

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

MasterSeries® LF850

Double Check Valve Backflow Prevention Assemblies

Sizes: 2½" – 10"

The FEBCO MasterSeries LF850 Double Check Assembly is specifically designed to protect against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) application in accordance with Local Governing Water Utility Code. This Backflow Assembly is primarily used on potable drinking water systems where Local Governing Code mandates protection from non-potable quality water being pumped or siphoned back into the potable water system.

The coating on this backflow assembly uses ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate. The LF850 features Lead Free* construction to comply with low lead installation requirements. The Lead Free* Double Check Assemblies shall comply with state codes and standards, where applicable, requiring reduced lead content.

Features

- Inline Serviceable Assembly
- No Special Tools Required for Servicing
- Captured Modular Spring Assembly
- Reversible & Replaceable Discs
- Field Replaceable Seats
- Ductile Iron Valve Body Design
- Stainless Steel Check Components
- Utilizes advanced ArmorTek™ coating technology to resist corrosion of internals
- Winterization feature with disc retainers and valve body drain ports
- Clapper Check Assembly
- Commonality between 1st & 2nd Check Components
- Captured O-ring Design



Model LF850 Double Check Assembly

Specifications

The FEBCO MasterSeries LF850 Double Check Valve Assembly shall be installed on the potable water supply and at each point of cross-connection to protect against possible backpressure and backsiphonage conditions for non-health hazard (i.e., pollutant) applications. The assembly shall consist of a main line valve body composed of two (2) independently acting approved clapper style check modules with replaceable seats and disc rubbers. Servicing of both check modules does not require any special tools and are accessed through independently top entry covers. This assembly shall be fitted with AWWA Compliant inlet/outlet resilient seated shutoff valves; when used on a Fire-Sprinkler application, the assembly shall be fitted with approved UL/FM inlet/outlet resilient seated shutoff valves and contain four (4) properly located resilient seated test cocks as specified by AWWA Standard C510. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor. Flow and pressure loss performance parameters shall meet the requirements of AWWA Standard C510.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

FEBCO product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact FEBCO Technical Service. FEBCO reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on FEBCO products previously or subsequently sold.



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Options - Suffix

- OSY: UL/FM Approved OS&Y Gate Valves
(ANSI/AWWA C515 Compliant)
- NRS: Non-Rising Stem Gate Valves
(ANSI/AWWA C509 Compliant)
- LG: Less Shut-off valves; This is NOT an APPROVED ASSEMBLY

Example Ordering Descriptions:

- 4" LF850-OSY - Valve Assembly fitted with OS&Y Shutoff Valves
- 4" LF850-NRS - Valve Assembly fitted with NRS Shutoff Valves

Assembly Flow Orientation:

Horizontal & Vertical Up (2½" – 10") - Approved by FCCCHR-USC, ASSE, cULus, FM, IAPMO, and CSA

Approvals – Standards

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
 - ASSE 1015 Listed
 - **UL Classified (US & Canada)
 - **FM Approved
 - IAPMO
 - CSA Listed
 - AWWA Standard C510 Compliant
 - End Connections: Compliant to ASME B16.1 Class 125 & AWWA Class D Flange
- **Assembly configured with UL/FM Approved OS&Y RW Gate Valves. Less gate valve assemblies are not UL/FM approved configurations.



