

For Health Hazard Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

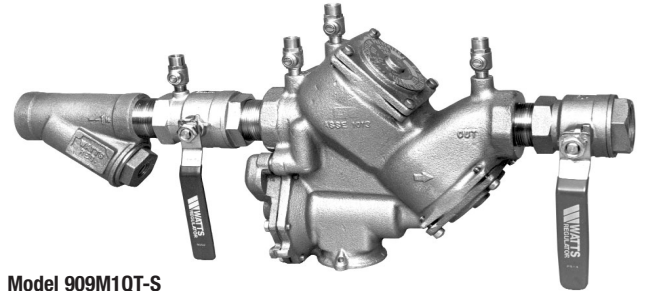
Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Series 909

Reduced Pressure Zone Assemblies

909 Sizes: 3/4", 1" (20, 25mm)
909M1 Sizes: 1 1/4", 1 1/2", 2" (32, 40, 50mm)

Series 909 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. With its exclusive design incorporating the patented "air-in/water-out" principle it provides maximum relief valve discharge during the emergency conditions of combined backsiphonage and backpressure with both checks fouled. Model 909QT, standardly furnished with full port, resilient seated and bronze ball valve shutoffs. Sizes 3/4" and 1" (20 and 25mm) shutoffs have tee handles.



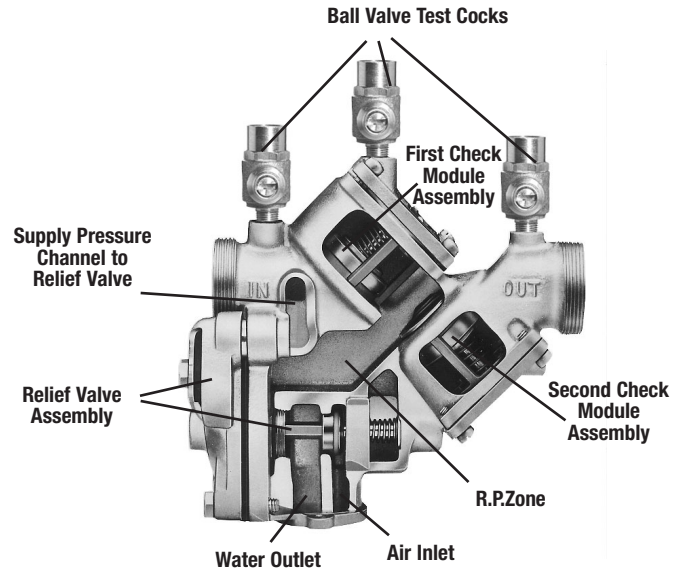
Model 909M1QT-S
1 1/2" (40mm)

Features

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

Specifications

A Reduced Pressure Zone Assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure of hazardous materials into the potable water supply. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel, or directly into the supply pipe via a separate vent. The assembly shall include two tightly closing shutoff valves before and after the assembly, test cocks and a protective strainer upstream of the No. 1 shutoff valve. The assembly (specify Model 909 for temperatures up to 140°F (60°C) or Model 909HW for temperatures up to 210°F (99°C)) shall meet the requirements of ASSE Std. 1013; AWWA Std. C-511-92 CSA B64.4; FCCCHR of USC Manual Section 10. Listed by IAPMO (UPC), SBCCI (Standard Plumbing code). The assembly shall be a Watts Regulator Company Series 909QTS or 909QTSHW.



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Models

Suffix

AQT	Elbow fittings for 360° rotation ¾" – 2" only
C&T	Cap and tether test cocks
PC	Internal polymer coating
QT	Quarter-turn ball valves
S	Bronze strainer
HW	Stainless steel check modules for hot and harsh water conditions
LF	Without shutoff valves
LH	Locking ball valve handles (open position)
HC	Inlet/outlet fire hydrant fitting (2" only)

Prefix

C	Clean and check strainer - ¾" and 1" (20 and 25mm) only
U	Union - ¾" and 1" (20 and 25mm) only
FAE	Flanged adapter ends - 1¼", 1½", 2" (32, 40, 50mm) only

NOTE: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary.

Materials

Body:	Bronze
Check Seats:	909 Celcon®
Relief Valve Seats:	Stainless steel 909HW
Test Cocks:	Bronze

Celcon® is a registered trademark of Celanese, Limited

Connections

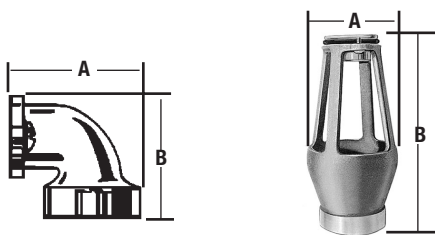
¾", 1" (19, 25mm) 909-NPT Female threaded body connection.
1¼" – 2" (32 – 50mm) 909-M1-NPT Male threaded body connection.

