

## VS-FL; VS-FL-BP Maintenance

### 1. Troubleshooting

#### 1.1 The valve does not open. Check:

- a) No gas in line.
- b) Lack of feeding to the pilot.
- c) Broken diaphragm (6).
- d) Pilot setting is higher than required.
- d) Clogging of connection (40) capillary.

#### 1.2 The valve does not close once proper working conditions have been restored. Check:

- a) Clogging of drain cock located on pilot (especially after painting).

#### 1.3 The valve is not sealed properly. Check:

- a) Worn out sealing gaskets.
- b) Dirt deposit on the valve.  
It can prevent a proper positioning of the valve itself on the sealing seats.
- c) Pilot setting at a pressure lower than the working pressure.

### 2. Periodic control of valve efficiency:

See Bulletin 0192 of the PRX/182 for instructions and procedures.

### 3. Maintenance

#### 3.1 Warning:

After having examined the causes that can bring about an irregular operation of the valve, we supply here below the indications to carry out the maintenance operation: replacement of the sealing gasket and general maintenance of the equipment.

For a successful job it is indispensable to use qualified personell, possibly calling on our Technical Office or our Agents.

**Before starting to carry out any maintenance operation, cut-off the gas upstream of the valve, making sure, moreover, that inside the body there is no pressurized gas.**

#### 3.2 Replacing the sealing gasket:

- a) Remove the valve from the line.
- b) Remove the screws (14) and slide out the flange (13).
- c) Remove the pad holder (17) using the appropriate screws; these shall be introduced in the threaded holes drilled in the pad holder (17) circumference
- d) Remove the screw (18) and the pad retainer (19) and take the sealing gasket (15) off.
- e) Check the wear-out condition of the sealing gasket (15) and if it is worn-out replace it
- f) Check if the valve part (2) which will be in contact with the gasket (15) is intact; if not, carry out a general maintenance and replace the valve.

- g) For re-assembling, perform the same steps in reverse order, use great care to avoid damage to the seal (20). To facilitate the fitting of the pad holder (17), use an air pump; connect this to the coupling (B) thereby causing the valve (2) to fully open.

#### 3.3 General maintenance:

- a) Remove the valve from the line.
- b) Remove the screws (14) and slide out axially the flange (13).
- c) Remove the pad holder (17), following the instructions in item c) of paragraph 3.2.
- d) Remove the screw (18) and the pad retainer (19), and take the sealing gasket (15) off.
- e) Between the 2 servomotor covers there lies the spring (36) under compression; as screws (8) are removed, covers (7-9) may pull off suddenly.  
To avoid this drawback, replace the 2 screws (8) with threaded rods of appropriate length.  
As remaining screws (8) have been removed, these rods allow slow release of the spring when nuts (11) are loosened. After completion of this operation, remove axially the outlet cover (9).
- f) Slide out the valve-diaphragm unit (2-5-12) from the inlet cover (7).
- g) Remove the screws (24), and slide out the plates (5-12) and the diaphragm (6) from the valve (2).
- h) Check the wear-out condition of all dynamic sealing gaskets (3-22), anti-friction rings (23-37-38) and moving parts, with special attention to chromed or nickel-plated surfaces.  
If any part is found to be damaged, replace it.
- i) It is advisable to replace the static sealing gaskets only if their inefficiency has definitely been assessed.
- l) Clean all disassembled parts with gasoline and blow with compressed air.

