

Series 993

Reduced Pressure Zone Backflow Preventer

Size: 4", 6" (100, 150mm)

Series 993 Reduced Pressure Zone Backflow Preventers 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 piping systems or for containment at the water meter service line entrance.

FEATURES

- Grooved ends available
- Compact bottom-mounted relief valve to reduce clearance requirements
- Compact construction reduces lay length by as much as 70%
- Field proven check/relief valve components for reliability and parts inventory reduction
- Lower installed cost in outdoor installations due to elimination of two elbows, two valve supports, use of shorter spools and smaller enclosures
- Stainless steel internal parts

AVAILABLE MODELS

Suffix:

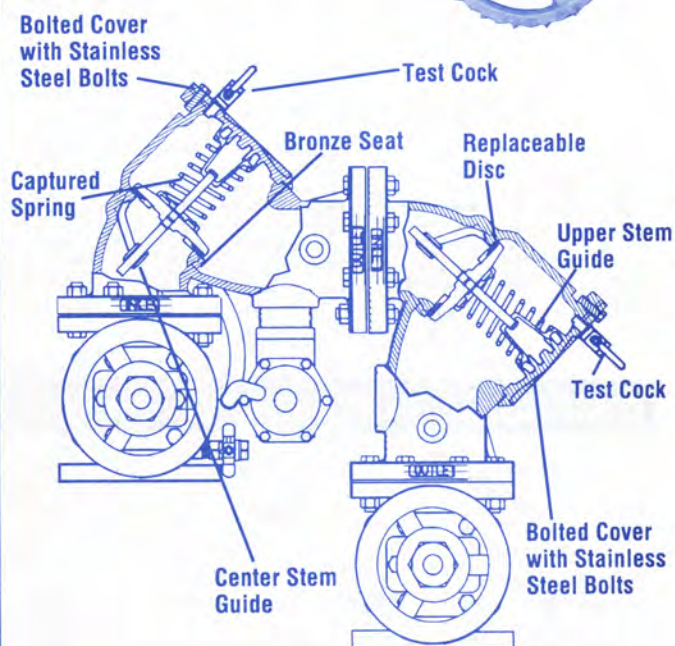
- G** - with grooved ends
- NRS** - with non-rising stem resilient seated gate valves (Standard)
- OSY** - with (UL/FM) outside stem & yoke resilient seated gate valves

SPECIFICATIONS

A reduced pressure zone backflow prevention 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. The check valves shall be of a poppet design and guided by a bearing in the valve seat and an integral guide in the check module. The check valve seats shall be securely held in place by retaining wires and shall be removable without the use of special tools. The check discs shall be circular in design and shall be replaceable as an individual part. The relief valve shall be of bronze construction with 300 series stainless steel seat and piston. The relief valve shall be bottom mounted and supplied with a steel reinforced sensing hose. The main valve body shall be internally/externally coated with an FDA approved fusion bonded epoxy coating. The assembly shall include two resilient shutoff valves and four ball type test cocks. The assembly shall be a Watts Regulator Series 993.



Watts 993



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For more information, send for ES-WB or ES-WB-T.

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.

A LEADER IN VALVE TECHNOLOGY



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Water Products Division • Safety & Control Valves

USA: 815 Chestnut Street, North Andover, MA 01845-6098
Canada: 5435 North Service Road, Burlington, Ontario L7L 5H7

MATERIALS

Series 993 have FDA approved epoxy coated cast iron check valve bodies with bronze seats and bronze relief valve with stainless steel trim.
All sizes furnished with bronze body ball valve test cocks.

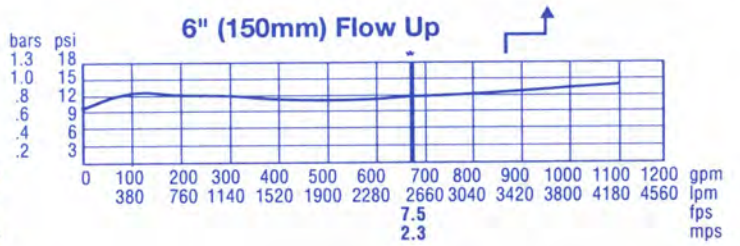
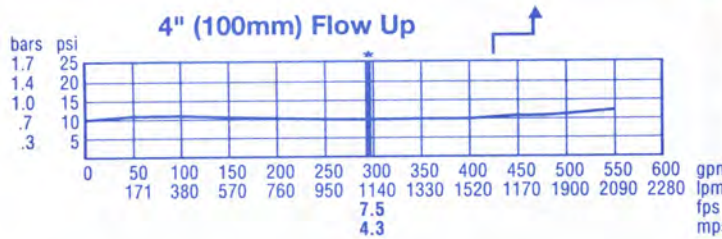
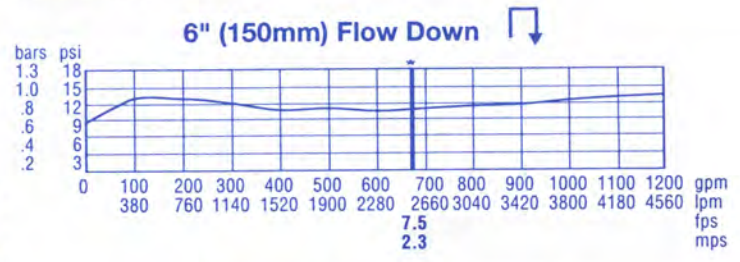
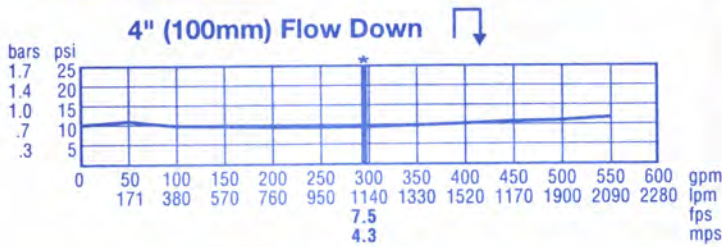
PRESSURE - TEMPERATURE

