



**BLAST CHILLERS / SHOCK FREEZERS**  
**(Roll-In, Remote Refrigeration)**  
**Models: AP80BC700-3 / AP80BCF900-3**

JOB \_\_\_\_\_  
 ITEM # \_\_\_\_\_  
 QTY. REQUIRED \_\_\_\_\_

AIA FILE # \_\_\_\_\_

SPEC # \_\_\_\_\_

**SPECIFICATIONS**

**SCOPE:** This specification covers the models AP80BC700-3 and AP80BCF900-3 HurriChill™ Blast Chillers/Shock Freezers. They are complete with all required controls and accessories. Remote condensing unit sold separately. Several options are also available.

**GENERAL:** The microprocessor control system provides a choice of operating cycles: soft chilling, hard chilling, shock freezing (AP80BCF900-3 only), holding, sterilizing, defrosting, and heating the core probe (AP80BCF900-3 only). One temperature probe is provided for accurate control of temperature within the product. An optional strip recorder provides a record of the unit's operating parameters during the cycle and the following holding period. The information recorded includes date, time, cycle identification, product identification, and product core temperature at prescribed intervals. Models AP80BC700-3 and AP80BCF900-3 are each sized for two mobile racks (not included) each holding up to (40) 12" x 20" x 2-1/2" deep food pans or up to (20) 18" x 26" sheet pans.

**PERFORMANCE:** Blast chilling (soft or hard) lowers the food core temperature from 160°F to 38°F within 90 minutes. Shock freezing lowers the core temperature from 160°F to 0°F within 4 hours. Chilling times will vary somewhat, depending on the food quantity, initial temperature, density, moisture content, specific heat, and type of container. The airflow has a high velocity, indirect pattern designed to cool all levels at identical rates. Time/temperature chilling rates meet or exceed all FDA and state regulations.

**CONSTRUCTION:** The cabinet is constructed of polished type 304 stainless steel, with 3-1/4" of CFC-free, high density polyurethane insulation. The interior corners are fully rounded. The doors are equipped with a removable magnetic gasket. All motors are sealed ball bearing wash-down type. As the cabinet floor is fully insulated, the cabinet is designed for mounting in a floor depression to allow for the use of roll-in racks without the need for an external ramp. If a floor depression is not available, optional 15-3/4" long stainless steel ramps are available. A minimum 15" clear space is required above the cabinet for service. A minimum 6" clear space is required on the control panel side of the cabinet for service. A minimum 12" clear space is required on the hinge side of the cabinet for door opening.

**REFRIGERATION SYSTEM:** The refrigeration system as furnished by manufacturer is complete with all components, including controls, evaporator and blower system. The evaporator is of the forced convection type and designed specifically for blast chilling/shock freezing operation. Air circulation motors, multi-fin and tube type coils, and fan guards are contained within the cabinet. Also included in the cabinet are: the liquid line solenoid valve, thermostatic expansion valves, inlet and outlet connections, and drain connection. Access to the evaporator for cleaning shall be via a convenient hinged, swing-out ventilator panel. Fan motors have inherent overload protection and the fan blades are guarded to prevent injury.

**MICROPROCESSOR CONTROL SYSTEM:** The solid state electronic control panel is user friendly, easy to reach, and can be set for automatic or manual operation. The core probe continuously measures the product temperature during the chilling or freezing cycles. At the end of a freezing cycle (AP80BCF900-3 only) the probe can be heated for ease of removal from the frozen product. Easy to read VFD display and buzzer alarm are standard features. All settings are programmable by the operator. The standard operating cycles include the following:



- Soft Chilling:** The air temperature is held in the range of 28°F to 35°F, ideal for delicate food items. The chilling cycle is completed when the food core temperature reaches 38°F to 40°F.
- Hard Chilling:** The air temperature is lowered to 10°F (AP80BC700-3) respectively 0°F (AP80BCF900-3). When the food core temperature reaches 60°F, the air temperature rises to a range of 28°F to 35°F. The chilling cycle is completed when the food core temperature reaches 38°F to 40°F.
- Shock Freezing (AP80BCF900-3 only):** This cycle is designed to avoid damage to the food structure, keeping the food free of large ice crystals. The air temperature is lowered to and held at -25°F. The freezing cycle is completed when the food core temperature reaches 0°F.
- Thawing (Optional):** Air temperature is carefully monitored and alternates between gentle heat and refrigeration to safely thaw food product.
- Holding:** At the end of any cycle (soft chilling, hard chilling, and shock freezing), the unit will automatically switch to a holding mode which will keep the food at 38°F (blast chilling) respectively 0°F (shock freezing) until the cycle is stopped.

**ADDITIONAL FEATURES:**

- Heated Core Probe (AP80BCF900-3 only):** If the product will get under 30°F then you can use this cycle to extract the probes.
- Defrost:** An automatic defrost cycle is factory preset and will initiate after each 24 hours of operation. A manual defrost override can be selected at any time at the user's discretion.
- Recipe Names:** Up to 150 recipe names can be programmed by the user.

