

Service and maintenance manual

PVM-035

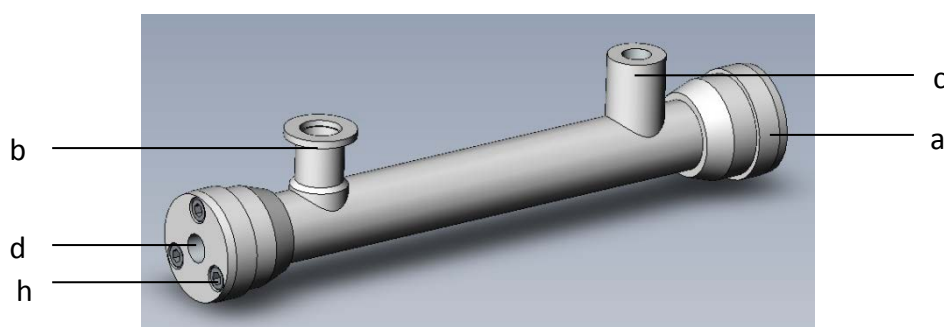
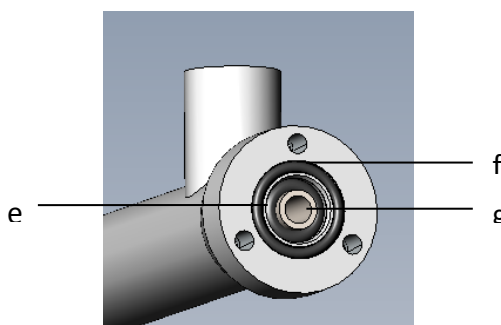
Introduction

The PVM-035 module is designed to hold one 25 cm ceramic tubular membrane element for use in pervaporation or vapour permeation applications.

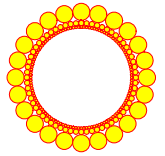
Standard Membranes:	HybSi [®] , PDMS, Optimised Silica, Silica (see membrane data sheets)
Pressure housing:	SS316
Membrane area:	0,005 m ²
Feed, Retentate conn.:	¼" FNPT
Permeate conn.:	NW16 KF
Pressure Gauge conn.:	¼" FNPT
Sealing of membrane tubes:	O-ring
O-rings:	10 x 3 mm, EPDM PC, 70 Shore A(standard) Viton [®] , 75 Shore A (option) Kalrez [®] Spectrum™ 6375, 75 Shore A(option)

Components

- Flange
- Permeate connection
- Pressure gauge connection
- Feed connection
- O-ring 10 x 3 mm
- O-ring 19,18 x 2,46 mm
- Membrane
- Bolt M6x12



Membrane module PVM-035



Disassembling

1. Remove the module from the installation (Attention!: make sure the system is purged)
2. Unbolt the flange (a) at one side by loosening the M6 bolts (h). Be sure to hold the flange while removing the bolts to prevent falling or turning of the flange which can damage the flange or the membrane (g).
3. Repeat previous step for the flange at the other side of the module.
4. Wet both O-rings (e) with for instance iso-propanol and press the membrane carefully from one side into the module. Use also contra-pressure to make sure the membrane is removed gently avoiding damage. Press the membrane into the module until the O-ring at one side slides off.
5. Pull the membrane carefully out of the module to the side with the O-ring still around the membrane.
6. Remove the second O-ring when the membrane is out of the module.
7. Remove the two larger O-rings (f) from their chamber.

Assembling

1. Slide wetted O-ring (e) onto one side of the membrane (g).
2. Carefully insert the membrane into the module and press the O-ring in the O-ring chamber.
3. Install the wetted O-ring at other side by pressing it gently into the O-ring chamber. Make sure the membrane is centred in the module.
4. Place the two larger O-rings (f) in their chamber.
5. Mount the two flanges (a) and secure them with the M6x12 bolts (h). Make sure the flanges are centred to avoid membrane damage.
6. Connect the module to the installation. The pressure gauge connection (c) can be used to connect a vacuum meter or for purging. In case the connection is not used it should be plugged.