

InfiSteam

IS-1000

Owner's Manual

Manufacturing Number:
9010935

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Overview

2 This unit is intended to be used for commercial applications, for example: in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., But not for continuous mass production of food.

Before Use

3 This manual contains safety, installation, and operating procedures for the unit.
3 Read and understand it completely before installing or operating the unit. Keep this document for reference. If the unit changes ownership, this manual must accompany it.

In Case of Damage

7 If the unit arrives damaged, file a claim with the carrier immediately. Save all packing materials when filing a claim. Freight damage claims are the responsibility of the purchaser and are not covered under warranty.

Website

www.antunes.com

Service/Technical Assistance

In Case of Damage

If any parts are missing or damaged, problems with the installation or operation of this product contact Antunes Customer Service immediately at +1-877-392-7856 (toll free).

Fill in the information in the next section and have it ready when calling for assistance. The serial number is on the specification sticker located on the system.

Equipment Information to Save

Purchased from:

Date of purchase:

Model number:

Serial number:

Manufacturing number:

Authorized Service Agency

Name:

Phone No:

Address:

Safety Information

Installation

- Read and understand all instructions before installing or using the unit.
- The unit **MUST** be installed by personnel qualified to work with electricity and plumbing.
- Install this unit to comply with the basic plumbing code of the Building Officials and Code Administrators, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).
- Install and locate the equipment only for its intended use as described in this manual.



WARNING

ELECTRICAL SHOCK HAZARD.
Failure to follow the instructions in this manual could result in serious injury or death.

Do not modify the power supply cord plug. If it does not fit the outlet, have a proper outlet installed by a qualified electrician.

Electrical ground is required on this appliance.

Check with a qualified electrician if you are unsure if the appliance is properly grounded.

Do **NOT** use an extension cord with this product.

The unit should be grounded according to local electrical codes to prevent the possibility of electrical shock. It requires a grounded receptacle with separate electrical lines, protected by fuses or circuit breaker of the proper rating.

NEVER unplug the power cord while the unit is running. Use the proper shutdown procedure before unplugging the power cord.

Operation

- The unit is furnished with a properly grounded cord connector. Do not attempt to defeat the grounded connector.
- Do not operate the unit if it has been damaged or dropped, if it has a damaged cord or plug, or if it is not working properly.
- Do not block or cover any openings on the equipment.
- Do not immerse the cord, unit, or plug in water.
- Keep the cord away from heated surfaces.
- Do not allow the cord to hang over the edge of a table or counter.
- Keep the area around the unit free and clear of all combustible materials. Failure to do so may result in fire or property damage.
- Opening steamer drawers during operation releases steam. Compartment and contents may be hot.

Maintenance

- Do not use abrasive materials; they can damage the unit's stainless steel finish.
- Do not use corrosive chemicals in this equipment.
- Chlorides or phosphates in cleaning agents (e.g., Bleach, sanitizers, degreasers, and detergents) can permanently damage stainless steel equipment. The damage is usually in the form of discoloration, dulling of the metal surface finish, pits, voids, holes, or cracks. This damage is permanent and is not covered by warranty.
- Always use a soft, damp cloth for cleaning. Rinse with clear water and wipe dry. When required, always rub in the direction of metal polish lines.
- Routine cleaning should be performed daily with soap and water.
- Rub off finger marks and smears using soap and water.
- Do not clean unit or components in a dishwasher unless specifically specified in the cleaning instructions.
- Do not clean the unit with a water jet or steam cleaner.
- When using the citric acid cleaning solution as prescribed in this manual, follow the recommended manufacturer's safety precautions. Use gloves and eye protection when required.

Service

- Inspection, testing, and repair of electrical equipment must be performed only by qualified service personnel.
- To avoid possible personal injury and/or damage to the unit, all inspections, tests, and repair of electrical equipment should be performed by qualified personnel **ONLY**. Contact Antunes Technical Service for adjustment or repair.
- Turn the power off, unplug the power cord, and allow unit to cool to room temperature before performing any service or maintenance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid an electrical hazard.
- Cleaning and user maintenance shall not be made by children without supervision.

Equipment Description

The InfiniSteam Model IS-1000 is a pressurized steam generator for use in commercial kitchen and food preparation applications. The steam generator is a small footprint 30 psig boiler capable of delivering roughly 25 pounds of steam per hour. The steamer has a thermal efficiency greater than 94%, and is capable of producing steam at extremely high velocities which improve the rate of heat transfer dramatically.

The InfiniSteam offers continuous steam generation in a stainless-steel pressure vessel, allowing it to provide heat and power generation without the long recovery time found in many flash steamers on the market today. The InfiniSteam has a unique mechanical design that avoids many of the common issues facing commercial boilers and steamers today, and provides lower operating and maintenance costs without sacrificing safety or usability. In addition, the InfiniSteam is controlled with a proportional-integral-derivative (PID) controller. Both temperature and pressure are used in the control operation of the steam generator.

The power requirement for the InfiniSteam is 208 Volt 1Phase and the steamer is shipped with a 50 Amp NEMA 6-50P style plug. The matching wall receptacle for this plug is NEMA 6-50R. The InfiniSteam's power requirement is 8400 Watts or roughly 41Amps.

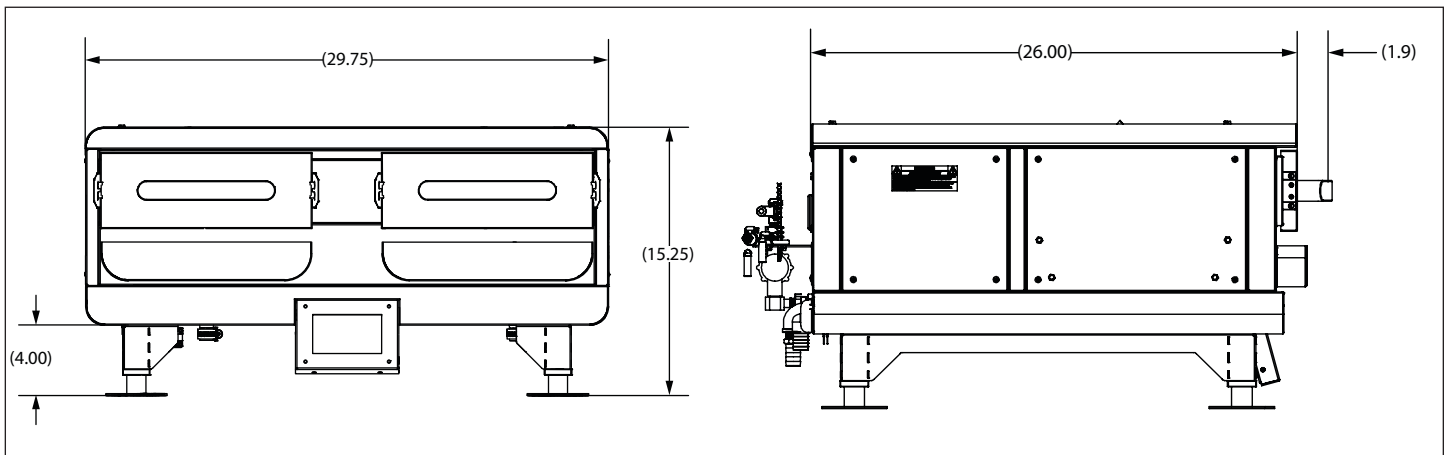
Since the InfiniSteam generates steam under pressure, temperatures are over 25% higher than those found in typical atmospheric steamers. Although the steam generator is pressurized, the steam cavities are not. This provides optimum cooking and steaming of many foods; the high-pressure steam provides velocity and high temperature, while the atmospheric cavity allows the steam to condense on the product instead of destroying the food. The InfiniSteam is configured with two electropolished 304 stainless-steel cavities and drawers. Placed inside the drawers are standard half size high temperature steamer pans and trivets. The drawers, steamer pans and trivets are easily removed for daily cleaning. Cavities can just be wiped down at the end of the day, minimizing labor clean-up costs.

The outer panels of the steamer is a combination of stainless-steel and powder coated aluminum. The steamer is capable of being double stacked by removing four bolts located on the top cover. The steamer also has a GUI (Graphical User Interface) panel to allow for easy programming of product cook times and rest times. See Operational Instruction Section for further details.

The steamer has service connections on the rear base of the steamer. 3/4" I.D. x 1" hose rated to 300-degree °F is supplied in coiled spool for (three) drain connections, cut to length in the field during installation. A 6 foot power cord is attached to the steamer. The Steamer also has two 1/4 NPTF water line connections; one for the boiler (treated water), the other for the clean cycle (tap water).

