

OPERATING INSTRUCTIONS

Category II Pressure Accessory
Type W1 Reducing Valve



Notified Body No. 0038



Application

Suitable for liquid service.



Operation

The outlet pressure can be varied as required by compressing or relaxing the spring using the adjusting screw:

Clockwise turns compress the spring increasing outlet pressure.

Anti-clockwise turns relax the spring decreasing outlet pressure.



Lifting and Handling

Wooden cases should be lifted using either a Fork Lift Vehicle or a Crane with adequate Safety Approved slings applied to carry the weight, which will be evenly distributed within the case.

Important: All manual handling operations should be carried out in compliance with the Manual Handling Operations Regulations 1992 (SI 1992/2793) (EC Directive 90/269/EEC).



Storage

If valve is bound to be stored longer than 6 months, turn back adjusting screw to remove compression from spring. (Re-adjust spring compression on installation).

Valves with Screwed ends shall have plugs fitted in their connections to prevent ingress of dirt etc. Flanged valves shall have their bores blanked off.

We recommend that plugs/blanks be removed immediately prior to installation.



Installation and Commissioning

It is most important that the pipeline be clean and free from dirt, scale, etc.

Fit valve in pipeline with flow as indicated by arrow cast on valve body and with adjusting screw in vertical position above or below pipeline.

It is also advisable to fit a stop valve on high-pressure side of line.



Maintenance

Examine annually for signs of defect, damage or deterioration.

Give special attention to contact/seating faces, if damaged these should be re-faced. Discs, diaphragms, seals and springs should be replaced if there is any sign of deterioration.

All parts should move freely in their respective guides.

Note: Quote the unique valve serial number when ordering spare parts.



Safety Warning!

Before dismantling ensure that the valve has been isolated from the pressure and the adjusting screw has been removed.



Dismantling and Reassembly

Dismantling:

To remove Diaphragms: When the pressure is off: Remove; Adjusting Screw (29) and Locknut (28); Nuts (22); Bolts (21) and Bonnet (25); Spring Carrier (27) and Spring (26); Nuts (23 & 24); Large Piston (20); Large Diaphragm (19) and Distance Piece (18). Unscrew and remove Nut (16) and Locking Ring (17). Remove Small Piston (15); Liner (14) and Small Diaphragm (13). Distance Piece (12) can now be removed.

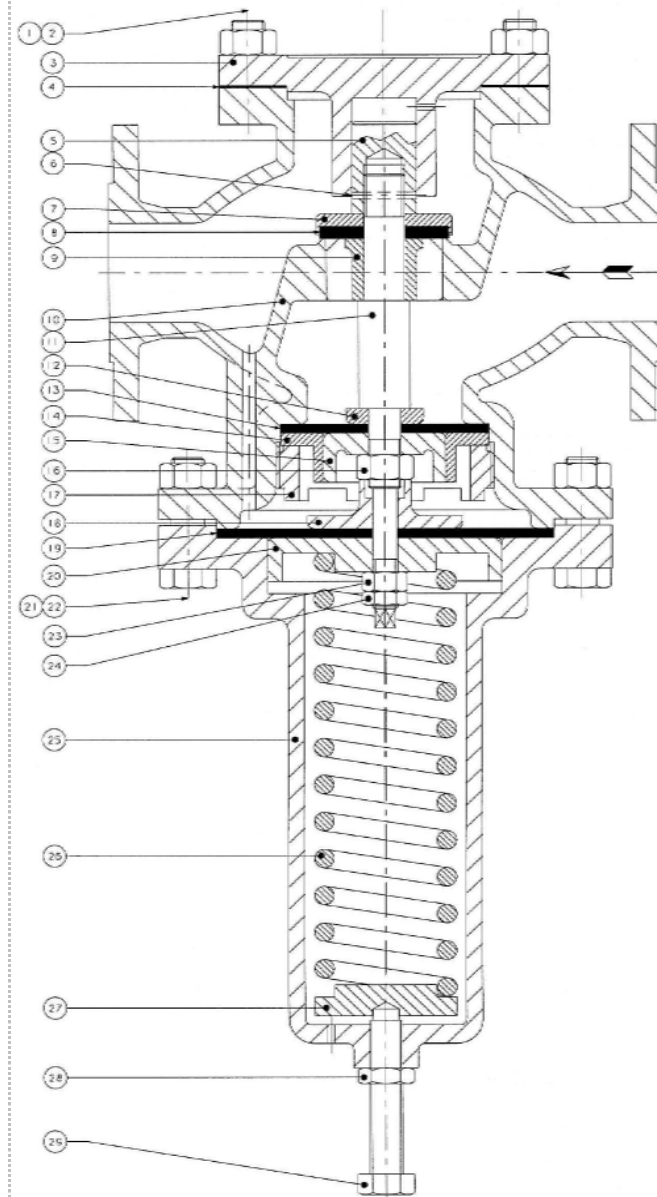
To remove Disc: Follow the instructions for removal of Diaphragms; this will leave Spindle (11) unrestricted at Diaphragm end of valve. Remove; Nuts (2); Cover (3) and withdraw sub-assembly of Guide (5), Pin (6), Disc Holder (7), Disc (8), Wings (9) and Spindle (11). To access the Disc, extract Pin (6) unscrew Guide (5) then remove it and Disc Holder (7). The Disc can now be removed from the Disc Holder.

