

## SPECIFICATIONS:

Pilot operated cartridge check valve. Normally open. Pilot to close passage between ports one and two.  
Valve will also function as a Pilot Operated Relief valve. See notes regarding pilot pressure.

Cavity C-8542, 5,000 PSI Port 1, 3,000 PSI Port 2

Pilot Pressure Range, 50 PSI Min. to 5000 PSI Max.  
Pilot minimum may be lower if valve is used as a pilot operated relief valve.

Fluid temperature -45°F, (42.7°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.

## Features

### KEY

1. No. 1 working port
2. No. 2 working port
3. Seat, Heat Treated Stainless
4. Poppet, Heat Treated Stainless
5. Poppet Spring, Stainless Steel
6. Seat Saver Piston Assembly
7. Vent Port (2 Places)

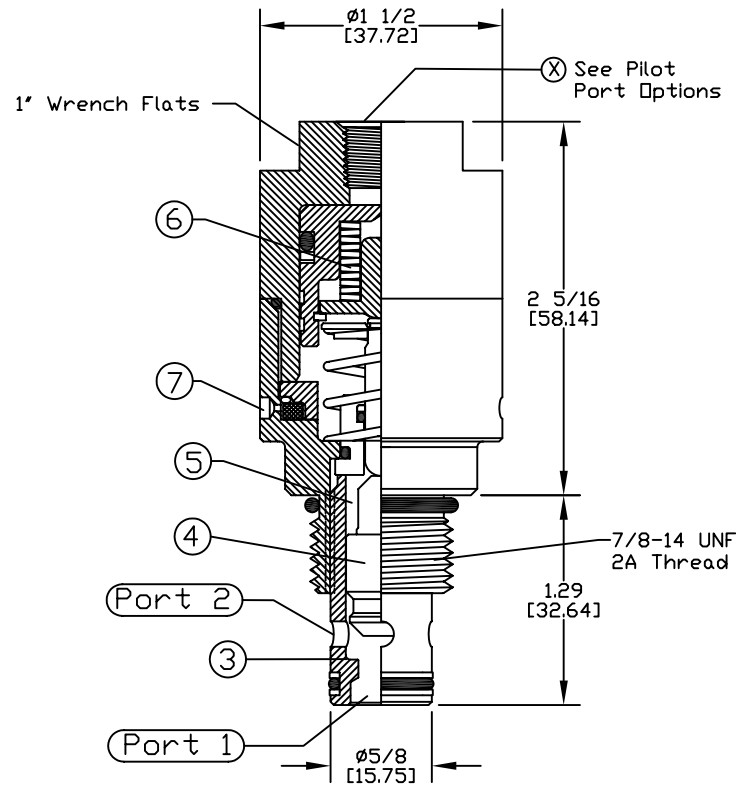
## 13:1 PILOT RATIO:

Area of pilot piston is 13 X larger than seat area.  
To determine Minimum Pilot pressure required, follow these steps:

- (1) Multiply the maximum possible system pressure X 1.1 = SM ( System Max. )
- (2) Divide SM by 13 = MP ( Min. Pilot )

Note: MP is minimum pilot pressure needed for normally open / pilot to close valve function. If pilot pressure falls below MP, the valve will function as a pilot operated relief valve.

## CARTRIDGE VALVE



## CAVITY

Cavity C-8542 (Industry 10-2)

Form Tool: FT-8542

Call for source information.

Cavity Drawing Spec. Sheet No. 1200621

Visit [www.Doering.com](http://www.Doering.com) and enter Spec. sheet 1200621. in 'document search' box.

## HOUSING

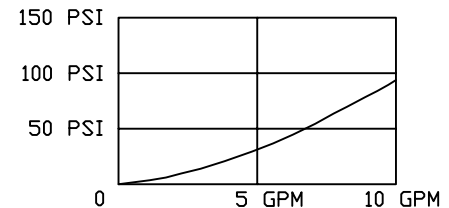
Line Mount Housings:  
Spec. Sheets 1200674 and 1201455.

Visit [www.Doering.com](http://www.Doering.com) and enter Spec. sheet number in 'document search' box.

Doering Company also offers:  
Custom Housings and Manifolds.  
Materials include:  
Aluminum, 304 SST., 316 SST.

Pressure Drop/Flow Chart.

Orifice  $\phi .28$  (Cv 1.0)



## CARTRIDGE VALVE ORDERING INFORMATION:

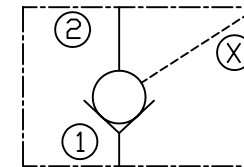
Valve Number: 90495#13##

SEAT CRACK SPRING OPTIONS  
00 = NO SPRING  
03 = STAINLESS STEEL  
25 = STAINLESS STEEL

Reference Key 5

(X) PILOT PORT OPTIONS  
1 = 1/8 NPT  
2 = 1/4 NPT  
4 = SAE 4  
6 = SAE 6

## POC SERIES



Check Valve, Normally Open, Pilot to Close

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