



Why Your Pharma Facility Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your WFI stills, RO systems, and HVAC all draw from the same supply — but your meter counts more than arrives. **WFI still cycling, RO pump startups, and cooling tower makeup 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 that at the municipal meter — ahead of every purified water system. cGMP quality and FDA requirements 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 PHARMA FACILITY WATER METERS OVER-READ

The Core Problem: The FCD Installs Just After the Municipal Supply Meter — Ahead of Your Purified Water Systems

Your WFI, purified water, and clean steam systems are validated cGMP processes operating on purified water — not municipal supply. The FCD installs on the raw municipal meter, before water enters any purification train — correcting total intake measurement without touching any validated system, USP parameter, or FDA-regulated process. Water balance documentation becomes more accurate. Your bill drops.

THE THREE OVER-READING SOURCES UNIQUE TO PHARMA & BIOTECH



WFI Still Cycling

Water for Injection still boiler feedwater demand cycles continuously with production load — creating variable high-velocity demand events that generate air, gas, and turbulence at the municipal supply meter throughout every shift.



RO System Pump Startups

Reverse osmosis system pump startups and pressure cycling create sudden high-velocity demand events — generating air, gas, and turbulence at the supply meter on every RO activation across the purification train.



HVAC Cooling Tower Makeup

Facility HVAC cooling tower makeup cycling with building load creates continuous variable demand — compounding WFI and RO over-reading throughout every operating day and every billing cycle.

Your cGMP Water Balance Closes More Accurately After FCD Installation

Pharma facilities reference metered municipal intake in cGMP water balance documentation and EHS sustainability reporting. When the meter over-reads, those documents overstate intake. After FCD installation, metered intake more accurately reflects actual consumption — improving water balance accuracy for FDA inspection readiness, ISO 14001, and Pharma 5 sustainability framework submissions.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ WFI still demand inflates meter each shift
- ✗ RO startups compound over-reading daily
- ✗ cGMP water balance overstates intake
- ✗ Sewer charge tied to inflated meter

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WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ WFI still demand reads accurately
- ✓ RO system demand measured correctly
- ✓ cGMP water balance closes more accurately
- ✓ 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. Every validated process, USP water quality parameter, and FDA requirement is 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