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DOERING

### Cavity & Housing

Cavity Drawing C-8542 (10-2):  
 1200621 Spec. Sheet

Line Mount Housings:  
 1200674 and 1201455  
 Spec. Sheets

Panel Mount Housings:  
 1202982 and 1202990  
 Spec. Sheets

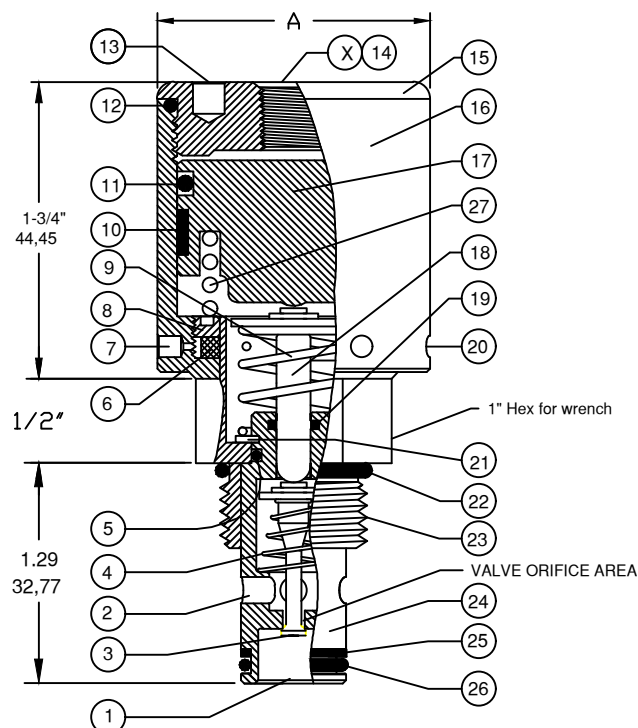
### SPECIFICATIONS:

Pilot Operated Check Valve.  
 Flow is checked from port 1 to port 2.  
 33 PSI crack pressure required for flow from 2 to 1  
 Piloting valve allows free flow in both directions.  
 Maximum pressure at Ports 1 and 2 is 5,000 PSI.  
 Pilot Pressure Range, 50 PSI Min. to 150 PSI Max.  
 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.

### OPTIONS

T Option 10-32 vent ports at Keys 7 & 20 ( 2 Places )  
 Seat ( Key 4 ) material is heat treated Stainless.  
 Seal Materials used are Buna-N and Teflon.  
 Optional seal and construction materials available.

## CARTRIDGE VALVE



### KEY EXPLANATION:

1. Port No. 1, System
2. Port No. 2, System
3. Poppet, Check, Hard Stainless
4. Poppet Check Spring, Stainless Steel
5. O-Ring Seal, Buna N ( Also See Options )
6. Filter, 10 Micron, Sintered Bronze
7. Vent ( 2 Pl. ) Optional T Port Locations
8. Filter Retainer
9. Actuator Return Spring, Stainless Steel
10. Piston Guide Ring UHMW material
11. Piston O-Ring Seal, Buna N ( Also See Options )
12. Bonnet O-Ring Seal, Buna N ( Also See Options )
13. 3/16" ( 4.763 ) Spanner Holes ( 2 Pl. )
14. 1/8 NPT Pilot Port X ( Also See Options )
15. Bonnet, Aluminum material
16. Actuator Body, Aluminum
17. Actuator Piston, Aluminum
18. Push Rod, Hard Stainless Steel
19. Push Rod Seal, Teflon
20. 1/8" ( 3.175 ) Spanner Holes ( 4 or 6 Pl. )
21. Cartridge Seat Retaining Ring
22. Mount O-Ring Seal, Buna N ( Also See Options )
23. 7/8-14 Cartridge Mounting Threads, Stainless Steel
24. Cartridge Seat, Hard Stainless
25. Back Up Ring, Teflon
26. O-Ring Seal, Buna N ( Also See Options )
27. Spring ( Used on valves = "A" Dia. 1-7/8 & 2-1/4" )

### PILOT RATIO NOTES:

TO CALCULATE THE CORRECT PILOT RATIO VALVE,  
 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.
5. Note that Port 2 ratio is lower than Port 1

PILOT TO SYSTEM  
 RATIOS: PORTS 1 & 2

" A " DIAMETER

Valve Number:

FLOW AND PRESSURE  
 DROP CHART.  $C_V = 0.1$

## POC SERIES

PORT 1	PORT 2
100:1	40:1
120:1	49:1
168:1	69:1
255:1	104:1

1-1/2	38,10
1-5/8	41,28
1-7/8	47,63
2-1/4	57,15

- 94H4210033
- 94H4312033
- 94H4616833
- 94H4725533

