



OPERATING AND INSTALLATION MANUAL

STF Series

**IMPORTANT
PLEASE RETAIN FOR YOUR RECORDS**

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INSTALLATION AND OPERATING INSTRUCTIONS

STF Series School Milk Coolers

IL-2028A Rev A

1. INSTALLATION

a. Inspection Upon Arrival

Upon arrival of the cooler, the carton should be carefully inspected for any outward sign of damage. If any damage is found, it should be noted on the carrier's freight bill before signing for the merchandise. In any case, the cooler should be immediately uncrated to check for apparent or concealed damage within 48 hours after delivery and the carrier notified for an inspection within this period.

b. Uncrating

To uncrate cooler, remove any staples around the bottom of carton with a flat blade screw driver. Care should be taken to remove the staples completely so that they will not damage the cooler finish when the carton is removed. Lift the carton tube from around the cooler.

c. Locating Cooler

Locate the cooler on a level floor with enough room around the cooler to assure good circulation through the condenser. Provide at least two inches of space between cabinet rear and an adjacent wall. The power cord is designed to exit the side of the unit instead of the rear, please locate the unit so that the power cord does not present a trip hazard.

d. Shelving/Casters

Shipped inside each cabinet are shelves and bottom duct. These can be removed, without the use of tools, for cleaning. The unit is assembled with four casters, two locking and two non-locking.

2. OPERATION

a. Electrical Supply and Connections

Plug all standard models into 115 volts AC 60-Hertz outlet. Low line voltage is often the cause of service complaints. Check to see that the line voltage is 110 volts or more with the unit running. Other motors or heavy appliances should not be used on the same circuit with the cooler. When working on the inside of the cooler, disconnect from electrical circuit for safety reasons. **CAUTION: If an extension cord is necessary, use only a three wire grounding type of wire size 16 AWG or larger. DO NOT exceed 20 ft. in length. The use of ungrounded cords or overload circuit voids compressor warranty.**

b. Initial Start-Up

Turn power on and check to verify that the condenser fan is running.

c. Temperature control

Factory setting of temperature control for a refrigerator is the number 4 position (normal) which will maintain the product at approximately 35 °F. For colder temperatures, turn knob clockwise one number at a time. Excessive tampering with temperature control could lead to service difficulties. For operation above 3000-ft. altitude, have thermostat adjusted by a qualified service technician.

d. Condensate Disposal

The metal pan with wicking on the refrigerator deck below serves to collect condensate. Airflow over the pan hastens condensate evaporation so that external drain plumbing is not required.

3. CLEANING

a. Cleaning Cabinet Exterior

Cabinets should be cleaned with a solution of mild soap and water. Do not use caustic soap or abrasive cleaners, since these might damage the cabinet finish. On stainless steel models follow the instruction for cleaning stainless steel supplied in this manual.

b. Cleaning Interior Surfaces

The bottom and front sides of the cabinet liner are 300 Series Stainless Steel. The cooler should be thoroughly cleaned inside and out at regular intervals to preserve finish. Shelving and ducting can be removed without tools. These coolers are supplied with a 1 inch inner diameter drain hose.

c. Condenser

For efficient operation, it is recommended that the condenser coil and fans be cleaned every 3 to 6 months. Remove rear grille for access. Vacuum clean front surface of coil thoroughly or direct forced air through condenser fins. **Failure to clean condenser can cause compressor malfunction and will void warranty.**

d. Condensate Pan

Condensate pan should be cleaned periodically to prevent odors and to maintain evaporating efficiency.

REFRIGERATION SYSTEM

SERVICE AND ANALYSIS CHART

REFRIGERATION SYSTEM

The Refrigeration System consists of a hermetically sealed compressor and finned evaporator and condenser.

CONDENSER

The condenser has wide finned spaces, which allow more air passage with less dirt or dust accumulation. The condenser still requires periodic cleaning for maximum efficiency.

CONDENSER FAN MOTOR

The condenser fan motor assembly is mounted between the condenser and the compressor. Air is drawn through the condenser, over the body of the compressor and out the rear of the unit compartment.

The motor is wired to cycle with the compressor but will continue to operate should the compressor cut out on the overload. (The motor is permanently lubricated; therefore, oiling is not required).

DRIER

The drier is installed in the system just before the capillary tube. Its purpose is to trap minute particles of foreign material and absorb any moisture in the system.

