CONDAIR RO-E

Improved water quality for
efficient and hygienic humidification

Humidification, Dehumidification
and Evaporative Cooling

condair

RO water for improved humidification

Reverse osmosis (RO) is an effective and economic way of removing minerals from water. The Condair RO-E has been developed specifically to provide operational, energy and maintenance benefits to Condair humidifiers.

By removing the minerals from a humidifier's supply water, the limescale that builds-up in the system is virtually eliminated. This results in a much lower level of required maintenance in all types of humidifier and reduced energy consumption in steam humidifiers.

Steam humidifiers that run on mains water need to drain their boiling chambers occasionally to maintain a low mineral content and reduce limescale build-up. By using RO supply water, the steam humidifier's boiling chamber does not require this regular drain. Therefore, it uses less energy to maintain the water's temperature.

As the water temperature is consistent, the steam output is also consistent, thus improving humidity control. By using resistive steam humidifiers fed by RO water, ±1%RH control can be achieved.

Other benefits of using RO water with humidifiers include increasing the life of the evaporative pads in evaporative humidifiers and preventing dust carry-over in spray humidifiers.

Benefits

- Virtually eliminates scale build-up in humidifiers
- Reduces maintenance time and cost
- Reduces energy consumption
- Enables precise humidity control
- Extends humidifier life
- Eliminates bacteria for improved hygiene

Controls

The optional touch-screen controller can be mounted directly on top of the Condair RO-E or remotely located.

The Condair RO-E can be controlled via any Condair humidifier incorporating the built-in touch-screen interface.

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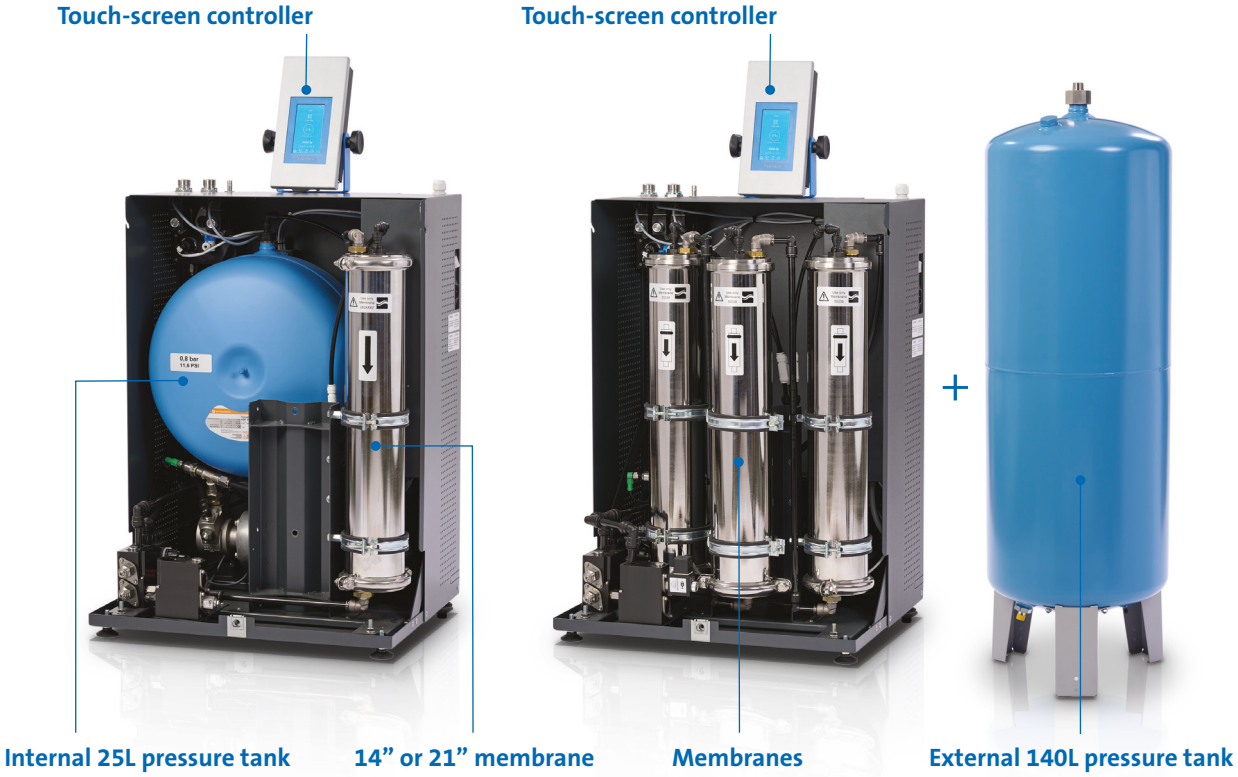
Models

Condair RO-E40 / 100
A compact solution with a small footprint, one membrane and an 25L integrated pressure tank.

