IM-770-AN/F INSTALL & SERVICE MANUAL

NUGGET / FLAKE
ICE MACHINE

IM-0770-AN/AF

AIR COOLED

KEY FEATURES:

- Nugget 717 lbs / Flake 760 lbs max production (70F/50F, 24H) Food / grocery / beverage stores, fish market, salad bar, cold therapy, and healthcare
- Rugged stainless-steel evaporator
- Innovative auger design and motor alignment ensures reliability Space saving solution with powerful performance
- Designed for easy installation and service
- Automatic flush cycle for cleaner Ice
- Easy to maintain and clean
- Simple but informative inner control panel
- Easy to read front control display
- High reliability and low maintenance
- 304 durable stainless-steel construction
- R-404A refrigerant

STANDARD WARRANTY:

- Ice Maker: 3-Year Parts & Labor
- Compressor: 5-Year Parts & 3-Year Labor

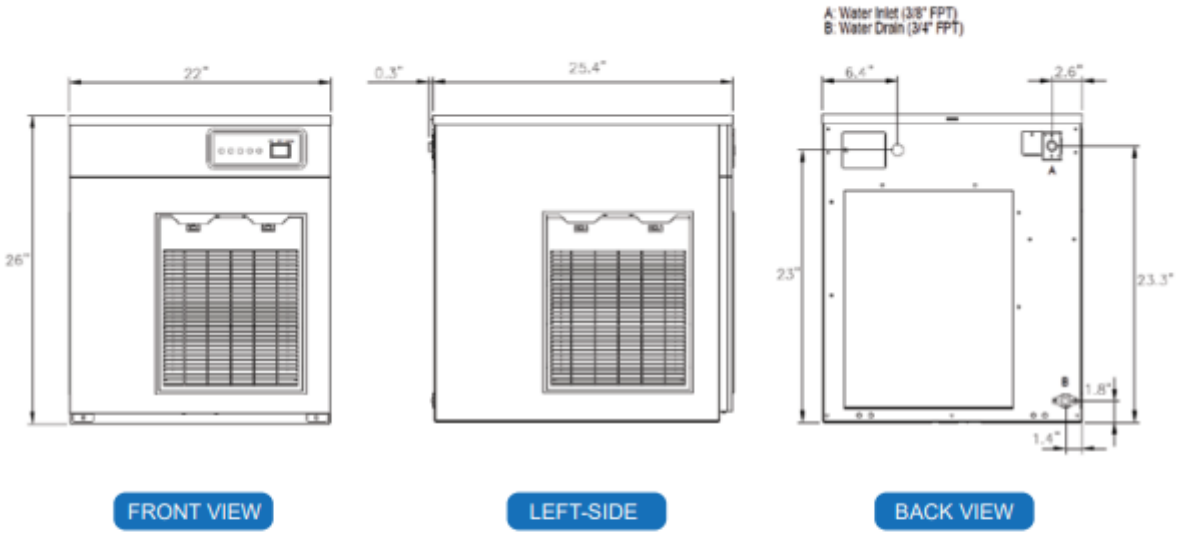
IM-0770-AN shown with IB-026-22

Ice Machine Specs

IM-0770-AN/AF

FLAKE/ NUGGET ICE MACHINE

PLAN VIEW



FRONT VIEW | LEFT-SIDE | BACK VIEW

MODEL	DIMENSIONS	WIDTH	DEPTH	HEIGHT	WEIGHT	
IM-0770-AN / AF	Inch	22"	25"	26"	174 lbs (Net)	201 lbs (Shipping)

SPECIFICATIONS

Model	Ice Type	Ice Production 24 hrs		Water usage Gal / 100 lbs ice	Power kWh / 100 lbs ice	Electrical (V/Hz/ph)	Condenser	Minimum Circuit Breaker (A)
		Air/Water 70°F / 50°F	Air/Water 90°F / 70°F					
IM-0770-AF	Flake	736 lbs	639 lbs	14	5.18 / 5.43	115 / 60 / 1	Air Cooled	20
IM-0770-AN	Nugget	708 lbs	635 lbs					

OPERATING LIMITS	MIN	MAX
AMBIENT TEMP RANGE	50 °F	100 °F
WATER TEMP RANGE	50 °F	90 °F
WATER PRESSURE	20 psi (1.38 bar)	80 psi (5.52 bar)

Ice Machine Specs

All equipment leaves our distribution points in new condition.

When receiving new equipment, please pay close attention to the packaging for any damage to the crating. If there appears to be any exterior damage, please either note the damaged on the delivery bill of lading OR refuse it.

Failure to note damage on BOL or refuse damaged equipment means that the receiver accepts all liability for damaged equipment.

Installation, Start Up, and Check
Please double check these items before install & start-up before calling for service.

(These items are not covered under your Labor Warranty)

1. Has all tape and packing materials been removed from Machine?
2. Is the unit installed in a location that is away from heat generating equipment or direct sunlight?
3. Is the unit level front to back and side to side? Adjustable legs on bins and dispensers make this quick and easy.
4. Is the correct electrical power provided? Ensure the unit has the specified voltage and amperage and is on a dedicated circuit. Do not use a drop cord or power strip with any ice machine. This could cause a voltage drop and compensatory amperage spike or cause the circuit breaker to trip.
5. Check drain line pipe sizes. Insure they are ¾ inch and line drops ¼ inch per foot of run to insure both machine and bin drainage is effective.
6. Is water supplied to the unit? Water Line size, 3/8 inch, must be supplied to ensure sufficient water flow is always available. Required water pressure is 20 psi minimum and 80 psi maximum. This unit is designed to work with water temperatures of 50°F - 90°F.
7. Is the unit installed in an area with sufficient ventilation at the back for proper rejection of condenser heat? The manufacturer requires 17" of clearance above the unit for maintenance and service. Additionally, 8" of clearance is required at the back and sides of the unit. Fresh air is taken in from the front and left-side and dispelled from the back.
8. This unit is designed to work in ambient air temperatures of 50°F - 100°F.
9. Scale or Mold build-up can affect the sequence of operation and production. Is a water filter installed? We recommend our exclusive Citryne Pro Ice Filtration for the best results. Scale will increase operating costs and reduce or shut down the machine's performance.
10. Do not install this unit outdoors.
11. **If you are installing an ice maker on top of an existing bin, check the bin to it insure it has a baffle in the bin to keep ice from coming out of the bin door.**

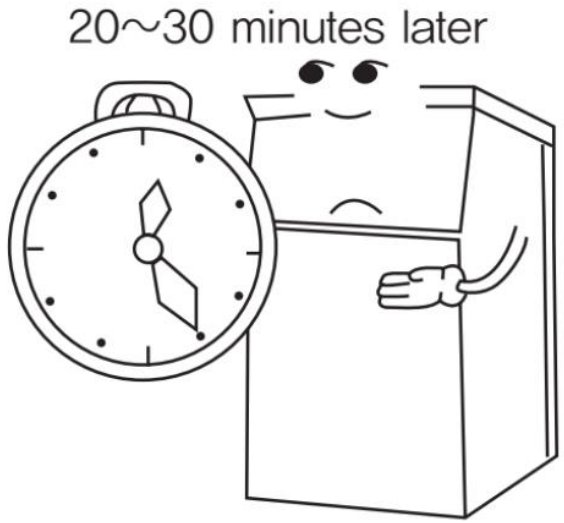
12. **If you are installing the ice maker on top of a dispenser, the dispenser manufacturer must provide the top kit to prevent leaks and bin problems. Additionally, an Icetro thermostat kit is required (ITS-150-KIT).**

Proper Installation
ID-0770

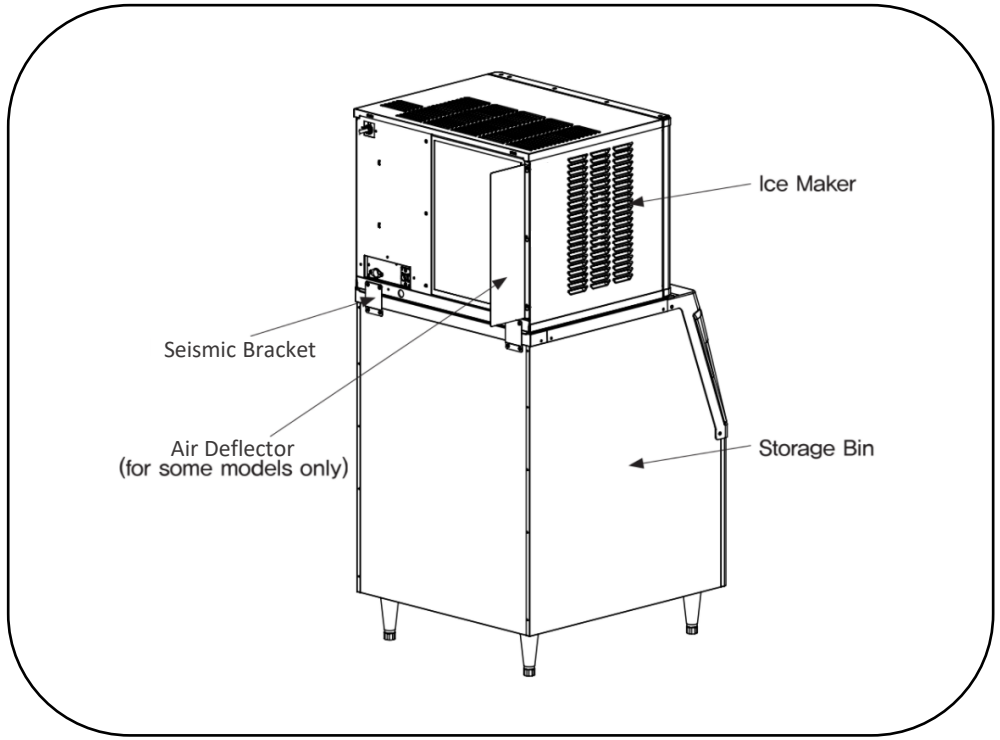
Ensure the ICE-OFF-WASH switch is set to ‘ICE’.

Ice will begin to enter the ice storage bin after 3 minutes of the compressor & condenser fan being energized.

The size of your ice storage bin, plus the ambient & water temps will Determine how long it will take to fill the bin.



Proper Installation
IM-0770



Install machine on an ice storage bin and ensure both are level to eliminate improper operation.

Additionally, it is recommended to use the supplied seismic brackets to secure the ice machine and bin together.

An air deflector is included with self-contained, air-cooled models to prevent exhausted air from returning back to the condenser.

Proper Installation
IM-0770

IM-0770-AN/AF Sequence of Operation

Start-Up Sequence

Power switch set to the “ICE” position:

- Gear motor, inlet water valve, and bypass valve is energized simultaneously.
- Bypass valve stays energized for 50 seconds.
- Bypass valve is de-energizes for 10 seconds.
- Compressor energizes and freeze cycle begins.
- Once the head pressure reaches 235 psig, the fan cycle switch closes and the fan motor energizes.

Shut-Down Sequence

Power switch set to the “OFF” position while in freeze:

- Compressor is de-energizes immediately.
- Head pressure drops to 175 psig & the fan cycle switch opens, de-energizing the fan motor.
- Gear motor de-energizes 1 minutes after the power switch is put in the “OFF” position.

  Note: Sump remains full of water. Dump valve does not energize and drain, so the sump remains full of water when the machine is off.

