



1/2" 009QT



2" 009M2QTHC



Series 009 Reduced Pressure Zone Assemblies

Sizes: 1/4" – 3"

MODELS

1/4" – 2"

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 – 2 1/2" 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)

2 1/2" – 3"

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

DESCRIPTION

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 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.

PRESSURE - TEMPERATURE

Series 009 1/4" – 2" Suitable for supply pressure up to 175psi (12 bar). Water temperature: 33°F – 180°F (-3°C – 75°C).

Sizes 2 1/2" and 3" are suitable for supply pressures up to 175psi (12 bar) and water temperature 110°F (43°C) continuous, 140°F (60°C) intermittent.

009 Series

MATERIALS

1/4" - 2"

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.

2 1/2" and 3"

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

Approvals

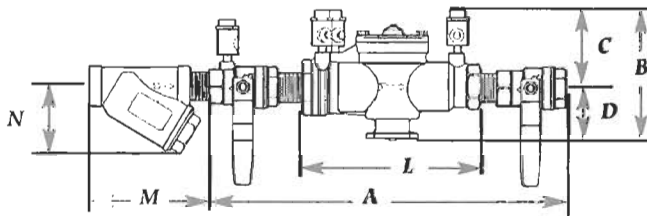
ASSE, AWWA, CSA, IAPMO

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

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

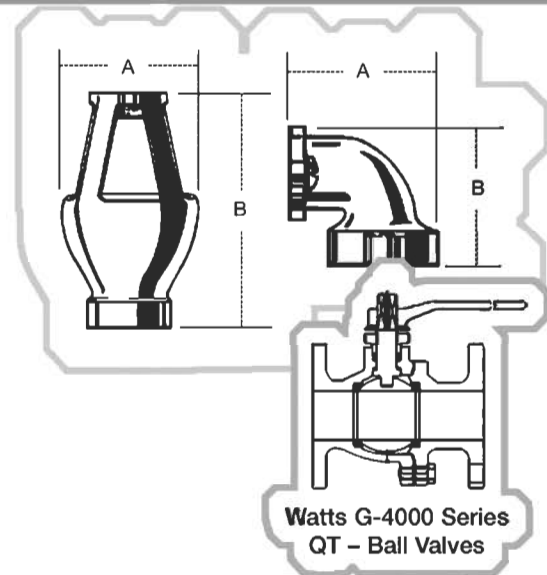
UL Classified 3/4" - 2" (20 - 50mm) (LF models only)

2 1/2" and 3" (65 and 80mm) with OSY gate valves.



AIR GAPS & ELBOWS

MODEL	DRAIN OUTLET	DIMENSIONS		WEIGHT
		in.	in.	
	909, 009 and 993 sizes			
909AG-A	1/4"-1/2" 009, 3/4" 009M2/M3	1/2	2 3/8	.625
909AG-C	3/4"-1" 009/909, 1"-1 1/2" 009M2	1	3 1/4	1.50
909AG-F	1 1/4"-2" 009M1, 1 1/4"-3" 009/909, 2" 009M2, 4"-6" 993	2	4 3/8	3.25
909AG-K	4"-6" 909, 8"-10" 909M1	3	6 3/8	6.25
909AG-M	8"-10" 909	4	7 3/8	15.50
909EL-A	1/4"-1/2" 009, 3/4" 009M2/M3	-	-	-
909EL-C	3/4"-1" 009/909,	-	2 3/8	.38
* 909EL-F	1 1/4"-2" 009M1, 1 1/4"-2" 009/909, 2" 009M2, 4"-6" 993	-	3 3/8	2
* 909EL-H Vertical	2 1/2"-3" 009/909	-	-	-



