

For Commercial, Institutional or Industrial Applications

Job Name _____ Contractor _____
 Job Location _____ Approval _____
 Engineer _____ Contractor's P.O. No. _____
 Approval _____ Representative _____

Series 223 Super Capacity Water Pressure Regulators

Sizes: 1/2" to 2 1/2" (15 to 65mm)

Series 223 experience-proven design has an enlarged diaphragm, spring cage and seat orifice for super capacity performance. For optional service life, the 223 Series can be furnished with a separate strainer, (suffix S as shown). Threaded female connections and sealed cage are standard features.

Reduced Pressure Range - Adjustable from 25 to 75 psi (1.76 to 5.27 bars) Set at 50 psi no flow pressure, unless otherwise specified.

Sizes: Series 223 1/2" to 2" (15 to 50mm) bronze, 2 1/2" (65mm) iron. Series N223B 2 1/2" and 3" (65 and 80mm) bronze (see ES-N223B for info.). Series N223F 3" (80mm) iron, flanged connections (see ES-N223F for info.).

OPTIONS: (Options can be combined)

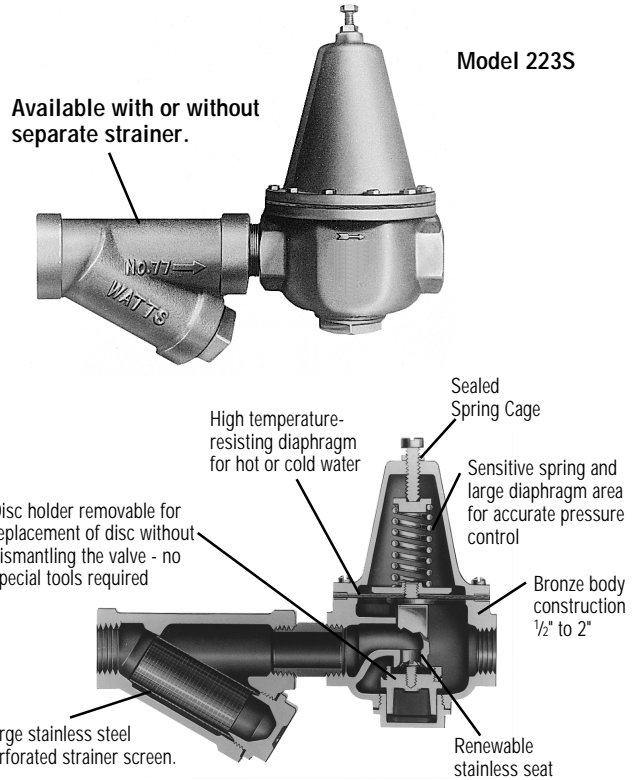
Suffix:

- B - Built-in bypass feature
- *HP - High pressure range (see back page)
- *LP - Low pressure range 10 to 35psi (.70 to 2.46 bar) set for 30psi (2.11 bar) unless otherwise specified
- S - For separate strainer assembled with a nipple
- Z3 - Corrosion-resistant adjusting and cage screws for waterworks pit installations. Sizes 1/2", 3/4", 1" and 1 1/4" (15, 20, 25, 32mm)
- Z8 - Adjustable pressure range 75 to 125psi (5.17 to 8.62 bar). Sizes 1 1/2" and 2".

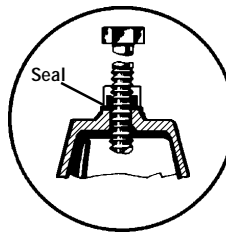
*Series 223 only.

Specifications

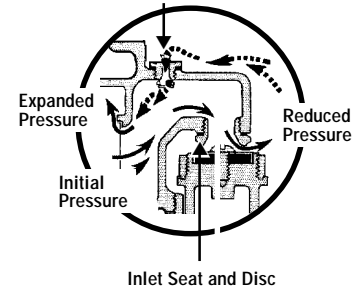
A pressure regulating valve shall be installed where noted to reduce supply pressures to 50 psi or less. The installation shall include a strainer on the inlet side of the regulator. The regulator shall feature a removable seat disc and disc holder that can be removed in-line without special tools. The valve diaphragm shall resist hot or cold water temperature damage. The spring cage shall be sealed for below grade service. Adjusting screw and cage screws shall be corrosion resistant. The valve shall be a Watts 223S-Z3.



Sealed Spring Cage
Water tight sealed cage assembly standardly furnished.



Suffix B
Thermal Expansion Pressure By-Pass Check Valve Feature



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

- Bronze body construction (except 2½" size - iron body)
- Renewable stainless steel seat
- Stainless steel strainer screen (suffix S)
- Reinforced Buna-N diaphragm
- Buna-N valve disc

Pressure - Temperature

Suitable for initial pressures up to 300 psi (21.1 bar). Reduced pressure range 25 to 75 psi (1.76 to 5.17 bars) set at 50 lbs. no flow pressure unless otherwise specified.

Max. Temperature: 160°F (71°C).

Suffix LP - Low pressure range 10 to 35 psi (.70 to 2.46 bar) set at 30 lbs. Unless otherwise specified.

Suffix HP - High pressure reduced range shown below.