Shut-Down Sequence Via Bin Switch

Same as the previous shut-down sequence:

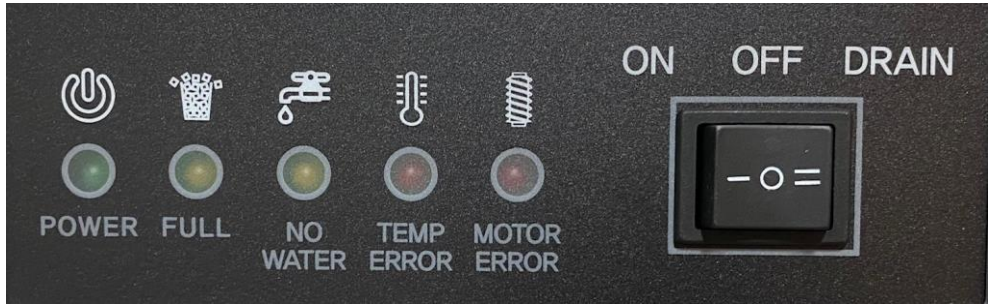
- When the bin-switch is made or broken, the machine starts or stops with nearly no delay (2 seconds max).

Purge Cycle (set for every 12 hours)

Total Cycle Time = 20 minutes:

- Compressor is de-energized. Dump valve energizes (emptying sump) and the gear motor remains energized.
- Approximately 5 minutes in, the gear motor is de-energized & the inlet water valve is energized, refilling the sump and flooding the evaporator with water.
- 19 minutes in, the dump valve is energized (draining all water).
- 19.5 minutes in, the inlet water valve & gear motor is energized.
- 20 minutes in, the compressor is energized.
- When head pressure reaches 230 psig, the fan motor is energized

  Note: The machine drains & refills 2 times, not continuously.



POWER LAMP(GREEN)
- Lamp on when power is on.
- ●Blinking(every 2 seconds) : in time of automatic cleaning.

FULL LAMP(YELLOW)
- Lamp on when ice become full.

NO WATER LAMP(YELLOW)
- Lamp on when water supply is short.

TEMP. ERROR LAMP(RED)
- Lamp on when temperature sensor detects unusual conditions.
- ●Lamp on : On when condenser temperature is more than 167˚F, Off when it is below 140˚F
- ●Lamp blinking(every 1 second) : Evaporator temperature is more than 37.4˚F
- ●Lamp blinking(every 4 seconds) : ~~Evaporator temperature~~ is low, less than 38.8˚F, Off when it is more than 50˚F

← Ambient Temp Low

MOTOR ERROR LAMP(RED)
- Lamp on when motor runs lower than certain speed level due to resistance.

TEMP. AND MOTOR LAMP(RED)
- ●Both lamps blinking(every 2 seconds) : When evaporator outgoing temperature is low(less than −0.4˚F)
- ●Both lamps on : Refrigerant high pressure sensor is activating.

POWER FULL NO WATER TEMP MOTOR All lamps blinking
- ●Components are needed to be checked / Notice for exchange (every 1hour) : Giving signal for 1 minute (It gives the signal after 10,000 hour to 11,000 hour operation.)

Caution
- When all the 5 lamps blink, it means the components that are needed for regular check-up (please refer to the below) are needed to be changed, so please contact the distributor (the parts will be provided at a cost).
- If not changing the parts, it may cause more cost on repair.

〈 Components that are needed for regular check-up or exchange 〉
- The extruding head, the bottom housing, the mechanical seal, the geared motor

IM-0770
LED Functions

Resetting the auger usage time counter:

When the auger usage time reaches 11,000 hours, all lamps flash every second.

If this flash occurs, it is time for your machine's 11,000 hour preventative maintenance and a service agent should be called. To reset this auger usage time, the main power switch must be set to "OFF" & power disconnected from PCB.

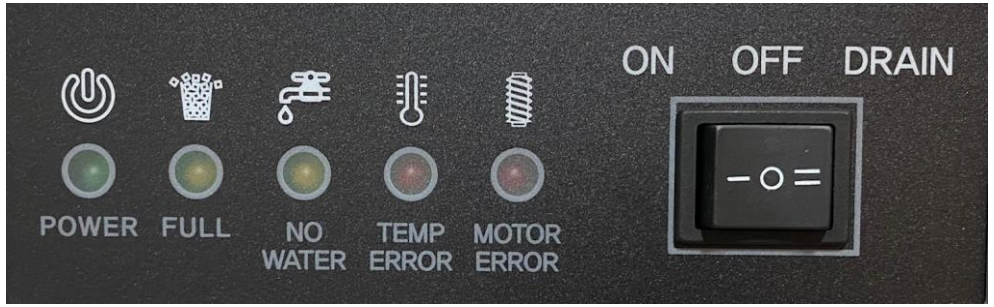
Next, set dipswitch 1 on the PCB to "OFF" and dipswitch 4 to "ON". Reapply power to PCB and all function lamps will flash 5 times. Disconnect power to PCB again and move dipswitch 1 & 4 back to original positions. Reapply power to PCB and only the power light should light up. Place the power switch back to ON position to resume ice making.

Dipswitch setting specifications.

Setting specifications according to the DIP SW(SW1)		
SW	Status	Functions
1	ON(Low)	Function related to EVA Temperature ON – Default
	OFF(High)	Function related to EVA Temperature OFF
2	ON(Low)	Function related to COND Temperature ON – Default
	OFF(High)	Function related to COND Temperature OFF
3	ON(Low)	Auto Cleaning every 12 Hours – Default
	OFF(High)	Auto Cleaning every 6 Hours
4	ON(Low)	Reserve
	OFF(High)	Reserve

Type	Cause	Indicator	Action to Take
Bin Full	Storage bin is full of ice.	'Full' indicator light is on.	None – Enjoy your ice!
Water Supply Error	Water is not being supplied on time.	'No Water' indicator light is on.	Check water supply. Check water reservoir is full. Check operation of water level sensor. Check operation of water dump valve. Check water dump valve for leaks.
Evaporator Temp Too High Error	Evaporator is not cold enough.	'Temp' indicator light flashes.	Check refrigerant charge (too low). Check that compressor is running. Check TXV operation. Check S/L thermistor
Evaporator Temp Too Low Error	Evaporator outlet temperature is too cold.	'Temp' & 'Motor' indicators flash simultaneously every 2 seconds.	Unplug & plug back in after 1 hour. Check TXV operation. Check L/L thermistor. Check liquid-line solenoid valve. Check motor/gear box operation.
Low Condenser Temp Error	Ambient temp is lower than 33.8°F.	'Temp' indicator flashes every 4 seconds.	Raise ambient temperature above 50°F.
High Condenser Temp Error	Ambient temp is too high or condenser fails to cool below 167°F.	'Temp' indicator light is on.	Lower ambient temperature. Check air filter/condenser. Check fan motor/blade. Check fan cycle switch. Check L/L thermistor
Locked Motor Error	Motor is locked by foreign objects	'Motor' indicator light is on.	Unplug & plug back in after 1 hour. Check motor/gearbox operation. Check auger/agitator. Check for ice jam. Check for scale buildup.
S/L Thermistor Error	Suction-line thermistor malfunctions.	'Temp' indicator light is on & 'Motor' indicator flashes.	Replace S/L thermistor.
L/L Thermistor Error	Liquid-line thermistor malfunctions.	'Temp' indicator flashes & "Motor' indicator light is on.	Replace L/L thermistor.
High Pressure Error	Condenser fails to cool.	'Temp' and 'Motor' indicators lights are both on simultaneously.	Check refrigerant charge (too high). Check air filter/condenser. Check fan motor/blade. Check high pressure switch. Check fan cycling switch.

IM-0770
LED Functions



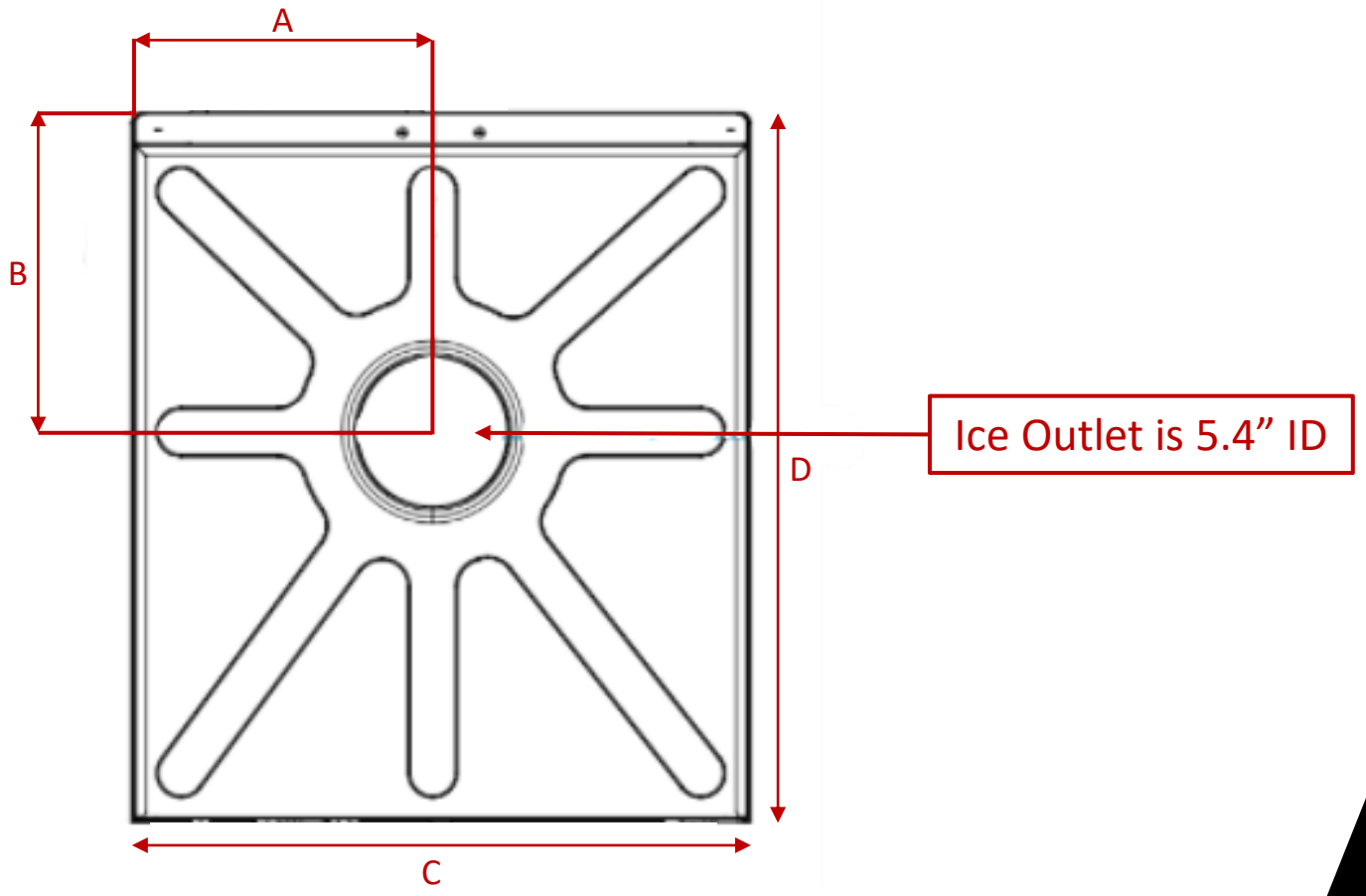
Set the power switch on the front of the ice machine to the “OFF” position.

