



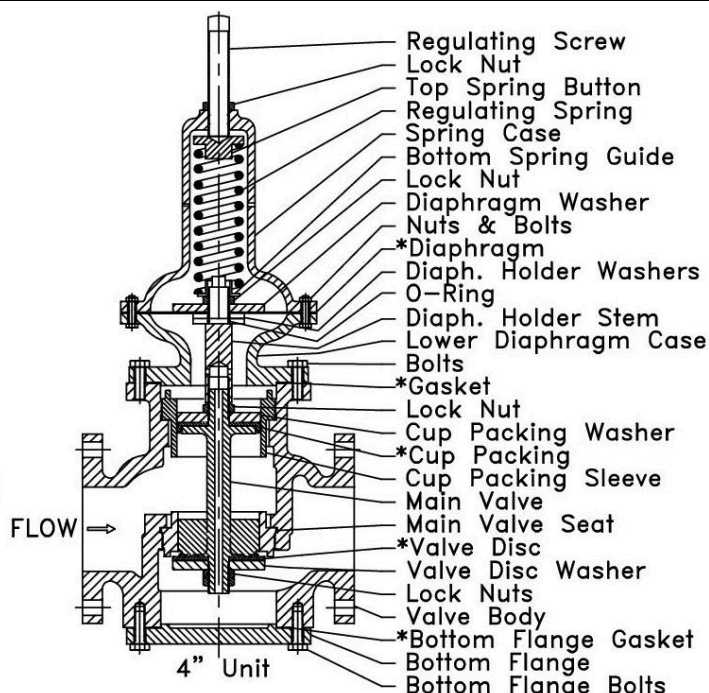
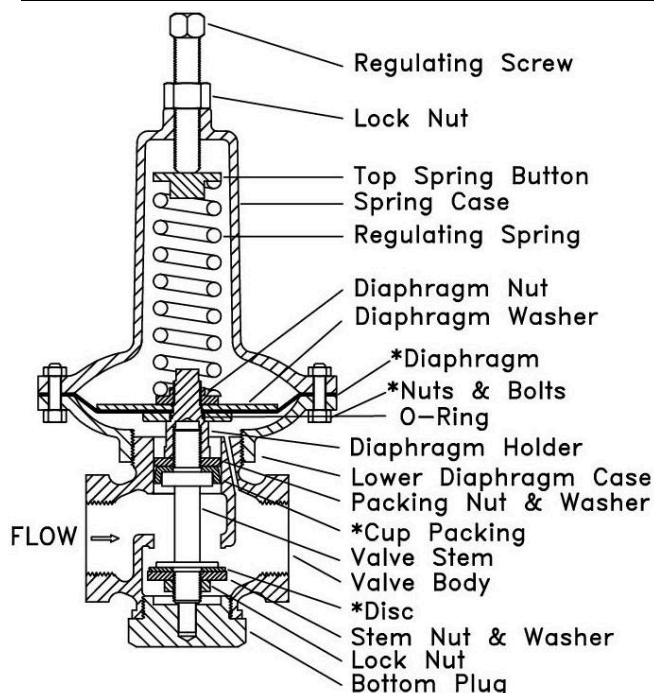
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## STYLE B

### PRESSURE REGULATING VALVE INSTALLATION, OPERATION, & MAINTENANCE INSTRUCTIONS

INSTRUCTION PART NO. 2226700

REVISION A

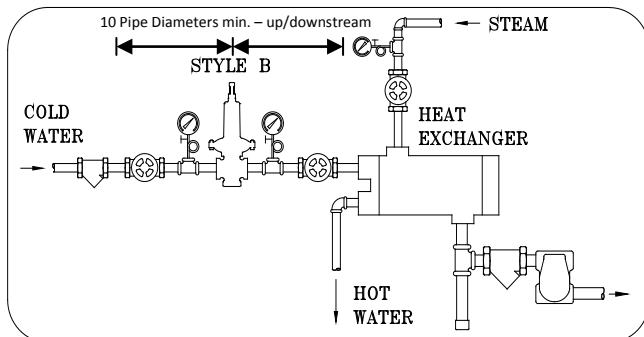


\*Recommended Spare Parts

## INSTALLATION

- Before installing the pressure regulating valve, be sure to blow out the pipe line, removing all dirt, pipe scale, pipe chips, etc.
- A 'Y' type strainer is recommended to be installed in the line on the inlet side of the regulating valve.
- Install the pressure regulating valve using the following guidelines:
  - in a horizontal straight run of pipe away from any meters, tees, elbows or flow turbulence that will affect good regulation – approximately 10 pipe diameters upstream and downstream
  - ensuring the valve body is installed with flow in the proper direction. The valve body is marked with an arrow to show direction of flow.
  - with the adjusting screw above the center line of pipe. However, if head room is scarce, the second best position is to install the valve in an inverted position with the adjusting screw pointing downward.