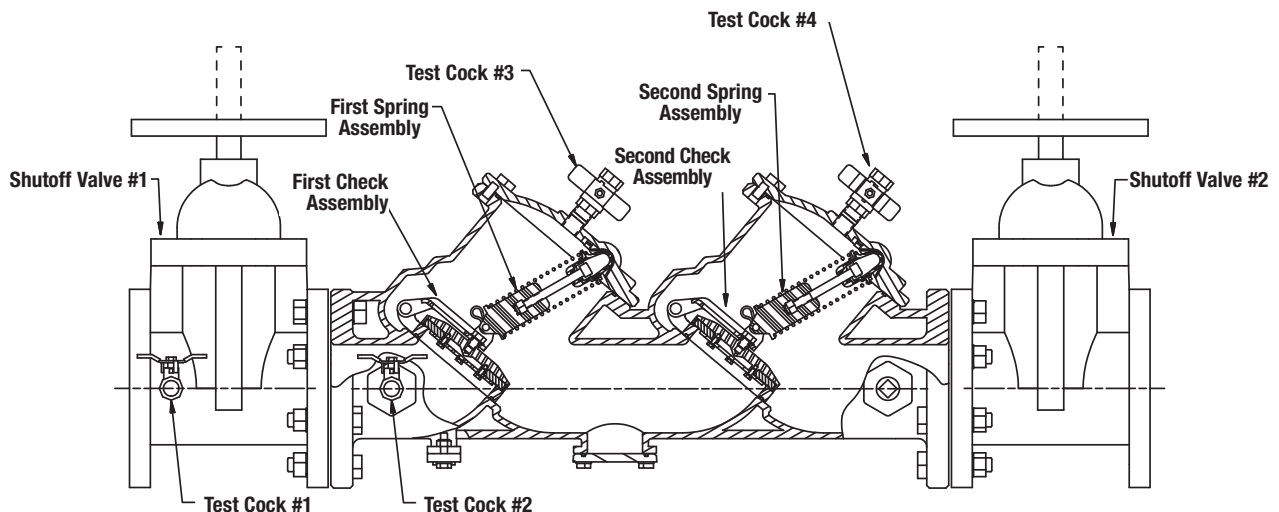
Materials

Below is a general materials list of the Model LF850. All assemblies size 2½" through 10" is similar in materials and construction. Please contact your local FEBCO Representative if you require further information.

- Main Valve Body: Ductile iron Grade 65-45-12
- Coating: Fusion epoxy coated internal and external
AWWA C550
- Shutoff Valves: NRS resilient wedge gate valves AWWA C509
(Standard)
OSY resilient wedge gate valves AWWA C515
(UL/FM)
- Check Seats: Stainless Steel
- Disc Holder: Stainless Steel
- Elastomer Disc: Silicone
- Spring: Stainless Steel
- Clamp: AWWA C606 (10" Only)

