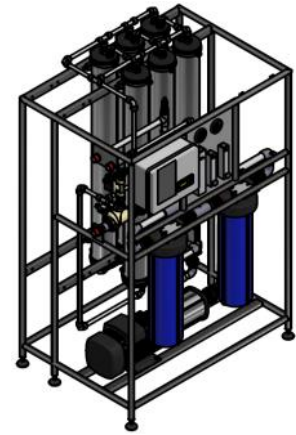


Reverse Osmosis Equipment installed with Grundfos pump

For desalination the salinity of the filtered and softened or chemically conditioned water can be 1000 mg/l, above that salinity the working conditions of the device are going to be changed. Inlet water has to be free of Chlorine, colloidal Silica, parameters as Ba, Sr, Mn, Al, F, PO4 and COD to be within WHO standards, turbidity < 0.5 NTU and SDI < 3.
 The amount of water produced depends on the raw water quality, temperature and conductivity.
 Required raw water pressure is 2-4 bar.



BlueClear-RO-1500/4-G

Parts of the RO system:

- 1 compact frame made of stainless steel
- 1 mechanical prefilter with 0,5µm PP filter cartridge
- 2 pressure gauges filled with glycerine, made of stainless steel
- 2 magnetic valve, made of brass
- 1 pressure switch for raw water, made of brass
- 1 high pressure pump (R series—rotary, S series—Shimge, G series—Grundfos)
- 1- 9 pressure vessels made of stainless steel
- 1- 9 membrane modules made of composite membrane (PE, PS, PA*)
- 1 Flow meter for permeate, made of polyamide
- 1 Adjustable flow meter for recirculation
- 1 Adjustable flow meter for concentrate
- 1 Piping made of quick fittings and PVC.
- 1 Control panel (display system processes, automatic flush during system start and stop, controlling of biocid and antiscaling dosing pumps, manual system start, conductivity measurement and display)

BlueClear RO	R series (90l/h)	R series (150-500l/h)	SC series (300-600l/h)	S series (300-1500l/h)	G series (300-2500l/h)
Up to 2-3 hours of continuous operation	X	X			
Continuous operation (except membrane rinses)			X	X	X
1 phase impeller pump	X	X			
3 phase horizontal shaft pump					X
3 phase vertical shaft pump			X	X	
Mounted on PP sheet	X				
Mounted on powder coated carbon steel frame			X		
Mounted on stainless steel frame		X		X	X

Part No.	Products description	Rec.	Flow 25-10 °C	Connection	Grundfos pump	Pump power	Prefilters Membranes
BlueClear-RO-300/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	380-300 L/h	Bemenet—1/2" Kimenet—1/2" Csatorna—1/2"	CMI-3-12	1,58kW	1pc FCPPS-20B005 1pc ULP21-4040
BlueClear-RO-600/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	750-600 L/h	Bemenet—1/2" Kimenet—1/2" Csatorna—1/2"	CMI-3-12	1,58kW	1pc FCPPS-20B005 2pcs ULP21-4040
BlueClear-RO-900/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	1080-900 L/h	Bemenet—1" Kimenet—1/2" Csatorna—1/2"	CMI-3-12	1,58kW	1pc FCPPS-20B005 3pcs ULP21-4040
BlueClear-RO-1200/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	1410-1200 L/h	Bemenet—1" Kimenet—1/2" Csatorna—1/2"	CMI-3-14	2,2kW	1pc FCPPS-20B005 4pcs ULP21-4040
BlueClear-RO-1500/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	2000-1500 L/h	Bemenet—1" Kimenet—1" Csatorna—1"	CMI-3-14	2,2 kW	2pc FCPPS-20B005 6pcs ULP21-4040
BlueClear-RO-2000/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	2500-2000 L/h	Bemenet—1" Kimenet—1" Csatorna—1"	CMI-3-14	2,2 kW	2pc FCPPS-20B005 8pcs ULP21-4040
BlueClear-RO-2500/4-G	Industrial reverse osmosis system with membranes and centrifugal pump	75%	3000-2500 L/h	Bemenet—1" Kimenet—1" Csatorna—1"	CMI-5-13	3,2 kW	2pcs FCPPS-20B005 9pcs ULP21-4040

Reverse Osmosis Equipment installed with Grundfos pump

Technical data (SDI ≤ 1)	BlueClear RO-300/4-G	BlueClear RO-600/4-G	BlueClear RO-900/4-G	BlueClear RO-1200/4-G	BlueClear RO-1500/4-G	BlueClear RO-2000/4-G	BlueClear RO-2500/4-G	unit
Permeate flow rate at 10-15°C and between 600-1000ppm	approx. 0.3	approx. 0.6	approx. 0.9	approx. 1.2	approx. 1.5	approx.. 2.0	approx. 2.5	(m³/h)
Permeate flow rate at 25°C, 600ppm salinity	approx. 0.4	approx. 0.7	approx. 1.1	approx. 1.4	approx. 2.0	approx. 2.5	approx. 3.0	(m³/h)
Operating pressure at 15°C, 600mg/l (1000ppm) salinity	approx. 11.3 (12.8)	approx. 11.2 (12.8)	approx. 11.1 (12.4)	approx. 11.2 (12.8)	approx. 9.4 (10.7)	approx. 9.4 (10.5)	approx. 10.4 (11.6)	(bar)
Operating pressure at 10°C, 600mg/l (1000ppm) salinity	approx. 13.2 (14.8)	approx. 13.1 (14.7)	approx. 13.1 (14.4)	approx. 13.1 (14.7)	approx. 11.0 (12.3)	approx. 10.9 (12.1)	approx. 12.2 (13.4)	(bar)
Permeate quality 10°C, 600mg/l salinity	approx. 10.2 approx. 15.9	approx. 3.5 approx. 5.5	approx. 3.2 approx. 5.0	approx. 3.5 approx. 5.5	approx. 4.6 approx. 7.2	approx. 4.2 approx. 6.6	approx. 3.7 approx. 5.8	(mg/l) (µS/cm)
Recovery	75% (max. 80%)	75% (max. 80%)	75% (max. 80%)	75% (max. 80%)	75% (max. 80%)	75% (max. 80%)	75% (max. 80%)	(%)
Raw water consumption	kb. 0,4	kb. 0,8	kb. 1,2	kb. 1,6	kb. 2,0	kb. 2,7	kb. 3,3	(m³/h)
Membrane connections	1x1	1x2	1x3	2x2	2x3	2x4	3x3	
Power installed	2,2	2,2	2,2	2,2	2,2	2,2	3,2	(kW)
Connections: raw water, permeate, concentrate	1/2", 1/2", 1/2"	1/2", 1/2", 1/2"	1", 1/2", 1/2"	1", 1/2", 1/2"	1", 1", 1"	1", 1", 1"	1", 1", 1"	(")
Dimensions: H x W x D	1370 x 390 x 650	1370 x 390 x 650	1580 x 840 x 500	1580 x 840 x 500	1800 x 1060 x 800	1800 x 1060 x 800	1800 x 1060 x 800	(mm)