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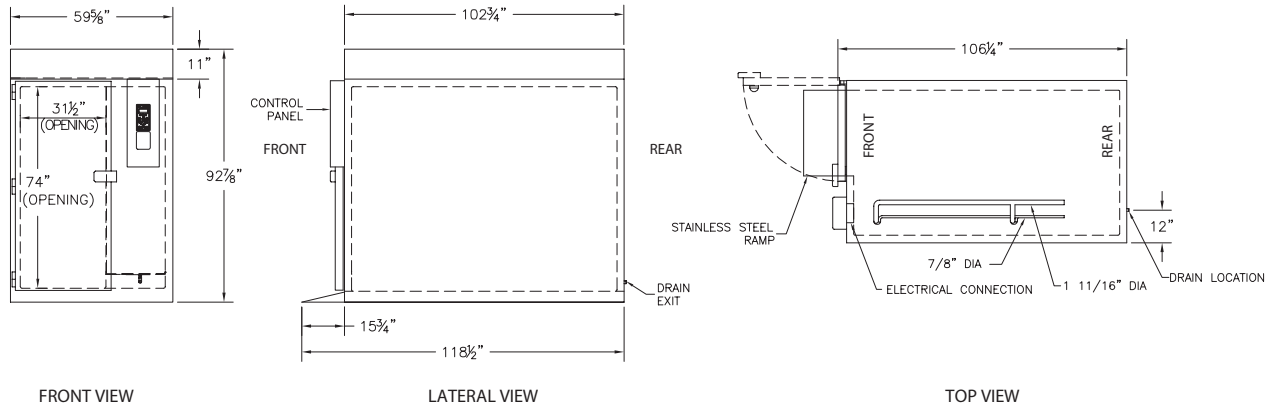


ANSI/NSF 7

# Details and Dimensions



## BLAST CHILLERS / SHOCK FREEZERS (Roll-In, Remote Refrigeration) Models: AP80BC700-3 / AP80BCF900-3



CABINET DATA	FOOD LOAD PER CYCLE [LBS]		CABINET ELECTRICAL					SHIPPING WEIGHT [LBS]
	160°F TO 38°F	160°F TO 0°F	V	PH	HZ	A	REQUIRED CIRCUIT [A]	
AP80BC700-3	700	N/A	208	3	60	16	20	1,950
AP80BCF900-3	900	540	208	3	60	16	20	1,950

REFRIGERATION DATA	CAPACITY [BTU/H] AT: 14°F EVAP. TEMP 105°F COND. TEMP	REFRIGERANT	DISCHARGE LINE [IN] (UP TO 60 FT)	SUCTION LINE [IN] (UP TO 60 FT)	CONDENSING UNIT (OPTIONAL)
AP80BC700-3	70,000	404A	7/8	1-11/16	MEDIUM TEMP 40°F TO -10°F
AP80BCF900-3	120,000		7/8	1-11/16	LOW / MED. TEMP 40°F TO -40°F

**OPTIONS:**

- Sterilizing:** The ultraviolet system sterilizes all metal surfaces within the cabinet in a preset time of 30 minutes. The mirror finish of the cabinet interior is specifically designed to optimize the performance of the UV cycle. The system is not intended to sterilize food.
- Printer:** A strip recorder provides a record of the unit's operating parameters during a cycle and the following holding period. The information recorded includes date, time, cycle identification, recipe name, and product core temperature at prescribed intervals.
- Four Food Probes:** Four heated food probes are provided as an option for the AP80BCF900-3 model. Four non-heated food probes are provided as an option for the AP80BC700-3 model.
- Label Printer:** Clearly label food product with a product name and information regarding the product's life cycle throughout the entire chilling/freezing process.
- Thaw Cycle Module:** Allows unit to be used as a thaw cabinet and includes a non-heated thaw probe.
  - Automatic Mode:** Air temperature is controlled by monitoring the food product using a non-heated probe. Once the product reaches 38°F the cycle is complete and the unit switches into holding mode.
- Automated Report Documentation (ARD) Software Package:** Allows for complete two-way communication between the unit and a remote PC. Supported functions include programming, system diagnostics, operation, and downloading of data for HACCP compliance.
- Mobile Racks:** Model AP80BC700-3 and AP80BCF900-3 can accommodate two mobile racks with maximum dimensions: 29" wide, 37" deep and 72" high.
- Rear Door:** Solid back is standard; rear door for pass-thru operation is optional (increases depth by 3").
- Prison Security Package.**
- Air-Cooled Remote Condensing Unit.**
- Water-Cooled Remote Condensing Unit.**

**INSTALLATION:** A detailed installation manual is provided. It must be carefully followed to ensure proper operation and to protect your rights under the warranty.

**WARRANTY:** The warranty covers all parts found to be defective and the labor required to replace them for a period of one year from the date of shipment.

