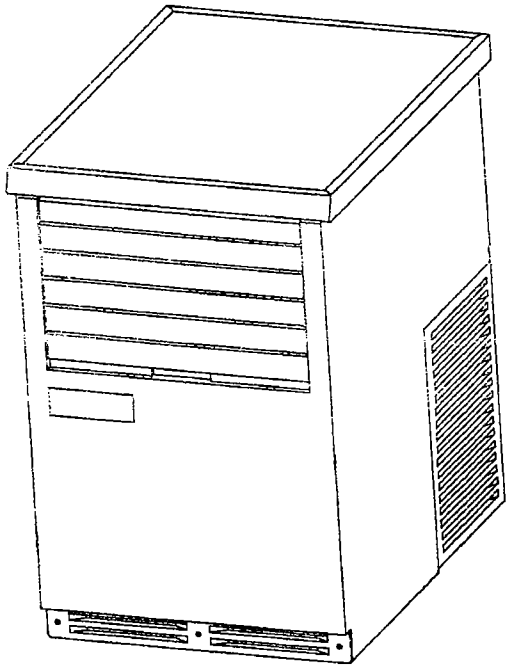
Manitowoc®
ICE MACHINES

Series
I 25/I 45

INSTALLATION
USE AND CARE GUIDE



Thank you for selecting a Manitowoc Ice Cube Machine, the dependability leader in ice making equipment and related products. With proper care and maintenance, your new Manitowoc Ice Cube Machine will provide you with many years of reliable and economic performance.

We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

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Revised 01/95

Part No. 80–0975–3
Rev. A (1–95)

Safety Notices

When using or servicing a Manitowoc Ice Machine be sure to pay close attention to the safety notices in this manual. Disregarding the notices may lead to serious injury and/or damage to the ice machine.

Throughout this manual, you will see the following types of safety notices:

⚠ Warning
PERSONNEL INJURY POTENTIAL

Do not operate equipment that has been misused, abused, neglected, damaged, or altered/modified from that of original manufactured specifications.

⚠ Warning

Text in a Warning box alerts you to a potential personal injury situation. Be sure to read the Warning statement before proceeding, and work carefully.

⚠ Caution

Text in a Caution box alerts you to a situation in which you could damage the ice machine. Be sure to read the Caution statement before proceeding, and work carefully.

Procedural Notices

When using or servicing a Manitowoc Series Ice Machine, be sure to read the procedural notices in this manual. These notices supply helpful information which may assist you as you work.

Throughout this manual, you will see the following types of procedural notices:

Important

Text in an Important box provides you with information that may help you perform a procedure more efficiently. Disregarding this information will not cause damage or injury, but it may slow you down as you work.

NOTE: Text set off as a Note provides you with simple, but useful, extra information about the procedure you are performing

Read These Before Proceeding:

⚠ Caution

Proper installation, care and maintenance are essential for maximum ice production and trouble-free operation of you Manitowoc Ice Machine.
Read and understand this manual. It contains valuable care and maintenance information. If you encounter problems not covered by this manual, do not proceed, contact Manitowoc Ice, Inc. We will be happy to provide assistance.

Important

Routine adjustments and maintenance procedures outlined in this manual are not covered by the warranty.

We reserve the right to make product improvements at any time.
Specifications and design are subject to change without notice.

IMPORTANT

Proper care and maintenance are essential for maximum ice production and trouble-free operation of your Manitowoc Ice Cube Machine.

Read and understand this Installation/Use and Care Guide. It contains valuable care and maintenance information.

If you encounter problems not covered by this guide, feel free to contact Manitowoc Equipment Works. We will be happy to provide assistance.

Your Use and Care Guide covers the following model numbers:

Self-Contained Air-Cooled	**Self-Contained Water-Cooled**
IR-0025A	IR-0025W
IR-0045A	IR-0045W

Revised 01/95

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SECTION 1 - GENERAL INFORMATION

MODEL/SERIAL NUMBER LOCATIONS

Record the model and serial number of your ice cube machine in the space provided below. These numbers are required when requesting information from your Manitowoc distributor, service representative, or the factory.

The model and serial number are listed on the OWNER WARRANTY REGISTRATION CARD. They are also listed on the MODEL/SERIAL NUMBER DECALS affixed to the ice machine.

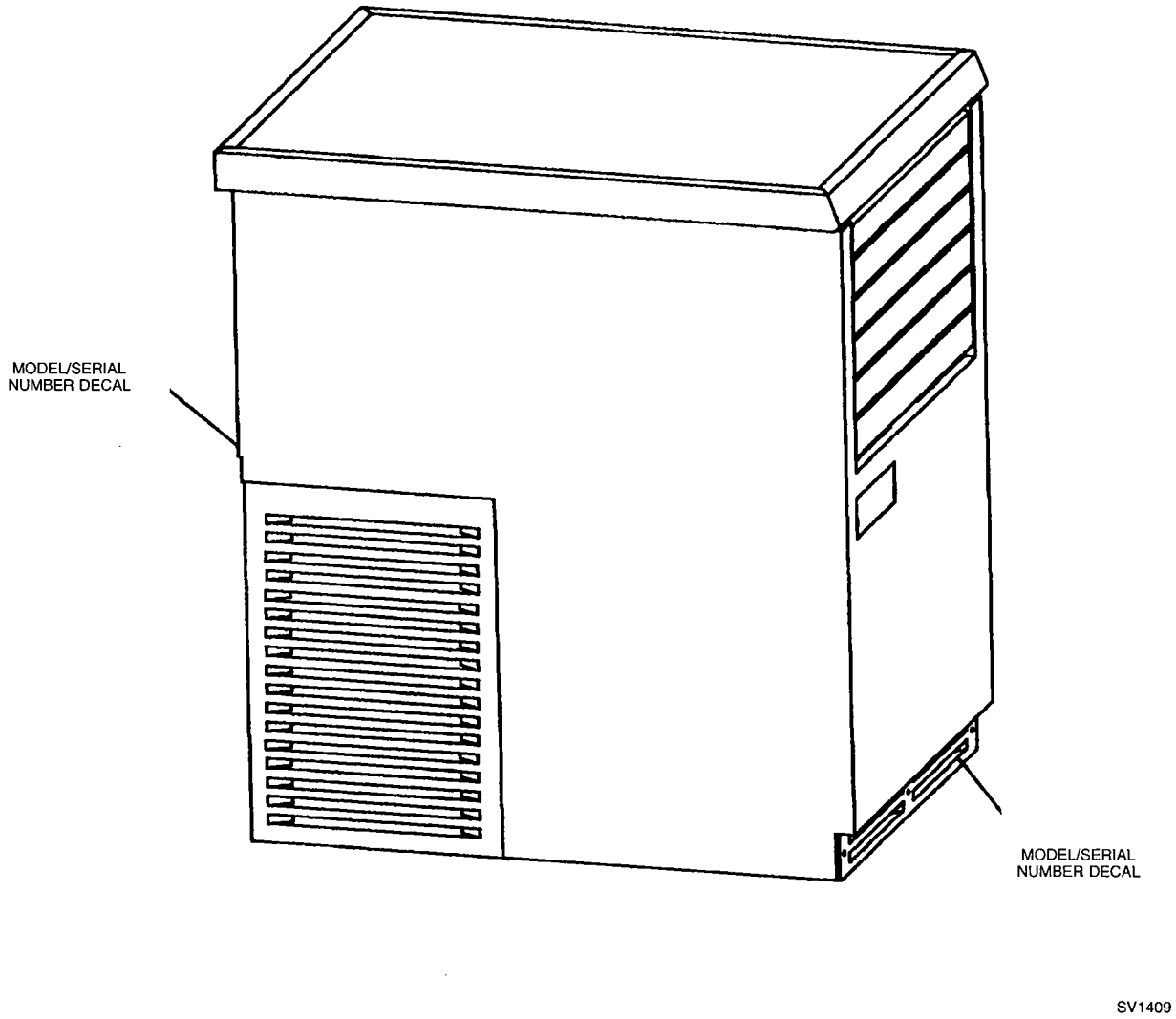


Figure 1. MODEL/SERIAL NUMBER LOCATION

Model Number _____ Serial Number _____

OWNER WARRANTY REGISTRATION CARD

The packet containing this guide also includes warranty information. Warranty coverage begins the day your new ice machine is installed.

