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# Service Bulletin

**Subject: NEO Ice Machine Water & Drain Connections**

**UP MODELS - 140/190/240/310**

**⚠Warning**

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

**⚠Caution**

Do not apply heat to water inlet valve or water drain fittings. Heating will damage the nonmetallic connector. Do not over tighten fittings. Two turns after hand tight is the maximum.

**⚠Warning**

DO NOT use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

## Water Supply and Drain Line Requirements

### WATER SUPPLY CONNECTIONS

- All water and drains must conform to all applicable codes of the authority having jurisdiction. It is the responsibility of the end user to satisfy all local codes.
- Connect ice making water inlet to potable water only.
- Install a water shut-off valve for potable water and water- cooled condenser lines.
- Do not connect the ice machine to a hot water supply. Verify hot water restrict ors installed on other equipment are functioning correctly. (Check valves on sink, faucets, dishwashers, etc.)
- Install a water regulating valve if water pressure exceeds the maximum recommended pressure: 80 psig (5.5 bar).
- Insulate water lines to prevent condensation.

### DRAIN LINE CONNECTIONS

Follow these guidelines when installing drain lines to prevent drain water from flowing back into the ice machine and storage bin:

- Drain lines must have a 1.5 inch drop per 5 feet (2.5 cm per meter) of run and must not create traps.
- The floor drain must be large enough to accommodate drainage from all drains.
- Run separate bin and ice machine drain lines. Insulate all drain lines to prevent condensation.
- Install a tee at the ice making water drain outlet and install an 8.0” (20 cm) vent above the ice making water drain line.
- Drain termination must have an air gap that meets local code.
- NEO ice machines require two or three separate drains, depending on whether the model has an air-cooled condenser or water-cooled condenser.

### WATER/DRAIN LOCATIONS

A. Ice Making: Water Inlet
Ice Making Water Connection - The water inlet valve energizes to fill the water trough.

B. Ice Making: Water Outlet
Ice Making Water Drain - The dump valve purges water from the water trough during the initial startup cycle and then every third harvest cycle.

C. Bin Drain
Drains the melt water from the bottom of the bin.

D. Condenser Water Inlet - (Water-cooled Only)
Supply water used to remove heat from the condenser.

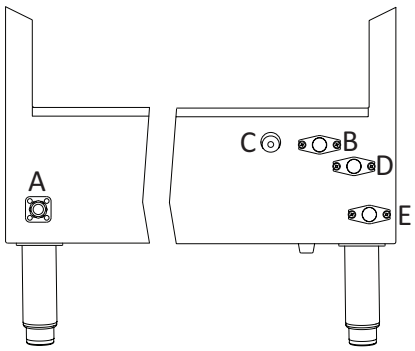
E. Condenser Water Outlet - (Water-cooled Only)
Drain used to remove water warmed by heat transfer from the condenser.

NOTE: Local code may require that all water-cooled models be connected only to a closed loop, cooling tower system.

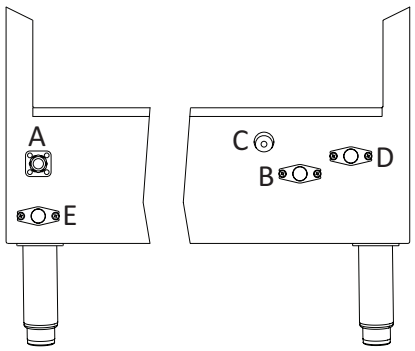
## Water Supply and Drain Line Sizing

| Location | Water Temperature | Water Pressure | Ice Machine Fitting | Tubing Size up to Ice Machine Fitting |
|---|---|---|---|---|
| A = Ice Making Water Inlet | 40°F (4.4°C) Min.<br>90°F (32°C) Max. | 20 psi Min.<br>(140 kPa)<br>80 psi Max.<br>(550 kPa) | 3/8" (10 mm)<br>Female Pipe Thread | 3/8" (10 mm)<br>min. inside diameter |
| B = Ice Making Water Drain Outlet (vented) | — | — | 1/2" (13 mm)<br>Female Pipe Thread | 1/2" (13 mm)<br>min. inside diameter |
| C = Condenser Water Inlet | 40°F (4.4°C) Min.<br>90°F (32°C) Max. | 20 psi Min.<br>(140 kPa)<br>150 psi Max.<br>(1034 kPa) | 3/8" (10 mm)<br>Female Pipe Thread | |
| D = Condenser Water Drain Outlet | — | — | 1/2" (13 mm)<br>Female Pipe Thread | 1/2" (13 mm)<br>min. inside diameter |
| E = Bin Drain Outlet | — | — | 1/2" (13 mm)<br>Female Pipe Thread | 1/2" (13 mm)<br>min. inside diameter |

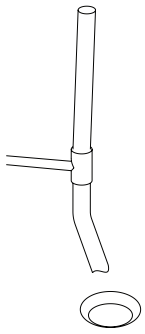
Min. = Minimum, Max. = Maximum




UP0140/UP0190/UP0240 Models




UP0310 Models



Floor Drain - Open and Vent 8" (20cm) Above B = Ice Making Water Drain Outlet

**Water Supply & Drain Locations**