R&D FIXTURES by PIPER PRODUCTS

Installation and Operating Manual

Hot Food Units

Hot Food Line Up with Hot Wells &/or Hot Plates
Soup Bars, Hot Food Islands, Steam Tables

FOR PARTS & SERVICE
Contact: Piper Products, Inc.
Phone: (800) 544-3057
Ask for Service Department

Important!
This manual contains important safety information concerning the maintenance, use and operation of this product. Failure to follow these instructions could result in damaging equipment, voiding the warranty, serious injury or even death.

R&D FIXTURES by PIPER PRODUCTS

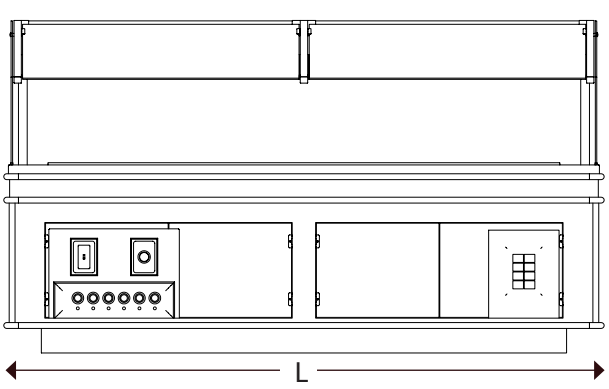
Installation and Operating Manual

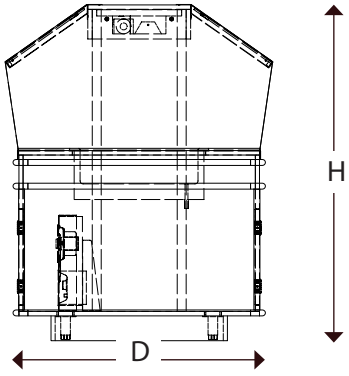
Packaged Hot Food Merchandisers

Multi-Deck Hot Food Merchandiser
Island Hot Food Merchandiser
Octagon Hot Food Merchandiser
Custom Hot Food Merchandisers

Table of Contents

Island Hot Food Bars



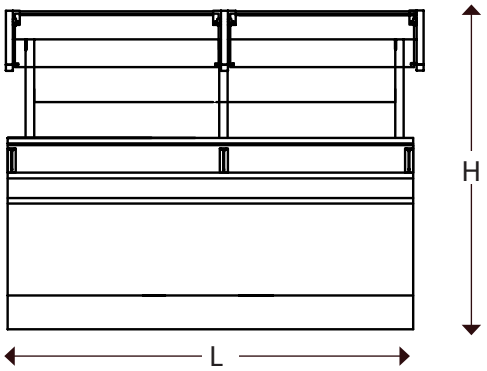


Illustrations show a standard unit. Finishes, styles and sizes of your unit may vary.

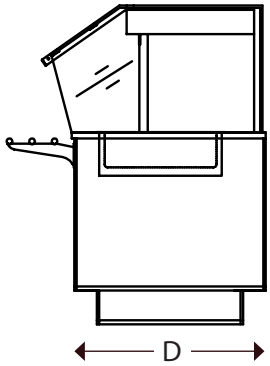
Island Steam Table	Number of Wells	Dimensions (inches)			Volts	Phase	Amps
		L	D	H			
6′	4	72	40	57 1/2	120/208	1	23.06
6′5″	5	77	40	57 1/2	120/208	1	28.8
8′	6	96	40	57 1/2	120/208	1	34.56

R&D Fixtures is constantly working to improve energy efficiency. Electrical estimates are for reference only and subject to change without notice as improvements are implemented.

