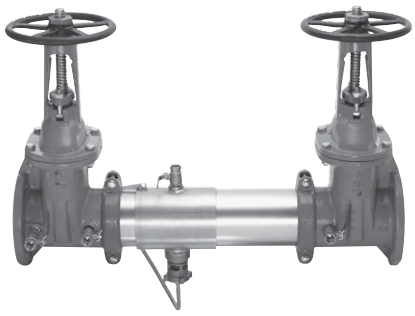
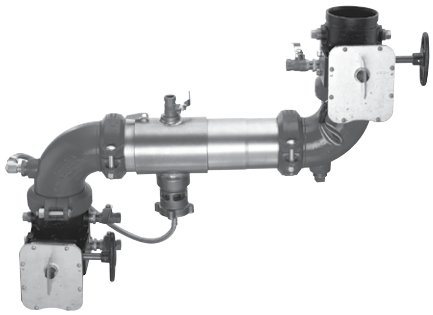
Series 957 / 957N / 957Z

Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65 – 250mm)



957OSY



957ZBFG

Features

- 2½", 3" and 4" sizes 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 & 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

Pressure-Temperature

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

957 / 957N / 957Z

LEAD FREE Series 957, 957N, 957Z Reduced Pressure Zone Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. Series 957, 957N, 957Z are normally used in health hazard applications for protection against backsiphonage or backpressure.

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: Bronze Body Nickel Plated
- Pins & Fasteners: 300 Series Stainless Steel
- Springs: Stainless Steel

Approvals

ASSE 1013 · CSA B64.4 · FM Approved (BFG & OSY only) · cULus Classified · NSF Certified to NSF/ANSI 61-G

Available Models

Suffix:

NRS – non-rising stem, resilient seated gate valves

OSY – UL/FM outside stem and yoke resilient seated gate valves

BFG – UL/FM grooved gear operated butterfly valves with tamper switch

QT – 2½" - 4" (65 - 100mm) 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

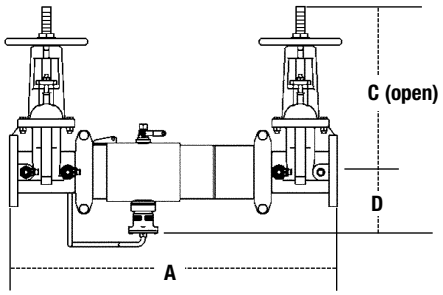
****OSY GxG** – Grooved inlet gate connection and grooved outlet gate connection

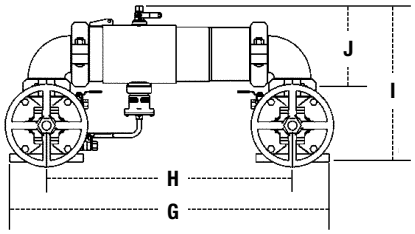
Available with grooved NRS gate valves - consult factory**
Post indicator plate and operating nut available - consult factory**
****Consult factory for dimensions**

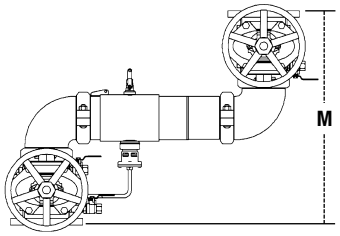
For additional information, request literature ES-957-957N-957Z.

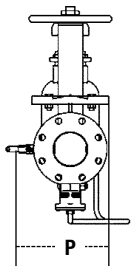
See Flow Charts on p.86.

Dimensions — Weights



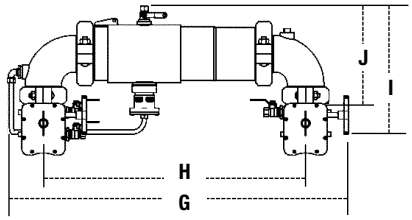


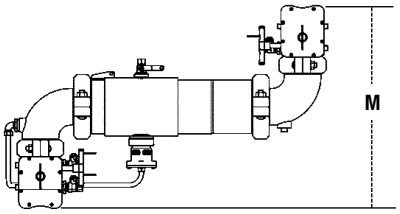


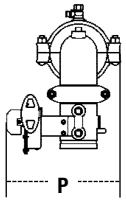


957

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*	*lbs.*	*kgs.*	*lbs.*	*kgs.*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
2½	31	787	16⅜	416	9⅜	238	6½	165	29 1/16	738	21½	546	15½	393	8 13/16	223	21 9/16	548	9 3/16	234	118	54	128	58	126	57	136	62
3	31 11/16	805	18⅞	479	10¼	260	6 11/16	170	30¼	768	22¼	565	17⅛	435	9 3/16	233	23⅛	587	10½	267	134	61	148	67	147	67	161	73
4	33½	851	22¾	578	12 3/16	310	7	178	33	838	23½	597	18½	470	9 15/16	252	26½	673	11 3/16	284	164	74	164	74	187	85	187	85
6	44	1118	30⅛	765	16	406	8½	216	44¾	1137	33¾	857	23 3/16	589	13 1/16	332	32¾	832	15	381	276	125	298	135	317	144	339	154
8	50	1270	37¾	959	19 15/16	506	9 11/16	246	54⅛	1375	40⅝	1032	27 7/16	697	15 11/16	399	37⅛	943	17 3/16	437	441	200	483	219	516	234	558	253
10	57½	1461	45¾	1162	23 13/16	605	11 3/16	285	66	1676	50	1270	32½	826	17 5/16	440	46⅜	1178	20	508	723	328	783	355	893	405	950	431

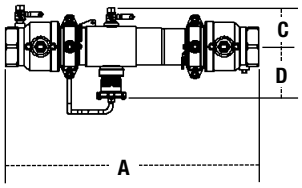


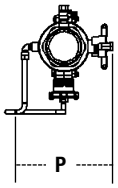


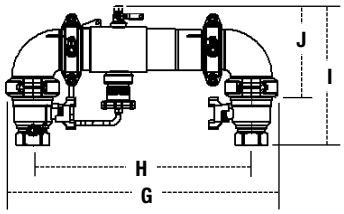


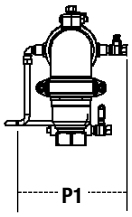
957BFG

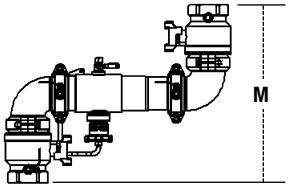
SIZE	DIMENSIONS												WEIGHT	
	G		H		I		J		M		P		957N/957Z	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
2½	32½	826	21½	546	15½	394	9½	241	21 13/16	555	11 13/16	300	67	30
3	34	864	22¼	565	16 5/16	414	10 1/16	256	23⅛	587	12⅛	308	70	32
4	35⅝	905	23½	597	17 3/16	437	10 15/16	279	24 15/16	634	12⅝	321	87	39
6	46½	1181	33¾	857	20½	521	13½	343	28¼	718	15	382	160	73