> **Important**
> Complete and mail the OWNER REGISTRATION CARD as soon as possible to validate the installation date.

If you do not return your OWNER REGISTRATION CARD, Manitowoc will use the date of sale **to the Manitowoc Distributor** as the first day of warranty coverage for your new ice machine.

WARRANTY COVERAGE

The following Warranty outline is provided for your convenience. For a detailed explanation, read the warranty bond shipped with the ice machine.

Contact your local Manitowoc representative or Manitowoc Equipment Works if you need further warranty information.

Parts

1. Manitowoc warrants the ice machine against defects in materials and workmanship, under normal use and service, for three (3) years from the date of original installation.
2. The evaporator and compressor are covered by an additional two (2) year **(five years total)** warranty, beginning on the date of the original installation.

Labor

1. Labor required to repair or replace defective components is covered for three (3) years from the date of original installation.
2. The evaporator is covered by an additional two (2) year **(five years total)** labor warranty, beginning on the date of the original installation.

Exclusions from Warranty Coverage

The following items **are not included** in the ice machine's warranty coverage.

1. Normal maintenance, adjustments and cleaning as outlined in this manual.
2. Repairs due to unauthorized modifications to the ice machine, or the use of nonstandard parts without prior written approval from Manitowoc Equipment Works.
3. Damage caused by improper installation of the ice machine, electrical supply, water supply or drainage, or damage caused by floods, storms, or other acts of God.
4. Premium labor rates due to holidays, overtime, etc.; travel time; flat rate service call charges; mileage and miscellaneous tools and material charges not listed on the payment schedule. Additional labor charges resulting from the inaccessibility of the ice machine are also excluded.
5. Parts or assemblies subjected to misuse, abuse, neglect or accidents.
6. Damage or problems caused by installation, cleaning and/or maintenance procedures inconsistent with the technical instructions provided in this Installation Manual and Owner/Operator Use and Care Guide.

Authorized Warranty Service

To comply with the provisions of the warranty, a refrigeration service company, qualified and authorized by your Manitowoc distributor, or a Contracted Service Representative must perform the warranty repair.

> **Note**
> If the dealer you purchased the ice machine from **IS NOT** authorized to perform warranty service, contact your Manitowoc distributor or our Wisconsin headquarters for the name of the nearest authorized service representative.

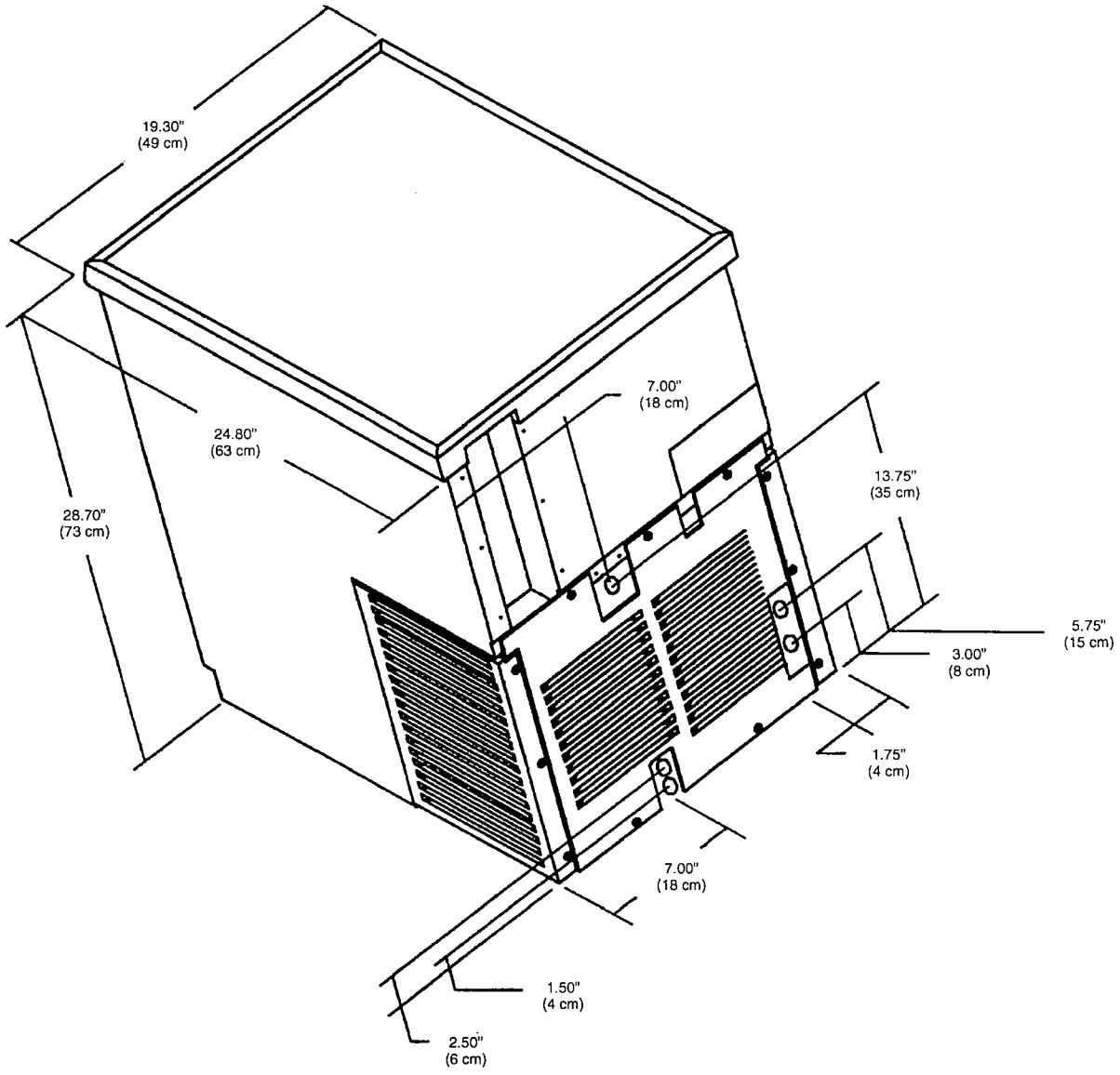
Service Calls

If you have followed the procedures listed in this guide (page 18) and the ice machine still does not perform properly, call your authorized service company.