- While ice machine is underway, all refrigeration stops, but the motor continues to run for an additional 60 seconds to protect the motor from any remaining water or ice that may be in the cylinder.
- If the dump valve is energized and the machine is draining, the ice machine will stop all operation once all draining has stopped.
- If “OFF” is selected less than 1 minute after “DRAIN” is selected, while the machine is making ice, the motor will run for its remaining time before all operation is stopped.

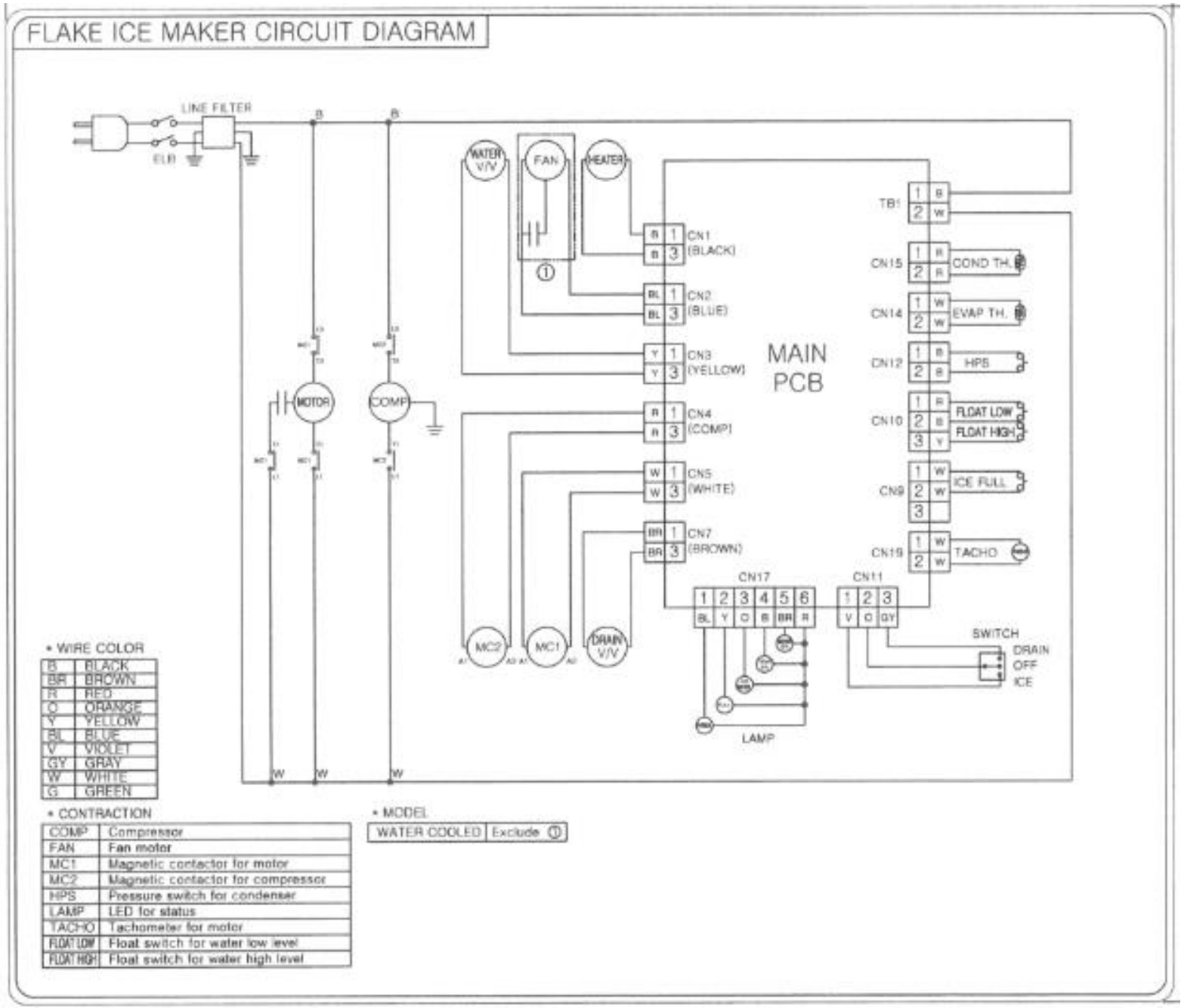
IM-0770
Stopping the Ice Machine

IM-0770-AN/AF Drop Zone Chart.

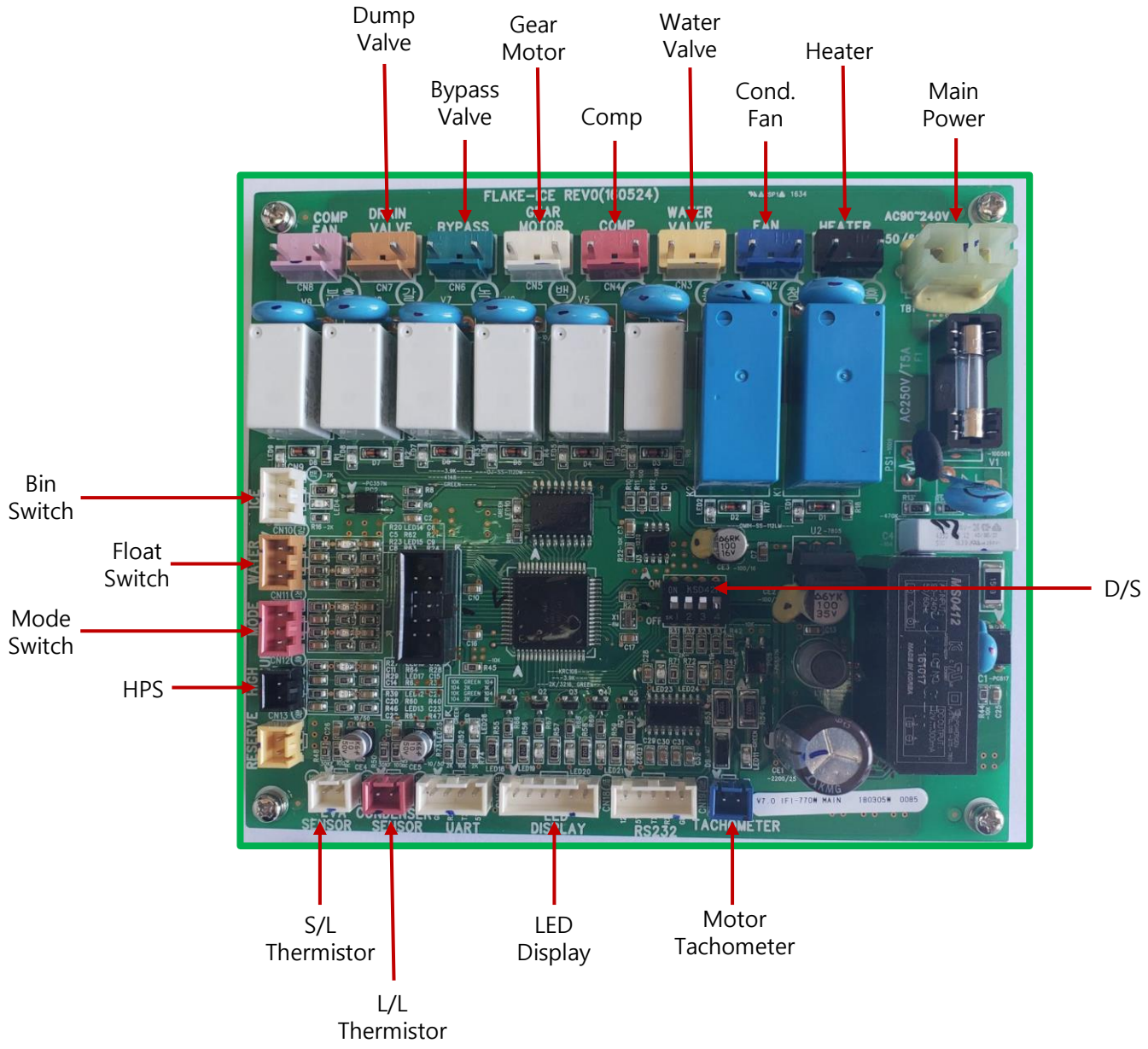
(A)11.3” (B)11.4” (C)22” (D)25.4”



IM-0770
Drop Zone



IM-0770
Wiring Diagram

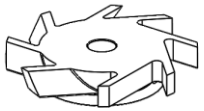

Dump Valve
Gear Motor
Water Valve
Heater
Bypass Valve
Comp
Cond. Fan
Main Power
Bin Switch
Float Switch
Mode Switch
HPS
D/S
S/L Thermistor
L/L Thermistor
LED Display
Motor Tachometer

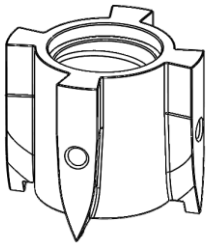
IM-0770
PCB

Urethane insulated & sealed to prevent moisture penetration, which can rupture the refrigeration serpentine.

Non-vented gear box to prevent lubrication breakdown.

IM-0770
Key Features

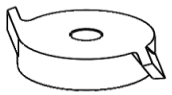


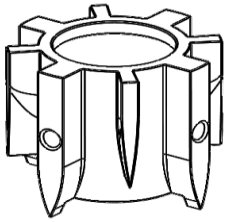


Flaker Extruder
& Breaker

Flake & Nugget Extruder Heads are Interchangeable

- Carbon bearing is pressed inside of extruder head.
- No grease or maintenance to prevent major mechanical breakdowns.
- Simply check extruder/bearing & replace if required.





Nugget Extruder
& Breaker

Extruder with Carbon
Bearing Pressed Into Place

IM-0770
Key Features

Spiral circular cutting blade designed to reduce gearbox torque and provide greater durability.

User manual state that 17” of clearance is required to service and remove auger on the IM-0770!

Tapered flight reduces torque.

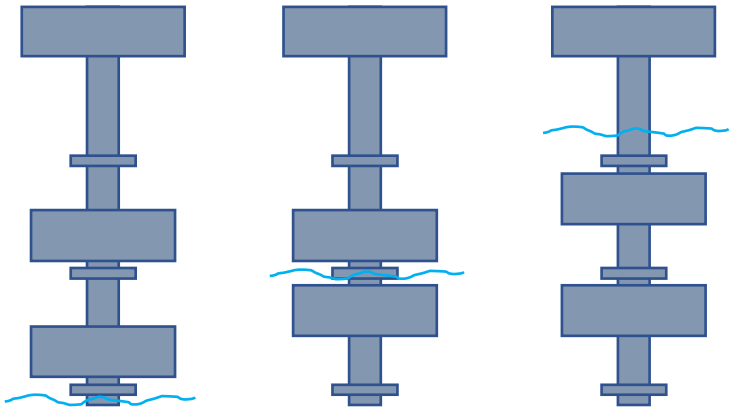
Spring loaded carbon/ceramic mechanical seal.

Pin cut spring insertion in bottom of flight.

Spline cut fits into reverse spline coupling on gear box shaft, which ensures no imbalance in bottom bearing.

