



Air and Surface Sanitation Technology with Patented UV Generated PhotoPlasma



Commercial Ice Machines and Dispensers

... they come in all shapes and sizes



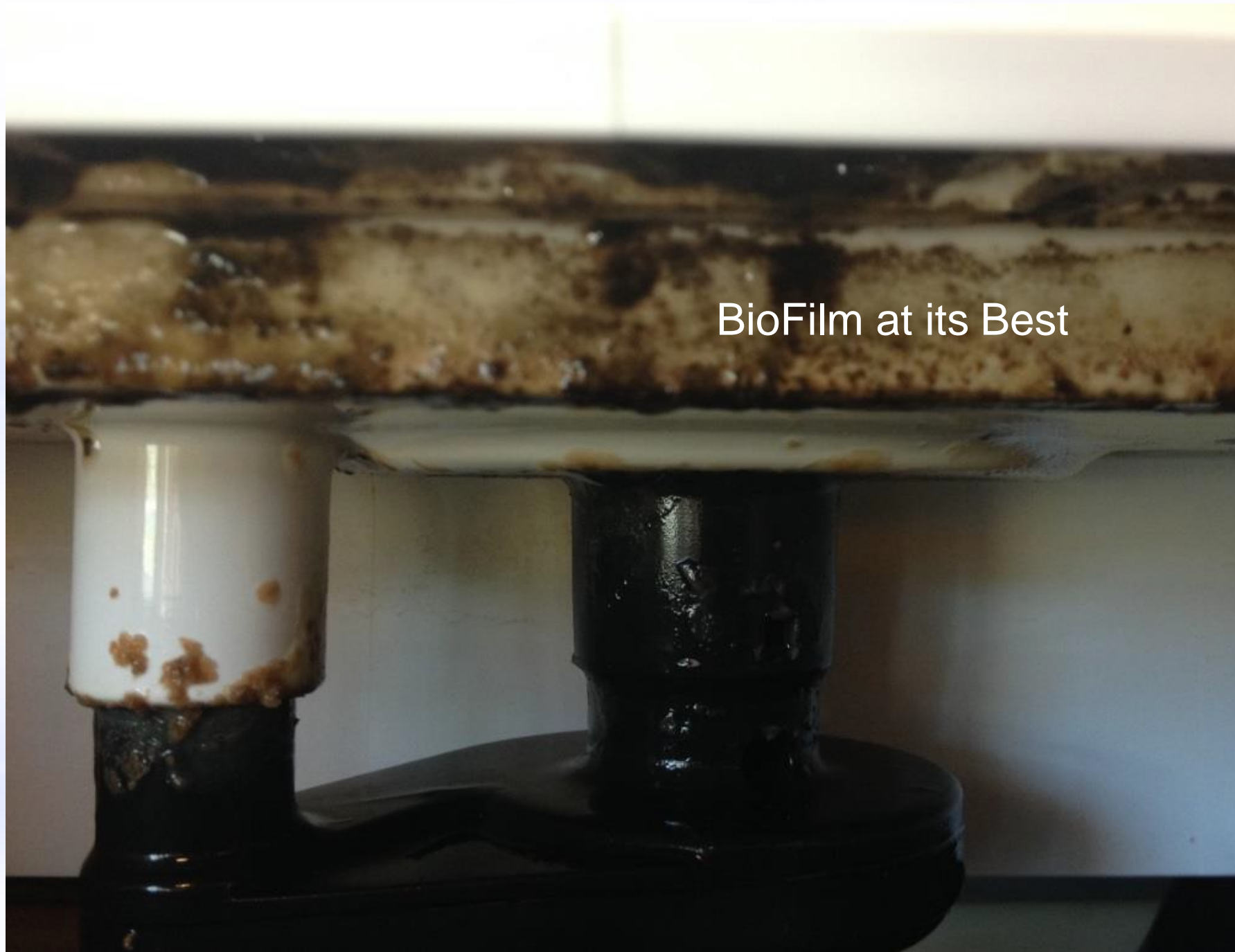
Those ice machines and beverage dispensers ... have a few things in common

- They all **need** cleaning and sanitizing
 - Sometimes 2 times a year
 - Sometimes 4 times year
 - Sometimes 8 times a year
- Lack of Cleaning and Sanitizing
 - Results in Dirty Ice
 - Results in a citation by the Health Inspector
 - Results in Lost Sales and Damaged Reputation for the Restaurant

Lets Refresh our Memory of What a Dirty Ice Machine Looks Like

Growth that is glossy or shiny is called BioFilm., It has a protective coating that makes complete removal really difficult – so it keeps coming back!