SECTION 2 - INSTALLATION INSTRUCTIONS

DIMENSIONS

I 25/I 45



FREIGHT DAMAGE AND CLAIMS PROCEDURES

1. SHORTAGES
   Compare the number of cartons delivered to the quantity shown on your receipt. If the quantities do not match, have the driver make a note of the shortage and file a claim with the freight company.
2. NO-FAULT FREIGHT CLAIM PROCEDURE
   Manitowoc assumes responsibility for all freight damage claims involving participating carriers, with the following exceptions:
   a. When the trucking company loses the equipment.
   b. When fire destroys the equipment en route.
   c. When a traffic accident damages the shipment en route.
3. VISIBLE DAMAGE
   a. If a carton appears to be damaged in any way, open the carton and inspect its contents in the presence of the driver.
   b. To open the carton, cut the banding on the bottom only (in case the ice machine needs to be reboxed) and slide the carton up and off the ice machine.
   c. Note the nature and extent of the damage on the freight bill.
   d. Notify your local Manitowoc distributor. Request that they inspect the merchandise within 15 days of delivery. Do not attempt to repair the damage.
4. CONCEALED DAMAGE
   a. If damage is not noticed until the time of installation, contact the distributor immediately and ask to have the equipment inspected.
   b. Do not destroy packing materials until the inspection is completed.
   c. These conditions must be met before your claim can be processed by the distributor.
5. CLAIMS
   Manitowoc Equipment Works and the selling Distributor will arrange for repair or replacement of the equipment.

LOCATION OF ICE MACHINE

- **FOR INDOOR USE ONLY**
- **LOCATE IN A CONTAMINANT-FREE AREA**

Air Temperature	
Minimum	Maximum
50°F (10°C)	110°F (43.3°C)

⚠ Caution

The ice machine must be protected if it will be subjected to temperatures below 32°F (0°C). Failure caused by exposure to freezing temperatures is not covered by the warranty. See REMOVAL FROM SERVICE/WINTERIZATION.

Locate your machine away from heat-generating equipment and direct sunlight.

Air-cooled models are particularly vulnerable, and should be installed in an area that is free of air-borne contaminants.

- Counter Top Support
  The counter top (or other resting surface) must support .60 lbs. per square inch (422 kg per square meter).
- The ice machine base must be sealed to the counter top (or other resting surface) with silicone sealant.
- Minimum clearance requirements at top and sides:
  Adequate airflow through and around the ice machine is essential for maximum ice production and long component life.

  Water cooled models:
  Minimum of 1" (2.5 cm) on top and 1" (2.5 cm) on both sides and back.

  Air cooled models:
  With air divider (not supplied) (figure 2):
  Minimum of 1-1/2" (3.8 cm) on top and 1" (2.5 cm) on both sides and back.
  Air divider prevents hot air leaving ice machine from recirculating into cool air intake.

  Without air divider:
  Minimum of 6" (15.2 cm) on top and 6" (15.2 cm) on both sides and 1" (2.5 cm) at back.

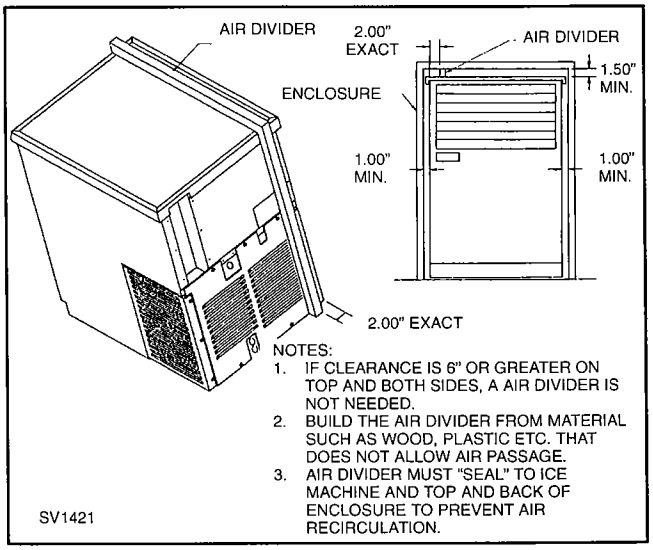


Figure 2. AIR COOLED MODEL WITH AIR DIVIDER

ELECTRICAL SERVICE

⚠ Caution
All wiring must conform to local, state, and national codes.

⚠ Caution
Never use an extension cord. If an outlet is not within reach of the ice machine's power cord, have a proper amperage outlet wired closer.

Ice machines with 6 ft (2 m) power cord with NEMA 5-15P plug configuration attached.					
		Air-Cooled		Water-Cooled	
Ice Machine	Voltage Phase Cycle	Maximum Fuse/Circuit Breaker	Total Amps	Maximum Fuse/Circuit Breaker	Total Amps
I 25	115/1/60	15	5	15	4
I 45	115/1/60	15	8.5	15	6.5

Ice machines with 6 ft (2 m) power cord without plug end attached.					
		Air-Cooled		Water-Cooled	
Ice Machine	Voltage Phase Cycle	Maximum Fuse/Circuit Breaker	Minimum Circuit Amps	Maximum Fuse/Circuit Breaker	Minimum Circuit Amps
I 25	208-230/1/60	15		15	
I 45	208-230/1/60	15		15	
Ice machines with 6 ft (2 m) power cord with straight Sehuko (splash proof) plug attached.					
I 25	220-240/1/50	15	3.3	15	2.9
I 45	220-240/1/50	15	5.0	15	4.1
NUMBERS LISTED ARE AMPS					

VOLTAGE
The maximum allowable voltage variation is +/- 10% of the rated voltage at ice machine start-up (when the electrical load is highest.)

⚠ WARNING
The ice machine must be grounded in accordance with the National and Local Electrical Code.

FUSE/CIRCUIT BREAKER
A separate fuse/circuit breaker must be provided for each ice machine. Circuit breakers must be H.A.C.R. rated (this does not apply in Canada).

MINIMUM CIRCUIT AMPACITY
The minimum circuit ampacity is used to help select the wire size of the electrical supply. (Minimum circuit ampacity is not the ice machine's running amp load.) The wire size (or gauge) is also dependent upon location, materials used, length of run, etc., and therefore must be determined by a qualified electrician.

WATER SERVICE/DRAINS

WATER SUPPLY

Local water conditions may require treatment of the water to inhibit scale formation, filter sediment, and remove chlorine odors and taste.

> **Important**
> If you are installing a Manitowoc Tri-Liminator water filter system, refer to the Installation Instructions supplied with the filter system for ice making water inlet connections.

Follow these guidelines to install water inlet lines:

- Do not connect the ice machine to a hot water supply. Be sure all hot water restrictors installed for other equipment are working. (Check valves on sink faucets, dishwashers, etc.)
- If water pressure exceeds the maximum recommended pressure, obtain a water pressure regulator from your Manitowoc Distributor.
- Install a water shut-off valve for both the ice making and condenser water lines.
- Insulate water inlet lines to prevent condensation.

DRAIN 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 1-1/2 inch (3.8 cm) drop for each 5 feet (1.5 m) of run, and must not create any traps.
- The floor drain must be large enough to accommodate drainage from all drains.
- Run separate bin and ice machine drain lines and insulate them to prevent condensation.

WATER SUPPLY AND DRAIN LINE SIZING/ CONNECTIONS

> **⚠ Caution**
> Plumbing must conform to local and state codes.

