TRAULSEN BLAST CHILLERS

epicon

The ultimate in usability. And dependability.

Models: TBC5 Undercounter
TBC13 Reach-In
TBC1H Roll-In
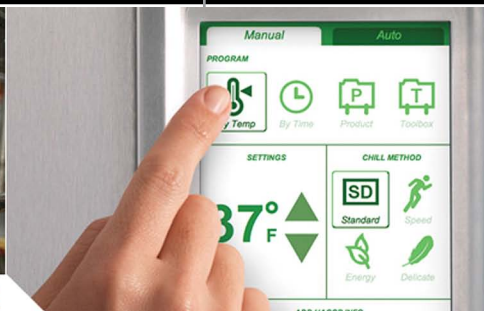TBC1HR Roll-Thru

demo/training guide

Traulsen

TRUSTED.

EPICON™ VISUAL INTERFACE

Table of Contents

Automatic cycle start insures proper operation and safe food!

Placing Probes/Loading Pans

Basic Probe Placement
1. Place probes into thickest part of the product.
2. With product like chicken the probe should not be placed where it is touching bone.
3. With full pans of product such as casseroles locate the probe in pan center.
4. In all cases probe tip should not touch pan bottom.

Properly Placed Probes

NOTE
Using probes with small size products (like chicken strips) is not recommended. See **CHILL BY TIME** for correct chilling method.

Probes & Multi-Batching
1. It is OK to load more than one type of product.
2. When loading more than 3 pan levels it will be necessary to group like products together, using one probe for each product group (see example at right).

Probe 1

Probe 2

Probe 3

Proper Probe Placement for Multi Batching
Probe 1: Grouped product (2 pans whole roast chicken)
Probe 2: Other Product One (1 pan chicken cutlets) ▶
**Probe 3:** Other Product Two (1 pan baked beans)

Covering Product
1. Covering product is recommended but not absolutely required.
2. If used, plastic wrap/aluminum foil must be placed in direct contact with product surface.
3. Some starch products are likely to dry out if not covered (ex. mashed potatoes, pasta, rice, cous cous, etc.).
4. Covering is recommended to prevent drying if product will not be removed when done or left inside overnight.

Starting a Chill Cycle Using Auto Mode

Auto Mode Intended Operation

Traulsen's TBC blast chiller is designed to operate in one of two modes, AUTO and MANUAL. AUTO is intended for use by novice operators and those operations in which there is no variation in chilling needs. It does not require for any buttons to be pushed. Proper placement of the probe into hot product will cause a chill cycle to commence. Chilling will continue until the product core reaches the target temperature of 37 degrees F.
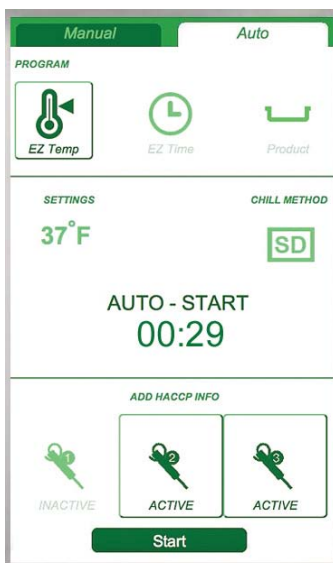
To Start a Blast Chill Cycle Using Auto Mode

1. Place hot product into the blast chiller.
2. Insert one of more probes into product.
3. Close the door. The display will begin counting down from 30 and upon time elapsing will commence chilling.

OPTIONAL: Prior to cycle start, press any active probe on the display to enter product and user names from a drop down list.

To Add Additional Products/Probes to a Chill Cycle Already in Progress

1. Place additional hot product into the blast chiller.
2. Insert one of more probes into product.
3. Close door. The newly added probe(s) will appear on the display and the chill cycle will now continue until these probes have reached their target temp.

NOTE: This can be repeated as as long as there is an available probe.

