

**For Health Hazard Applications**

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

# Series 909

## Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65–250mm)

Series 909 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 patented 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.

### Features

- Replaceable bronze 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

### Available Models

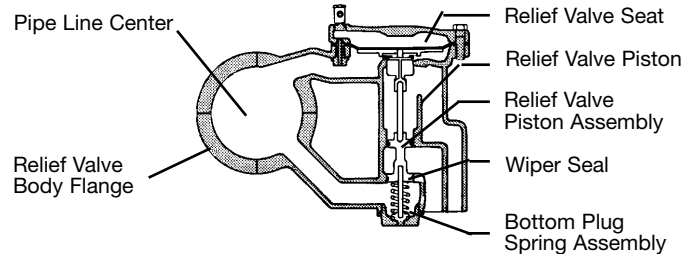
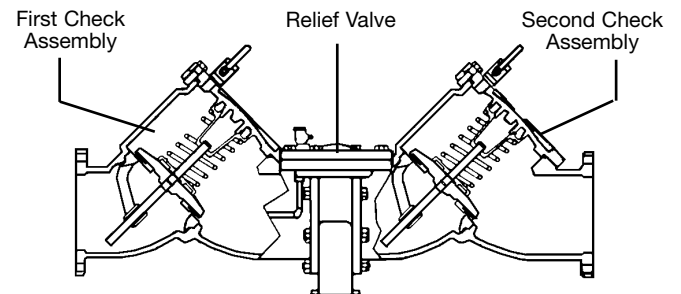
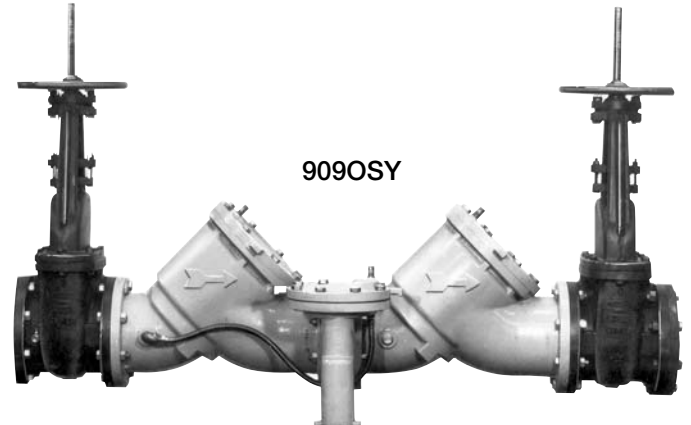
Suffix:

- BB – bronze body (2½", 3" only) (64, 76mm)
- 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 – cast iron strainer
- 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.

### Specifications

A Reduced Pressure Zone Assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure backflow 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 and captured springs. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel. The assembly shall include two tightly closing shutoff valves before and after the valve and test cocks. The assembly shall meet the requirements of ASSE Std. 1013; AWWA Std. C511-92; CSA B64.5; and UL Classified File No. EX3185. Listed by IAPMO (UPC). Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The assembly shall be a Watts Regulator Company Series 909.



**Now Available**  
**WattsBox Insulated Enclosures.**  
 For more information, send for literature ES-WB.

**IMPORTANT: INQUIRE WITH GOVERNING AUTHORITIES FOR LOCAL INSTALLATION REQUIREMENTS**



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts 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 Watts products previously or subsequently sold.

## Materials

Body: FDA epoxy coated cast iron  
 Seals: bronze  
 Trim: stainless steel  
 Relief Valve: 2½"-3" (60-80mm) bronze  
 4"-10" (100-250mm) FDA epoxy coated cast iron  
 Test Cocks: bronze body