DIMENSIONS & WEIGHTS

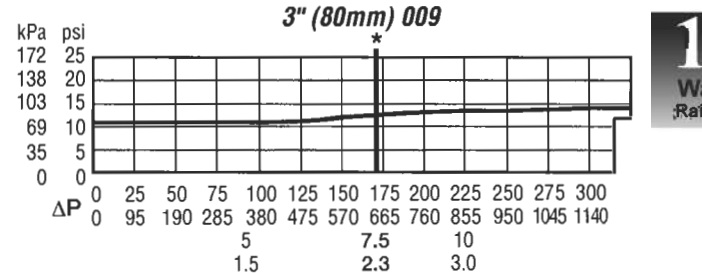
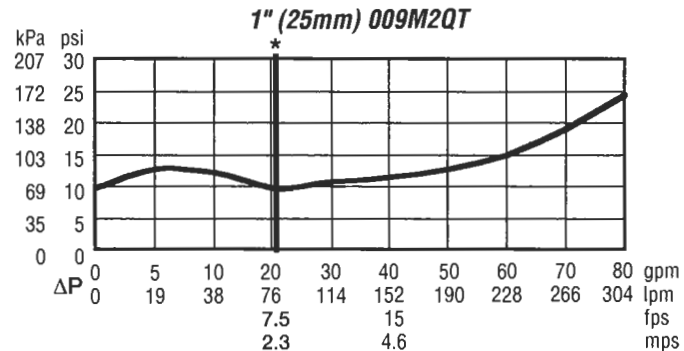
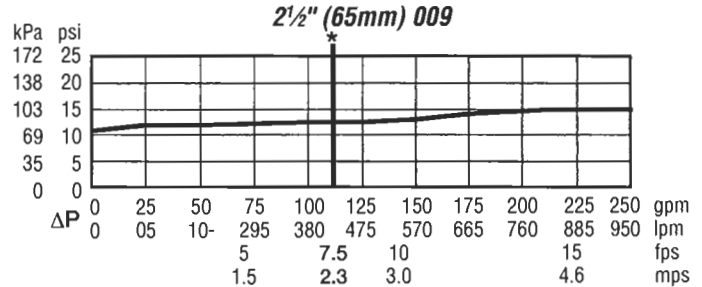
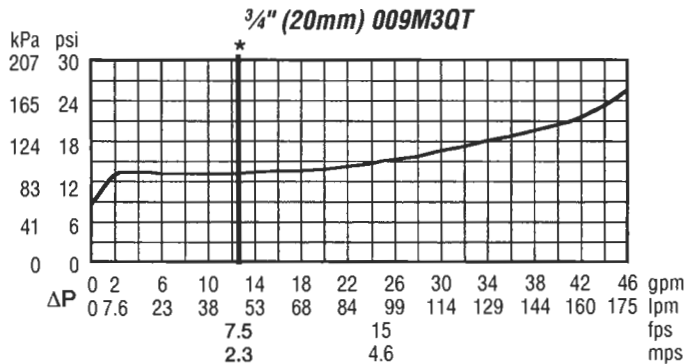
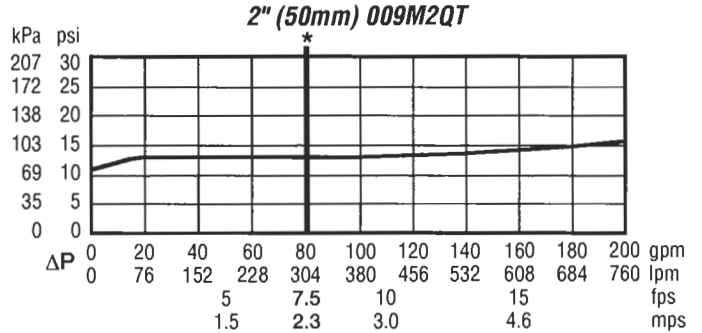
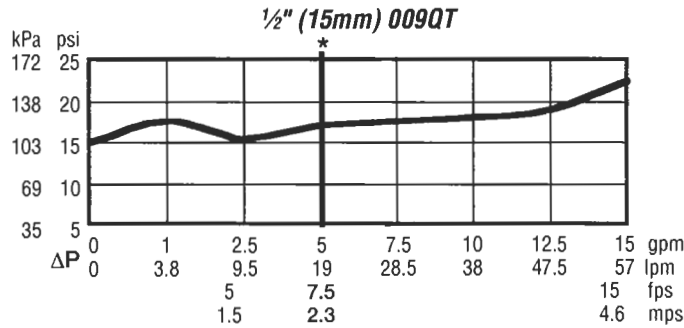
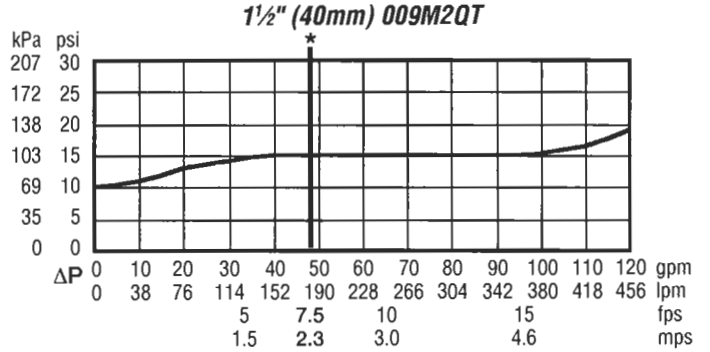
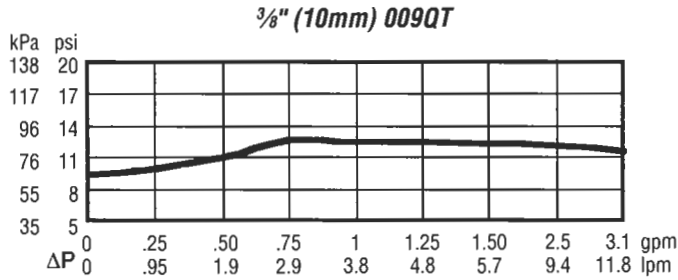
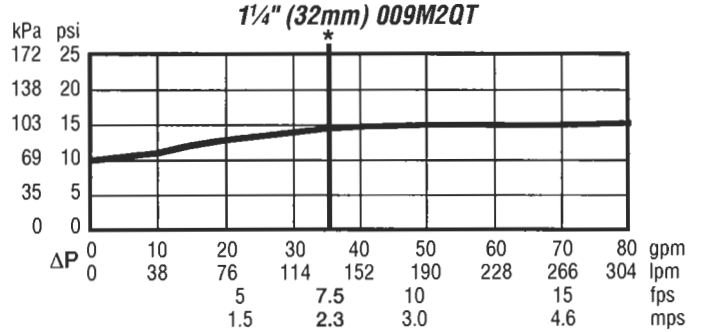
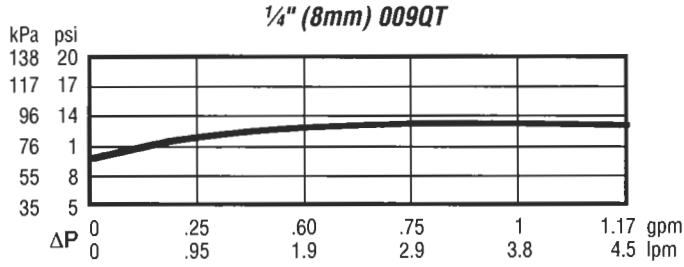
Model	Order No.	Size (DN)		A		*B		C		D		L		M		N		Weight	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg.
009QT	0062098	1/4	8	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	-	-	-	-	4.50	2.0
009QT	0062096	3/8	10	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	-	-	-	-	4.50	2.0
009QT	0062094	1/2	15	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	-	-	-	-	4.50	2.0
009M3QT	0062291	3/4	20	10 3/4	273	5	127	3 1/2	89	1 1/2	38	6 3/4	171	-	-	-	-	5.75	2.6
009M2QT	0063030	1	25	16 3/4	425	5 1/2	140	3	76	2 1/2	64	9 1/2	241	-	-	-	-	12.25	5.6
009M2QT	0063020	1 1/4	32	17 3/8	441	6	150	3 1/2	89	2 1/2	64	11 3/8	289	-	-	-	-	14.62	6.6
009M2QT	0062921	1 1/2	40	17 7/8	454	6	150	3 1/2	89	2 1/2	64	11 1/8	283	-	-	-	-	16.32	7.4
009M2QT	0063010	2	50	21 3/8	543	7 3/4	197	4 1/2	114	3 3/4	83	13 1/2	343	-	-	-	-	30.00	13.6
* 009QT-S	0062181	1/4	8	10	250	6	150	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5.50	2.5
* 009QT-S	0062180	3/8	10	10	250	6	150	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5.50	2.5