Specifications

Dimensions



Electrical Ratings

Model & Mfg. No.	Volts	Watts	Amp	Hertz
IS-1000 9010935	208	8400 Watts	41	50/60

Electrical Cord & Plugs

Model & Mfg. No.	Description	Configuration
IS-1000 9010935	NEMA 6-50 250 VAC, 50 AMP	

Water Requirements

Minimum Water Pressure	40 psig dynamic
Maximum Water Pressure	90 psig
Maximum Water Usage during normal operation	3.5 gallons per hour
Maximum water usage during clean cycle operation (Initial Fill 1.6 gallons; flushing 4.8 gallons)	6.4 gallons
Water Inlet Connection	1/4" NPTF or Quick Disconnect Fitting

Water Requirements Water Quality (Treated Water)

Hardness (Calcium & Magnesium)	1 GPG Maximum
Total Alkalinity	600 PPM Maximum
Total Silica	150 PPM Maximum
Iron Content	0.1 PPM Maximum
pH	6.5-10.5
Total Dissolved Solids	2,500 PPM Maximum
Oxygen Content	0 PPM
Carbon Dioxide	0 PPM

Water Pressure Requirements

Minimum Water Pressure	40 psig dynamic
Maximum Water Pressure	90 psig

⚠ IMPORTANT ⚠

Failure to follow these water quality conditions will void the warranty and may cause the steamer to operate erratically or fail prematurely and require a service call. To better understand if the water to be used for the boiler meets these requirements, a water quality sample kit (part number 7002105) can be ordered from Antunes for testing.

Unpacking

⚠ WARNING

This steamer must be installed by personnel who are qualified to work with electricity and plumbing. Improper installation can cause injury to personnel and/or to the equipment. The steamer must be installed in accordance with all applicable codes.

⚠ CAUTION

The Steamer has an approximate shipping weight of 260 pounds. For safe handling OBTAIN EXTRA PERSONNEL to properly and safely install the steamer.

⚠ CAUTION

The installation surface **MUST** be flat, and the cart, table, or service rack **MUST** have a rated service weight capacity of 360 pounds per steamer.

1. Remove steamer and all accessories from the packaging.
2. Remove all packing materials and protective coverings from the steamer.
3. Record the model number, serial number, and installation date of your steamer and keep this information for future reference. Space for this is provided at on page 2.

NOTE: If any parts are missing or damaged, contact Antunes **IMMEDIATELY** at 1-800-253-2991 (toll free in the U.S. and Canada) or at 630-784-1000.

4. Wash all removable components in soap and water. Wipe down all exterior surfaces of the steamer with a hot damp cloth.

NOTE: Do NOT use a dripping wet cloth. Wring out before use.

5. Install components onto steamer as shows in Figure 2.
6. The system is shipped with a coil of black drain hose rated for temperature of 300°F and three hose clamps located in a separate box.

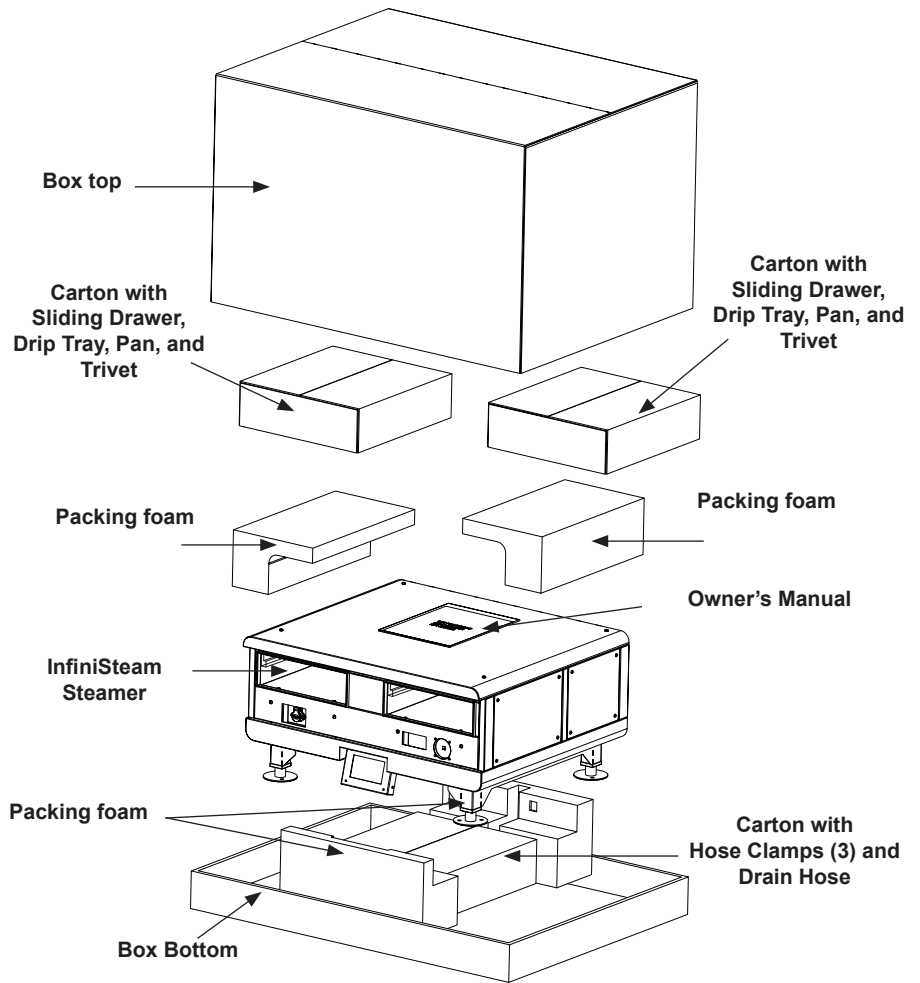


Figure 1. Packaging Components

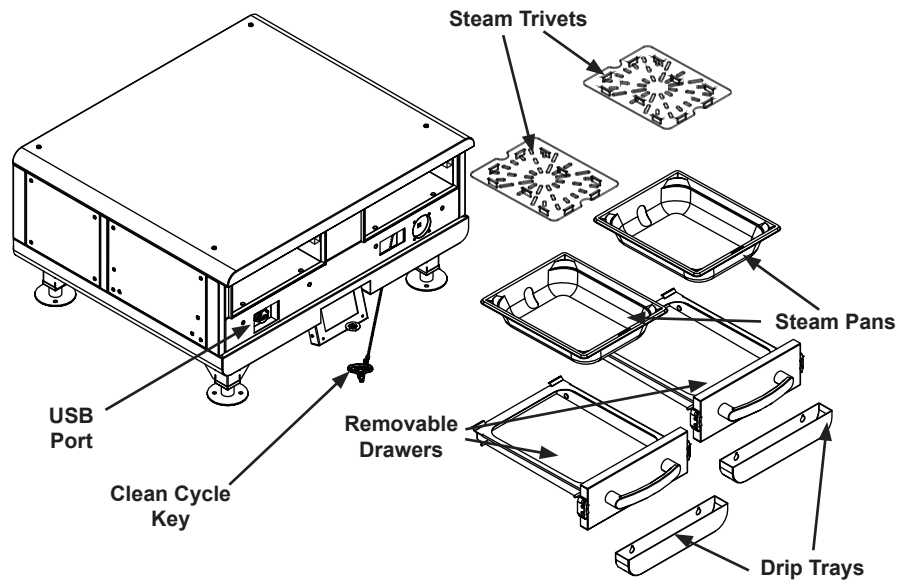


Figure 2. Steamer Components

Installation

The steamer should be installed in a well-ventilated room. The steamer must be securely fastened to a table or moveable cart that is capable of handling the weight of one or multiple steamers. Each InfiniSteam weighs approximately 120 pounds and the total weight capacity requirements of the cart or table must be considered prior to installation. 3X safety factor recommended. I.e. 1 InfiniSteam (120 lbs) x 3 S.F. = 360 lbs minimum weight load capacity per work surface.

NOTE: Installer **MUST** verify the weight restrictions of the table, cart, or service rack prior to installation of the steamer. All warranties will be VOID if work surface is unable to handle the specified weight load.

The steamer must be installed on a level surface. The InfiniSteam has built-in water level controls requiring the surface to be parallel to the horizon. The InfiniSteam is equipped with four adjustable feet.

Install steamer with at least 6 inches of clearance from the back wall. Side clearances of at least 6 inches are recommended. Antunes recommends enough clearance for easy cleaning, service and maintenance: specific customer installations will dictate the final configuration.

Water Supply Quality

The quality of the water supply to the boiler (Treated Water Inlet) is important for proper operation. Low mineral content (low TDS) water will keep the boiler cleaner and reduce the need for frequent clean cycles.

It is recommended that the following water quality conditions be met.

Hardness (Calcium & Magnesium)	< 3 grains per gallon (51ppm)
Conductivity	6-100 µS/cm (TDS 4-65 ppm)

An ion-exchange water softener or Reverse Osmosis (RO) system are recommended to best attain these water conditions. Consult Antunes Customer Service for more information on and Antunes product that is designed for the InfiniSteam.

NOTE: Failure to follow these water quality conditions may cause the steamer to operate erratically or fail prematurely and require a service call.

