SHOP DRAWING REVIEW

- [X] NOT REVIEWED
- [ ] REVIEWED
- [ ] REVIEWED AS NOTED
- [ ] REVISE AND RESUBMIT

This review by Hilditch Architect Inc. is for the sole purpose of ascertaining conformance with the general design concept features only, and does not in any way constitute review of the design of engineering elements which form part of the Contract Documents prepared by others. This review shall not mean that Hilditch Architect Inc. approves the design detail inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all trades.

***Hilditch** Architect Inc.*

By: Sasha Stairs

Project No: 1809

Date Rec'd:

Date Rev'd: 2025.05.12

GC/CM: 2025.05.09

Consultant: 2025.05.12

Submittal No.71

Backflow Preventers - Shop

Drawing

Project Name:
Neshama Hospice

Owner:
Neshama

Prime Consultant:
Hilditch Architect Inc

General Contractor: Renokrew

SHOP DRAWING SUBMITTAL REVIEW	JOB NAME: Neshama Hospice JOB #: 24-130 DATE: May 09, 2025
REVIEWED REJECTED REVIEW & RESUBMIT REVIEW AS NOTED	This review is for general conformance of plans and specifications only. Approvals are subject to subcontractors performance within the confines of the contract documents. Review of dimensions will not serve to relieve the subcontractor of contractual responsibility for any deviation from the contract requirements. SPECIFICATION: 23 08 10 ✓ SHOP DRAWING PRODUCT DATA DOCUMENTATION LETTER RENOKREW TORONTO | OTTAWA CHECKED BY: REVIEWED BY: TOTAL PAGES: 13

SustainGlobe Ltd.

THIS DRAWING REVIEWED SOLELY FOR GENERAL CONFORMITY WITH DESIGN CONCEPTS, QUANTITIES, DETAILS, DIMENSIONS AND DESIGNS INHERENT IN THE SHOP DRAWINGS ARE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY DATA WITH FIELD DIMENSIONS. CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGN OF MANUFACTURED ITEMS, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION AND INSTALLATION OF EQUIPMENT.

DATE RECEIVED: May 9, 2025	✓ MECHANICAL ☐ ELECTRICAL ☐ OTHERS
THIS DRAWING IS: ☐ REVIEWED ✓ REVIEWED AS NOTED ☐ REVIEWED AND TO BE RESUBMIT	BY: TL DATE: May 12, 2025 PROJ. NO.: 18031

RENOKREW TORONTO | OTTAWA

54 Audia Court, Unit 2
Concord, ON L4K 3N5
(905)-738-1400

Submittal 24-256-020

PROJECT NAME	PROJECT ADDRESS	DATE SUBMITTED
NESHAMA HOSPICE 24-256	3 Cadillac Avenue North York, ON M3H 1R9	May 9, 2025

TO	FROM
Taranjeet Singh	INZAMAN KHAN
COMPANY	COMPANY
1568796 ONTARIO INC. C/A RENOKREW	Consult Mechanical Inc.
EMAIL	EMAIL
taranjeet@renokrew.com	inzaman@consultmechanical.com
ADDRESS	ADDRESS
43 LEPAGE COURT TORONTO, ON M3J 1Z9	54 Audia Court, Unit 2 Concord, ON L4K 3N5

Title

Backflow Preventer - 1, 2 & 3

Description

Backflow preventer BFP-1, BFP-2 and BFP-3
a. 4 957-BFG-FS
b. 3/4 LF009M3-QT-FS
c. 909AGA

Package Items

SPEC	SUBSECTION	ITEM	TYPE

Job Name _____

Job Location _____

Engineer _____

Approval _____

Contractor _____

Approval _____

Contractor's P.O. No. _____

Representative _____

LEAD FREE*

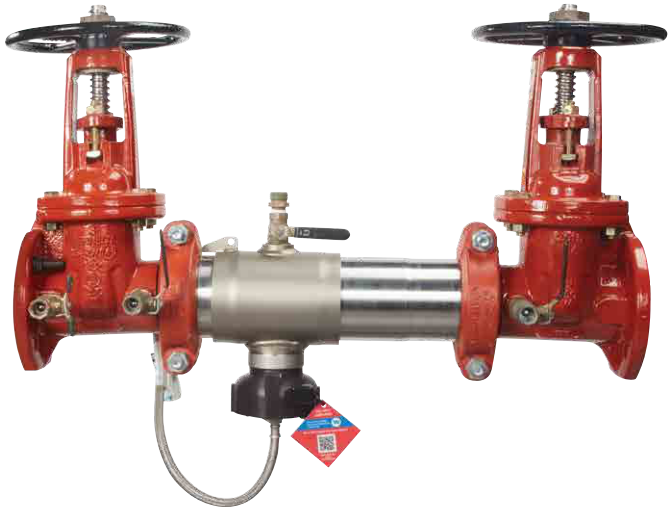
Series 957-FS

Reduced Pressure Zone Assemblies

2½" – 10"

Series 957-FS Reduced Pressure Zone Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. The assemblies are normally used in health hazard applications for protection against backsiphonage or backpressure.

The series include an integrated flood sensor to detect excessive water discharges from the relief valve. When activated through an add-on sensor connection kit, the flood sensor relays a signal that triggers a multichannel alert (call, email, text) to notify personnel about potential flooding. The add-on sensor connection kit is available for both building management systems, or BMS, and cellular communication. (For more information, refer to *Installation, Maintenance, and Repair Manual, Series 957-FS, 957RPDA-FS, and LF957RPDA-FS.)*



957-FS-OSY

Features

- Sizes 2½", 3", and 4" available with quarter-turn ball valve shutoffs
- Replaceable check disc rubber
- Extremely compact design
- 70% Lighter than traditional designs
- 304 (Schedule 40) stainless steel housing and sleeve
- Groove fittings allow integral pipeline adjustment
- Patented torsion spring checks provide lowest pressure loss
- Unmatched ease of serviceability
- Bottom mounted cast stainless steel relief valve
- Available with grooved butterfly valve shutoffs
- Integrated sensor for flood detection, activated by add-on sensor connection kit

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

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.

Inquire with governing authorities for local installation requirements.

NOTICE

Use of the integrated flood sensor does not replicate the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide proper drainage in the event of a discharge.

Watts® is not responsible for the failure of alerts due to connectivity or power issues.

WATTS®

Specification

The Reduced Pressure Zone Assembly shall consist of two independent torsion spring check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required torsion spring check modules and relief valve shall be contained with a sleeve accessible single housing constructed from 304 (Schedule 40) stainless steel pipe with groove end connections. Torsion spring checks shall have replaceable elastomer discs and in operation produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. Assembly shall be a Watts Series 957.

