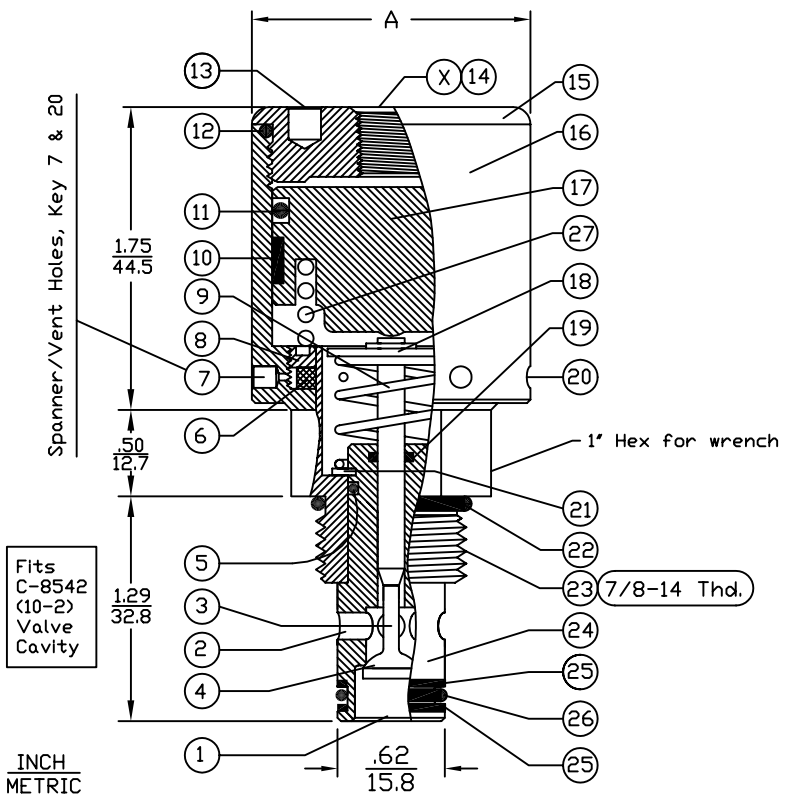
CARTRIDGE VALVE

KEY EXPLANATION:

1. Port No. 1, System Inlet
2. Port No. 2, System Outlet
3. Poppet, Hard Stainless Steel
4. Seat passage sealing area. Hard 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. Poppet and Actuator Return Spring, Stainless
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. Poppet Return Spring Retainer Assembly
19. Poppet Seal, TFE
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. Cartridge Mounting Threads, Stainless Steel
24. Cartridge Seat, Hard Stainless
25. Backup Ring, Teflon
26. O-Ring Seal, Buna N (Also See Options)
27. Spring, Stainless Steel

Key 27 Used on valves with 1-7/8 and 2-1/4" "A" Dia.



Cavity & Housing

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

Line Mount Housings:
See Spec. Sheets
1200674 and 1201455

Panel Mount Housings:
See Spec. Sheets
1202982 and 1202990

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.

STANDARD OPTIONS

Pilot Port (Key X) 1/8 NPT. Optional SAE4 Available.
Seals: Buna N, Viton or Teflon. Others please specify.
T Option: 10-32 Ports at Key 7 & 20, Random 360° Pos.
Seat (Key 4) Hard Stainless.

TOOLING

*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

SPECIFICATIONS:

Pilot operated two way cartridge valve. Normally closed. Pilot to open passage between ports one and two. Valve will not hold pressure from 2 to 1. Use No. 1 port as pressure inlet port.

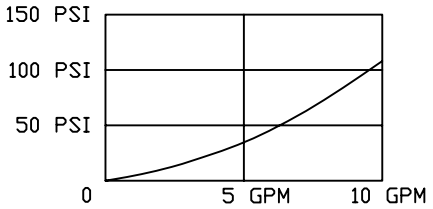
Maximum pressure 5,000 PSI Port 1, 3,000 PSI Port 2

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.

PILOT TO SYSTEM RATIOS:	" A " Diameter Inch	Metric	CARTRIDGE VALVE NO.
19:1	1-1/2	38.10	84H2090191
24:1	1-5/8	41.28	84H3090241
33:1	1-7/8	47.63	84H6090331
50:1	2-1/4	57.15	84H7090501

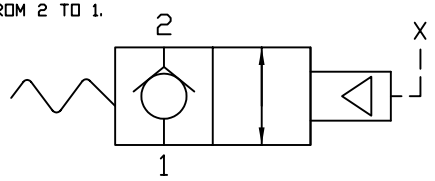
FLOW AND PRESSURE DROP CHART. $C_V = 0.9$

VALVE ORIFICE DIAMETER = .25"



2P SERIES

IN CLOSED POSITION, VALVE DOES NOT FREE FLOW FROM 2 TO 1.



2P N/C

This Valve is not a POC.

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