* 009QT-S	0062095	1/2	15	10	250	6	150	3 3/8	86	1 1/4	32	5 1/2	140	2 3/4	70	2 1/4	57	5.50	2.5
* 009M3QT-S	0063031	3/4	20	10 3/4	273	6 1/4	159	3 1/2	89	1 1/2	38	6 3/4	171	3 3/16	81	2 3/4	70	7.75	3.5
* 009M2QT-S	0063021	1	25	16 3/4	425	7 3/4	197	3	76	2 1/2	64	9 1/2	241	3 3/4	95	3	76	15.25	6.9
* 009M2QT-S	0062950	1 1/4	32	17 3/8	441	7 3/4	197	3 1/2	89	2 1/2	64	11 3/8	289	4 7/16	113	3 1/2	89	20.19	9.2
* 009M2QT-S	0062952	1 1/2	40	17 7/8	454	7 3/4	197	3 1/2	89	2 1/2	64	11 1/8	283	4 7/8	124	4	102	20.32	9.3
* 009M2QT-S	0063011	2	50	21 3/8	543	8 1/4	210	4 1/2	114	3 3/4	83	13 1/2	343	5 15/16	151	5	127	36.87	16.7
* 009NRS	0062418	2 1/2	65	33 3/4	845	15 7/8	403	11 11/16	294	4 1/2	114	18 7/8	460	-	-	-	-	161.00	73.0
* 009NRS-S	0062590	2 1/2	65	33 3/4	845	15 7/8	403	11 11/16	294	4 1/2	114	18 7/8	460	10	254	6 1/2	165	189.00	85.0
* 009OSY	0062571	2 1/2	65	33 3/4	845	20 3/8	517	16 3/8	416	4 1/2	114	18 7/8	460	-	-	-	-	166.00	75.0
* 009QT-FDA	0062573	2 1/2	65	33 3/4	845	10 1/2	267	6 5/16	160	4 1/2	114	18 7/8	460	10	254	6 1/2	165	150.00	68.0
* 009NRS	0062419	3	80	34 1/4	870	17 1/4	438	21 1/16	545	4 1/2	114	18 7/8	460	-	-	-	-	191.00	86.7
* 009NRS-S	0062591	3	80	34 1/4	870	17 1/4	438	21 1/16	545	4 1/2	114	18 7/8	460	10 1/8	257	7	178	225.00	102.0
* 009OSY	0062579	3	80	34 1/4	870	23	584	18 7/8	479	4 1/2	114	18 7/8	460	-	-	-	-	198.00	90.0
* 009QT-FDA	0062581	3	80	34 1/4	870	11 1/2	292	7 5/16	186	4 1/2	114	18 7/8	460	10 1/4	260	7	178	158.00	72.0