Model Suffix

FS	Integrated sensor for flood detection
NRS	Non-rising stem, resilient seated gate valves
OSY	UL Classified and FM Approved outside stem and yoke resilient seated gate valves
N	N-pattern orientation
Z	Z-pattern orientation
BFG	UL Classified and FM Approved grooved gear operated butterfly valves with tamper switch
QT	2½" - 4" quarter-turn ball valves
OSY FxG**	Flanged inlet gate connection and grooved outlet gate connection
OSY GxF**	Grooved inlet gate connection and flanged outlet gate connection
OSY GxG**	Grooved inlet gate connection and grooved outlet gate connection

NOTICE

When installing a drain line on Series 957 backflow preventers, use 957AG air gaps. Attach the air gap brackets directly onto the flood sensor. For additional information, refer to ES-AG/EL/TC at watts.com

Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC), excluding 10" N-pattern installation as well as 6" and 10" Z-pattern installations
- AWWA C511-97

1013 B64.4 (**BFG & OSY Only)

Certified to NSF/ANSI 61-G

For additional approval information, contact the factory or visit watts.com.

**Options for the gate valve:
– Consult factory for dimensions.
– Available with grooved NRS gate valves; consult factory.
– Post indicator plate and operating nut available; consult factory.

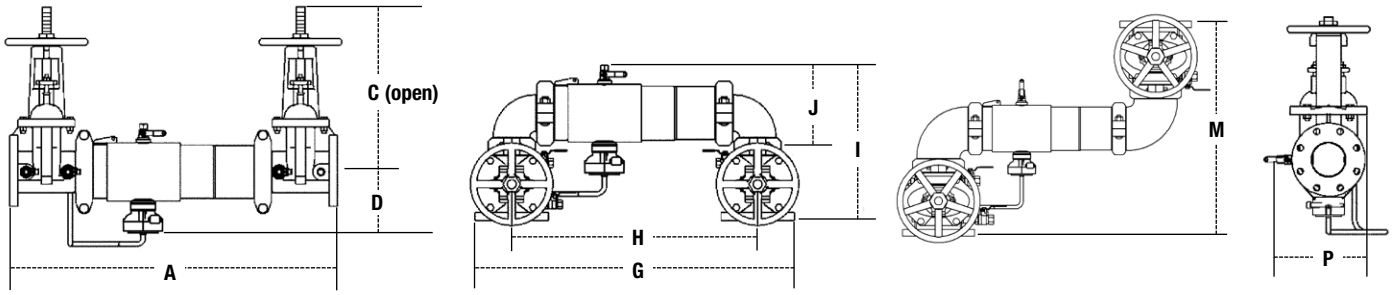
Materials

Housing & Sleeve	304 (Schedule 40) stainless steel
Elastomers	EPDM, silicone, and Buna-N
Torsion Spring Checks	Noryl®, stainless steel
Check Discs	Reversible silicone or EPDM
Test Cocks	Lead Free* bronze body
Pins & Fasteners	300 Series stainless steel
Springs	Stainless steel

Pressure — Temperature

Temperature Range	33°F–140°F (0.5°C – 60°C)
Maximum Working Pressure	175 psi (12.1 bar)

Dimensions - Weight



957, 957N, 957Z

SIZE	DIMENSIONS																		WEIGHT					
	A		C (OSY)		C (NRS)		D		G		H		I		J		M		P		957NRS		957OSY		957N NRS		957N OSY	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*	*lb*	*kg*	*lb*	*kg*	*lb*	*kg*
2½	30¾	781	16⅜	416	9⅜	238	6½	165	29 1/16	738	21½	546	15½	393	8 13/16	223	21¼	540	9 3/16	234	118	54	128	58	126	57	136	62
3	31¾	806	18⅞	479	10¼	260	6 11/16	170	30¼	768	22¼	565	17⅛	435	9 3/16	233	23	584	10½	267	134	61	148	67	147	67	161	73
SG: 4	33¾	857	22¾	578	12 3/16	310	7	178	33	838	23½	597	18½	470	9 15/16	252	26¼	667	11 3/16	284	164	74	164	74	187	85	187	85
6	43½	1105	30⅛	765	16	406	8½	216	44¾	1137	33½	851	23 3/16	589	13 1/16	332	34¼	870	15	381	276	125	298	135	317	144	339	154
8	49¾	1264	37¾	959	19 15/16	506	9 11/16	246	54⅛	1375	40⅛	1019	27 7/16	697	15 11/16	399	36⅞	937	17 3/16	437	441	200	483	219	516	234	558	253
10	57¾	1467	45¾	1162	23 13/16	605	11 3/16	285	66	1676	49½	1257	32½	826	17 5/16	440	44½	1124	20	508	723	328	783	355	893	405	950	431

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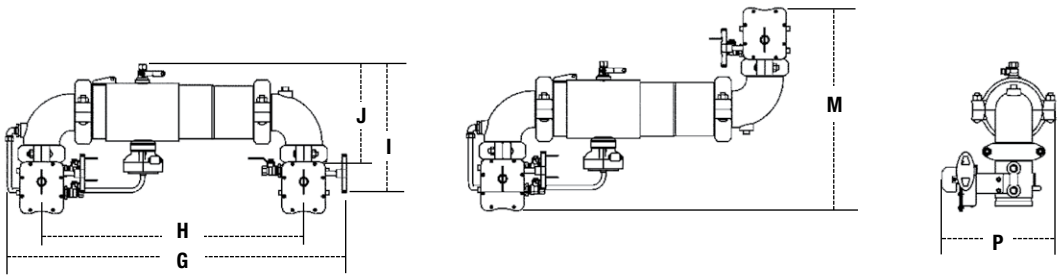
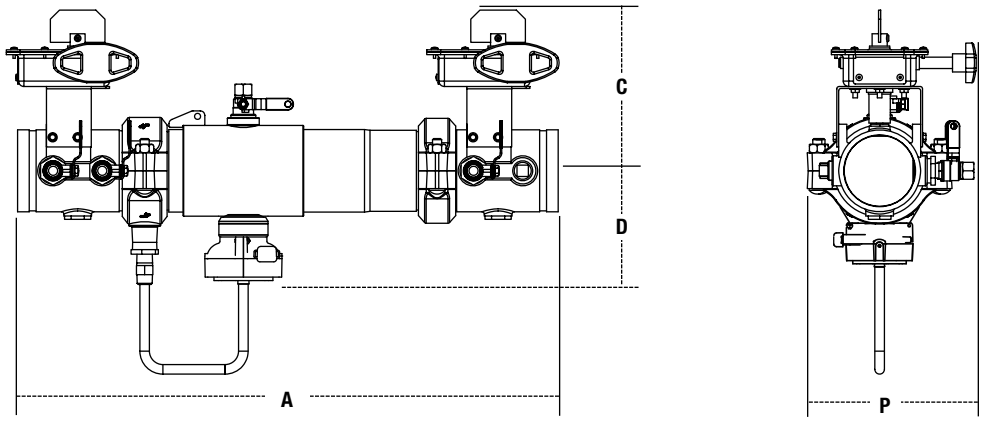