Series Ice Machine I 25 I 45	Water Temperature	Water Pressure	Ice Machine Fitting	Tubing Size Up to Ice Machine Fitting
Ice Making Water Inlet	35°F (1.7°C) min. 90°F (32.2°C) max.	20 psi (1.38 bar) min. 80 psi (5.52 bar) max.	3/4" (1.9 cm) male hose connection	Use flexible hose 3/8" (0.95 cm) min. I.D.**
Ice Making Water Drain	-	-	5/8" (1.6 cm) barbed	5/8" (1.6 cm) min. I.D.**
Condenser Water Inlet	35°F (1.7°C) min. 90°F (32.2°C) max.	20 psi (1.38 bar) min. 150 psi (10.34 bar) max.	1/2" (1.3 cm) F.P.T.*	1/2" (1.3 cm) min. I.D.**
Condenser Water Drain	-	-	1/2" (1.3 cm) F.P.T.*	1/2" (1.3 cm) min. I.D.**
Bin Drain	-	-	5/8" (1.6 cm) barbed	5/8" (1.6 cm) min. I.D.**

*F.P.T. - Female Pipe Thread
**I.D. - Inside Diameter

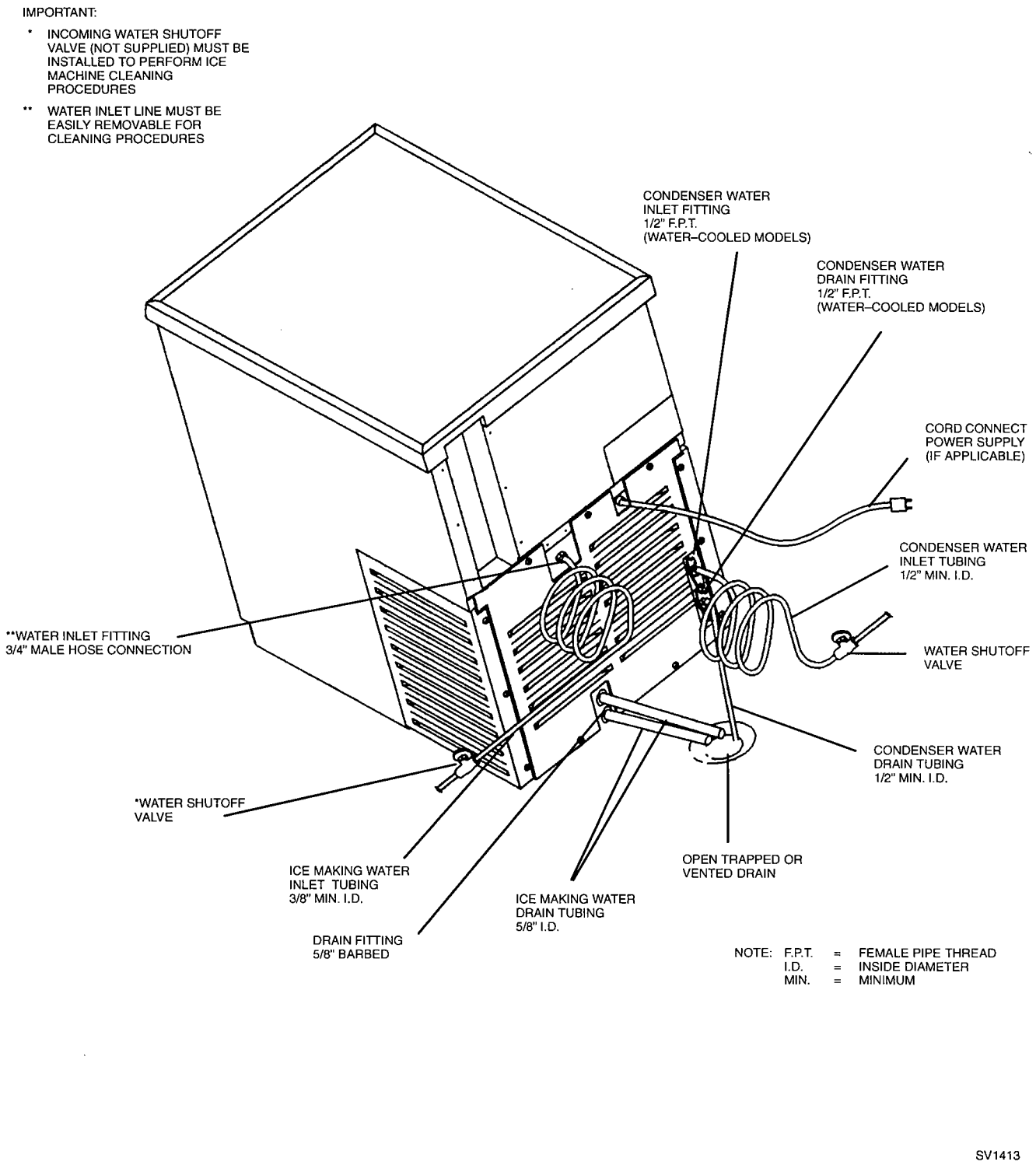


Figure 3. WATER SUPPLY AND DRAIN LINE SIZING/CONNECTIONS

SECTION 3 - ICE MACHINE OPERATION

BEFORE STARTING ICE MACHINE

The water trough must be filled with water prior to starting the ice machine for the first time. Use a bucket to fill the water trough. Pour water into the trough until it overflows into the overflow tube and out of the drain at the back of the ice machine.

Failure to start with the water trough full causes a premature harvest, resulting in no ice (or mis-formed ice) produced in the first cycle.

The next cycle functions properly as the water trough fills with water during the harvest cycle.

SEQUENCE OF OPERATION

FREEZE SEQUENCE

1. The compressor, fan motor (if applicable) and water pump are on during the freeze sequence. An even flow of water is directed into each evaporator cube cell, where it freezes.
2. The evaporator continues to get colder as the ice thickens. When sufficient ice has formed, causing the evaporator to cool down, the ice size control switches to the harvest sequence.

HARVEST SEQUENCE

3. A. The water pump shuts off.
   B. The water inlet valve opens to refill the water trough for the next freeze sequence. As the water level rises, it flows out of the overflow tube to prevent overfilling. The incoming water flow also helps release the ice by warming the plastic surrounding the evaporator.
   C. The hot gas valve opens, diverting hot refrigerant gas into the evaporator. This warms the evaporator, causing the ice cubes to slide out and fall into the storage bin.
4. The evaporator continues to get warmer as the ice cubes fall into the bin. When sufficient ice is released, causing the evaporator to warm up, the ice size control switches back to the freeze sequence (Steps 1 and 2). It is common for a couple of cubes to continue to fall into the bin at the very beginning of the freeze sequence.

AUTOMATIC SHUT-OFF

The ice machine shut-off is controlled by the level of ice in the bin.

5. When the ice storage bin is full, ice cubes contact the bin thermostat bulb holder, which cools down and opens to stop the ice machine.
6. The ice machine remains off until enough ice has been removed from the storage bin, which causes the thermostat bulb holder to warm and close to restart the ice machine.

CUBE SIZE ADJUSTMENT

The ice cube size control is factory-set to maintain correct cube size, which is slightly indented in the center. Inspect the ice cubes in the bin and follow the steps below if adjustment is necessary.

1. Turn ice cube size control dial *clockwise to thicken or fill in* the ice in the center of the cube.
2. Turn the ice cube size control dial *counter-clockwise to thin or decrease* the fill in the center of the cube.