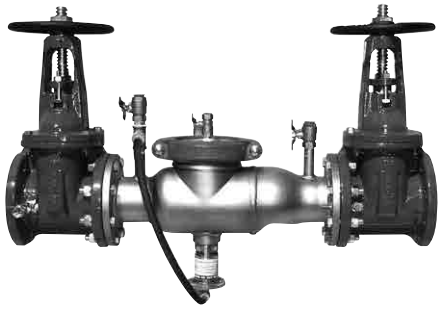
957QT

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*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
2½	27½	698	4⅞	124	6⅞	175	30¼	768	21½	546	16 1/16	407	11⅜	289	19⅞	505	11 5/16	287	11 5/16	287	46	21	57	26
3	28	711	4⅞	124	6⅞	175	30¼	768	22¼	565	16 9/16	420	11⅜	289	20⅞	531	11 5/16	287	11 5/16	287	56	25	67	30
4	28¾	730	4⅞	124	6⅞	175	30¼	768	23½	597	18 5/16	465	11⅜	289	24⅜	619	11 5/16	287	11 5/16	287	76	34	87	39

Series 994

Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65 – 250mm)



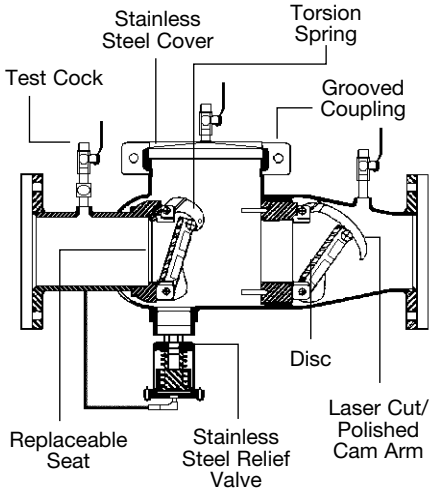
994OSY

Features

- Stainless steel construction provides long term corrosion resistance and maximum strength
- Stainless steel body is half the weight of competitive designs reducing installation & shipping costs
- Short end-to-end dimensions makes retrofit easy
- Bottom mounted relief valve reduces clearance requirements when installed against an outside wall
- Torsion spring check valves provides maximum flow at low pressure drop
- Thermoplastic & stainless steel check valves for trouble-free operation
- No special tools required for servicing
- Compact construction allows for smaller enclosures
- Stainless steel relief valve features a balanced rolling diaphragm to eliminate sliding seals and lower maintenance costs

Pressure-Temperature

Temperature Range: 33°F – 110°F (0.5°C – 43°C)
Maximum Working Pressure: 175psi (12.1 bar)



994

LEAD FREE Series 994 Reduced Pressure Zone Assemblies are designed to provide protection of the potable water supply in accordance with national codes. This series can be used where approved by the local authority having jurisdiction on health hazard cross-connections. Series 994 features a short lay length, lightweight stainless steel body, corrosion resistant stainless steel relief valve, and patented torsion spring check valves.

Materials

- All internal metal parts: 300 Series stainless steel
- Main valve body: 300 Series stainless steel
- Check assembly: Noryl®
- Flange dimension in accordance with AWWA Class D

Available Models

Suffix:

NRS – non-rising stem, resilient seated gate valves

OSY – UL/FM outside stem and yoke resilient seated gate 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

LF – without shutoff valves

S – cast iron strainer

Available with grooved NRS gate valves - consult factory**
Post indicator plate and operating nut available - consult factory**
****Consult factory for dimensions**

Note: The installation of a drain line is recommended. When installing a drain line, a 994AGK-P air gap is necessary. See ES-AG/EL/TC for additional information.

Approvals

1013 B64.5 (OSY only) (2½" – 10", OSY only)

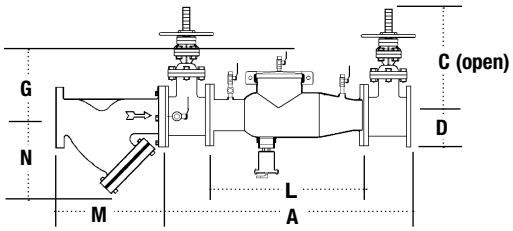
Approved by the Foundation for Cross Connection Control & Hydraulic Research at the University of Southern California Sizes 2½" – 6"

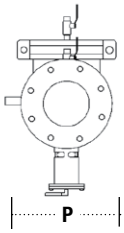
***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

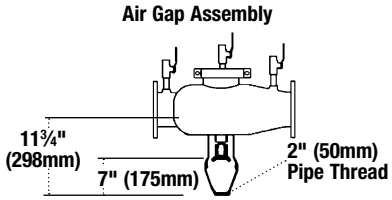
For additional information, request literature ES-994.

See Flow Charts on p. 87.

Dimensions — Weights







Horizontal Air Gap Fitting 2½" – 10"
Model 994 AGK-P

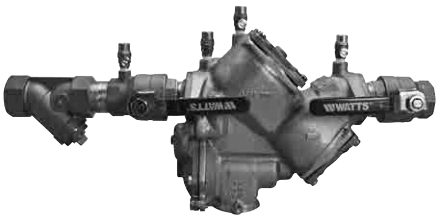
994

SIZE	DIMENSIONS																		WEIGHT	
	A		C (OSY)		C (NRS)		D		G		L		M		N		P		w/Gates	w/o Gates
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs. kgs.*	*lbs. kgs.*
2½	37	940	16⅜	416	9⅜	238	10½	267	10	254	22	559	10	254	6½	165	7	178	148 67	60 27
3	38	965	18⅞	479	10¼	260	10½	267	10	254	22	559	10⅛	257	7	178	7½	191	226 103	62 28
4	40	1016	22¾	578	12 3/16	310	10½	267	10	250	22	559	12⅛	308	8¼	210	9	229	235 107	65 30
6	48½	1232	30⅛	765	16	406	11½	292	15	381	27½	699	18½	470	13½	343	11	279	380 172	110 50
8	52½	1334	37¾	959	19 15/16	506	12½	318	15	381	29½	749	21⅝	549	15½	394	13½	343	571 259	179 81
10	55½	1410	45¾	1162	23 13/16	605	12½	318	15	381	29½	749	26	660	18½	470	16	406	773 351	189 86