## Pressure — Temperature

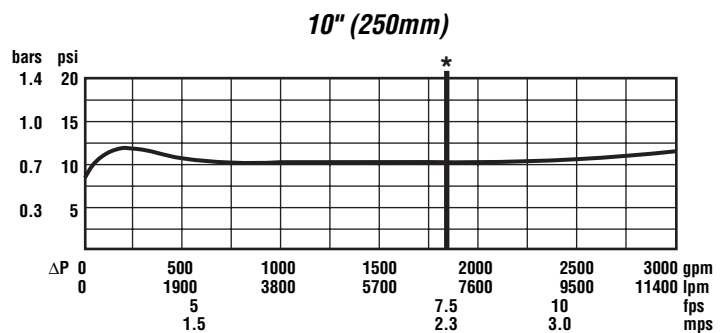
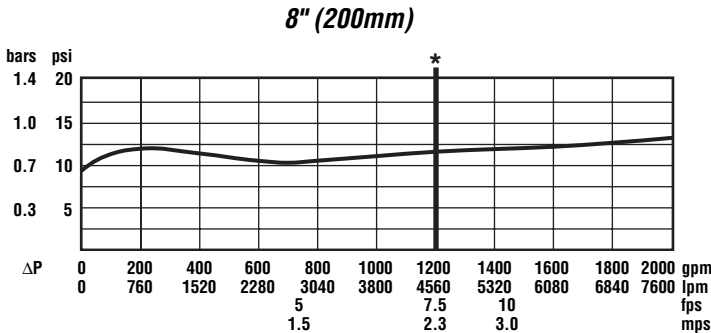
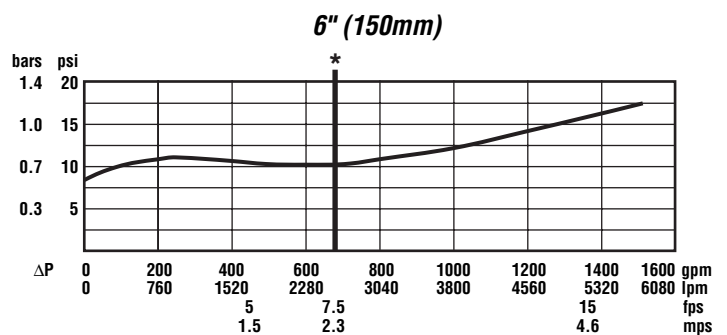
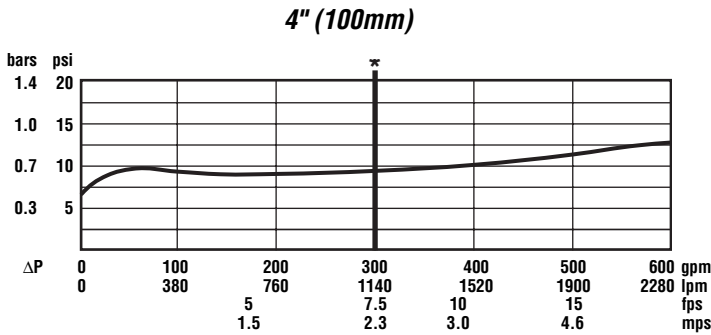
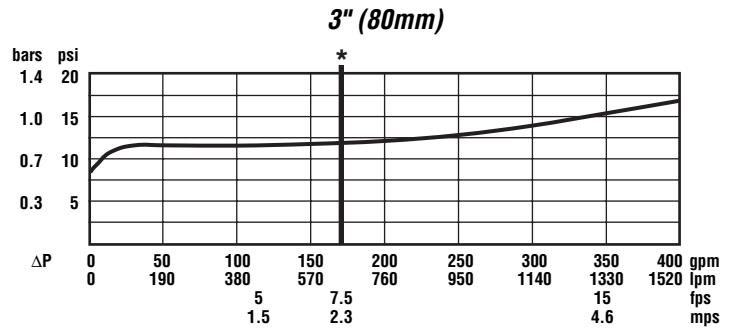
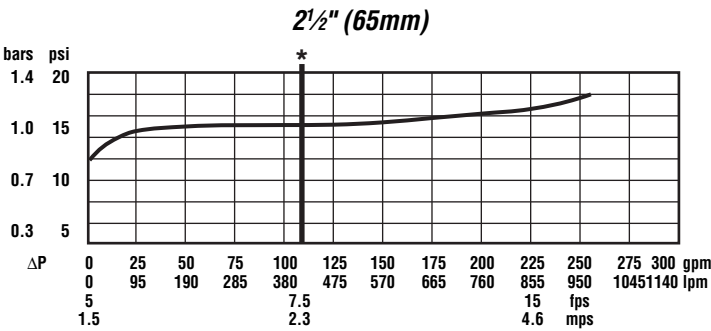
Temperature Range: 33°F-110°F (5°C-43°C) continuous,  
 140°F (60°C) intermittent  
 Maximum Working Pressure: 175psi (12 bars)

