



Condair EL Series

Electrode Steam Humidifier



Humidification, Dehumidification and Evaporative Cooling



Tried, true, and trusted electrode steam technology

Intelligent Design for Quick Maintenance

Cylinders can be replaced in minutes ensuring reliable humidity control and minimal downtime.



Electrode Plugs

Robust and touch protective electrode plugs for easy and safe cylinder change.

Minimize Water Usage

Auto-adaptive control cycle is used to ensure cylinders operate with minimal water usage and experience the longest possible life.

Auto-Tempering of Drain Water

The drain valve combines hot drain water with colder supply water to ensure the water leaving the humidifier to drain is no more than 140°F (60°C).





Steam Distribution Options



EL with steam hose for use in duct.



EL with fan unit for direct room humidification.

Large Output from a Single Unit

The EL Series is available with a single cylinder for outputs up to 100 lbs/hr (45kg/hr) and a double cylinder model for outputs of up to 200 lbs/hr (90kg/hr). Up to twelve single units can be controlled on a main/extension configuration (LinkUp) for outputs up to 1200 lbs/hr (545 kgs/hr).

Touch Screen Control Panel

Advanced user interface offers detailed operational control and diagnostic reporting. A USB connection allows performance data to be downloaded into Excel, as well as software updates to be loaded.

Easy Integration into Building Management Systems

Standard connection using Modbus, BACnet IP, and BACnet MSTP. Option required for LonWorks or BLT certified BACnet.

Modbus[®]

ASHRAE BACnet[™]

The EL Series electrode boiler steam humidifier provides hygienic steam for either in-duct, or direct air humidification.

Servicing is simple and quick through replacement of the steam cylinder when it becomes full of scale. The humidifier is returned to operation rapidly controlling and maintaining humidity control.

The steam cylinders of the EL Series last up to three times longer than similar models due to advanced water quality management and staged electrode use. The unit is easy to install and its touch screen controller makes it simple to use.

EL Series Outdoor Enclosure

Heavy-Duty Weatherproof Cabinet

Robust outdoor cabinet provides protection from all of the elements. Complete shielding from rain, snow and dust to allow for installation in all climates.

Compact Design

Fully integrated enclosure to minimize the outer cabinet dimensions. Industry leading space efficiency to optimize the available rooftop area.

Standard Remote Status Indication

Outdoor model complete with remote status relay board which indicates if the unit is operating, producing steam, requires maintenance or has a fault.



