

FRANKE FOODSERVICE SOLUTIONS

# EcO<sub>3</sub>Ice™

ANTIMICROBIAL ICE PROTECTION



Item #:
Project:
Quantity:

## MODEL NUMBER

X4

## PRODUCT OVERVIEW

The compact EcO3Ice™ device uses a unique, synthetic diamond-based technology that continuously treats incoming ingredient water used by ice machines, killing bacteria, yeast and mold in the ice-making path from beginning to end. Reduces biofilm build-up, greatly extending required time between cleanings. With each cycle, Eco3Ice™ creates a small, safe but effective amount of pure ozone—nature’s own sanitizer—which continuously treats the machine interior, storage bin, remote bin and drains.

## PRODUCT FEATURES

- Attaches quickly with no special tools to incoming water line of ice machine
- 3/8" push/pull quick connect fittings
- Runs silently and automatically
- Operator-replaceable, "twist-on" electrolytic cartridge
- LED indicator lamps show status, tell when it's time to replace cartridge

## X4 COMPATABILITY

- Fits most commercial ice machines with ice-making capacity of 100lbs/day or larger with flow rate of up to 1.3gpm
- For units requiring more than 1.3gpm, refer to Model X16

## CARTRIDGE LIFE

- 6 to 24 months
- Cartridge life is dependent upon water quality and ice machine water consumption

## WARRANTY

- Warranted against defects in materials and workmanship for 1 year, partonly, on head unit; 30 days parts-only on cartridge. Normal use exclusions apply, per Operating Manual.

ECO<sub>3</sub>ICE™ - ANTIMICROBIAL ICE PROTECTION



Approval \_\_\_\_\_

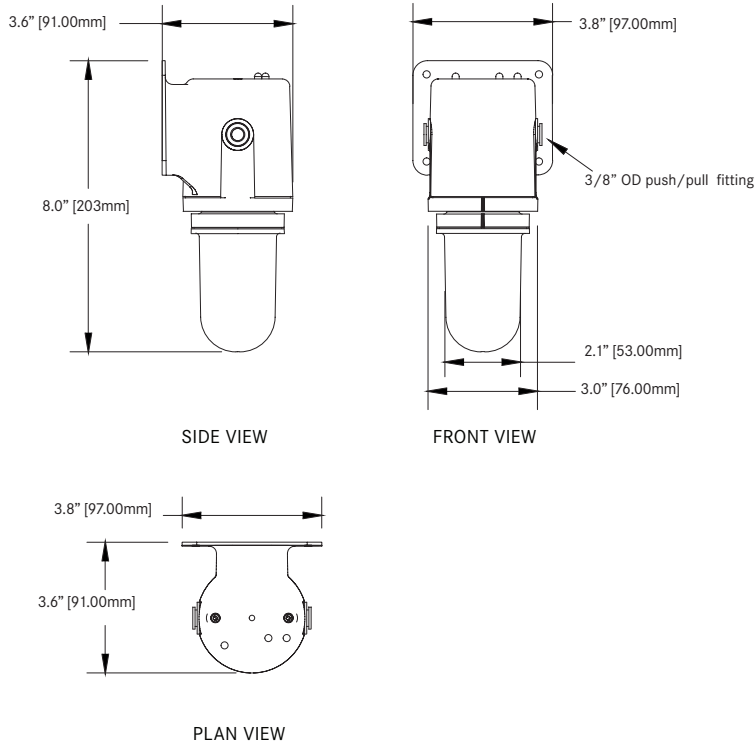
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 Smyrna, TN 37167  
 Tel +1-877-379-3769  
 frankeamericas.com

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# EcO<sub>3</sub>Ice™ - ANTIMICROBIAL ICE PROTECTION

