ANDERSON GREENWOOD MARVAC FIGURE 121FSV PRESSURE AND VACUUM RELIEF VALVES
INSTALLATION AND MAINTENANCE INSTRUCTIONS

Read Anderson Greenwood Marvac general instructions before continuing

SAFETY PRECAUTIONS
Read and understand this instruction manual before installing, operating or performing maintenance on a 121FSV pressure and vacuum relief valve. Follow all precautions and warnings noted herein when installing, operating or performing maintenance on this equipment.

Safety precaution definitions

CAUTION
Damage to equipment may result if this precaution is disregarded.

WARNING
Direct injury to personnel or damage to equipment that can cause injury to personnel may result if this precaution is not followed.

NOTE
This manual is issued for guidance only and does not affect our standard terms and conditions and our product limited warranty, all of which are available upon request.

1 INSTALLATION

121FSV pressure and vacuum relief valves must be mated with the appropriate flange.

1. These valves must be gasketed and bolted to a flat machined horizontal flange. Bolts must be tightened uniformly to ensure a good seal.
2. The exhaust pipework which is to be gasketed and bolted to the horizontal flange must not be supported by the valve, i.e. these valves are not designed to carry any external loads.
3. This valve does not contain any internal packing. Therefore, internal checks should not be necessary.
4. It is recommended that carbon steel valves be given a coat of paint immediately after installation is complete. Apply paint to external surfaces only.

2 MAINTENANCE (DURING ATMOSPHERIC VENTING PERIOD)

WARNING
The relief valve must be isolated from tank pressure before servicing. All gas must be blocked and pressure vented safely.
Wear appropriate gloves and/or breathing apparatus if hazardous vapors are present.

Pressure relief (refer to Figure 1)

1. Remove pressure cover (item 15), inspect O-ring for damage and replace if necessary.
2. Remove pallet assembly to inspect pallet seating for wear and replace if necessary.
3. To replace damaged/worn items from pallet assembly (see recommended spares):
   a. remove nut from pallet stem, remove support disc, diaphragm & backing disc
   b. clean pallet surface and threads
   c. replace with new parts
   d. reassemble in reverse order
4. Inspect valve seats (item 3) for wear and regrind or replace where necessary.
5. Clean seating surface thoroughly with suitable solvent.
6. Generally clean inside of valve, remove all foreign matter and repaint exterior where possible to prevent corrosion.
7. Replace pressure pallet on pressure seat (with lead disc if fitted).
8. Replace pressure cover & replace sealing washers if necessary, secure with screws.

Vacuum relief (refer to Figure 1)

1. Remove bonnet cap (item 6) and note exact position (height) of adjustment screw (item 7) inspect O-ring for damage and replace if necessary.
2. Remove locknut (item 8) and unscrew adjustment screw.
3. Remove spring bonnet (item 5) and spring assembly, inspect O-ring for damage and replace if necessary.
4. Remove pallet assembly to inspect pallet seating for wear and replace if necessary.
5. To replace damaged/worn items from pallet assembly (see recommended spares):
   e. remove nut from pallet stem, remove support disc, diaphragm & backing disc
   f. clean pallet surface and threads
   g. replace with new parts
   h. reassemble in reverse order
6. Inspect valve seat (item 3) for wear and regrind or replace where necessary.
7. Clean seating surface thoroughly with suitable solvent.
8. Generally clean inside of valve, remove all foreign matter and repaint exterior where possible to prevent corrosion.
9. Replace in reverse order.
10. Reset adjustment screw to its original position (height), tighten locknut and replace cap.
11. Check vacuum relief setting on test run and adjust if necessary.

CAUTION

The end of the pallet stem must engage the stem guide in the covers to ensure correct seating and valve operation.

NOTE

The efficiency of the valve depends on maintaining good seating surfaces. Therefore, maintenance periods should be adjusted to suit service conditions.

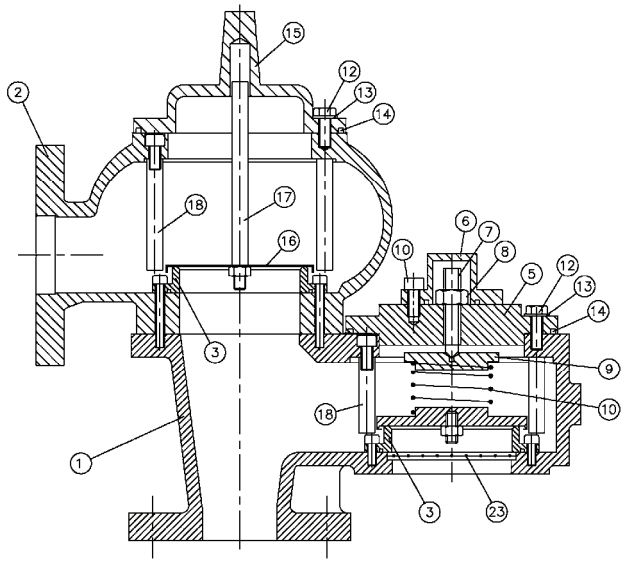
3 SPARES

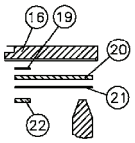
When spare parts are required, the customer should quote the valve size, serial number, the item number and the material of the parts required.
The valve size and serial number can be obtained from the valve identification label. The item number and description can be obtained from the arrangement on page 3.
Care should be taken to quote the correct material as the materials quoted are for non hazardous conditions.

Recommended spares

1. Item 14 Nitrile O-ring
2. Item 13 Sealing washers
3. Item 19 Spacer disc (non-asbestos fiber)
4. Item 20 Diaphragm backing disc (non-asbestos fiber)
5. Item 21 Diaphragm (PTFE)

FIGURE 1





M/D type seating

PARTS LIST

Item	Description	Alum spec.	C. steel	SS. spec
1	Valve body inlet	Aluminum	WCB	316 SS
2	Valve body outlet	Aluminum	WCB	316 SS
3	Removable seat	Aluminum	316 SS	316 SS
5	Spring bonnet	Aluminum	WCB	316 SS
6	Bonnet cap	Aluminum	WCB	316 SS
7	Adjustment screw	316 SS	316 SS	316 SS
8	Locknut	18/8 SS	18/8 SS	18/8 SS
9	Spring washers	316 SS	316 SS	316 SS
10	Spring	316 SS	316 SS	316 SS
11	Cap screws	ZP Steel	ZP Steel	18/8 SS
12	Bonnet screws	ZP Steel	ZP Steel	18/8 SS
13	Sealing washers	G fiber	G fiber	G fiber
14	O-ring seal	Nitrile	Nitrile	Nitrile
15	Cover	Aluminum	WCB	316 SS
16	Pallet	316 SS	316 SS	316 SS
17	Pallet stem	316 SS	316 SS	316 SS
18	Pallet guide posts	316 SS	316 SS	316 SS
19	Spacer disc	Non-asbestos	Non-asbestos	Non-asbestos
20	Diaphragm back. disc	Non-asbestos	Non-asbestos	Non-asbestos
21	Diaphragm	PTFE	PTFE	PTFE
22	Diaphragm supp. disc	316 SS	316 SS	316 SS
23	Screen	St. St	St. St	St. St