Wide Temperature Range

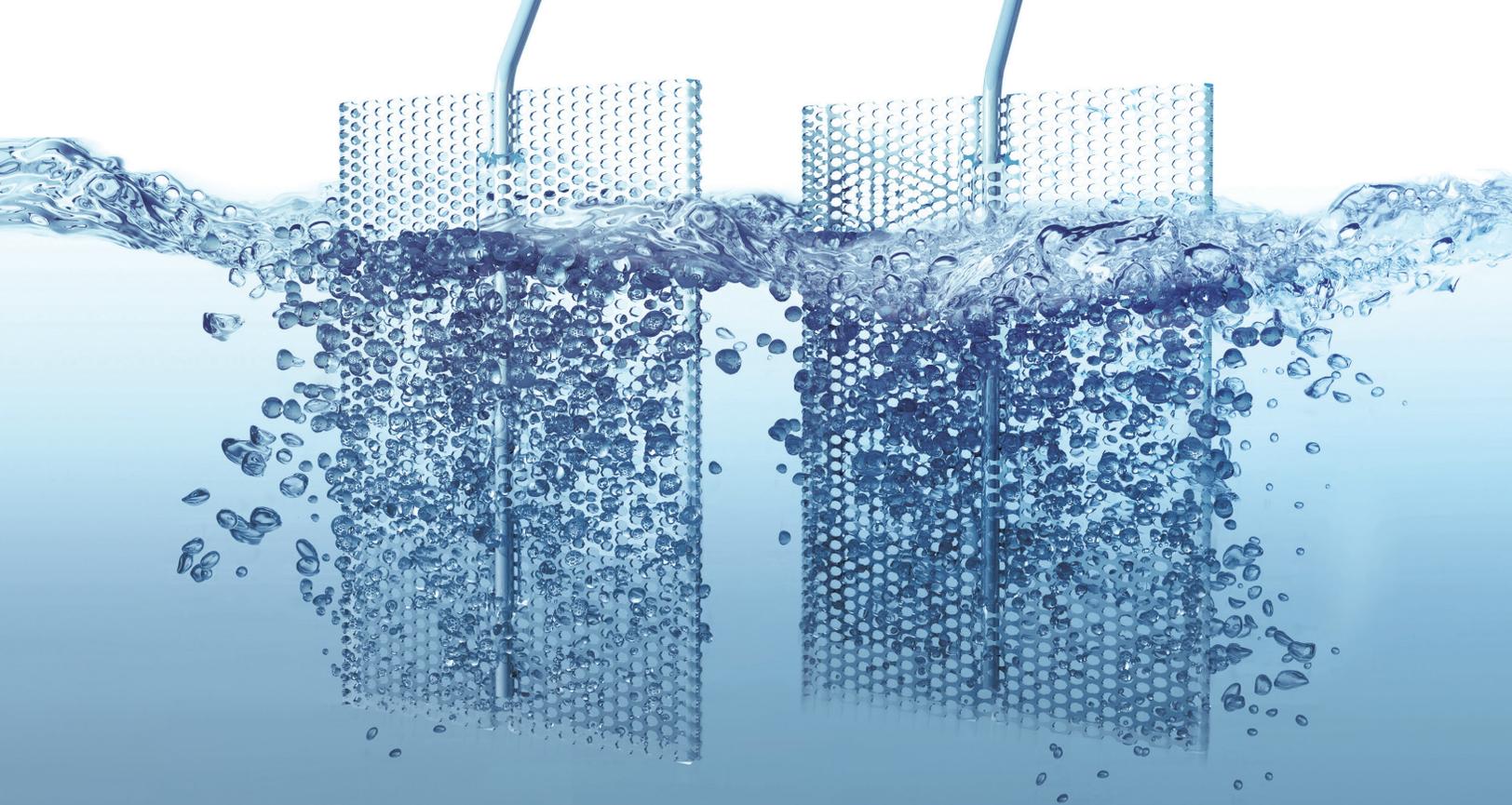
Built-in heater designed to maintain full operational capabilities of the unit down to -40°F (-40°C).

Single Power Supply

Standard 120V transformer internal to the electrical cabinet allows for the built-in heater to be powered directly from the single power supply to the humidifier.

Touch Screen Display

Now fully integrated with the Indoor unit, providing a flexible and user friendly controller interface. Provides the same convenient building management system connectivity as the Indoor model.



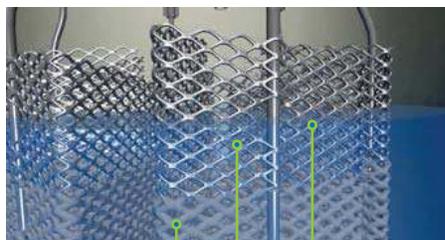
Advanced water quality management extends cylinder life, while saving water and energy.

Long Lasting, High Performing Steam Cylinders

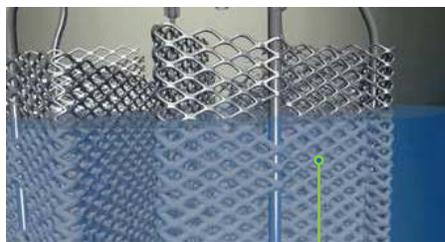
Water Conductivity Management

Electrical current levels in the steam cylinder are monitored, which ensures the mineral concentration of the water remains at an optimal level. When the conductivity of the water becomes too great, the precise volume of water needed to reduce the mineral level sufficiently is drained and replaced with fresh water. This differs from other electrode humidifiers that use a timer controlled drain and a standard.