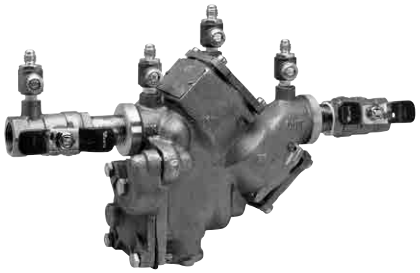
Series LF909

Reduced Pressure Zone Assemblies

LF909 Sizes: ¾", 1" (20, 22mm) / LF909M1 Sizes: 1¼", 1½", 2" (32, 40, 50mm)



LF909



LF909QT

Features

- Modular design
- Replaceable seats
- Compact for installation ease
- Horizontal or vertical (up or down) installation
- No special tools required for servicing

Pressure-Temperature

Temperature Range: 33°F – 140°F
(0.5°C – 60°C) continuous
180°F (82°C) intermittent
Maximum Working Pressure: 175psi
(12.1 bar)

Series LF909HW
Temperature Range: 33°F – 210°F
(0.5°C – 99°C)
Maximum Working Pressure: 175psi
(12.1 bar)

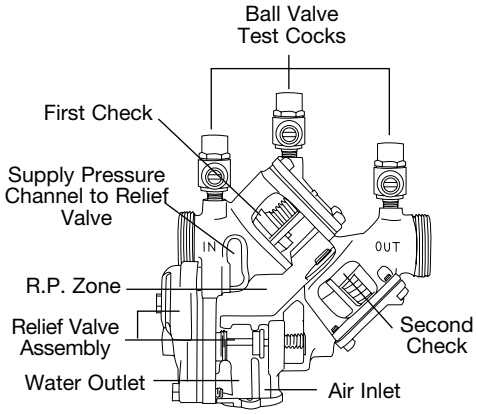
Approvals

Listed by IAPMO
Listed by SBCCI

1013 B64.4

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

Horizontal and vertical "flow-up" approval on ¾" and 1" sizes (model LF909QT)



LF909

LEAD FREE*

Series LF909 Reduced Pressure Zone Assemblies are designed to provide superior cross-connection control protection of the potable water supply in accordance with national plumbing codes and containment control for water authority requirements. This series can be utilized in a variety of installations, including health hazard cross-connections in plumbing systems or for containment at the service line entrance. The LF909 features Lead Free* construction to comply with Lead Free* installation requirements. Model LF909QT, standardly furnished with full port, resilient seated and Lead Free* cast copper silicon alloy ball valve shutoffs. Sizes ¾" and 1" shutoffs have tee handles.

Materials

- Body: Lead Free* Cast Copper Silicon Alloy
- Check Seats: 909 Celcon®
- Relief Valve Seats: Stainless Steel 909HW
- Test Cocks: Lead Free* Cast Copper Silicon Alloy

Models

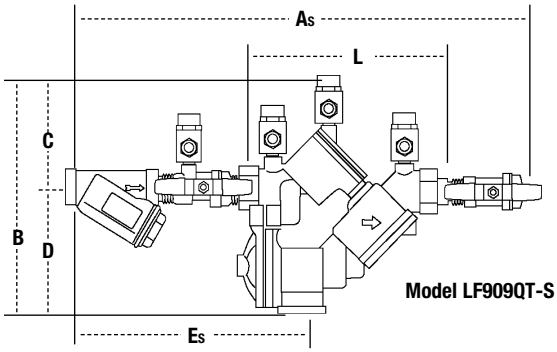
Suffix:
QT — Quarter-turn ball valves
S – Bronze strainer
HW –Stainless steel check modules for hot and harsh water conditions

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

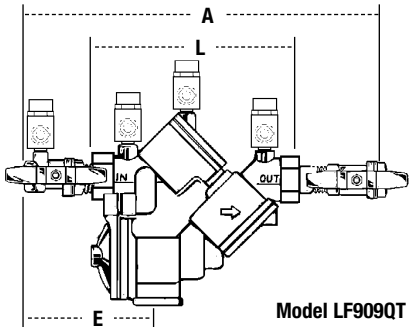
For additional information, request literature ES-LF909 and ES-909.

See Flow Charts on p. 84.

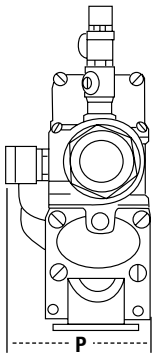
Dimensions — Weights



Model LF909QT-S



Model LF909QT



LF909QT, LF909QT-S

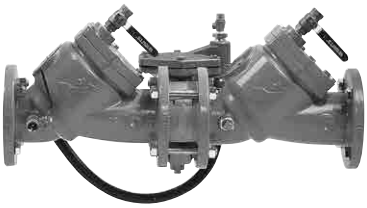
SIZE	DIMENSIONS																		WEIGHT	
	A		As		B		C		D		E		Es		L		P		QT	QT-S
	in.	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
¾"	14⅜	365	18 1/16	459	8¾	222	4	102	4¾	121	6¾	171	10 3/16	259	7 5/16	186	3⅞	98	14	6.4	15.6	7.1
1"	15⅜	391	19 5/8	498	8¾	222	4	102	4¾	121	7	178	11	279	7 5/16	186	3⅞	98	15	6.8	17.5	7.9
1¼"M1	18½	470	23 7/16	595	11⅝	295	5½	140	6½	165	7½	191	12 3/16	310	10⅜	264	5¼	133	40	18.1	42.8	19.4
1½"M1	19	483	24⅜	619	11⅝	295	5½	140	6½	165	7½	191	12⅝	321	10⅜	264	5¼	133	40	18.1	44.0	20.0
2"M1	19½	495	25 15/16	659	11⅝	295	5½	140	6½	165	7¾	197	13 15/16	354	10⅜	264	5¼	133	40	18.1	47.4	21.5