## Standards

ASSE No. 1013, AWWA C511-92, CSA B64.5  
 UL Classified File No. EX3185  
 IAPMO PS 31, SBCCI (Standard Plumbing Code)  
 USC manual for Cross-Connection Control, 8th Edition

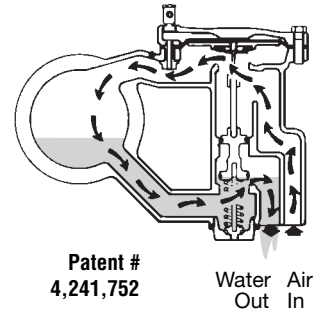
## Capacity

\*Typical maximum flow rate (7.5 feet/sec.)

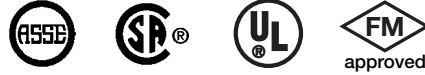


## How It Operates

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 develops, the relief valve uses the air-in/water-out principle to stop potential backflow.



## Approvals

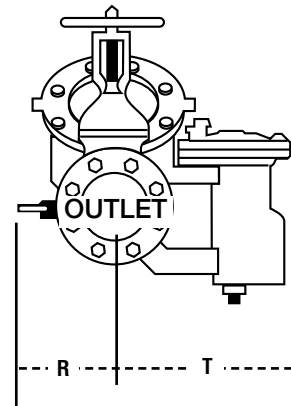
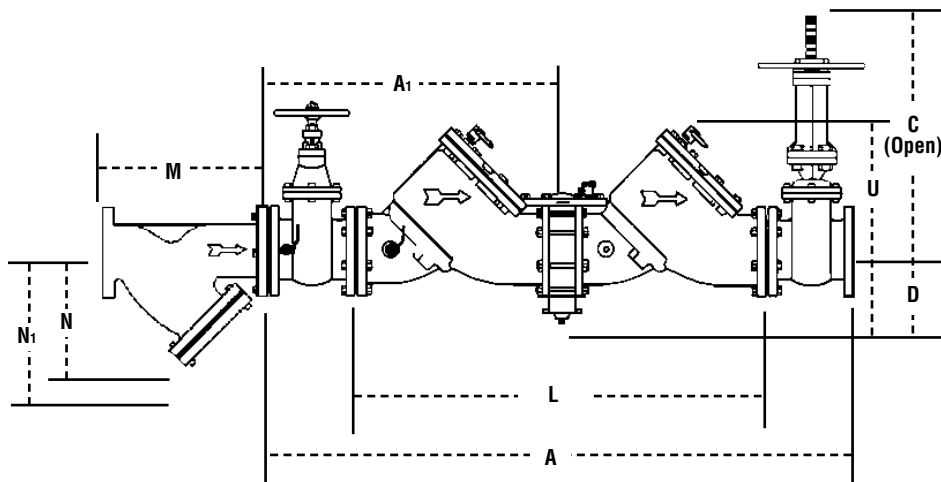


ASSE, AWWA, CSA, IAPMO

UL Classified

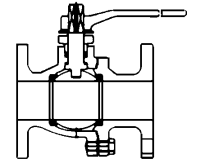
Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