Note: Replace all joints with new ones.

Reassembly:

To replace Disc: Clean Disc Holder (7) and push in replacement Disc (8) ensuring it sits squarely in Disc Holder, no bonding is necessary. Reassemble Spindle/Disc Holder sub-assembly in reverse of dismantling procedure. Carefully replace sub-assembly in Body (10) with Disc (8) seated, the Diaphragms should now be replaced.

To replace Diaphragms: Follow the instructions for replacement of Disc, then at Diaphragm end of valve fit Small Distance Piece (12) on Spindle (11); place new Small Diaphragm (13) in position. Replace: Liner (14); Locking Ring (17); Piston (15); Nut (16) and Large Distance Piece (18) ensuring that the flange of the Distance Piece and the face of Body (10) are level, then fit new Large Diaphragm (19). *Continued above illustration.*



Replace Piston (20); Nuts (23 & 24); Spring (26) and Spring Carrier (27). Replace Dome (25) and secure with Bolts (21) and Nuts (22). Replace Adjusting Screw (29) together with Locknut (28). Fit new Joint (4); replace Cover (3) and secure with Nuts (2). Readjust the set pressure, as necessary, by means of the Adjusting Screw. Locknut (28) should then be tightened.

Item	Description	Qty
1	Stud	Various
2	Nut	Various
3	Cover	1
* 4	Joint (Cover)	1
5	Guide	1
6	Pin	1
7	Disc Holder	1
* 8	Disc	1
9	Wings	1
10	Body	1
11	Spindle	1
12	Distance Piece, Small	1
* 13	Diaphragm, Small	1
14	Liner	1
15	Piston, Small	1
16	Nut	1
17	Locking Ring	1
18	Distance Piece, Large	1
* 19	Diaphragm, Large	1
20	Piston, Large	1
21	Bolt	Various
22	Nut	Various
23	Nut	1
24	Locknut	1
25	Bonnet	1
26	Spring	1
27	Spring Carrier	1
28	Locknut (Adjusting Screw)	1
29	Adjusting Screw	1

* Recommended spare parts

EC DECLARATION OF CONFORMITY

Issued in accordance with the

PRESSURE EQUIPMENT DIRECTIVE (PED) 97/23/EC

We hereby declare that, in compliance with the above Directive, the product(s) detailed below, have been manufactured in accordance with conformity assessment module D1 'Full quality assurance (ISO 9001)' as approved by Lloyds Register (Notified Body No. 0038), of Middlemarch Office Village, Siskin Drive, Coventry, CV3 4FJ, UK, under EC Certificate of Conformity RPS 0160389/02.

Product Description – Pressure Accessory

Product Reference – Type W1 Reducing Valve

Comprising – Not Applicable

Serial Number – Not Applicable

Applicable Standards – None

Other Applicable Directives – None

Signed:

A. Derrick

Name:

A. J. Derrick

Position:

Managing Director

Date:

24th April 2002

