

## For Health Hazard Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series 009

## Reduced Pressure Zone Assemblies

**Sizes: 1/4" – 3" (8 – 80mm)**

Series 009 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.

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 1/4" – 1" (8 – 25mm) shutoffs have tee handles.

### 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
- Bronze body construction for durability 1/4" – 2" (8 – 50mm)
- Fused epoxy coated cast iron body 2 1/2" and 3" (65 and 80mm)
- Ball valve test cocks — screwdriver slotted 1/4" – 2" (8 – 50mm)
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing

### Specifications

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 bronze cover secured with stainless steel bolts. The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks and an air gap drain fitting. The assembly shall meet the requirements of: USC Manual 8th Edition<sup>†</sup>; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Regulator Co. Series 009.

<sup>†</sup>Does not indicate approval status. Refer to Page 2 for approved sizes & models.

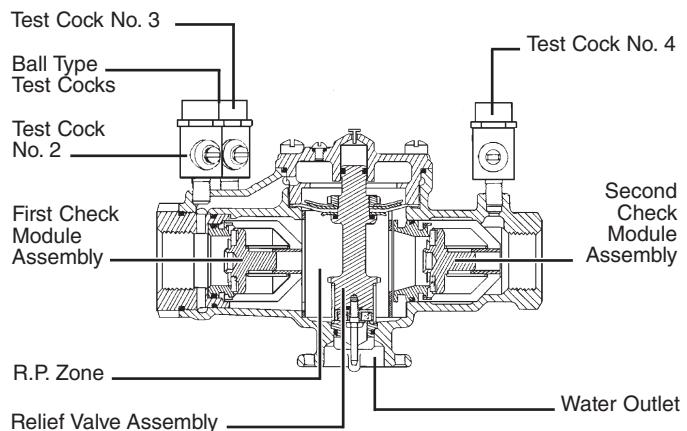
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior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



**1/2" (15mm) 009QT**



**2" (50mm) 009M2QTHC**



### Now Available WattsBox Insulated Enclosures.

For more information, send for literature ES-WB.

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

**WATTS®**

## Available Models: 1/4" – 2" (8 – 50mm)

### Suffix:

QT – quarter-turn ball valves  
 S – bronze strainer  
 LF – without shutoff valves  
 AQT – elbow fittings for 360° rotation  
 3/4" – 2" (20 – 50mm) only  
 PC – internal Polymer Coating  
 LH – locking handle ball valves (open position)  
 SH – stainless steel ball valve handles  
 HC – 2½" inlet/outlet fire hydrant fitting (2" valve)

### Prefix:

C – clean and check strainer  
 3/4" – 1" (20 – 25mm) only  
 U – union connections (see ES-U009)

## Available Models: 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 valve shutoffs  
 LF – without shutoff valves  
 S – cast iron strainer

**Note:** The installation of a drain line is recommended. When installing a drain line, an air gap is necessary (see ES-AG).

## Materials: 1/4" – 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 (1/2" – 2" (15 – 50mm)). Series 009QT furnished with quarter turn, full port, resilient seated, bronze ball valve shutoffs.

## Air Gaps and Elbows

MODEL	DRAIN OUTLET	DIMENSIONS				WEIGHT			
		in.	mm	in.	mm	lbs.	kgs.		
909AG-A	for 909, 009 and 993 sizes	1/2	13	2 5/8	60	3 1/8	79	.625	.28
909AG-C	1/4"-1" 009/909, 1"-1 1/2" 009M2	1	25	3 1/4	83	4 7/8	124	1.50	.68
909AG-F	1 1/4"-2" 009M1, 1 1/4"-3" 009/909, 2" 009M2, 4"-6" 993	2	51	4 3/8	111	6 3/4	171	3.25	1.47
909AG-K	4"-6" 909, 8"-10" 909M1	3	76	6 3/8	162	9 5/8	243	6.25	2.83
909AG-M	8"-10" 909	4	102	7 3/8	187	11 1/4	394	15.50	7.03
909EL-A	1/4"-1/2" 009, 3/4" 009M2/M3	—	—	—	—	—	—	—	—
909EL-C	3/4"-1" 009/909,	—	—	2 5/8	60	2 5/8	60	.38	.17
* 909EL-F	1 1/4"-2" 009M1, 1 1/4"-2" 009/909, 2" 009M2, 4"-6" 993	—	—	3 5/8	92	3 5/8	92	2	.91
* 909EL-H Vertical	2 1/2"-3" 009/909	—	—	—	—	—	—	—	—

## Materials: 2½" and 3" (65 – 80mm)

- (FDA approved) Epoxy coated cast iron unibody with bronze seats
- Relief valve with stainless steel seat and trim
- Bronze body ball valve test cocks

## Pressure / Temperature

**Series 009 1/4" – 2" (8 – 50mm)** Suitable for supply pressure up to 175psi (12 bar). Water temperature: 33°F – 180°F (0.5°C – 75°C).