BioFilm at its Best



A close-up photograph of a white plastic water supply tube. The tube is heavily covered in a dark, fuzzy mold growth, particularly concentrated in the creases and along its length. It is secured with black zip ties to a white plastic structure.

Water Supply
Tubing Impregnated
with Mold

A photograph showing the interior of an ice bin within a beverage dispenser. The bin is made of a light-colored material and is covered with numerous small, dark spots of mold. The surrounding area appears to be the interior of the dispenser's cabinet.

Ice Bin in Beverage Dispenser

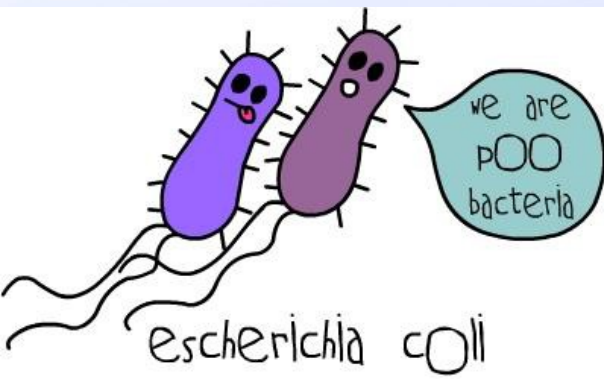
What you can generally find in an ice maker ... and why contaminants flourish there

What's Slime Need to Grow?	Found in Restaurant Equipment?
FOOD (Proteins and Carbohydrates)	Yes (in the air)
TEMPERATURE between 41°F and 145°F	Yes
OXYGEN	Yes
MOISTURE	Yes

Bacteria/Viruses known to contaminate ice cubes:

- Cholera
- Salmonella
- E. Coli
- Mycobacterium
- Norovirus

Typhoid fever
Legionella
Shigella
Hepatitis A



1:National Center for Home Food Preservation http://nchfp.uga.edu/questions/FAQ_freezing.html

2:Dickens D, DuPont HL, Johnson PC. Survival of Bacterial Enteropathogens in the Ice of Popular Drinks. JAMA. 1985;253(21):3141-3143.

MOLD. What is the public health problem?

Mold can cause fungal allergy and respiratory infections or worsen certain illnesses such as asthma. Molds are microorganisms that are found virtually everywhere, indoors and outdoors. The potential health effects of exposure to indoor mold are of increasing concern.

Excerpt from;



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™



Cleaning and Sanitizing

... the tools of the trade, plus 2 to 3 hours



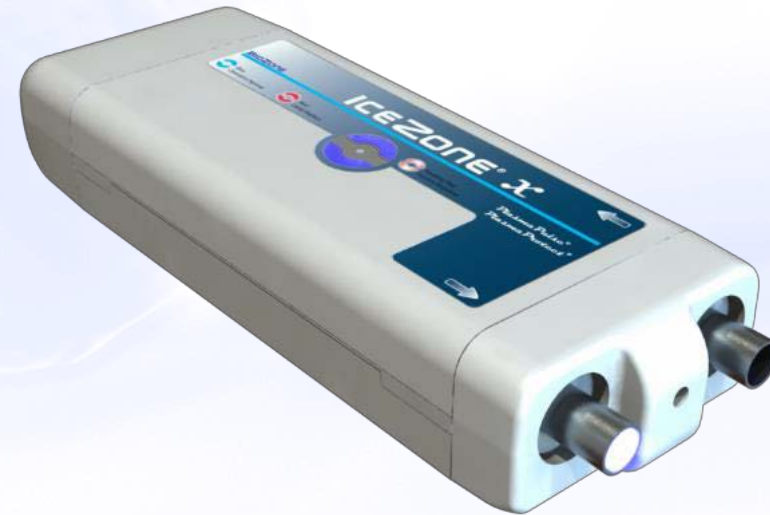
How to Reduce Cleaning and Sanitizing ... by 75%

The One and ONLY:

- NSF Approved Ice Machine Sanitation System
- HACCP approved Ice machine Sanitation System
- Clean-in-Place, 24/7 Sanitation system
- 100% Chemical Free
- Only 12 month Lamp change-out maintenance
- More than 20,000 in U.S. restaurants
- (3) Year Warranty



Introducing IceZone®



Sanitized AIR Driven Cleaning and Sanitizing

... no water needed

Internal

Germicidal Light (UV-C)

Eliminates viruses, bacteria, mold and microorganisms

UV Disinfection

Photocatalytic Oxidation

Breaks down Volatile Organic Compounds and odors



Transmitting

Photoplasma

Highly reactive and energized oxidants, cleans surfaces and air

UV Oxidation

Ozone

Inhibits organic growth, including mold and slime

How does the IceZone® Control

... Mold, Bacteria and Yeast Growth

Photoplasma:

- Comprised of powerful mixed oxidants*
- Creates a shield on ice machine surfaces to repel organic growth such as mold
- Provides an environment unfavorable to mold throughout machine and bin
- Actively eliminates airborne and surface contaminants
- 38.46% greater Electrochemical Oxidation Potential than Ozone alone

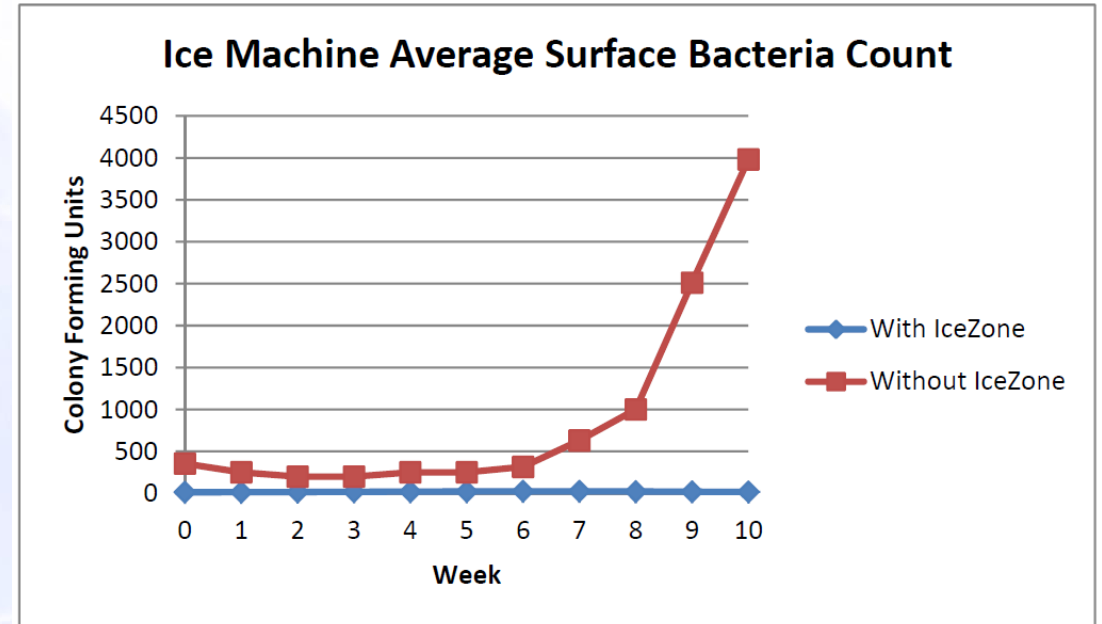
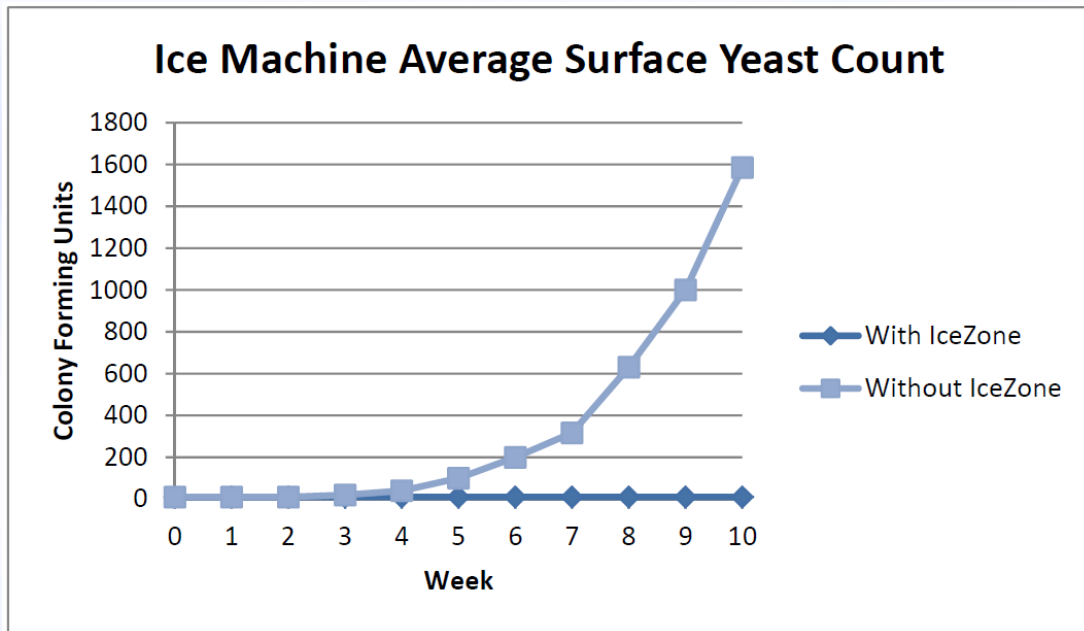
Compound	Electrochemical Oxidation Potential (V)
Hydroxyl radical (OH)*	2.80
Oxygen atom (O) [atomic oxygen]*	2.42
Ozone (O ₃) [triatomic oxygen]*	2.08
Hydrogen peroxide (H ₂ O ₂)*	1.78
<i>Chlorine (Cl)</i>	<i>1.36</i>