Standards

AWWA C-511-92
FCCCHR of USC Manual Section 10
IAPMO (UPC), SBCCI (Standard Plumbing code)

Dimensions – Weights

When installing a drain line use 909AG series Air Gaps on Series 909 backflow preventers. *909EL series elbows are for air gaps on backflow preventers in vertical installations.



Series 909AG Air Gaps

Iron Body No.	Desc.	909 DRAIN		OUTLET		DIMENSIONS				WEIGHTS	
		Sizes in.	Sizes mm	Sizes in.	Sizes mm	A		B		lbs.	kg.
909-AG-C	Air Gap	¾, 1	19, 25	1	25	3¼	83	4⅞	124	1½	.7
909-EL-C	Elbow*	¾, 1	19, 25	–	–	2⅞	60	2⅞	60	¾	.2
909-AG-F	Air Gap	1¼-2	32-50	2	50	4⅞	111	6¾	171	3¼	1.5
909-EL-F	Elbow*	1¼-2	32-50	–	–	3⅝	92	3⅝	92	2	.9

Approvals

Listed by IAPMO

Listed by SBCCI



*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 (models 909QT, 909PCQT, and U909QT).

Pressure – Temperature

Temperature Range: 33°F – 140°F (5°C – 60°C) continuous, 180°F (82°C) intermittent

Maximum Working Pressure: 175psi (12.06 bar)

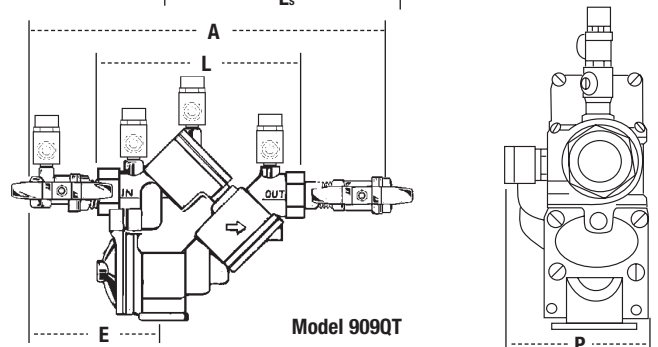
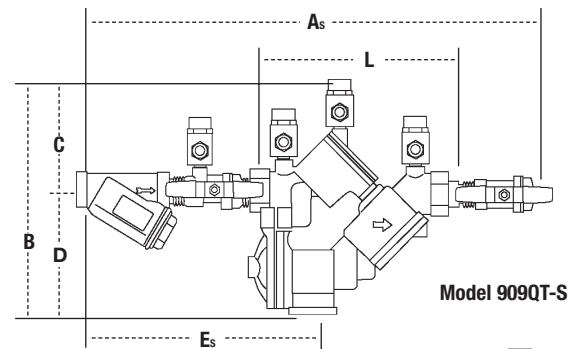
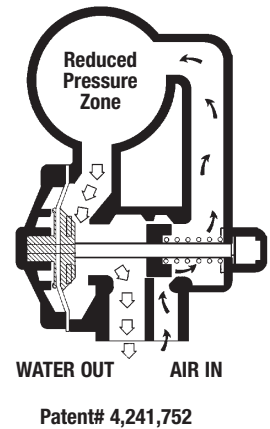
Series 909HW:

Temperature Range: 33°F – 210°F (5°C – 99°C)

Maximum Working Pressure: 175psi (12.06 bar)

