AquaFlow Technologies

SCAN FOR SPECS

ENGINEERED FLOW STABILIZATION

AquaFlow® Technical Engineering Specification Sheet

Precision hydraulic stabilization for municipal, commercial & industrial water infrastructure.

PRODUCT OVERVIEW

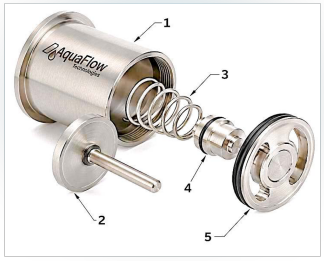
Water Flow Stabilization Device

The AquaFlow Water Flow Stabilization Device is engineered for installation immediately downstream of municipal and industrial master meters. The system stabilizes hydraulic flow conditions, reduces turbulence, minimizes pressure fluctuations, and enhances downstream system performance.

Technical Specifications

TECHNICAL SPECIFICATION	DETAILS
Operating Pressure Range	20 – 180 PSI
Available Sizes	1/2” – 26”
End Connections	Threaded / Flanged
Body Material	SS 316-L / Brass
Internal Assembly	Corrosion-resistant stabilization system
Installation Orientation	Horizontal or Vertical
Maintenance Requirement	Maintenance-free sealed mechanical design
Pressure Loss	Negligible

AQUAFLOW VALVE DIAGRAM



Sealed mechanical core. Corrosion-resistant internal stabilization assembly — no external power, no scheduled maintenance.

PERFORMANCE & SYSTEM BENEFITS

Performance & System Benefits

System Flow — Conditioning at the Meter

Improves master meter measurement stability

Reduces hydraulic shock and pressure fluctuations

Protects downstream equipment and backflow systems

Supports stable downstream flow conditions

No external power source required

Maintenance-free operation

Engineered Flow Stabilization Solutions

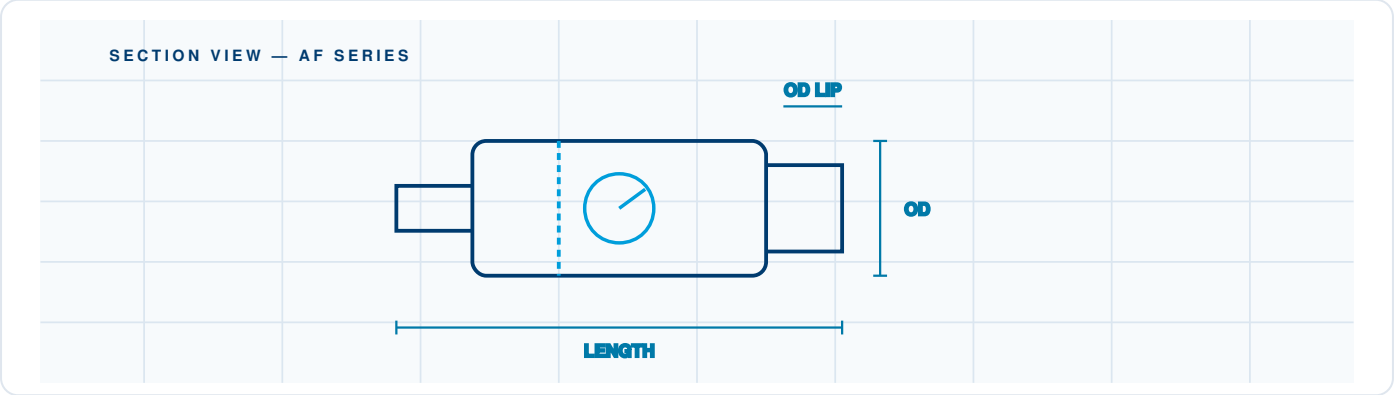
Conditioned, repeatable hydraulic performance across the full operating range.

PASSIVE · SEALED · POWER-FREE

Engineering callout. By conditioning flow immediately downstream of the master meter, the AquaFlow device re-establishes a laminar velocity profile — the condition under which volumetric meters register most accurately and downstream assemblies experience the least mechanical stress.

DIMENSIONAL DATA

Dimensional Data (inch)



MODEL	SIZE	OD	OD LIP	LENGTH
AF-150	1-1/2"	1.48"	1.98"	2.62"
AF-200	2"	1.72"	2.37"	3.65"
AF-300	3"	2.91"	3.52"	3.65"
AF-400	4"	3.30"	4.00"	4.60"
AF-600	6"	5.82"	6.60"	6.19"
AF-800	8"	7.64"	8.67"	6.67"
AF-1000	10"	8.75"	10.20"	8.00"
AF-1200	12"	11.16"	12.95"	10.20"

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Engineered Flow Stabilization Solutions for Municipal, Commercial & Industrial Applications.

ISO NSF IAPMO

ISO / NSF / IAPMO Compliant Applications. Dimensional references support specification, submittal, and procurement across the full AF series size range.