## Model X4



<b>DIMENSIONS</b>	Width	3.8" 97mm
	Depth	3.6" 91mm
	Height	8.0" 203mm
<b>ELECTRICAL</b>	Voltage	100-240
	Phase	1
	Amps (by phase)	1.25 Max
	Watts (by phase)	240 Max
	Unswitched Circuit	 Within 5' of EcO <sub>3</sub> Ice assembly
<b>WEIGHT</b>	Net Weight	1.8 lbs
	Gross Weight	2 lbs
<b>SHIPPING</b>	FOB	Fayetteville, TN 37334
	Freight Class	Ships via UPS

**SHORT-FORM SPECIFICATIONS:** Model No EcO<sub>3</sub>Ice™ X4 measuring approximately 3.8" L x 3.6" W x 8.0" H(X4) and requiring 100-240v, 50/60 Hz supply for provided 24v, 1.25a transformer (integrated into power cord). Unit shall include synthetic diamond-based electrolytic technology to produce a small, safe and precise amount of dissolved ozone from the oxygen in the ice machine's water supply; removable electrolytic cell cartridge; LED indicator lights for cartridge replacement and system function. Shall include 1 year parts warranty on head unit and 30 days parts warranty on replacement cartridge.

<b>WATER</b>	Water Line Connection	3/8" OD push/pull fitting
	Water Temperature	40°F to 86°F (4°C to 30°C)
	Water Quality	Clean, Potable Water Only (recommended hardness ≤300 ppm CaCO <sub>3</sub> )
	Water Supply Pressure	*min 20 psi max 125 psi *min (1.37 bar) max (8.62 bar)
	Water Flow	0.34gpm - 1.3gpm (1.3lpm - 4.9lpm)
<b>MISC.</b>	1. Connect EcO <sub>3</sub> Ice™ only to a cube, not a flake/nugget, ice machine 2. Connect only one ice machine per EcO <sub>3</sub> Ice™ device 3. Connect EcO <sub>3</sub> Ice™ only to a commercial ice machine, not a household ice maker. 4. Do not connect EcO <sub>3</sub> Ice™ to other devices, such as a beverage or water dispenser. 5. EcO <sub>3</sub> Ice™ does not replace mechanical water filtration. For best results, always connect EcO <sub>3</sub> Ice™ in the water supply line between the filtration system and the ice machine.	

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FRANKE FOODSERVICE SOLUTIONS

# EcO<sub>3</sub>Ice™

ANTIMICROBIAL ICE PROTECTION



Item #:
Project:
Quantity:

## MODEL NUMBER

- X8
- X16

## PRODUCT OVERVIEW

The compact EcO<sub>3</sub>Ice™ device uses a unique, synthetic diamond-based technology that continuously treats incoming ingredient water used by ice machines, killing bacteria, yeast and mold in the water and ice-making path from beginning to end. Reduces biofilm build-up, greatly extending required time between cleanings. With each cycle, EcO<sub>3</sub>Ice™ creates a small, safe but effective amount of pure ozone—nature’s own sanitizer—which continuously treats the machine interior, storage bin, remote bin and drains.

## PRODUCT FEATURES

- Attaches quickly without special tools to incoming water line of ice machine
- 1/2” push/pull quick-connect fittings
- Runs silently and automatically
- Operator-replaceable, “twist-on” electrolytic cartridge
- LED indicator lamps show status, tell when it’s time to replace cartridge

## EcO<sub>3</sub>Ice™ MODEL SELECTION GUIDE

Select the EcO<sub>3</sub>Ice™ model by production rate of ice machine.

Model	X8	X16
Production Rate	200 lbs to 699 lbs/day capacity machines	700lbs/day and larger capacity machines
Cartridge Life*	12 to 18 months	6 to 18 months

\*NOTE: Cartridge life is dependent upon water quality and ice machine water consumption.

## WARRANTY

- Warranted against defects in materials and workmanship for 1 year, parts-only, on head unit; 30 days parts-only on cartridge. Normal use exclusions apply, per Operating Manual.