Inline Hot Food

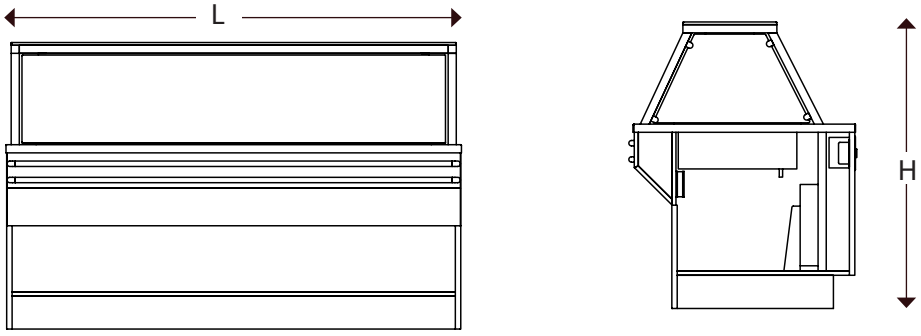


Self-Service Inline Hot Food Bar



Service Steam Table	Number of Wells	Dimensions (inches)			Volts	Phase	Amps
		L	D	H			
6′	4	72	45	56 5/8	120/208	1	23.066
6′ 5″	5	77	45	56 5/8	120/208	1	28.83
8′	6	96	45	56 5/8	120/208	1	34.6
10′	8	120	45	56 5/8	120/208	1	46.12
12′ 6″	10	150	45	56 5/8	120/208	1	57.66

Illustrations show a standard unit. Finishes, styles and sizes of your unit may vary.

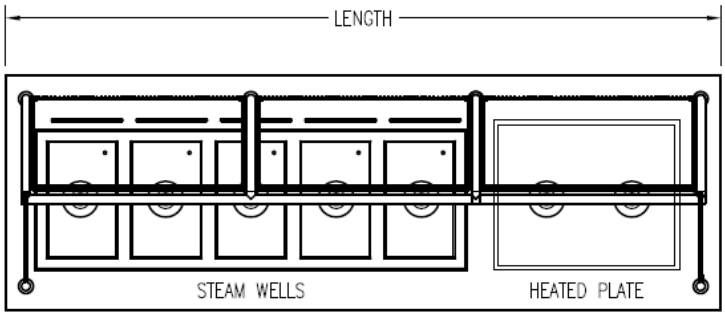


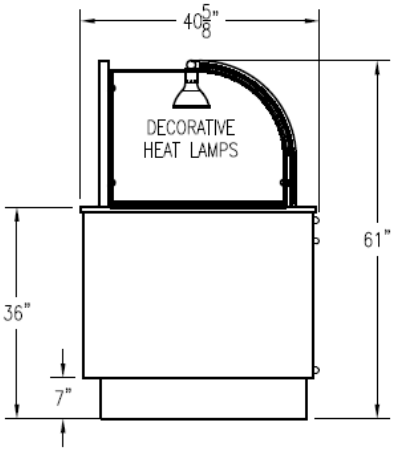
Service Inline Hot Food Bar

R&D Fixtures is constantly working to improve energy efficiency. Electrical estimates are for reference only and subject to change without notice as improvements are implemented.

Hot Food LineUp

Hot food line-ups vary from installation to installation. Your units may be different from those depicted on this page and contain a combination of several units.





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R&D FIXTURES by PIPER PRODUCTS

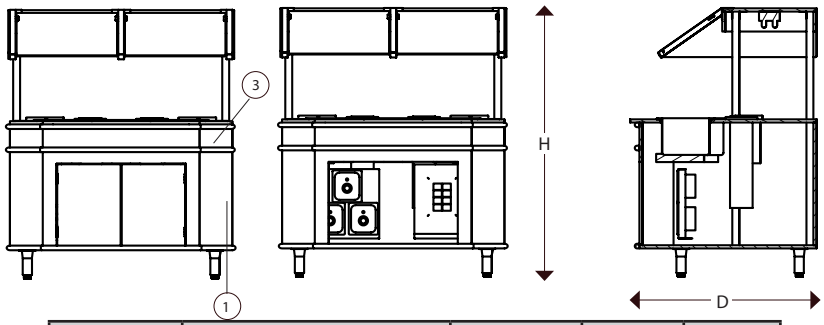
Soup Bars and End Caps

Round Soup	Dimensions (inches)		Number of Wells	Cup Dispensers	Accessory Pans	Volts	Phase	Amps
	D	H						
48″	48	57 1/2	4 (7 qt)	4	3	120/208	1	28.4
60″	60	57 1/2	6 (7 qt)	3	3	120/208	1	41.8

Round Soup	Dimensions (inches)		Number of Wells	Cup Dispensers	Accessory Pans	Volts	Phase	Amps
	D	H						
48″ Half	48	57 1/2	(2) 7qt.	(2)	(1)	120/208	1	15.0
60″ Half	60	57 1/2	(3) 7qt.	(3)	(1)	120/208	1	21.6

