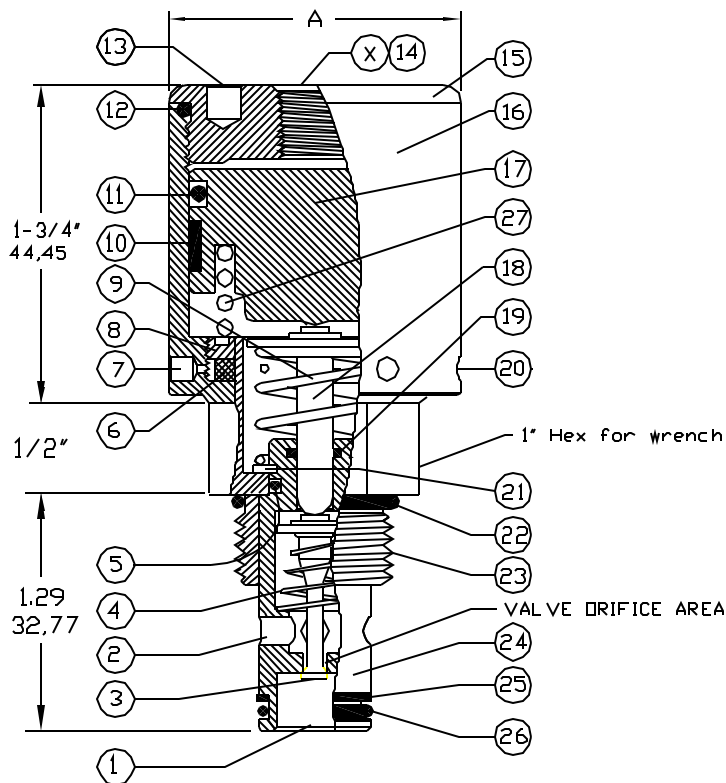


KEY EXPLANATION:

1. Part 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 1 Part 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 Part 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")

CARTRIDGE VALVE



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 -45F, (-42.7°C) to 200F, (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 RATIO NOTES:

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

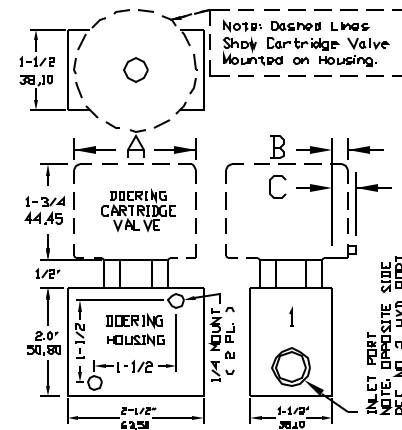
STANDARD OPTIONS

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

TOOLING

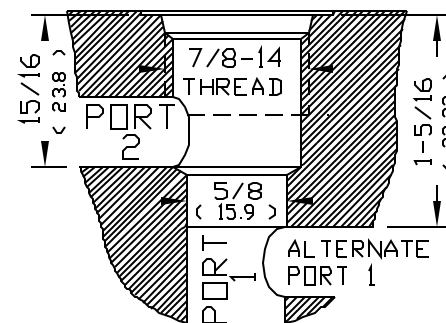
- *Cavity Form Tool: FT-8542
- *1/8 (3.175) Pin Spanner Tool
Order No. 471. Ref. Key No. 20
- *3/16 (4.763) Face Spanner Tool
Order No. 482. Ref. Key No. 13

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

PILOT TO SYSTEM RATIOS: PORTS 1 & 2

" A " DIAMETER

" B " MAXIMUM

CARTRIDGE VALVE NO.

FLOW AND PRESSURE DROP CHART. $C_v = 0.1$

POC SERIES

PORT 1	PORT 2	" A "	" B "
100:1	40:1	1-1/2 38,10	NOT APPLICABLE
120:1	49:1	1-5/8 41,28	.06 1,53
168:1	69:1	1-7/8 47,63	.19 4,83
255:1	104:1	2-1/4 57,15	.38 9,65

PORT 1	PORT 2	" A "	" B "
100:1	40:1	1-1/2 38,10	NOT APPLICABLE
120:1	49:1	1-5/8 41,28	.06 1,53
168:1	69:1	1-7/8 47,63	.19 4,83
255:1	104:1	2-1/4 57,15	.38 9,65

PORT 1	PORT 2	" A "	" B "	CARTRIDGE VALVE NO.
100:1	40:1	1-1/2 38,10	NOT APPLICABLE	94H4210033
120:1	49:1	1-5/8 41,28	.06 1,53	94H4312033
168:1	69:1	1-7/8 47,63	.19 4,83	94H4616833
255:1	104:1	2-1/4 57,15	.38 9,65	94H4725533

