

ROTEC M

Reverse Osmosis Unit

The ROTEC M series consists of compact reverse osmosis systems which provide water quantities of 500 - 3 500 l/h. These units are mounted on a frame stand and thus enable the installation of a reverse osmosis system even in confined spaces.

Properties:

- low energy input at high output
- fully automatic reverse osmosis
- highly efficient membrane system
- completely pre-assembled
- reliable operation with integrated product conductivity monitoring
easy commissioning

Components:

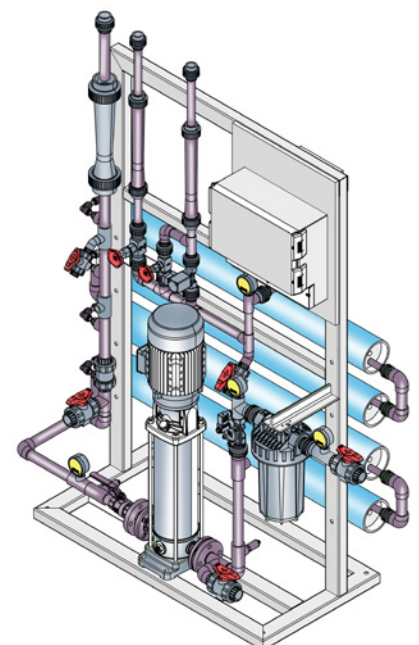
- stainless steel frame
- 5 µm fine filter
- multistage, vertical high pressure pump
- GFRP pressure vessels
- reverse osmosis membrane
- conductivity monitoring
- microprocessor control
- all fittings and measuring instruments necessary for the installation of the plant
and monitoring the hydraulic parameters

Operating Conditions:

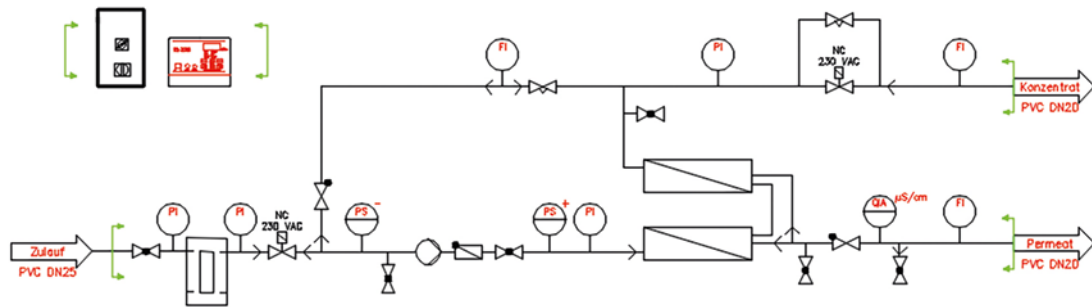
Hereinafter, the requirements for the inlet water:

Inlet pressure	2-6 bar
Temperature range	5-40° C
pH range	2-11 constant 1-12 momentary during cleansing
Colloid index (SDI 15)	< 3
Permeate counterpressure	< 0.05 mg/l
Free chlorine (Cl ₂)	< 0.1 mg/l
Iron (Fe)	max. 0.1 mg/l
Manganese (Mn)	max. 0.05 mg/l

Further requirements are listed in the obligatory operating conditions for reverse osmosis systems.



Process diagram



sample scheme

Technical Data:

Type		ROTEC M500	ROTEC M750	ROTEC M1000	ROTEC M1500	ROTEC M2000	ROTEC M2500	ROTEC M3000	ROTEC M3500
Permeate volume**	l/h	500	750	1 000	1 500	2 000	2 500	3 000	3 500
Feed flow	l/h	630	940	1 250	1 880	2 500	3 130	3 750	4 380
Concentrate volume**	l/h	130	190	250	380	500	630	750	880
Operating mode		Reverse Osmosis							
Output	%	75-80							
Salt rejection*	%	> 96							
Operating pressure*	bar	12							
Electric connection		400V, 50Hz, 1,5kW				400V, 50Hz, 3kW		400V, 50Hz, 4kW	
Membrane type*		LC LE 4040							
Membrane quantity		2	3	4	6	8	9	11	12
Circuit		1:1	1:1:1	1:1:1:1	1:1:1	2:1:1	2:1	2:1:1	2:1:1
Connection	Inlet Permeate Concentrate	DN25 DN20 DN20				DN25 DN25 DN20	DN32 DN25 DN20	DN32 DN25 DN25	
Dimensions	Length (mm) Width (mm) Height (mm)	1 200 500 1 800			2 200 550 1 800			3 200 550 1 800	

*all specifications are approximate

**under standard conditions