

## Product data sheet reverse osmosis

Reverse osmosis systems **remove salts and organic substances almost completely**. The natural process of osmosis (the effort of equalizing the concentration of two liquids separated by a selective permeable membrane) is reversed with the help of pressure.

Membrane processes:

- **Ultrafiltration:** Reduction of microbial loads
- **Nanofiltration:** partial desalination
- **Reverse osmosis (RO):** removes salts and org. substances almost com-

### Applications

- Potable water treatment
- Process water
- Waste water treatment
- Boiler feed water treatment
- And many more

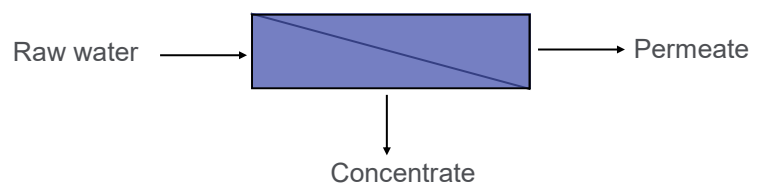


Figure 1: pictorial schematic of a membrane module

### Technial data

For desalination of softened water with a salt content of less than 1,000 mg/l. Capacities dependent on raw water quality and operating point. Data on permeate capacity specified at nominal operating point.

Model series	Permeate [m <sup>3</sup> /h]	Yield [%]	Desalination rate [%]	Raw water consumption [m <sup>3</sup> /h]	Dimensions
UO 80 ND	0,08	75 – 80	96 – 99	0,1	Version dependent
UO 130 ND	0,13			0,2	
UO 300 ND	0,30			0,4	
UO 500 ND	0,50			0,6	
UO 1.000 ND	1,00			1,3	
UO 2.000 ND	2			2,6	
UO 3.000 ND	3			3,8	
UO 4.500 ND	4,5			5,7	
UO 7.000 ND	7			9,1	
UO 10.000 ND	10			12,8	
UO 12.000 ND	12			15,4	
Large-scale systems	> 12			On Request	On Request

## Technical data of high pressure systems

For desalination of water with a salt content between 1,000 mg/l and 45,000 mg/l. Capacities dependent on raw water quality and operating point. Data on permeate capacity specified at nominal operating point.

Model series	Permeate [m <sup>3</sup> /h]	Recovery [%]	Desalination rate [%]	Pressure level [bar]	Dimensions
UO 4 HD	0,004	33 - 75	96 – 99	40 - 80	Version dependent
UO 80 HD	0,08				
UO 200 HD	0,2				
UO 650 HD	0,65				
UO 1.000 HD	1				
UO 2.500 HD	2,5				
UO 5.000 HD	5				
UO 10.000 HD	10				
UO 20.000 HD	20				
Large-scale systems	> 20				

### Your benefits

- **Modular systems with various options - expandable at any time**
- **Robust industrial design**
- **Simple system design**
- **Individual solutions possible**
- **Option examples: Permeate recirculation , cleaning system (CIP), blending system, constant control unit, other materials, antiscalant dosing, energy recovery system.**

Subject to technical changes