

## MAINTENANCE INSTRUCTIONS

### For Chemline 3/8" - 1-1/2" SB Series Pressure Relief Valves

#### ***Installation:***

1. Always mount a filter or strainer in the line immediately before the valve to avoid damage to the valve from dirt or particles. Valve is spring operated, therefore can be installed in any orientation.
2. **To adjust pressure use the adjustment screw (8) and a pressure gauge.**
  - the valve will be closed at the set pressure and will start to open when the operating pressure rises above the set pressure.
  - connect the compressed air supply to the inlet of the valve. Adjust the flow of the air to the desired set pressure by turning clockwise to increase the set pressure, counterclockwise to decrease it.
  - with the valve being closed, adjust the screw (8) until the valve starts to open. Fix the adjusting screw in place with the locking nut (9).
3. For installation in an application where the temperature is 0° C or less. Check with Chemline Engineering Technical staff prior to installation.

#### ***Maintenance***

Refer to **ASSEMBLY DRAWING SB10/11 rev 0.** And proceed as follows.

1. Loosen and remove cap (10).
2. Loosen counter nut (9) and remove adjustment screw (8).
3. Remove body cap (12a), body bolt (12b), body nut (12c) and washer (12d).
4. Lift up and remove bonnet (2).
5. Remove pressure plate (7a) and ball bearing (7b) to reach relief spring (3).
6. Loosen piston screw (11), remove spring plate (6) and draw piston assembly (5) downward and out of body (1).  
**Note:** Piston assembly (5) is all parts (5a) outer piston assembly  
(5b) inner piston assembly  
(5c) seat  
(5d) piston o-ring

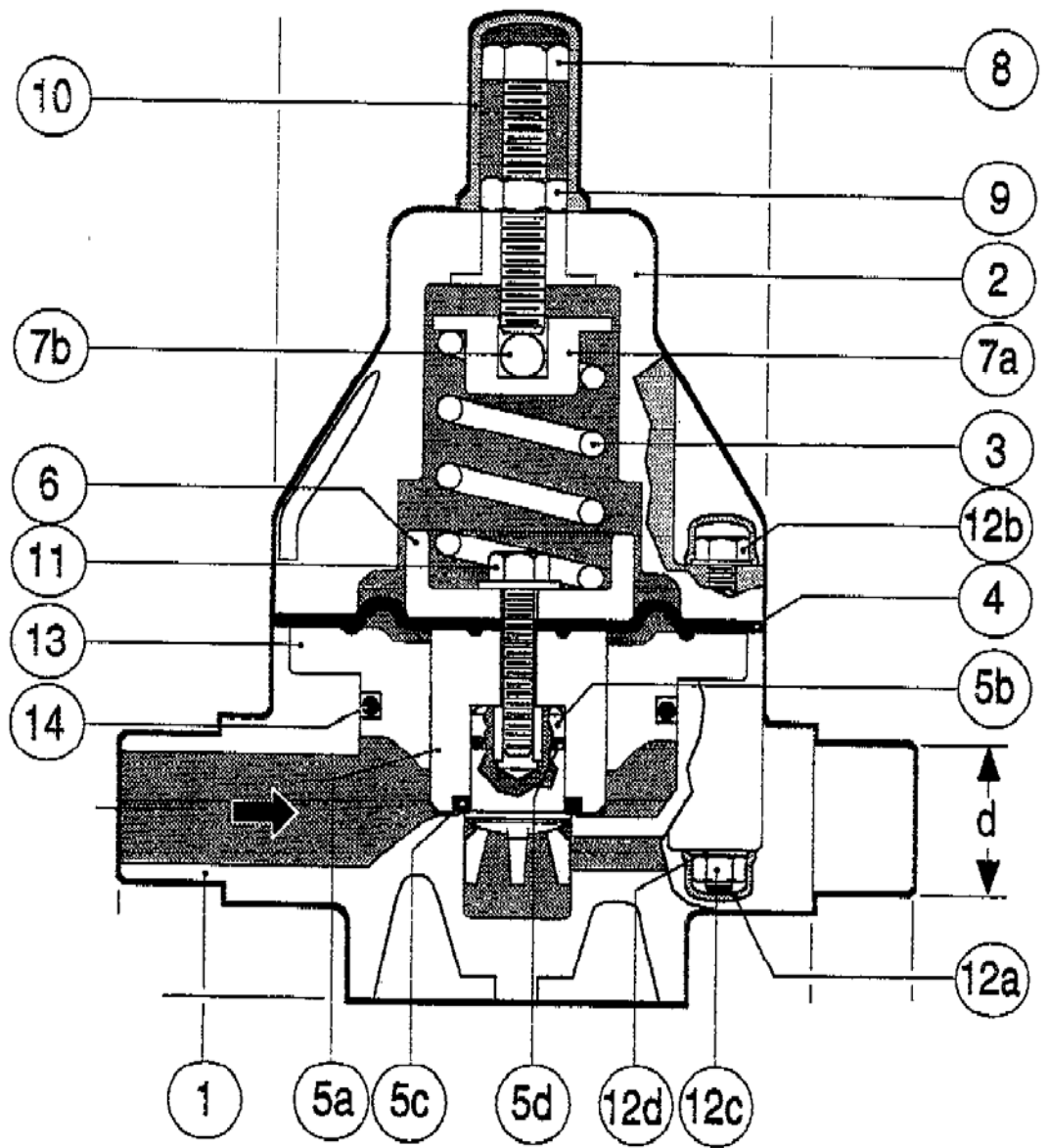
## Maintenance Instructions SB Series Pressure Relief Valves cont.