Helpful Tip

For demonstration purposes, anything over 90 degrees can be used in order to simulate hot product for starting a chill cycle in either the AUTO or MANUAL mode. Some good examples are microwave meals, hot water, or even coffee.
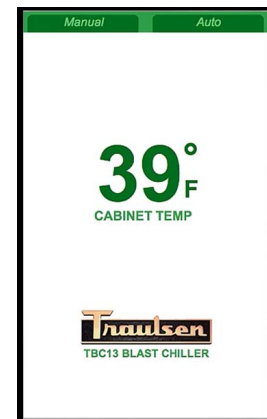
Starting a Chill Cycle Using Manual Mode

Manual Mode Intended Operation

The TBC's second mode of operation is MANUAL. MANUAL is intended for use by advanced operators and those operations which have much variation in their chilling needs. It requires some buttons to be pushed. Upon completing cycle programming and pressing START, chilling will commence and continue until the product core reaches the operator adjustable target temperature or time.

To Start a Blast Chill Cycle Using Manual Mode

1. Place hot product into the blast chiller.
2. Insert one of more probes into product (not required for chill cycles to be done by time).
3. Close the door.
4. Press the **MANUAL** tab at the top of the display.
5. If default settings are OK press **START**. Otherwise select from **TEMP**, **TIME** or **PRODUCT**:
   - **TEMP**: chill cycle ends upon reaching target temp (requires use of probes).
   - **TIME**: chill cycle ends upon time elapsing (does not require use of probes)..
   - **PRODUCT**: chill cycle runs based upon preloaded parameters for a given product name.
6. Adjust target **TEMPERATURE** or **TIME**.
7. Select chill method:
   - **SD**: standard blast chill/freeze.
   - **SPEED**: provides for faster chilling.
   - **ENERGY**: provides for energy saving operation.
   - **DELICATE**: for use with products prone to freezing.

OPTIONAL: Prior to cycle start, press any active probe on the display (or press a zone if chilling by time) in order to enter product and user names.

8. Press **START** to begin a cycle using these settings.

To Add Additional Products/Probes to a Chill Cycle in Progress

1. Place additional hot product into the blast chiller.
2. Insert one of more available probes into product.
3. Close door. The newly added probe(s) will appear on the display (or press **ADD PROBE** to manually program this) and the chill cycle will now continue until these probes have reached their target temp.

NOTE: This can be repeated as as long as there is an available probe.

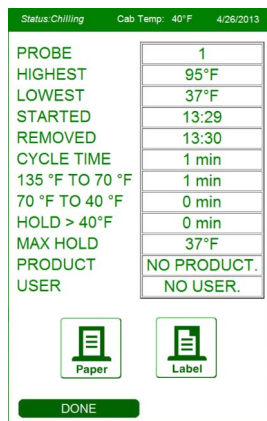**The IDLE Screen**

The MANUAL Screen

Printing/Data Management

Printing Cycle Data

When any probe reaches the target temp or time, an alarm will sound for 20-seconds and DONE will appear on the display under the appropriate probe or zone (when all probes are DONE the chiller automatically switches into maintenance mode).
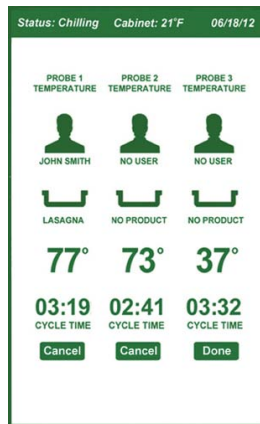
The RUN screen at cycle's end

To Retrieve Data and/or Print

1. Press **DONE**. The print screen for that probe or zone will appear on the display. All HACCP data appears on the display to allow for manual logging.

OPTIONAL: Press **NO PRODUCT** and/or **NO USER** in order to input the product and/or user names if these were not entered at cycle start.

