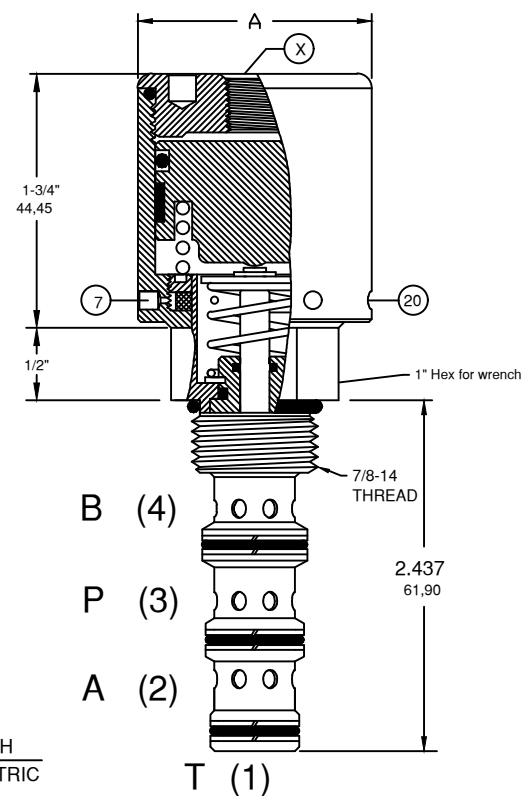


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DOERING

# CARTRIDGE VALVE



INCH  
METRIC

## 4PS SERIES

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

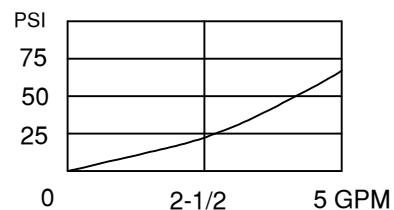
## Specifications

Air Pilot Operated Hydraulic Spool Valve.  
 Four Way, Directional Control or Selector Valve.  
 Maximum System Pressure:  
 Ports A, B, P, and T rated to 5,000 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.

## 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.

## PRESSURE DROP CHART



## Cavity & Housing

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

Line Mount Housings:  
 See Spec. Sheets  
 1200675 and 1202930

Panel Mount Housings:  
 See Spec. Sheets  
 1202984 and 1203290

## Tooling

- Cavity Form Tool: FT-8544
- 1/8 (3.175) Pin Spanner Tool  
Order No. 471
- 3/16 (4.763) Face Spanner Tool  
Order No. 482

## PILOT RATIO NOTES:

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.

Pilot to System Ratio applies to Port 1 only.	" A " DIAMETER	Cartridge Valve Order Number	Functional Symbol Suggested Connections
108:1 131:1 183:1 277:1	1-1/2 ( 38.1 ) 1-5/8 ( 41.28 ) 1-7/8 ( 47.63 ) 2-1/4 ( 57.15 )	44H2371080 44H3371310 44H6371830 44H7372770	
108:1 131:1 183:1 277:1	1-1/2 ( 38.1 ) 1-5/8 ( 41.28 ) 1-7/8 ( 47.63 ) 2-1/4 ( 57.15 )	44H2371083 44H3371313 44H6371833 44H7372773	 USE THIS SPOOL FOR LOWEST LEAK RATE.
108:1 131:1 183:1 277:1	1-1/2 ( 38.1 ) 1-5/8 ( 41.28 ) 1-7/8 ( 47.63 ) 2-1/4 ( 57.15 )	44H2371088 44H3371318 44H6371838 44H7372778	
108:1 131:1 183:1 277:1	1-1/2 ( 38.1 ) 1-5/8 ( 41.28 ) 1-7/8 ( 47.63 ) 2-1/4 ( 57.15 )	44H2371087 44H3371317 44H6371837 44H7372777	

SPEC. SHEET NO. 1201636 REV. 06