Piston assembly is removed from body as a unit. It can then be further disassembled into the component parts listed above.

7. Remove diaphragm (4).
8. Remove seal (14) at intermediate flange (13).
9. Inspect all parts for wear and abrasion, replace seals, diaphragm etc. if necessary.
10. To re-assemble valve follow steps 1 through 9 in reverse order.

### TROUBLESHOOTING

FAILURE	REASON	REPAIR
VALVE LEAKS AT DIAPHRAGM (4)	CLAMPING PRESSURE FOR DIAPHRAGM (4) TOO LOW.	TIGHTEN SCREWS (12)
PRESSURE RISES ABOVE SET PRESSURE	{A) VALVE SEAT (5c) & SEALS (14) & (5d) ARE DEFECTIVE (B) DIAPHRAGM (4) LEAKING (C) PISTON (5) BORE AT BODY (1) DIRTY	CHECK SEALS OF PISTON (5) BODY (14) - REPLACE  REPLACE.  DISMANTLE PISTON (5) AND CLEAN BORE
VALVE CLOSED (DOES NOT OPEN)	VALVE MOUNTED IN WRONG DIRECTION.	TURN VALVE IN DIRECTION OF ARROWS
FLUIDS PENETRATE ADJUSTING SCREW (8)	DIAPHRAGM (4) DEFECTIVE.	REPLACE DIAPHRAGM (4)
LEAKING AT PLUG AT VALVE BODY	O-RING SEAL LEAKING	DISMANTLE PLUG AND REPLACE SEAL



Part	Description	Pcs
1	BODY	1
2	BONNET	1
3	RELIEF SPRING	1
4	DIAPHRAGM	1
5(a)	OUTER PISTON	1
5(b)	(PART OF ASSY) INNER PISTON	1
5(c)	(PART OF ASSY) SEAT	2
5(d)	(PART OF ASSY) PISTON O-RING	2
6	(PART OF ASSY) SPRING PLATE	1
7(a)	PRESS. PLATE	1
7(b)	BALL BEARING	1
8	ADJ. SCREW	1
9	COUNTER NUT	1
10	CAP	1
11	PISTON SCREW	1
12(a)	BODY CAP	4/6
12(b)	BODY BOLT	4/6
12(c)	BODY NUT	4/6
12(d)	BODY WASHER	4/6
13	INT. FLANGE	2
14	SEAL	2

TITLE		SCALE	DATE
CHEMLINE SB PRESSURE RELIEF VALVES			
REFERENCE		CHKD. BY	DR. BY
3/8" - 1-1/2"		APP. BY	
DWG. NO.		CHEMLINE PLASTICS	
SB1011		CHEMLINE	
REV.		0	