2. Press **PAPER** in order to receive a cycle data printout.
3. Press **LABEL** in order to receive an adhesive label for the product containers (for chillers equipped with the optional label printer only). Repeat for additional labels.
4. Press **DONE** to print data for the next DONE probe, or to return to the run or idle screens.
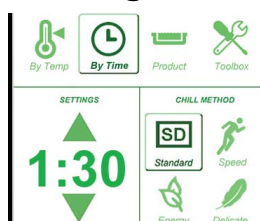
NOTE
Sanitize probes after each use.

The PRINT Screen

Saving Recipes

The epicon control allows you to program individual chill recipes, by name. These are saved to the **PRODUCT** file shown on the **MANUAL** menu screen.
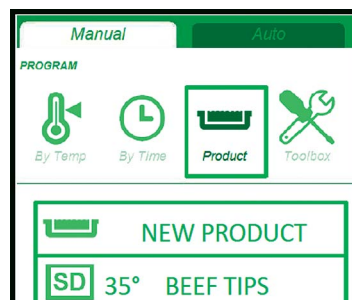
1. Press **MANUAL** then **PRODUCT**.
2. Select **NEW PRODUCT** from the drop down menu.
3. A keyboard will appear, type in the **PRODUCT NAME** and press **ENTER**.
4. Select to by **TEMP** or **TIME**.
5. Adjust **SETTINGS** and select **CHILL METHOD**.
6. Press **SAVE** to save this to the Product Menu.

Chilling Without Probes

1. Press **MANUAL** then **TIME**.
2. Adjust the target time.
3. Press any time zone. A keyboard will appear. Type in the **PRODUCT and USER** names (or press **SKIP**) then press **ENTER**.
4. Press **START** to begin a chill cycle using these settings.

Care & Cleaning

NOTE: Never place wet and/or sanitized pans or utensils inside the chiller!

Probes

1. Remove probes by turning the circular locking ring which secures these inside the chiller (fig. 1).
2. Wash/sanitize probes (fig. 2). Probes can be totally immersed in water during cleaning.
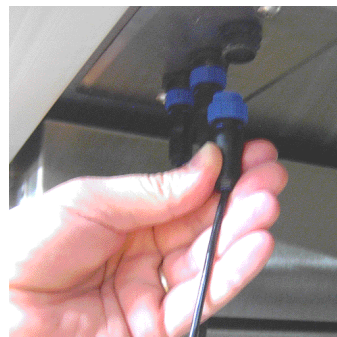3. Allow probes to air dry before replacing in chiller.

fig. 1

Interior/Exterior

1. Disconnect power supply.
2. Clean both interior and exterior with a soft cloth as you would any other stainless steel surface.
3. Do **NOT** use cleansers containing chlorine.
   Do **NOT** clean with anything abrasive.
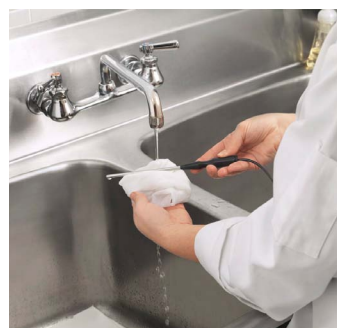   Do **NOT** hose off the blast chiller.

fig. 2

Condenser

Cleaning this is critical to insuring proper performance and long compressor life.

1. Disconnect power supply.
2. Lift-up or remove louvers covering coil location:
   - **TBC5:** Front/Left
   - **TBC13:** Front/Bottom
   - **TBC1H:** Front/Top
3. Wipe coil fins clear of any dust/debris using a dry cloth or stiff bristle brush (fig. 3).
4. Replace louvers.
5. Restore power

fig. 3

Changing The Paper and/or Label Rolls

1. Open printer door or remove cover (older models).
2. Remove empty paper roll and spindle. Replace with new paper or label roll. Be sure to load paper with the thermal side facing up.
3. Lift feed roller tension arm.
4. Place paper edge on feed roller.
5. Close feed roller tension arm.
6. Press the red button to feed paper through the printer.
7. Close printer door or replace cover.

