

HOSHIZAKI AMERICA, INC. SERVICE BULLETIN

SB06-0002R2

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Subject: Backflow Prevention

Recently there have been several inquiries concerning the provision in our icemakers to prevent back flow from the icemaker into the potable water supply. If there is not a provision to prevent this, during a period of negative pressure of the potable water supply, water from within the icemaker could be siphoned back into the potable water supply, causing contamination.

All of our KM series units (Including KML, KMS, KMD, etc.), Flaker, DCM, and AM model icemakers are listed by NSF International under NSF Standard 12, Automatic Ice Making Equipment. As part of getting listed by NSF, an icemaker must comply with section 5.28 "Backflow Prevention" of NSF 12. Section 5.28.1 states "Units intended to be connected to a water supply system under pressure shall have one of the following:

"-an air gap at least twice the diameter of the water supply inlet and not less than 1.0 in (25 mm): Or"

This clause goes on to state several other methods of meeting this requirement however, the first method is how all of our models meet the requirements.

KM-Models

For the KM models, the water passes through the solenoid water inlet valve to the top of the KM evaporator plates. The water falls by gravity between the evaporator plates and over the refrigerant tubing sandwiched between them. It then falls further through the cube guide and into the reservoir tank. The space between the two stainless steel plates is open to atmosphere, so once the water leaves the water spray tubes, it is in an air gap the height of the evaporator plates. The height of the KM evaporator plates is minimum 11.5 inches, which easily meets the NSF requirement.



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Flaker and DCM-Models

For the Flaker and DCM models, the water passes through the solenoid water inlet valve and through a 3/8" ID plastic fitting attached to the water valve outlet. The water then falls through the air into the water reservoir through a small hole. There is an overflow pipe in the reservoir that is 1 1/4 inches below the hole that the water enters through. The overflow pipe is connected to an open drain pan, therefore no water can be siphoned back to the potable water supply.



AM-Models

For the AM models, water passes through the solenoid water inlet valve, it exits through a plastic tube that is vertically oriented and is held in position by a clamp attached to the icemaker wall. After exiting the tube, the water passes through a vertical air gap of more than 1.0 inch before it drops into the water tank. So even if some malfunction causes the water tank to overflow, the water will drop into the ice bin below it and cannot reenter the vertically oriented water supply tubing above the water tank.



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IM-Models

For the IM models, water passes through the inlet water solenoid valve, it exits through a plastic tube that is horizontally oriented and is mounted to the top frame of the unit. After exiting the tube, the water passes through a vertical air gap of more than 1.0 inch before it drops into the water tank. So even if some malfunction causes the water tank to overflow, the water will drop into the ice bin below it and cannot reenter the horizontally oriented water supply tubing above the water tank.



In all our ice maker models, the built-in air gaps described above are secondary back up to the water solenoid valve. The water solenoid valves are normally closed and, in most situations, prevent any back siphonage from happening.

If you have any questions concerning this change, please contact the Technical Support Department at <u>tech-support@hoshizaki.com</u> or 1-800-233-1940.