Water Supply Plumbing:

The InfiniSteam is equipped with a standard 1/4 NPT female water connection. Also included with the steamer is a quick disconnect fitting (P/N'S 2080134 (Male) & 2080118 (Female)) which can be readily adapted and/or permanently secured to a flexible water feed line that delivers water pressure at a minimum of 40 psig dynamic (when the steamer is drawing water) and a maximum of 90 psig. If the dynamic water pressure is less than 40 psig, then a booster pump may need to be added to the steamer feed water line. If the water pressure is in excess of 90 psig, use the included pressure regulator to reduce the pressure. CA minimum flow rate of 1 gpm is required.

NOTE: Minimum dynamic supply water pressure from either an RO System Supply Source or a softened water supply line feed, to be 40 psig minimum dynamic and a maximum of 90 psig. Contact Antunes Tech Service on measuring the proper supply water pressure. Failure to provide a minimum of 40 psig dynamic water pressure may prevent the boiler from filling and cause Fill Timeout Errors.

Wiring:

The InfiniSteam is equipped with a 50 Amp U.L. Certified Plug. Follow all NEC (National Electrical Code) and local electric codes when installing a matching wall receptacle.

⚠ DANGER: An electrical ground is required to the wall receptacle. Failure to provide a proper ground can result in death or serious injury. All applicable electrical codes **MUST** be followed in accordance with ANSI/NFPA 70 or latest edition. In Canada, provide electrical service in accordance with Canadian electrical code, CSA C22.1 and local codes.

Antunes Recommended Clearances from walls and other Equipment			
Front of Steamer	Rear of Steamer	Left Side of Steamer	Right Side of Steamer
36" - 48" for full drawer extension	6" - 8" for proper air flow	6" for ease of cleaning and maintenance	6" for ease of cleaning and maintenance

Agency Required Clearances from walls and other Equipment			
36"	6"	0"	0"

Water Requirements	
Minimum Water Pressure	40 psig dynamic
Maximum Water Pressure	90 psig
Maximum Water Usage during normal operation	3.5 gallons per hour
Maximum water usage during clean cycle operation	6.4 gallons
Water Inlet Connection	1/4" NPTF or Quick Disconnect Fitting

⚠ IMPORTANT ⚠

Failure to follow these water quality conditions will void the warranty and may cause the steamer to operate erratically or fail prematurely and require a service call. To better understand if the water to be used for the boiler meets these requirements, a water quality sample kit (part number 7002105) can be ordered from Antunes for testing.

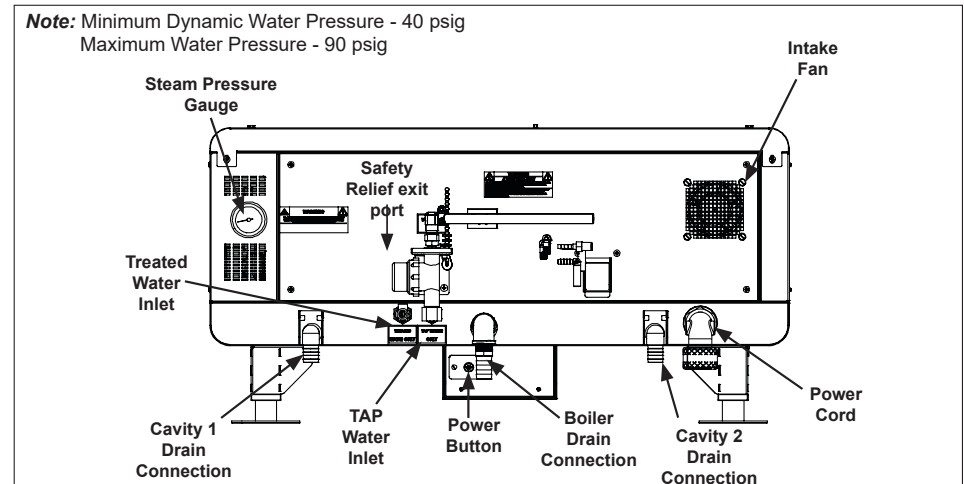


Figure 3. Steamer Connections and Items (Rear of Steamer)

Leveling the Steamer

NOTE: Installer **MUST** verify the weight restrictions of the table, cart, or service rack prior to installation of the steamer. All warranties will be **VOID** if work surface is unable to handle the specified weight load.

1. Using two people to safely lift the steamer, place the InfiniSteam on a work surface that is capable of withstanding the necessary weight. 150 pounds for a single steamer or 360 pounds for a double stacked steamer.
2. Check the clearances table on the previous page for walls and other equipment to ensure that all codes and recommendations are followed.
3. Using a level, rotate the adjustable feet until the steamer is level. The steamer should be level by depth and horizontally. (See figures below).
4. If double stacking steamers, follow the next section of instructions. If not double stacking, move on to the Water Drainage instructions on the next page.

NOTE: If steamer is not level, adjust the mounting feet until level is achieved.

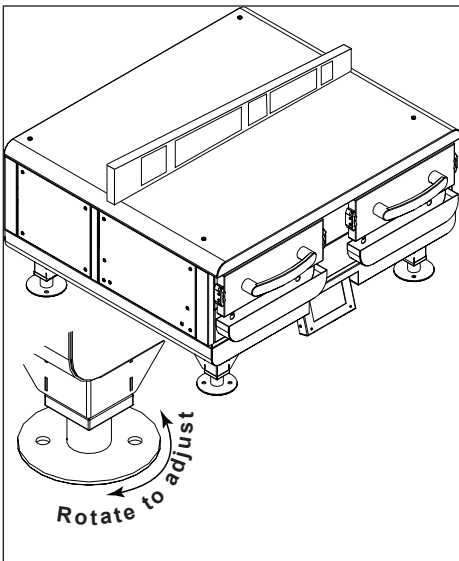


Figure 4. Level Steamer

Double Stacking Steamers

(Optional)

NOTE: The InfiniSteam is designed for a maximum height of two (2) steamers. Stacking more than two steamers can cause injury and/or damage to steamers and will void all warranties.

1. Ensure bottom steamer is completely level before continuing.
2. Locate and remove the four (4) screws on the top cover of the bottom steamer. Set aside for later use. (Figure 6)
3. Remove all accessories from the second steamer that will be placed on top. Place accessories aside to keep them from moving during installation.
4. Using two people, lift the second steamer and place it carefully on top of the bottom steamer.
5. Rotate the feet on the steamer to adjust height and level the top steamer.
6. Align the screw holes of all four (4) feet and holes in the top of the base steamer. Using a screwdriver put the original screws from the first steamer back in place.

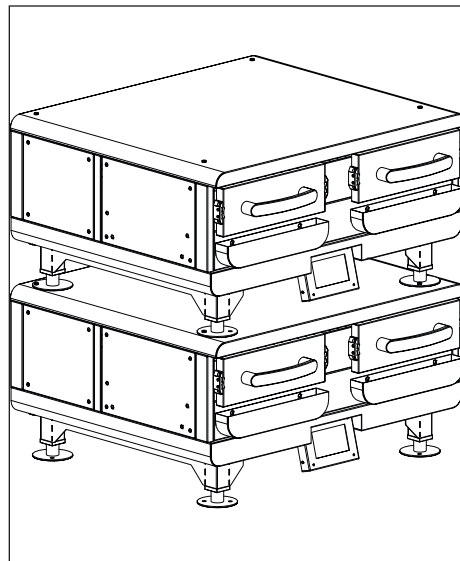


Figure 5. Double Stacked Steamers

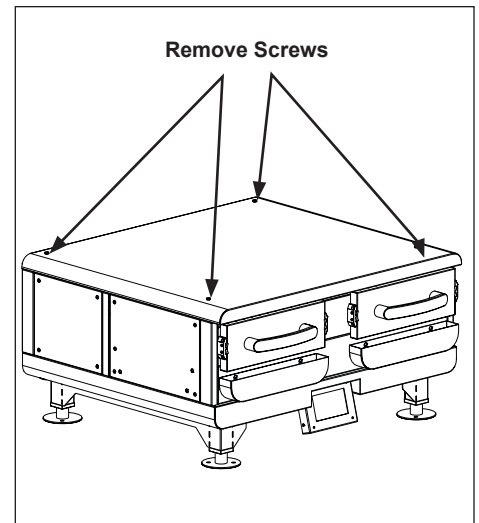


Figure 6. Remove Top Cover Screws of Bottom Unit

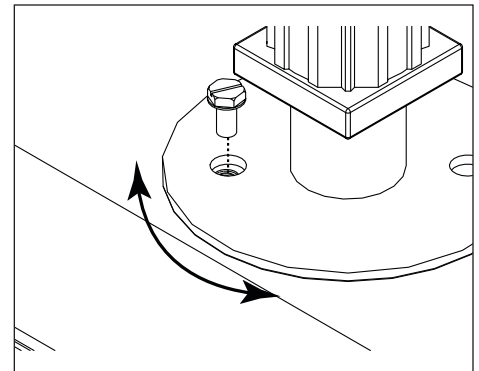


Figure 7. Align the Foot Holes

System Water Drainage

The back of the InfiniSteam has 3 drain connections (1) main boiler drain and (2) condensate cavity drains. All drains can be combined into a single 3 Schedule 80 connection or plumbed directly into a standalone floor drain capable of handling 5 gallons per hour per steamer.