Suitable for supply pressure up to 175 psi (12.1 bars) and water temperatures to 110°F (43°C).

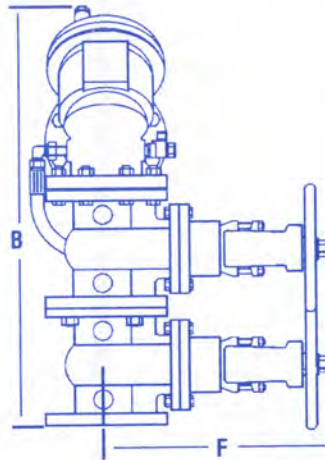
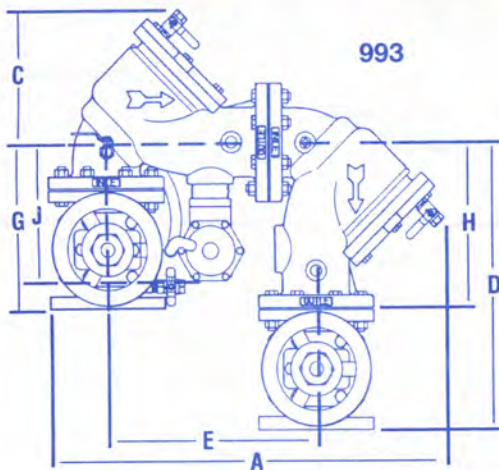
STANDARDS/APPROVALS

Consult factory.

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



DIMENSIONS - WEIGHT (approximate)



GROOVED END dimensions are the same as below.

Model	Size inches / mm	Weight lbs. / kg.
993-LF	4 / 100	250 / 113
993-OSY	4 / 100	350 / 159
993-NRS	4 / 100	335 / 152
993-LF	6 / 150	350 / 159
993-OSY	6 / 150	425 / 193
993-NRS	6 / 150	410 / 186

Model	Size inches / mm	A inches / mm	B inches / mm	C inches / mm	D inches / mm	E inches / mm	F (open) inches / mm	F (close) inches / mm	G inches / mm	H inches / mm	J inches / mm
993-LF	4 / 100	30 ³ / ₁₆ / 781	—	10 / 250	—	16 ¹ / ₄ / 413	—	—	—	12 ¹ / ₂ / 318	10 ¹ / ₂ / 267
993-OSY	4 / 100	32 ¹ / ₄ / 819	31 ⁵ / ₁₆ / 803	10 / 250	21 ⁵ / ₁₆ / 549	16 ¹ / ₄ / 413	23 ³ / ₄ / 603	19 ¹ / ₄ / 489	12 ³ / ₄ / 324	—	—
993-NRS	4 / 100	32 ¹ / ₄ / 819	31 ⁵ / ₁₆ / 803	10 / 250	21 ⁵ / ₁₆ / 549	16 ¹ / ₄ / 413	15 ¹ / ₄ / 387	15 ¹ / ₄ / 387	12 ³ / ₄ / 324	—	—
993-LF	6 / 150	38 ⁹ / ₁₆ / 979	—	12 ¹ / ₈ / 327	—	20 ¹ / ₁₆ / 510	—	—	—	15 ⁵ / ₁₆ / 389	11 ¹⁵ / ₁₆ / 303
993-OSY	6 / 150	38 ⁹ / ₁₆ / 979	38 ¹³ / ₁₆ / 986	12 ¹ / ₈ / 327	25 ¹⁵ / ₁₆ / 659	20 ¹ / ₁₆ / 510	32 ¹ / ₂ / 826	27 / 686	15 ⁵ / ₁₆ / 389	—	11 ¹⁵ / ₁₆ / 303
993-NRS	6 / 150	38 ⁹ / ₁₆ / 979	38 ¹³ / ₁₆ / 986	12 ¹ / ₈ / 327	25 ¹⁵ / ₁₆ / 659	20 ¹ / ₁₆ / 510	20 / 508	20 / 508	15 ⁵ / ₁₆ / 389	—	11 ¹⁵ / ₁₆ / 303

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