



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

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your USDA water requirements haven't changed — but your municipal meter is counting more water than actually arrives. **Scalding temperature regulation, chilling water replenishment, and spray wash cycling create the conditions for air, gas, and turbulence to form in the line at your meter — and you're being billed for it.** The FCD (Flow Conditioning Device) corrects the measurement. Your process doesn't change. 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 MEAT & POULTRY PLANT WATER METERS OVER-READ

The Core Problem: The FCD Corrects the Meter — Not Your USDA-Required Water Use

Your scalding temperatures, chilling water volumes, and spray wash rates are set by your USDA grants of inspection and HACCP plan — and they stay exactly that way. The FCD installs immediately after your municipal supply meter, ahead of every process system. It corrects the measurement of total intake — not the water you use inside the plant. Your food safety compliance is effectively unchanged.

THE THREE OVER-READING SOURCES UNIQUE TO MEAT & POULTRY PLANTS



Scalding System Demand

Temperature regulation cycling in scalding systems creates repeated high-velocity open-valve events — generating air, gas, and turbulence at the supply meter across every production shift.



Chilling Water Replenishment

Chilling tank water replenishment creates large, variable demand surges — exactly the open-valve conditions that drive the most significant meter over-reading events.



Spray Wash Cycling

Spray wash stations cycling on and off throughout the production line create continuous variable demand events — compounding over-reading from scalding and chilling on every bill.



The FCD Also Reduces Your POTW Sewer Surcharge Under 40 CFR Part 432

Your POTW sewer surcharge is calculated from metered municipal intake under EPA 40 CFR Part 432. When the meter over-reads scalding and chilling demand, your sewer charge is inflated in direct proportion. The FCD corrects both charges simultaneously — and improves your NPDES water balance documentation as a bonus.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Scalding demand inflates meter reading
- ✗ Spray wash cycling compounds over-reading
- ✗ POTW sewer surcharge inflated by same meter
- ✗ Sewer charge tied to inflated intake



WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Scalding demand reads accurately
- ✓ Spray wash cycles measured correctly
- ✓ POTW surcharge based on real intake
- ✓ 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. Your USDA inspection requirements, HACCP plan, and every process parameter are effectively unchanged.

FREE SAVINGS ESTIMATE

Instant estimate — takes 30 seconds, no contact info required.

waterflowinnovations.com/water-bill-savings-calculator

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CERTIFICATIONS

IAPMO NSF/ANSI/CAN 61 KIWA GMP SQF

316L Stainless Steel · Made in USA
Under 0.8 psi pressure loss
Lifetime Transferable Warranty