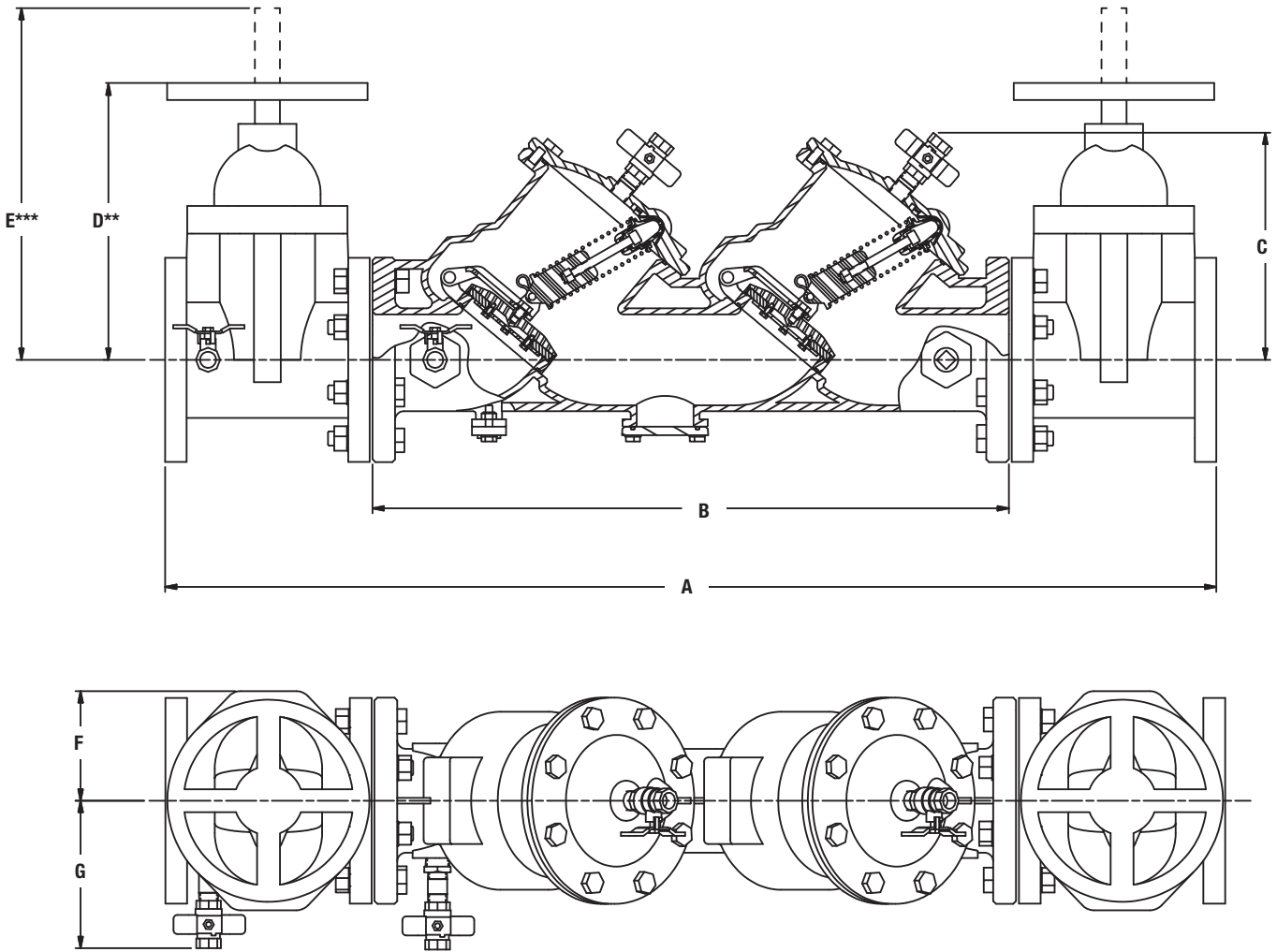
Pressure – Temperature

- Max. Working Pressure: 175psi (12.1 bar)
- Min. Working Pressure: 10psi (0.7 bar)
- Hydrostatic Test Pressure: 350psi (24.1 bar)
- Hydrostatic Safety Pressure: 700psi (48.3 bar)
- Temperature Range: 33°F - 140°F (0.5°C - 60°C)
Continuous



Dimensions & Weights

Below are the nominal dimensions and physical weights for the Model LF850 size 2½" through 10". Allowances must be made for normal manufacturing tolerances. Please visit our website to download a copy of this product's installation instructions, or contact your local FEBCO Representative for more information.



LF850

SIZE	DIMENSIONS										WEIGHT****							
	A		B		C		D**		E***		F		G		NRS		OSY	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.	lbs.	kg.
2½	40¾	1035	25½	648	10	254	12⅝	321	16⅝	416	4½	114	7⅞	181	226	103	230	104
3	41⅞	1064	25⅝	651	10	254	12⅞	327	22¼	565	4½	114	7⅞	187	252	114	256	116
4	46¼	1175	28	711	10⅞	257	14⅝	365	23¼	591	5½	140	8⅞	206	311	141	323	147
6	56	1422	34¾	883	12¾	324	18⅞	479	30⅞	765	6½	165	9⅞	251	478	217	498	226
8	65	1651	41¾	1061	15⅝	397	23½	597	37¼	959	7	178	11⅞	283	781	354	809	367
10	72⅝	1845	46⅝	1178	15⅝	397	27½	699	48	1219	9	229	12⅝	314	1179	535	1217	552