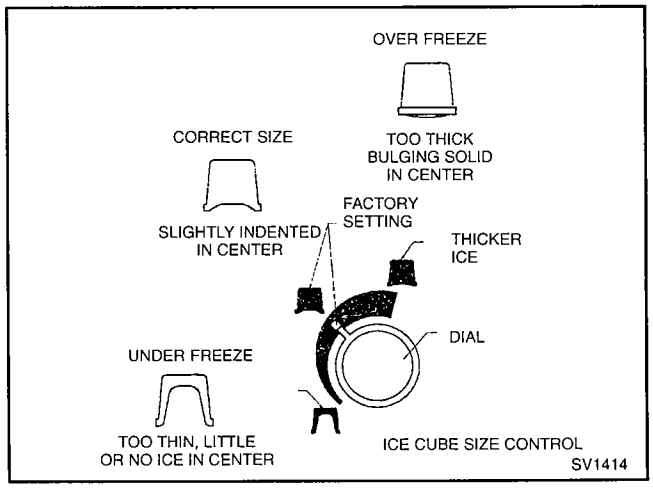


Figure 4. CUBE SIZE ADJUSTMENT

SECTION 4 - MAINTENANCE

Follow a general maintenance schedule to ensure reliable, trouble-free operation and maximum ice production.

You are responsible for maintaining the ice machine in accordance with the instructions in this manual. Call your local qualified Manitowoc Service Representative to perform the maintenance if at any time you are either unsure or unaware of the proper procedures and safety precautions that must be followed.

We recommend that you follow the maintenance guidelines on a semi-annual basis. Record the date you perform the maintenance procedures in the space provided. You can refer to the dates later to remind you to perform the maintenance procedures again.

MAINTENANCE GUIDELINES CHART

SEMI-ANNUAL MAINTENANCE	Page Reference	Dates of Maintenance
1. General Ice Machine Inspection	10	
2. Exterior Cleaning	10	
3. Cleaning the Condenser Air-Cooled Water-Cooled	11 11 11	
4. Interior Cleaning/Sanitizing Cleaning Procedures/Sanitizing Procedures Removal of Parts	12 12 13	
5. Removal from Service/Winterization	17	

GENERAL ICE MACHINE INSPECTION

Check all water fittings and lines for leaks. Also, make sure the refrigeration tubing is not rubbing or vibrating against other tubing, panels, etc.

Do not stack anything (boxes, etc.) on or around the ice machine. Do not cover the ice machine while it is operating. There must be adequate airflow through and around the ice machine to ensure long component life and maximize ice production.

EXTERIOR CLEANING

1. Clean the area around the ice machine as often as necessary to maintain cleanliness and efficient operation.
2. Sponge any dust and dirt off the outside of the ice machine with mild soap and water. Wipe dry with a soft clean cloth.

CLEANING THE CONDENSER

⚠ WARNING

Disconnect the electric power to the ice machine at the electric service switch box before cleaning the condenser.

AIR-COOLED CONDENSER

A dirty condenser restricts airflow, resulting in excessively high operating temperatures. This reduces ice production and shortens component life. Clean the condenser at least every six months.

⚠ Caution

The condenser fins are sharp. Use care when cleaning them.

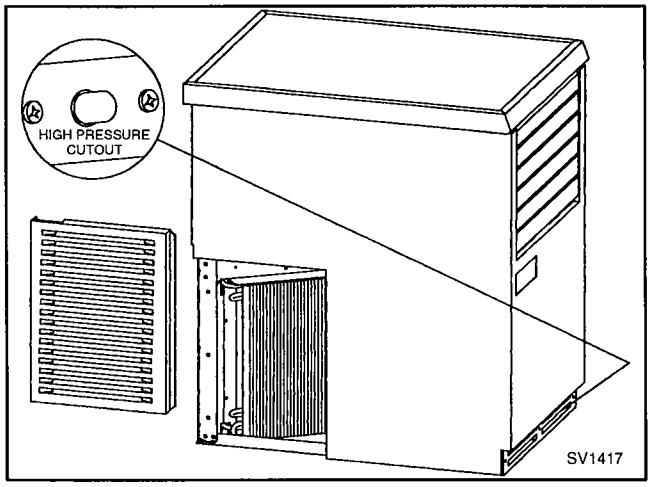


Figure 5. SELF-CONTAINED AIR-COOLED CONDENSER

1. Clean the outside of the condenser with a soft brush or a vacuum with a brush attachment. Brush or wash the condenser from top to bottom - not from side to side. Be careful not to bend the fins. Shine a flashlight through the condenser to check for dirt between the fins.

   If further cleaning is required, use one or both of the following procedures:

   a. Blow compressed air through the condenser from the inside. Take care not to bend the fan blades. Shine a flashlight through the condenser to check that all the dirt is removed.
   b. Clean with a commercial condenser coil cleaner, according to the directions and cautions supplied with the cleaner.

2. Straighten any bent condenser fins with a fin comb, Figure 6.

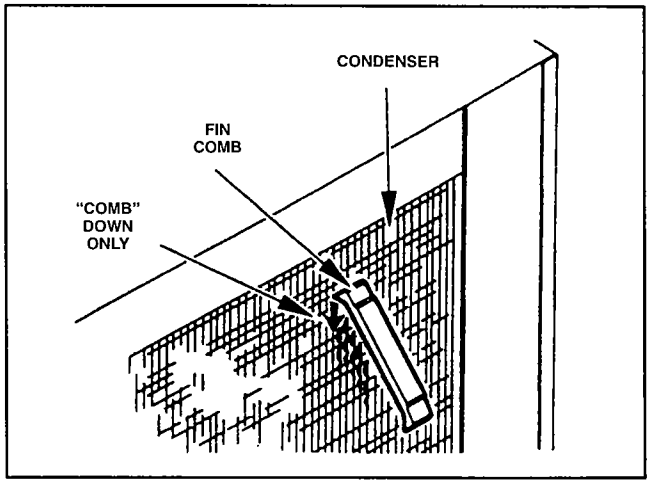


Figure 6. STRAIGHTEN BENT CONDENSER FINS

3. Carefully wipe off the fan blades and motor with a soft cloth, taking care not to bend the fan blades. Wash excessively dirty fan blades with warm soapy water, then rinse thoroughly.

⚠ Caution

If you are cleaning the condenser fan blades with water, cover the fan motor to prevent water damage.

WATER-COOLED CONDENSER (AND WATER REGULATING VALVE)

The water-cooled condenser and the water regulating valve may require cleaning due to scale build-up.

Low ice production, high water consumption and high operating temperatures and pressures all may be symptoms of restrictions in the condenser water circuit.

The cleaning procedures require special pumps and cleaning solutions. Therefore, they must be performed by qualified service personnel.

INTERIOR CLEANING/SANITIZING

Clean and sanitize the ice machine every six months for efficient operation. If the ice machine requires more frequent cleaning and/or sanitizing, consult a qualified service company to test the water quality and recommend appropriate water treatment.

⚠ WARNING

Use only Manitowoc approved Ice Machine Cleaner (part number 94-0546-3) and Sanitizer (part number 94-0565-3). It is a violation of Federal law to use these solutions in a manner inconsistent with their labeling. Read and understand all labels printed on bottles before use.

CLEANING/SANITIZING PROCEDURES

Ice machine cleaner is used to remove lime scale or other mineral deposits. It is not used to remove algae or slime. Use sanitizer to remove algae or slime.

⚠ Caution

Do not mix Cleaner and Sanitizer solutions together. It is a violation of Federal law to use these products in a manner inconsistent with their labeling.

⚠ WARNING

Wear rubber gloves and safety goggles (and/or face shield) when handling ice machine cleaner or sanitizer.

Note

If required, extremely dirty ice machines may be taken apart for cleaning and sanitizing. (Refer to page 13.)

1. Set the toggle switch to the OFF position after the ice falls from the evaporator at the end of a Harvest cycle. Or, set the switch to the OFF position and allow the ice to melt off of the evaporator.

⚠ Caution

Never use anything to force ice from the evaporator. Damage may result.