*B dimension is from the lowest part of the valve (the relief port) to the highest part of the gate/ball valve shut-off.

FLOW CURVES - Series 009

Performance as established by an independent testing laboratory.

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



RELIEF VALVE ASSEMBLY PARTS & KITS — 1/4" – 2"

Series 009

1/4" – 1"

ORDERING CODE	KIT NO.	SIZE
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Relief Valve Kits:

0887294	RK 009 VT	1/4", 3/8", 1/2"
0887509	RK SS009 VT	1/2"
0887002	RK 009M2 VT	3/4"
0887520	RK SS009M2/M3 VT	1/4" – 3/4"
0888524	RK 009M3 VT	3/4"
0887015	RK 009 VT	3/4" – 1"
0887503	RK SS009 VT	1"
0887785	RK 009M2 VT	1"

Kit consists of: Seat, Seat O-ring, Stem & diaphragm assembly, Stem O-ring, Cover O-ring and RV spring.

Relief Valve Rubber Parts Kits:

0887295	RK 009 RV	1/4", 3/8", 1/2"
0887510	RK SS009 RV	1/2"
0886998	RK 009M2 RV	3/4"
0887519	RK SS009M2/M3 RV	1/4" – 3/4"
0888523	RK 009M3 RV	3/4"
0887181	RK 009 RV	3/4" – 1"
0887529	RK SS009 RV	1"
0887786	RK 009M2 RV	1"

Kit consists of: Diaphragm, Disc assembly, Stem O-rings, Seat O-ring and Cover O-ring.

Total Rubber Parts Kits:

0887297	RK 009 RT	1/4", 3/8", 1/2"
0887511	RK SS009 RT	1/2"
0886999	RK 009M2 RT	3/4"
0887521	RK SS009M2 RT	3/4"
0888526	RK 009M3 RT	3/4"
0888597	RK SS009M3 RT	1/4" – 3/4"
0887182	RK 009 RT	3/4" – 1"
0887530	RK SS009 RT	1"
0887787	RK 009M2 RT	1"

Kit consists of: Diaphragm, Two discs, Two disc assemblies, Stem O-rings, Cover O-ring, Two seat O-rings and RV seat O-ring.