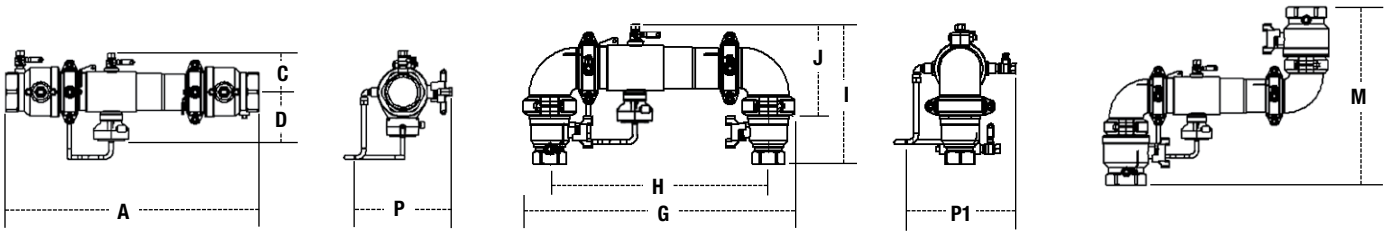
957NBFG, 957ZBFG

SIZE	DIMENSIONS												WEIGHT	
	G		H		I		J		M		P		957N/957Z	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
2½	32½	826	23	584	15½	394	9½	241	19¾	502	11 13/16	300	67	30
3	34	864	24	610	16 5/16	414	10 1/16	256	21¼	540	12⅛	308	70	32
4	35⅝	905	25½	648	17 3/16	437	10 15/16	279	23½	597	12⅝	321	87	39
6	46½	1181	35¼	895	20½	521	13½	343	27¼	692	15	382	160	73



957 BFG

SIZE	DIMENSIONS								WEIGHT	
	A		C		D		P			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
4	29	737	7¾	197	6⅜	162	9½	241	66	30
6	36½	927	9 11/16	246	7 7/16	189	14¼	362	122	55



957QT

SIZE	DIMENSIONS																		WEIGHT			
	A		C		D		G		H		I		J		M		P		P1		QT		QTN	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*	*lb*	*kg*
2 1/2	27 1/2	698	4 7/8	124	6 7/8	175	30¼	768	21½	546	16 1/16	407	11⅜	289	19 7/8	505	11 5/16	287	11 5/16	287	46	21	57	26
3	28	711	4 7/8	124	6 7/8	175	30¼	768	22¼	565	16 9/16	420	11⅜	289	20 7/8	531	11 5/16	287	11 5/16	287	56	25	67	30
4	28¾	730	4 7/8	124	6 7/8	175	30¼	768	23½	597	18 5/16	465	11⅜	289	24 3/8	619	11 5/16	287	11 5/16	287	76	34	87	39

Capacity

Flow curves as tested by Underwriters Laboratories.

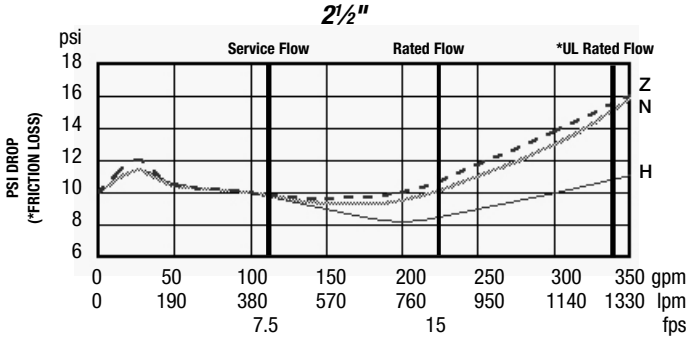
Flow characteristics collected using butterfly shutoff valves.

——— Horizontal ——— N-pattern ----- Z-pattern

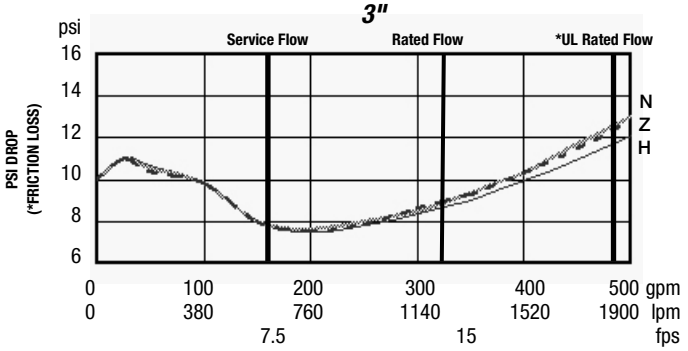
Flow capacity chart identifies valve performance based upon rated water velocity up to 25 fps.

- Service Flow is typically determined by a rated velocity of 7.5 fps based upon schedule 40 pipe.
- Rated Flow identifies maximum continuous duty performance determined by AWWA.
- UL Flow Rate is 150% of Rated Flow and is not recommended for continuous duty.
- AWWA Manual M22 (Appendix C) recommends that the maximum water velocity in services be not more than 10 fps.

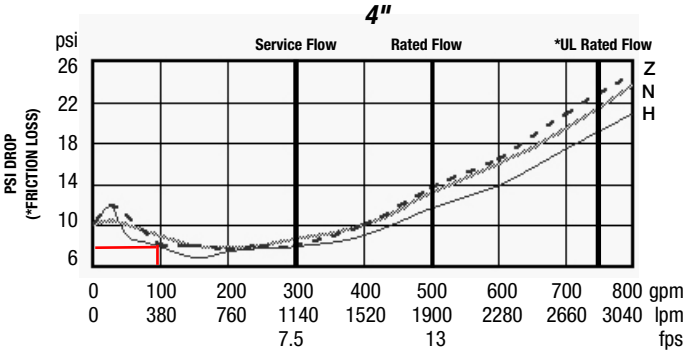
2½"