## Dimensions — Weights



Quarter-turn (QT) Valve

Watts G-4000 Series  
Ball Valves  
Send for F-G4000



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

SIZE (DN)		DIMENSIONS										WEIGHT															
		A		A1		C (OSY)* (NRS)		D		L		clearance for check U	R	R (QT)	T	NRS		OSY		QT							
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.						
2½	65	41¼	1048	20⅝	524	16⅞	416	9⅜	238	5¼	133	26⅞	663	11	279	4	102	16	406	9⅞	230	195	88.4	198	89.8	182	82.6
3	80	42¼	1073	21¼	540	18⅞	479	10¼	260	5¼	133	26⅞	663	11	279	5	127	16	406	9⅞	230	225	102	230	104	190	86
4	100	55⅞	1400	27⅞	702	22¾	578	12⅞	310	6	152	37	940	14	356	6	152	19¾	502	14⅞	365	455	206	470	213	352	160
6	150	65½	1664	32¾	832	30⅞	765	16	406	6	152	44½	1130	16	406	11	279	26	660	14⅞	365	718	326	798	362	762	346
8	200	78½	2000	39⅞	1000	37¾	959	19⅞	506	9¾	248	55¼	1403	21	533	11¼	286	11¼	286	19¼	489	1350	612	1456	660	2286	1037
10	250	93⅞	2378	46⅞	1190	45¾	1162	23⅞	605	9¾	248	67⅞	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 (DN)		DIMENSIONS			WEIGHT		
		M	N1†	N			
in.	mm	in.	mm	in.	mm	lbs.	kgs.
2½	65	10	254	6½	165	28	12.7
3	80	10⅞	257	7	178	34	15.4
4	100	12⅞	308	8¼	210	60	27
6	150	18½	470	13½	343	133	60
8	200	21⅞	549	15½	394	247	112
10	250	26	660	18½	470	370	168

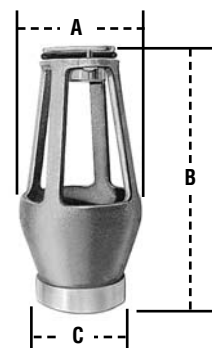
† – Dimension required for screen removal

## Air Gap Dimensions

When installing a drain line on Series 909 backflow preventers that are installed horizontally, use 909 AG series air gaps.

			DIMENSIONS			WEIGHT	
Iron Body Model No.	Ordering Code	Series/Sizes	A in. mm	B in. mm	C in. mm	lbs	kgs
909AG-F	0881378	1¼" – 3" 009/909	4⅞ 111	6¾ 171	2 51	3.25	1.47
		1¼" – 2" 009 M1					
		2" 009 M2					
909AG-K	0881385	4" – 6" 909	6⅞ 162	9⅞ 244	3 76	6.25	2.83
		8" – 10" 909 M1					
909AG-M	0881387	8" – 10" 909	7⅞ 187	11¼ 286	4 102	15.50	7.03

For flange size backflow preventers installed vertically (flow down), a fabricated air gap is recommended.