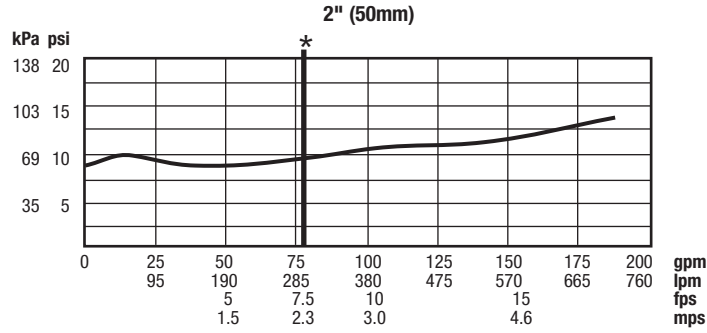
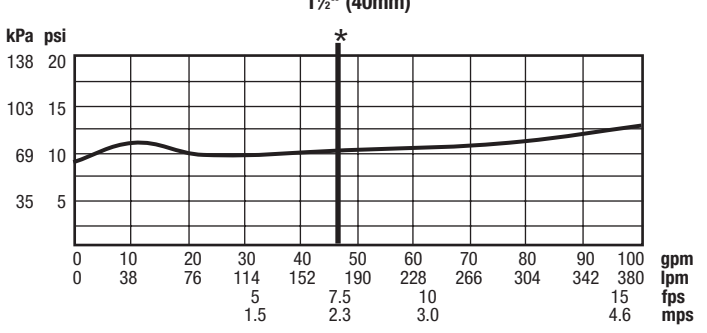
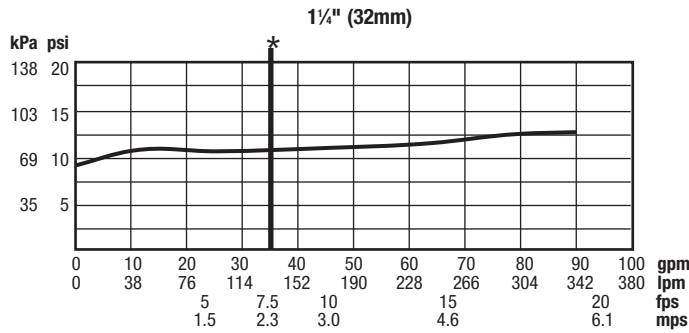
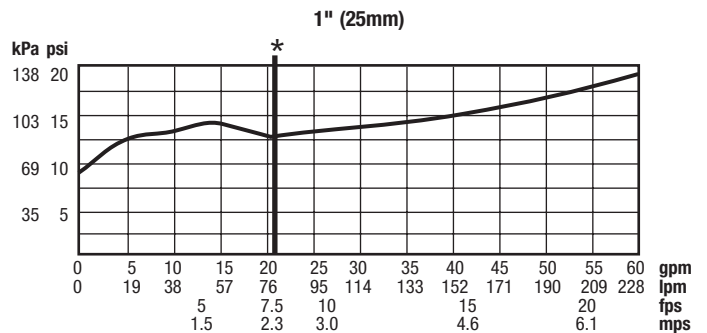
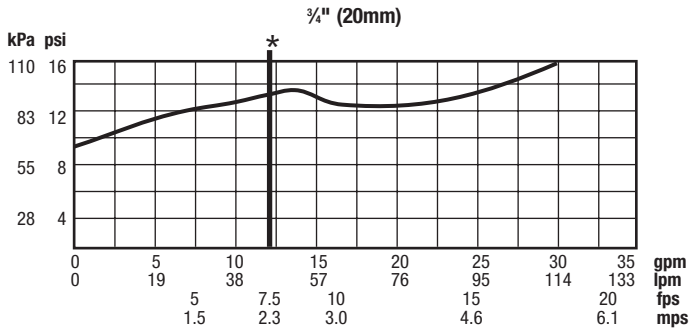
How it Operates

The unique relief valve construction incorporates two channels: one for air, one for water. When the relief valve opens, as in the accompanying air-in/water-out diagram, the right-hand channel admits air to the top of the reduced pressure zone, relieving the zone vacuum. The channel on the left then drains the zone to atmosphere. Therefore, if both check valves foul, and simultaneous negative supply and positive backpressure develop, the relief valve uses the air-in/water-out principle to stop potential backflow.



Capacity

As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California lab tests.
 *Typical maximum system flow rate (7.5 feet/sec.)



Suffix HC - Fire Hydrant Fittings dimension "A" = 23 3/4" (603mm)