HYDRAULIC PERFORMANCE

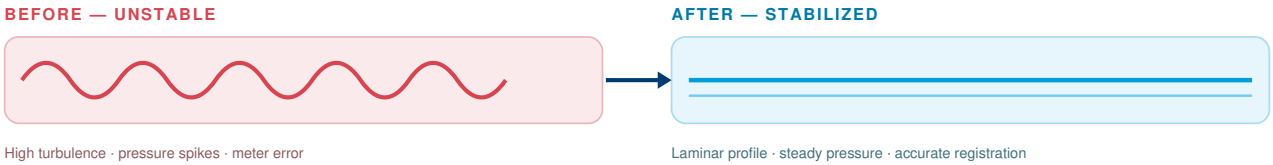
Estimated Hydraulic Performance Data

10–12,000 GPM
TYPICAL FLOW RANGE

20–180 PSI
OPERATING PRESSURE

< 0.8 PSI
PEAK ESTIMATED LOSS

Pressure Stabilization Profile



SIZE	TYPICAL FLOW RANGE (GPM)	OPERATING PRESSURE	ESTIMATED PRESSURE LOSS
1"	10 – 60	20 – 180 PSI	< 0.8 PSI
1.5"	20 – 120	20 – 180 PSI	< 0.7 PSI
2"	40 – 250	20 – 180 PSI	< 0.6 PSI
3"	100 – 600	20 – 180 PSI	< 0.5 PSI
4"	180 – 1,200	20 – 180 PSI	< 0.5 PSI
6"	400 – 2,500	20 – 180 PSI	< 0.4 PSI
8"	800 – 5,000	20 – 180 PSI	< 0.4 PSI
10"	1,500 – 8,000	20 – 180 PSI	< 0.3 PSI
12"	2,500 – 12,000	20 – 180 PSI	< 0.3 PSI

Engineering Note: Performance values shown are estimated comparative engineering references based on standard full-port check valve data and intended for preliminary application review only. Final performance may vary depending on installation conditions, pressure, flow profile, and project configuration.

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Engineered Flow Stabilization Solutions for Municipal, Commercial & Industrial Applications. ISO / NSF / IAPMO Compliant Applications

PRESSURE LOSS PERFORMANCE

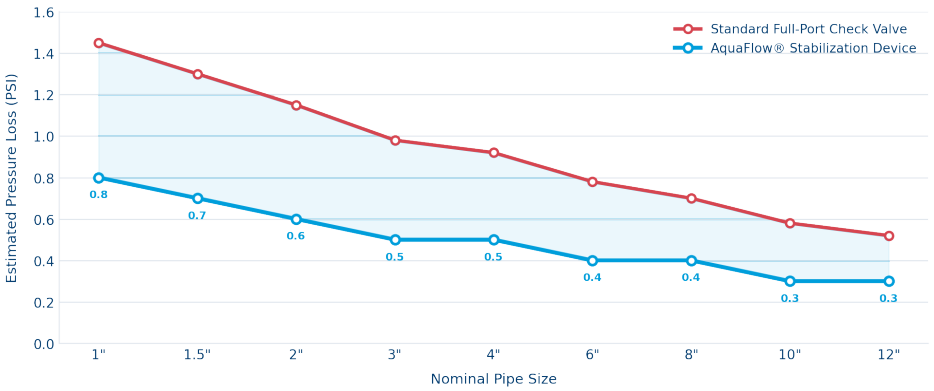
AquaFlow® Full Engineering Specification Sheet

The AquaFlow Water Flow Stabilization Device is engineered for installation immediately downstream of municipal and industrial master meters. The device stabilizes hydraulic flow conditions, reduces turbulence, minimizes pressure fluctuations, and enhances downstream system performance while maintaining minimal pressure loss.

Pressure Loss Performance Graph

The graph below illustrates estimated AquaFlow® pressure loss performance compared to standard full-port check valve configurations across multiple pipe sizes.

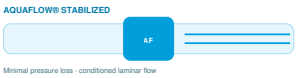
Red = Standard Check Valve Blue = AquaFlow®



Estimated Pressure Loss

SIZE	ESTIMATED PRESSURE LOSS	SIZE	ESTIMATED PRESSURE LOSS
1"	< 0.8 PSI	6"	< 0.4 PSI
1.5"	< 0.7 PSI	8"	< 0.4 PSI
2"	< 0.6 PSI	10"	< 0.3 PSI
3"	< 0.5 PSI	12"	< 0.3 PSI
4"	< 0.5 PSI		

System Comparison



Executive Summary

Across every nominal size, AquaFlow® delivers materially lower estimated pressure loss than standard full-port check valve configurations — preserving system head while stabilizing downstream flow.

PRESSURE LOSS PERFORMANCE (CONT.)

Extended Size Range & Compliance

SIZE	ESTIMATED PRESSURE LOSS
14"	< 0.3 PSI
16"	< 0.25 PSI
18"	< 0.25 PSI

SIZE	ESTIMATED PRESSURE LOSS
20"	< 0.20 PSI
24"	< 0.20 PSI
26"	< 0.15 PSI

Engineering Note: Hydraulic performance values shown are estimated engineering references based on comparative full-port check valve standards with reduced pressure loss characteristics.

CERTIFICATIONS & COMPLIANCE

Built to Recognized Standards

ISO 9001 ALIGNED

ISO 9001
Quality Management

NSF ANSI 61

NSF / ANSI 61
Drinking Water Components

IAPMO LISTED

IAPMO
Listed Applications

Limited Warranty

AquaFlow Stabilization Devices are warranted against defects in materials and workmanship under normal installation and operating conditions. Sealed, maintenance-free construction supports long-term reliable service. Full warranty terms available on request.

Installation Summary

- Install immediately downstream of the master meter.
- Mount horizontally or vertically per application.
- Threaded or flanged connections; size 1/2”–26”.
- No external power or scheduled maintenance required.

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Engineered Flow Stabilization Solutions for Municipal, Commercial & Industrial Applications.

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