IM-0770
Key Features

Water Level Float Switch



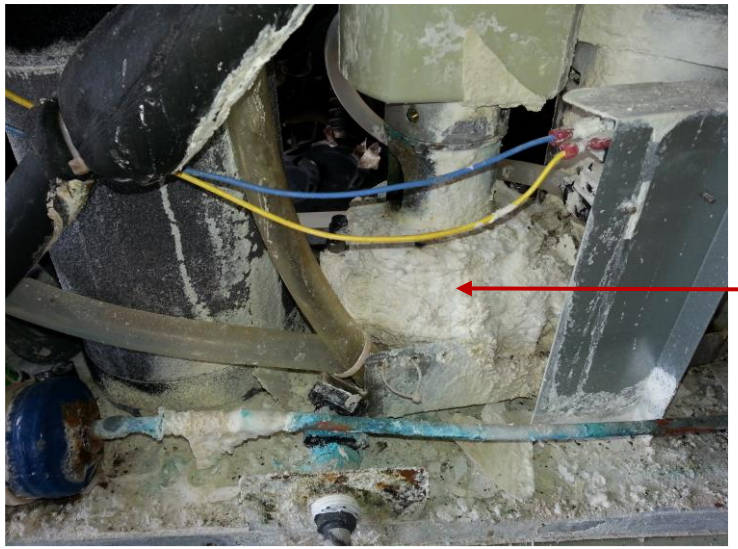
Water tank Empty | **The water only fills to the lower part.** | **Water tank Full**

Float Sensor		Water valve operation	Physical state
High water level sensor	Low water level sensor		
0(Close)	0(Close)	ON	Water tank Empty
0(Close)	1(Open)	The current operation continues.	The water only fills to the lower part.
1(Open)	0(Close)	The current operation continues.	No definition (Physically impossible)
1(Open)	1(Open)	OFF	Water tank Full

Water valve operates separately according to the water level sensor

IM-0770
Key Features

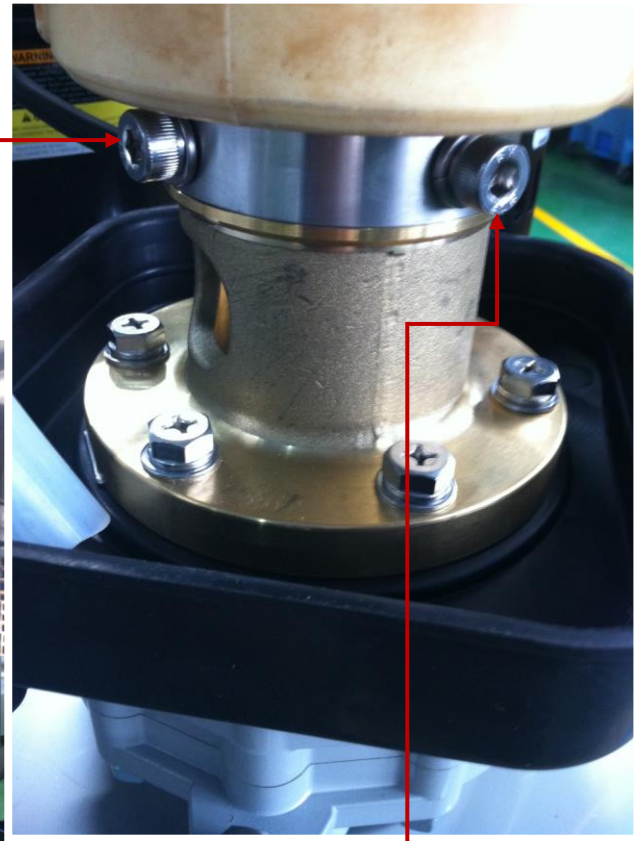
Poor maintenance, leaking gaskets/bolts, or a plugged drain can destroy a machine: If bolts at the top extruder or lower housing assembly leak, scale can build up on the urethane insulation, the lower housing assembly, and/or the gear box and destroy those parts.



Should the drain pan’s drain line become plugged, it will overflow and cause scale to greatly damage unit.

When removing bolts, new o-rings and/or new bolts with o-rings should be used.
If bolts are not tightened properly (or o-rings damaged) the leaks above will occur.

Visually inspect all hex head bolts holding lower housing assembly to evaporator barrel for leaks.



Use caution during reassembly to ensure all new bolts are cross tightened evenly.

Drains have been enlarged to prevent overflow & scale buildup on critical parts.

Note: Evaporator barrel bolts are reverse thread to remove

Model	Ambient Temp (C/F)	10/50	21/70	32/90	38/100
IM-0770-AN/AF	Water Temp (C/F)	10/50	10/50	21/70	32/90
	Ice Production (lb/d)	750	708	559	457
	Refrigerant Type	R404A			
	Refrigerant Charge	24.7oz			
	Peak Head Pressure (psig)	237	209	272	310
	Peak Suction Pressure (psig	23.5	24	30	30
	Evaporator Inlet Temp (F)	2.3	2.7	7	8.6
	Electric Consumption (W)	1110	1250	1340	1390

IM-0770
P/T Chart & Cycle Times

Thermistors

This machine uses two thermistors:

- ✓ One on the liquid line after the condenser.
- ✓ One on the suction line after refrigerant exits the evaporator.

To test either thermistor, fill a cup with ice and water and use a thermometer to ensure the water temperature has reached 32 degrees.

Once the water has reached 32 degrees, place the thermistor into the cup and use an electrical meter to measure the ohm value of the thermistor.

Liquid line thermistor: Pt # 655008200 should read 32.74kΩ.
Suction line thermistor: Pt # 655007200 should read 32.3kΩ.

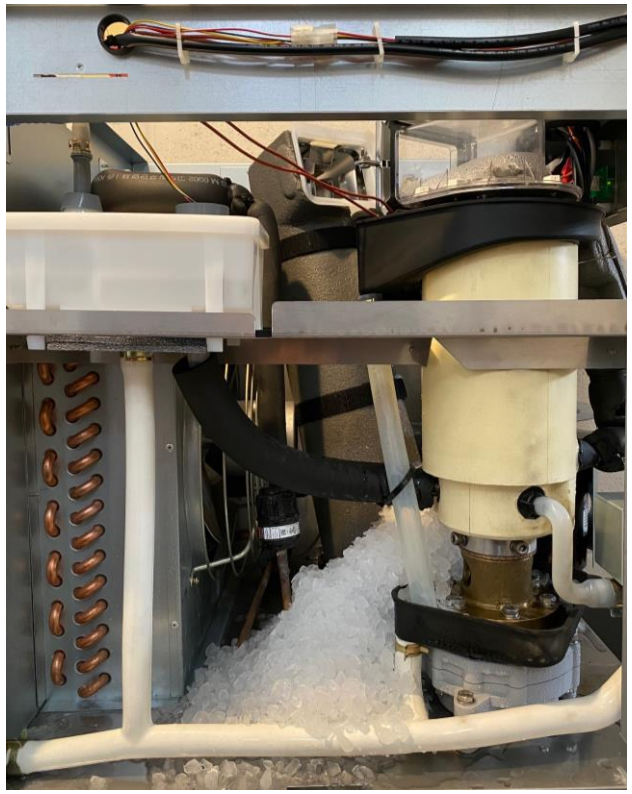
Cleaning Procedure - IM-0770

- Turn off water supply to the machine.
- Set toggle switch to the “DRAIN” position and allow all water to drain from machine for 3 minutes.
- Set toggle switch to the “OFF” position.
- Remove the plastic cover from evaporator to expose the cutter & extruder.
- Remove the cutter to gain better access to the extruder.
- Pour cleaning solution in through extruder until it fills the evaporator and water reservoir (stop if/when solution overflows from the drip pan).
- Reassemble parts removed.
- Allow cleaning solution to sit for 10 minutes.
- Set toggle switch to the “DRAIN” position and allow all water to drain from machine for 3 minutes.
- Turn on water supply.
- Set toggle switch to “ICE”. Once gear motor starts running set toggle switch back to “DRAIN” and allow to drain for 3 minutes. Repeat this step 2 times.
- Set toggle switch to “ICE” to resume making ice.

Service Bulletin

#SB91522JM

IM-0770-ANAF Ice Chute & Evaporator Separation

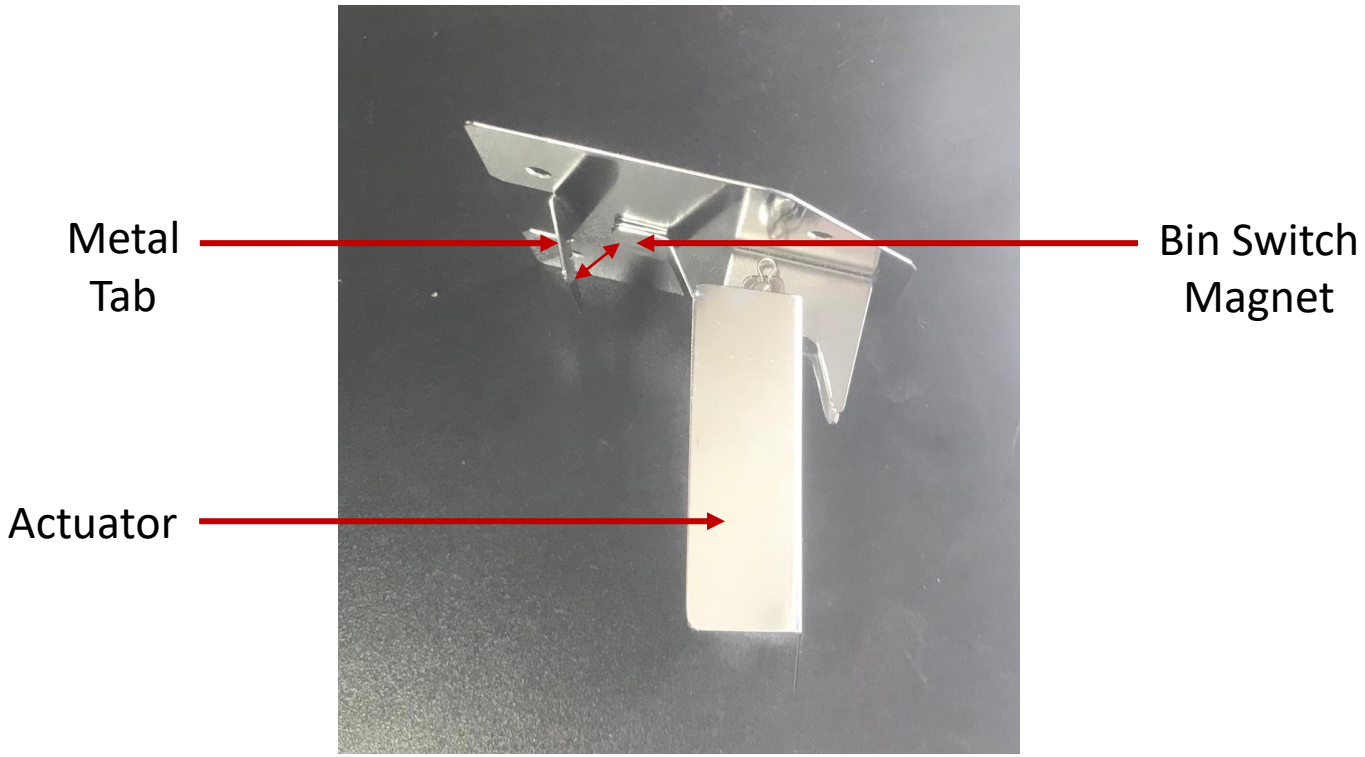


The symptoms of this type of failure is complete separation of the ice chute and evaporator, resulting in ice filling the machine head cavity, causing water to drip down the sides of the ice storage bin.
Other symptoms may include a bent spout flange, broken spout, and/or broken heater cable.