2. Drain water from the ice machine by removing the overflow tube. After the water trough is empty, reinstall overflow tube. (Refer to figure 8, page 14.)
3. Remove ice from bin. The bin thermostat must be warm (closed) to perform cleaning/sanitizing procedures.
4. Mix **separate** cleaning and sanitizing solutions.

   Cleaner - Mix 6 ounces (177 ml) of Ice Machine Cleaner, part number 94-0546-3, with 1 gallon (3.8 l) of warm water.

   Sanitizer - Mix 8 ounces (236 ml) of Ice Machine Sanitizer, part number 94-0565-3, with 1 gallon (3.8 l) or warm water.

   It is normal to "clean" the ice machine prior to "sanitizing."

Perform Step 5 and 6 two times:
First time through, use cleaning solution. Second time through, use sanitizing solution. Do not mix together.

5. Set the toggle switch to the "CIRCULATE WATER ONLY" position. Add cleaning or sanitizing solution (mixed in Step 4), by pouring over entire back side of evaporator until the solution fills the water trough and circulates through the water pump and spray housing.

   Allow solution to circulate for approximately 15 minutes.

   "Clean" then "Sanitize" the ice storage bin, top cover, and door with solutions mixed in Step 4. Be sure to rinse all surfaces with fresh water when completed.

6. RINSE PROCEDURE
   A. Set toggle switch to "OFF" position and drain cleaning or sanitizing solution by removing overflow tube. Replace overflow tube after draining is complete.
   B. Set toggle switch to "CIRCULATE WATER ONLY". Add fresh water to ice machine by pouring over entire back side of evaporator until water circulates through water pump and spray housing. Allow fresh water to circulate for 5 minutes.
   C. Repeat rinse procedure (Step 6, A and B) two more times before proceeding to Step 7.
7. BEFORE RESTARTING ICE MAKING CYCLE
   Refer to page 9 "Before Starting Ice Machine."

REMOVAL OF PARTS

(Refer to Figures 8, 9 and 10, pages 14-16.)

> **⚠ WARNING**
> Unplug or disconnect the electric power to the ice machine at the electric service switch box and turn off water supply to the ice machine.

1. **Front Door Removal**
   a. Remove top cover.
   b. Lift up on door opening to pull through removal slots.
2. **Overflow Tube Removal**
   Lift up while using slight "back and forth" motion to loosen from drain hole.

   Replacement:
   Be sure overflow tube is completely inserted into drain hole to prevent water leakage during normal operation.
3. **Water Curtain Flaps**
   a. Remove bin thermostat capillary tube from bin thermostat tube mounted to ice storage area back wall.

> **Important**
> After removal, be careful not to damage capillary tube.

   b. Lift entire assembly up high enough to access left end of hinge rod. Be careful not to pull on electrical wires. The entire assembly cannot be removed; electrical wires prevent this.
   c. Slide hinge rod to left to remove water curtain flaps.
4. **Water Spray Housing Assembly and Spray Nozzles**
   a. To access spray housing, remove water pump, overflow tube and sump divider. Lower water curtain flap assembly into ice storage area.
   b. Unscrew spray nozzles.
   c. Lift plugs out of unused holes (if applicable).
5. **Water Pump Removal**
   a. Disconnect the water pump power cord.
   b. Disconnect the hose from the pump by removing water pump clamp.
   c. Loosen the two screws which hold the water pump in place.
   d. Lift the pump and bracket assembly off the screws.
6. **Sump Divider**
   Lift up on front of divider and pull toward front of ice machine.

Water Inlet Valve Removal

1. Shut off the water supply to the ice machine and disconnect inlet water tube from valve.
2. Remove ice machine water line from valve.
3. Disconnect all electrical wires from the valve.

> **Important**
> Write down where all electrical wires are attached before disconnection to insure proper reassembly.

4. Remove valve from ice machine by removing screws holding retainer bracket.
5. Disassemble for cleaning and reassemble by referring to figure 7, below.

