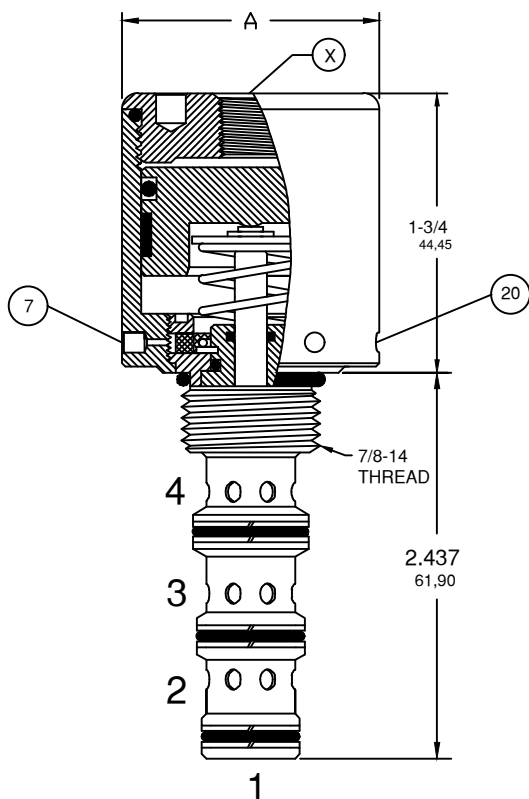


6343 RIVER ROAD SE ■ CLEAR LAKE, MN 55319 USA
 Telephone: 320-743-2276 ■ Fax: 320-743-3723
 mailbox@doering.com ■ www.doering.com

CARTRIDGE VALVE



SPECIFICATIONS

Air Pilot Operated Hydraulic Spool Valve.
 Four Way, Directional Control or Selector Valve.
 Maximum System Pressure:
 Ports A, B, P, and T 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 No. 471 Spanner Tool.
 Valve should screw in freely to the Mount Seal.
 Final tightening to 15 foot pounds torque.
 Use lubricant on external oil seals and mounting threads.

OPTIONS

Pilot Port (Key X) is 1/8 NPT.
 Optional Pilot Porting includes 1/4 NPT, SAE4, and SAE6.
 Standard seals are Buna-N with Teflon back up rings.
 Optional seals include Viton, Teflon and others.
 Keys 7 & 20 are vents to atmosphere.
 T Option provides 10-32 Threaded ports at these locations.

PILOT RATIO NOTES

Applies to Port 1 Only. Ports 2, 3 & 4 are balanced.

TO CALCULATE THE CORRECT PILOT RATIO VALVE TO ORDER FOLLOW THESE STEPS:

1. Determine the MAXIMUM possible system pressure.
Multiply X 1.1 = SYSTEM
2. Determine MINIMUM possible pilot pressure.
Multiply X .9 = PILOT
3. Divide SYSTEM by PILOT = PILOT TO SYSTEM RATIO
4. Round up to standard available ratio.

Cavity & Housing

Cavity & Tooling C-8544 (10-4):
 See Spec. Sheet 1200671

Line Mount Housings:
 See Spec. Sheet 1200675 & 1202930

Panel Mount Housings & Spacers:
 See Spec. Sheets
 1202984 and 1202990

Cavity & Housing information found at
www.doering.com Products Housings

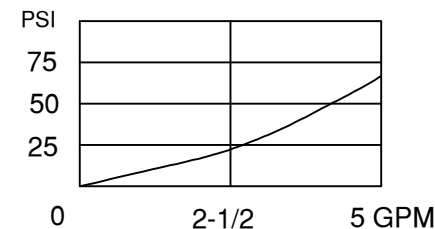
Doering Co. also manufactures multi function and multi station housings and manifolds.

TOOLING

1/8 (3.175) Pin Spanner Tool
 Order No. 471

3/16 (4.763) Face Spanner Tool
 Order No. 482

PRESSURE DROP CHART



PILOT TO SYSTEM RATIO	" A " DIAMETER	CARTRIDGE VALVE NO.	FUNCTIONAL SYMBOL
108:1	1-1/2 (38.1)	442371080	
131:1	1-5/8 (41.28)	443371310	
183:1	1-7/8 (47.63)	446371830	
277:1	2-1/4 (57.15)	447372770	
108:1	1-1/2 (38.1)	442371083	
131:1	1-5/8 (41.28)	443371313	
183:1	1-7/8 (47.63)	446371833	
277:1	2-1/4 (57.15)	447372773	

USE THIS SPOOL FOR LOWEST LEAK RATE.

4PS SERIES

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



DOERING