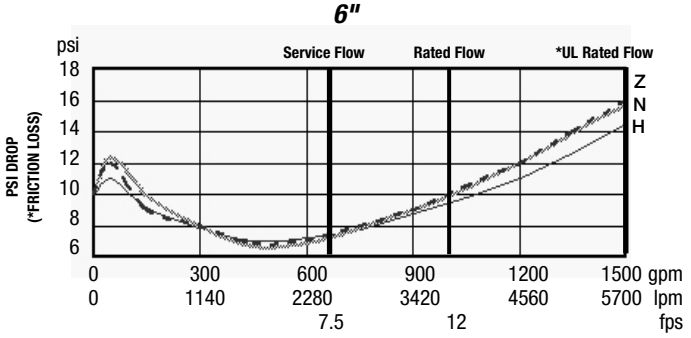
3"



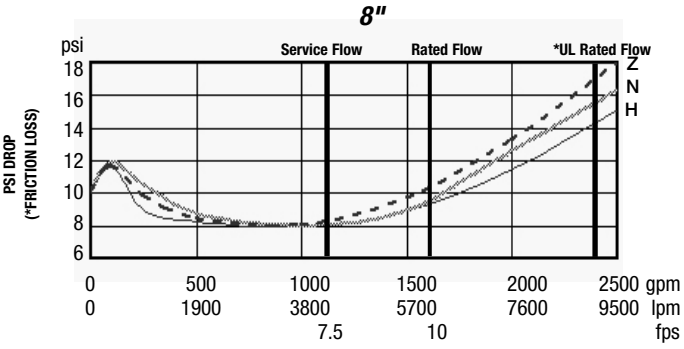
4"



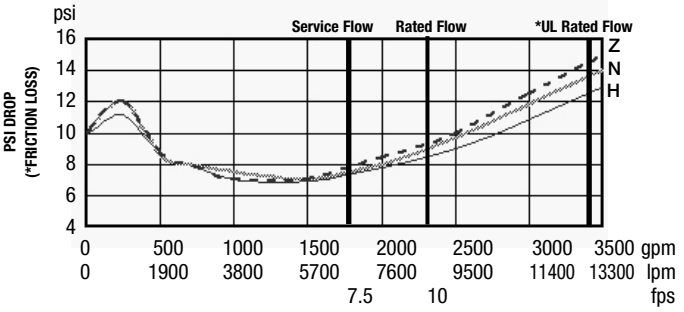
6"



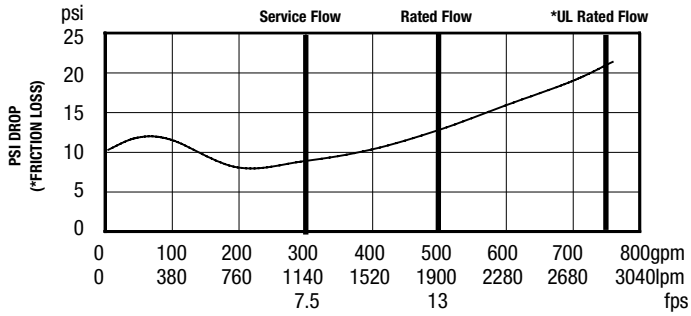
8"



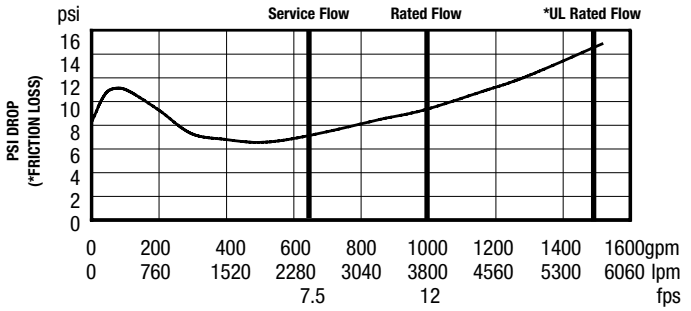
10"



4" BFG Horizontal



6" BFG Horizontal



WATTS®

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Canada: T: (888) 208-8927 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

Engineering Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

LEAD FREE*

Series LF009 and LF009-FS

Reduced Pressure Zone Assemblies

Size: ¼" – 3"

Series LF009 and LF009-FS Reduced Pressure Zone Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. These series are used in a variety of installations, including the prevention of health hazard cross-connections in piping systems or for containment at the service line entrance. They are also used in irrigation systems, boiler feed, water lines, and other installations requiring maximum protection. The body construction is fused with ArmorTek™ coating technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate.* The series also features Lead Free* construction to comply with Lead Free* installation requirements.

Both series feature two in-line, independent check valves, captured springs, and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes ¼" to 1" shutoffs have tee handles.

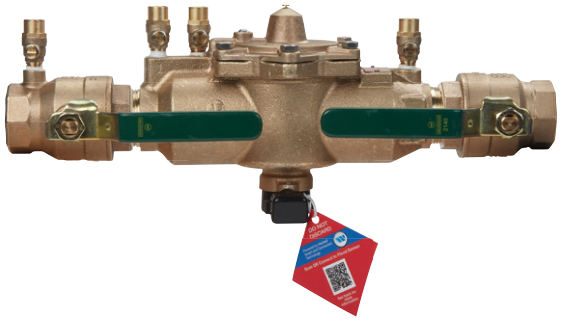
Series LF009-FS assemblies of sizes ½" to 2" include an integrated flood sensor to detect excessive water discharges from the relief valve. When activated through an add-on sensor connection kit, the flood sensor relays a signal that triggers notification to qualified service personnel who can take corrective action, thus avoiding the possibility of ruinous flooding and costly damage. The add-on sensor connection kit is available for both building management systems, or BMS, and cellular communication. (For more information, refer to *Installation, Maintenance, and Repair Manual, Series 009-FS and LF009-FS.)*

Features

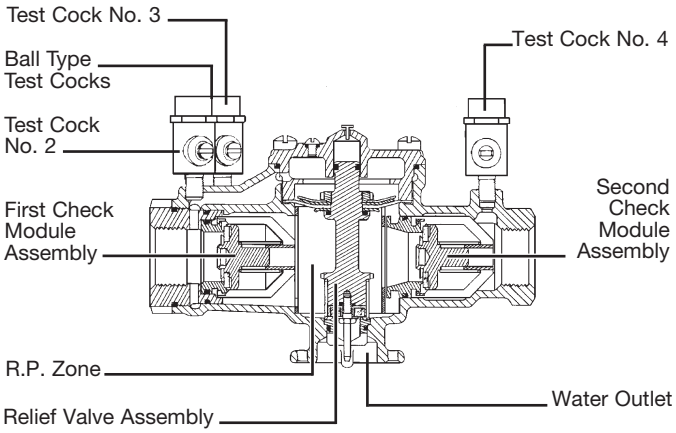
- Single access cover and modular check construction for ease of maintenance
- Top entry to all internals for immediate accessibility
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- ArmorTek™ coating technology to resist internal corrosion†
- Lead Free* cast copper silicon alloy body construction (¼" – 2")
- Fused epoxy coated cast iron body (2½" – 3")
- Ball valve test cocks — screwdriver slotted (¼" – 2")
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing
- Integrated sensor for flood detection (½" – 2")

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.