SIZE (DN)	DIMENSIONS											WEIGHT										
	A		As		B		C		D		E		Es		L		P		QT		QT-S	
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	lbs.	kg.	lbs.	kg.
*909QT, 909QT-S Dimensions																						
3/4"	14 3/8	365	18 1/16	459	8 3/4	222	4	102	4 3/4	121	6 3/4	171	10 11/16	259	7 5/16	186	3 3/8	98	14	6.4	15.6	7.1
1"	15 1/8	391	19 3/8	498	8 3/4	222	4	102	4 3/4	121	7	178	11	279	7 5/16	186	3 3/8	98	15	6.8	17.5	7.9
1 1/4" M1	18 1/2	470	23 3/16	595	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	12 3/16	310	10 3/8	264	5 1/4	133	40	18.1	42.8	19.4
1 1/2" M1	19	483	24 3/8	619	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	12 5/8	321	10 3/8	264	5 1/4	133	40	18.1	44.0	20.0
2" M1	19 1/2	495	25 1/16	659	11 1/8	295	5 1/2	140	6 1/2	165	7 3/4	197	13 15/16	354	10 3/8	264	5 1/4	133	40	18.1	47.4	21.5
*U909QT Dimensions - with integral body unions (Prefix "U")																						
3/4"	14 3/8	371	19 1/16	484	8 3/4	222	4	102	4 3/4	121	6 3/4	171	10 11/16	259	7 5/16	186	3 3/8	98	14	6.4	15.6	7.1
1"	15 1/8	397	20 15/16	532	8 3/4	222	4	102	4 3/4	121	7	178	11	279	7 5/16	186	3 3/8	98	15	6.8	17.5	7.9
*FAE909QT - Dimensions with flanged adapter ends (Prefix "FAE")																						
1 1/4"	19	483	24 1/2	622	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	12 3/16	310	10 3/8	264	5 1/4	133	40	18.1	42.8	19.4
1 1/2"	19 3/4	502	26 3/8	664	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	12 5/8	321	10 3/8	264	5 1/4	133	40	18.1	44.0	20.0
2"	21	533	28 3/8	721	11 1/8	295	5 1/2	140	6 1/2	165	7 3/4	197	13 15/16	354	10 3/8	264	5 1/4	133	40	18.1	47.4	21.5

Subscript 'S' = strainer model

For Technical Assistance Call Your Authorized Watts Agent.