Condair RO-E200 / 300
A compact solution with two or three membranes and an external 140L pressure tank.

Condair RO-E+
A solution for adiabatic humidifiers, with very pure water and increased hygienic operation.



Easy to remove cover, allowing full access to internal components.

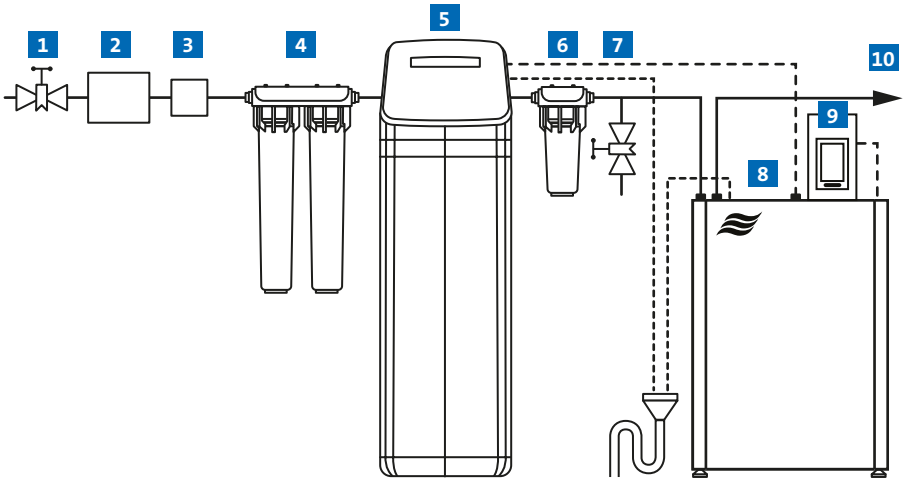
The Condair RO-E is a water filter designed specifically for use with humidifiers. It provides water at an ideal quality for humidification systems, while minimising waste water.

The filtration system has a typical dissolved solids rate of 95% and a recovery rate of 50% when used with hard water and 70% when used with softened water.

Four models are available with maximum outputs from 40 to 300 litres per hour.

Typical system layout

1 Shut-off valve (mandatory)
2 System separator (as per water regs)
3 Pressure reduction valve (for >6 bar pressure)
4 Pre-filter/s (optional)
5 Water softener (optional)
6 Filter 5µm (mandatory with water softener)
7 Sampling tap (optional)
8 Condair RO-E (RO-E200 & RO-E300 have external tank)
9 Touch screen controller
10 To the humidifier



Technical data

Condair RO*		RO-E 40	RO-E 100	RO-E 200	RO-E 300
Power Consumption (VA)		640	640	850	1,000
Permeate (l/h @ 5°C and 1 bar)	RO-E	58	105	200	285
	RO-E+	36	67	124	171
Permeate (l/h @ 15°C and 1 bar)	RO-E	98	181	352	513
	RO-E+	59	114	218	312
Max permeate flow (m³/day @ 15°C and 1 bar)	RO-E	2.35	4.35	8.45	12.31
	RO-E+	1.42	2.74	5.23	7.49
Nominal pressure tank capacity (l)		Internal 25		External 140	
Recovery hard water		50%			
Recovery softened water		70%			
Inlet pressure (bar)		1.6 - 6			
Water temperature (°C)		5 - 20			
Rejection rate (min/max)		95/98%			
Power supply (V/Hz)		120V/230V 50-60 Hz			
Connections and dimensions					
Inlet water		G 3/4"			
Permeate		G 3/4"			
Drain hose fittings (mm)		ø10			
Condair RO-E Dimensions H x W x D (mm)		792 x 587 x 484			
External pressure tank dimensions diameter x H (mm)		410 x 1,430			

* RO-E for use with isothermal humidifiers and RO-E+ for use with adiabatic humidifiers

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