Service Bulletin

#SB91522JM

IM-0770-ANAF Ice Chute & Evaporator Separation



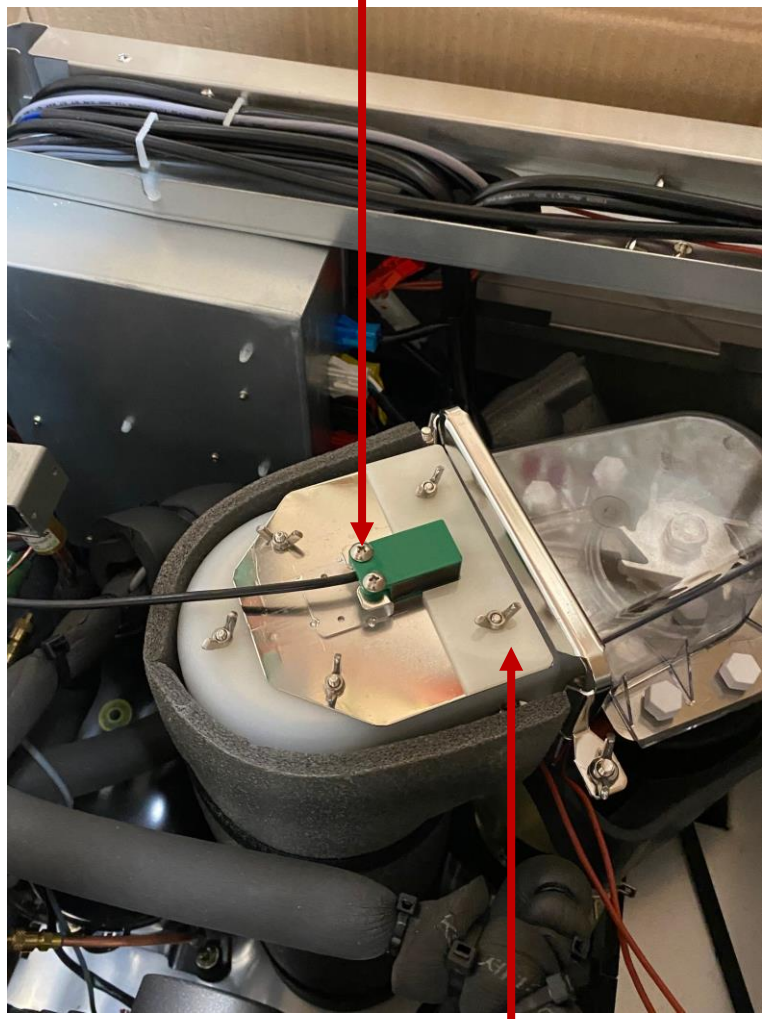
The cause of this type of failure is typically the bin-switch mechanism. When the ice chute fills up, ice pushes on the actuator, which causes the bin-switch magnet to move away from the proximity switch. The metal tab prevents the magnet from swinging too far out. If the proximity switch is not opening when the magnet pulls away, bend the metal tab out more to increase the distance between the magnet and the proximity switch. When the proximity switch opens, you'll see the yellow "full" light illuminate on the front of the machine.

Service Bulletin

#SB22123JM

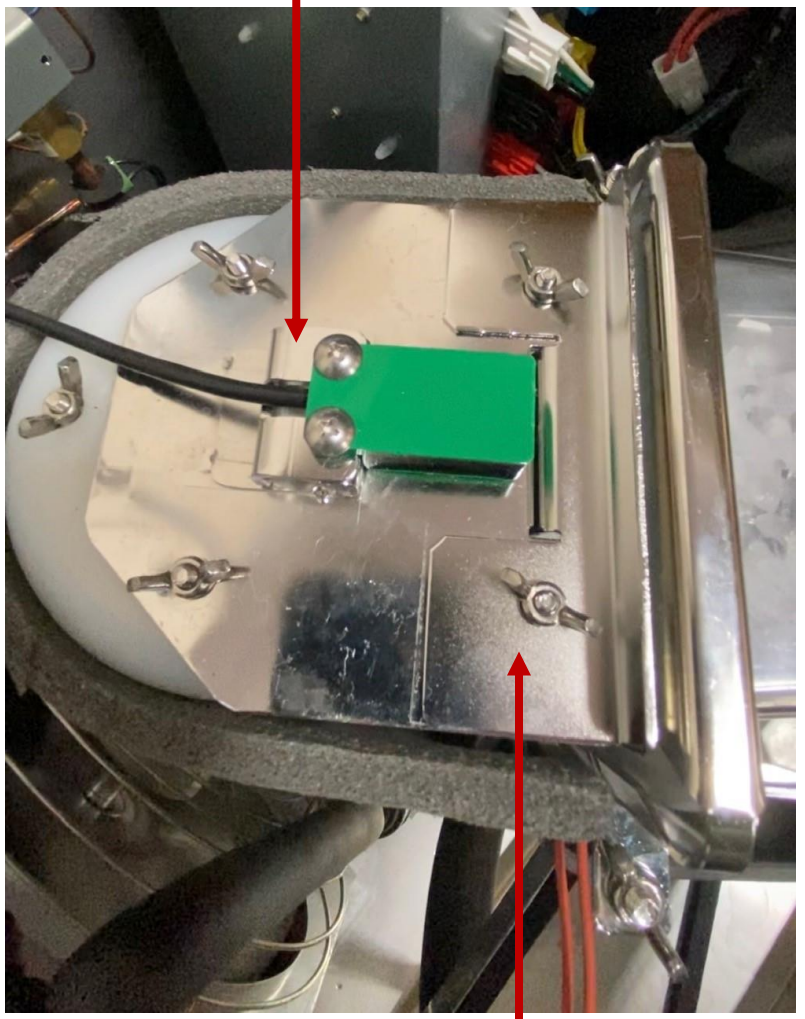
IM-0770-AN/AF Bin Switch

Remove the 2 screws holding the switch in place.

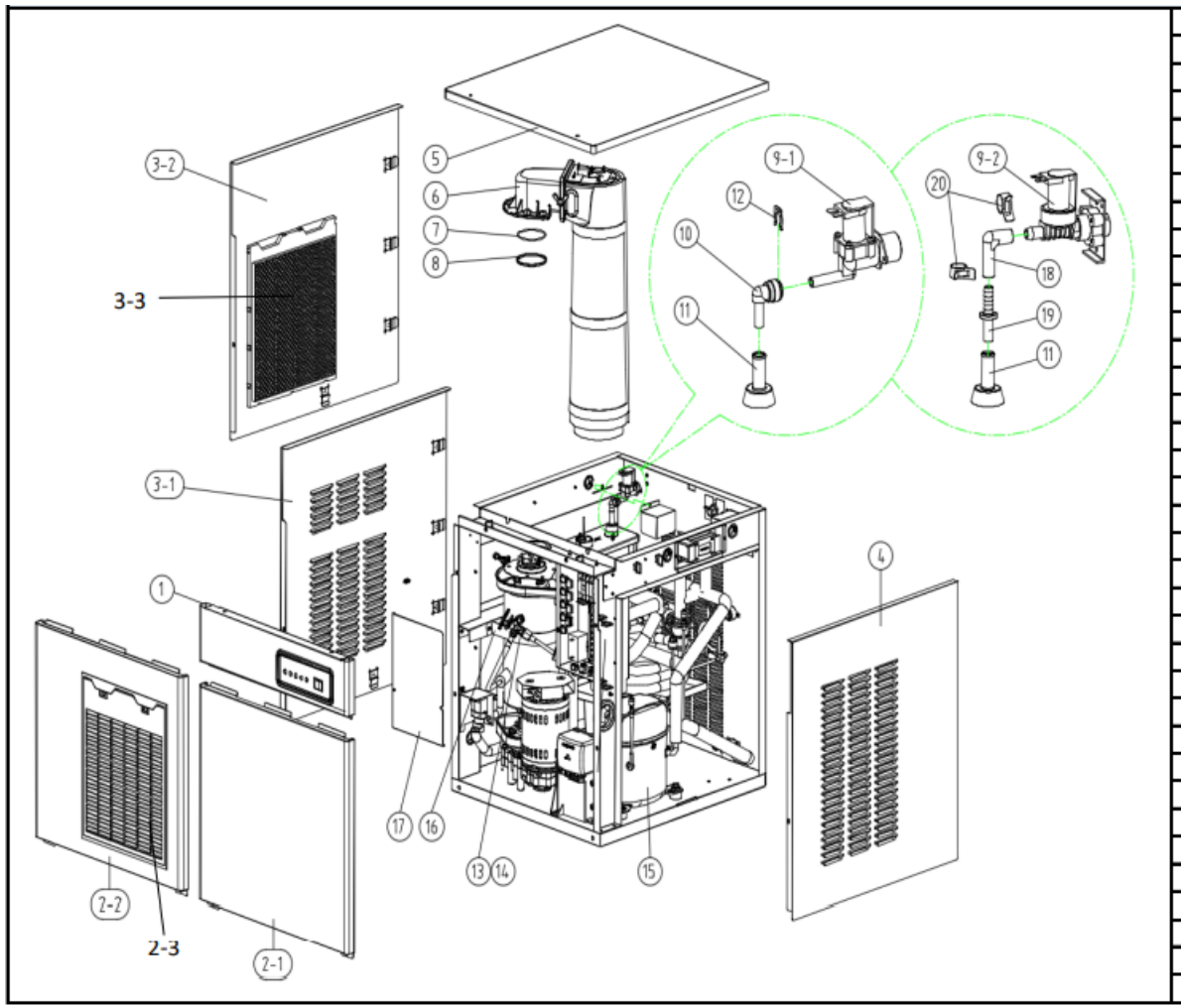


Remove the existing plastic spacer by unscrewing the wing nuts.

Install the riser on top of the existing riser and use the longer screws provided.

