NEXEL INDUSTRIES INC.

1-800-245-6682

USER MANUAL

Nexel Milk Cooler, 1 Door, 18.5 Cu. Ft., 49"W

Model 243093

INSPECTION

When the equipment is received, all items should be carefully checked against the bill of landing to insure all crates and cartons have been received. All units should be inspected for concealed damage by uncrating the units immediately. If any damage is found, it should be reported to the carrier at once, and a claim should be fielded with the carrier. Manufacturer is not responsible for freight loss or damage.

INSTALLATION

General

Care should be taken to remove the skid, so that they will not damage the cooler finish. Do not tip cabinet to install casters or legs. Insure that the casters or legs are screwed all the way into the base.

LOCATION

The self-contained refrigeration system located at the bottom of the cabinet requires free air access for proper operation. The back of the cabinet may be positioned against a wall, however, there must be a minimum four-inch clearance between the sides and a wall. It is necessary to properly level cooler to provide adequate drainage and efficient functioning of the unit.

ELECTRICAL

Check the proposed outlet to be used to insure that the voltage, phase, and current carrying capacity of the circuit from the electrical panel correspond to the requirements of the cabinet. Plug all standard models into a 110 volts A.C.60 cycle outlet. NEVER use an extension cord to power any unit. All inter wiring between the electrical panel and the unit must be done in accordance with the National Electric Code and all state and local codes. Refer to the Serial Tag for all pertinent electrical information.

Observe all Warning Labels. Disconnect power supply to eliminate injury from electrical shock or moving parts when servicing equipment.

GENERAL OPERATION

The milk coolers are cooled entirely by convection as a result of copper coils completely encircling the perimeter of the storage compartment. During the refrigeration process, heat is removed through the evaporator tubing and expelled through the condensing unit. It is important that the flow of air through the side louvers is not restricted in order to ensure the condensing unit operates properly. Under normal operating conditions, any frost that might accumulate on the walls during the "on" cycle of the condensing unit may melt during the "off" cycle. Drains are installed in all milk coolers to accommodate melting frost. The refrigeration system on this cabinet uses a temperature thermostat that senses the cut-in and cut-out temperatures of the cold wall evaporator coil. The temperature can be adjusted by turning the thermostat control knob which is located behind the louvered side panel.

GENERAL MAINTENANCE

PERIODIC CLEANING

Beginning with the initial installation, the interior surfaces of the cabinet should be periodically wiped down with a solution of warm water and baking soda. This solution will remove any odors from spillage that has occurred. The exterior of the cabinet should also be cleaned frequently with a commercial grade glass cleaner or with mild soap and water. Never, under any circumstances, use an abrasive cleaner or alkaline solution.

Monthly cleaning of the condenser will aid the heat transfer characteristics of the refrigeration system and increase its efficiency. To accomplish this, remove the louvered panel from the cabinet and use a wire brush to loosen any dirt particles that are attached to the fins. After this is accomplished, use a vacuum cleaner to remove the loosened particles.

MAINTENANCE SERVICE AND ANALYSIS GUIDE

• UNCRATING

To uncrate cooler, remove staples around the bottom of carton with screwdriver. 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. Remove cooler from skid.

• LOCATING COOLER

It is necessary to properly level cooler to provide adequate drainage and efficient functioning of the unit. Make sure there is enough room around the cooler to assure good air circulation through the condenser.

• ELECTRICAL SUPPLY

Plug all standard models into a 110-115 volts A.C. 50- or 60-cycle outlet. Low line voltage is often the cause of service complaints. Check to see that the live 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.

• STARTING UP OF UNIT

Factory setting of temperature control will maintain the temperature as 36°F

• CLEANING

The cooler should be thoroughly cleaned inside and out at regular intervals to preserve the finish and appearance. If stainless steel becomes discolored or stained, it can be cleaned with standard cleaners such as Bon-Ami, but not with steel wool. All dirt and lint should be removed from the condenser at regular intervals for efficient performance of the cooler.

REFRIGERATION SYSTEMS - ALL MODELS

PROBLEMS	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Compressor will not start	1. Line cord not plugged in. 2. Fuse removed or blown. 3. Overload protector tripped. 4. Control stuck in open position. 5. Wiring improper or loose.	1. Plug in line cord. 2. Replace fuse. 3. Refer to electrical section. 4. Repair or replace control. 5. Check wiring against diagram.
Compressor starts but does not switch off of start winding.	1. Low voltage to unit. 2. Relay failing to open. 3. Run capacitor defective. 4. Compressor motor has a winding open or shorted.	1. Determine reason and correct. 2. Determine reason and correct. Replace if necessary. 3. Determine reason and replace. 4. Replace compressor.
Unit operates long or continuously.	1. Shortage of refrigerant. 2. Control contacts stuck or frozen closed. 3. Evaporator coil iced. 4. Restriction in refrigeration system. 5. Dirty condenser.	1. Fix leak. Add charge. 2. Clean contacts or replace control. 3. Defrost. 4. Determine location and remove. 5. Clean condenser.
Space temperature too high.	1. Control setting too high. 2. Improper overcharge. 3. Inadequate circulation.	1. Reset control. 2. Recover refrigerant and recharge with proper charge specified on data plate. 3. 3. Improve air movement.
Unit noisy.	1. Loose parts or mountings. 2. Tubing rattle. 3. Bent fan blade causing vibration. 4. Fan motor bearings worn.	1. Find and tighten. 2. Reform to be free of contact. 3. Replace blade. 4. Replace motor.

ALL SERVICING MUST COMPLY WITH STATE AND FEDERAL REGULATIONS.

• REFRIGERATION SYSTEM

The Refrigeration System consists of a 115v. 60 Hz. hermetically sealed compressor, 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 compressor. Air is drawn through the condenser, over the body of the
compressor and then 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 are present, system freeze-ups will occur. Even in minute amounts, moisture will combine with refrigerants to form a hydrochloric acid. The corrosive action of this acid forms sludge which will plug the lines and drier. Only a vacuum pump should be used for evacuation because operating the compressor in a deep vacuum could cause serious damage to the compressor windings. Since most field-type vacuum pumps cannot pull a low enough vacuum to remove moisture from the system, it is recommended that the system be triple evacuated, breaking each time with dry refrigerant. Use care to purge air from the charging hose when breaking the vacuum. After third vacuum, backseat valves and proceed with replacement charge.

• 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 charge board. After maximum vacuum has been obtained as detailed above, attach charging cylinder to the suction 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.