Think of PhotoPlasma as a Sanitizing Cloud ... in the ice maker, bin and dispenser

Heavier than air so it touches every area of the
ice maker, ice bin and beverage dispenser

The IceZone® Expectations

... when the equipment is cleaned and sanitized properly



75% Reduction in the frequency of cleaning and sanitizing!
Who wouldn't want that?

Just a Few IceZone® Customers that are

- enjoying a 75% reduction in dollars spent on Cleaning & Sanitizing
- a 20% increase in ice machine life



IceZone's® Target Markets ... aka Where is the Business?



- Service Providers
- Hospitals; for ANY ice maker/water dispenser
- Restaurants that bake bread, muffins, biscuits, etc.
- Restaurants that bread anything
- Restaurants that serve beer
- Where Ice Makers, bins and beverage dispensers are located in large “open air” locations (any location that offers self serve beverages)
- Golf Courses with ice makers
- Convenience Stores
- Who is JC and what do they do?

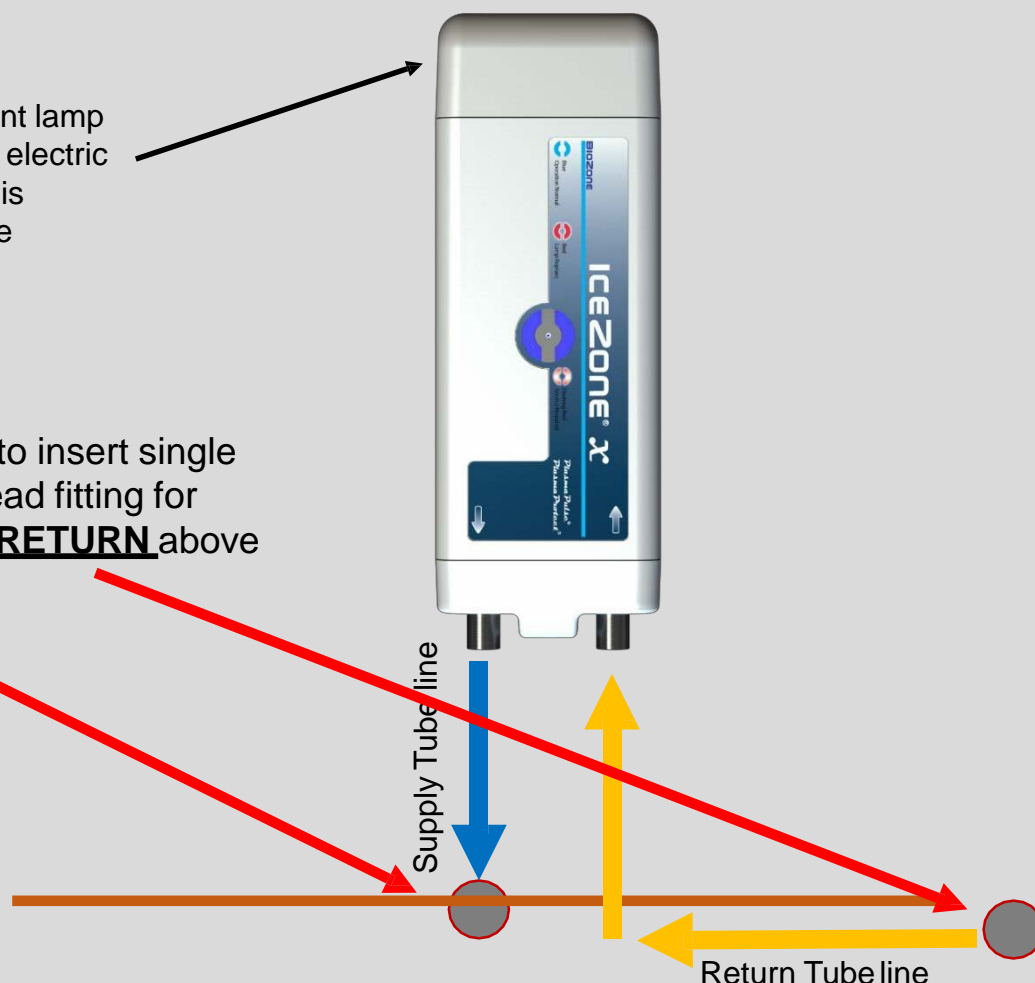


Simple Installation Instructions

TOP VIEW OF GRID /Diced Cube Series ICE MACHINES

Replacement lamp
access and electric
connection is
located here

Drill 7/8" hole to insert single
barbed bulkhead fitting for
SUPPLY and RETURN above
evaporator



FRONT OF GRID CELL, Diced Cube Series ICE MACHINE

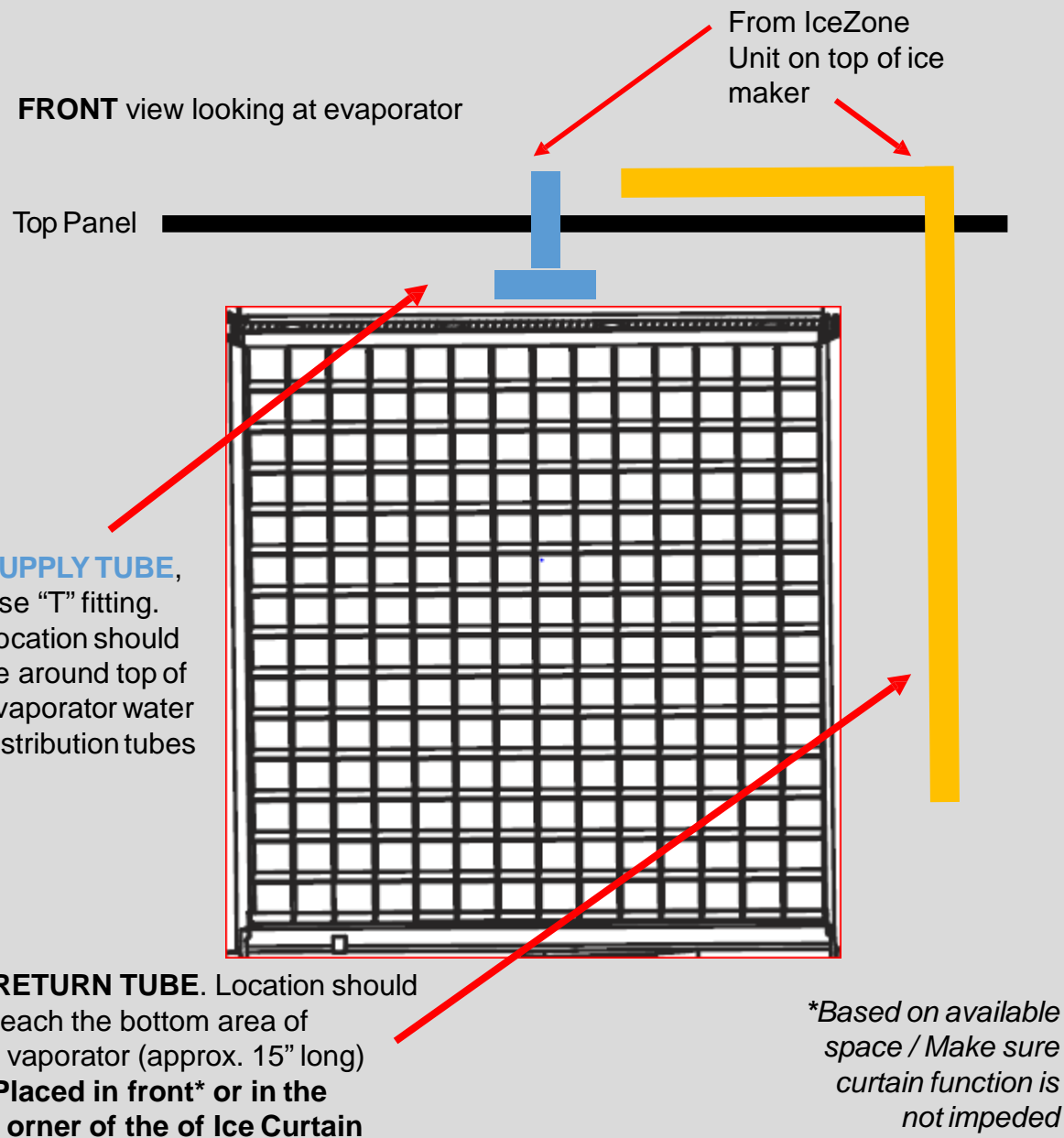
Velcro IceZone unit flat to ice machine lid