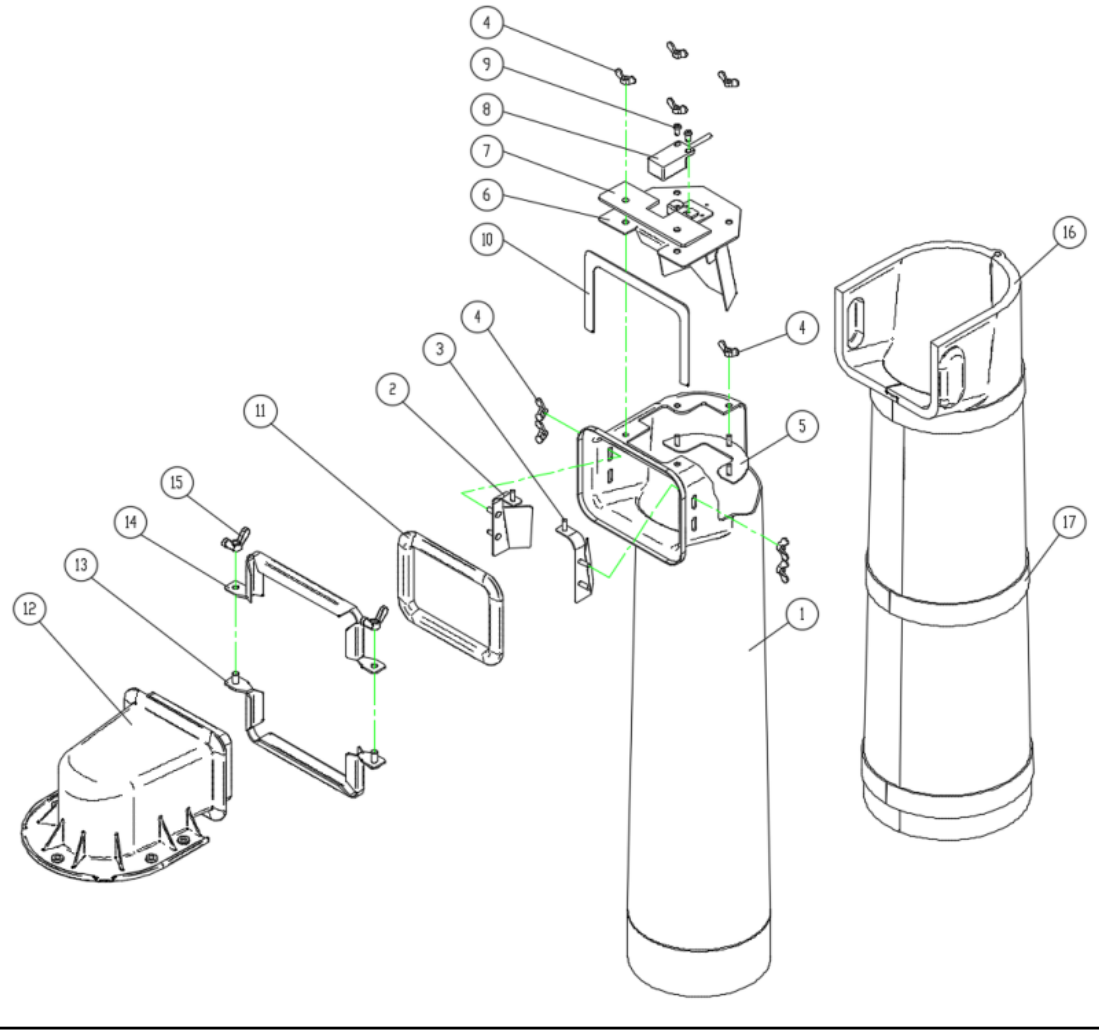


Install the new metal spacer and secure it with the wing nuts.



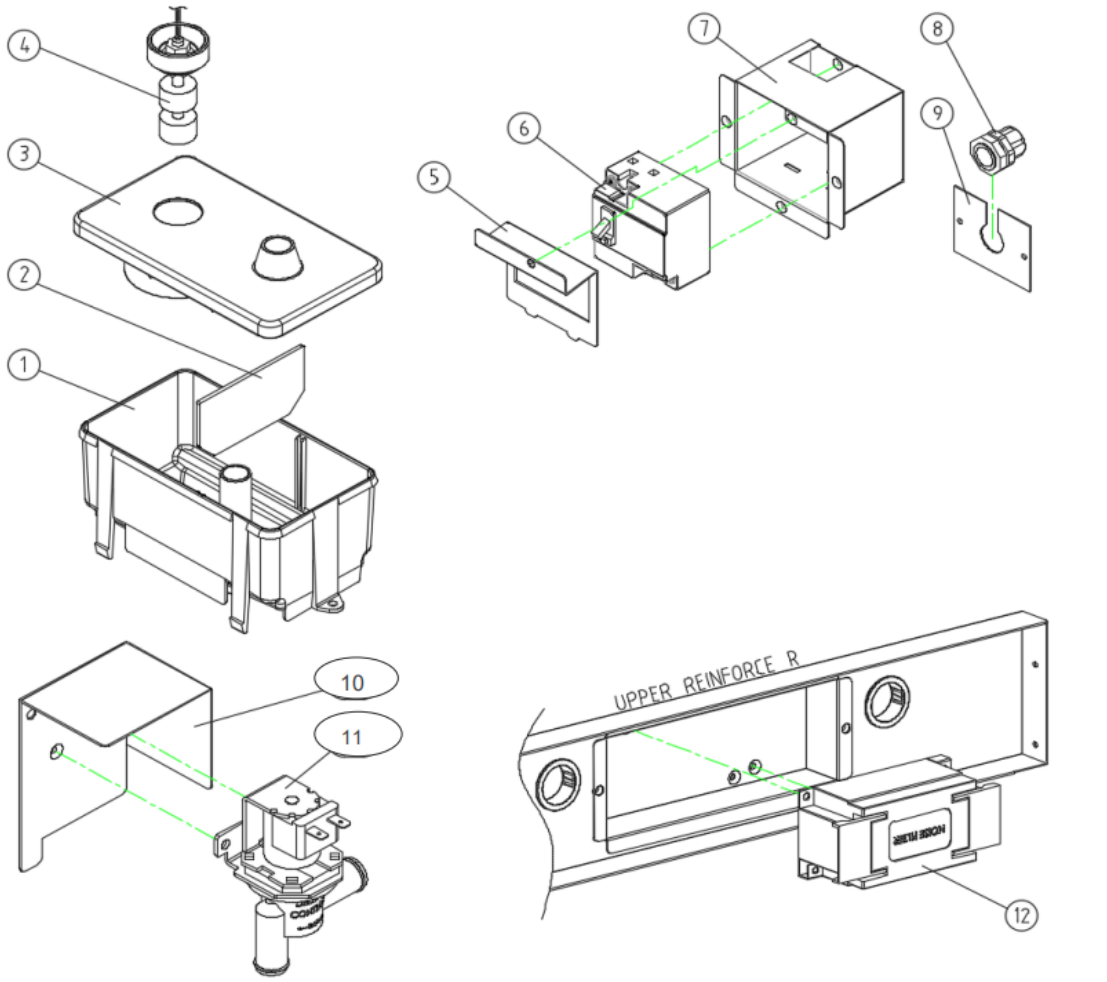
NO	ITEMS	CODE	Q'TY
1	FRONT U-COVER ASSY	432041400	1
2-1	FRONT PANEL	N/A	N/A
2-2	FRONT PANEL	432046200	1
2-3	AIR FILTER	640007400	1
3-1	LEFT SIDE W-PANEL	-	-
3-2	LEFT SIDE PANEL ASSY	420042300	1
3-3	AIR FILTER	640007400	1
4	RIGHT SIDE W-PANEL	349090700	1
5	TOP PANEL	349086800	1
6	ICE CHUTE ASSY	450000200	1
7	O-RING NBR (G70)	303031800	1
8	SPOUT RING	232005800	1
9-1	WATER VALVE	-	-
9-2	WATER INLET VALVE	340027500	1
10	STEM ELBOW	-	-
11	RESERVOIR INLET	319007800	1
12	LOCKING CLIP 3/8"	-	-
13	EXPANSION VALVE ASSY	-	1
14	FOAM PE (EXPANSION)	306016700	1
15	COMPRESSOR	394010700	1
16	EVAPORATOR BAND	301136800	1
17	CONTROL BOX COVER	317162600	1
18	SILICONE ELBOW	229030200	1
19	TUBE TO HOSE STEM	398014200	1
20	BAND SPRING	203002800	2

IM-0770
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	ICE CHUTE	450000500	1
2	CHUTE BAFFLE ASSY (L)	301135600	1
3	CHUTE BAFFLE ASSY (R)	301135700	1
4	WING NUT (M4)	215014500	9
5	BRACKET	301135500	1
6	ACTUATOR ASSY	450000300	1
7	BAFFLE	347001300	1
8	PROXIMITY SENSOR	722009200	1
9	SCREW MACHINE (M4)	AA0B12010	2
10	BRACKET	301136210	1
11	PACKING	656002300	1
12	SPOUT	450000600	1
13	SPOUT STRAP	301135910	1
14	SPOUT STRAP	301135800	1
15	WING NUT (M6)	215014600	2
16	INSULATION	N/A	N/A
17	CHUTE TIE	N/A	N/A

IM-0770
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	WATER RESERVOIR	654000200	1
2	WATER RESERVOIR SCREEN	392000500	1
3	WATER RESERVOIR COVER	654000300	1
4	ASSY WATER LEVEL SENSOR	722009100	1
5	ELB COVER	N/A	N/A
6	ELB	N/A	N/A
7	ELB BOX	N/A	N/A
8	CABLE GLAND	N/A	N/A
9	BRACKET POWER CORD	N/A	N/A
10	BRACKET	N/A	N/A
11	DRAIN VALVE	340026600	1
12	NOISE FILTER	500000900	1

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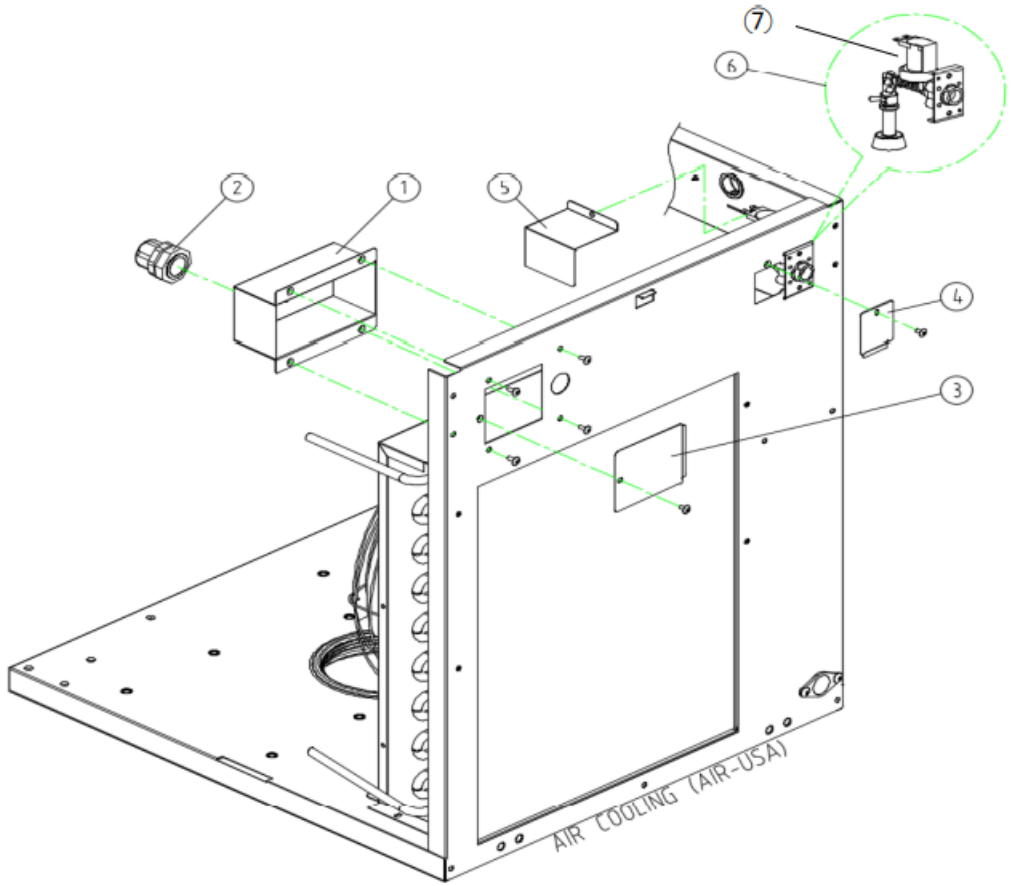
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	JUNCTION BOX	301149700	1
2	CABLE GLAND	227001200	1
3	JUCTION BOX COVER	317179000	1
4	WATER INLET BACK COVER	301150200	1
5	WATER INLET COVER	301148500	1
6	WATER INLET VALVE ASSY	411027400	1
7	WATER INLET VALVE	340027500	1