Subscript 'S' = strainer model

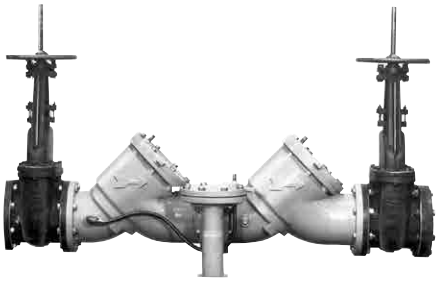
Series LF909

Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65 – 250mm)



LF909



LF909OSY

Features

- Replaceable seats
- Stainless steel internal parts
- No special tools required for servicing
- Captured spring check assemblies
- Fused epoxy coated & lined checks
- Industrial strength sensing hose
- Field reversible relief valve
- Air-in/water-out relief valve design provides maximum capacity during emergency conditions

Pressure-Temperature

Temperature Range: 33°F – 110°F
(0.5°C – 43°C) continuous
140°F (60°C) intermittent
Maximum Working Pressure: 175psi
(12.1 bar)

Approvals

ASSE 1013 · CSA B64.4 · FM Approved · cULus Classified · NSF

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

LF909

LEAD FREE*

Series LF909 Reduced Pressure Zone Assemblies are designed to provide cross-connection control protection of the potable water supply in accordance with national plumbing codes. This series can be utilized in a variety of installations, including health hazard cross-connections in plumbing systems or for containment at the service line entrance. With its exclusive relief valve design incorporating the "air-in/water-out" principle, it provides substantially improved relief valve discharge performance during the emergency conditions of combined backsiphonage and backpressure with both checks fouled. The LF909 features Lead Free* construction to comply with Lead Free* installation requirements.

Materials

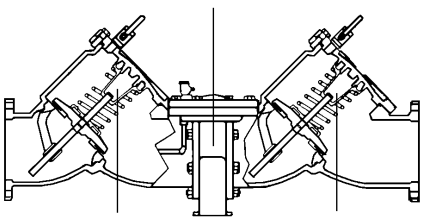
- Check Valve Bodies: FDA epoxy coated cast iron
- Seats: Stainless steel
- Trim: Stainless steel
- Relief Valve Body: 2½"-3" Lead Free* cast copper silicon alloy
  4"-10" FDA epoxy coated cast iron
- Test Cocks: Lead Free* copper silicon alloy

Models

Suffix:
LF – without shutoff valves
NRS – non-rising stem resilient seated gate valves
OSY - UL/FM outside stem & yoke resilient seated gate valves
QT-FDA – FDA epoxy coated quarter-turn ball 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.

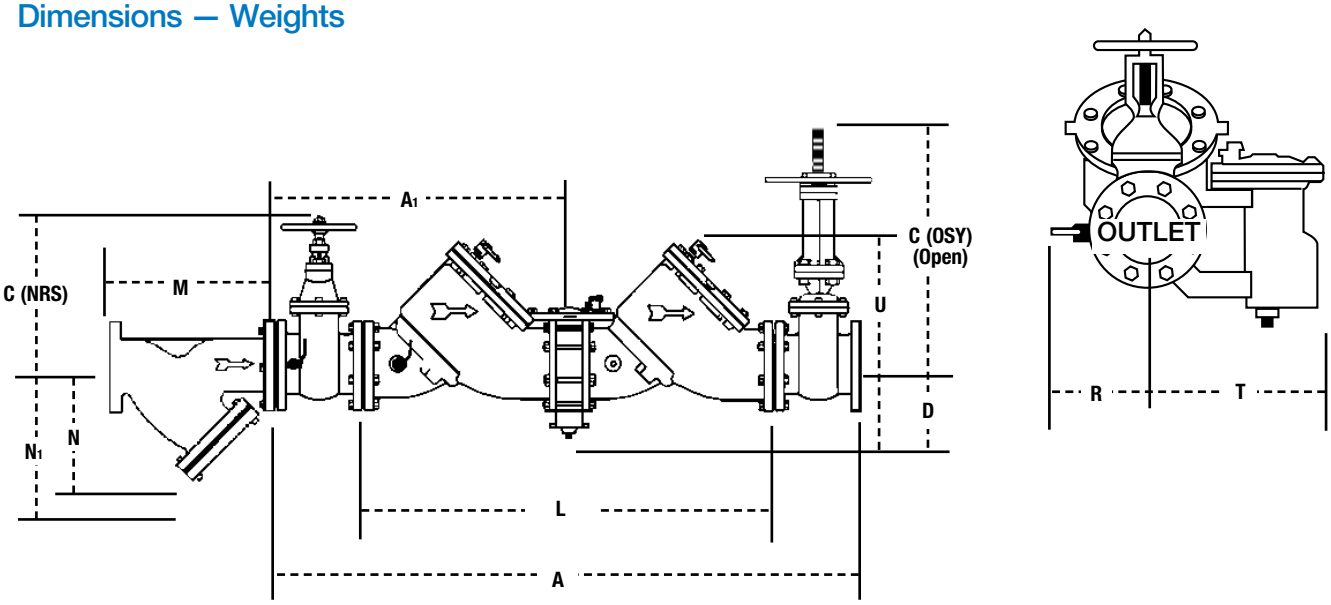
***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**



For additional information, request literature ES-LF909 and ES-909.

See Flow Charts on p. 84.

Dimensions — Weights



Note: Relief valve section is reversible, therefore, can be on either side and is furnished standardly as shown.

LF909

SIZE	DIMENSIONS																		WEIGHT					
	A		A1		C clearance for check (OSY)*		C clearance for check (NRS)		D		L		U		R		R (QT)		T		NRS		OSY		QT	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
2½	41¼	1048	20⅝	524	16⅜	416	9⅜	238	5¼	133	26⅛	663	11	279	4	102	16	406	9 1/16	230	195	88.4	198	89.8	182	82.6
3	42¼	1073	21¼	540	18⅞	479	10¼	260	5¼	133	26⅛	663	11	279	5	127	16	406	9 1/16	230	225	102	230	104	190	86
4	55⅛	1400	27⅝	702	22¾	578	12 3/16	310	6	152	37	940	14	356	6	152	19¾	502	14⅜	365	455	206	470	213	352	160
6	65½	1664	32¾	832	30⅛	765	16	406	6	152	44½	1130	16	406	11	279	26	660	14⅜	365	718	326	798	362	762	346
8	78½	2000	39⅜	1000	37¾	959	19 15/16	506	9¾	248	55¼	1403	21	533	11¼	286	11¼	286	19¼	489	1350	612	1456	660	2286	1037
10	93⅝	2378	46⅞	1190	45¾	1162	23 13/16	605	9¾	248	67⅜	1711	21	533	12½	318	12½	318	21	533	2160	980	2230	1011	3716	1685

*UL, FM approved backflow preventers must include UL/FM approved OSY gate valves.