LF009M2-QT-FS



Specification

A Reduced Pressure Zone Assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of an internal pressure differential relief valve located in a zone between two positive seating check modules with captured springs and silicone seat discs. Seats and seat discs shall be replaceable in both check modules and the relief valve. There shall be no threads or screws in the waterway exposed to line fluids. Service of all internal components shall be through a single access cover secured with stainless steel bolts. Body and shutoffs shall be constructed using Lead Free* cast copper silicon alloy materials. Lead Free* reduced pressure zone assembly shall comply with state codes and standards, where applicable, requiring reduced lead content.

The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks, and an air gap drain fitting. The valve body shall utilize a coating system with built-in electrochemical corrosion inhibitor and microbial inhibitor.† The assembly shall meet the requirements of USC; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Series LF009.

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.

†Amortek coating applied to the 2½" and 3" models only.

WATTS®

Engineering Specification

Job Name _____ Contractor _____

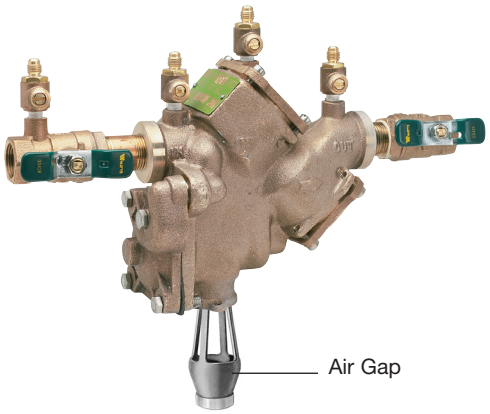
Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Air Gaps, Elbows, and Test Cocks

For Reduced Pressure Zone Assemblies



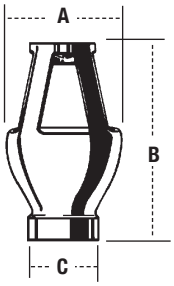
909 QT/LF909 QT

Air Gaps

An air gap provides the unobstructed, physical separation between the discharge end of a potable water supply line and an open receiving vessel.

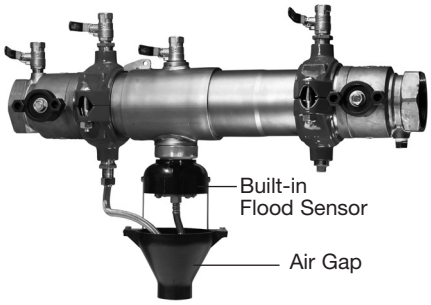
The installation of an air gap and drain line are recommended.

If using an air gap on an assembly equipped with a flood sensor, order the air gap listed for that specific flood sensor assembly model.



Approvals

ANSI/ASME A112.1.2



957 QT

MODEL	ORDERING CODE	SIZE/SERIES	FLOOD SENSOR MODEL/SIZE	DIMENSIONS A in.	A mm	B in.	B mm	C (NPT) in.	C (NPT) mm	WEIGHT lb	WEIGHT kg
909AGA	0881399	½" – ½" 009/LF009 ¾" 009/LF009M2/M3 ½" – 1" 995	009/LF009 ½" 009/LF009M2/M3 ¾" LF919 ½" – 1"	2⅜	60	3⅛	79	½	13	0.63	0.28
909AGC	0881376	¾" – 1" 009/LF009, 909/LF909 1" – 1½" 009/LF009M2 1¼" – 2" 995	009/LF009, 909/LF909 ¾" – 1" 009/LF009M2 1" – 1½" LF919 1¼" – 2"	3¼	83	4⅞	124	1	25	1.50	0.68
909AGC-B	0881377	¾" – 1" 909 1" – 1½" 009M2 1½" – 2" 995	—	3¼	88	3¾	95	1	25	1.90	0.86
909AGF	0881378	1¼" – 3" 009/LF009, 909/LF909 1¼" – 2" 009/LF009M1 2" 009/LF009M2	009/LF009, 909/LF909 1¼" – 3" 009/LF009M1 1¼" – 2" 009/LF009M2 2"	4⅜	111	6¾	171	2	51	3.25	1.47
909AGK	0881385	4" – 6" 909/LF909 4" – 10" 909RPDA 8" – 10" 909/LF909M1	909/LF909 4" – 6" 909RPDA 4" – 10" 909/LF909M1 8" – 10"	6⅜	162	9⅝	244	3	76	6.25	2.83
909AGM	0881387	8" – 10" 909/LF909	—	7⅜	187	11¼	286	4	102	15.50	7.03
919AGC	0881576	¾" – 1" 919/LF919	—	2⅜	60	3⅛	79	½	13	0.63	0.28
919AGF	0881577	1¼" – 2" 919/LF919	—	4⅜	111	8½	216	2	51	3.5	1.6
957-AG	0111764	2½" – 10" 957	957 2½" – 10" 994 2½" – 10"	7½	190	12	304	2	51	1.50	0.68
Splash Guard											
994AGK-P	0881397	2½" – 10" 994	—	8	203	11¼	286	2	51	1.50	0.68
995-AG	0439190	3" – 6" 995	—	5	127	8	203	2	51	–	–
957-AG SG	0111815	2½" – 10" 957	—	4¾	119	2½	62	–	–	0.4	0.18

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.

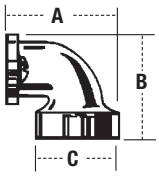
Inquire with governing authorities for local installation requirements.

WATTS®

Vent Elbows

Used with Watts air gaps for vertical installation of Reduced Pressure Zone assemblies.

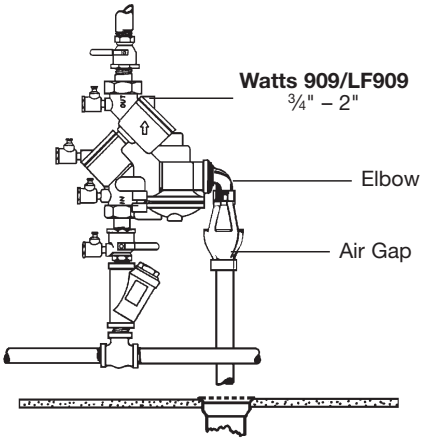
Series 909 sizes ¾" and 1" are approved for vertical installation.



