KEY EXPLANATION:

1. Bottom Port: System Inlet (Port 1)
2. Side Port: System Outlet (Port 2)
3. Cartridge Body, Lower Section, 7/8"-14 Thread
4. Retaining Ring
5. Poppet and Piston return Spring, Stainless Steel.
6. Filter, 10 Micron Sintered Bronze.
7. Vents to atmosphere (2 Places 180° apart)
8. Filter Retainer
9. Pilot Piston and Manual Operator Follower
10. Piston Guide Ring, UHMW
11. O-Ring Seal, Buna-N (Also see options)
12. O-Ring Seal, Buna-N (Also see options)
13. Pilot Port, 1/8" NPT (X)
14. Bonnet, Aluminum
15. Manual Operator Push Rod
16. Manual Operator Knob (See Order Information)
17. Wiper Ring, Urethane
18. O-Ring Seal, Teflon
19. Lubrication Groove
20. Cylinder, Aluminum
21. Spring Retainer Assembly
22. Retaining Ring
23. O-Ring Seal, Buna-N (Also see options)
24. O-Ring Seal, Teflon
25. Seat Assembly Top Component, Stainless Steel.
26. O-Ring Seal, Teflon
27. O-Ring Seal, Buna-N (Also see options)
28. Poppet (Heat Treated Stainless)
29. Poppet Seat (Heat Treated Stainless)
30. O-Ring Seal, Buna-N (Also see options)
31. Orifice Option, Stainless (See Order Information)
32. Back Up Rings, Teflon (two used)

PILOT OPERATION

100:1 Pilot/System Ratio:
Maximum Pilot Pressure 150 PSI. Recommended Pilot Medium: AIR

To determine the minimum theoretical pilot pressure (PSI) required to shift the valve:
Divide the system inlet pressure by the pilot ratio of 100 and add the spring PSI of 6.
Example: 5000 (inlet pressure) divided by 100 (ratio) = 50 + 6 (Spring PSI) = 56 PSI Minimum Pilot.
This represents the theoretical minimum pilot pressure in PSI required to shift the valve. Considering variations in springs and hysteresis it is advisable to add at least 10 PSI to the calculated minimum theoretical pilot pressure to assure full valve function.

MANUAL OPERATION

To determine the minimum theoretical operating force (#) required to shift the valve manually, multiply the system inlet pressure by .012 and add the spring force of 7.10#.
Example: 5000 (inlet pressure) multiply by .012 = 60 + 7.10# pounds spring force = 67.10#
This represents the theoretical minimum manual operating force required to shift the valve. Considering variations in springs and hysteresis it is advisable to add at least 10# to the calculated minimum theoretical operating force to assure full valve function.

CARTRIDGE VALVE PART NO.

ORDERING INFORMATION:

8H***100MO*1

2 = Fits C-8502
4 = Fits C-8542
K = Aluminum Knob
R = Red Anodized Knob
S = Stainless Knob

With optional ORIFICE, flow from Port 2 to Port 1 may damage the valve.

PRESSURE DROP / FLOW

2PB N/C SERIES

2 Way Normally Closed Poppet Valve
Pilot Operated with Manual Override.