



Why Your Steam Service Operation Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your boiler feedwater, condensate return, and makeup water all draw from the same supply — but your meter counts more than arrives. **Boiler feedwater surges, condensate makeup cycling, and blowdown events 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. Steam quality and every distribution 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 COMMERCIAL WATER METERS OVER-READ

The Core Problem: Steam Boiler Feedwater Demand Creates Some of the Most Sustained High-Velocity Open-Valve Events of Any Industrial System

Steam boiler feedwater makeup demand cycles continuously with steam load — drawing water at high velocity every time the boiler requires makeup. Blowdown events add sudden large-volume open-valve surges on top. Each event generates air, gas, and turbulence in the line at the meter. The FCD corrects that at the municipal meter without changing steam pressure, boiler chemistry, or any distribution parameter.

THE THREE CORE OVER-READING SOURCES



Boiler Feedwater Makeup Demand

Steam boiler feedwater makeup cycling continuously with steam load creates high-velocity demand events — generating air, gas, and turbulence at the supply meter on every makeup cycle throughout every operating shift.



Condensate System Makeup

Condensate return system makeup water cycling to replace non-recovered condensate creates variable demand events — compounding boiler feedwater over-reading throughout every operating day and billing cycle.



Boiler Blowdown Surges

Scheduled and automatic boiler blowdown events create sudden large-volume open-valve surges — generating air, gas, and turbulence at the supply meter on every blowdown cycle, adding to continuous feedwater over-reading.



Your ASME Boiler & ABMA Water Balance Data Is Better Than Your Meter Shows

Steam system operators reference metered municipal intake for ASME boiler efficiency calculations, ABMA water management documentation, and ISO 14001 environmental reporting. When the meter over-reads feedwater and blowdown demand, every water balance figure is inflated. After FCD installation, metered intake reflects true use — improving the accuracy of ASME efficiency documentation, ABMA water audit accuracy, and utility ESG reporting.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Feedwater demand inflates meter each cycle
- ✗ Blowdown surges compound over-reading
- ✗ ASME water balance overstates intake
- ✗ Sewer charge tied to inflated meter



WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Feedwater demand reads accurately
- ✓ Blowdown events measured correctly
- ✓ ASME water balance closes 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. Steam pressure, boiler chemistry, distribution parameters, and every system specification are effectively unchanged.

FREE SAVINGS ESTIMATE

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

[waterflowinnovations.com/
water-bill-savings-calculator](https://waterflowinnovations.com/water-bill-savings-calculator)

Water Flow Innovations LLC

2651 Route 412
Coopersburg, PA 18036
Info@WaterFlowInnovations.com
1-(844)-934-8258

CERTIFICATIONS

IAPMO NSF/ANSI/CAN 61 KIWA GMP SQF

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