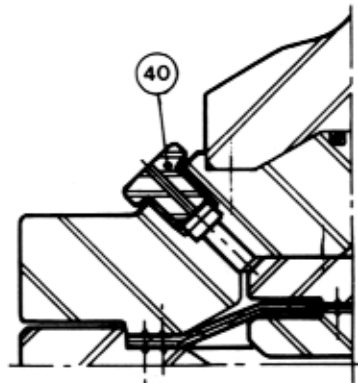
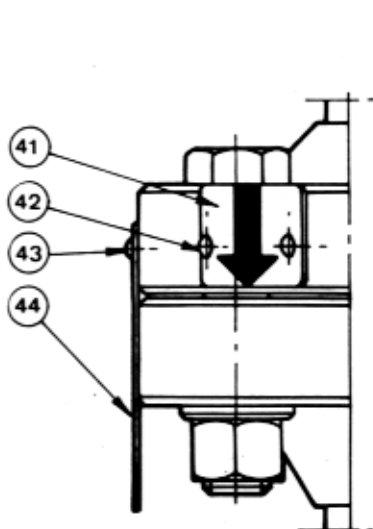
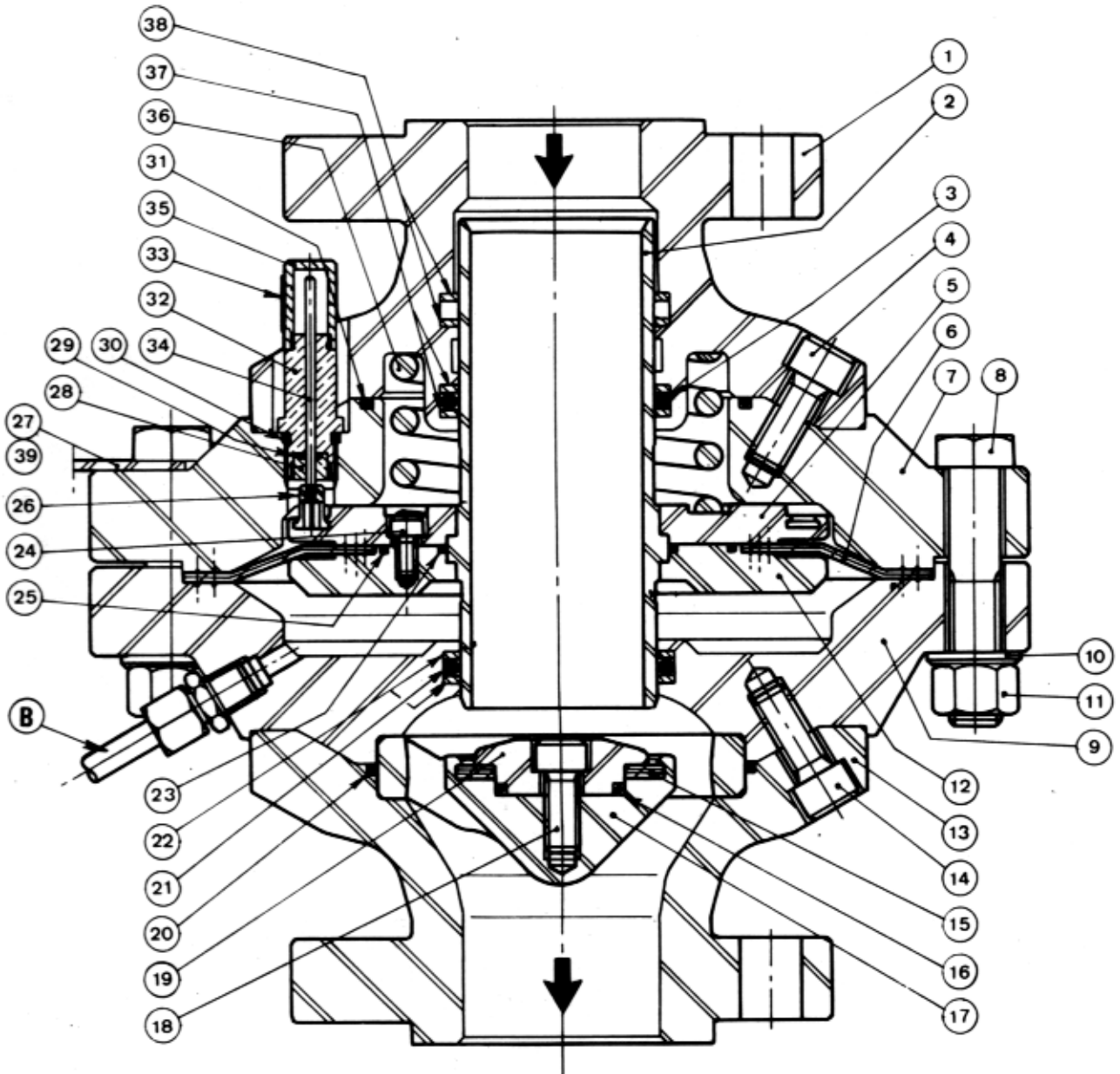
#### 3.4 Reassembling:

Perform the above steps in reverse order, and paying attention to the following:

- a) Lubricate all sealing gaskets with "molybdenum grease", taking care not to damage them when fitting them on.
- b) Before fitting the valve-diaphragm unit (2-5-12), slip the travel indicator rod into the guide (32). Gripper (26) shall be hooked onto plate (5) after the unit has been fully reassembled.
- c) Complete the assembling paying attention to tighten all screws evenly.
- d) Remove cap (35) and strike rod (34) by way of a rubber or wooden hammer to allow the hooking of gripper (26) onto plate (5).

#### 3.5 Note and warning:

When painting the apparatus, the drain cock located on the pilot and plug (40) must be protected.  
Obstruction of these holes could cause valve malfunction, as described in paragraphs 1.1, point (e), and 1.2, point (a).



**DETTAGLIO:  
 RACCORDO CON CAPILLARE  
 DETAIL:  
 CONNECTION WITH  
 CAPILLARY**

<b>DATI DA FORNIRE PER LA RICHIESTA di PARTI di RICAMBIO</b> APPARECCHIATURA TIPO ..... MATRICOLA N ..... ATTACCO ENTRATA DN .....PN..... USCITA DN .....PN..... N° PARTICOLARE ..... DENOMINAZIONE ..... ELENCO PARTICOLARI (riferito al Bollettino I-I-0083-02/01/90)	<b>DATA TO BE SUPPLIED WHEN SPARE PARTS ARE REQUIRED</b> EQUIPMENT TYPE ..... SERIAL N ..... INLET CONNECTION ..... OUTLET CONNECTION ..... PART No ..... NAME ..... PARTS LIST (referred to Bulletin GB-I-0083-02/01/90)
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N. PART PART No	DENOMINAZIONE	NAME
1	Flangia entrata	Inlet flange
2	Otturatore	Valve
*3	O-Ring	O-Ring
4	Vite	Screw
5	Piattello entrata	Inlet plate
*6	Membrana	Diaphragm
7	Coperchio entrata	Inlet cover
8	Vite	Screw
9	Coperchio uscita	Outlet cover
10	Rondella	Washer
11	Dado	Nut
12	Piattello uscita	Outlet plate
13	Flangia uscita	Outlet flange
14	Vite	Screw
*15	Pastiglia	Pad
*16	O-Ring	O-Ring
17	Porta pastiglia	Pad holder
18	Vite	Screw
19	Ferma pastiglia	Pad retainer
*20	O-Ring	O-Ring
*21	O-Ring	O-Ring
*22	Anello antifrizione	Anti-friction ring
*23	O-Ring	O-Ring
24	Vite	Screw
*25	O-Ring	O-Ring
26	Pinzettina	Spring collet
27	Staffa	Bracket
28	Boccolina indicatore	Indicator bushing
*29	O-Ring	O-Ring
*30	O-Ring	O-Ring
*31	O-Ring	O-Ring
32	Colonna	Support
33	Targhetta indicatore	Indicator label
34	Indicatore	Indicator
35	Guaina	Sheath
36	Molla	Spring
*37	Anello antifrizione	Anti-friction ring
*38	Anti-friction ring	Anti-friction ring
39	-----	-----
40	Raccordo con capillare	Connection with capillary
41	Targhetta	Label
42	Rivetto	Rivet
43	Rivetto	Rivet
44	Targhetta	Label

LE PARTI IN GOMMA INDICATE CON (*) VENGONO FORNITE NEL "KIT RICAMBI" CONSIGLIATO COME NORMALE SCORTA MAGAZZINO.	RUBBER PARTS MARKED WITH (*) ARE SUPPLIED IN THE "SPARE PART KIT", RECOMMENDED AS STOCK.
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