

## Operating Instruction

Diaphragm Valve T4 PVC-U, PP, PVDF

### 1. Installation instruction

- a.) Flange connection
  1. Slide flange on pipe
  2. Mount flange socket onto pipe (solvent)
  3. Insert Diaphragm valve with flanges into pipeline
  4. Connect flanges with proper bolts (make sure that flange gasket sits in proper location)
- b.) Solvent connection
  1. Connect Diaphragm valve and pipe ends with solvent
- c.) Solvent connection for Diaphragm valve with union
  1. Dismantle union nuts and slide them on pipe
  2. Mount sockets on pipe (solvent, screw)
  3. Insert Diaphragm valve between premounted sockets
  4. **Hand tighten** union nuts (make sure that o-rings are in proper location)

### Note

In order to release the Diaphragm valve from overlapping stresses and not to apply operating forces to the pipeline it is recommended to mount pipe right next to the valve onto the wall (DN15-DN50 with mold in threaded socket and mounting plates, DN 65 – 125 with integrated mounting link).

Furthermore the Diaphragm valve and pipes should be aligning.

Solvent according to DVS-guidelines DVS 2204 Part 5 for PVC.

Only approved welders are allowed to perform plastic welding in accordance to DVS guidelines DVS 2207 Part 11 for PP and DVS 2207 Part 15 for PVDF.

Pipe installation has to performed in accordance with DVS 2210 Part 1.

### 2. Operation

Please control in unpressurized status the body-connection-screw torque with the table below (Torque for Body-connection-screw), and if it necessary please retightening.

Tightening torque of screws [Nm]		
Dimension	EPDM - FPM	EPDM/PTFE
DN15/20	3	5
DN25	4	6
DN32/40	11	14
DN50	14	19
DN65/80	24	29
DN100/125	29	39

A pressure test due to Pressure Equipment Directive has to be performed before start up and documented.

The test pressure will be calculated with the lowest nominal pressure by pressure testing device.

After the pressure check of the whole piping-system, you have to redraw all union nuts in unpressurized system.

Please follow the operating instruction of the manufacturer during putting the actuator into service. The initial operation has to be done by a qualified expert.

### 3. Current use

The rated published pressure and temperature limits have to be obeyed – for details visit our website ([www.praherplastics.com](http://www.praherplastics.com)). Pressure and temperature relate to media which PP and PVDF are inert. In case of uncertainty please look it up in a chemical resistance list.

Additionally the Diaphragm valve is neither tested nor approved for usage in gas systems.

Closing torque of gear wheel [Nm]		
Dimension	EPDM - FPM	EPDM/PTFE
DN15/20	3	5
DN25	5	7
DN32/40	9	11
DN50	10	15
DN65/80	19	29
DN100/125	39	44

### 4. Service

- Use only Silicone- or Polyglycol based lubricants for EPDM gaskets
- The wastage of the diaphragm refer to the operating cycles and media
- Control Diaphragm constant to wastage – if necessary change them

### 5. Dismantling instruction

**Caution:** Do not dismantle pressurized system.

- Flange connection
  - Drain pipeline
  - Loosen flange bolts
  - Take valve out of system and do not misplace gaskets
- Thread, Fusion, Solvent socket
  - Drain pipeline
  - Loosen union nuts
  - Take valve out of system and do not misplace gaskets

### 6. Caution

- Do not loosen bolts or screws in a pressurized system
- Drain system before dismantling
- Never put the actuator in service when the valve isn't installed.