

Water Treatment

Good humidification starts with good water. For this reason, we integrate water treatment into our systems. The most important device is the Reverse Osmosis device. Highly efficient filtration method removes all bacteria, viruses and minerals in the water by 97%. Therefore, reverse osmosis forms the basis of reliability against the system and Legionella.

Reverse Osmosis unit is either fully integrated into the system (CombiCompact) or integrated (Cumro Express).

Water is softened using ion exchangers to prevent premature damage of reverse osmosis membranes.

Water treatment can be mounted as a single unit without humidifiers. Standard products capacity range is 4 l/h to 2000 l/h. VDI-6022 standards hygge certified.



Cumro 2000 Reversed Osmosis 500 - 2000 l/h

Reverse Osmosis Membrane is used as a filter to remove water-insoluble substances. The Reversed Osmosis method is an excellent and inexpensive method to purify water. The osmosis foundation is based on the rotation by pressing water around the semi-permeable membrane. Thin molecules in pure water go through the membrane which large parts or molecules cannot. The parts which are not passed through the membrane are discharged together with the drained water. Pure water passing through the membrane is called reverse osmosis water.

Technical Details

	CUMRO 500	CUMRO 750	CUMRO 1000
Capacity (l/h)	500	750	1000
Dimensions (LxHxW) mm	600x1300x600	600x1300x600	600x1300x600
Weight (kg)	80	85	90
Number of osmosis membranes	2	3	4
Reverse Osmosis pump pressure (bar)	12-13		
Demineralization efficiency(%)	97-99 %		
Voltage (Volts/Hz)	400/50		
Water capacity (1/hr)	650	975	1300
Min. Dynamic water pressure (bar)	2	2	2
Max Dynamic water pressure (bar)	4		
Min.-Max. ambient temperature (°C)	5-80		
Max water inlet temperature (°C)	25		
Dry running pump pressure	0.8 bar		
Outlet pressure	2-5		
Water inlet size	3/4"		
Drain tube (mm)	20x13		
Non-ionized water (µS/cm)	20<		
Part size before pre-filtration (µm)	<10		
power (kW)	0,7	1,2	1,7
Max power (kW)	2,2		
Current (Amps)	6,3		
Waterfresh system	Including		
Control Unit	2 pressure gauges for pressure control, heat-resistant electric motors. High-pressure pump		





Water Softening

The lifespan of Reverse Osmosis membranes is related to the calcium and magnesium in the water. For this reason, we recommend the water softening device before the Reverse Osmosis device.

Cumulus Combi Compact

The Combi Compact is a unique unit of reverse osmosis, and a high-pressure pump combined into a single structure.

The device is surrounded by a Stainless-Steel cabinet.

All pressure gauges and controls are integrated on the front of the instrument for optimal operation.



Technical Specifications

	COMBI COMPACTING HD60 RO140 40V	COMBI COMPACTING HD120 RO140 40V	COMBI COMPACTING HD220 RO280	COMBI COMPACTING HD280 RO280 40V	COMBI COMPACTING HD380 RO280 40V
Max. Pump Capacity (1/hour)	60	120	220	280	380
Max. Reverse Osmosis Capacity (1/hour)	140	140	280	280	280
Dimensions (LxHxW) mm	400x800x1200				
Weight (kg)	65	70	75	80	85
Water conductivity (µS)	5-20				
Operating pressure (bar)	70-100				
Operation Power (kW)	0,8	1	1,5	1,8	2,2
Control signal	0-10v-4-20 m A				
Ability to connect to the Air Handling Unit	Yes				
Stand-alone operation	Yes				
Max. amount of zones	12				
Waterfresh safety	Yes				
Auto restart at power failure	Yes				
External warning signal	Optional				
Maintenance signal	Yes				
Monitoring at distance	Optional				
Water pressure safety	Yes				
Overload protection	Yes				
Dynamic water pressure (bar)	3				
Min. / Max. temperature °C	0-40°C				
Power connection	400V AC				