



## ANDERSON GREENWOOD MARVAC FIGURE 121VS 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 121VS vacuum relief valve. Follow all precautions and warnings noted herein when installing, operating or performing maintenance on this equipment.

### 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

121VS 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 vacuum setting on these valves is controlled by a compression spring, which is adjusted and set at works before dispatch. However, final setting using the adjustment screw may be necessary to suit site conditions.
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.
3. Remove spring bonnet (item 4) and spring assembly, inspect O-rings 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):
  - a. Remove nut from pallet stem, remove support disc, diaphragm and backing disc.
  - b. Clean pallet surface and threads.
  - c. Replace with new parts.
  - d. 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 and apply a thin smear of light spindle oil.
8. Generally clean inside of valve, remove all foreign matter and repaint exterior where possible to prevent corrosion.
9. Replace in reverse order ensuring the pallet stem (item 15) sits in the pivot in the pallet assembly.
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.
12. It is not necessary to remove the blanking plate (item 2).

### 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.

#### Vacuum relief (refer to Figure 1)

1. Remove bonnet cap (item 5) and note exact position (height) of the adjustment screw (item 6).
2. Release locknut (item 7) and unscrew adjustment screw.

### CAUTION

The end of the pallet stem must engage the stem guide in the cover 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.

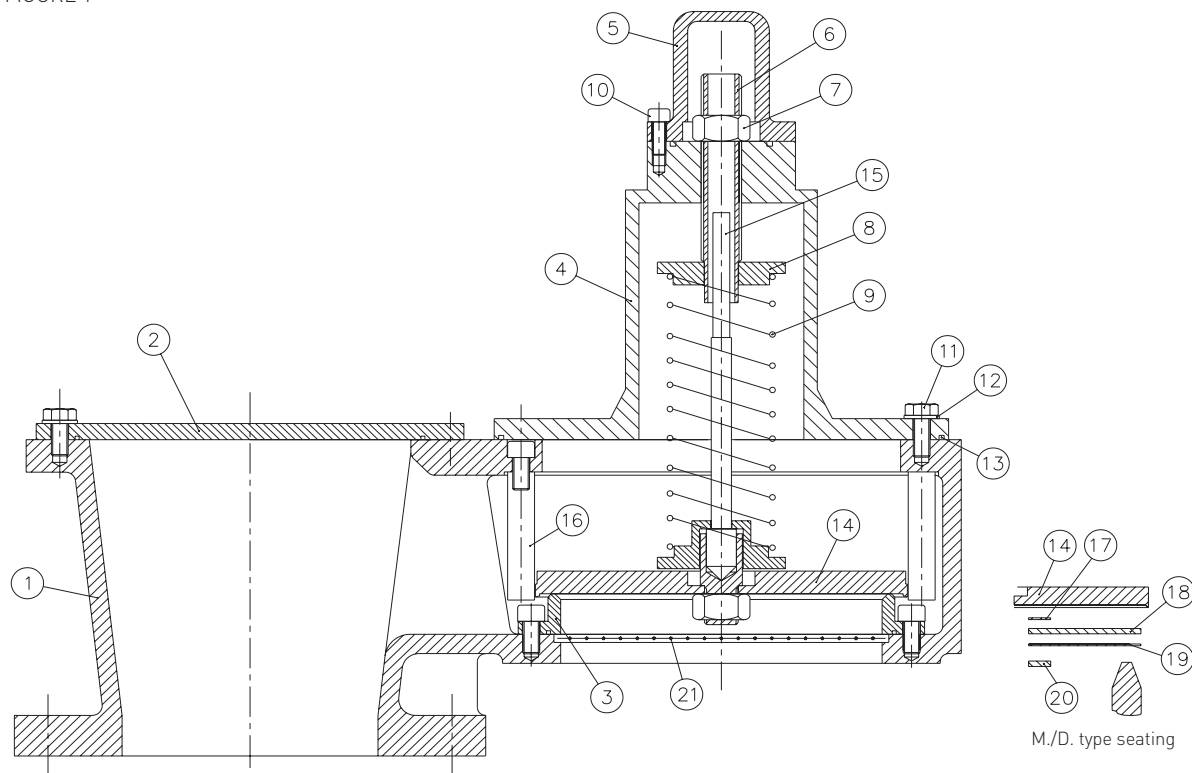
### 3 RECOMMENDED SPARES

Item	Description
12	Sealing washers
13	Nitrile O-ring
17	Spacer disc (non-asbestos fiber)
18	Diaphragm backing disc (non-asbestos fiber) Not required for settings over 200 mbar
19	Diaphragm (PTFE)

# ANDERSON GREENWOOD MARVAC FIGURE 121VS VACUUM RELIEF VALVES

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

FIGURE 1



### PARTS LIST

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

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Anderson Greenwood is a mark owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.