**Sizes 2½" and 3" (65 and 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.

## Standards

USC Manual 8th Edition†

ASSE No. 1013

AWWA C511-92

CSA B64.4

IAPMO File No. 1563.

†Does not indicate approval status. See below for approved models.



## Approvals

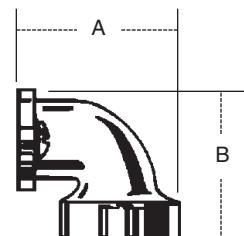
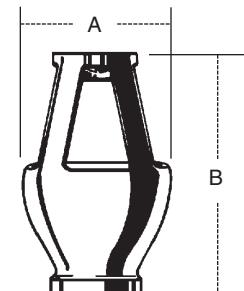
ASSE, AWWA, CSA, IAPMO

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

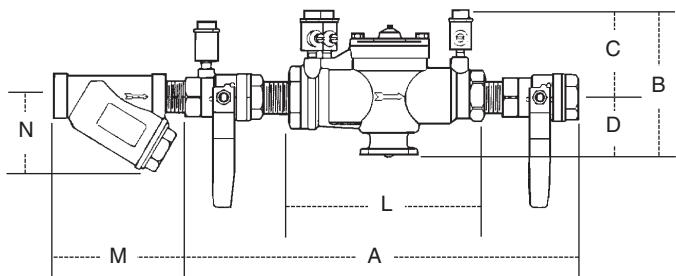
Approval models QT, AQT, PC, NRS, OSY.

UL Classified 3/4" – 2" (20 – 50mm)

(LF models only except 009M3LF)  
2½" and 3" (65 and 80mm) with OSY gate valves.



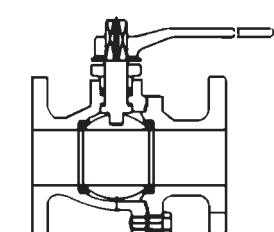
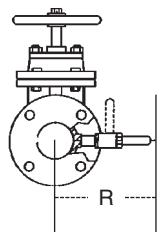
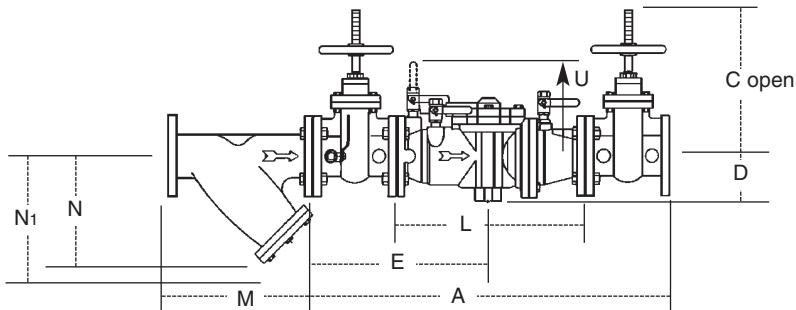
## Dimensions and Weight: 1/4" – 2" (8 – 50mm) 009



Suffix HC – Fire Hydrant Fittings dimension 'A' = 25" (637mm)  
009 1/4" – 2"

SIZE (DN)		DIMENSIONS (APPROX.)						STRAINER DIMENSIONS		WEIGHT	
in.	mm	A in. mm	B in. mm	C in. mm	D in. mm	L in. mm	M in. mm	N in. mm	lbs. kg.s		
1/4	8	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140
3/8	10	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140
1/2	15	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140
3/4	20	10 3/4	273	5	127	3 1/2	89	1 1/2	38	6 3/4	171
1	25	14 1/2	368	5 1/2	140	3	76	2 1/2	64	9 1/2	241
1 1/4	32	17 7/8	441	6	150	3 1/2	89	2 1/2	64	11 1/8	289
1 1/2	40	17 7/8	454	6	150	3 1/2	89	2 1/2	64	11 1/8	283
2	50	21 5/8	543	7 3/4	197	4 1/2	114	3 1/4	83	13 1/2	343