Cover Kits:

0887296	RK 009 C	1/4", 3/8", 1/2"
0887500	RK SS009 C	1/2"
0887004	RK 009M2 C	3/4"
0887501	RK SS009M2/M3 C	1/4" – 3/4"
0888525	RK 009M3 C	3/4"
0887013	RK 009 C	3/4" – 1"
0887502	RK SS009 C	1"
0887788	RK 009M2 C	1"

Kit consists of: Cover and Cover O-ring.

1 1/4" – 2"

ORDERING CODE	KIT NO.	SIZE
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Relief Valve Total Kit:

0887307	RK 009M2 VT	1 1/4" – 1 1/2"
0887277	RK 009M1 VT	1 1/4" – 2"
0887016	RK 009 VT	1 1/4" – 2"
0887545	RK 009M2 VT	2"

Kit consists of: RV assembly, Seat, Seat O-ring, Cover O-ring, Sensing passage O-ring and Upper stem O-ring.

Relief Valve Rubber Parts Kit:

0887306	RK 009M2 RV	1 1/4" – 1 1/2"
0887276	RK 009M1 RV	1 1/4" – 2"
0887184	RK 009 RV	1 1/4" – 2"
0887544	RK 009M2 RV	2"

Kit consists of: Diaphragm, Seat O-ring, Cover O-ring and Sensing passage O-ring.

Complete Rubber Parts Kit:

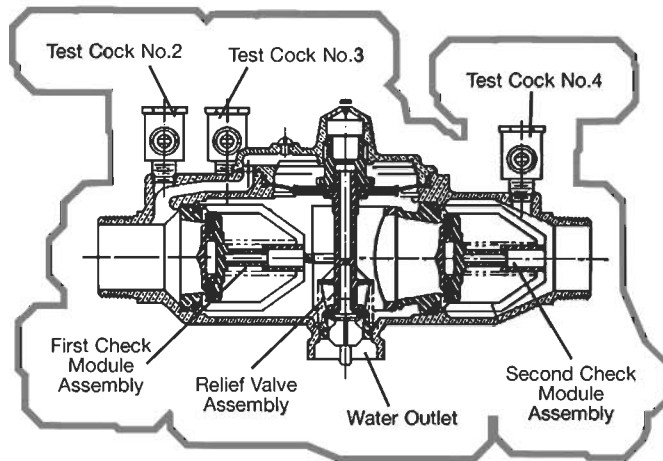
0887309	RK 009M2 RT	1 1/4" – 1 1/2"
0887280	RK 009M1 RT	1 1/4" – 2"
0887185	RK 009 RT	1 1/4" – 2"
0887547	RK 009M2 RT	2"

Kit consists of: Two check assembly O-rings, Two disc assemblies, One cover O-ring, One RV diaphragm, One RV seat O-ring, One sensing passage O-ring, One diaphragm plate O-ring, One RV lower stem O-ring, One RV upper stem O-ring, One RV disc assembly and One bleed screw O-ring.

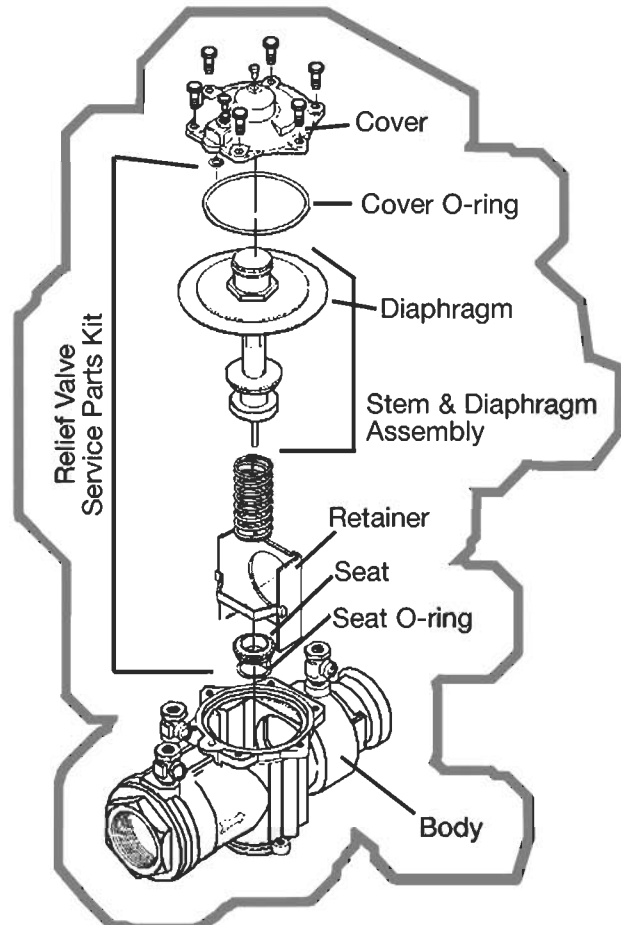
Cover Kit:

0887308	RK 009M2 C	1 1/4" – 1 1/2"
0887278	RK 009M1 C	1 1/4" – 2"
0887014	RK 009 C	1 1/4" – 2"
0887546	RK 009M2 C	2"

Kit consists of: Cover, Cover O-ring, Sensing passage O-ring, Bleed screw O-ring, Vent hood and Bleed screw.



Relief Valve for
all models in Series 009
1/4" to 2"



CHECK ASSEMBLY KITS & PARTS — 1/4" - 2"

009 Series

1/4" - 1"

ORDERING CODE	KIT NO.	SIZE
First Check Kits:		
0887291	RK 009 CK1	1/4", 3/8", 1/2"
0887505	RK SS009 CK1	1/2"
0887000	RK 009M2 CK1	3/4"
0887515	RK SS009M2/M3 CK1	1/4" - 3/4"
0888520	RK 009M3 CK1	3/4"
0887005	RK 009 CK1	3/4" - 1"
0887009	RK 009 CK1SS	3/4" - 1"
0887525	RK SS009 CK1	1"
0887789	RK 009M2 CK1	1"

Kit consists of: Check assembly and Cover O-ring.

Second Check Kits:

0887292	RK 009 CK2	1/4", 3/8", 1/2"
0887506	RK SS009 CK2	1/2"
0887001	RK 009M2 CK2	3/4"
0887516	RK SS009M2/M3 CK2	1/4" - 3/4"
0888521	RK 009M3 CK2	3/4"
0887007	RK 009 CK2	3/4" - 1"
0887011	RK 009 CK2SS	3/4" - 1"
0887526	RK SS009 CK2	1"
0887790	RK 009M2 CK2	1"

Kit consists of: Check assembly and Cover O-ring.

Check Rubber Parts:

0887293	RK 009 RC3	1/4", 3/8", 1/2"
0887003	RK 009M2 RC3	3/4"
0888522	RK 009M3 RC3	3/4"
0887507	RK SS009 RC1	1/2"
0887517	RK SS009M2 RC1	3/4"
0888595	RK SS009M3 RC1	1/4" - 3/4"
0887017	RK 009 RC1	3/4" - 1"
0887527	RK SS009 RC1	1"
0887791	RK 009M2 RC1	1"
0887508	RK SS009 RC2	1/2"
0887518	RK SS009M2 RC2	3/4"
0888596	RK SS009M3 RC2	1/4" - 3/4"
0887180	RK 009 RC2	3/4" - 1"
0887528	RK SS009 RC2	1"
0887792	RK 009M2 RC2	1"

Kit consists of: Disc, Cover O-ring and Seat O-ring.

Retainers:

1047053	99AB47	1/4", 3/8", 1/2"	
1047394	99BA47	3/4"	M2-M3
1047001	99FA47	1 1/4" - 2"	
1047001	99FA47	1 1/4" - 2"	M1, 2" M2
1047401	99EA47	1 1/4" - 1 1/2"	M2

1 1/4" - 2"

ORDERING CODE	KIT NO.	SIZE
First Check Kit:		
0887300	RK 009M2 CK1	1 1/4" - 1 1/2"
0887270	RK 009M1 CK1	1 1/4" - 2"
0887006	RK 009 CK1	1 1/4" - 2"
0887010	RK 009 CK1SS	1 1/4" - 2"
0887272	RK 009M1 CK1SS	1 1/4" - 2"
0887540	RK 009M2 CK1	2"

Kit consists of: First check assembly, Cover O-ring and Sensing passage O-ring.

