

### KEY EXPLANATION:

1. Port No. 1, System
2. Port No. 2, System
3. Poppet, Hard Stainless Steel
4. Seal Buna-N on 82 Series, Teflon on 84 Series.
5. Cartridge Body, Stainless Steel
6. Filter, 10 Micron Sintered Bronze, Omitted w/ T option
7. Vent ( 2 Pl. ) Optional T Port Locations
8. Filter Retainer, Stainless Steel.
9. Poppet and Piston return spring, Stainless
10. O-Ring Seal
12. Pilot Piston, Stainless Steel
13. Bonnet, Stainless Steel.
14. 1" Wrench Flats.
15. Pilot Port. See Pilot port options / ordering info.
16. O-Ring Seal
17. Back Up Ring
21. Spring Retainer Washer, Stainless Steel
22. Retaining Rings, Carbon Steel, sometimes plated.
24. O-Ring Seal, Filter Retainer
26. Seal, Teflon
- 27 & 31. O-Ring Seals
30. Cartridge Seat, Hard Stainless Steel.
32. Back Up Rings, Teflon

### SPECIFICATIONS:

Pilot operated two way cartridge valve. Normally closed. Pilot to open passage between ports one and two.

No. 1 port is the preferred pressure holding port.

Maximum pressure 5,000 PSI, Cavity C-8502  
 Cavity C-8542, 5,000 PSI Port 1, 3,000 PSI Port 2  
 Pilot Pressure Range, 50 PSI Min. to 5000 PSI Max.  
 Note: Pilot pressure maximum designed at 4 to 1 safety factor when provided with 1/8 NPT port.  
 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 20 to 40 Foot Pounds Torque.  
 Use lubricant on external oil seals and mounting threads.

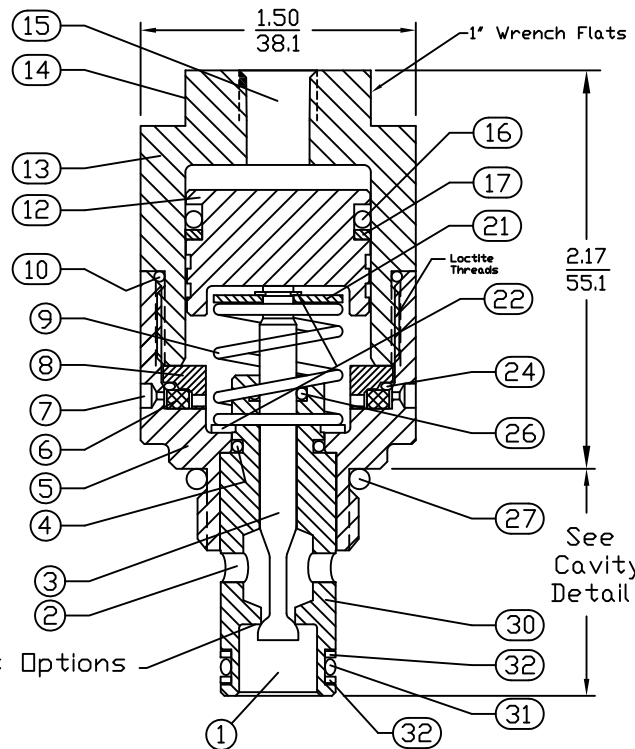
### 26:1 PILOT RATIO:

Area of pilot piston is 26 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 26 = MP ( Min. Pilot )

Note: MP is minimum pilot pressure needed to open this normally closed valve.

## CARTRIDGE VALVE



INCH  
METRIC

### STANDARD OPTIONS

Seals are Buna-N with Teflon Back Up Rings.  
 Optional seal materials are available.  
 T Option: 10-32 Ports at Key 7 ( Located 2 places )  
 If T option is used, allow for fitting clearance.

### TOOLING

- \* Cavity Form Tools: FT+ cavity#
- \* 1" Open End Wrench No. 720

### Cavity & Housing

For 82#527#261 Valve:  
 Cavity C-8502 (8-2);  
 See Spec. Sheet 1200630

Line Mount Housings:  
 See Spec. Sheets  
 1200672 and 1203123

Panel Mount Housings:  
 See Spec. Sheets  
 1202981 and 1202990

For 84#527#261 Valve:  
 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

Valve Number: **8##527#261**

2 = 3/4-16 Thread  
 Cavity C-8502  
 ( 8-2 )  
 4 = 7/8-14 Thread  
 Cavity C-8542  
 ( 10-2 )

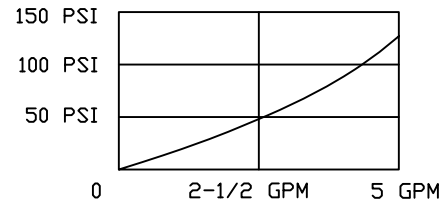
Pilot Porting, Key 15  
 1 (1/8 NPT)  
 2 (1/4 NPT)  
 4 (SAE4, DRB)  
 G4 (G 1/4-19 BSPP)  
 6 (SAE6, DRB)  
 G6 (G 3/8-19 BSPP)

#### Seat Options:

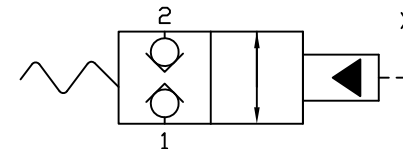
Blank = Hard Seat  
 K = Soft Seat (Kel-F with Metal Backup)  
 10% Flow Restriction with Soft Seat.

### PRESSURE DROP CHART $C_V=0.4$

VALVE DRIFICE DIAMETER = .180"



## 2PB SERIES



2PB N/C

HIGH PRESSURE PILOT RATING.

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