A 9' roll of high temperature 3.4" I.D. flexible hose is provided and connections must be made in the field. Kinking of the hose, will impede the performance and functionality of the InfiniSteam.

Antunes recommends the optional Drain Box Assembly (P/N 0013900) for a clean installation and minimal service / installation issues.

1. Measure distance from steamer drains to floor drain making sure to leave room for a two (2) inch gap between the hoses and floor drain. If using a Drain Box, include that length when measuring.
2. Cut the supplied drain tubing into 3 pieces. Each piece may be a different length depending on installation.

NOTE: A 2 inch air gap from the drain hose to the floor drain must be maintained in order to provide adequate/proper drainage capabilities. Failure to comply with a 2" air gap minimum will result in a warranty failure and nuisance performance issues.

NOTE: Depending on your installation, local plumbing codes may require the use of a wall mounted drain box (P/N 0013900).

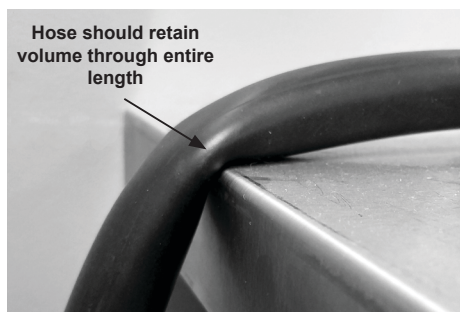


Figure 8. Kinked Hose

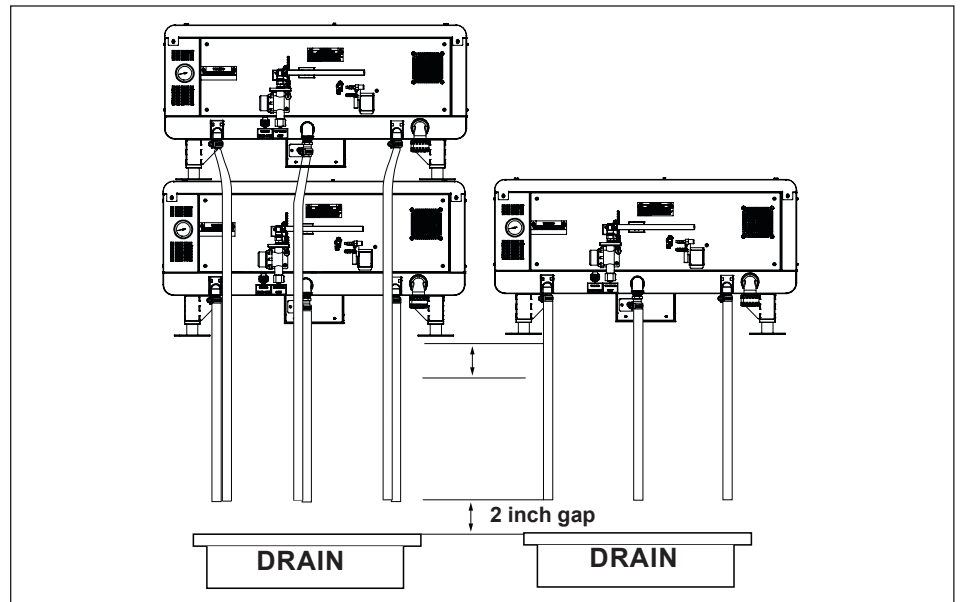


Figure 9. Drain Setup for Stacked and Single Units

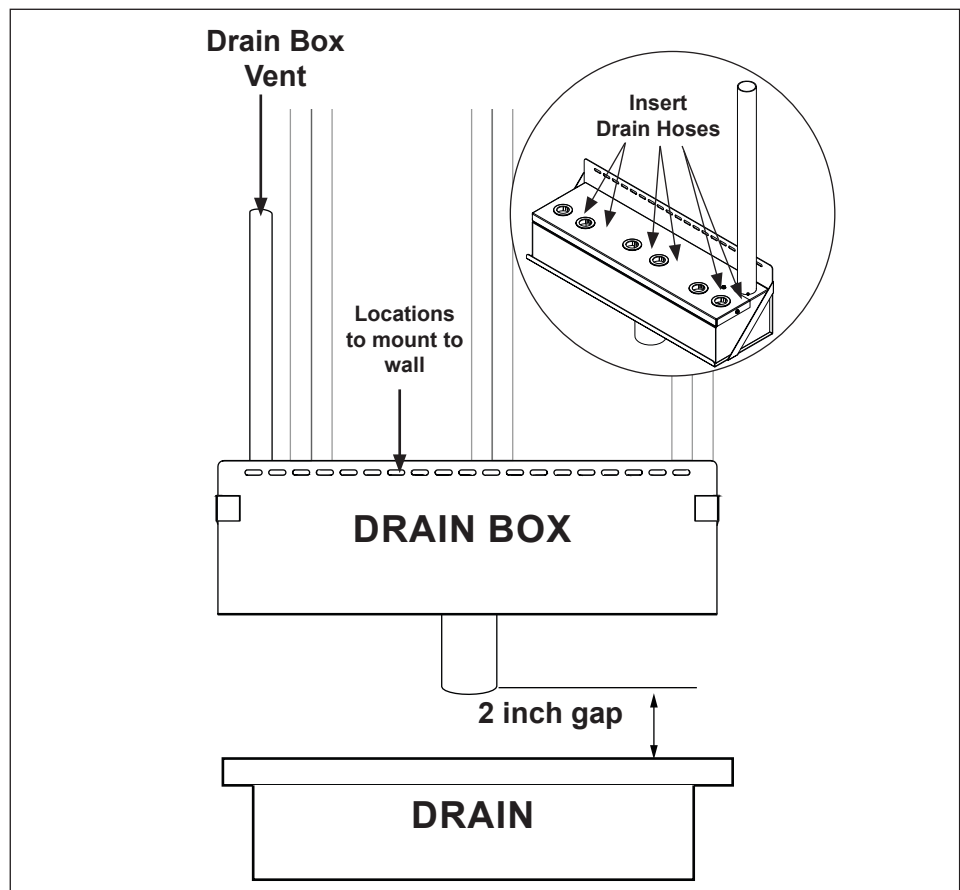


Figure 10. Drain Box Setup

Operations

Initial Startup

1. Connect the cold water line to the water inlet according to Figure 3 on page 7.
2. Plug the power cord into the appropriate outlet. Turn on water.
3. The steamer performs a system test and displays information on the display.
4. The steamer then shows the splash screen. Press the Power Button behind the Display to turn the steamer on.

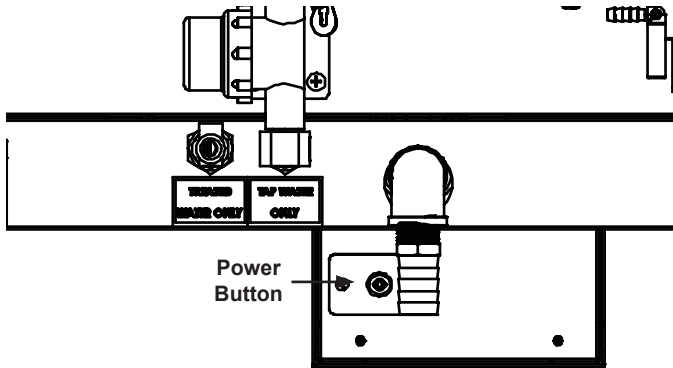


Figure 11. Power Button (Rear of Steamer)

5. The steamer displays the initial fill screen and fills the internal tank. When complete the steamer displays the Initial Warm-up Screen appears. This screen shows the time remaining for the warm up operation.
6. When initial Warm-up completes, the steamer displays the operation screen.

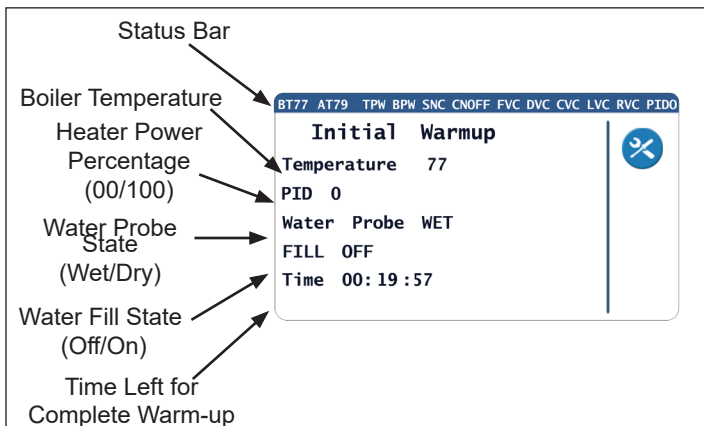


Figure 12. Screen Information

Icon Descriptions

This section describes the icons that appear on the display.