# For Technical Assistance Call Your Authorized Watts Agent.

			Telephone #	Fax #
	<b>HEADQUARTERS:</b> Watts Regulator Company	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848
<b>North East</b>	Vernon Bitzer Associates, Inc.	980 Thomas Drive, Warminster, PA 18974	215 443-7500	215 443-7573
	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
	J. B. O'Connor Company, Inc.	P.O. Box 12927, Pittsburgh, PA 15241	724 745-5300	724 745-7420
	The Joyce Agency, Inc.	8442 Alban Rd., Springfield, VA 22150	703 866-3111	703 866-2332
	W. P. Haney Co., Inc.	51 Norfolk Ave., South Easton, MA 02375	508 238-2030	508 238-8353
	WMS Sales, Inc. (Main office)	9580 County Rd., Clarence Center, NY 14032	716 741-9575	716 741-4810
<b>South East</b>	Billingsley & Associates, Inc.	2728 Crestview Ave., Kenner, LA 70062-4829	504 602-8100	504 602-8106
	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.	2776 B.M. Montgomery St., Birmingham, AL 35209	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
	RMI	Glenfield Bus. Ctr., 2535 Mechanicsville Tpk., Richmond, VA 23223	804 643-7355	804 643-7380
	Smith & Stevenson Co., Inc.	4935 Chastain Ave., Charlotte, NC 28217	704 525-3388	704 525-6749
	Spotswood Associates, Inc.	6235 Atlantic Blvd., Norcross, GA 30071	770 447-1227	770 263-6899
	Target Marketing Enterprises, Inc.	118 West Grant St., Building M, Orlando, FL 32806	407 245-7838	407 245-7833
<b>South Central</b>	Hugh M. Cunningham, Inc.	13755 Benchmark, Dallas, TX 75234	972 888-3800	972 888-3838
	Mack McClain & Associates	11132 South Towne Square, Suite 202, St. Louis, MO 63123	314 894-8188	314 894-8388
	Mack McClain & Associates, Inc.	1537 Ohio St., Des Moines, IA 50314	515 288-0184	515 288-5049
	Mack McClain & Associates, Inc.	15090 West 116th St., Olathe, KS 66062	913 339-6677	913 339-9518
	Pro-Spec, Inc.	P.O. Box 472226, Tulsa, OK 74147-2226	918 461-0066	918 461-0105
<b>North Central</b>	Aspinall Associates, Inc.	6840 Hillsdale Court, Indianapolis, IN 46250	317 849-5757	317 845-7967
	Associated Independent Marketing	1606 Commerce Dr., Sun Prairie, WI 53590	608 837-5005	608 837-2368
	Dave Watson Associates	1325 West Beecher, Adrian, MI 49221	517 263-8988	517 263-2328
	Disney-McLane-Woodcock, Inc.	428 McGregor Ave., Cincinnati, OH 45206	800 542-1682	877 476-1682
	Disney-McLane-Woodcock, Inc.	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
<b>South West</b>	Delco Sales, Inc.	1930 Raymer Ave., Fullerton, CA 92833	714 888-2444	714 888-2448
	Phoenix Marketing, Ltd.	2416 Candelaria N.E., Albuquerque, NM 87107	505 883-7100	505 883-7101
	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
<b>North West</b>	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
	R. E. Fitzpatrick Sales, Inc.	4109 West Nike Dr. (8250 South), West Jordan, UT 84088	801 282-0700	801 282-0600
	Soderholm & Associates, Inc.	7150 143rd Ave. N.W., Anoka, MN 55303	763 427-9635	763 427-5665
<b>CANADA</b>	Watts Industries (Canada) Inc. (Watts Regulator Co. Division)	5435 North Service Road, Burlington, Ontario L7L 5H7	905 332-4090	905 332-7068
	GTA Sales Team.	Greater Toronto Area	888 208-8927	888 479-2887
	Hydro-Mechanical Sales, Ltd.	3700 Joseph Howe Dr., Ste. 1 Halifax, Nova Scotia B3L 4H7	902 443-2274	902 443-2275
	Hydro-Mechanical Sales, Ltd.	297 Collishaw St., Ste. 7 (shipping) Moncton, New Brunswick E1C 9R2	506 859-1107	506 859-2424
	Hydro-Mechanical Sales, Ltd.	85 Toit Rd., St. Phillips, Newfoundland A1B 3M7	709 895-0090	709 895-0091
	Le Groupe B.G.T., Inc.	2800 Rue Dalton Ste. 3, Ste-Foy, Quebec G1P 3S4	418 657-2800	418 657-2700
	Le Groupe B.G.T., Inc.	140 Rue Merizzi, Ville St. Laurent, Quebec H4T 1S4	514 341-9010	514 341-4464
	Walmar Mechanical Sales	24 Gurdwara Rd., Nepean, Ontario K2E 8B5	613 225-9774	613 225-0673
	Mar-Win Agencies, Ltd.	1123 Empress St., Winnipeg, Manitoba R3E 3H1	204 775-8194	204 786-8016
	Palser Enterprises, Ltd.	1885 Blue Heron Dr., #4, London, Ontario N6H 5L9	519 471-9382	519 471-1049
	Northern Mechanical Sales	P.O. Box 280 (mailing) 163 Pine St. (shipping), Garson, Ontario P3L 1S6	705 693-2715	705 693-4394
	RAM Mechanical Marketing	1301 Winnipeg St., Regina, Saskatchewan S4R 1K2	306 525-1986	306 525-0809
	RAM Mechanical Marketing	2615-B Wentz Avenue, Saskatoon, Saskatchewan S7K 5J1	306 244-6622	306 244-0807
	Con-Cur West Marketing, Inc.	#109-42 Fawcett Rd., Coquitlam, British Columbia V3K 6X9	604 540-5088	604 540-5084
D.C. Sales, Ltd.	10-6130 4th St. S.E., Calgary, Alberta T2H 2A6	403 253-6808	403 259-8331	
D.C. Sales, Ltd.	11420 142 Street, Edmonton, Alberta T5M 1V1	780 496-9495	780 496-9621	
0310	<b>EXPORT Hdqtrs.:</b> Watts Regulator Co.	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848



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