

KEY EXPLANATION:

5. Teflon Seal
6. Filter, 10 Micron, Sintered Bronze
7. Vent to Atmosphere
8. Filter Retainer
9. Stainless Steel Spring
10. Piston Guide Ring, UHMW Machined
11. Viton O-Ring and Teflon Back Up
12. Viton O-Ring
13. Bonnet Face Spanner Holes (2)
14. SAE4 O-Ring Port for Pilot
15. Bonnet
16. Actuator Cylinder
17. Actuator Piston
18. Stainless Spring Retaining System
19. Teflon Seal
20. Spanner Hole & Vent to Atmosphere
21. Retaining Ring, Spool Cage Assembly
22. Viton O-Ring
24. Spool Cage, Heat Treated Stainless, Honed
25. Teflon Back Up Ring (2)
26. Viton O-Ring
27. Special Stainless Steel Spring, P/N 1202006
28. Viton O-Ring
29. Teflon Back Up Ring (2)

SPECIFICATIONS:

Air Pilot Operated Hydraulic Spool Valve.
 Three Way, Directional Control or Selector Valve.
 Maximum System Pressure:
 Ports 1, 2, and 3 rated to 3,000 PSI.
 Maximum Pilot Pressure (X port) 150 PSI.
 Fluid temperature -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 to 20 foot pounds torque.
 Use lubricant on external oil seals and mounting threads.

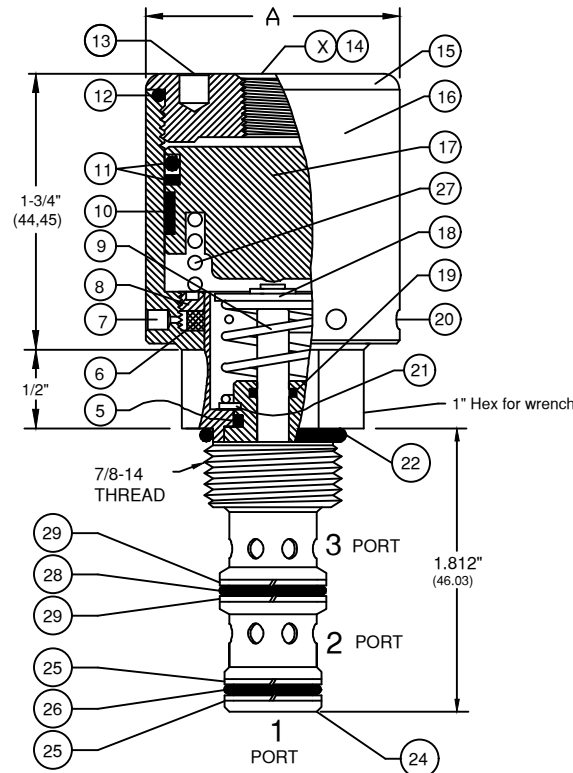
TOOLING

- * Cavity Form Tool: FT-8543
- * 1/8 (3.175) Pin Spanner Tool
Order No. 471, Ref. Key No. 20
- * 3/16 (4.763) Face Spanner Tool
Order No. 482, Ref. Key No. 13

SPOOL SHIFT NOTES

To determine pilot pressure required to shift valve spool, divide the system pressure at Port No. 1 by the pilot ratio of 131 and add 20 to 25 PSI for Springs, Key 9 and Key 27.

CARTRIDGE VALVE



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

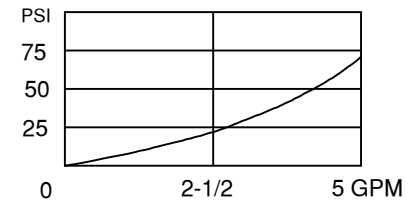
HOUSING & MANIFOLD INFO.

Single Station Housing or Sub-Plates illustrated on Spec. Sheet No. 1200706, S8543-** Group.
 or Web Sheet S8543.
 Available in Aluminum or Stainless Steel material.
 Multi Station and Custom Housings or Manifolds also available.

CAVITY INFO.

Cavity C-8543
 Industry 10-3
 Form Tool: FT-8543
 Reference Cavity Spec.
 Sheet No. 1200023
 or Web Sheet C-8543

PRESSURE DROP CHART



PILOT TO SYSTEM RATIO	" A " DIAMETER	ORDER	HOUSING BODY NO.	Functional Symbol
131:1	Ø1-5/8" (41,28)	CARTRIDGE VALVE NO. 1201935	S8543 - OR - S8543-2 - OR - S8543-6	 Selector: 2=P, 1=C1, 3=C2

3PS SERIES

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

6343 RIVER ROAD SE ■ CLEAR LAKE, MN 55319 USA
 Telephone: 320-743-2276 ■ www.doering.com
 Email: customerservice@doering.com



DOERING