** Indicates nominal dimensions with NRS Gate Valves

*** Indicates nominal dimensions with OSY Gate Valves (Full Open Position)

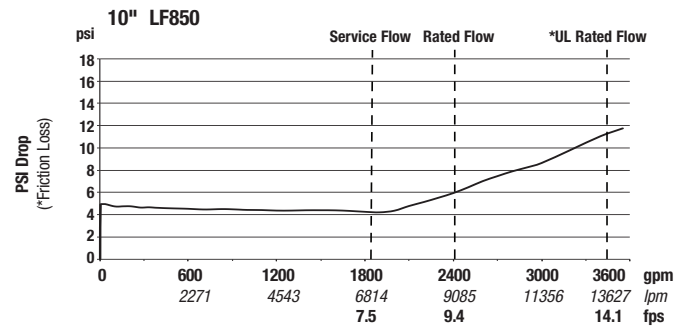
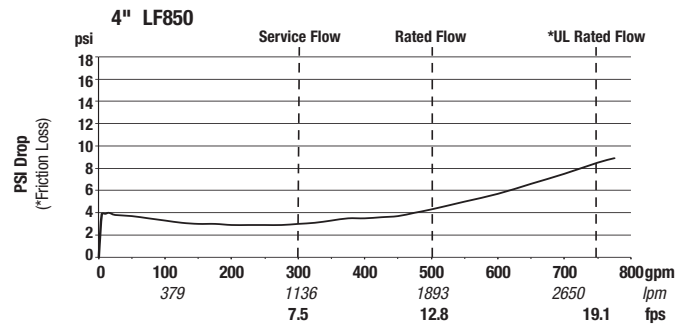
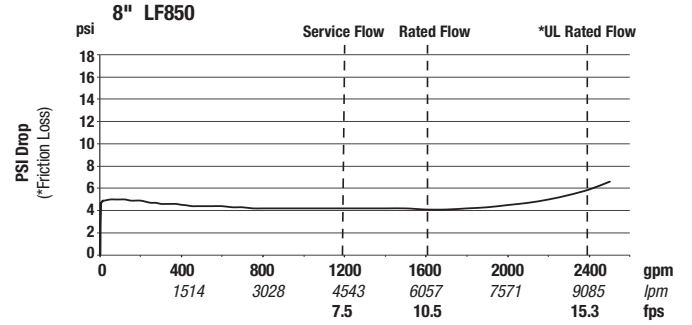
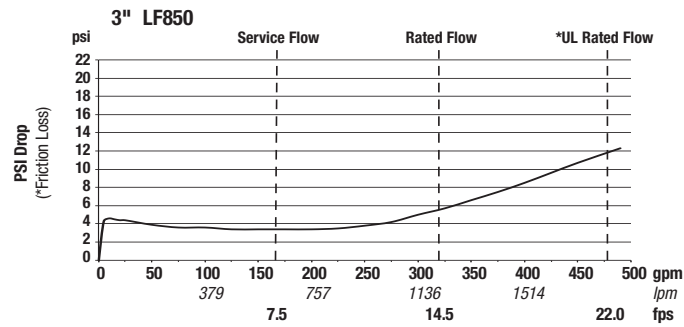
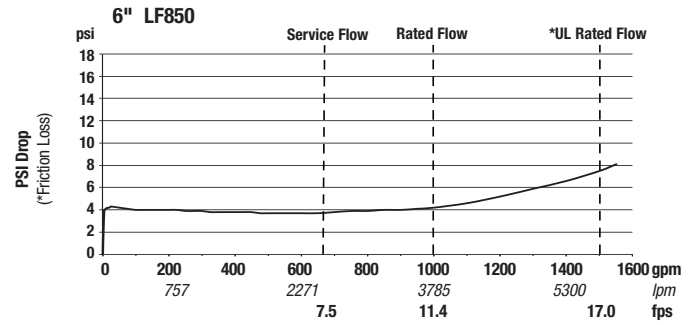
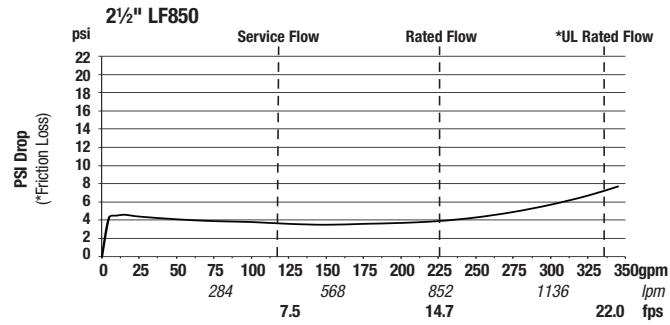
**** Indicates weight of complete Backflow Assemblies with specified Gate Valves

Performance

Flow capacity chart identifies valve performance based upon rated water Velocity up to 20fps

- Maximum service flow rate is determined by maximum rated Velocity of 7.5fps.
- AWWA Manual M-22 (Appendix C) recommends that the maximum water Velocity in the services be not more than 10fps.
- UL flow rate is determined by typically rated Velocity of 15 feet/sec.

Capacity



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