MODEL	MATERIAL	ORDERING CODE	SIZE/SERIES	DIMENSIONS A in.	A mm	B in.	B mm	C in.	C mm	WEIGHT lb	WEIGHT kg
909EL-A	Bronze	0881370	¼"–½" 009/LF009 ¾" 009/LF009M2/M3 ½"–1" 995	—	—	—	—	—	—	—	—
909EL-C	Iron	0881380	¾"–1" 009/LF009, 909/LF909 1"–1½" 009/LF009M2 1¼"–2" 995	2⅜	60	2⅜	60	—	—	0.38	0.17
909EL-F	Gray Cast Iron with Zinc Phosphate Primer	0881382	1¼"–2" 009/LF009M1 1¼"–2" 009/LF009, 909/LF909 2" 009M2	3⅝	92	3⅝	92	—	—	2	0.91
909EL-H		0881384	2½"–3" 009/LF009, 909/LF909	—	—	—	—	2	51	—	—
919 EL-C	Bronze	0881578	¾"–1" 919/LF919	2¼	57	2⅝	67	—	—	0.63	0.28
919 EL-F	Cast Iron	0881579	1¼"–2" 919/LF919	5¼	133	4	102	—	—	2	0.9
994EL-F	Steel Epoxy Coated	0881396	2½"–10" 994	4⅞	124	9	229	2	51	4	1.8

NOTICE

Not all RPZ assemblies have certification for vertical installation. Inquire with governing authorities for local installation allowances.



Vertical (Up) Installation

Use the elbow as shown when vertical installation is allowed.

Test Cocks - Lead Free*

LFTC

For use with backflow preventers, isolation valve for gauges, isolation valves for small equipment lines.

- Full port ball valve design
- Screwdriver slot to open and close
- Available ⅛" M x ¼" F (0792001) or ¼" M x ¼" F (0792000)

LFSAE-TC

- Full port ball valve design
- Screwdriver slot operation
- Available ⅛" M x SAE (0792002)

LFTC for SilverEagle®

- ½" TC for 2½" – 4" Series 757 and 957 (0792520)
- ¾" TC for 6" – 10" Series 757 and 957 (0792521)
- ¾" TC for 6" – 10" with MNPT thread (0792525)
- Full port ball valve design

No. 3 LFTC with O-Ring

- For 2½" – 4" Series 757 and 957 (0792522)
- For 6" – 10" Series 757 and 957 (0792523)

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

Accessories Cap and Tether

Plastic cap and tether

(Four required per backflow preventer)

- Fits ¼" Female test cocks
- Plastic dust cap and rubber tether
- RK-TC ⅛ (0888846)

SAE-TC Brass Cap

Protects SAE-TC from dirt and debris (0006902)

SAE-TC Adapter

- ¼" female SAE x 7/16" FPT
- Adapts to SAE-TC for use with pressure gauge and/or site tube
- SAE-TC Adapter (0006903)

Brass Cap & Plastic Tether

(Four required per backflow preventer)

- Fits 0888846 M x SAE test cocks
- Brass dust cap with O-ring seal and rubber tether
- RK-SAE-TC (0888845)

USA: T: (800) 224-1299 • Watts.com
Canada: T: (905) 332-4090 • Watts.ca
Latin America: T: (52) 55-4122-0138 • Watts.com

Available Models: ¼" – 2"

Prefix:

U– Union connections

Suffix:

LF	– Without shutoff valves
PC	– Internal polymer coating
Press**	– Press inlet x press outlet (½" – 2")
QT	– Quarter-turn ball valves
S	– Strainer

Available Models: 2½" – 3"

Suffix:

LF	– Without shutoff valves
NRS	– Non-rising stem resilient seated gate valves
OSY	– UL/FM outside stem and yoke resilient seated gate valves
S-FDA	– FDA epoxy coated strainer

NOTE: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary. (For more information download ES-AG/EL/TC at watts.com.)

Materials: ¼" – 2"

Lead Free* cast copper silicon alloy body construction, silicone rubber disc material in the first and second check plus the relief valve. Replaceable polymer check seats for first and second checks. Removable relief valve seats. Stainless steel cover bolts.

Standardly furnished with NPT body connections.
Model LF009QT furnished with quarter-turn, full port, resilient seated, Lead Free* cast copper silicon alloy body ball valve shutoffs.

Materials: 2½" – 3"

- FDA-approved epoxy-coated cast iron unibody with plastic seats
- Relief valve with stainless steel seat and trim
- Lead Free* cast copper silicon alloy body ball valve test cocks

Pressure / Temperature

Sizes ¼" – 2"

Suitable for supply pressure up to 175 psi (12.1 bar)
Water temperature: 33°F – 180°F (0.5° – 82°C)

Sizes 2½" – 3"

Suitable for supply pressures up to 175 psi (12.1 bar)
Water temperature: 110°F (43°C) continuous; 140°F (60°C) intermittent

Standards

USC
ASSE No. 1013
AWWA C511
CSA B64.4
IAPMO File No. 1563

Approvals

USC-FCCCHR

ASSE, AWWA, CSA, IAPMO

Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California

Approval models NRS, OSY, PC, QT

UL Classified
2½" – 3" with OSY gate valves

¾" – 2" without shutoff valves (-LF), except LF009M3LF

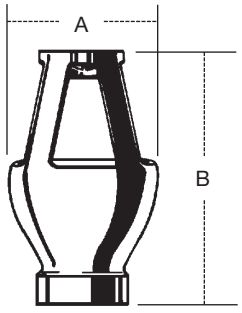
Insulated Enclosure

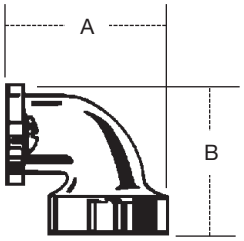
The WattsBox insulated enclosure is available for Series LF009/LF009-FS. For more information download ES-WB at watts.com.