Strainer Dimensions

SIZE	DIMENSIONS						WEIGHT	
	M		N1†		N			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
2½	10	254	10	254	6½	165	28	12.7
3	10⅛	257	10	254	7	178	34	15.4
4	12⅛	308	12	305	8¼	210	60	27
6	18½	470	20	508	13½	343	133	60
8	21⅝	549	22¾	578	15½	394	247	112
10	26	660	28	711	18½	470	370	168

† – Dimension required for screen removal

Series LF009 / 009

Reduced Pressure Zone Assemblies

Sizes: ¼" – 3" (8 – 80mm)

LF009QT

009M2QT

Features

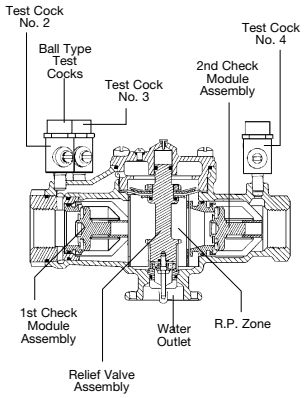
- Single access cover and modular check construction for ease of maintenance
- Top entry - all internals immediately accessible
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- Lead Free* cast copper silicon alloy body construction for durability ¼" – 2"
- Fused epoxy coated cast iron body 2½" and 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

Pressure-Temperature

Series LF009: ¼" - 2" (8 – 50mm)
Suitable for supply pressure up to 175psi (12 bar). Water temperature: 33°F – 180°F (0.5° – 75°C).

Series 009: ¼" - 2" (8 – 50mm)
Suitable for supply pressure up to 175psi (12 bar). Water temperature: 33°F – 180°F (0.5° – 75°C).

Sizes: 2½" and 3" (65 – 80mm)
are suitable for supply pressures up to 175psi (12.1 bar) and water temperature at 110°F (43°C) continuous, 140°F (60°C) intermittent.



LF009

LEAD FREE

Series LF009 Reduced Pressure Zone Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. This series can be 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.The LF009 features Lead Free* construction to comply with Lead Free* installation requirements.

This series features 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" – 1" shutoffs have tee handles.

Materials

¼" – 2" (8 – 50mm)

- 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 stainless steel relief valve seat. 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.

2½" and 3" (65 – 80mm)

- 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

Approvals

ASSE, AWWA, CSA, IAPMO
Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.
Approval models QT, PC, NRS, OSY.
UL Classified
2½" and 3" with OSY gate valves.
¾" - 2" without shutoff valves (-LF) (except LF009M3LF)

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

Models

Sizes: ¼" – 2" (8 – 50mm)
Suffix:
QT – quarter-turn ball valves
S – strainer
LF – without shutoff valves
PC – internal polymer coating
Prefix:
U – union connections

Sizes: 2½" – 3" (65 – 80mm)
Suffix:
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
QT-FDA – FDA epoxy coated quarter-turn ball valves
LF – without shutoff valves

For additional information, request literature ES-LF009 and ES-009.

See Flow Charts on p. 75.

009

For Use in Non-Potable Applications

Series 009 Reduced Pressure Zone Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing.

This series features 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" – 1" shutoffs have tee handles.

Materials

Size: ¼" – 2" (8 – 50mm)

- Bronze 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 stainless steel relief valve seat. Stainless steel cover bolts.
- Standardly furnished with NPT body connections. For optional bronze union inlet and outlet connections, specify prefix U (½" – 2"). Series 009QT furnished with quarter turn, full port, resilient seated, bronze ball valve shutoffs

Approvals

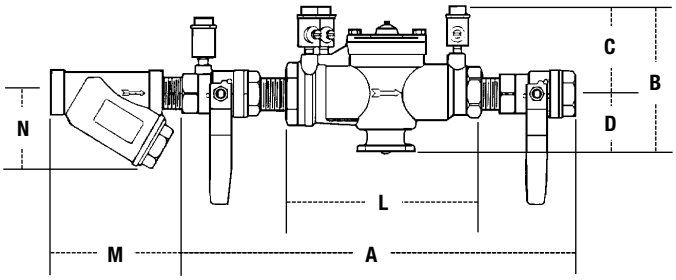
ASSE, AWWA, CSA, IAPMO
Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.
UL Classified ¾" – 2"
(LF models only except 009M3LF)

Models

Size: ¼" – 2" (8 – 50mm)
Suffix:
QT – quarter-turn ball valves
S – bronze strainer
LF – without shutoff valves
AQT – elbow fittings for 360° rotation
¾" – 2" only
PC – internal Polymer Coating
SH – stainless steel ball valve handles
HC – 2½" inlet/outlet fire hydrant fitting
(2" valve)

Prefix:
C – clean and check strainer ¾" – 1" only
U – union connections

Dimensions and Weights



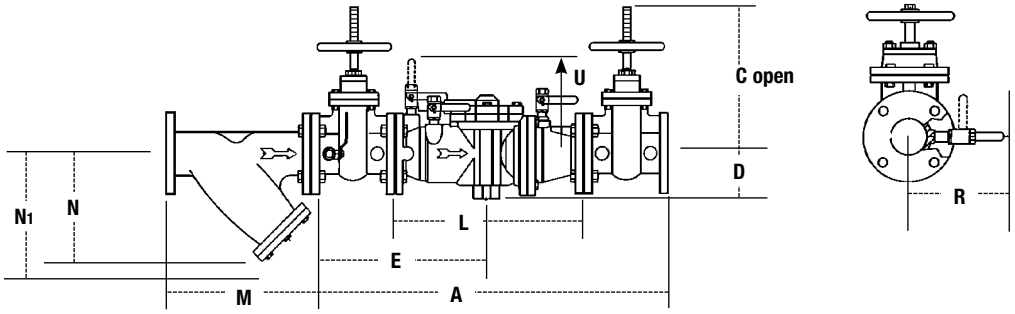
LF009 / 009 ¼" – 2" (8 – 50mm)