*(WARNING: The Style B valve should not be installed in a vertical run of pipe because the weight of the parts will interfere with overall valve performance and service life.)*



## OPERATION & SETTING THE VALVE

On start up, be sure all compression is off the spring by turning the adjusting screw counter-clockwise.

Confirm any bypass valves (if installed) are closed. Slowly open isolation valves upstream and downstream of the regulator. Confirm the inlet pressure gauge is reading line pressure and the downstream pressure gauge is reading approximately zero or back pressure, if present.

Turn the adjusting screw slowly clockwise until the desired downstream control pressure is achieved (increasing compression increases downstream pressure). Then tighten the lock-nut on the adjusting screw to maintain the set pressure and prevent tampering.

### VALVE DESIGN PRESSURES & TEMPERATURES\*\*

BRONZE-SCREWED	250 PSIG 400°F
CAST IRON SCREWED	250 PSIG 400°F
CAST IRON-125# FLANGED	125 PSIG 450°F
CAST IRON-250# FLANGED	250 PSIG 450°F

*\*\*Operating pressures & temperatures vary based on valve trim options selected. Confirm selected trim is suitable for actual application conditions.*

### REDUCED PRESSURE SPRING RANGES

Outlet Pressure (psig)	SPRING NO.
1 TO 12 (1/2" - 1" only)	4
5 TO 35	3
20 TO 70	2
40 TO 125	1

Each Watson McDaniel Company Product is warranted against defects in material and workmanship for one year from date of shipment. This warranty extends to the first retail purchaser only. All defective material must be returned to the person from whom you purchased the Product, transportation prepaid, free of any liens or encumbrances, and if found to be defective will be repaired free of charge or replaced, at the warrantor's or seller's option. If the material is replaced, any replacement will be invoiced in the usual manner and after inspection of alleged defective material an adjustment will be made for depreciation caused by purchaser's use. In no event will Watson McDaniel Company be liable to do more than refund the original contract price. Incidental and consequential damages are excluded, whether under this warranty or otherwise. All implied warranties, including warranties of merchantability and fitness for a particular purpose, are disclaimed and excluded.

**MAINTENANCE** – INCLUDING THE FOLLOWING:

- Valve Disassembly and Inspection
- Diaphragm Replacement
- Inspect/Repair/Replace Trim
- Valve Re-assembly

*Note: ½" – 2-1/2" unit depicted below. Refer to 3" & 4" exploded view on previous page for additional detail, if needed.*



Isolate valve and relieve pressure, or remove from line.



Remove all compression from main spring by turning adjustment screw counter-clockwise. Remove spring case bolts.



Remove spring case.



Remove spring and spring button.



Loosen diaphragm nut by holding the unthreaded tip of the holder stem with a pipe wrench and turning the diaphragm nut counter clockwise with an appropriately sized adjustable or crescent wrench.



Remove diaphragm nut and washer.



Remove diaphragm.



Clean and inspect diaphragm for damage. Replace if damaged.



Remove diaphragm holder stem and washer.



Remove holder washer from holder stem and inspect O-ring for damage. Replace if damaged.



To replace O-ring, apply valve grease to threads to protect O-ring. Then slide O-ring carefully over threads and into groove.



Remove Lower diaphragm case.



Remove lower cover.



Loosen and remove Packing nut to remove packing and stem with appropriate wrench and socket wrench. If the lock nut loosens first remove the lock



Inspect disc and packing for damage. Replace if necessary. (see next page for details)

**NOTE:** Reverse process to re-assemble valve

## Stem Disassembly Details



To remove disc, hold stem body with pipe wrench and loosen lock nut with appropriate wrench if the lock nut did not loosen first upon initial disassembly.



Remove disc washer and disc. Replace if necessary once stem is back in body.



To remove the packing cup, loosen and remove packing nut as you did with the lock nut if it was not loosened during initial disassembly.



Remove packing nut, washer, and cup. Replace if necessary.



Lightly grease packing cup and carefully insert from top of valve body.



Place disc, washer, and lock nut on stem once in the body and tighten it the same way it was loosened earlier.