Air Gaps and Elbows

MODEL		DRAIN OUTLET		DIMENSIONS				WEIGHT	
	For 909, 009, and 993 sizes			A		B			
		in.	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
909AGA	¼"–½" 009, ¾" 009M2/M3	½	13	2⅜	60	3⅛	79	0.625	0.28
909AGC	¾"–1" 009/909, 1"–1½" 009M2	1	25	3¼	83	4⅞	124	1.5	0.68
909AGF	1¼"–2" 009M1, 1¼"–3" 009/909, 2" 009M2, 4"–6" 993	2	51	4⅜	111	6¾	171	3.25	1.47
909AGK	4"–6" 909, 8"–10" 909M1	3	76	6⅜	162	9⅝	244	6.25	2.83
909AGM	8"–10" 909	4	102	7⅜	187	11¼	286	15.5	7.03
909ELA	¼"–½" 009, ¾" 009M2/M3	–	–	–	–	–	–	–	–
909ELC	¾"–1" 009/909	–	–	2⅜	60	2⅜	60	0.38	0.17
909ELF*	1¼"-2" 009M1, 1¼"–2" 009/909, 2" 009M2, 4"–6" 993	–	–	3⅝	92	3⅝	92	2	0.91
909ELH* Vertical	2½"–3" 009/909	–	–	–	–	–	–	–	–

*Epoxy coated

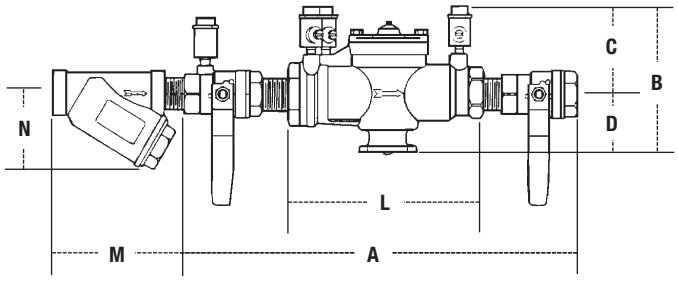




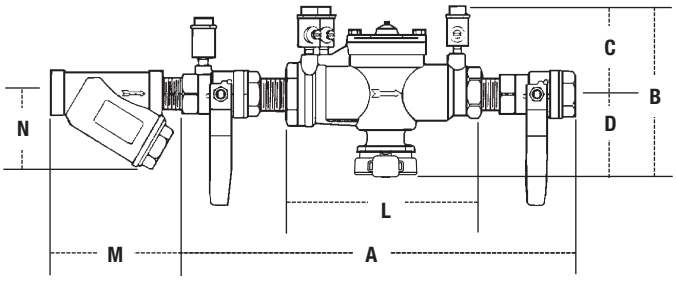
** Viega ProPress® connections are optional factory-installed fitting on each end of the approved/certified assembly.

Dimensions – Weight

Size: ¼" – ⅜"



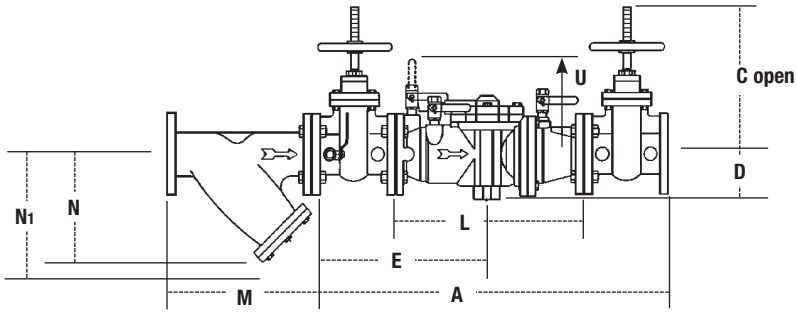
Size: ½" – 2"

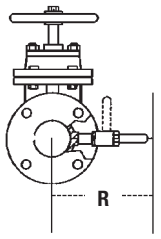


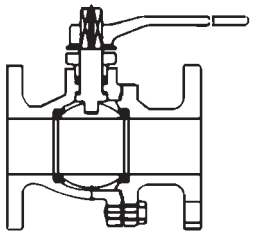
SIZE	DIMENSIONS (APPROX.)														WEIGHT	
	A		B		C		D		L		M		N			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in*	*mm*	*in*	*mm*	*lb*	*kg*
¼	10	250	4⅝	117	3⅜	86	1¼	32	5½	140	2⅜	60	2½	64	5	2
⅜	10	250	4⅝	117	3⅜	86	1¼	32	5½	140	2⅜	60	2½	64	5	2
½	10	250	5⅞	149	3⅜	86	2½	64	5½	140	2¾	70	2¼	57	5	2
¾	10¾	273	6¼	159	3½	89	2¾	70	6¾	171	3³⁄₁₆	81	2¾	70	6	3
1	14½	368	6¼	159	3	76	3¼	83	9½	241	3¾	95	3	76	12	5
1¼	17⅜	441	6¾	169	3½	89	3¼	83	11⅜	289	4⁷⁄₁₆	113	3½	89	15	6
1½	17⅞	454	6¾	169	3½	89	3¼	83	11⅛	283	4⅞	124	4	102	16	7
2	21⅜	543	8¾	222	4½	114	4¼	108	13½	343	5⁵⁄₁₆	151	5	127	30	13

Dimensions – Weight

Size: 2½" – 3"







Watts G-4000 Series
QT – Ball Valves

STRAINER SIZE		DIMENSIONS (APPROX.)						WEIGHT	
		M		N		N1†			
in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
2½	65	10	254	6½	165	9¾	248	28	12.7
3	80	10⅛	257	7	178	10	254	34	15.4

†Clearance for servicing

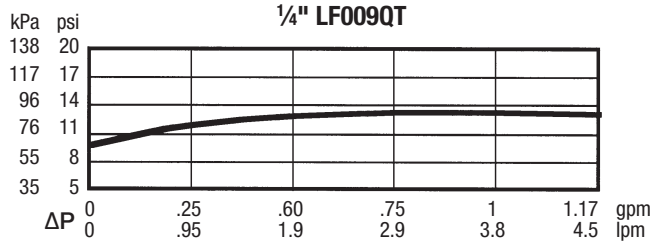
MODEL	SIZE	DIMENSIONS (APPROX.)														WEIGHT	
		A		C		D		E		L		R		U			
	in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lb*	*kg*
LF009LF	2½	—	—	—	—	4½	114	—	—	18⅛	460	—	—	10⅝	270	76	34.5
LF009OSY	2½	33¼	845	15⅞	403	4½	114	16⅜	416	18⅛	460	7¾	197	10⅝	270	166	75.3
LF009NRS	2½	33¼	845	11⅜	289	4½	114	16⅜	416	18⅛	460	7¾	197	10⅝	270	161	73.0
LF009LF	3	—	—	—	—	4½	114	—	—	18⅛	460	—	—	10⅝	270	76	34.5
LF009OSY	3	34¼	870	18½	470	4½	114	16⅝	422	18⅛	460	8¾	222	10⅝	270	198	89.8
LF009NRS	3	34¼	870	12¾	324	4½	114	16⅝	422	18⅛	460	8¾	222	10⅝	270	191	86.6

Capacity

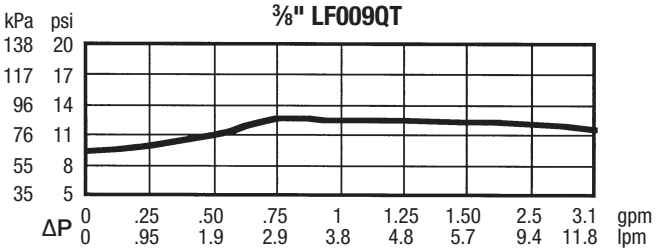
Performance as established by an independent testing laboratory.