Oval Soup	Dimensions (inches)			Number of Wells	Cup Dispensers	Accessory Pans	Volts	Phase	Amps
	L	D	H						
50″ x 110″	110	50	55	(10) 11qt.	(6)	(1)	120/208	1	34.1

	48″ End Cap Soup	60″ End Cap Soup
Number of Wells	3 (11 qt)	3 (11qt)



End Cap Soup	Dimensions (L x D x H)	Volts	Phase	Amps
48″	48″x38-1/4″x58-1/2″	120/208V	1	41.8
60″	60″ x 38-1/4″ x 58-1/2″	120/208V	1	41.8

For parts and service, please contact Piper Products, Inc. at: 1-800-544-3057

Ambient Conditions Considerations

After installation this unit requires an initial adjustment procedure to find the correct heat setting that works with ambient conditions surrounding the equipment. Nearby refrigerators, freezers, and even the air conditioning and air flow in the store environment greatly affect the ability of the hot food unit to maintain optimal temperature. So each unit may have different settings depending on surrounding equipment and ambient conditions.

Setup time to determine optimal unit temperature will vary depending on ambient conditions. If conditions vary throughout the day, or from season to season, the unit's temperature settings will require adjustment to account for those changes.

Open Air Heating mechanisms are impacted by surunding air flow temperatures. Be sure the unit is not located near a door to the outside or a heating/air conditioning vent.

INSTRUCTIONS FOR WET AND DRY OPERATIONS

Steam tables can run as either wet or dry operation (wet offers the best results). Soup units must be run as wet. Failure to follow these instructions will result in the wells being damaged and void the warranty.

The hot wells do most of the work of keeping the food warm.
Either a Wet Well or an Alto Sham Dry Well will be used depending on the fixture.

- For wet operations - Be sure to add hot water before turning the unit on. (see additional instructions for wet operation on next page).
- Turn the hot pan heat control knob to the highest setting for 1 hour to allow unit to preheat.
- Once wells are preheated, place the inset pans with appropriate adaptor tops into the warmer.
- The level of the food in the pans should not exceed the depth of the inset pan. Mounting food above the rim of the pan will cause the food on top to not be heated properly and the temperature could drop below health department temperature limits.
- Always put food into the inset pans. NO NOT PLACE FOOD DIRECTLY INTO THE WARMER WELL.
- Be sure the food is at least 180° before putting it into the well. This unit is made to MAINTAIN temperature and should not be used to actually cook food.
- Food should be covered for the first 30 minutes to ensure proper temperature and should remain covered if possible.
- Fully insert a sanitized probe thermometer to temperature test food at regular intervals (see your local health department regulations for required intervals). A work sheet is provided at the end of this document for use while setting up the unit and for daily testing during operation.
- Do not put water into the DRY (Alto Sham) wells. This type of well can be identified by its lack of a drain in the bottom of the well.

The Overhead Heat lamp keeps the top of the food product warm.

Instructions for setting the upper and lower temperature controls can be found in the section entitled "Operating the Temperature Controls".

Additional Instructions for WET OPERATIONS ONLY

- Add between 1-2 inches of hot tap water to the well BEFORE turning the warmer on to preheat. The use of hot water will allow for a faster preheat.

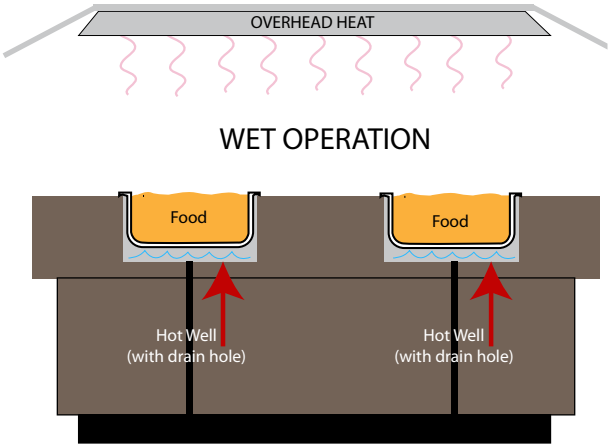
- Check the water level frequently during operation and add hot water as necessary to prevent the wells from running dry. Allowing the wells to run dry will damage the unit and is NOT covered by the warranty.

