



The Flow Conditioning Device: Installation Point, Mechanism, and Meter Accuracy

Water Flow Innovations LLC
Flow Conditioning Device (FCD)
waterflowinnovations.com

INSTALLATION POINT & MECHANISM

Installed Just After the Meter — Ahead of Every Validated Process System

The Flow Conditioning Device (FCD) installs between two pipe joints on the main water line immediately after your water meter — ahead of your facility's internal distribution to common-area irrigation, pool and spa systems, clubhouse demand, and master-metered domestic supply. Each FCD is custom-built to the facility's exact specifications — pipe size, operating water pressure, and existing PRV configuration — and may include an integral check valve depending on the installation requirements. It requires no power and is installed by a licensed plumber or mechanical contractor with water off for approximately one hour.

Mechanically, the FCD creates a slight static back-pressure that extends back through the meter, reducing the air, gas, and turbulence that form during demand events and delivering a laminar-like flow profile through the measurement chamber.

Municipal meters register volumetric displacement — entrained air and turbulent flow register as billable volume. Pressure loss through the device is under 0.8 psi across all flow conditions; downstream pressures, temperatures, and flow rates are effectively unchanged. Because the FCD sits just after the meter, it is outside community operations and homeowner services — a one-hour scheduled shutdown on the master meter is the only impact. Complete technical documentation is provided to support your internal change control review.

DIAGNOSTIC CHECKLIST — SIX SIGNS YOUR METER IS OVER-READING

☐ Bills rising without community growth

Water charges climb year over year with no new units or amenities added.

☐ Sewer charges tracking water up

Sewer charges follow the inflated meter reading — the over-read is billed twice.

☐ Pool, spa, and irrigation seem high

Amenity water consumption runs above what schedules and evaporation predict.

☐ Assessments pressured by utilities

Utility costs are a visible driver of assessment increases homeowners notice.

☐ Audits found usage but no source

Water audits confirmed high usage without finding leaks or a source.

☐ Water accepted as uncontrollable

Water costs are treated as uncontrollable in the association budget.

WHERE OVER-READING HITS THE OPERATION

Association Budget & Assessments

Inflated intake flows directly into the operating budget — and ultimately into homeowner assessments, billed on both water and sewer.

The Audit That Finds Nothing

Fixture and irrigation audits count water that arrives; over-read volume never arrived — the source is the flow conditions at the master meter.

Irrigation & Pool Demand Events

Irrigation controller starts and pool equipment cycling create exactly the high-velocity events that entrain air at the meter.

Board Accountability

Reserve planning and budget votes deserve true utility numbers — paying for water that never arrived is a correctable line item.

ENGINEERING Q&A

Q: Will the FCD affect irrigation, pool operation, or homeowner water service?

A: No. Pressure loss through the FCD is under 0.8 psi across all flow conditions, and it installs ahead of community distribution at the master meter. Irrigation pressure, pool systems, and every homeowner's service are effectively unchanged.

Q: What does installation involve for the community?

A: A licensed plumber installs the FCD at the master meter in approximately one hour with water off — scheduled and noticed like any brief utility maintenance window. No access to homes or amenities is required.

Q: How does the FCD affect sewer charges?

A: Sewer charges are typically calculated from metered intake. When the master meter over-reads irrigation and pool demand cycling, both charges are inflated. After installation, intake reflects actual consumption, reducing both line items.

Q: How do we get a savings estimate to bring to the board?

A: Use the Water & Sewer Bill Savings Calculator at waterflowinnovations.com for an instant projection, then request the free savings analysis — a documented, community-specific projection with the 6-month guarantee terms, ready for a board packet.

Q: How quickly do savings appear?

A: The meter reads accurately immediately after installation. Savings appear on the next full water and sewer billing cycle — no ramp-up period. 90% of installed customers reach full return on investment in under 12 months.

ENGAGEMENT PROCESS — FOUR STEPS

From Analysis to Verified Bill Reduction

1

Free Savings Analysis

We review your water and sewer bills and facility demand profile — no cost, no obligation.

2

Documented Projection

You receive a written savings projection specific to your facility before any commitment.

3

FCD Installation

Licensed plumber or mechanical contractor installs immediately after the meter — water off approximately one hour.

4

Verified Bill Reduction

Before-and-after bill comparison verifies the reduction on your next billing cycles.

GUARANTEE & WARRANTY TERMS

6-Month Money-Back Guarantee

If you're not satisfied within 6 months of installation, the FCD purchase is fully refunded — no questions asked. Installation labor is non-refundable.

Lifetime Transferable Warranty

The FCD carries a lifetime warranty, transferable to the new building owner if the facility changes hands (a transfer fee applies).

DEVICE SPECIFICATIONS

Construction, Certification & Installation

Custom-built to each facility's specifications — pipe size, operating pressure, PRV configuration · 316L stainless steel construction; titanium and specialty alloys available by special order for medical and other specialized applications · Configuration may include an integral check valve per installation requirements · No power required · Under 0.8 psi pressure loss · Certifications: IAPMO, NSF/ANSI/CAN 61, KIWA, GMP, SQF · Installed by licensed plumber or mechanical contractor

Regulatory & Standards References: Community Associations Institute (CAI) · EPA WaterSense