

ROTEC M

REVERSE OSMOSIS UNIT

The ROTEC M series is a compact reverse osmosis system supplying water volumes of 250 to 1,500 l/h. The systems are designed as standard frame systems, and they also offer the possibility in confined spaces to use a reverse osmosis system by virtue of their compact design.

Features:

- Low energy consumption with high yield
- Fully automatic reverse osmosis
- Highly efficient membrane system
- Completely preassembled
- Reliable operating mode with product flow value monitoring
- Simple start-up

Components:

- Stainless steel frame
- 5 µm fine filter
- Vertical, multi-step high-pressure GPR pump
- Pressure pipes
- Reverse osmosis membrane
- Parameter monitoring
- Programmable logic control with remote monitoring and connection to control stations
- All required fittings and measuring instruments for configuration of the system and control of hydraulic parameters

Operating conditions:

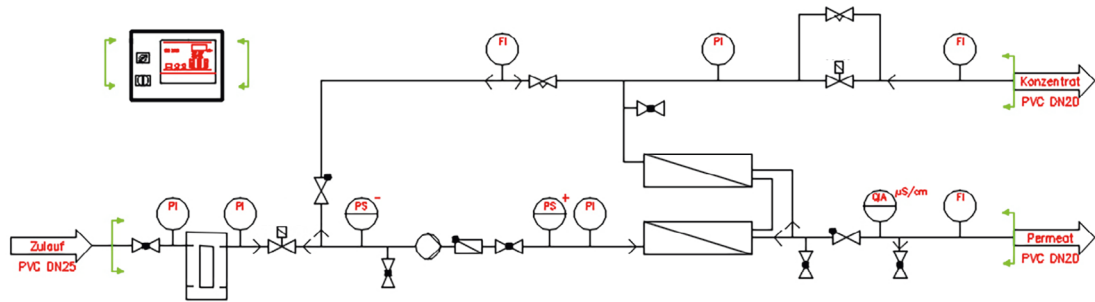
The requirements for the water inflow to the systems are listed below:

Inlet pressure	2-6 bar
Temperature range	5-40° C
pH-range	2-11 continuously
	1-12 during cleaning
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 operating conditions are listed under the required operating conditions for reverse osmosis systems.



Process diagram



Example diagram

Technical data:

Type		ROTEC M250	ROTEC M500	ROTEC M750	ROTEC M1000	ROTEC M120	ROTEC M1500
Permeate volume**	l/h	250	500	750	1000	1250	1 500
Inlet quantity**	l/h	310	630	940	1250	1560	1 800
Concentrate volume**	l/h	60	130	190	250	310	380
Operating mode		Reverse osmosis					
Yield	%	75-80					
Salt detention*	%	> 96					
Operating pressure*	bar	12					
Electr. connection		400V, 50Hz, 1.5kW					
Membrane type*		BW30 HRLE 440					
Number of membranes		1	2	3	4	5	6
Number of pressure pipes		1	2	3	4	5	6
Activation		-	1:1	1:1:1	1:1:1:1	1:1:1:1:1	1:1:1:1:1:1
Connection	Input Permeate Concentrate	DN25 DN20 DN15					
Dimensions*	Length (mm) Width (mm) Height (mm)	1 400 500 2 000					

*All data are approximate values

**For standard conditions