			Telephone #	Fax #
	HEADQUARTERS: Watts Regulator Company	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848
North East	Edwards, Platt & Deely, Inc.	271 Royal Ave., Hawthorne, NJ 07506	973 427-2898	973 427-4246
	Edwards, Platt & Deely, Inc.	368 Wyandanch Ave., North Babylon, NY 11703	631 253-0600	631 253-0303
	W. P. Haney Co., Inc.	51 Norfolk Ave., South Easton, MA 02375	508 238-2030	508 238-8353
Mid Atlantic	J. B. O'Connor Company, Inc.	P.O. Box 12927, Pittsburgh, PA 15241	724 745-5300	724 745-7420
	RMI	Glenfield Bus. Ctr., 2535 Mechanicsville Tpk., Richmond, VA 23223	804 643-7355	804 643-7380
	The Joyce Agency, Inc.	8442 Alban Rd., Springfield, VA 22150	703 866-3111	703 866-2332
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	WMS Sales, Inc. (Main office)	9580 County Rd., Clarence Center, NY 14032	716 741-9575	716 741-4810
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	Billingsley & Associates, Inc.	478 Cheyenne Lane, Madison, MS 39110	601 856-7565	601 856-8390
	Francisco J. Ortiz & Co., Inc.	Charlyn Industrial Pk., Road 190 KM1.9 - Lot #8, Carolina, Puerto Rico 00983	787 769-0085	787 750-5120
	Mid-America Marketing, Inc.	203 Industrial Drive, Birmingham, AL 35211	205 879-3469	205 870-5027
	Mid-America Marketing, Inc.	1364 Foster Avenue, Nashville, TN 37210	615 259-9944	615 259-5111
	Mid-America Marketing, Inc.	5466 Old Hwy. 78, Memphis, TN 38118	901 795-0045	901 795-0394
	Smith & Stevenson Co., Inc.	4935 Chastain Ave., Charlotte, NC 28217	704 525-3388	704 525-6749
	Harry Warren, Inc.	1243 West Colonial Dr., Orlando, FL 32804	407 841-9237	407 841-9246
	Watts Georgia	2861-B Bankers Industrial Drive, Atlanta, GA 30360	770 209-3310	770 447-4583
North Central	Aspinal Associates, Inc.	6840 Hillsdale Court, Indianapolis, IN 46250	317 849-5757	317 845-7967
	Dave Watson Associates	1325 West Beecher, Adrian, MI 49221	517 263-8988	517 263-2328
	Disney McLane & Associates	428 McGregor Ave., Cincinnati, OH 45206	800 542-1682	877 476-1682
	BWA Company	17610 S. Waterloo Rd., Cleveland, OH 44119	216 486-1010	216 486-2860
	Mid-Continent Marketing Services Ltd.	1724 Armitage Ct., Addison, IL 60101	630 953-1211	630 953-1067
	Soderholm & Associates, Inc.	7150 143rd Ave. N.W., Anoka, MN 55303	763 427-9635	763 427-5665
	Stickler & Associates	333 North 121 St., Milwaukee, WI 53226	414 771-0400	414 771-3607
South Central	Hugh M. Cunningham, Inc.	13755 Benchmark, Dallas, TX 75234	972 888-3808	972 888-3838
	Mack McClain & Associates	4407 Meramec Bottom, Suite G, St. Louis, MO 63129	314 894-8188	314 894-8388
	Mack McClain & Associates, Inc.	1450 NE 69th Place, Ste. 56 Ankeny, IA 50021	515 288-0184	515 288-5049
	Mack McClain & Associates, Inc.	15090 West 116th St., Olathe, KS 66062	913 339-6677	913 339-9518
	OK! Sales, Inc.	2200 Blue Creek Dr., Norman, OK 73026	405 360-6161	405 360-0092
	Phoenix Marketing, Ltd.	2416 Candelaria N.E., Albuquerque, NM 87107	505 883-7100	505 883-7101
Western	Delco Sales, Inc.	1930 Raymer Ave., Fullerton, CA 92833	714 888-2444	714 888-2448
	Delco Sales, Inc.	111 Sand Island Access Rd., Unit I-10, Honolulu, HI 96819	808 842-7900	808 842-9625
	Fanning & Associates, Inc.	6765 Franklin St., Denver, CO 80229-7111	303 289-4191	303 286-9069
	Hollabaugh Brothers & Associates	6915 South 194th St., Kent, WA 98032	253 867-5040	253 867-5055
	Hollabaugh Brothers & Associates	3028 S.E. 17th Ave., Portland, OR 97202	503 238-0313	503 235-2824
	P I R Sales, Inc.	3050 North San Marcos Place, Chandler, AZ 85225	480 892-6000	480 892-6096
	Preferred Sales	31177 Wiegman Road, Hayward, CA 94544	510 487-9755	510 476-1595
	R. E. Fitzpatrick Sales, Inc.	4109 West Nike Dr. (8250 South), West Jordan, UT 84088	801 282-0700	801 282-0600
Canada	Watts Industries (Canada) Inc. (Watts Regulator Co. Division)	5435 North Service Road, Burlington, Ontario L7L 5H7	905 332-4090	905 332-7068
	Con-Cur West Marketing, Inc.	71B Clipper Street, Coquitlam, British Columbia V3K 6X2	604 540-5088	604 540-5084
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	D.C. Sales Corporation Inc.	11420 142 Street, Edmonton, Alberta T5M 1V1	780 496-9495	780 496-9621
	GTA Sales Team	Greater Toronto Area	888 208-8927	888 479-2887
	Hydro-Mechanical Sales, Ltd.	3700 Joseph Howe Drive, Suite 1, Halifax, Nova Scotia B3L 4H7	902 443-2274	902 443-2275
	Hydro-Mechanical Sales, Ltd.	P.O. Box 1445 (Mailing), 297 Collishaw St., Suite 7 (shipping) Moncton, New Brunswick E1C 9R2	506 859-1107	506 859-2424
	J.D.S. Sales Ltd.	4 Lancaster Street, St. John's, Newfoundland A1A 5P7	709 579-5771	709 579-1558
	Le Groupe B.G.T., Inc.	23 du Buisson, Pont Rouge, Quebec G3H 1X9	418 873-2500	418 873-2505
	Le Groupe B.G.T., Inc.	86 des Entreprises #208, Boisbriand, Quebec J7G 2T3	450 434-9010	450 434-9848
	Mar-Win Agencies, Ltd.	1333 Clifton St., Winnipeg, Manitoba R3E 2V1	204 775-8194	204 786-8016
	Northern Mechanical Sales	P.O. Box 280 (mailing) 163 Pine St. (shipping), Garson, Ontario P3L 1S6	705 693-2715	705 693-4394
	Palser Enterprises, Ltd.	P.O. Box 28136 (mailing), 1885 Blue Heron Dr., #4, London, Ontario N6H 5L9	519 471-9382	519 471-1049
RAM Mechanical Marketing Inc.	1401 St. John Street, Regina, Saskatchewan S4R 1S5	306 525-1986	306 525-0809	
RAM Mechanical Marketing Inc.	510 Ave M South, Saskatoon, Saskatchewan S7M 2K9	306 244-6622	306 244-0807	
Walmar Mechanical Sales	24 Gurdwara Rd., Nepean, Ontario K2E 8B5	613 225-9774	613 225-0673	
0604	EXPORT Hdqtrs.: Watts Regulator Co.	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848



Backflow Prevention Products

USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.watts.com

Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscanada.ca

ES-909S 0602

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