Approval _____
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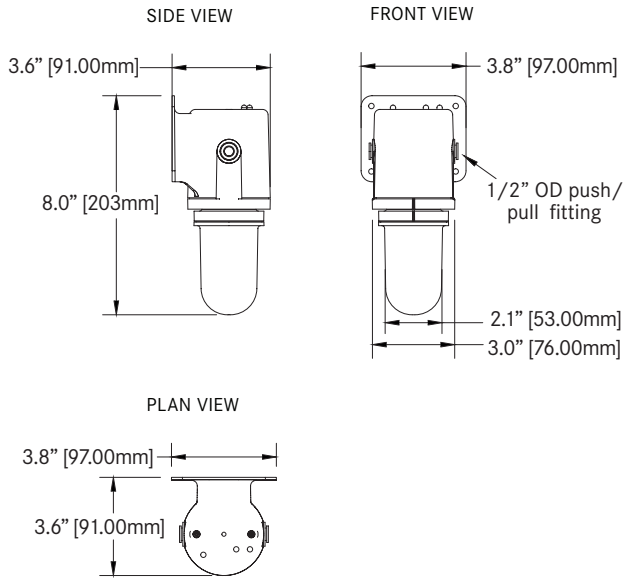
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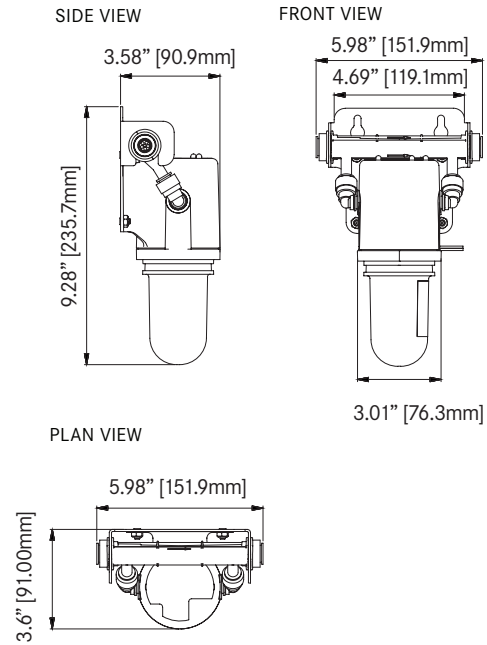



# EcO<sub>3</sub>Ice™ - ANTIMICROBIAL ICE PROTECTION

## Model X8



## Model X16



	X8	X16	
<b>DIMENSIONS</b>	Overall	Overall	
	Width	3.8" 97mm	5.98" 151.9mm
	Depth	3.6" 91mm	3.6" 91mm
	Height	8.0" 203mm	9.28" 235.7mm
<b>ELECTRICAL</b>	Voltage		100-240
	Phase		1
	Amps (by phase)		1.25 Max
	Watts (by phase)		240 Max
	Unswitched Circuit	 Within 5' of EcO <sub>3</sub> Ice assembly	
<b>WEIGHT</b>	Net Weight	1.8 lbs	
	Gross Weight	2.0lbs	
<b>SHIPPING</b>	FOB	Fayetteville, TN 37334	
	Freight Class	Ships via UPS	

**SHORT-FORM SPECIFICATIONS:** Model No EcO<sub>3</sub>Ice™ X8 and X16, measuring approximately 3.8" L x 3.6" W x 8.0" H (X8) or 5.98" L x 3.6" W x 9.28" H (X16) and requiring 100-240v, 50/60 Hz supply for provided 24v, 1.25A transformer (integrated into power cord). Unit shall include synthetic diamond-based electrolytic technology to produce a small, safe and precise amount of dissolved ozone from the oxygen in the ice machine's water supply; removable electrolytic cell cartridge; LED indicator lights for cartridge replacement and system function. Shall include 1 year parts warranty on head unit and 30 days parts warranty on replacement cartridge.

