

Hoshizaki Water Cooled Cube State Ice Maker

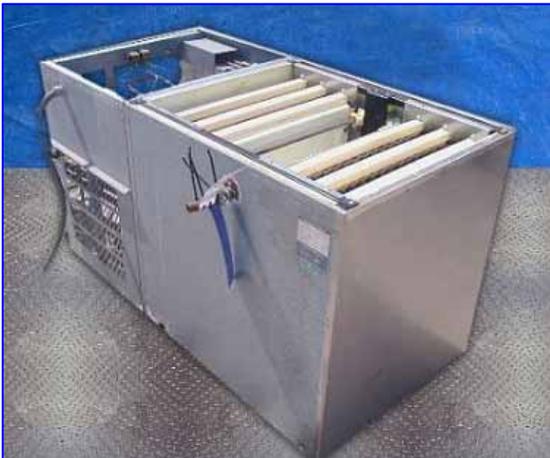
Mfg: Hoshizaki

Model: KM-1201DWU

Stock No: EEGC280.2a

Serial No:

Hoshizaki Water Cooled Cube State Ice Maker. Model: KM-1201DWU. Flow rate: 4.3 gpm. (6) Evaporator Plates: 20 in. W x 15 in. H. Wash/Ice control switch. Continuous operation knob with (4) temperature levels. Electrical requirements: AC supply voltage 115/230 V, 3-wires, 60 Hz, 1 phase. Max. fuse size: 20 amps. Min. circuit ampacity: 20 amps. Design pressure hi/lo 270/225 psi, respectively. Refrigerant: R-502 (2 lbs. 7oz). Compressor, 230 V, 12 RLA, 57 LRA. (2) Pumps, 120 V (total), 2.6 FLA (total), 120 W. Inlets/outlets: (1) 1/4 in. dia. male ferrule cooling water outlet, (2) 3/8 in. dia. copper pipes. Overall dimensions: 53 in. L x 28 in. W x 31 in. H. (ACN37).





The Making of a Crescent Cube

The ice making process requires the movement of refrigerant through a network of tubing while sending it through a continuous cycle of **condensation** and **expansion**. Condensation is accomplished by forcing the refrigerant through a series of narrow tubes while expansion is achieved by releasing the mixture into larger tubes.

When compressed, the refrigerant pressure is increased and an increase in temperature also results. As this hot refrigerant continues its cycle through the narrow coils, it loses heat to the cooler, outside air. This cooling causes the refrigerant to condense into a **liquid**. The compressed liquid is then passed through an expansion valve at which point it evaporates and becomes a **gas**. The evaporation process draws in the heat energy from the copper tubing and the air surrounding the refrigerant thereby cooling the tubing. Sandwiched between two plates, the cool temperature from the tubing is transferred to the evaporator... this lays the groundwork for making ice!

Freeze Cycle

Once the evaporator has been cooled, water supplied from a reservoir is run over the evaporator surface and gradually begins to freeze. Because pure water freezes first and because water is constantly flowing over the surface of the evaporator, impurities are washed away while pure water is left behind to freeze. This ice forming process results in the formation of a crystal-clear cube.

Harvest Cycle

When the water level in the reservoir reaches a certain level, the ice making process is terminated. A valve is then opened which changes the path of the refrigerant. Hot refrigerant gas from the compressor now bypasses the narrow condensing tubes and is instead routed directly to the evaporator. The hot temperature from the tubing is transferred to the evaporator, which loosens the ice cubes. Because the evaporator is mounted vertically, cubes are free to fall into the bin below.

This freezing and harvesting cycle will continue until the bin control senses that enough ice has been produced.