

KEY EXPLANATION:

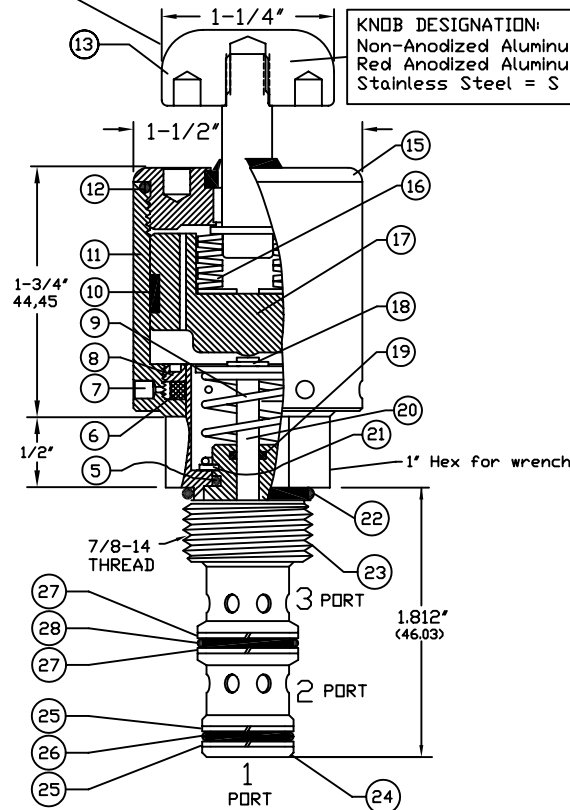
1. Bottom System Port (1)
2. Second from bottom System Port (2)
3. Third from bottom System Port (3)
5. Cartridge Seat Seal (Teflon)
6. Filter, 10 Micron Sintered Bronze (optional SST.)
7. Vents to atmosphere (2 Places 180° apart)
8. Filter Retainer, Aluminum (optional SST.)
9. Spool return Spring, Stainless Steel.
10. Piston Wear Ring, UHMW (optional Teflon)
11. Actuator Guide Cylinder, Aluminum (optional SST.)
12. Bonnet O-Ring, Buna-N (also see options)
13. Operator Knob (See part No. designations)
15. Upper Actuator Bonnet, Aluminum (optional SST.)
16. Overtravel Protection Option (Prox. 1/8")
17. Operator Follower Assembly, Aluminum (Optional SST.)
18. Spring Retainer Assembly
19. O-Ring Seal, Teflon
20. Spool Connector Linkage (Stainless Steel)
21. Retaining Ring, Carbon Steel (optional SST.)
22. O-Ring Seal, Buna-N (also see options)
23. Cartridge Mounting Threads (7/8-14)
24. Spool Cage (Heat Treated Stainless)
25. Back Up Rings, Teflon (two used)
26. O-Ring Seal, Buna-N (Also see Options)
27. Back Up Rings, Teflon (two used)
28. O-Ring Seal, Buna-N (Also see Options)

SHIFT FORCE NOTES:

10 to 15 Pounds of Force is required to shift the valve spool with zero pressure on port no. 1.

Any pressure on Port No. 1 will increase Force Requirement by .012 X Port No. 1 PSI.

CARTRIDGE VALVE



Cartridge Valve Requires Cavity C-8543 (10-3)

OPERATION

Manually Operated Hydraulic Spool Valve.
 Three Way, Directional Control or Selector Valve.
 Maximum System Pressure: Ports 1, 2, and 3) is 3,000 PSIG. See "SHIFT FORCE NOTES"
 Spool Stroke is 1/4" .
 Stroke and Over Travel dimensions are approximate.
 Fluid temperatures -40°F (-40°C) to 200°F (93.3°C)
 Install Cartridge valve using 1" wrench
 Valve should screw in freely to the Mount Seal.
 Final tightening 20 to 30 foot pounds torque.
 Use lubricant on external oil seals and mounting threads.

OPTIONS

Hand Button Operator Shown.
 Direct Plunger available.
 Available with or without Overtravel Protection.
 Optional seals include Viton, Teflon and others.

Key 7 vents to atmosphere (2 Places).
 T Option provides 10-32 Threaded ports at these locations.

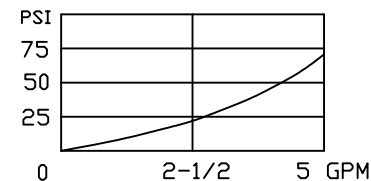
HOUSING & MANIFOLD INFO.

Housings S-8543-## (Industry 10-3)
 For Line Mount and Panel Mount Housing
 Information please see Spec. Sheets:
 1200673, 1201903, 1202983 and 1202990
 at www.doering.com
 We also manufacture custom housings and manifolds.

CAVITY & TOOLING

Cavity C-8543 (Industry 10-3)
 For Cavity and form tool information,
 please see our Spec. Sheet No. 1200634
 at www.doering.com

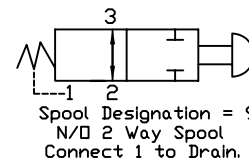
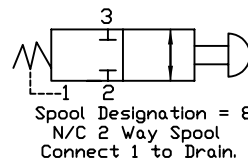
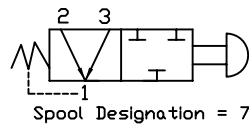
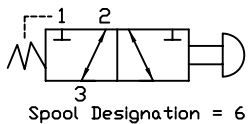
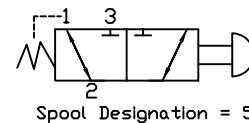
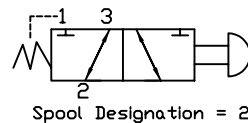
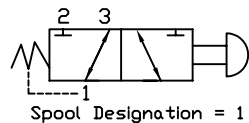
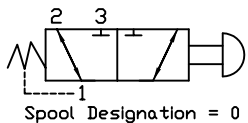
PRESSURE DROP CHART



CARTRIDGE VALVE ORDERING INFORMATION:

Order P/N 54H237M###

No Overtravel Protection = 0 } SPOOL DESIGNATION:
 With Overtravel Protection = P } KNOB DESIGNATION:



3PS SERIES

3 Way Spool Valve, Manually Operated.
 Directional Control or Selector Valve.