Feed Roller Tension Arm

Printer Supplies:
Paper: Traulsen P/N 400-60003-00 • Office Depot #302-224 • Staples #PMF-5233
Label: Traulsen part number 400-60004-00. Each roll contains 225 labels.

FAQ's

Q. Product is freezing in the blast chiller. Does it require service?
A. Product freezing is almost always caused by operational issues. Most commonly this is caused by: 1) a combination of setting a long chill cycle by time and then leaving product in too long, 2) setting the target temp too low, or 3) leaving already chilled product inside the blast chiller while chilling additional batches.

Q. There are only three food probes. How do I accommodate more than three different products simultaneously?
A. It is not necessary to place a probe in every pan that started at the same time. If all pans are loaded with the same product, place one food probe in the center of the middle pan, thus leaving two additional probes available. When starting several pans of different products at the same time, place one food probe in the center of the pan with the product, which will require the longest to chill. For example if starting broccoli florets and lasagna at the same time, place the probe in the latter as this will require more time to chill. In this scenario, the lasagna will take longer to chill than the broccoli, so if it chills within HACCP guidelines all other products started at the same time will have done so.

Q. What is the HACCP danger zone?
A. The HACCP danger zone is the temperature range in which pathogens grow at the greatest rate. The FDA currently identifies this as between 41 and 135 degrees F.

Q. Can a safe chill cycle be longer than 6-hours?
A. Yes, the FDA guidelines apply only to time required to pass through the HACCP danger zone. Any time required to cool hot food from a cooked temperature to 135 degrees F is not regulated by FDA guidelines, and so hypothetically if a given product required 5-hours and 59-minutes to pass-through the HACCP danger zone but required 8-hours total to chill it would still be considered as having done so safely.

Q. Do food pans always have to be covered?
A. Pans do not always have to be covered, however there are a few scenarios in which they should be. For example whenever cooked and ready to eat foods are being chilled at the same time, these MUST be covered to prevent cross contamination.

Some products MUST be covered to prevent them from drying, especially potatoes, noodles/pasta, rice, and couscous.

It is highly recommended that products which, will not be removed immediately upon cycle completion or left overnight, be covered to prevent them from drying.

Q. How do I properly chill small, portion-sized products?
A. Small products are often best chilled without probes using the By Time feature. Using test batches it can be determined in advance how much time is required to safely chill a given product load. This can then be duplicated in actual use and verified afterwards using a handheld thermometer and documented.

FAQ's

Q. There is water in the bottom of the blast chiller. Does it require service?
A. Water in the bottom of the blast chiller is almost always caused by: 1) the door not being properly closed, forming condensation inside the cabinet, 2) a long chill cycle by time, or 3) setting a freeze cycle with uncovered product. In the latter two scenarios, moisture removed from the product freezes on contact with the very cold cabinet interior, and then melts afterwards leaving water on the cabinet floor.

Q. The food probe indicates that the product is done, having reached 37 degrees F, however when I manually took a temperature to verify this, the product was actually warmer. How is this possible?
A. There are a few possible causes. One could be improper probe placement. Food probes should always be placed in the center of the largest product/deepest pan. If the probe is placed in a smaller product or shallower loaded pan, this would naturally chill quicker than the larger deeper products around it.

Another possible cause could be the probe being placed where the tip is touching the pan. In this scenario the pan is going to cool much quicker than the product and thus provide a false reading.

It will also be necessary to check the calibration of the handheld thermometer used.

Lastly, small portion size products are challenging for probe use. When doing so, for example with chicken wings, the cold metal probe placed in one wing can serve as a heat sink, and this individual wing can potentially cool quicker than those around it.

Q. My products are taking too long to chill. How do I remedy this?
A. Most issues related to chill time are product related. The easiest way to decrease chill times is to increase the surface area relative to the total volume will in turn reduce the product chill time, i.e. reduce the depth or size of the product.