	Increase Icon. Used to increase a value. Increments vary across items.
	Decrease Icon. Used to decrease a value. Increments vary across items.
	Save Icon. Used to save data to the control board memory.
	Cancel Icon. Used to cancel the current activity.
	System Settings Icon. Used to access and change system settings.

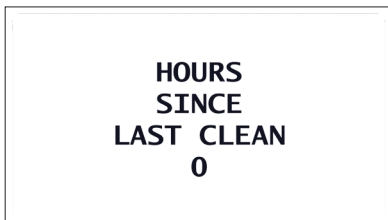
Symbol	Meaning	Possible Values
BT	Boiler Temperature	Degrees °F
AT	Control Board Temperature	Degrees °F
TP	Top Probe	W = Wet, D = Dry
BP	Bottom Probe	W = Wet, D = Dry
SN	Snap Switch	H = Hot, C = Cold
CN	Contactors	O = Open, C = Closed
FV	Fill Valve	O = Open, C = Closed
DV	Drain Valve	O = Open, C = Closed
CV	Clean Valve	O = Open, C = Closed
RV	Right Cavity Steam Valve	O = Open, C = Closed
LV	Left Cavity Steam Valve	O = Open, C = Closed
LV	Left Cavity Steam Valve	O = Open, C = Closed
PID	Heater Control Valve	0-100

System Power-up

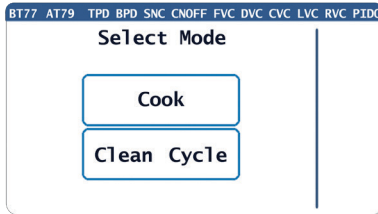
1. Upon application of power, the system will display the following splash screen.



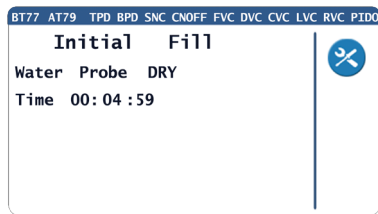
2. After the steamer is powered-up, it begins operation with this screen. This displays how many hours have accrued since the last clean cycle was completed. To see more about using the clean cycle, see page 17.



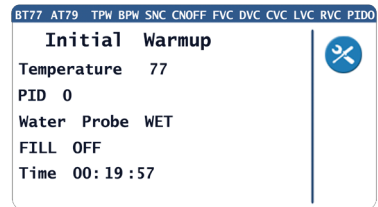
3. After a few seconds the screen will change to this display:



4. When **Cook** is selected, the following screen is displayed.



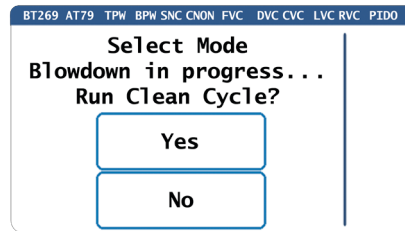
5. Once the boiler is filled with water, the heating process begins.



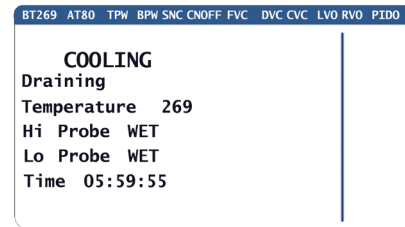
6. Once the boiler reaches its operating temperature, the steamer is ready for operation

System Power-down

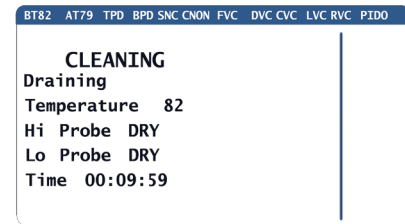
1. To turn the system off, press the Power button behind the display screen. The following screen is displayed.



2. If No is selected, the following screen is displayed. If the steamer must be cleaned see the Maintenance section of this manual for Clean Cycle instructions on page 18.



3. After the boiler has cooled down, the following screen is displayed.

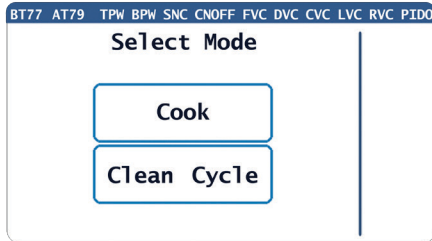


4. Once the boiler is drained, the system displays a splash screen indicating it has completed the selected operation.

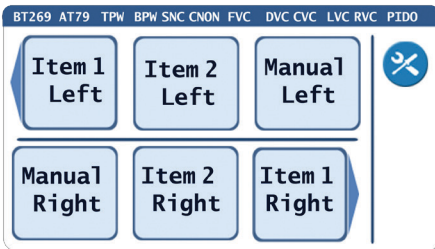


Programmed Steaming

1. Turn the steamer on by pressing the power switch located behind the display screen.
2. The steamer will either display the Initial Warm-up screen or the Fill screen if the steamer requires more water.
3. When the Initial Warm-up is complete, the operations screen appears on the display.



4. Open the appropriate front drawer and load the product to be steamed onto the steam trivet. Close the drawer securely.
5. On the display, press the appropriate steaming icon for the drawer being used. The icons on the top are for the left drawer. The icons on the bottom are for the right drawer.



NOTE: Both drawers can be used at the same time.

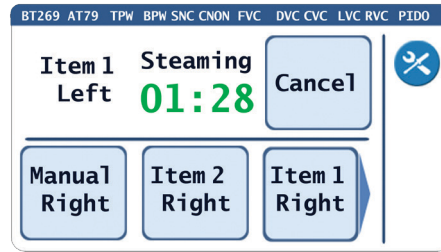
Every steam cycle has three parts:

- Steaming
- Resting
- Done

During a timed steam cycle, pressing cancel automatically switches to rest mode.

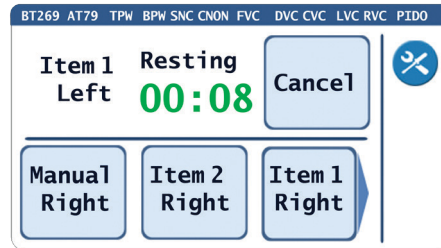
6. When the Steam portion of the cycle finishes, the steamer moves automatically to Resting mode and begins to count down.
7. When Resting mode completes, the steamer moves automatically to Done mode. The steamer beeps. Press Cancel to turn off the buzzer.
8. Open the drawers, remove food item(s) and serve.

Programmed Steaming Example: Item 1L Steaming



Time counts down from preset time. Pressing Cancel during steaming puts the cavity in Resting Mode.

Item 1L Steaming



Once steaming time reaches 00:00 Resting Cycle begins counting down. Pressing cancel during Resting Cycle puts the cavity in Done Mode.

Item 1L Done

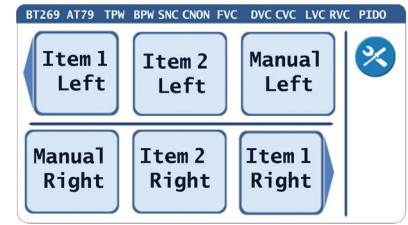


After resting time completes, buzzer sounds to indicate the Cooking Cycle is finished. Press Cancel to stop buzzer. Steamer is ready for next cycle.

Manual Steaming

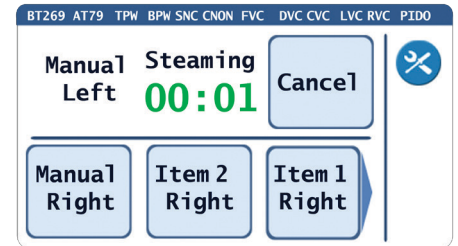
1. Open the appropriate front drawer and load the product to be steamed onto the steam trivet. Close the drawer securely.

2. On the display, press the appropriate steaming icon for the drawer being used. There is only one Manual Icon per drawer.



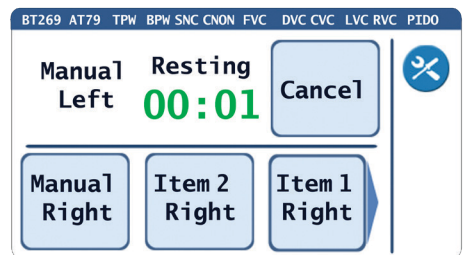
3. The Manual buttons start a steam cycle that counts up until the Cancel box is pressed.
4. After pressing Cancel, the steamer begins the Resting Cycle. The timer will continue to count up until cancel is pressed again.
5. The beeper sounds after the Resting Cycle is cancelled to indicate the steam cycle is complete.
6. Press Cancel to stop the buzzer.
7. Open the drawer(s), remove food item(s) and serve.

Manual Steaming Example: Manual Left Steaming



Time counts up from preset time. Pressing Cancel during steaming puts the cavity in Resting Mode.

Manual Left Resting




Once cancel is pressed, resting cycle begins counting up until cancel is pressed again. Resting puts the cavity in Done Mode.