- DO NOT POUR WATER INTO DRY, HEATED WELLS. This may damage the well and is not covered by warranty. If the well is allowed to run dry, turn the unit off and allow cooling to room temperature before adding water. DO NOT PUT ICE INTO THE WELLS. This will cause condensation to damage the inside of the warmer and void the warranty.

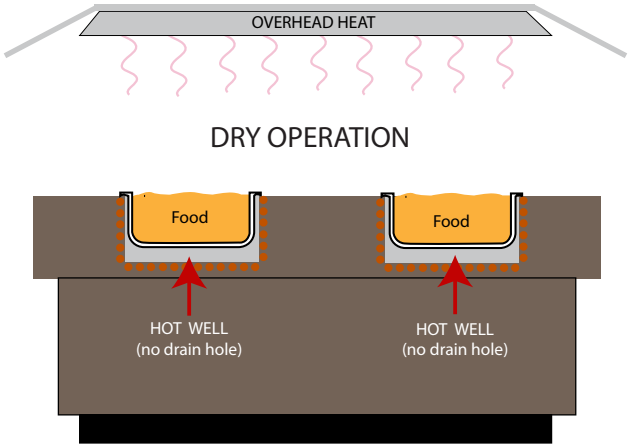
Hot Food bars use both overhead and hot well (lower) heating to maintain the food product at a constant temperature of 140°. The hot well does most of the heating while the upper heat lamp keeps the top of the food warm.

Temperature testing your product with a sanitized probe thermometer is the only way to accurately determine the temperature of the food in the pans. Follow local health department guidelines for temperature testing food. Stir food at least every 30 minutes.

A work sheet has been included at the end of this manual for use both during the initial unit setup proceedure and for daily temperature testing once the unit is in use.



The wet operation relies on the temperature of the water to create steam heat around the food pans.



The dry operation uses heat elements around the well to heat the pans.

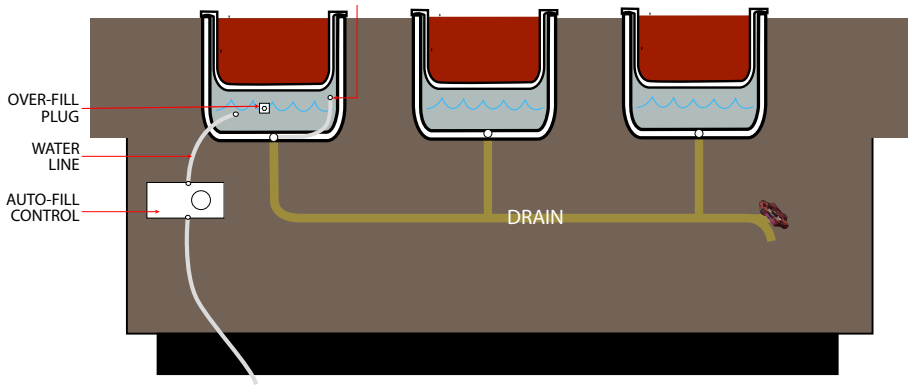
To keep foods uniformly heated: Stir food every 30 minutes.

!! The level of the food in the pans should not exceed the depth of the inset pan. Mounting food above the top rim of the pan will cause the food on top to not be heated properly and the temperature could drop below health department temperature limits. !!

Auto-Fill Hot Wells

A standard feature on our soup bars and soup end caps, the Auto-Fill Control Unit eliminates the need for manual filling and monitoring of wet soup wells. Water flows into the first well and drains into the others in the line. When water reaches the OverFill Plug level the unit shuts off the water to the wells.

Always turn the Auto-Fill Control Unit ON before turning on heat to the wells. Turning heat on when wells are dry can damage or shorten the life of the wells and void the warranty.



1. Turn on Auto-Fill Control Unit.
2. Wait for wells to fill.
3. Turn on heating unit.

!! Important Notes !!

