



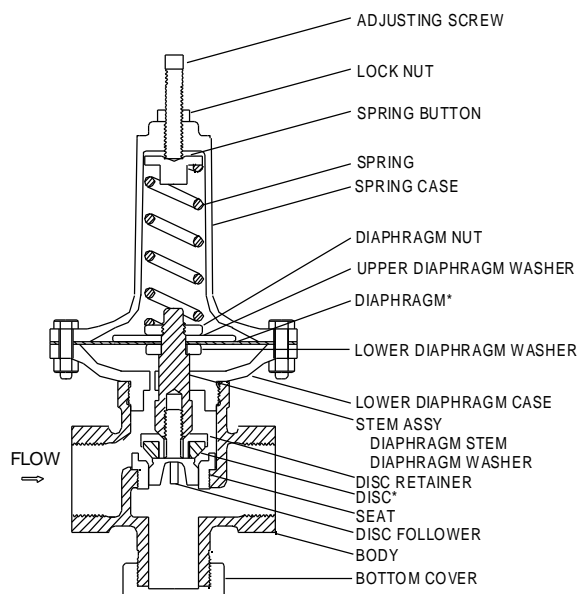
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SERIES 3040

BACK PRESSURE VALVE INSTALLATION & OPERATING INSTRUCTIONS

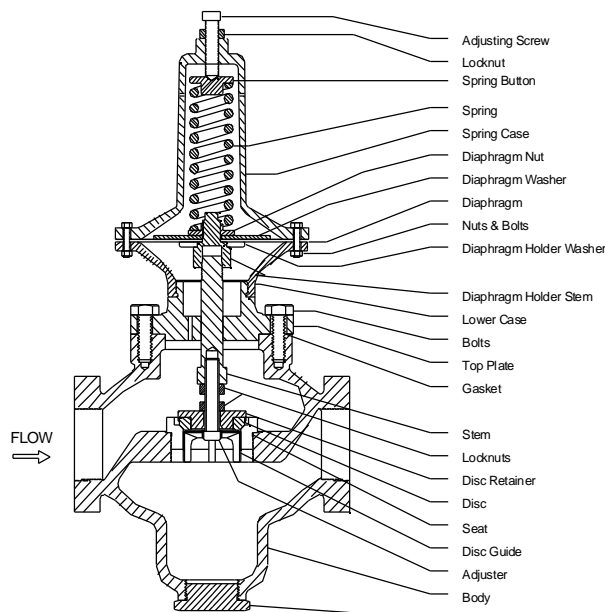
INSTRUCTION PART NO.2229100

REVISION 3



1/2" - 2" SERIES 3040
SCREWED ENDS

* RECOMMENDED SPARE PARTS



2" SERIES 3040
SCREWED ENDS

APPLICATION

Before installing the back pressure (relief) valve, be sure to blow out the pipe line, removing all dirt, pipe scale, pipe chips, etc.

Watson McDaniel Company recommends a 'Y' type strainer be placed in the line on the inlet side of the back pressure valve. A by-pass line with a hand shutoff valve and a gauge should also be installed around the back pressure valve, as shown.

Install the 3040 back pressure valve in a straight horizontal run of pipe away from any meters, tees, elbows, etc. which could cause flow turbulence and that would affect good regulation. The flow should be in the direction of the arrow on the body with the diaphragm chamber above the center line of the pipe. However, if head room is scarce, the second best position is to install the valve in an inverted position with the diaphragm chamber below the center line of the pipe. **WARNING:** The 3040 valve should not be installed in a vertical run of pipe as the weight of internal parts will cause increased wear and, subsequently, shortened life of the valve.

OPERATION

The 3040 back pressure valves are diaphragm actuated, spring loaded, and normally closed. Increasing the spring compression results in higher relief pressure, while decreasing spring compression reduces relief pressure. On start up, slowly increase relief pressure until desired pressure is reached.

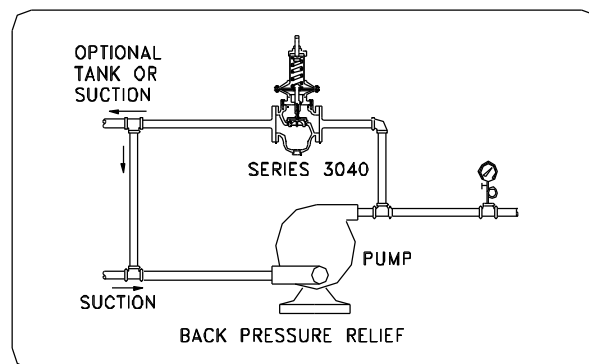
Each Watson McDaniel Company Product is warranted against defects in material and workmanship for one year from date of shipment. This warranty extends to the first retail purchaser only. All defective material must be returned to the person from whom you purchased the Product, transportation prepaid, 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.

MAXIMUM PRESSURES & TEMPERATURES

BRONZE-SCREWED	300 PSIG 200°F
CAST IRON SCREWED	300 PSIG 200°F
CAST IRON-150# FLANGED	125 PSIG 200°F
CAST IRON-250# FLANGED	250 PSIG 200°F

REDUCED PRESSURE SPRING RANGES

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



VALVE DISASSEMBLY



Remove valve from line.



Remove spring case bolts.



Remove spring case.



Remove spring button & spring.



Remove diaphragm nut & washer.



Remove diaphragm.



Clean & inspect diaphragm.



Remove lower diaphragm case.



Remove stem assembly.



Inspect stem & disc assembly.



Remove lower cover.

Inspect sealing surface on seat internal of body.

Reassemble after cleaning all threads and sealing surfaces. Use 'Hi-Temp RTV Silicone Gasket Maker' to seal between stem and diaphragm and teflon paste to seal thread on lower cover.

Run a soap bubble test with low pressure air to confirm all seals are good before reinstalling in service.