Second Check Kit:

0887301	RK 009M2 CK2	1 1/4" - 1 1/2"
0887271	RK 009M1 CK2	1 1/4" - 2"
0887008	RK 009 CK2	1 1/4" - 2"
0887012	RK 009 CK2SS	1 1/4" - 2"
0887273	RK 009 M1 CK2SS	1 1/4" - 2"
0887541	RK 009M2 CK2	2"

Kit consists of: Second check assembly, Cover O-ring and Sensing passage O-ring.

First Check Rubber Parts Kit:

0887304	RK 009M2 RC1	1 1/4" - 1 1/2"
0887274	RK 009M1 RC1	1 1/4" - 2"
0887018	RK 009 RC1	1 1/4" - 2"
0887542	RK 009M2 RC1	2"

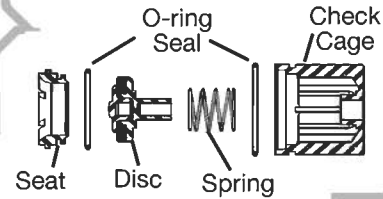
Kit consists of: First check assembly O-ring, Disc holder assembly, Cover O-ring and Sensing passage O-ring.

Second Check Rubber Parts Kit:

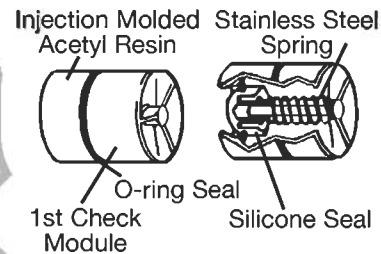
0887305	RK 009M2 RC2	1 1/4" - 1 1/2"
0887275	RK 009M1 RC2	1 1/4" - 2"
0887183	RK 009 RC2	1 1/4" - 2"
0887543	RK 009M2 RC2	2"

Kit consists of: Second check assembly O-ring, Disc holder assembly, Cover O-ring and Sensing passage O-ring.

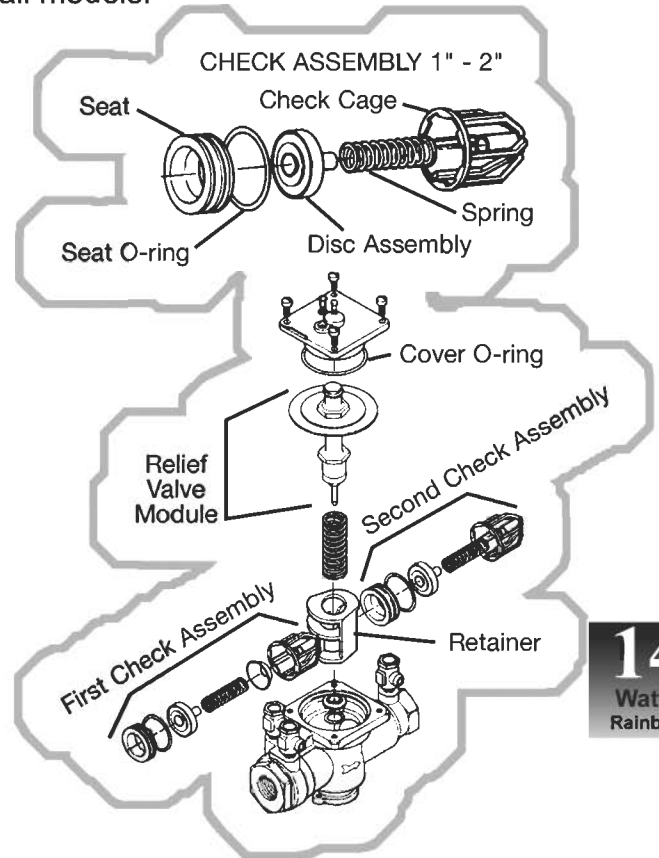
This Check assembly diagram for 3/4" M3 ONLY.



Check assembly diagram
All models 1/4" to 3/4"



Check assembly diagram for all models:



Replacement Parts — 2½" – 3"

When ordering, specify Ordering Code, Kit number and Valve Size.