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*	*lbs.*	*kgs.*
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	4⅝	117	3⅜	86	1¼	32	5½	140	2¾	70	2¼	57	5	2
¾	10¾	273	5	127	3½	89	1½	38	6¾	171	3³⁄₁₆	81	2¾	70	6	3
1	16¾	425	5½	140	3	76	2½	64	9½	241	3¾	95	3	76	12	5
1¼	17⅜	441	6	150	3½	89	2½	64	11⅜	289	4⁷⁄₁₆	113	3½	89	15	6
1½	17⅞	454	6	150	3½	89	2½	64	11⅛	283	4⅞	124	4	102	16	7
2	21⅜	543	7¾	197	4½	114	3¼	83	13½	343	5¹⁵⁄₁₆	151	5	127	30	13

cont.

Series LF009 / 009
Reduced Pressure Zone Assemblies

Dimensions and Weight cont.



STRAINER SIZE		DIMENSIONS (APPROX.)						WEIGHT	
		M		N		N1†			
in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
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

LF009 2½" and 3" (65 – 80mm)

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	lbs.	kgs.
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
LF009QTFDA	2½	33¼	845	6	152	4½	114	16⅜	416	18⅛	460	7¾	197	10⅝	270	150	68.0
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
LF009QTFDA	3	34¼	870	7	178	4½	114	16⅝	422	18⅛	460	8¾	222	10⅝	270	158	71.7

LFU009QT / U009QT

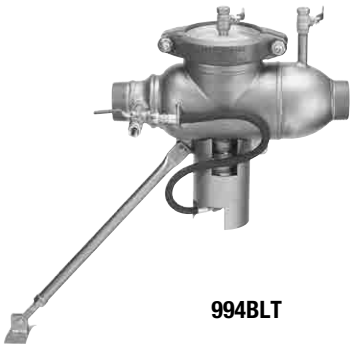
MODEL	SIZE	DIMENSIONS						WEIGHT	
		A		B		C			
	in.	in.	mm	in.	mm	in.	mm	lbs.	kgs.
LFU009QT	½	12 13⁄16	326	4⅝	117	3 7⁄16	87	5.5	2.5
LFU009M2QT	¾	13¾	349	5	127	3¾	95	6	2.7
LFU009M2QT	1	17⅜	441	5½	140	3⅛	79	12.75	5.8
LFU009M2QT	1¼	24½	622	7¾	197	4	100	26.5	12.0
LFU009M2QT	1½	25½	648	7¾	197	4¼	108	28.75	13.0
LFU009M2QT	2	27⅜	695	7¾	197	4¼	108	32.75	14.9
U009QT	½	12 13⁄16	326	4⅝	117	3 7⁄16	87	5.5	2.5
U009M2QT	¾	13¾	349	5	127	3¾	95	6	2.7
U009M2QT	1	17⅜	441	5½	140	3⅛	79	12.75	5.8
U009M2QT	1¼	24½	622	7¾	197	4	100	26.5	12.0
U009M2QT	1½	25½	648	7¾	197	4¼	108	28.75	13.0
U009M2QT	2	27⅜	695	7¾	197	4¼	108	32.75	14.9

For additional information, request literature ES-LF009 and ES-009.

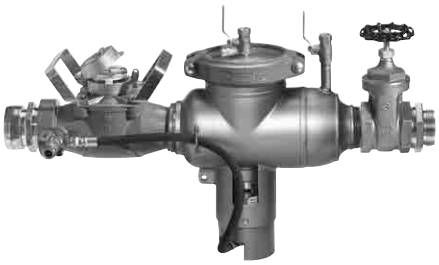
Series 994BLT, 994HMB

Hydrant Meter Backflow Preventers

Sizes: 994BLT 2½" FNPT x 3" MNPT / 994HMB 2½" – 7NST x 3"



994BLT



994HMB

Features

- Built-in support leg is adjustable in the field, no matter the installation. Eliminates assembly from sitting directly in field or from being stacked on wood bracing.
- Dual thread connections, inside 2½" FNPT and outside 3" MNPT threaded on each inlet and outlet, allows the user a variety of connection alternatives.
- Large flow capacity-rated at over 500 gpm with less than 14psi (96.5Kpa) loss per ASSE, USC and AWWA standards for Reduced Pressure Zone Assemblies.
- No field assembly required, eliminates leaks, fouls, and improper assembly.
- Factory assembled and tested.
- Variety of end connection accessories are available to fit on-site requirements.
- Corrosion resistant 304 stainless steel body for long life field dependability.

Portable-lightweight design makes device easily transportable between job sites.

Pressure-Temperature

Temperature Range: 33°F – 110°F
(0.5°C – 43°C)
Maximum Working Pressure: 175psi
(12.1 bar)

994BLT, 994HMB

Model 994BLT, 994HMB Portable Hydrant Backflow Preventers are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing.

For use in protection of water from a fire hydrant or other nonpermanent installation where flow is in one direction only and the possibility of a cross-connection exists. This model can be used where approved by the local authority having jurisdiction on health hazard cross-connections.

Ideal for use with client's existing hydrant meter hookup.

Materials

- Body and Cover: Stainless Steel
- Check Assemblies: Engineered Plastic and Stainless Steel
- Relief Valve Assembly: Engineered Plastic and Stainless Steel
- Lid Coupler: DI/CI

Options

Inlet modules
- 3" female hydrant thread
- 3" male hydrant thread
- 2½" female hydrant thread
- 2½" male hydrant thread
- 2½" male NPT thread
- Customer specified

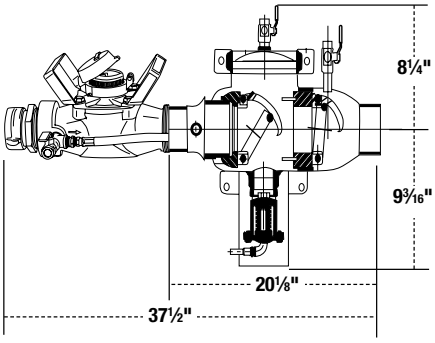
Outlet modules
- 3" gate w/female hose thread
- 3" gate w/male hose thread
- 2½" gate w/female hose thread
- 2½" gate w/male hose thread
- 3" gate valve only, 3" INPT thread
- 2½" gate valve only, 2½" FNPT thread
- Customer specified

Foot modules
- Uneven surface saddle (supplied STD with unit)
- Flat surface adapter
- Customer Specified

Approvals

Models 994BLT, 994HMB Portable Hydrant Backflow Preventers meet the design requirements of most national standards. Due to the portability of the unit, there are no national approvals available. Contact the factory for specific approvals on the reduced pressure backflow preventer.