	X8	X16	
<b>WATER</b>	Water Line Connection	1/2" OD push/pull fitting	1/2" OD push/pull fitting
	Water Temperature	40°F to 86°F (4°C to 30°C)	
	Water Quality	Clean, Potable Water Only (recommended hardness ≤300 ppm CaCO <sub>3</sub> )	
	Water Supply Pressure	*min 20 psi max 125 psi *min (1.37 bar) max (8.62 bar)	
	Water Flow	0.34gpm - 1.3gpm (1.3lpm - 4.9lpm)	1.3gpm - 4.2gpm (4.9lpm - 16lpm)
<b>MISC.</b>	1. Connect EcO <sub>3</sub> Ice™ only to a cube, not a flake/nugget, ice machine 2. Connect only one ice machine per EcO <sub>3</sub> Ice™ device 3. Connect EcO <sub>3</sub> Ice™ only to a commercial ice machine, not a household ice maker. 4. Do not connect EcO <sub>3</sub> Ice™ to other devices, such as a beverage or water dispenser. 5. EcO <sub>3</sub> Ice™ does not replace mechanical water filtration. For best results, always connect EcO <sub>3</sub> Ice™ in the water supply line between the filtration system and the ice machine.		

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# FAQ: EcO<sub>3</sub>Ice

## ANTIMICROBIAL ICE PROTECTION

### Q: How does EcO<sub>3</sub>Ice work?

A: EcO<sub>3</sub>Ice easily connects to the incoming ice machine water line, generating dissolved ozone. The treated water kills microbes and prevents build-up in the ice machine, while ice made from the ozone-treated water effectively keeps clean surfaces in the ice machine, bin, and related objects.

### Q: How is the ozone created in the water?

A: With EcO<sub>3</sub>Ice, a small amount of ozone is created by electrolysis directly in the water as it flows through a cell equipped with electrodes made of patented, long-lasting, boron-doped solid synthetic diamond.

### Q: When it's frozen, is the ozone inside or outside of the cube?

A: The ozone is present throughout the ice cube, with a higher concentration in the outermost layer. The actual amount of ozone contained in the ice cube is very small.

### Q Does the ozone end up in the customer's beverage? Is it safe?

A: Ozone is FDA-approved as a food and water additive. However, the amount of residual ozone in cubes from EcO<sub>3</sub>Ice-treated machines is well below levels of detection by the average person and does not have any effect on the taste.

### Q: Will the ozone in the ice impart any adverse effect on beverage taste?

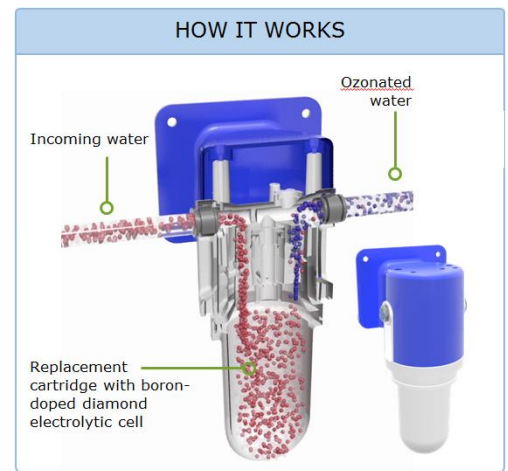
A: To the contrary: It's important to note that ozone is recognized to be an effective oxidant used to reduce unpleasant taste and odors in drinking water. The EPA Guidance Manual, *Alternative Disinfectants and Oxidants*, specifies ozone for unpleasant taste and odor removal.

### Q: How long does the ozone created remain effective?

A: In the water form, the ozone is active for about 15 minutes. In the ice, ozone is well preserved and dissipates gradually and safely in the ice bin as the ice melts. In practical terms, trace levels of ozone remain effective for the entire period between freezing, storage and transportation, until it is dispensed and served, at which time it dissipates harmlessly.