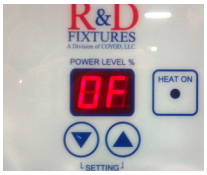
- **Hot Food units are intended to MAINTAIN product temperature**, not to cook or bring a refrigerated product up to 140° holding temperature. Food should be moved to the merchandiser immediately after cooking.
- Always put food into the inset pan. DO NOT place food directly into the warmer well.
- **Do not over-fill the pans with food.**
  The level of the food in the pans should not exceed the depth of the inset pan. Mounting food above the rim of the pan will cause the food on top to not be heated properly and the temperature could drop below health department temperature limits.
- Food should be at least 180° (F) before putting it into the inset pans and placing the pan into the warmer well.
- Stir food items every 30 minutes to keep contents uniformly heated.
- Temperature test pan contents at regular intervals using a sanitized probe thermometer fully inserted into the food. Temperature below 140° (F) allows bacteria to grow and will not pass local health inspection guidelines. Food temperature must be checked throughout the day to assure correct holding temparature is maintained. Check with your local health department for temperature testing guidelines.
- Use local health department guidelines to determine maximum time food may remain in the heated unit.

Operating the Temperature Controls

R&D Fixtures Hot Food bars use a combination of heat plates, hot wells, and overhead heat lamps to maintain food temperature. These units are designed to maintain temperature, not to bring cool product up to the desired temperature.

Infinate Switch (Dial) Temperature Control Operation

Type of dial switch depends on unit.



R&D Fixtures Hot Food bars use a combination of heat plates, hot wells, and overhead heat lamps to maintain food temperature.

Hot Plates and Wells

Units with digital controlls should be started with the control at the 30-40 setting. Infinate controls (dials) should be started at the 3-4 setting.

This setting should only be increased if the product is not maintaining 140° temperature.

After enough time has elapsed for the food to reach the set temperature, sanitize and insert a probe thermometer into the food product to measure the temperature of the food. Determine whether the product has reached a safe heated temperature based on local health regulation food temperature guidelines.

If the product is too cool (less than 140°), turn the dial to the next highest setting, wait for the food to reach temperature and recheck. Continue this process until the thermometer reading is 140° or higher.

If the product temperature is too warm, turn the dial or press the arrow to the next lowest setting number. After the product has had time to cool, use a thermometor to recheck the temperature.

- Heating and cooling time will depend on ambient conditions.
- Sanitize the thermometer each time it is used and fully insert the thermeter into the product to determine core temperature.

Overhead heat lamps should be started with the dial controller at the 5-6 setting. These lamps are used to keep the top of the food warm, not to heat the food inside the pan. Stirring food maintains a uniform temperature of the food in the pan.

Use the chart at the end of this manual to record food temperatures during the entire time food is displayed.

!! **Minumum safe holding temperature for hot foods is 140°.**
An over-filled pan will not maintain proper termperature.
Fill pans only to the "maximum fill" line in the food pan. !!

Safe Electrical Installation

- If the unit uses an electrical plug, always connect to a properly grounded electrical outlet of correct voltage, size and plug configuration.
- If the unit requires an electrical line to be connected to an internal load center or junction box, have a qualified electrician perform the installation.
- Always follow local, state, federal, and NEC electrical and plumbing codes to ensure compliance.
- All servicing which requires access to non-insulated electrical components must be performed by a factory authorized technician.
- Do not operate the unit if the electrical components appear damaged.
- Check the rating label for electrical rating.

Instructions for Making Field Electrical Connections at Joints

- Disconnect power before servicing or working on the unit.
- Consult an electrician for proper installation. **Caution—Risk of Electrical Shock.**
- Make the electrical connections after the sections of the counter have been physically secured together.
- Wherever two counter sections mate, one section will be provided with wires routed in conduit which terminate in a junction box. The other section will be provided with wires routed in conduit which either terminate in a junction box or extend approximately 6 in. (15.2 cm) from the end of the conduit.
- If the wires in both sections of the counter terminate in junction boxes, the provided fitting should be used to secure the two junction boxes together. The wires in one of the junction boxes should be routed through the fitting into the other junction box.
- If the wires in one of the sections do not terminate in a junction box, the wires that extend from the end of the conduit are to be routed through the opening provided into the junction box to the other section. The conduit is to be secured to the junction box with the provided fitting.
- The leads in the junction box are to be matched-up according to the identifying stickers on the lead ends.
- All electrical connections are to be made in the junction box.
- The junction box cover is to be secured in place.

