Operating and Service Instructions
Pressure Regulating Valves

Specifications

216-27-XX BRASS	Standard	Metric
Inlet Pressure:	25 – 150 PSI	1,75 – 10,55 kg/cm^2
Regulated Outlet Pressure:	15 – 125 PSI ± 3 PSI	1,05 – 8,79 kg/cm^2 ± 0,0 2 kg/cm^2
Flow:	1 in. 5 – 45 GPM 1-1/2 in. 20 – 120 GPM 2 in. 30 – 180 GPM 2-1/2 in. 60 – 250 GPM 3 in. 80 – 350 GPM	1 in. 18,93 – 170,3 kg/cm^2 1-1/2 in. 75,7 – 454,2 kg/cm^2 2 in. 113,5 – 681,3 kg/cm^2 2-1/2 in. 227,1 – 946,2 kg/cm^2 3 in. 302,8 – 1324,8 kg/cm^2
Minimum Pressure Differential:	10 PSI	0,7 kg/cm^2
Solenoid Actuator:	24 VAC, 50/60 Hz .550 Amps Inrush .330 Amps Holding	24 VAC, 50/60 Hz .550 Amps Inrush .330 Amps Holding
252-27-XX PLASTIC	**Standard**	**Metric**
Inlet Pressure:	10 – 150 PSI	0,7 – 10,55 kg/cm^2
Regulated Outlet Pressure:	15 to 125 PSI ± 3 PSI	1,05 – 8,79 kg/cm^2 ± 0,0 2 kg/cm^2
Flow:	1-1/2 in. 10 – 120 GPM 2 in. 10 – 180 GPM	1-1/2 in. 37,85 – 454,2 kg/cm^2 2 in. 37,85 – 681,3 kg/cm^2
Minimum Pressure Differential:	10 PSI	0,7 kg/cm^2
Solenoid Actuator:	24 VAC, 50/60 Hz .400 Amps Inrush .235 Amps Holding	24 VAC, 50/60 Hz .400 Amps Inrush .235 Amps Holding

WARNING

PRESSURE REGULATOR WILL BE BYPASSED IF VALVE IS MANUALLY ACTIVATED THROUGH MANUAL BLEED. IF UNREGULATED OUTLET PRESSURE EXCEEDS MAXIMUM SPRINKLER OPERATING PRESSURE, SPRINKLER ASSEMBLY FAILURE MAY OCCUR RESULTING IN INJURY TO PERSONNEL AND/OR PROPERTY DAMAGE. PRIOR TO MANUAL OPERATION, TURN VALVE FLOW CONTROL CLOCKWISE TO SUFFICIENTLY REDUCE FLOW.

Regulator Adjustment

1. Assure valve has been installed to meet all applicable plumbing and electrical codes.
2. Grasp adjustment knob on pressure regulator and lift upward to release lock. Turn knob fully counterclockwise to relieve control spring tension.
3. Remove regulator valve stem cover and attach a pressure gauge suitable for measuring water pressure to 150 PSI (10,55 kg/cm^2).

   ***Note**: Pressure gauge kit, model 995-51 is designed for this procedure.*

4. Turn valve flow control fully counterclockwise (open position).
5. Pressurize water system to valve ***gradually*** to avoid pressure surge.
6. Energize valve solenoid from 24 VAC source.
7. Refer to chart in Figure 1 for recommended maximum pressure differential through valve.

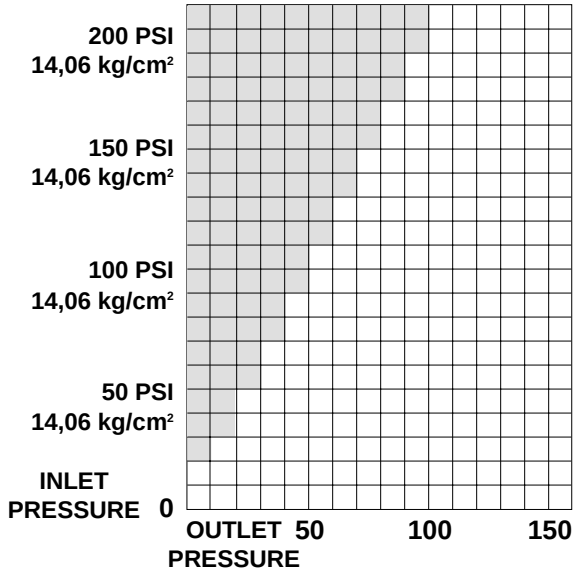
CAUTION

Use of valve in shaded area of chart may cause cavitation (indicated by noise and chattering) resulting in eventual deterioration and failure of valve.

8. Turn adjustment knob slowly clockwise to allow gradual outlet pressure rise. When desired outlet pressure is indicated on gauge, push cap down to lock.
9. To test regulator, turn valve flow control clockwise until pressure drops slightly. Turn flow control counterclockwise one full turn. Pressure should return to desired setting.
10. Deactivate valve solenoid.
11. Remove pressure gauge and install valve stem cap.

Note: *For best results when making pressure reductions, adjust pressure down beyond desired setting; then slowly increase until desired output pressure is attained.*

Figure 1



Servicing Pressure Regulator

Erratic operation or loss of regulation is normally due to dirt or a leaking piston seal. To clean and inspect the regulation components, use the following procedure.

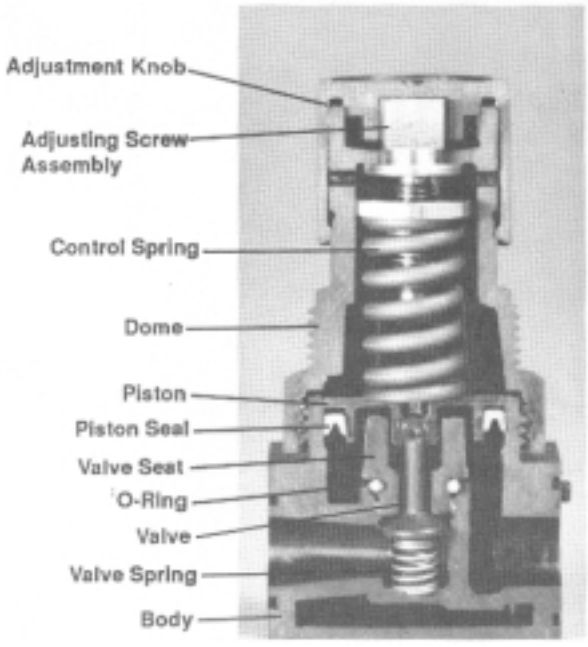
CAUTION

Prior to servicing regulator, shut off water supply to valve and bleed internal valve pressure through bleed screw or plug.

1. Lift adjustment knob to unlock. Turn knob fully counterclockwise to relieve control spring pressure.

   Note: *Tubing can remain connected to regulator during service procedure. If it is necessary to remove tubing, press red collar **in** while pulling **outward** on tube.*
2. Unscrew and remove mounting bracket lock ring (plastic valves only).
3. Unscrew dome from body. Remove adjustment screw assembly, control spring, piston and piston seal.
4. Unscrew valve seat. Remove valve and valve spring.
5. Inspect and clean all parts thoroughly before reassembling.
6. Reassemble in reverse order. Use a strap wrench to tighten dome.

Figure 2



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