

MEG 900 - 12,500

Membrane contactors for installation in UP units

The membrane contactor is used to remove dissolved CO₂ up to 30 mg/l from reverse osmosis permeate and it works by applying membrane diffusion. For unit sizes 900 - 6,600 l/h, the membrane contactor is operated with compressed air, for unit size 12,500 l/h, the scope of supply includes a side channel compressor.

BENEFITS

- Sturdy and reliable physical process, no chemical consumption
- Compact installation on skid of UP-S7 units is included

APPLICATIONS

- Improves efficiency of downstream EDI (particularly important, if very low silica concentrations are required in the diluate)
- Reduction of dissolved CO₂ in the permeate from 30 mg/l to < 5 mg/l, thereby significant reduction of conductivity
- For special applications such as oxygen removal, FDA approved modules or permeate with CO₂ values > 30 mg/l please contact us



Membrane contactor module

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DESCRIPTION

Membrane contactor

- Membrane module with PP hollow fibers
- Filter unit for stripping air (0.2 µm)
- Flow meter (rotameter) for stripping air with control valve
- Solenoid valve 24 V DC for stripping air and ball valve for water-side drain
- Side channel compressor (SV) for generating the air flow included with MEG 12500 SV

The installation of the membrane contactor on the skid of the ultrapure water series UP-S7 and the piping in PVC are included in the price. The membrane contactor is controlled by the PLC Siemens S7-1200 of the UP-S7.

CONDITIONS OF USE

For unit sizes 900 - 6,600 l/h, oil-free compressed air is required on site.

The unit is designed for a CO₂ concentration in the feed of 30 mg/l, a water temperature of 15 °C and a CO₂ concentration < 5 mg/l after degassing. The minimum achievable CO₂ concentration in the permeate is approx. 2 mg/l. The degassing performance depends on the CO₂ inlet concentration, the set air volume, the flow rate and the water temperature.

Maintenance of the filter cartridge must be carried out every 12 months. The following parameters must be maintained:

Specification oil-free compressed air	1 - 6 bar / 5 - 35 °C
Pressure after filter regulator max.	0.7 bar

TECHNICAL DATA OF SERIES

Operating pressure	0 – 6.0 bar
Pressure fluctuation	± 0.5 bar
Ambient temperature	0 – 35 °C

Product name	Mains connection	Required air flow approx.	Suitable for mounting in	Item number
Permeate l/h	kW / V / Hz	Nm ³ /h at 25 °C		
MEG 900 DL	0.008 / 24 / -	2 – 10	UP-S7 150 - 800 (FU)	425 228
MEG 2500 DL	0.008 / 24 / -	5 – 8	UP-S7 1100 - 2200 FU	425 229
MEG 6600 DL	0.008 / 24 / -	5 – 25	UP-S7 3000 - 6000 FU	425 230
MEG 12500 SV	1.5 / 3 x 400 / 50	40 – 50	UP-S7 8200 - 12500 FU	425 231