Another method is to consider the air-flow direction and position product accordingly. For example, all Traulsen blast chillers (except model TBC5), circulate air very forcefully from right to left. Positioning product so that cold air flows along its length will prevent the formation of dead zones where cold air does not reach as well.

Q. Liquid products, such as soup, are difficult to load into 2-1/2" food pans. What does Traulsen suggest?
A. With liquid products such as soup, Traulsen suggests use of 8" deep pans loaded with 6" of product. This will require less pours from the kettle, be easier and safer to handle, and will likely chill within FDA guidelines.

Q. How do I increase the blast chillers throughput?
A. To increase throughput look at what you are chilling and separate the long chill cycle time products so that they are left for the end of the day. These can then be chilled after-hours, freeing up chiller capacity for the workday.

FAQ's

Q. How do I properly chill very large sized products?
A. Large products are best chilled with probes using the By Temp feature, however some large products (ex. large roasts, whole turkeys, etc.) will be too large to chill safely within FDA guidelines. In this case it is necessary to reduce the individual size of the products in order to allow it to chill quicker. Surface area to volume ratio has a direct correlation to chill times. Increase the surface area relative to the total volume will in turn reduce the product chill time.

Q. What food types can you "refresh" using the Delicate feature?
A. Usually this involves just prepped, ready to eat foods such as salads, sandwiches and sushi. It can also be used for products destined for a salad bar, such as canned fruit.

Q. When multi-batching, is there a particular way in which I should load the pans?
A. When multi-batching, it is recommended that each batch be loaded from bottom to top. This is because heat rises, and loading pans in this way prevents heat from a newly loaded batch effecting the chill time of those located below it.

Q. On models TBC5 and TBC13 the tray slides are installed at 3" intervals, but I want to use pans deeper than 2-1/2"?
A. The tray slides on these models are adjustable. They can be removed and reinstalled to accommodate deeper pans.

Q. How do I use the food probes with liquid products, won't they just fall to the bottom of the pan?
A. With liquid products, the use of commercially available "Thermometer Clips" is recommended. These allow the operator to clip the probe to the pan side so that the probe tip can be positioned properly in the product.

Troubleshooting

SYMPTOM	POTENTIAL CAUSE	SOLUTION
1. No display on control.	a. No power to unit. b. System problem.	Check power supply and circuit breaker. Call for service.
2. Batch requires too much time to chill product down target temperature or time.	a. Door not closed properly. b. Too much product loaded. c. Product depth in pan exceeds 2". d. Pan been covered with a lid, plastic wrap or foil, and is this not in direct contact with the product. e. Product loaded is of a high density. f. Dirty condenser coil. g. Evaporator coil iced.	Close door completely. Adjust the load to not exceed capacity of the unit. Reduce pan load. Cover product correctly. Allow additional chilling time. Clean condenser coil. Allow chiller to defrost.
3. Auto mode does not appear to work when placing probe in hot product.	a. Probe not available. b. Probe not placed in product. c. Food probe placed in product below 90° F. d. Damaged or defective food probe.	Press DONE to release probe for use. Place probe in product. Manually program cycle and select probe. Replace with new food probe.
4. Chill cycle starts with no. product present	a. Door open. b. Hot product inside but no probe placed.	Close door. Press CANCEL then place probe to start cycle.
5. Unwanted product freezing.	a. Previously chilled product not removed. b. Chill cycle By Time set for too long. c. High water content food (ex. soup).	Remove DONE product before starting a new chill cycle. Reduce cycle time. Use DELICATE method.
6. Food drying out during chilling.	a. Food chilled uncovered.	Cover food before placing in chiller.
7. Printer not printing.	a. Printer is out of paper. b. Printer paper installed incorrectly. c. Paper does not feed or jammed.	Replace printer paper. Reload paper with the thermal side up. Remove paper and reinstall correctly.
8. Condensation on exterior surface.	a. Door out of alignment or gasket issue. b. Door sweep worn/out of adjustment (TBC1H). c. Electric door heater malfunction.	Check door alignment and gasket for proper seal. Adjust/replace door sweep. Call for service.
9. Upon starting a chill cycle, the product temperature displayed appears cooler than expected (cooked) temperature.	a. Varied product temps within batch. b. Probe placed incorrectly. c. Small mass product (ex. chicken tender). d. Product held at room temp too long.	Verify actual product temp using a manual thermometer. Relocate probe. Use chill by time. Verify actual product temp using a manual thermometer.

