Professional is much more accurate than most kitchen thermometers.

This advanced function allows you to adjust your Circulator's temperature display to match the temperature reading obtained with another device. The factory default is 0.0°C.

1. Disconnect the power cord from the electrical outlet.
2. Plug the power cord back into the electrical outlet while pressing and holding the  button.
3. Press the  button.
4. Press the  button until OFFSET CALIBRATE appears on the display.
5. Press  or  to enter the desired value.
6. Press  or wait for the LCD to return to the main operational display.

The Offset Calibration function will remain enabled until the electrical power is turned OFF by pressing the  button.




**NOTE:** The Offset Calibration value is always shown in °C, even when °F has been selected as the temperature unit. Your Circulator will automatically convert the °C offset calibration value to the correct °F display offset value.

# Cleaning & Storage.

Always clean and dry your Sous Vide Professional Thermal Circulator completely before storing. Be sure to protect it from contact with equipment or other objects that could damage the digital display.


## Routine Cleaning

Turn the Circulator OFF by pressing  and unplug from the electrical outlet.

	<b>WARNING:</b> To avoid the potential for burns, allow the Circulator to cool to room temperature before removing it from the cooking vessel.
---	--

Keeping the unit upright, wipe the housing with a clean damp cloth or sponge. Do not use abrasive cleansers as these could scratch the housing or the LCD readout.

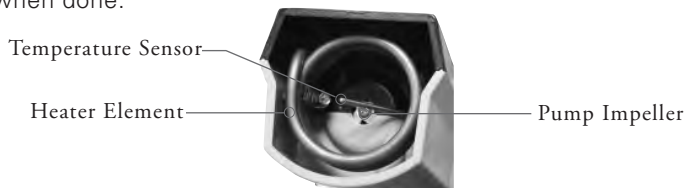
Should the Circulator's immersed components become coated with grease or other residue due to a cooking pouch leak or break, run the unit in clean water containing a small amount of non-sudsing dishwasher detergent for about 10 minutes at 140°F / 60°C. Rinse carefully and dry thoroughly when done.

	<b>WARNING:</b> Never immerse the Circulator's controls or display in water or other liquids or place under running water. Do not clean the unit in a dishwasher.
---	---


## Removing Mineral or Scale Deposits

Depending on the frequency of use and the hardness of your water, scale and minerals may build up on your Circulator's heater element and pump impeller. These components should be inspected periodically for such deposits.

Should cleaning become necessary, run the Circulator in either a 15% white vinegar in water solution or a 10% food-safe calcium/lime/rust remover in water solution at 140°F / 60°C until the scale is removed. Dry thoroughly when done.



# Removing Food Debris.

Turn the Circulator OFF by pressing  and unplug from the electrical outlet.



**WARNING:** To avoid the potential for burns, allow the Circulator to cool to room temperature before removing it from the cooking vessel.



In the unlikely event that food or other debris becomes lodged in the heater element or pump impeller, these components can be fully accessed by removing the protective cover on the bottom rear of the housing. This cover is held in place with two Phillips head fasteners.

Use a soft brush to remove any lodged particles. If necessary, soak in clean water to soften before brushing. DO NOT use hard utensils or abrasive pads to remove trapped food debris.



**WARNING:** Never operate your Circulator without the protective cover in place.


# Fault & Warning Messages.

Warning or Fault Message	Description
<p>FAIL      POWER</p>	<p><b>Informational Message:</b> Electrical power was lost during operation. Turn the Circulator OFF and then back ON to clear the message.</p>
<p>  OVERTEMP  OR   LOW FLUID </p>	<p><b>Fault:</b> The automatic over-temperature safety temperature has been exceeded and needs to be reset. See Troubleshooting.</p>
<p>FAIL      INTERNAL                 PROBE</p>	<p><b>Fault:</b> The Circulator’s temperature sensor has failed. Contact PolyScience Culinary.</p>
<p>FAIL      HEATER</p>	<p><b>Fault:</b> The Circulator’s heater has failed. Contact PolyScience Culinary.</p>




# Troubleshooting.

**Food does not cook uniformly.** The food portions are not equal in size and/or the liquid-to-food ratio is too low.

**Circulator won't heat.** Check to see if the heat symbol (  ) is flashing. If symbol is flashing and you are cooking at higher temperatures or using larger cooking vessels, cover the the vessel with plastic wrap or a lid (DO NOT COVER CIRCULATOR). If symbol is not flashing, verify that the desired cooking temperature is higher than the cooking liquid temperature.



If OVERTEMP OR LOW FLUID, FAIL INTERNAL PROBE, or FAIL HEATER appears on the Circulator's display, there has been an internal component failure or the automatic over-temperature safety temperature has been exceeded.

Reset the safety as follows:

1. Turn power OFF by pressing .
2. Unplug the electrical cord.
3. Remove the plate covering the red reset button.
4. Press the red reset button.
5. Restore power to the unit.

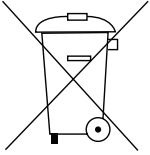


If the fault message is still displayed and/or the unit will still not heat, contact PolyScience Culinary.

**FAIL POWER appears on display.** Electrical power was lost during operation. Press  to turn the unit OFF and then press  a second time to turn the unit back ON. This should clear the Fail Power message.

**Restore factory defaults.** To reset your Circulator to all factory settings, unplug the unit from the electrical outlet and plug it back in again while pressing either the ▲ (for degrees C) or the ▼ (or degrees F).

## Disposal.



This equipment is marked with the crossed out wheeled bin symbol to indicate that it must not be disposed of with unsorted waste.

It is your responsibility to correctly dispose of this equipment at lifecycle-end by handing it over to an authorized facility for separate collection and recycling. By doing so, you will help to conserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.

Please contact PolyScience Culinary.

For recipes visit <http://recipes.polyscienceculinary.com/>

## Regulatory Compliance.

### **Part numbers beginning with "SVPR"**

#### **120V units:**

ETL Intertek: Conforms to UL STD 1026, Certified to CAN/CSA STD C22.2 No. 64.10

#### **240V units:**

CE: Low Voltage Directive 2006/95/EC, Electromagnetic Compatibility Directive 2004/108/EC,  
EN 60335-1: 2012, EN 60335-2-15:2012, EN 55014-1:2009, EN 55014-2:2008,  
EN 62233:2008

### **Part numbers beginning with "SVC"**

#### **120V units:**

ETL Intertek: Conforms to UL STD 197, Certified to CAN/CSA STD C22.2 No. 109  
ETL Sanitation: NSF / ANSI 8

#### **240V units:**

CE: Low Voltage Directive 2006/95/EC, Electromagnetic Compatibility Directive 2004/108/EC, EN 60335-1:2012, EN 60335-2-15:2012, EN 55014-1:2009,  
EN 55014-2:2008, EN 62233:2008