R&D FIXTURES by PIPER PRODUCTS

Safe Cleaning and Maintenance

- To avoid injury, disconnect the unit from the power source or multiple power sources before performing any maintenance or cleaning. Do not clean while unit is still hot or cold.
- Thoroughly clean the unit before first use.
- Never clean unit by immersing or spraying it with water.
- All surfaces should be cleaned by hand with a mild anti-bacterial detergent and cloth. Never use iron or steel wool, sharp or metal objects, acids, strong chemicals, oven cleaner, or abrasive or caustic cleaners as they will cause permanent damage including scratches and discoloration.
- Clean Caesarstone or solid surface countertops by blotting up spills immediately, before they penetrate the surface. DO NOT PLACE HOT ITEMS DIRECTLY ON THE STONE SURFACE.
  - Always use a soft, clean cloth with a mild detergent. Thoroughly rinse with water after washing.
  - For stubborn stains, use a Blue Scotch Brite pad with Soft Scrub Gel with Bleach.
  - Contact a professional to remove or repair a scratch or crack.
- If the unit has a condenser, be sure to clean the fins of dust and debris every month.
- Be sure the unit is not located near a door to the outside or a heating/air conditioning vent.
- Do not store any combustable material or cleaner inside or around the unit.
- Do not store any combustible material or cleaner inside or around the unit

PIPER PRODUCTS, INC. LIMITED WARRANTY

All Piper products are warranted to be free of defects in material and workmanship for a period of 12 months from date of purchase on all parts and labor.

Piper Products, Inc. warrants to the original purchaser that its equipment will be free from defects in the materials and/or parts for a period of 12 months from date of shipment and reported to the factory.
The purchaser is responsible for having equipment properly installed, operated under normal conditions with proper supervision and to perform periodic preventative maintenance. Equipment failures caused by inadequate water quality, improper cleaning, harsh chemicals, or acids are not covered under warranty.

The manufacturer's obligation under this warranty shall be the replacement or repair of defective parts within the warranty period. Excessive labor (more than 1/2 hour) required to access Piper equipment built into cabi¬nets, tables or structures by others, is NOT covered under labor warranty. Example: Piper multiple- or single-well food wells. All labor shall be performed during regular working hours. Overtime premium will be charged to buyer. After thorough examination, the decision of the Piper Products Service Department shall be final.

Any defective parts to be repaired or replaced must be returned to Piper Products, Inc., 300 South 84th Avenue, Wausau, WI 54401, transportation charges prepaid, and they must be properly packed and tagged. The serial and model number of the equipment and date of original installation of such equipment must be given. However, after one year we will not assume any responsibility for any expenses (including labor) incurred in the field incidental to the repair or replacement of equipment covered by this warranty. Our obligation hereunder to repair or replace a defective part is the exclusive remedy for breach of this warranty; and we will not be liable for any other damages or claims, including consequential damages.

If, upon inspection by Piper Products, Inc. or its Authorized Service Agency, it is determined that this equipment has not been properly installed or has not been used in an appropriate manner, has been modified, has not been properly maintained, the warranty will be void. Also, if the nameplate or other identifying marks have been removed, defaced or changed or the unit has been repaired or altered by persons other than expressly approved by Piper Products, Inc., the warranty will be void. If the equipment has been subjected to misuse or misapplica-tion, neglect, abuse, accident, damage during transit or delivery, fire, flood, riot or acts of God, then this warranty shall also be void. When any situation occurs which voids the warranty the manufacturer shall not be liable for any damage to any person or any property which may result from the use of the equipment thereafter.

Warranty is limited to Piper manufactured products only and does not apply to other equipment which may be connected to or installed within.

No representative, dealer, distributor or any other person is authorized or permitted to make any other warranty or obligate Piper Products, Inc. to any liability not strictly in accordance with this policy.

This warranty is in lieu of all other warranties expressed or implied, including any warranty of merchantability, and fitness for a particular purpose. Piper Products does hereby exclude and shall not be liable to purchaser for any consequential or incidental damages including but not limited to damages to property, damages for loss of use, loss of time, loss of profits or income, resulting from any breach of warranty.

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Hot Food Holding Temperature Work Sheet

Date: ____

Time__________________ Hot Plate setting__________ Overhead Heat Setting_________ Product temp.______

Time__________________ Hot Plate setting__________ Overhead Heat Setting_________ Product temp.______

Time__________________ Hot Plate setting__________ Overhead Heat Setting_________ Product temp.______

Time__________________ Hot Plate setting__________ Overhead Heat Setting_________ Product temp.______

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Time__________________ Hot Plate setting__________ Overhead Heat Setting_________ Product temp.______

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