ORDERING CODE	KIT NO.	SIZE
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Relief Valve Total Kit:

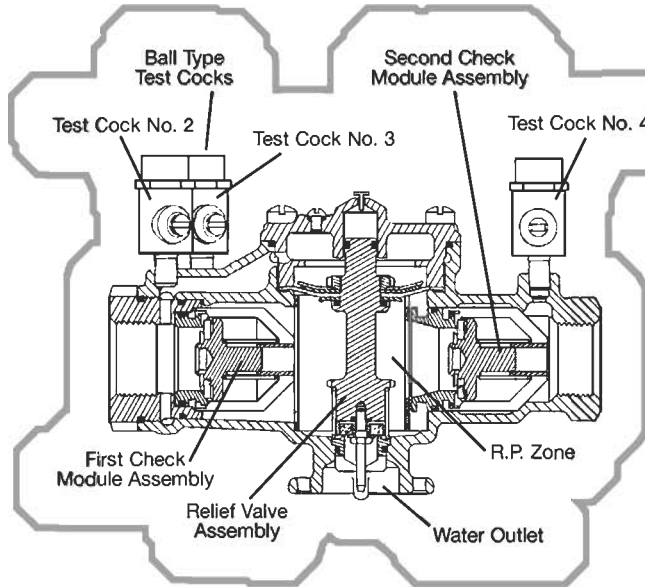
0887021	RK 009 VT	2½" – 3"
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Kit consists of: Seat, Stem assembly, Spring, Two piston o-rings, Flow tube O-rings and Cover O-ring.

Relief Valve Rubber Parts Kit:

0887206	RK 009 RV	2½" – 3"
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Kit consists of: Diaphragm, Disc, Molded disc assembly, Piston O-rings, Stem O-ring and Cover O-ring.



Replacement Parts — 2½" – 3"

ORDERING CODE	KIT NO.	SIZE
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First Check Kit:

0887019	RK 009 CK1	2½" – 3"
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Second Check Kit:

0887020	RK 009 CK2	2½" – 3"
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Kit consists of: Check assembly, Cover O-ring and Flow tube O-ring.

First Check Rubber Parts Kit

0887281	RK 009 RC1	2½" – 3"
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Second Check Rubber Parts Kit

0887205	RK 009 RC2	2½" – 3"
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Kit consists of: Disc, Seat O-ring and Flow tube O-ring.

Total Rubber Parts:

0887207	RK 009 RT	2½" – 3"
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Kit consists of: Diaphragm, Two discs, Two molded disc assemblies, Two seat O-rings, RV O-ring, Two piston O-rings, RV stem O-ring, Flow tube O-rings and Cover O-ring.

Cover Kit:

0887282	RK 009 C	2½" – 3"
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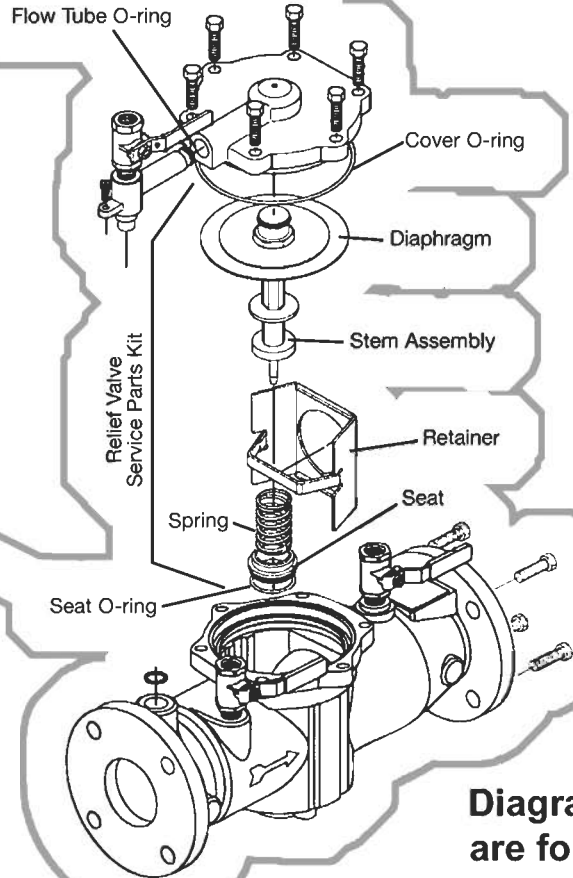
Kit consists of: Cover, Cover O-ring and Flow tube O-ring.

Seat Kit:

0887208	RK 009 S	2½" – 3"
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Kit consists of: Check seat, Seat O-ring and Cover O-ring.

Series 009



Diagrams are for all Series 009 Models