Dimensions — Weights

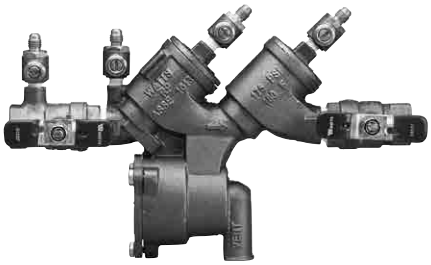


MODEL	WEIGHT	
	lbs.	*kgs.*
994BLT	62	28
994HMB-GPM	66	30
994HMB-CFM	66	30

Series LF919 / 919

Reduced Pressure Zone Assemblies

LF919 Sizes: ¾" – 2" (20 – 50mm) / 919 Sizes: ¼" – 2" (8 – 50mm)



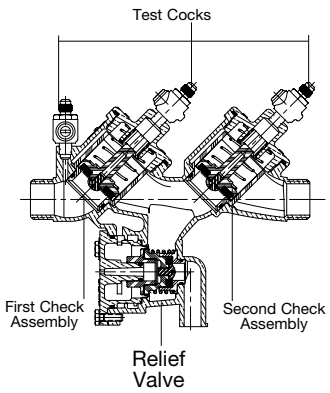
LF919QT

Features

- Separate access covers for the check valves and relief valve for ease of maintenance
- Top entry-all check internals easily accessible
- Chloramine resistant rubber elastomers
- Check valve poppet assemblies are fully guided by innovative plastic seat guide
- Replaceable push-in check valve and relief valve seats eliminates threads from the water way
- EZ twist relief valve cover quarter-turn locking joint captures the spring load during repair to facilitate disassembly
- Innovative check valve plastic cover bushing provides trouble free guiding of the check valve poppet
- Bottom mounted relief valve provides reduced installation clearances
- Compact, space saving design
- No special tools required for servicing
- Top mounted test cocks for ease in testing and reduced installation clearances
- Standardly furnished with NPT body connections

Pressure-Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 175psi (12.1 bar)



LF919

LEAD FREE Series LF919 Reduced Pressure Zone Backflow Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. This series can be used in a variety of installations, including the prevention of health hazard cross-connections or for containment at the service line entrance.

This series features two poppet style check valves, replaceable check seats, with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes ¾" – 1" (5 – 25mm) shutoffs have tee handles. The LF919 features Lead Free* construction to comply with Lead Free* installation requirements.

Materials

- Body: Lead Free* Cast Copper Silicon Alloy
- Discs: Silicone rubber
- Check Seats: Replaceable polymer
- Cover Bolts: Stainless steel

Models

Suffix:
QT – quarter-turn ball valves
S – bronze strainer

Approvals

1013

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

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

919

For Use in Non-Potable Applications

Series 919 Reduced Pressure Zone Backflow Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirments for non-potable service applications such as irrigation, fireline, or industrial processing. Sizes ¼" – 1" shutoffs have tee handles.

Materials

- Body: Bronze
- Discs: Silicone rubber
- Check Seats: Replaceable polymer
- Cover Bolts: Stainless steel

Models

Suffix:
QT – quarter-turn ball valves
S – bronze strainer
LF – without shutoff valves
AQT – elbow fitting for 360° rotation
ZQT – inlet & outlet flow up

Approvals

1013 ¾"-2" LF

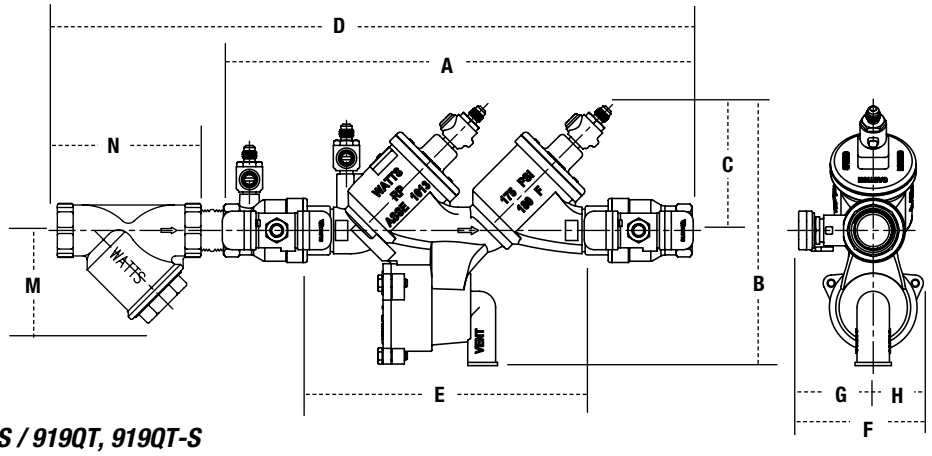
Approved by the Foundation for Cross-Connection Control and Research at The University of Southern California (for sizes ¾" -2")

Prefix:
U – union connections

For additional information, request literature ES-LF919 and ES-919.

See Flow Charts on p. 85.