Recommended Tools

Hand Drill
Phillips Bit Driver
7/8" Step Drill Bit
1/4" Nut Driver
25mm Hole Saw
Phillips Screwdriver
8-12 ft. Ladder
Safety Goggles
Hose Cutter or Utility Knife
1 1/4" Crescent Wrench
Pliers
Velcro 2 (1" X 8") strips
Marker to mark hole locations
File or de-burring tool to de-burr
holes

Use 90° elbow connector to go from the IceZone (tubing) into the Bulkhead fitting that brings tubing to the interior of ice makers

What the Installation tubing should look like **UNDER** the TOP ice machine panel of a GRID Cell Series ice machine

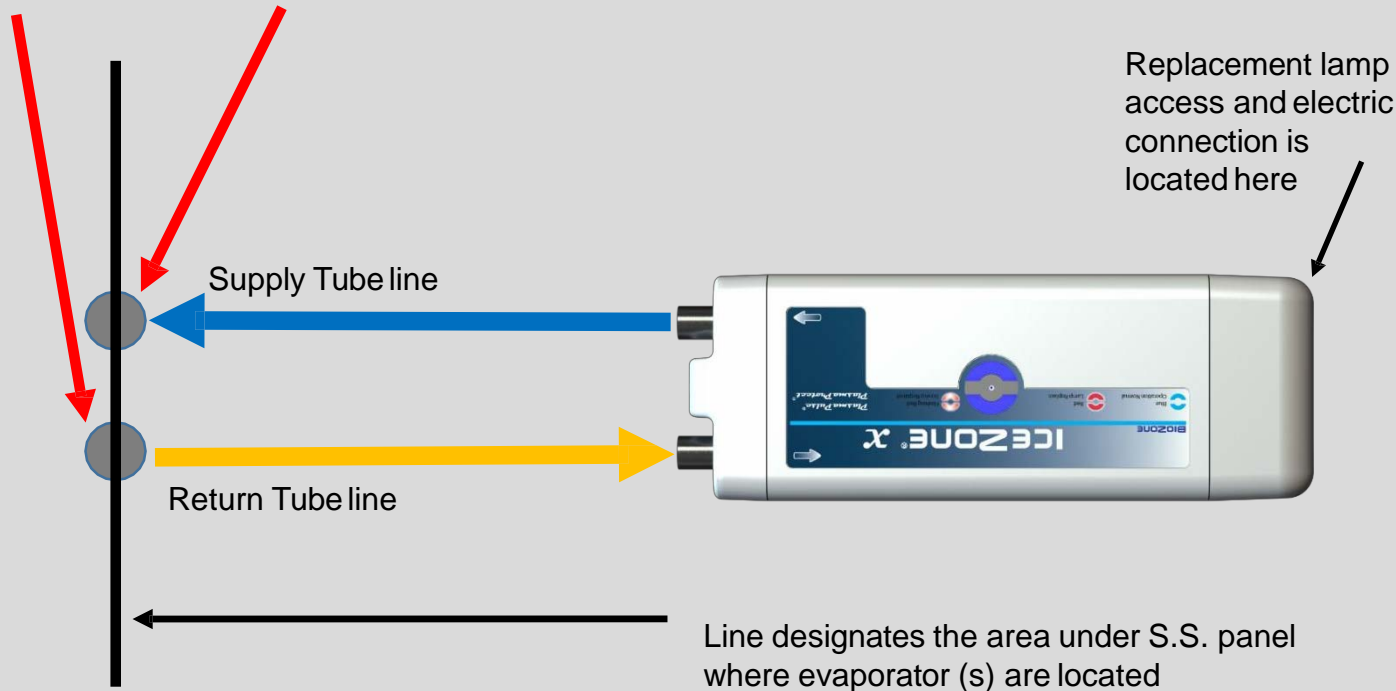


Basic Installation:

1. Turn the ice machine power switch to the "off" position until the installation is completed.
2. Mark the location for the IceZone® **Supply** and **Return** fittings. The first step is to locate the hole on the stainless steel cover. *The insulated cover can be removed to make this location easier to find.*
3. Transfer the location for the IceZone® **Supply** and **Return** fittings to the insulated top cover.
4. Install the **Supply** and **Return** fittings. This includes low profile nuts and white rubber washers.
5. Remove the service cover from the IceZone® unit. This provides access to the lamp and the power input. As the screw is removed from the cover, be sure to keep it with the cover so it is available for re-assembly.
6. Cut two 2 inch pieces of tubing to connect the **Supply** and **Return** fittings to the 90 degree elbows.
7. Cut and assemble the remaining **Supply** and **Return** tubing to fittings. Place the handy clamps (black) on the tubing which is placed over the ports on the IceZone® Unit and tighten to secure. Use Velcro to secure unit to the surface on the lid.
8. Insert the DC plug from the wall adapter through the "P" shaped hole in the service cover. Plug the DC connector into the IceZone® Unit's power input plug.
9. Reinstall the service cover to the IceZone.
10. Connect the adapter to the wall outlet to power the IceZone®.

TOP VIEW OF HOSHIZAKI KM Series ICE MACHINE

Drill 7/8" hole to insert single barbed bulkhead fitting for **RETURN and SUPPLY** above evaporators



Use 90° elbow connector to go from the IceZone (tubing) into the Bulkhead fitting that brings tubing to the interior of ice makers

Recommended Tools

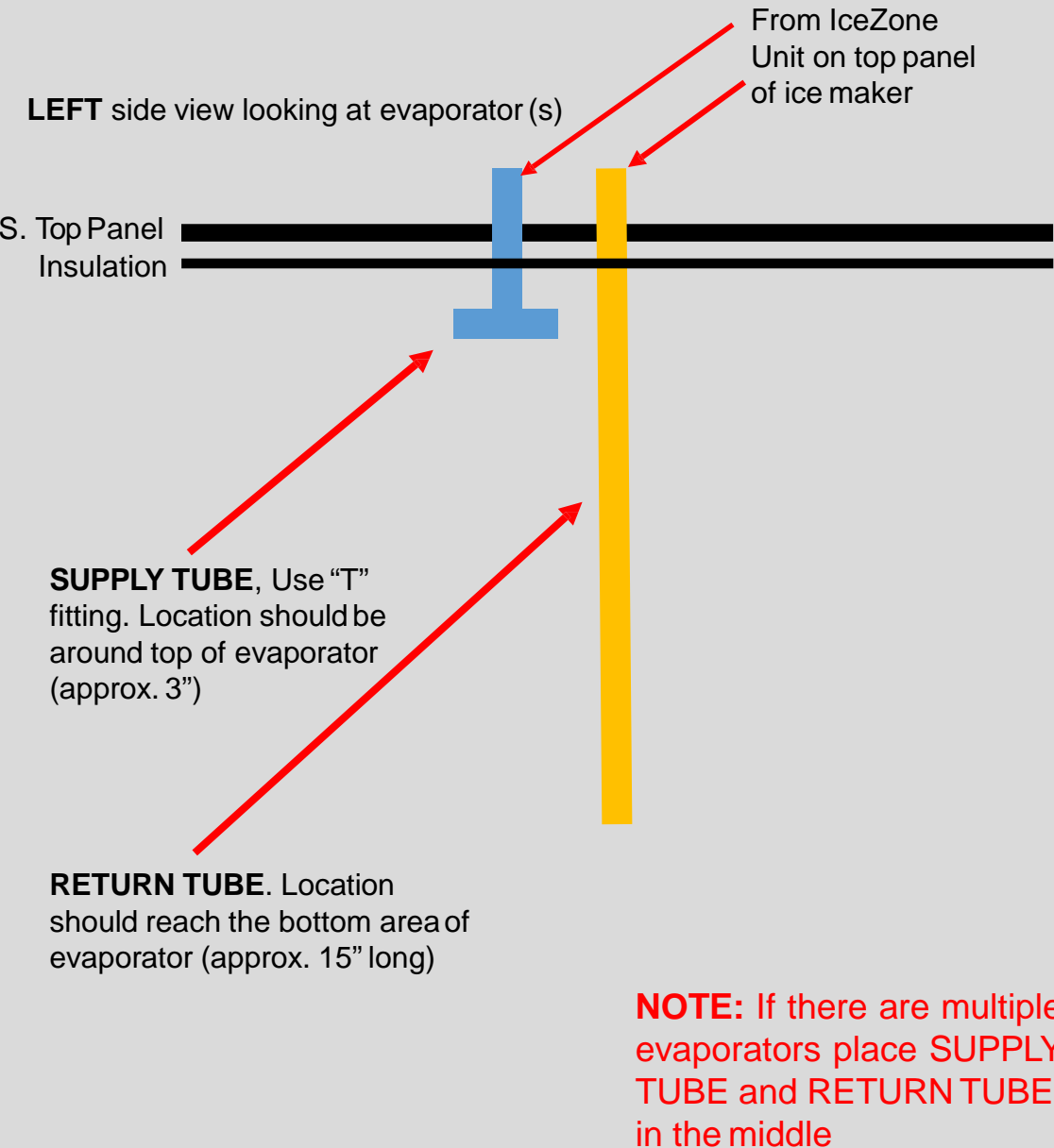
- Hand Drill
- Phillips Bit Driver
- 7/8" Step Drill Bit
- 1/4" Nut Driver
- 25mm Hole Saw
- Phillips Screwdriver
- 8-12 ft. Ladder
- Safety Goggles
- Hose Cutter or Utility Knife
- 1 1/4" Crescent Wrench
- Pliers
- Velcro 2 (1" X 8") strips
- Marker to mark hole locations
- File or de-burring tool to de-burr holes