Glossary of Icons

By **TEMP** chill mode	**SD**	**STANDARD** chill method		**USER** name		Time **ZONE**, numbered 1-2-3
By **TIME** chill mode		**SPEED** chill method		**PRODUCT** name		Print **RECORD**
By **PRODUCT** chill mode		**DELICATE** chill method		**DEFROST** cycle in progress		
The **TOOLBOX**		**ENERGY** chill method		Food **PROBE**, numbered 1-2-3		Print **LABEL**

The Toolbox
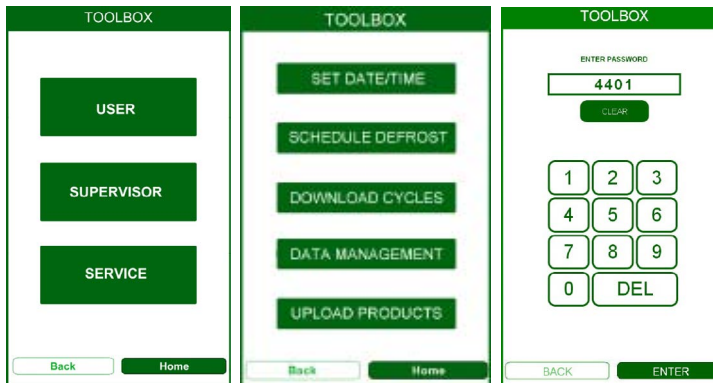
The toolbox allows the operator to adjust the default operating parameters, update control software, retrieve past chill cycle data, and monitor chiller operation.

To access the **TOOLBOX** press the toolbox icon on the **MANUAL** menu. The **ACCESS LEVEL** screen will appear. Some areas of the control are password protected.

Selecting a secure area will prompt a keyboard to appear on the display. The default password for the **SUPERVISOR LEVEL** is 1234, and for the **SERVICE LEVEL** is 4401. The most common operations are included inside the non password protected **USER** menu.

Retrieving Cycle Data From Memory
The epicon control automatically stores the last 90-days of cycle data in memory. This can be retrieved as follows...

1. Press the **MANUAL** tab.
2. Press the **TOOLBOX** icon.
3. Select **USER**.
4. Select **DATA MANAGEMENT**.
5. Type in the **START DATE** (mm/dd/yyyy format) for your search.
6. Type in the **STOP DATE** (mm/dd/yyyy format) for your search.
7. Press **SEARCH**. A list of all cycles completed within this date range will appear. These can be selected individually if needed by pressing any of the cycles you wish to print and/or download.
8. Press **PRINT** to print any or all of the displayed cycles.
9. Press **EXPORT** to download any or all of the displayed cycles to a flash drive (a flash drive must be placed in the USB port for this feature to operate).
10. Press **BACK**, then **BACK**, then **HOME** to exit the toolbox..
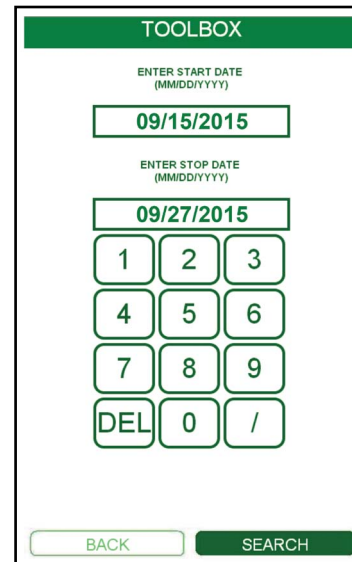
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