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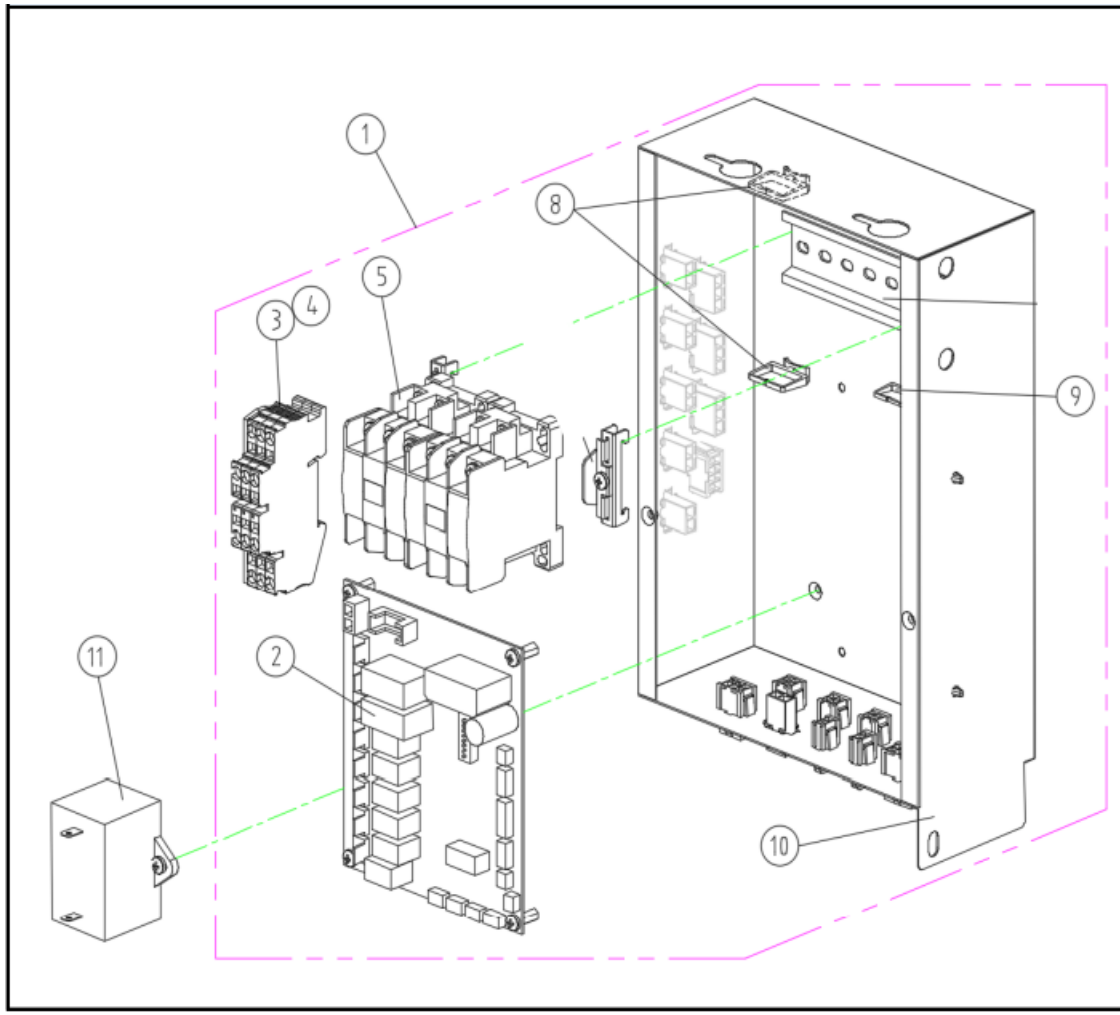
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	ASSY CONTROL BOX	N/A	N/A
2	ASSY MAIN PCB	415009300	1
3	TERMINAL BLOCK	363004700	2
4	TERMINAL BLOCK (GREEN)	363004800	1
5	MAGNETIC CONTACTOR	322002200	1
8	WIRE SADDLE	209000500	1
9	WIRE SADDLE	209000800	2
10	CONTROL BOX	374136200	1
11	CAPACITOR	387003510	1

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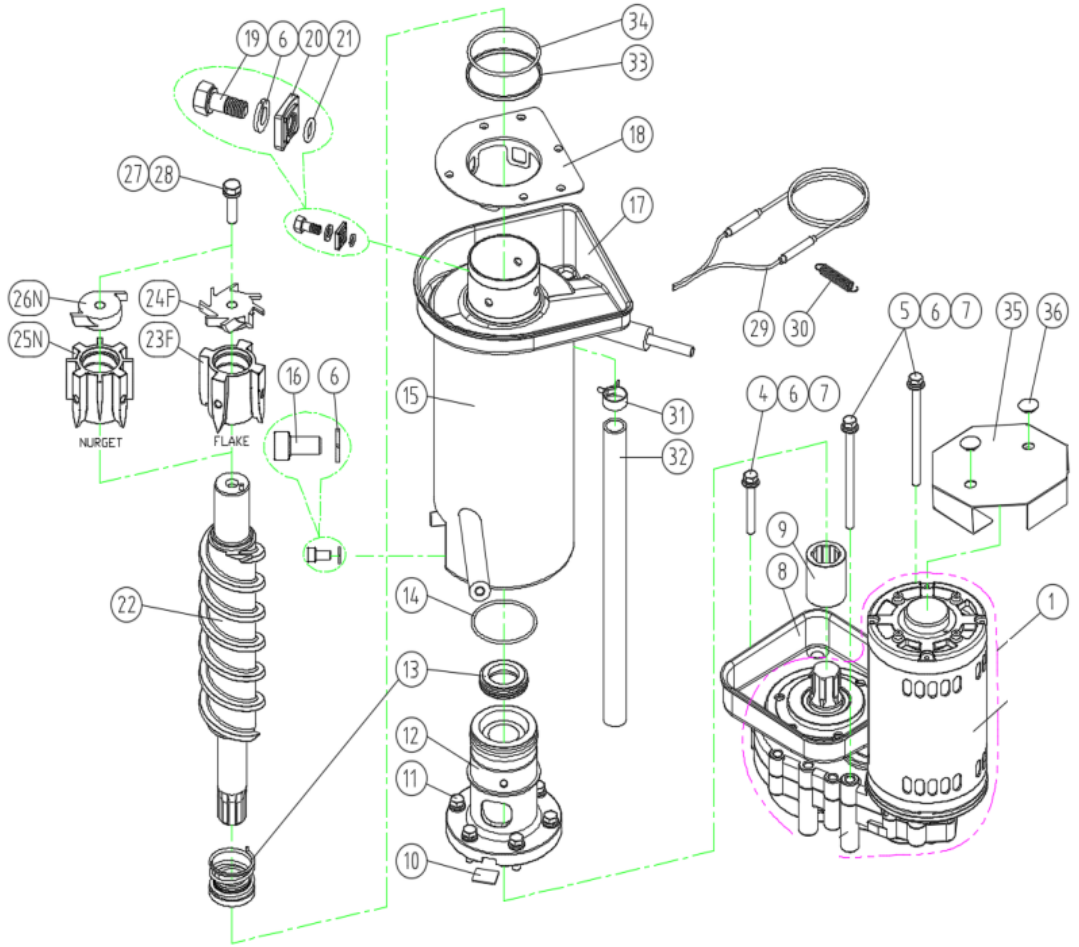
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	MOTOR+GEAR BOX ASSY	406020320	1
4	HEX BOLT(M8x55)	210815500	1
5	HEX BOLT(M8x90)	210814600	1
6	WASHER SPRING	211006800	11
7	WASHER	211002200	3
8	DRAIN PAN(HOUSING)	604002600	1
9	COUPLING SPLINE	612000600	1
10	INSERT SPACE(HOUSING)	301141800	2
11	BOLT HEX SEMS	214029030	6
12	HOUSING ASSY	491000500	1
13	MECHANICAL SEAL (ø30)	303031200	1
14	O-RING NBR (G65)	303031900	1
15	EVAPORATOR ASSY(FOAM)	409035200	1
16	HEX WRENCH BOLT(M8x16)	210814400	4
17	DRIP PAN	604002300	1
18	SPOUT FLANGE	301137300	1
19	HEX SOCKET BOLT(CCW)	214027900	4
20	U-WASHER	211006600	4
21	O-RING NBR (P8)	303032000	4
22	AUGER	430003200	1
23F	EXTRUDING HEAD ASSY(F)	491000600	1
24F	CUTTER (FLAKE)	696000600	1
25N	EXTRUDING HEAD ASSY(N)	491000700	1
26N	CUTTER (NUGGET)	696000700	1
27	HEX BOLT(M10x35)	210816835	1
28	WASHER SPRING	211007210	1
29	HOSE HEATER	368006400	1
30	COIL SPRING	323007110	1
31	BAND SPRING 23	203002200	1
32	SILICON HOSE (OVERFLOW)	229029500	1
33	SPOUT RING	232005800	1
34	O-RING NBR (G70)	303031800	1
35	GEAR MOTOR BARRIER	301139500	1
36	CAP SILICON	319007500	2