LIQUID CONTROL AND HEAT EXCHANGE

Liquid refrigerant control to the evaporator of the system is accomplished by the use of a capillary tube. This capillary tube is soldered to the suction line to form a heat exchanger which subcools the liquid refrigerant to maintain high efficiency within the system.

REFRIGERATION SERVICE

EVACUATION

Moisture in a refrigeration system is directly or indirectly the cause of more problems and complaints than all other factors combined.

When large amounts of moisture are present, system freeze ups will occur. Even in minute amounts, moisture will combine with refrigerants to form an acid. The corrosive action of this acid forms sludge, which will plug the lines and drier.

Since most field type vacuum pumps cannot pull a low enough vacuum to remove all moisture from the system, it is recommended that the system be triple evacuated, breaking each time with dry refrigerant nitrogen. Use care to purge air from the charging hose when breaking the vacuum.

CHARGING REFRIGERATION SYSTEM

Since capillary tube systems have small critical refrigerant charges, we recommend that a field charge either be weighed in or put in from a portable charging cylinder. After maximum vacuum has been obtained as detailed above, attach charging cylinder to the system line making sure to purge air from hose with refrigerant. With the unit running, allow refrigerant to run slowly into the system until the desired charge is reached. When using Refrigerant Blends it is recommended to liquid charge into the high side of the system with the initial charge and then any remaining charge can be put into the suction side; however, care must be taken to meter the remaining amount into the low side so as not to cause excess liquid to go into the compressor.

OVERCHARGE

When the cabinet has pulled down to operating temperature, an indication of an overcharge is that the suction line will be cooler than normal with the compressor running. Running time will be higher than normal. Suction line will sweat or frost.

Reclaim excessive refrigerant from the system very carefully in small amounts waiting several minutes for the system to balance.

UNDERCHARGE

An undercharge or shortage of refrigerant will result in any of the following:

1. Lower than normal head pressure.
2. Lower than normal suction pressure.
3. Excessive or continuous operation of compressor.
4. Higher than normal cabinet temperature.

FEDERAL LAW REQUIRES THAT REFRIGERANTS BE RECOVERED PRIOR TO SERVICING.

METHODS FOR CLEANING STAINLESS STEEL

	CLEANING AGENT*	METHOD OF APPLICATION**	EFFECT ON FINISH
Routine Cleaning	Soap, ammonia or detergent and water.	Sponge with cloth, then rinse with clear water and wipe dry.	Satisfactory for use on all finishes.
Stubborn spots and stains, baked-on splatter, and other light discoloration's.	Revere Ware cleaner, Twinkle, or Cameo stainless steel cleaner.	Apply with damp sponge or cloth. Rub with damp cloth.	Satisfactory for use on all finishes if rubbing is light. Use in direction of polish lines.
	Goddard's Stainless Steel Care, Revere Ware Stainless Steel Cleaner, Soft-Scrub.	Apply with damp sponge or cloth.	Use in direction of polish lines. May scratch or dull highly polished finishes.
	Household cleansers, such as Old Dutch Bon Ami, Ajax, Comet Zud	Rub with a damp cloth. May contain chlorine bleaches. Rinse thoroughly after use. Rub with a damp cloth.	
Heat tint or heavy discoloration	Rever Ware Stainless Steel Cleaner, Goddard's Stainless Steel Care.	Apply with damp sponge or cloth.	
Burnt-on foods and grease, fatty acids milkstone (where swabbing or rubbing is not practical)	Easy-Off Oven Cleaner	Apply generous coating. Allow to stand for 10 to 15 minutes. Rinse. Repeated application may be necessary.	Excellent removal. Satisfactory for use on all finishes.
Hard water spots and scale.	Vinegar	Swab or wipe with cloth. Rinse with water and dry.	Satisfactory for use on all finishes.

*Use of brand names is intended only to indicate a type of cleaner. This does not constitute an endorsement. Nor does the omission of any brand name cleaner imply its inadequacy. Many products named are regional in distribution and can be found in local supermarkets, department and hardware stores.

**It is emphasized that all products should be used in strict accordance with instructions on package.

1. Use the mildest cleaning procedure that will do the job efficiently and effectively.
2. Always rub in the direction of polish lines for maximum effectiveness and to avoid marring the surface.
3. Use only a soft cloth, sponge, fibrous brushes, plastic or stainless steel pads for cleaning and scouring.
4. Rinse thoroughly with fresh water after every cleaning operation.
5. Always wipe dry to avoid water marks.
6. **Never use common steel wool pads, these will cause rust!**

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