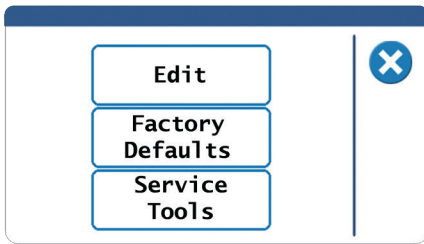
Manual Left Done



Buzzer sounds to indicate cooking cycle is finished. Press cancel to stop buzzer. Steamer is ready for the next cycle.

Steamer Settings

To access the Steamer Settings, press the **Tools** icon  on the display. This opens the **Tools** screen, shown below.




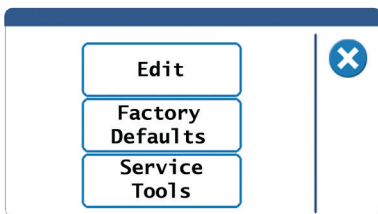
The **Tools** Screen shows three buttons, described below:

Button	Description
Edit	Press to access the Edit Screen for access to editing recipes, steamer settings, and PID information.
Factory Defaults	Press to access the Factory Defaults screen to reset recipes, steamer settings, and PID to the default factory settings.
Service Tools	Future feature.

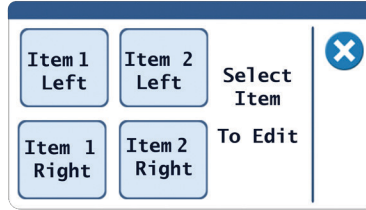
Editing Recipes

To edit Recipes:

1. Press the **Tools** Icon  to open the Tools Screen.
2. Press the **Edit** button on the **Tools** Screen.
3. Press the **Edit Recipes** button (see below).



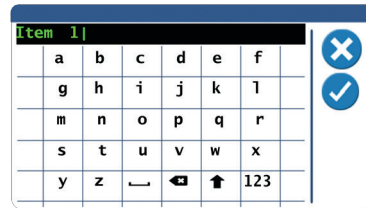
4. This opens the following screen. Click the icon of the recipe you want to edit. For example, the **Item 1L** button is pressed.





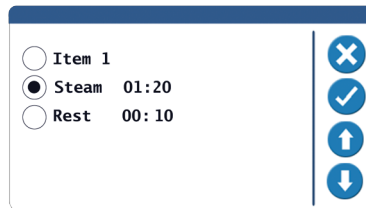
5. The following screen appears:









6. Press button next to the recipe name, the system displays a keyboard screen (below).




7. Use the keyboard to edit the name of the recipe. Press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes. The system returns to the screen below.

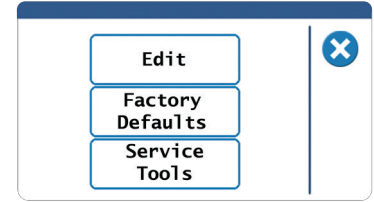


8. Press the button next to Steam. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired.
9. Press the button next to Rest. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired.
10. When you finish making edits, press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes.

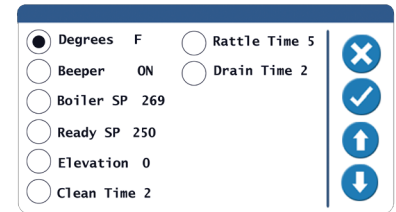
Editing Settings





To edit settings:

1. Press the **Tools** Icon  to open the **Tools** Screen.
2. Press the **Edit** button on the **Tools** Screen.
3. Press the **Edit Settings** button.



4. This opens the following screen:




5. Press the button next to the first setting you want to change. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired. Continue selecting the buttons next to the values you wish to change. When you are finished changing settings, press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes.

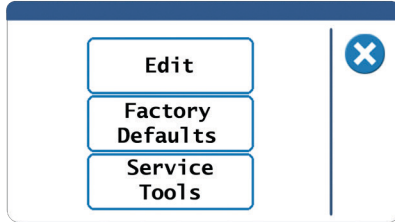
Editing PID Values

Do NOT change PID settings.

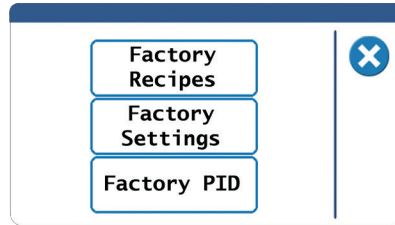
Resetting to Factory Defaults

To reset settings to the factory defaults:

1. Press the Steamer Settings, press the **Tools** icon  on the display. This opens the **Tools** screen, shown below:




2. Press the Factory Settings button. The following screen appears:



3. Three options can be reset to factory defaults. Once selected, the system resets the defaults and shows the following screen:



4. Press  to return to the previous screen where you can reset other categories.

Maintenance

Daily

The InfiniSteam requires a minimal amount of maintenance. Daily maintenance helps keep the steamer running smoothly and free of any excess buildup that comes from daily use and wear. These steps should be completed at the end of every day to ensure that the steamer maintains optimum efficiency.

Open the drawers and remove the steam pans and steam trivets (Figure 13).

1. Remove the drip trays (Figure 13).
2. Wash, rinse, and sanitize the steam pans, steam trivets, and drip trays at the sink. Allow to air dry.
3. Remove both cavity drain screens and rise clean of any debris (Figure 14).

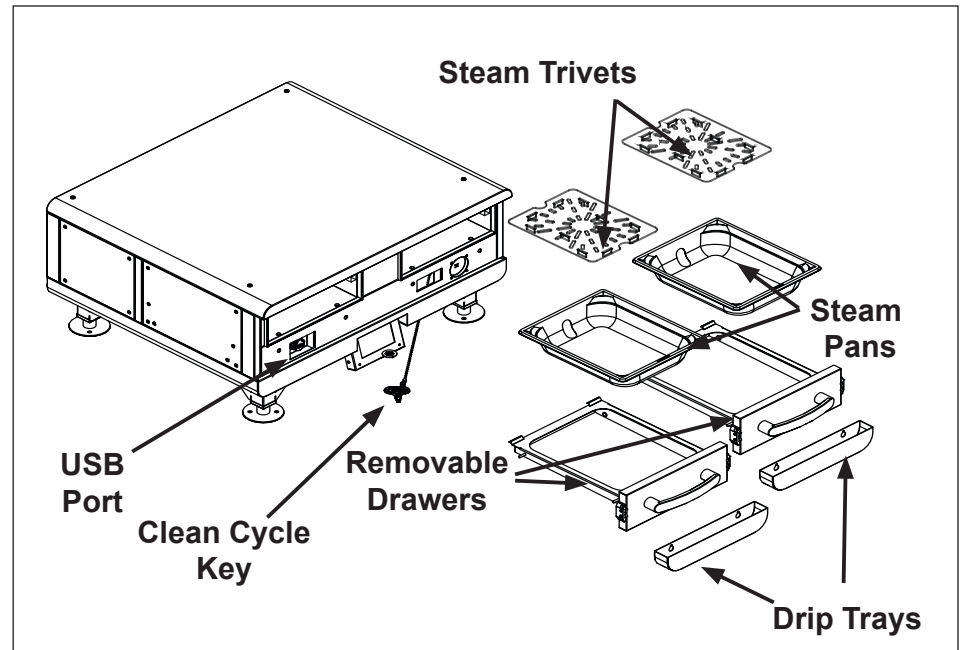


Figure 13. Steamer Components

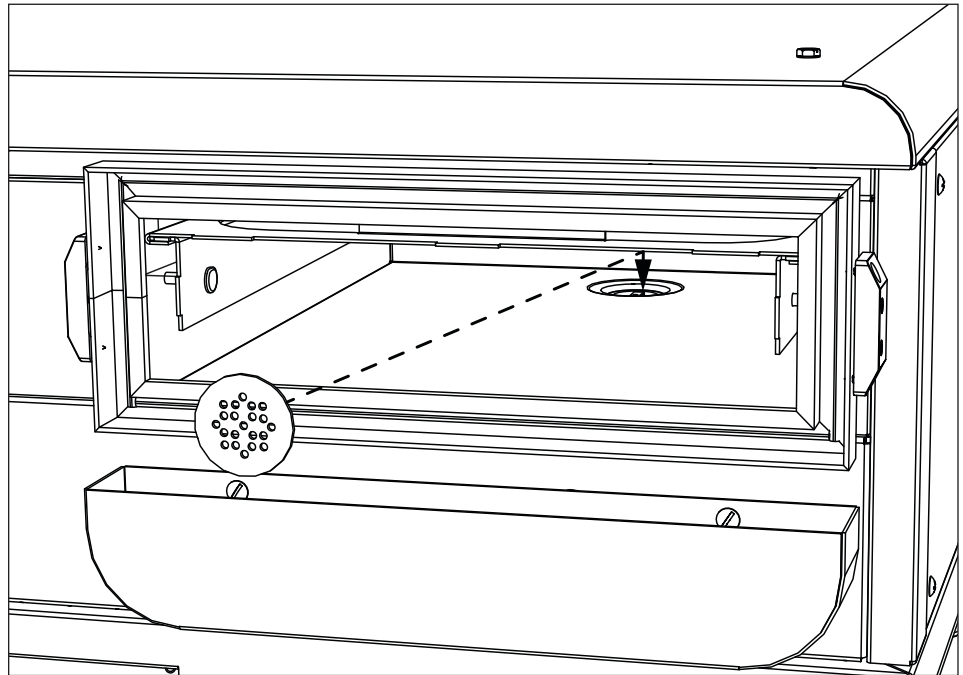


Figure 14. Cavity Drain Screen Removal

4. Clean the steam drawers and the inner cavity with a clean towel dampened with sanitizer. Allow to air dry.

NOTE: Do not use a dripping wet towel. Wring the towel out before wiping the steamer.