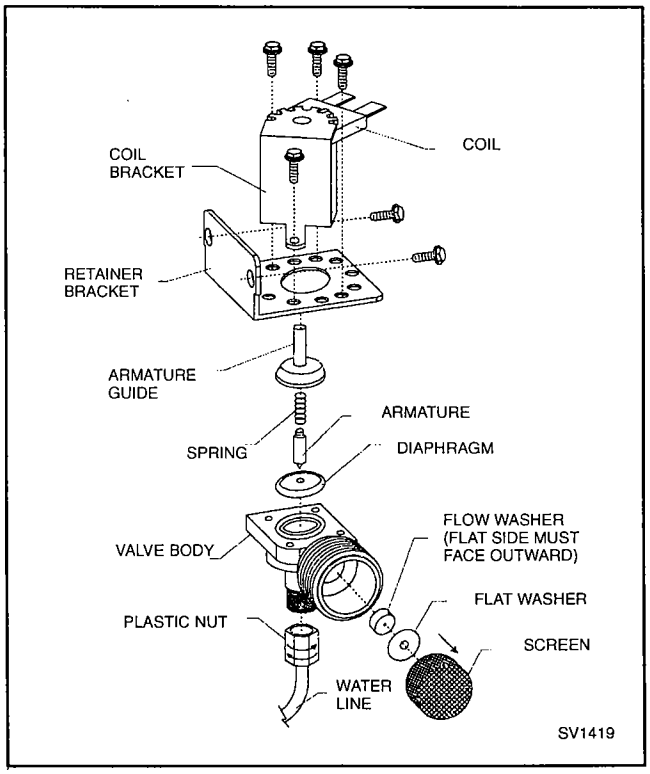


Figure 7. WATER INLET VALVE

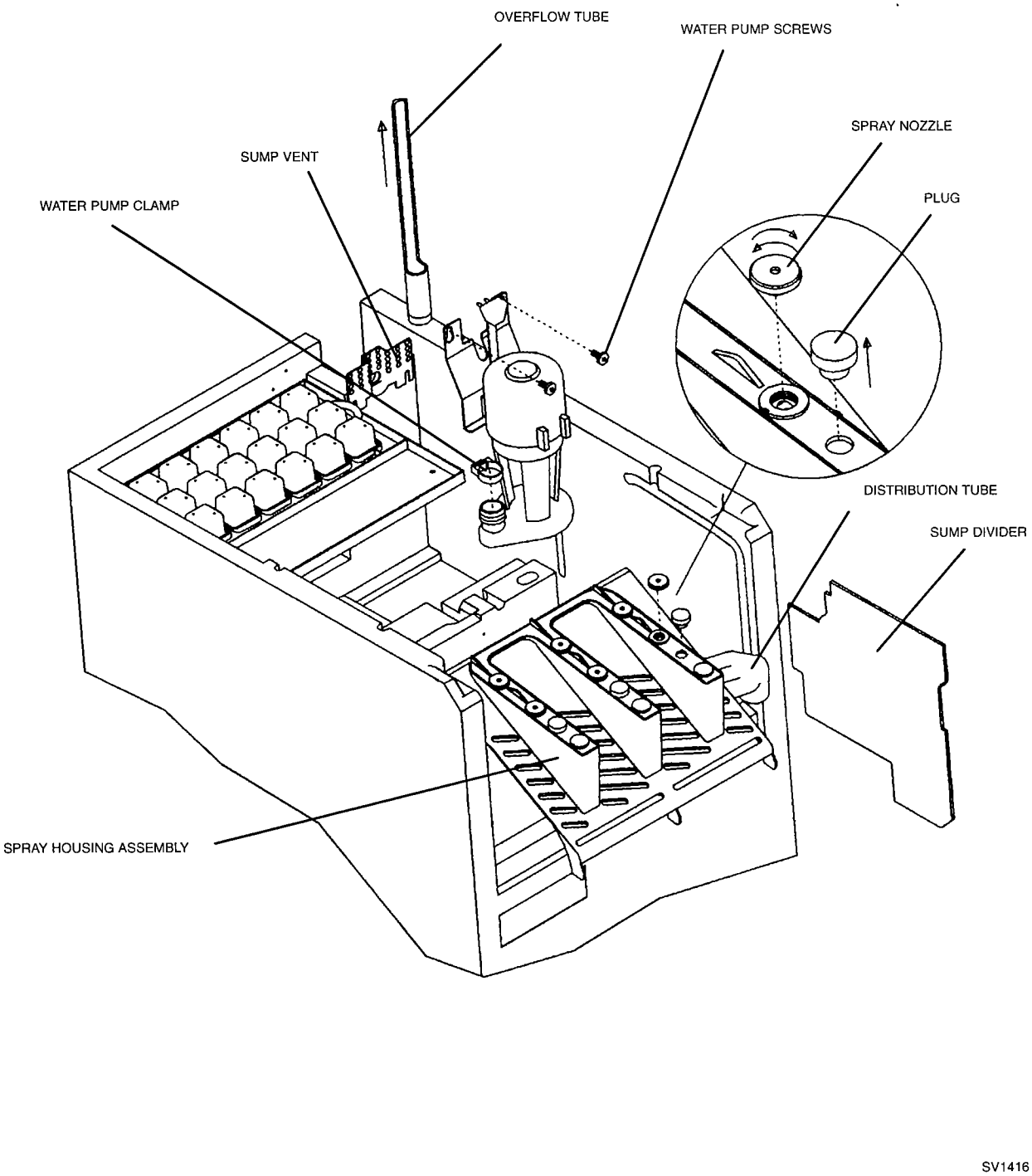


Figure 8. REMOVAL OF PARTS FOR CLEANING OR SANITIZING

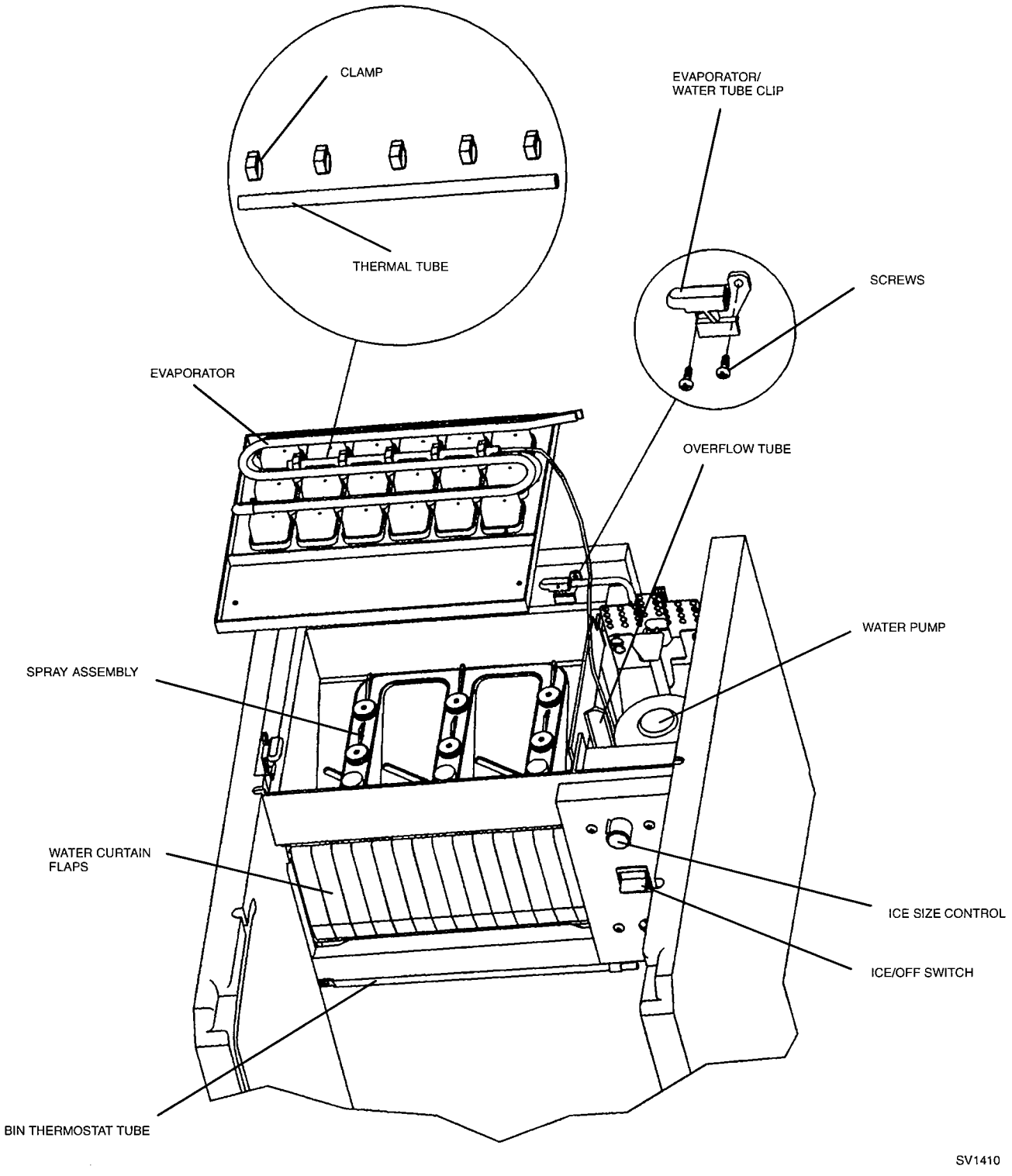


Figure 9. REMOVAL OF PARTS FOR CLEANING OR SANITIZING

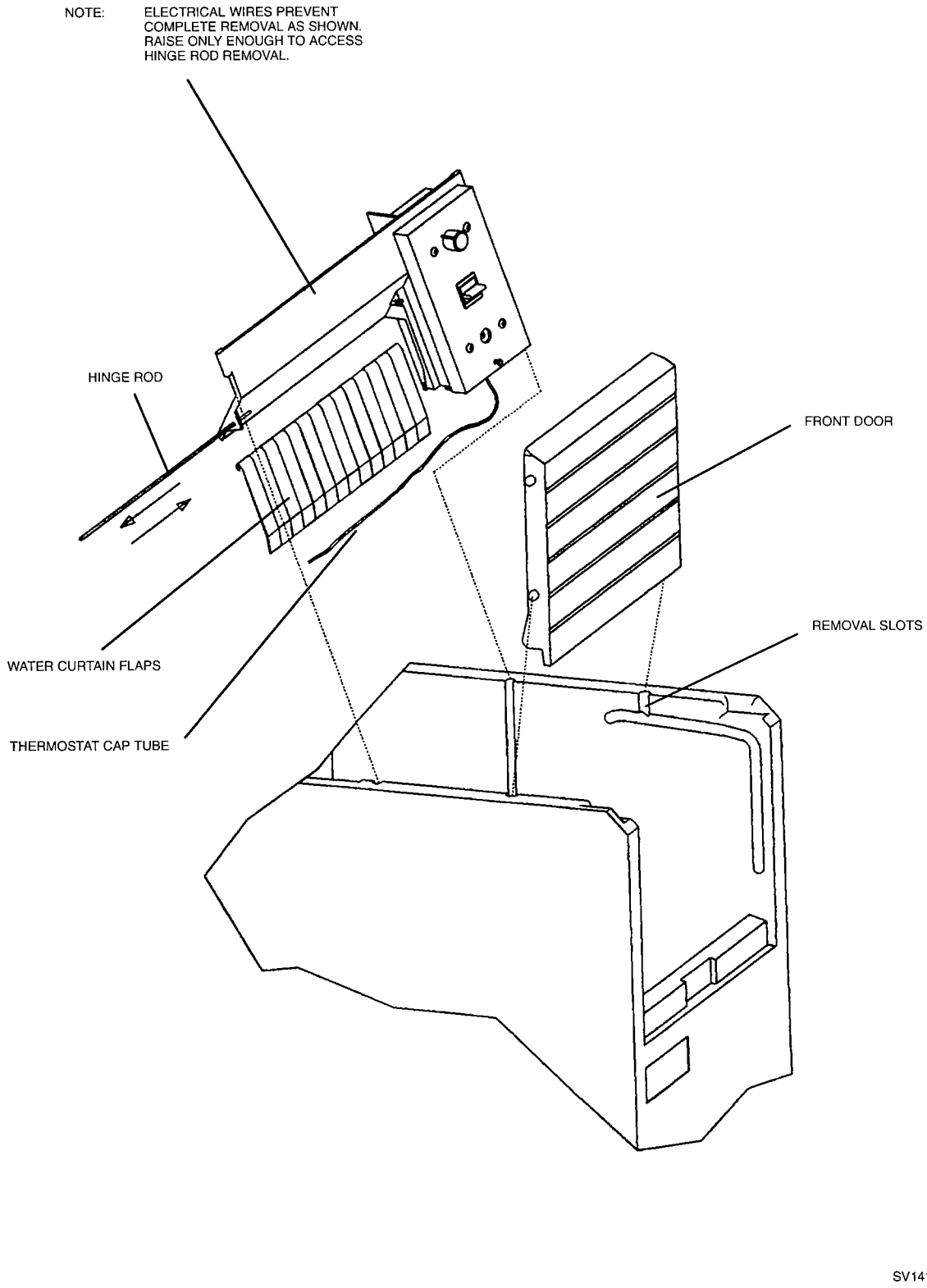


Figure 10. REMOVAL OF PARTS FOR CLEANING OR SANITIZING

REMOVAL FROM SERVICE/WINTERIZATION

You must take special precautions when removing the ice machine from service for extended periods, or exposing to ambient temperatures of 32°F (0°C) or below.

> **⚠ Caution**
>
> If water is allowed to remain in the ice machine in freezing temperatures, severe damage to some components could result. Damage of this nature is not covered by the warranty.

Self-Contained Air-Cooled Machines

1. Disconnect the electric power at the circuit breaker or the electric service switch.
2. Turn off the water going to the ice machine.
3. Remove the water from the water trough by removing the overflow tube.
4. Disconnect the ice machine water supply line.
5. Drain all water trapped in any of the interior water lines, drain lines, distribution tubes, etc.

Water-Cooled Machines

1. Perform all the procedures listed under "Self-Contained Air-Cooled Machines" above.
2. Disconnect the incoming water and drain lines from the water-cooled condenser.
3. Pry open the water regulating valve by inserting a large standard screwdriver between the bottom spring coils of the valve. Pry the spring upward to open the valve, Figure 11.
4. Hold the valve open and blow compressed air through condenser until no water remains.

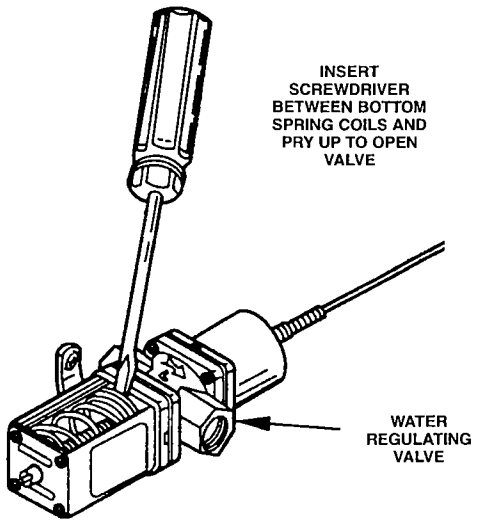


Figure 11. MANUALLY OPEN WATER REGULATING VALVE

SECTION 5 - BEFORE CALLING FOR SERVICE

If a problem arises during the operation of your ice machine, follow the checklist below before calling for service.

CHECKLIST

Problem	Possible Cause	To Correct
Ice machine does not operate.	No electrical power to the ice machine.	Replace the fuse, reset the circuit breaker, turn on the main switch.
	Tripped high pressure cutout.	Reset the high pressure cutout, Figure 5, page 11.
	Toggle switch set improperly.	Set the switch to ICE.
	Air temperature around ice machine low.	Air temperature must be at least 50°F (10°C).
Ice machine does not release ice or is slow to harvest.	Ice machine is dirty.	Clean and sanitize the ice machine, page 12.
