

### 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
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, 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. 7/8-14 Cartridge Mounting Threads, Stainless Steel
24. Cartridge Seat, Hard Stainless
25. Back Up Rings, Buna N or Urethane ( See Options )
26. O-Ring Seal, Buna N ( Also See Options )

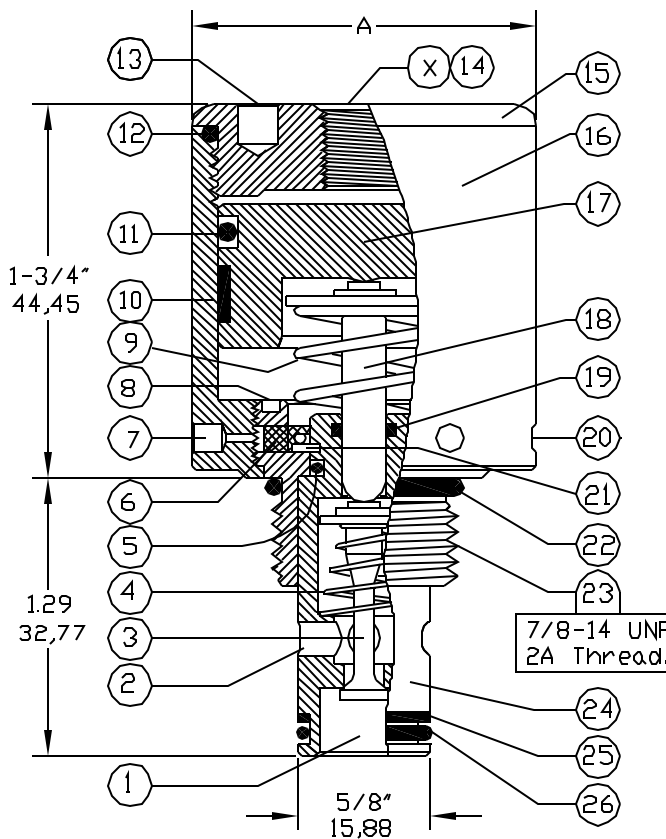
### SPECIFICATIONS:

Pilot operated Check Valve. Flow from port 1 to 2 is checked. Flow from 2 to 1 is free minus crack pressure. Pilot to allow free flow both ways. Maximum pressure at Ports 1 and 2 is 5,000 PSI. Pilot Pressure Range, 50 PSI Min. to 150 PSI Max. Install Cartridge Valve using No. 471 Spanner Tool. Valve should screw in freely to the Mount Seal. Final tightening to 15 foot pounds torque. Use lubricant on the external oil seals and mounting threads. Fluid temperature -45°F. (42.7°C) to 200°F. (93.3°C) Flow and Pressure Drop Charts indicate U.S. G.P.M. All flow performance data based on tests using fluid at a specific gravity of .85 and a viscosity of 150 SUS. at a temperature of 100°F.

### PILOT RATIO NOTES:

- TO CALCULATE THE CORRECT PILOT RATIO VALVE TO ORDER FOLLOW THESE STEPS:
1. Determine the MAXIMUM possible system pressure. Multiply X 11 = 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.

## CARTRIDGE VALVE



### STANDARD OPTIONS

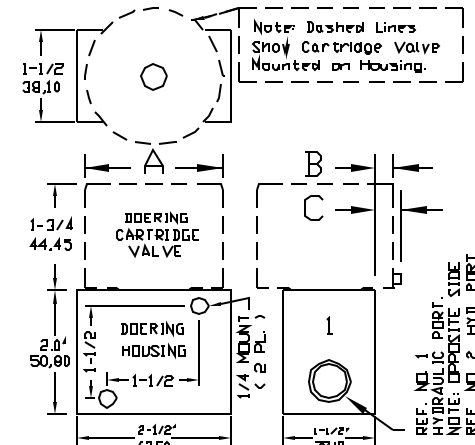
Pilot Port: ( Key X ) 1/8 NPT or -4 SAE. Specify.  
 Seals: Buna N, Viton or Teflon. Others please specify.  
 T Option: 10-32 Ports at Key 7 & 20, Randon 360° Pos.

### TOOLING

- \* Cavity Form Tool FT-8542
- \* 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

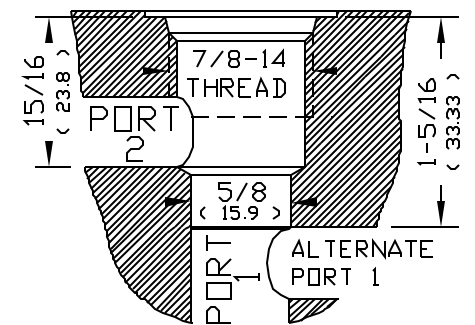
PILOT TO SYSTEM RATIO	" A " DIAMETER		" B " MAXIMUM		" C " MAXIMUM APPLICABLE TO T OPTION ONLY		CARTRIDGE VALVE NO.	HOUSING BODY NO.
	1-1/2	38,10	NOT APPLICABLE					
40:1	1-5/8	41,28	.06	1,53	.21	5,34	947204015	S8542 - OR - S8542-2
49:1	1-7/8	47,63	.19	4,83	.34	8,64	947606915	
69:1	2-1/4	57,15	.38	9,65	.53	13,46	947710415	
104:1	1-1/2	38,10	NOT APPLICABLE		.15	3,81	949201906	S8542-6
19:1	1-5/8	41,28	.06	1,53	.21	5,34	949302406	
24:1	1-7/8	47,63	.19	4,83	.34	8,64	949603306	
33:1	2-1/4	57,15	.38	9,65	.53	13,46	949705006	

## HOUSING



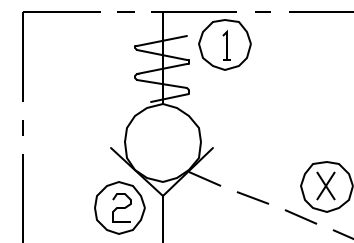
Standard Housing is 3/8 NPT. -2 is 1/4 NPT. -6 is SAE6. Standard Housing Material is Aluminum. For Stainless add -S or -2S or -6S to Housing No.

## CAVITY



REQUEST CAVITY DRAWING: C-8542  
 REFERENCE FORM TOOL: FT-8542

## POC SERIES



### FLOW AND PRESSURE DROP CHARTS