## Dimensions and Weight: 2 1/2" and 3" (65 and 80mm) 009



Watts G-4000 Series  
QT – Ball Valves

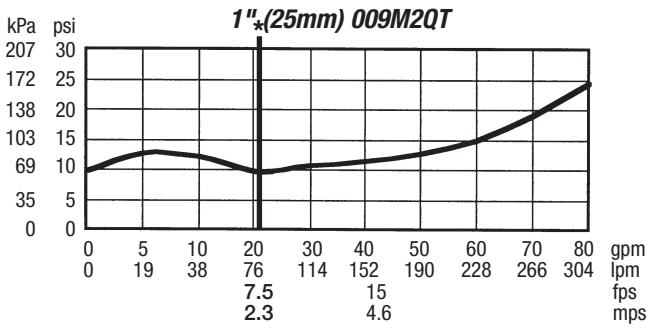
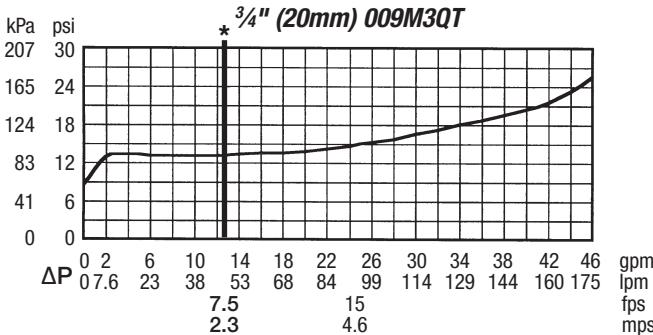
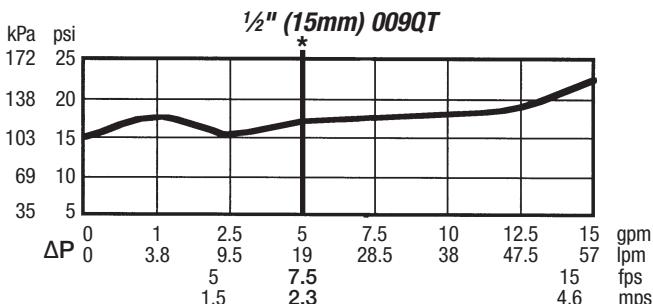
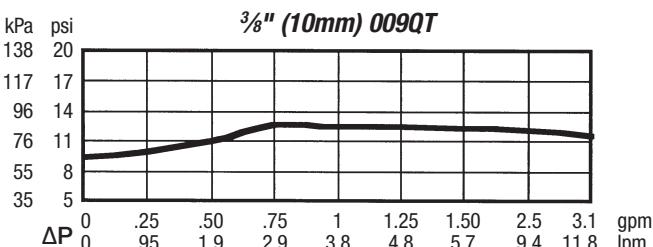
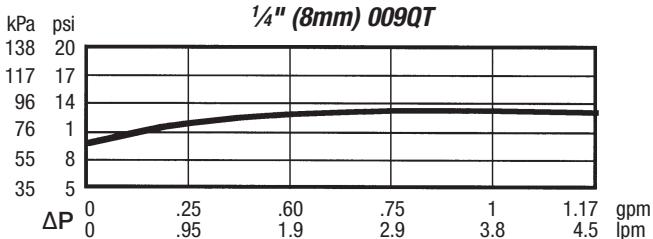
STRAINER SIZE		DIMENSIONS (approx.)				WEIGHT	
in.	mm	M in. mm	N in. mm	N <sub>1</sub> † in. mm	lbs. kgs.	in.	mm
2 1/2	65	10	254	6 1/2	165	9 3/4	248
3	80	10 1/8	257	7	178	10	254

†Clearance for servicing

MODEL	SIZE DN				DIMENSIONS (APPROX.)						WEIGHT							
	in.	mm	A in. mm	C in. mm	D in. mm	E in. mm	L in. mm	R in. mm	U in. mm	lbs. kgs.								
009LF	2 1/2	65	—	—	—	4 1/2	114	—	—	18 1/8	460	—	10 5/8	270	76	34.5		
009OSY	2 1/2	65	33 1/4	845	15 5/8	403	4 1/2	114	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	166	75.3
009NRS	2 1/2	65	33 1/4	845	11 3/8	289	4 1/2	114	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	161	73.0
009QT	2 1/2	65	33 1/4	845	6	152	4 1/2	114	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	150	68.0
009LF	3	80	—	—	—	4 1/2	114	—	—	18 1/8	460	—	10 5/8	270	76	34.5		
009OSY	3	80	34 1/4	870	18 1/2	470	4 1/2	114	16 5/8	422	18 1/8	460	8 3/4	222	10 5/8	270	198	89.8
009NRS	3	80	34 1/4	870	12 3/4	324	4 1/2	114	16 5/8	422	18 1/8	460	8 3/4	222	10 5/8	270	191	86.6
009QT	3	80	34 1/4	870	7	178	4 1/2	114	16 5/8	422	18 1/8	460	8 3/4	222	10 5/8	270	158	71.7

## Capacity

Performance as established by an independent testing laboratory.



\*Typical maximum system flow rate (7.5 feet/sec., 2.3 meters/sec.)