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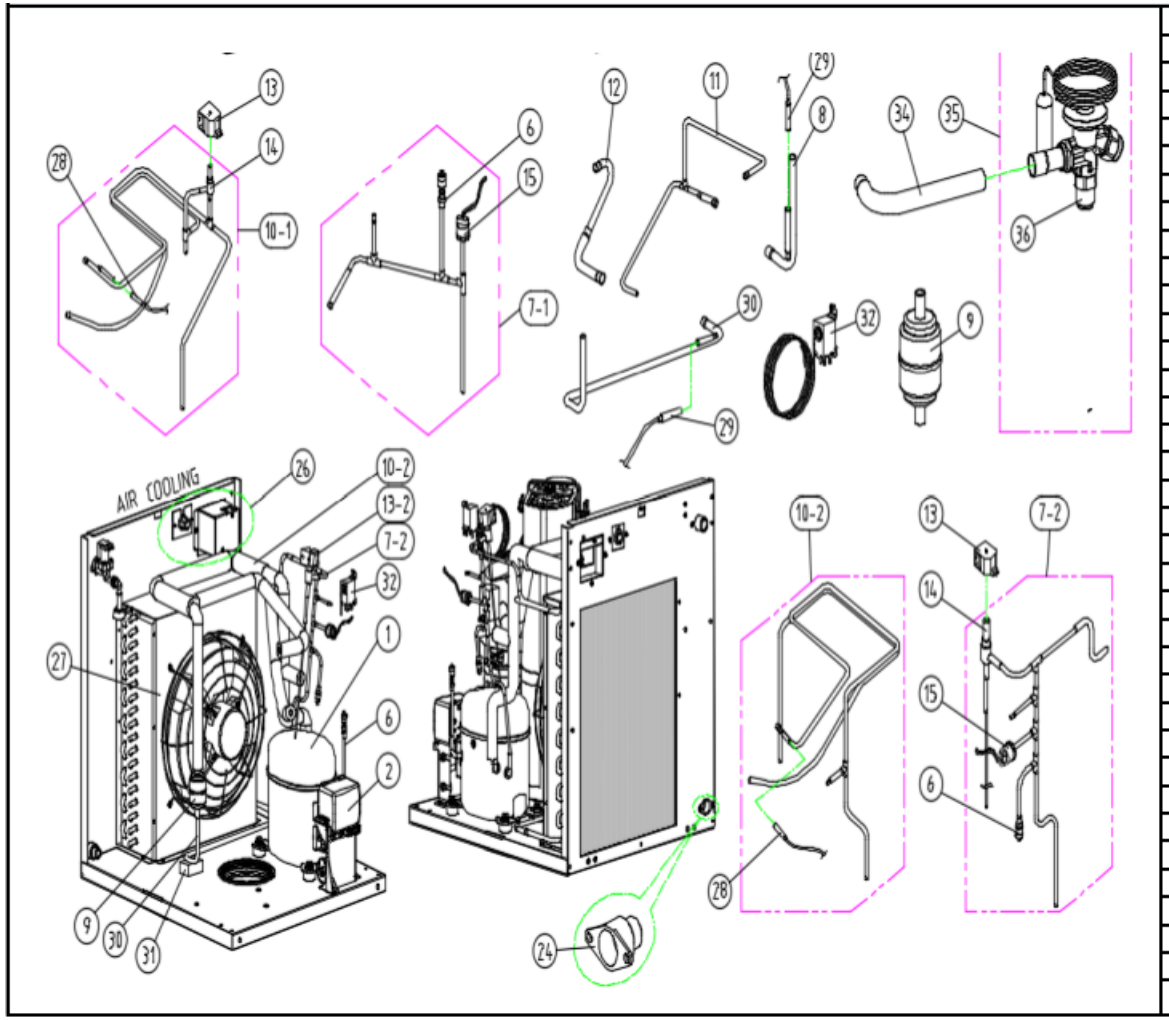
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	COMPRESSOR	394010700	1
2	STARTER KIT	426059100	1
2-1	OLP	658003100	1
6	CHARGE NIPPLE ASSY	459000400	2
7-2	DISCHARGE PIPE ASSY	325127600	1
8	COND OUT PIPE	325127400	1
9	FILTER DRYER	372001300	1
10-2	HEAT EXCHANGE PIPE ASSY	325127510	1
13	ASSY SOLENOID VALVE COIL	429005900	1
14	SOLENOID VALVE	340026800	1
15	ASSY HIGH PRESSURE SWITCH	429003900	1
24	SOCKET	215013400	1
25	SILICON HOSE (EVAP INLET)	229029400	1
28	EVA SENSOR N	655007200	1
29	COND SENSOR	655008200	1
30	COND OUT PIPE	325127400	1
31	FOAM PE	306016800	1
32	PRESSURE SWITCH	355018500	1
34	EVAP OUT PIPE	325115200	1
36	EXPANSION VALVE	340009000	1

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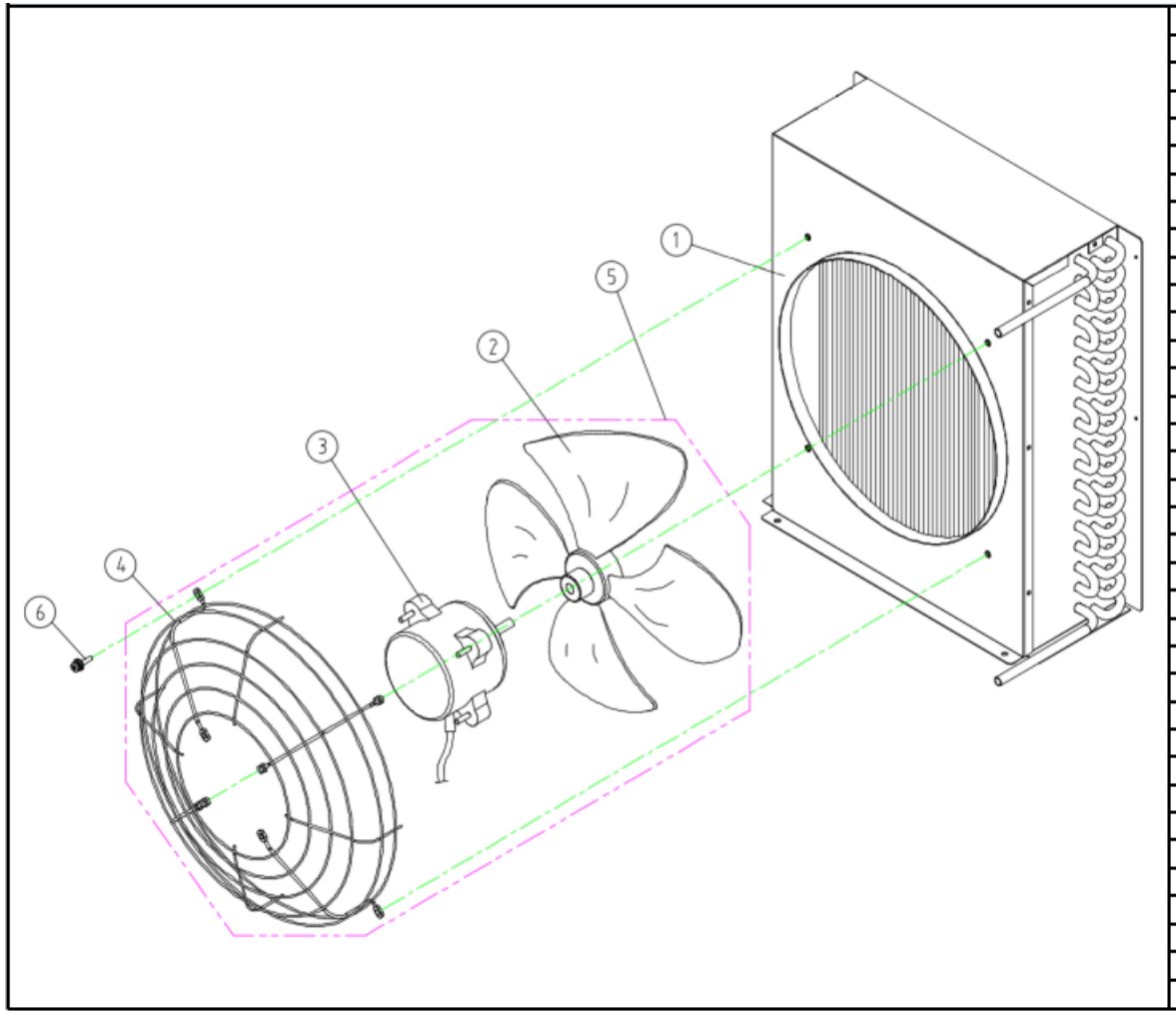
Parts Breakout



NO	ITEMS	CODE	Q'TY
1	CONDENSER ASSY	411026800	1
2	FAN	308001800	1
3	FAN MOTOR (CW)	353032500	1
4	FAN NET	308001200	1
5	ASSY FAN MOTOR	406021300	1
6	SCREW(SEMS)	210808400	4

IM-0770
Parts Breakout

Suggested Maintenance Schedule

Maintenance intervals will vary with ambient & water conditions.
These are only suggestions.

WEEKLY

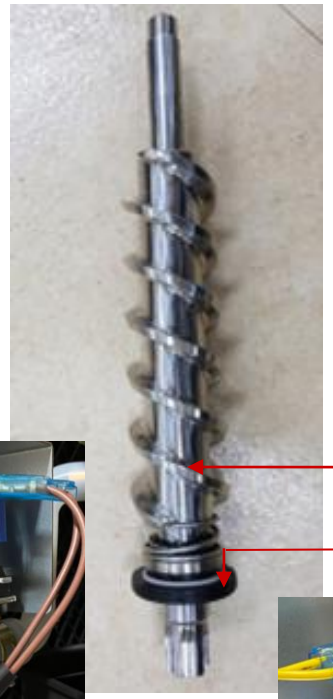
Clean These Items Weekly

Air Filters

- Air filters are located on the front and left-side panels.
- Clean air filter with water.
- Dry & replace after cleaning.

YEARLY

Inspect These Parts Yearly



Auger

Mechanical Seal

- Water Dump Solenoid
- Water Inlet Solenoid
- Water Supply/Drain Lines
- Wear/Cracks to the Mechanical Seal
- Auger/Bearing Clearances
- Wear/Cracks to the Housing Assy & Spline Coupling
- Wear & Cracks to O-Rings

Dump Valve

Water Valve

Maintenance Suggestions

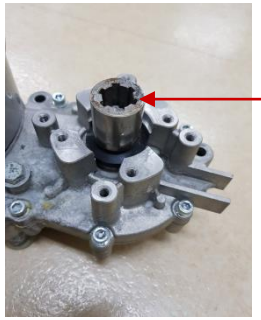
Suggested Maintenance Schedule

Maintenance intervals will vary with ambient & water conditions.
These are only suggestions.

EVERY 3 YEARS

Preventative Maintenance - Technicians Only

- Inspect the inside of the evaporator cylinder for wear, cracks, etc.
- Inspect the auger for wear, cracks, etc. & replace if necessary.
- Inspect extruder for wear, cracks, etc.
- Replace the mechanical seal.
- Replace the housing o-ring.
- Inspect the coupling for wear, cracks, etc. & replace if necessary.
- Lift coupling from gearbox and inspect for wear, cracks, etc.



Reliable Operations & Longevity

- Ice is digested and sanitation and bacteria control must be checked to ensure the machine is safe by keeping it clean.
- 80-85% of machine failures are due to poor install, lack of cleaning, inadequate water treatment, or airborne slime (Bacteria).
- **Citryne by Systems IV** for all machines with pH over 7.0
- Carbon filtration removes chlorine. If there is slime or growth inside of the machine it is from airborne particulate. Carbon removes chlorine.
- Cleaning requires both Ice machine cleaner & sanitizer and should be done under good conditions 1-2 times per year.

HOW DOES CITRYNE FILTRATION WORK

Chelation Process

The Systems IV water treatment systems use patent pending technology to soften hard water based on the scientific process of chelation in which the metal ions causing hard water, principally calcium and magnesium, are bound to the chelating agent in our FDA approved, proprietary formulation, which keeps the minerals (calcium and magnesium) soluble and unable to bind to cause hard water problems. The resulting water is soft and healthy for all of your equipment needs.

The ideal pH level of drinking water is between 6 and 8.5. The pH value of water is used to determine whether water is hard or soft. Pure water has a pH of 7, and water lower than 7 pH is considered acidic. **Citryne is for all ice makers with water pH above 7.** **For systems with pH 7 or below use carbon & polyphosphate filters.**

CITRYNE

Citryne is used to facilitate the chelation process.

CITRYNE™ is a food grade, biodegradable formulation that eliminates scale buildup. With its FDA approved ingredients, CITRYNE™ can be used on equipment without having to stop water flow. The CITRYNE formulation not only removes existing scale buildup, but will eliminate future potential scale buildup.

Citryne Water Filtration

THANK YOU