5. Reinstall all parts (Figure 11).

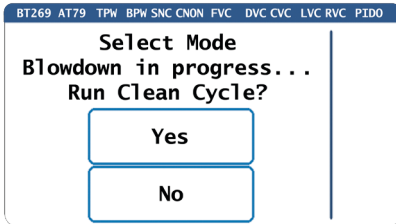
Cleaning Cycle Maintenance

The cleaning cycle can be performed when the steamer is first turned on or at the end of the day. It is recommend to perform the cleaning cycle at the end of the day.

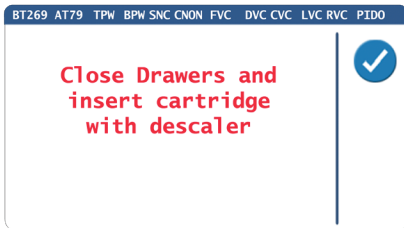
When low mineral content (low TDS) water is used with the steamer, the clean cycle should only be needed monthly. Higher mineral content water may require more frequent clean cycles.

NOTE: Failure to properly clean and de-scale boiler will cause significant changes in operation of steamer. Antunes is not responsible for any damage or complications due to negligent maintenance of steamer.

1. When the steamer is turned off, the following screen is displayed.



2. Select **Yes**. The operator is prompted to remove the cleaning cartridge and add cleaning granules.



NOTE: The steamer is expecting the cleaning cartridge to be removed after this menu. Failure to follow the sequence will prevent the cleaning cycle from being initiated in step 11.

3. Remove the right Drip Tray (Figure 13).

4. Remove the Cycle Key and insert it into the Cleaning Cartridge (Figure 15). Rotate cartridge counter-clockwise and remove from steamer.

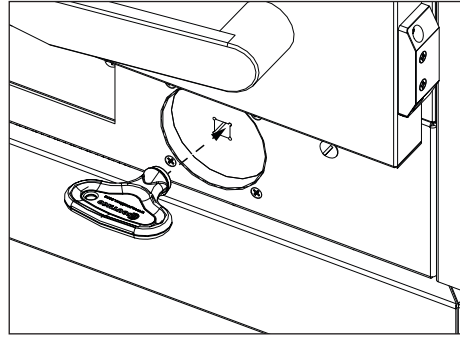


Figure 15. Insert Clean Cycle Key

5. Remove top of Cleaning Cartridge by pulling it off the plastic housing.

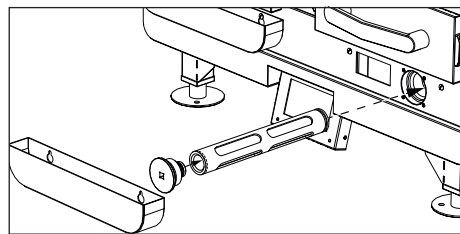


Figure 16. Removing the Cleaning Cartridge

6. Pour at least 4oz of cleaning solution into the plastic housing.

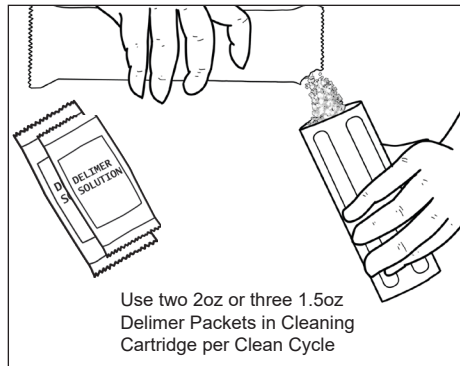
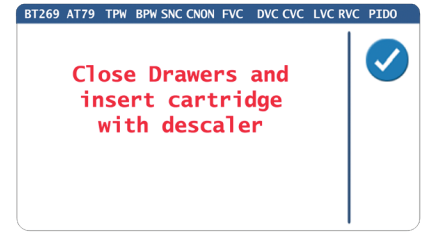


Figure 17. Pour Delimer into Cleaning Cartridge

7. Reattach top of Cleaning Cartridge.

8. Place Cleaning Cartridge back into steamer.
9. Rotate the supplied key clockwise to tighten cartridge. Steamer is now ready to perform Clean Cycle.
10. Press the check mark symbol to begin the Clean Cycle.



11. When the Cleaning Cycle is complete, the following screen appears.



12. Press the check mark symbol again to be returned to the Splash screen.



Error Messages

If the steamer displays any error messages, turn the steamer off and restart it. If the error persists, contact Antunes Technical Service at 1-877-392-7854 (toll free).

Error	Description
FRAM Missing	Control Board Failure
Zero Cross	
TC0 Open	Thermocouple Broken or Disconnected
TC1 Open	
FlipFlop ON	Power Switch Circuit Malfunction
FlipFlop OFF	
Bootload Fail	Software Update via USB Stick Failed
OPTION Write Failed	EEPROM Failure
MENU Write Failed	
PID Write Failer	
24V Missing	24VDC Power Supply Failed
Display Missing	Touch Screen Display Failed
Boiler Hot	Boiler Failed to Cool Down
Boiler Not Empty	Boiler Failed to Drain
Drain Timeout	
Clean Drain Timeout	Boiler Failed to Cool Down
Initfill Timeout	Boiler Initial Water Fill Failed
Clean Fill Timeout	Boiler Clean Cycle Water Fill Failed
Refill Timeout	Boiler Normal Operation Water Fill Failed

⚠ WARNING ⚠

Before replacing any parts, or opening any side or rear panel from the steamer, disconnect the steamers from the electrical power supply.

⚠ CAUTION ⚠

Use of any replacement part other than those supplied by Antunes or their authorized distributors can cause injury to the operator and damage to the equipment and will void all warranties.

Weekly Maintenance - Cleaning Cycle

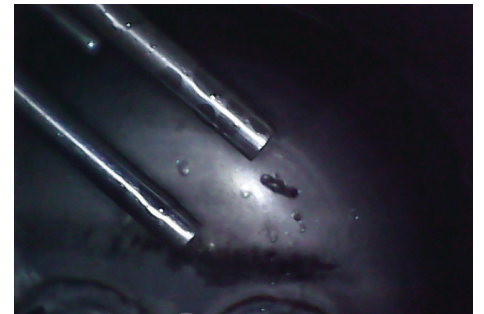
⚠ WARNING ⚠

Failure to properly follow the cleaning instructions for the unit will result in excess buildup of scale and lime as seen in the examples below. Excess buildup of scale and lime may cause damage to the unit and will void the warranty. Using hard water in excess of 1 gpg may result in lime scale buildup that may damage the boiler. Pretreat hard water with a water softener or an RO system. To determine the hardness of the boiler feed water, a 7002105 Water Sample Kit can be ordered from Antunes.