The asterisk (*) indicates the typical maximum system flow rate (7.5 ft/sec, 2.3 m/sec).

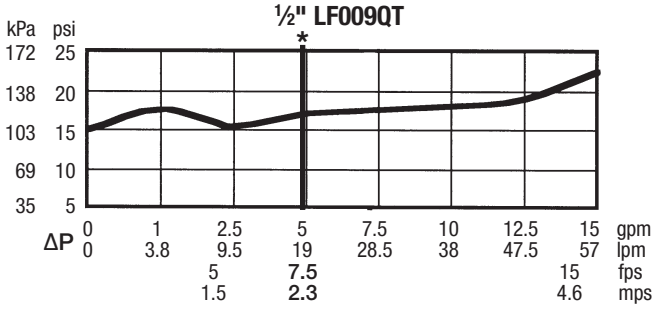
¼" LF009QT



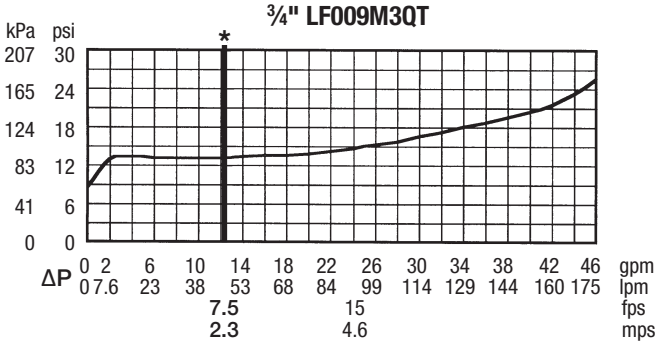
⅜" LF009QT



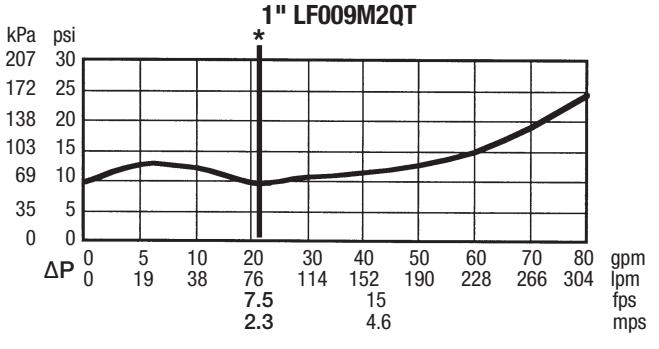
½" LF009QT



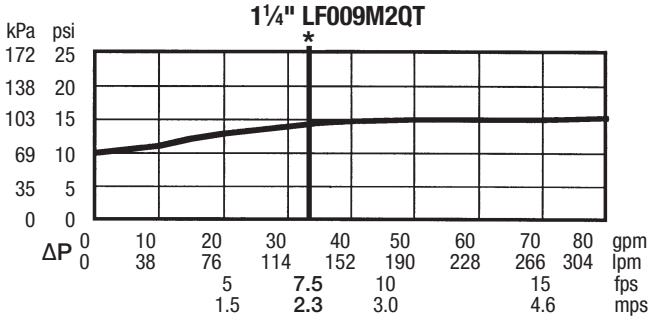
¾" LF009M3QT



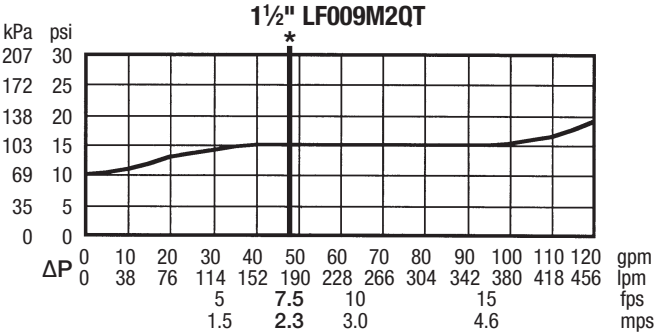
1" LF009M2QT



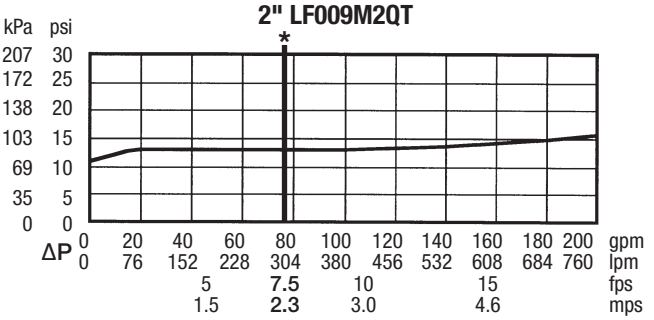
1¼" LF009M2QT



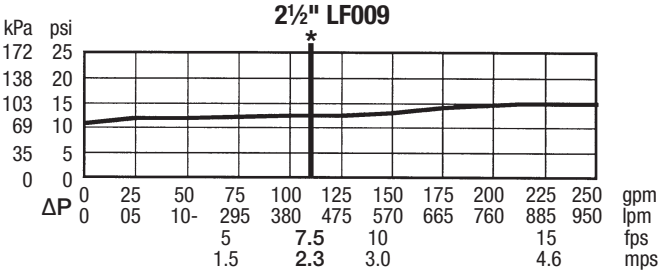
1½" LF009M2QT



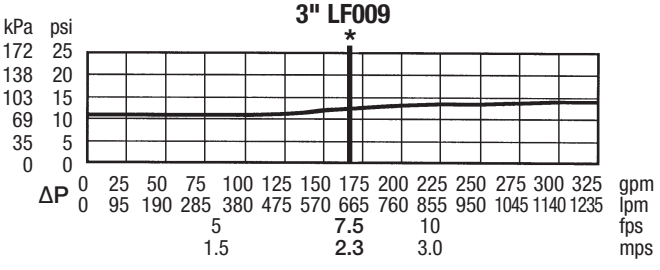
2" LF009M2QT



2½" LF009



3" LF009



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