	Ice machine is not level.	Level the ice machine.
	Air-cooled models: low ambient temperature.	Minimum ambient temperature is 50°F (10°C).
	Water regulating valve is leaking during harvest mode (water-cooled ice machines).	Refer to the Water-Cooled Condenser section, page 11.
Poor quality ice. (Ice is soft or not clear.)	Quality of the incoming water is poor.	Contact a qualified service company to test the quality of the water and make appropriate filter recommendations.
	Water filtration element needs to be changed.	Replace the filter.
	Ice machine is dirty.	Clean and sanitize the ice machine, page 12.
	Water inlet valve filter screen is dirty.	Remove the water inlet valve and clean the filter screen, page 13.
	Water softener working improperly (if installed).	Repair the water softener.
	Spray nozzles are dirty.	Remove and clean spray nozzles, page 13.

Problem	Possible Cause	To Correct
Shallow or incomplete cubes, incomplete ice fill pattern on the evaporator.	Water level is low.	Reinsert overflow tube to prevent water leakage, page 13.
	Water inlet valve filter screen is dirty.	Remove the water inlet valve and clean the filter screen, page 13.
	Water filtration is poor.	Replace the filter.
	Hot incoming water.	Connect the ice machine to a cold water supply. See the Installation Instructions.
	Cube size control not properly set.	Reset, Figure 4, page 9.
	Spray nozzle(s) dirty.	Remove and clean spray nozzles, page 13.
	Incorrect incoming water pressure.	Water pressure must be 20-80 psi (1.38 - 5.52 bar).
	Ice machine is not level.	Level the ice machine.
Low ice capacity.	Inlet water valve filter screen is dirty.	Remove the water inlet valve and clean the filter screen, page 13.
	Incoming water supply is shut off.	Open the water service valve.
	The condenser is dirty.	Clean the condenser.
	High ambient temperature.	Maximum ambient temperature is 110°F (43°C).
	Inadequate clearance around the ice machine is causing an airflow restriction.	Provide adequate clearance, page 5.
	Cube size control not properly set.	Reset, Figure 4, page 9.

MANITOWOC EQUIPMENT WORKS
Division of The Manitowoc Company, Inc.
2110 South 26th Street, P.O. Box 1720, Manitowoc, WI 54221-1720 U.S.A.
Telephone 414-682-0161
RCA Telex 297863 MANCO-UR
FAX 414-683-7879

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