

## INSTALLATION & MAINTENANCE INSTRUCTIONS

### For Chemline Series SR50 Pressure Reducing Valve Sizes 2” to 3”

#### ***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.
4. **Size vs Working Pressure**  
2” - 3” set pressure 15 psi to 90 psi. Minimal backlash, should be no more than approx. 3 psi.
5. **Operating Temperature Range**  
PVC up to 50° C  
PP up to 70° C  
PVDF up to 100° C

#### ***Maintenance:***

Refer to **ASSEMBLY DRAWING SR502 rev 0**. And proceed as follows:

1. Loosen and remove cap (10).
2. Loosen counternut (9) and remove adjusting screw (8).

**Install. & Maint. SR Pressure Reducing Valve Sizes 2” – 3” Cont.**

3. Remove bonnet nut (12a) and bonnet bolt (12b).
4. Lift up and remove bonnet (2).
5. Remove pressure plate (7a) and ball bearing (7b) to reach both spring (3a) and (3b).
6. Loosen piston screw (11), remove spring plate (6) and draw piston (5a) downward and out of body (1).
7. When piston has been removed, it can be further disassembled into the component parts (5a) outer piston, (5b) hex nut (5c) seat and (5d) inner piston.
8. Remove diaphragm (4).
9. Remove O-ring seals (14a) at intermediate flange (13).
10. Loosen and remove plug nut (17a) plug bolt (17b) and Plug O-ring (17c).
11. Remove O-ring seals (15)
12. Inspect all parts for wear and abrasion, replace O-rings, diaphragm etc. if necessary.
13. To re-assemble, follow steps 1 through 11 in reverse.