FRONT OF HOSHIZAKI KM Series ICE MACHINE

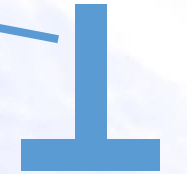
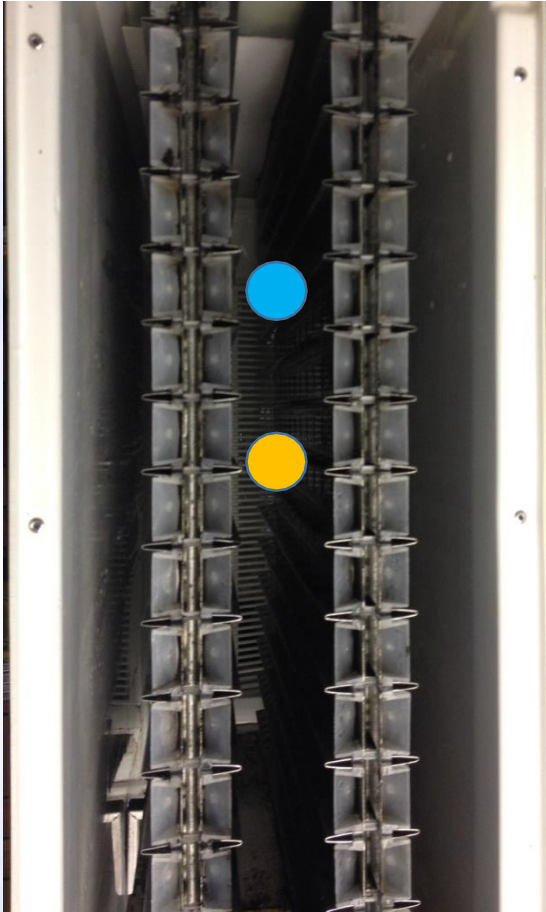
Velcro IceZone unit flat to ice machine lid

What the Installation tubing should look like **UNDER** the TOP ice machine panel of a HOSHIZAKI KM Series ice machine



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10. Connect the adapter to the wall outlet to power the IceZone®.



"T" Fitting
for **Supply**



When installing IceZone into machines with
nut of the size k



Install the **Supply** fitting as shown between
the evaporator plates when there are more
than one evaporator

This includes a low profile nut and white
rubber washer.

Same procedure applies for the **Return**
fitting. Connect approx. 15" of tube.

In both cases, there should be no exposed
threads on the interior surface of the lid per
NSF guidelines

Next Up: Odor Control & Surface Sanitation



BioZone AC[®], Hygiene

... the ultimate in Air and Surface Sanitation

Sanitation & Odor Elimination for Occupied Public Spaces

- Public Restrooms – eliminates odors / sanitizes surfaces
 - Not a cover-up Fragrance
- Nursing Homes, Day Cares, Hospitals, Hotel Hallways
- Restaurants & Bars – Dining areas – for strong food odor elimination
- Locker Rooms
- Amusement park wait lines & Movie Theaters
- Operates 24/7

The same PhotoPlasma technology as IceZone[®]

Advantages of BioZone AC® Hygiene System



- Eliminates odors at their source
- Reduces bacteria, viruses, mold, and other airborne and surface contaminants
- Sanitizes-in-Place, 24/7 where people are busy doing their business
- Chemical Free - No sweet smelling spray chemicals needed
- Thousands of installations in public restrooms and other Public Areas --- especially popular in Europe --- now in USA

BioZone AC[®] at Work on 9 Odor Sources



BioZone AC[®] at Work

Good Home for BioZone AC[®]

A Perfect Home for BioZone AC[®]





The chemical-free solution for so many Sanitation and Odor Elimination needs!



For more information contact:
Christian Broughton
Email: Christian@permul.com
Ph: 416 566 1501