



Why Your Ice Plant Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your ice makers, ammonia cooling, and facility operations all draw from the same supply — but your meter counts more than arrives. **Ice maker fill cycles, refrigeration condenser water, and facility washdown create the conditions for air, gas, and turbulence to form in the line at your meter — and you're billed for it.** The FCD (Flow Conditioning Device) corrects the measurement. Ice production rates and every operational parameter stay the same. Your water bill drops — and so does your sewer bill, because sewer charges are calculated from the same inflated meter reading. One device. Two bills fixed.

WHY INDUSTRIAL ICE MANUFACTURING WATER METERS OVER-READ

The Core Problem: Industrial Ice Makers Have the Highest Water-to-Product Ratio of Any Food Manufacturing Process

Ice manufacturing is essentially water manufacturing — making meter over-reading more impactful here than in almost any other food production operation. Ice maker fill cycles draw water at maximum flow on every freeze cycle. Refrigeration condenser water compounds that over-reading continuously. The FCD corrects total intake at the meter without changing production rates, ice quality, or any FDA food safety parameter.

THE THREE OVER-READING SOURCES UNIQUE TO INDUSTRIAL ICE MANUFACTURING

Ice Maker Fill Cycle Surges

Industrial ice maker fill cycles drawing water at maximum flow on every freeze sequence create the most intense demand events in the plant — generating air, gas, and turbulence at the supply meter on every cycle throughout every shift.

Refrigeration Condenser Water

Ammonia refrigeration condenser water cycling continuously with production load creates sustained demand — the most consistent over-reading source in any ice plant, running around the clock throughout the operating season.

Facility & Equipment Washdown

Ice production facility and equipment washdown creates large, high-velocity demand events — compounding ice maker and condenser over-reading on every scheduled washdown cycle throughout the operating day.

Your Water Cost Per Ton of Ice Is Higher Than It Should Be — the FCD Fixes It Permanently

Ice plant operators track water cost per ton of production as a core profitability metric. When the meter over-reads freeze cycles and condenser demand, that cost is inflated on every ton, every day. After FCD installation, metered intake reflects true use — permanently lowering water cost per ton and improving unit economics for single-plant operators and multi-facility ice distribution networks alike.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Freeze cycles inflate meter on every batch
- ✗ Condenser demand compounds over-reading
- ✗ Water cost per ton of ice inflated daily
- ✗ Sewer charge tied to inflated meter

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WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Freeze cycles read accurately
- ✓ Condenser demand measured correctly
- ✓ True water cost per ton revealed
- ✓ Sewer charge based on real usage

5–30%

Average water & sewer bill reduction

46%

Highest documented single-site reduction

~1 Hour

Install time — water off about 1 hour

6-Mo

Money-back, no questions asked · install non-refundable

How the FCD Works — Four Steps

1

Installs between two pipe joints right after your water meter — water off about one hour

2

Creates a slight back-pressure that extends back through the meter, reducing air, gas, and turbulence

3

Delivers a laminar-like flow profile through the meter — the condition it was calibrated to read

4

Meter reads accurately. Bill drops. Ice production rates, product quality, FDA food safety parameters, and every operational specification are effectively unchanged.