

# Back Pressure Regulator Installation & Set-Up Manual

## INSTALLATION

The SIMTECH back pressure regulator can be installed in any position. The "IN" label indicates where the high end (upstream) pressure will be plumbed into the regulator. To prevent leakage, sufficient teflon tape must be applied to the threaded area of the male fitting prior to installation. Do not over tighten, hand tighten snug plus half turn if it is possible.

In an open system, the back pressure regulator should be installed at the end of all tools or lines, on the return line. (See fig. 2, position 1).

In a closed system, the back pressure regulator should be installed in front of all tools or lines. (See fig. 2, position 2).

## SET UP (Figure 1)

Start with the adjusting screw in place and without any pressure applied to the internal spring:

1. Set the control valve to the closed position.
2. Turn on the pump or supply line.
3. Read the supplied and controlled pressure gauges. At this time, most of the liquid flow is through the back pressure regulator.
4. Start to turn the adjusting screw inward (clockwise), while checking the increase of the controlled pressure gauge. NOTE: turn clockwise (inward) to obtain higher pressure; counter clockwise (outward) for lower pressure.
5. Stop turning the adjusting screw when desired controlled pressure is reached. If supplied pressure is equal to the desired controlled pressure, the back pressure regulator will be completely sealed, i.e. no flow at the outlet side of the valve and both pressure gauges should have the same reading. If supplied pressure is greater than the desired controlled pressure, partial liquid should flow through the valve.
6. Open the control valve letting fluid flow through the system for a couple of minutes.
7. Close the control valve slowly to check the desired controlled pressure. Make any adjustment by turning the adjusting screw inward or outward.
8. Repeat steps 6 and 7 a couple of times and then lock the adjusting screw by tightening the locking nut against the regulator top.
9. Set up is complete. The back pressure regulator is now set and the control valve can be opened permanently.

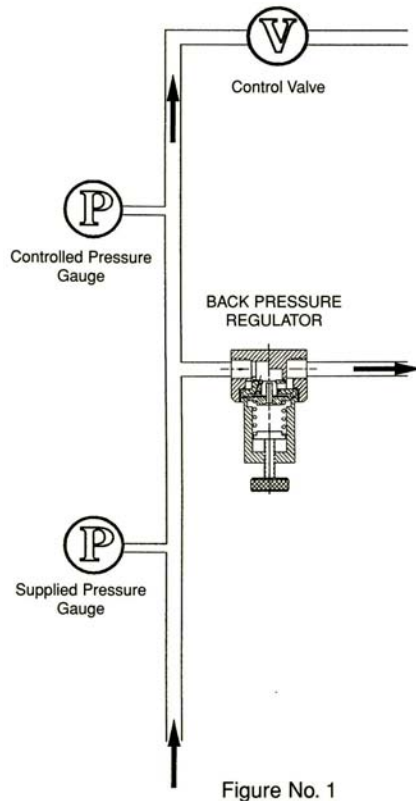


Figure No. 1

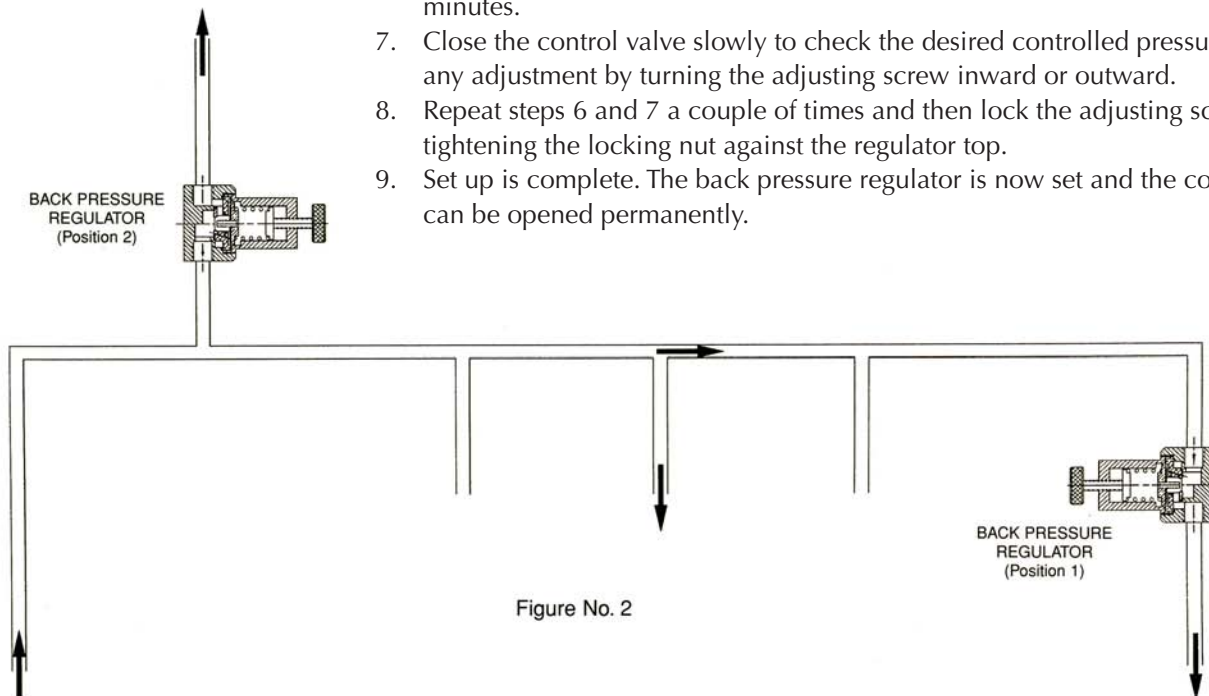


Figure No. 2