### Q: What happens to ice sitting at the bottom of the ice bin for an extended period of time?

A: The ice gradually melts and the resulting water drains from the bin. The "ice melt" contributes to the ozone's ability to kill microbes and prevent regrowth on bin surfaces, as well as the drain fixture and line.



**Q: Does the device work with any size machine or ice bin?**

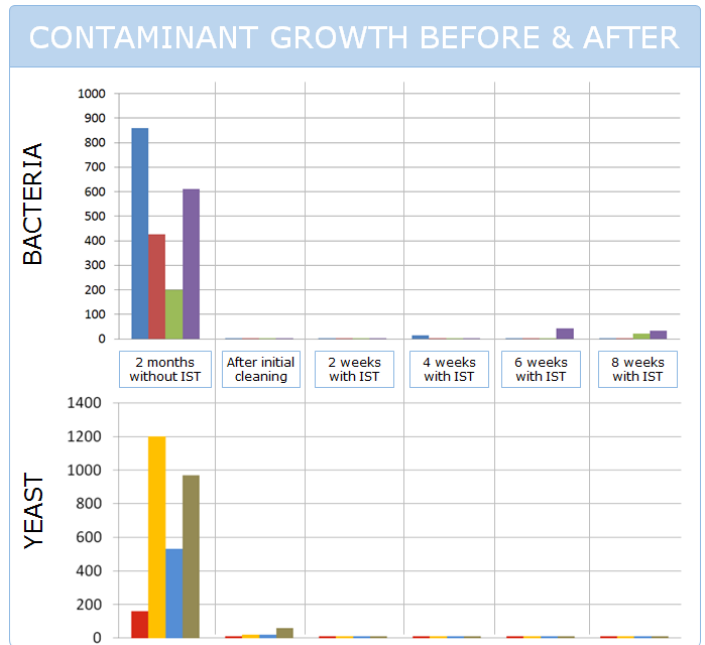
A: EcO3Ice works with any ice cube machine with water flow rates up to 4 liters per minute. Franke has a comprehensive list of compatible ice machines covering the majority of ice cube machines on the market. For those machines with which EcO3Ice is not compatible, Franke is developing new versions that will be available in the near future.

**Q: How does operator know when to replace the cartridge?**

A: Franke’s user-friendly design includes easy-to-understand indicator lights to tell the operator when it’s almost time to change and when it’s time to change the cartridge. There are also indicators to show that the unit is producing ozone correctly, or that it requires service.

**Q: How often will I have to replace the cartridge?**

A: The cartridge needs to be renewed, on average, every 6 to 24 months, depending upon several factors including ice machine model, ice-making volume, water quality, water temperature and several other factors. Franke has a cartridge-life projection tool to help estimate cartridge life based on these factors.



**Q: Is ozone gas released in an ice machine a possible inhalation hazard?**



A: Our NRA award-winning electrolytic method of producing ozone from-water in-water has been optimized for compact spaces. It kills bacteria and other microorganisms within the ice bin, while keeping ozone gas levels safely below OSHA PEL (permissible exposure limits) standards for safety. Alternative ozone technologies, namely “corona discharge,” have not been suited to confined spaces and may have presented concerns about workplace safety.

**Q: Does the ozone degrade materials like polymers and metals in the machine?**

A: Our method of producing ozone from-water in-water gradually releases ozone in a dissolved liquid form within the ice storage bin, thus avoiding high concentrations of ozone gas that can have adverse effects on the ice machine materials.

**Q: Does Franke have independent laboratory validation of its efficacy claims?**

A: Efficacy of the Franke EcO3Ice device on biofilm has been verified by an independent lab. Results for one type of bacteria—*e. coli*—confirmed that the device achieved a total kill (5-log). Meanwhile, field testing clearly demonstrates dramatic reduction in reappearance and growth of biofilm, yeast and mold colonies.



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