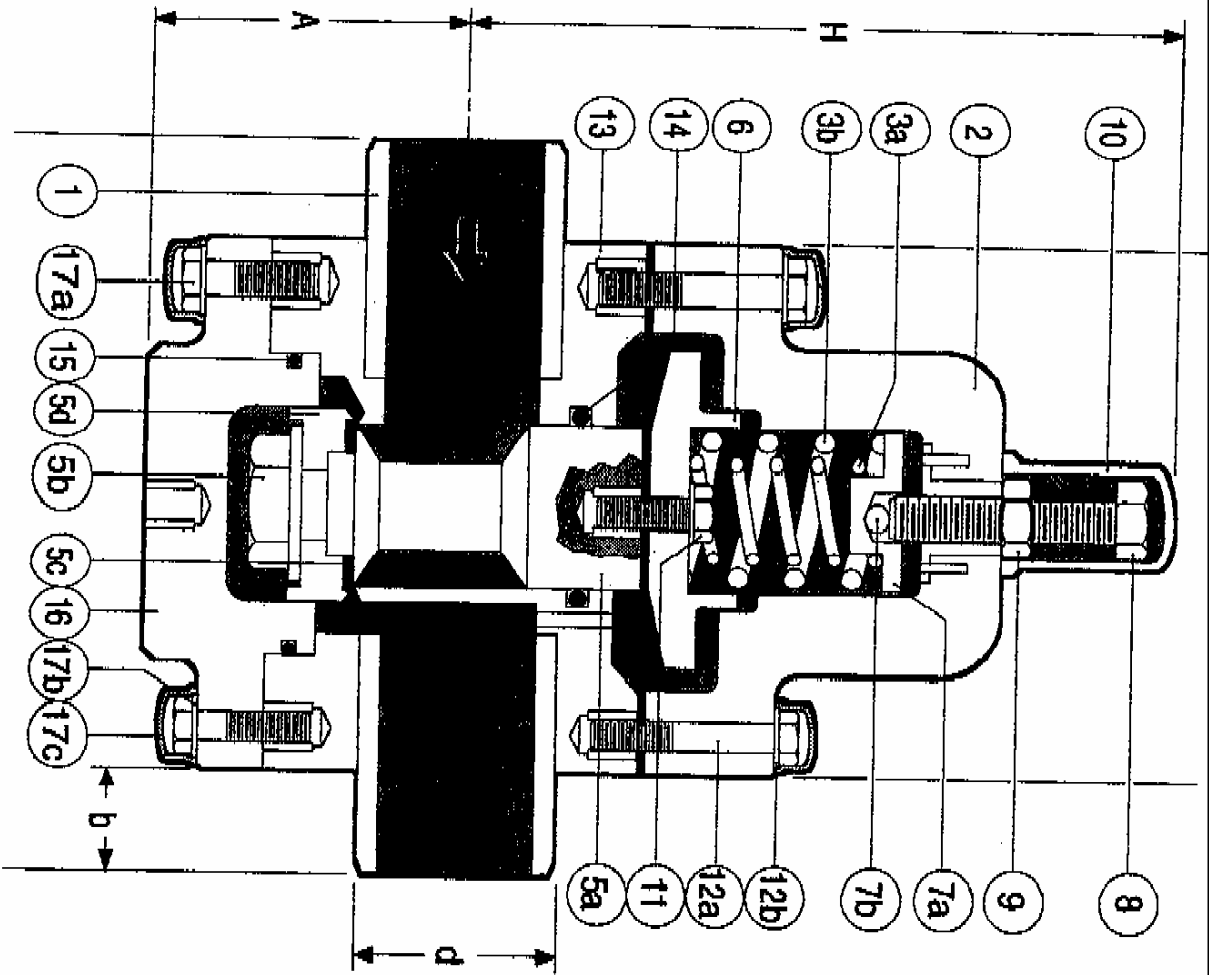
**WEIGHT & DIMENSION CHART**

SIZE	OVERALL WIDTH	WEIGHT (LBS)		
		PVC	PP	PVDF
2”	10.0”	15.0	13.2	16.5
2-1/2”	11.2”	27.5	26.2	31.0
3”	14.2	33.0	29.7	37.8

## Install. & Maint. SR Pressure Reducing Valve Sizes 2" – 3" Cont.

### 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] PISTON SEAT (5c) & SEALS ARE DEFECTIVE  [B] DIAPHRAGM (4) LEAKING  [C] PISTON (5) BORE AT BODY (1) DIRTY	CHECK SEALS (14a) (14b) OF PISTON (5) – REPLACE  REPLACE  DISMANTLE PISTON (5) AND CLEAN
VALVE CLOSED (DOES NOT OPEN)	VALVE MOUNTED IN WRONG DIRECTION	TURN VALVE IN DIRECTION OF FLOW
FLUIDS PENETRATE ADJUSTING SCREW (8)	DIAPHRAGM (4) DEFECTIVE	REPLACE DIAHRAGM (4)
LEAKING AT PLUG AT VALVE BODY	O-RING SEAL LEAKING	DISMANTLE PLUG AND REPLACE SEAL



PART	DESCRIPTION	PCS.
1	VALVE BODY	1
2	BONNET	1
3(a)	SMALL SPRING	1
3(b)	LARGE SPRING	1
4	DIAPHRAGM	1
5(a)	OUTER PISTON	1
5(b)	HEX NUT	1
5(c)	SEAT	1
5(d)	INNER PISTON	1
6	SPRING PLATE	1
7(a)	PRESSURE PLATE	1
7(b)	BALL BEARING	1
8	ADJUSTING SCREW	1
9	COUNTERNUT	1
10	CAP	1
11	SCREW	1
12(a)	BONNET BOLT	2
12(b)	BONNET NUT	2
13	WASHER O-RING	2
14	O-RING SEAL	2
15	O-RING SEAL	2
16	PLUG	1
17(a)	PLUG NUT	2
17(b)	PLUG BOLT	2
17(c)	WASHER O-RING	2

TITLE		SCALE		DATE		CHEMLINE PLASTICS	
SR SERIES PRESSURE REDUCING						PLASTICS	
REFERENCE		DR. BY		CHKD. BY		DWG. NO.	
VALVE SIZES 2" - 3"						SR502	
		APP. BY				REV.	
						0	