Reduced Pressure Range - Suffix HP Range			
Size		Range	
Inches	mm	psi	bar
½	15	50-145	3.52-10.19
¾	20	50-145	3.52-10.19
1	25	50-145	3.52-10.19
1¼	32	50-120	3.52-8.44
1½	40	50-95	3.52-6.68
2	50	50-95	3.52-6.68
2½	65	50-95	3.52-6.68

Standards



Meets requirements of A.S.S.E. Standard 1003, (A.N.S.I. A112.26); CSA Standard B356; Southern Standard Plumbing Code, Military Standard MIL-V-18146B Type 1 and are listed by I.A.P.M.O.

Dimensions - Weight

Size (DN)	Dimensions										Weight			
	A (223)		As (223S)		C		D		N		223		223S	
in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lbs. kg.	lbs. kg.	lbs. kg.	lbs. kg.	
½ 15	4¼ 108	9 229	6¼ 159	2 50	2½ 64	4½ 2.0	6 2.7							
¾ 20	4¼ 108	9 229	6¼ 159	2 50	2½ 64	5 2.3	6½ 2.9							
1 25	4¾ 121	10½ 262	6½ 165	2½ 64	2½ 64	7 3.2	9½ 4.3							
1¼ 32	5 127	11½ 287	6¾ 172	2¾ 70	3 76	9 4.1	12 5.4							
1½ 40	6¾ 171	14¾ 375	7½ 251	2¾ 70	3½ 87	19½ 8.8	23½ 6.8							
2 50	8 203	16¾ 425	10¾ 273	3¾ 86	4 102	30 13.6	37½ 17.0							
2½ 65	9 229	20¾ 511	10¾ 273	3¾ 86	5 127	32½ 14.8	59 26.8							
	N223B	N223BS	N223B/N223BS				N223B		N223BS					
*2½ 65	7¾ 200	17 432	10¾ 273	2¾ 73	5 127	30 13.6	44 20.0							
†3 80	10½ 267	20¾ 527	12¾ 324	4½ 105	6¾ 172	71 32.2	95 43.0							

*Request ES-N223B for detailed information.

†For flanged connections with iron body, specify Series N223F.



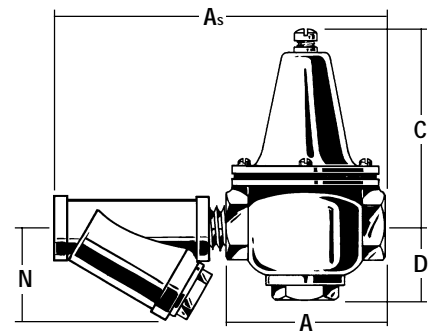
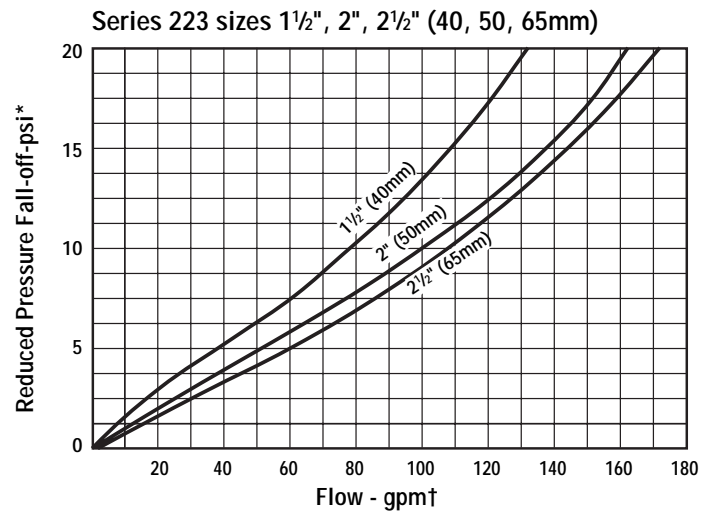
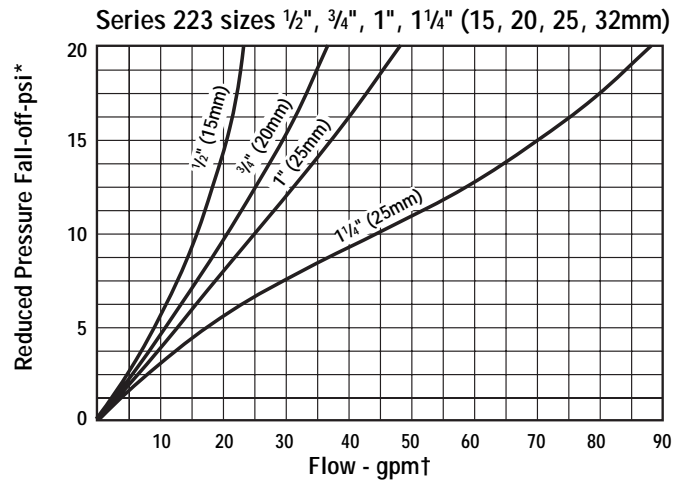
USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattsca.com



Capacity

*1 psi equals .07 bar.

†1 gpm equals 3.785 liters per minute.



Model 223S