Dimensions and Weights

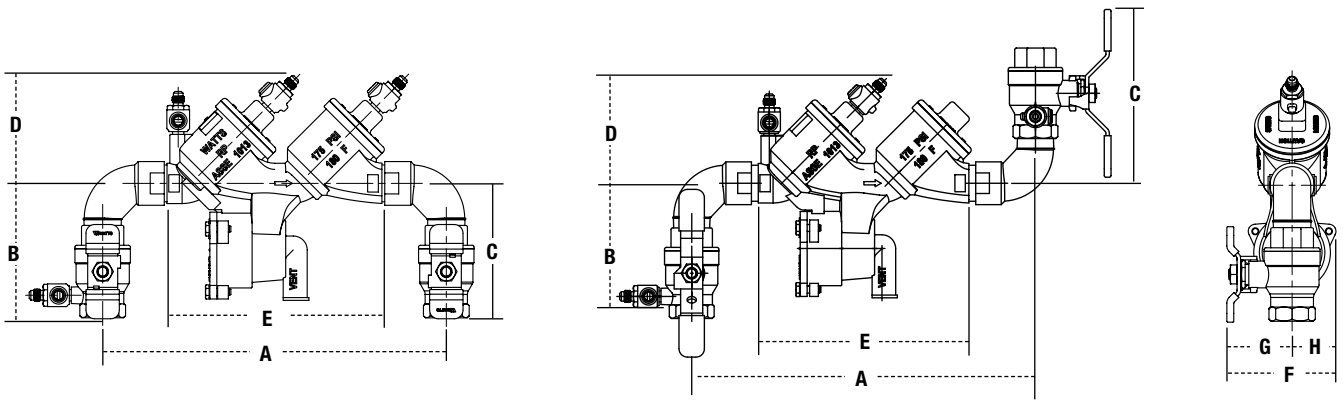


LF919QT, LF919QT-S / 919QT, 919QT-S

SIZE	DIMENSIONS																STRAINER DIMENSIONS				WEIGHT			
	A		B		C		D		E (LF)		F		G		H		M		N		919QT		919QT-S	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
¼	9½	241	6⅞	175	2⅞	73	12⅜	314	5¾	146	3	75	1⅜	35	1⁹⁄₁₆	40	2⅜	60	2½	64	5.8	2.6	6.3	2.9
⅜	9½	241	6⅞	175	2⅞	73	12⅜	314	5¾	146	3⅓	84	1¾	44	1⁹⁄₁₆	40	2⅜	60	2½	64	5.8	2.6	6.3	2.9
½	9½	241	6⅞	175	2⅞	73	12¾	324	5¾	146	3⅜	86	1⅞	48	1⁹⁄₁₆	40	2¾	70	2¼	57	5.8	2.6	6.3	2.9
¾	12⅛	307	7⁷⁄₁₆	188	3½	88	15½	393	7¹¹⁄₁₆	195	3⅝	92	2¹⁄₁₆	52	1⁹⁄₁₆	40	1⅝	41	3³⁄₁₆	81	8.3	3.7	10.0	4.5
1	14½	368	8	202	3⅞	98	19³⁄₁₆	487	9³⁄₁₆	233	4	102	2⁷⁄₁₆	62	1⁹⁄₁₆	40	2⅛	54	3¾	95	11.8	5.4	13.8	6.3
1¼	18⅛	461	11⁷⁄₁₆	290	5⅛	129	23¼	591	11¹¹⁄₁₆	297	5⅛	130	2⅝	67	2½	64	2½	64	4⁷⁄₁₆	113	22.3	10.1	26.3	11.9
1½	18¾	476	11⁷⁄₁₆	290	5⅛	129	25¹⁄₁₆	637	11¹¹⁄₁₆	297	5⅝	143	3⅛	79	2½	64	3	76	4⅞	124	28.3	12.8	32.0	14.5
2	21¹⁄₁₆	535	12¹⁄₁₆	307	5⅝	142	28¹³⁄₁₆	732	13⅜	340	5¹⁵⁄₁₆	151	3⁷⁄₁₆	87	2½	64	3⁹⁄₁₆	90	5¹⁵⁄₁₆	151	37.3	16.9	45.0	20.4

U919QT, U919QT-S

SIZE	DIMENSIONS																STRAINER DIMENSIONS				WEIGHT			
	A		B		C		D		E (LF)		F		G		H		M		N		U919QT		U919QT-S	
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*	*lbs.*	*kgs.*
¾	16¹⁵⁄₁₆	430	8¹⁄₁₆	204	3⅞	98	20⁵⁄₁₆	515	11½	292	3⅝	92	2¹⁄₁₆	52	1⁹⁄₁₆	40	1⅝	41	3³⁄₁₆	81	13.4	6.1	15.1	6.9
1	17⅛	435	8¹⁄₁₆	204	3⅞	98	21¹³⁄₁₆	554	11¾	297	4	102	2⁷⁄₁₆	62	1⁹⁄₁₆	40	2⅛	54	3¾	95	13.3	6.0	15.3	6.9
1¼	20¹⁵⁄₁₆	532	11⁷⁄₁₆	290	5⅛	129	26¹⁄₁₆	662	15⅜	390	5⅛	130	2⅝	67	2½	64	2½	64	4⁷⁄₁₆	113	25.9	11.8	29.9	13.6
1½	21⁹⁄₁₆	547	11⁷⁄₁₆	290	5⅛	129	27⅞	708	15⅜	390	5⅝	143	3⅛	79	2½	64	3	76	4⅞	124	31.9	14.5	35.6	16.2
2	24¹⁵⁄₁₆	633	12¹⁄₁₆	307	5⅝	142	32¹¹⁄₁₆	830	16¾	425	5¹⁵⁄₁₆	151	3⁷⁄₁₆	87	2½	64	3⁹⁄₁₆	90	5¹⁵⁄₁₆	151	41.6	18.9	49.3	22.4



919AQT,919ZQT

SIZE	DIMENSIONS																WEIGHT	
	A		B		C		D		E (LF)		F		G		H			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
¾	10⅜	263	3¹⁵⁄₁₆	100	3¹⁵⁄₁₆	100	3½	88	7¹¹⁄₁₆	195	3⅝	92	2¹⁄₁₆	52	1⁹⁄₁₆	40	9.3	4.2
1	12¼	311	4¹³⁄₁₆	122	4¹³⁄₁₆	122	3⅞	98	9³⁄₁₆	233	4	102	2⁷⁄₁₆	62	1⁹⁄₁₆	40	13.3	6.0
1¼	16¹⁄₁₆	407	5⅞	149	5⅞	149	5⅛	129	11¹¹⁄₁₆	297	5⅛	130	2⅝	67	2½	64	24.0	10.9
1½	16⅝	421	6½	164	6½	164	5⅛	129	11¹¹⁄₁₆	297	5⅝	143	3⅛	79	2½	64	30.5	13.8
2	17⁵⁄₁₆	440	6⅝	168	6⁹⁄₁₆	166	5⅛	142	13⅜	340	5¹⁵⁄₁₆	151	3⁷⁄₁₆	87	2½	64	40.6	18.4