Scaled



Clean

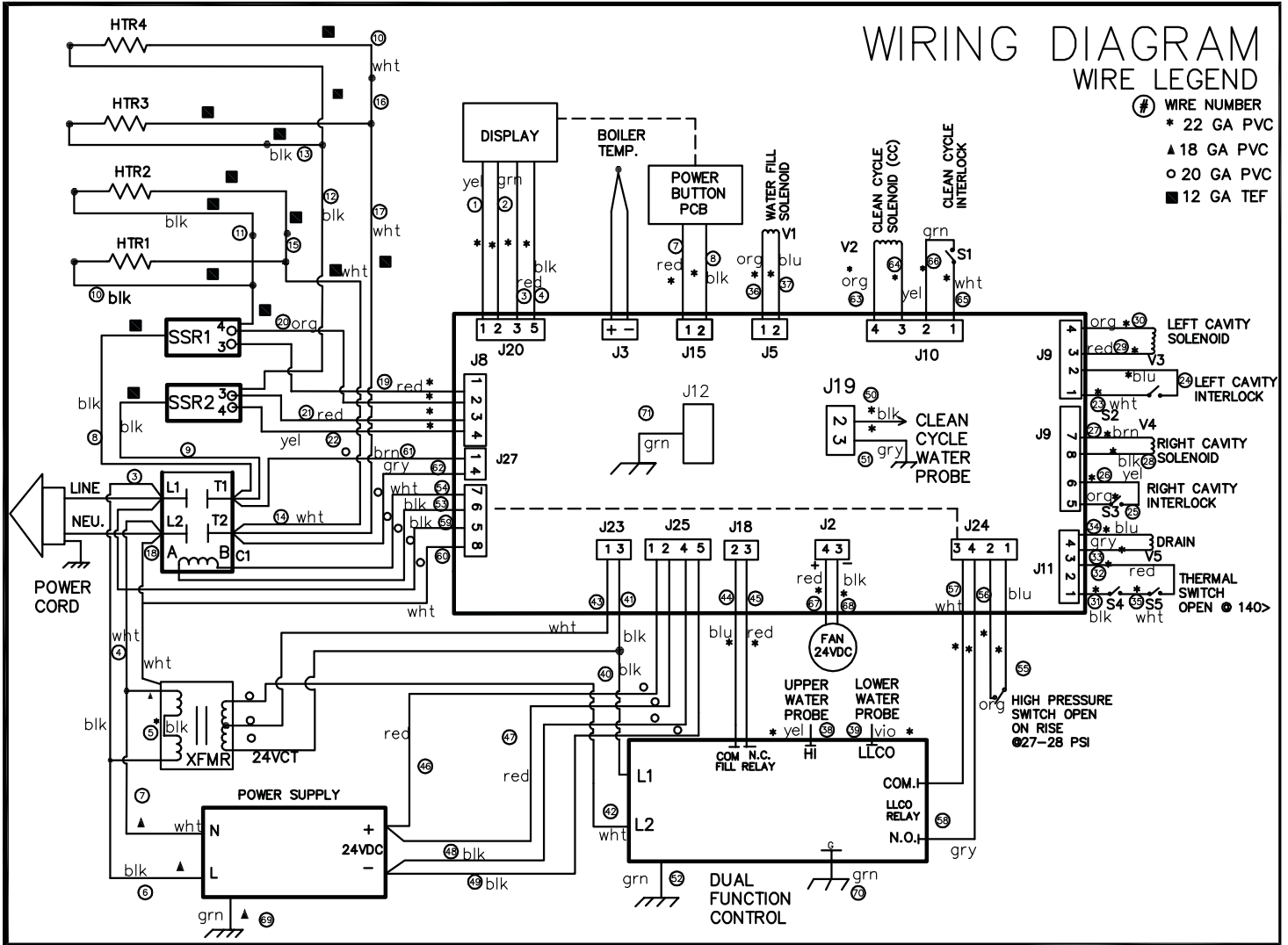


Troubleshooting

Your Antunes Steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks or activities to make in the event of a problem:

Problem	Possible Cause	Who Services Steamer	Corrective Action
Excessive steam escaping from the cavity	Cavity Drain Screen is Plugged	User	Remove both drawers of steamer and clean Drain Screens.
	Drain Hose is kinked or 2" air gap is blocked	User	Make sure the drain hose are not kinked and a 2" air gap is maintained to the floor drain or drain box.
Excessive water is pouring out of the cavity	Cavity Drain Screen is Plugged	User	Remove both drawers of steamer and clean Drain Screens.
	Drain Hose is kinked or 2" air gap is blocked	User	Make sure the drain hose are not kinked and a 2" air gap is maintained to the floor drain or drain box.
	Water fill Solenoids are clogged	Auth Service Rep Only	Check water fill solenoids for debris.
	Steam Solenoid Valves are clogged.	Auth Service Rep Only	Check Steam Solenoids Valves for debris and continuity (N.C.) for normal operation.
Steamer Does Not Heat	Steamer is unplugged or circuit breaker is tripped	User	Make sure steamer is plugged in and circuit breaker has not tripped.
	Cavity Drawer(s) are not engaged.	User	Make sure both cavity drawers are pushed in all the way.
	Loose component connections	Auth Service Rep Only	Check operation of Pressure Switch, Control Board, Contactor, and Cartridge Heaters for continuity and/or loose connections.
Steamer fails to reach proper temperature	GUI Settings have changed	User	Adjust GUI Control Settings and set Boiler Temperature (BT) to 268 deg °F. See settings/ operation section in this manual on page 17.
	Voltage issue on electrical components	Auth Service Rep Only	Check for voltage or open circuit on control board, contactor, heaters, pressure switch, or GUI control Panel.
Steamer is continually draining and doesn't build pressure or temperature	System buildup or blockage.	User	Turn steamer off and run a clean cycle. Allow steamer to complete the entire clean cycle – See preventative maintenance section of this manual on page 18.
	Drain Valve malfunction/failure.	Auth Service Rep Only	Clean the drain valve seat or replace drain valve with the steamer powered down. Once powered up, run a clean cycle to ensure trouble free operation.
Steam is escaping from the rear panel of the steamer	Boiler Temperature is set too high.	User	Adjust GUI Control Settings and set Boiler Temperature (BT) to 265 deg F. Determine is steam is still escaping. If still escaping contact a service rep for safety valve replacement.
	Safety Valve Error/ Failure	Auth Service Rep Only	Adjust GUI Control Settings and set Boiler Temperature (BT) to 265 deg F. Determine is steam is still escaping. If steam still escapes, replace safety valve.
Water is escaping from rear of steamer during initial operation	Water Inlet Hose has connection problem	User	Check inlet water feed hose to steamer. Reconnect if needed and/or replace.
	Vent Overflow	Auth Service Rep Only	Determine if water is coming from vent overflow or water feed connection. If from vent overflow port of rear panel contact an Authorized Service Rep
System Error Displayed on GUI	System Error - Refer to Error Messages on Next Page	User	Turn steamer OFF and then back ON. If error persists, contact Authorized Service Rep

Wiring Diagram



Limited Warranty

Equipment manufactured by Antunes has been constructed of the finest materials available and manufactured to high quality standards. These units are warranted to be free from electrical and mechanical defects for a period of one (1) year from date of purchase under normal use and service, and when installed and operated in accordance with manufacturer's recommendations. To ensure continued operation of the units, follow the maintenance procedures outlined in the Owner's Manual. During the first 12 months, electromechanical parts, non-overtime labor, and travel expenses up to 2 hours (100 miles/160 km), round trip from the nearest Authorized Service Center are covered.

This warranty does not cover cost of installation, defects caused by improper storage or handling prior to placing of the Equipment. This warranty does not cover overtime charges or work done by unauthorized service agencies or personnel. This warranty does not cover normal maintenance, calibration, or regular adjustments as specified in operating and maintenance instructions of this manual, and/or labor involved in moving adjacent objects to gain access to the equipment.

This warranty does not cover water contamination problems such as foreign material in water lines or inside solenoid valves. It does not cover water pressure problems or failures resulting from improper/incorrect voltage supply. This warranty does not cover Travel Time & Mileage in excess of 2 hours (100 miles/160 km) round trip from the nearest authorized service agency.

This warranty does not cover water quality related issues related to limescale, corrosion and/or improper cleaning, descaling and/or maintenance related issues.

This warranty does not cover water pressure problems or failures resulting from improper/incorrect voltage supply.

Antunes reserves the right to make changes in design or add any improvements on any product. The right is always reserved to modify equipment because of factors beyond our control and government regulations. Changes to update equipment do not constitute a warranty charge.

If shipment is damaged in transit, the purchaser should make a claim directly upon the carrier. Careful inspection should be made of the shipment as soon as it arrives and visible damage should be noted upon the carrier's receipt. Damage should be reported to the carrier. This damage is not covered under this warranty.

Warranty charges do not include freight or foreign, excise, municipal or other sales or use taxes. All such freight and taxes are the responsibility of the purchaser.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL ANTUNES BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY

The warranty does not extend to:

- Damage to Power Cord and/or plug
- Damage to Receptacles and or external water lines
- Normal maintenance outlined in the Owner's Manual
- Consumable parts such as gaskets, feet, labels, O-rings, etc.
- Malfunction resulting from improper service or maintenance
- Damage caused by improper use, abuse, careless handling, and/or improper Boiler maintenance as outlined in the Owner's Manual.
 - Clean Cycle must be performed every 24 hours or less with a minimum of 4 ounces of Delimer Crystals.
- Damage caused by improper maintenance of filtration as outlined below:
 - VZN Filtration System
 - Scheduled Replacement of filters (Ultra-Filter Chlorine or Chloramine Filter)
 - System properly flushing according to water quality
 - Inlet water pressure needs to be within 60 psig to 100 psig
 - Antunes Water Softener
 - Brine Tank must be always maintained with at least 20 pounds of Water Softener Salt.
 - Softener must be plugged in and running proper regeneration cycle
- Damage from moisture coming in contact with electrical components
- Damage from tampering with, removal of, or changing preset controls or safety devices
- Damage caused by parts or components not provided by Antunes
- Failure to meet water quality requirements

Water Requirements:

○ Hardness (Calcium & Magnesium)	1 GPG Maximum
○ Total Alkalinity	600 PPM Maximum
○ Total Silica	150 PPM Maximum
○ Iron Content	0.1 PPM Maximum
○ pH	6.5 - 10.5
○ Conductivity/Total Dissolved Solids (TDS)	6-100 µS/cm (TDS 4-65 PPM)
○ Oxygen Content	0 PPM
○ Carbon Dioxide	0 PPM
○ Minimum Water Pressure (Dynamic)	40 psig
○ Maximum Water Pressure	60 psig



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