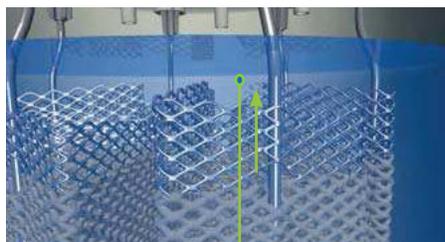
By intelligently monitoring current, precisely controlling mineral levels and minimizing water drainage, scale build-up is controlled, extending the cylinder life, and water consumption minimized. This in turn also reduces the energy needed to heat the fresh supply water.



Water level
Clean electrodes
Scale encrusted electrodes



Scale forms



Water level rises

Staged Electrode Use

Only the lower sections of the electrodes are initially submerged in water. As they become encrusted in scale, the water level rises to submerge clean electrodes. This staged approach to water level control ensures optimal transfer of current to the water throughout the cylinder's long operational lifetime, without any drop in performance efficiency.



Replaceable steam cylinders ensure fast and simple maintenance and minimal downtime.

Benefits of Electrode Steam Technology

Electrode steam technology is an economic, simple and reliable humidification system for in-duct or direct room humidification.

Installation Flexibility

EL humidifiers offer unprecedented installation flexibility. They can be configured for both small and large systems. All EL humidifiers are completely packaged for installation ease. The standard drain water cooling ensures drain water

does not exceed 140°F (60°C) to meet local plumbing codes.

Easy to Service

The EL Series informs the user when a cylinder is full of scale and needs replacing. This is a simple and quick process of draining the unit, removing the old cylinder and replacing it with a new one. This straight forward maintenance keeps downtime to a minimum and maintains humidity control.

Operates on Potable Water
Electrode steam humidifiers operate on potable water without any need for RO, water treatment. This simplifies installation and reduces on-going water consumption.

Economic

The EL Series has an economic capital cost yet is an extremely dependable solution for hygienic steam humidification.

Applications needing pure, clean steam

Productivity and quality of life are closely linked to the indoor environment. People perform better and feel more comfortable in well-regulated surroundings—and the same goes for machines and products. All respond differently to changes in air quality, temperature, and humidity.

To maximize performance and reliability, whether in people or equipment, maintaining the right indoor conditions is essential.

Humidity plays a critical role: too much can be just as damaging as too little.

The EL Series is suitable for a wide range of applications, including:

- commercial offices
- hospitals
- data centers
- museums
- laboratories/clean rooms
- schools
- hot yoga studios
- printing plants



Easy integration into Building Management Systems.

Remote monitoring for peace of mind

The EL Series steam humidifier includes an interface for connection to common BMS systems as standard to enable remote control or remote monitoring with ease. For several humidifiers as part of a more complex installation, the “Linkup” networking system provides a detailed overview of the system with rapid and early response in operation.

EL Series Options

Accessory Board

New option available with on-board relays to turn on an external fan. (AHU or furnace fan).

Built-On Blower Pack (BOBP)

For direct room humidification, the fan unit can be located directly on top of the humidifier or remotely.

Touch controller for precise control

The EL Series incorporates the latest touch screen control panel, providing intuitive operation and extensive reporting information.

All operating parameters can be seen at a glance with on-screen features offering the user further information on operation and detailed trouble-shooting suggestions. The touchscreen interface is easy to navigate. The user simply needs to touch what they want to see on the

display. In case of an operational error, the humidifier will make service adjustments automatically or trigger a shutdown while displaying the error code.

BMS connectivity is included as standard with BACnet and Modbus protocols. BACnet IP, BACnet MSTP, and Modbus are standard. BLT certified BACnet and LonWorks options are also available.

Humidity Sensors and Hygrostats

Full range of in-duct and in-room systems.

Mounting Rack

Adjustable mounting rack for easy installation on-site at different heights.

RMBP Power

Power for a Remote Mounted Blower Pack is from a 120V wall outlet as standard. With an option, power can come from the humidifier.

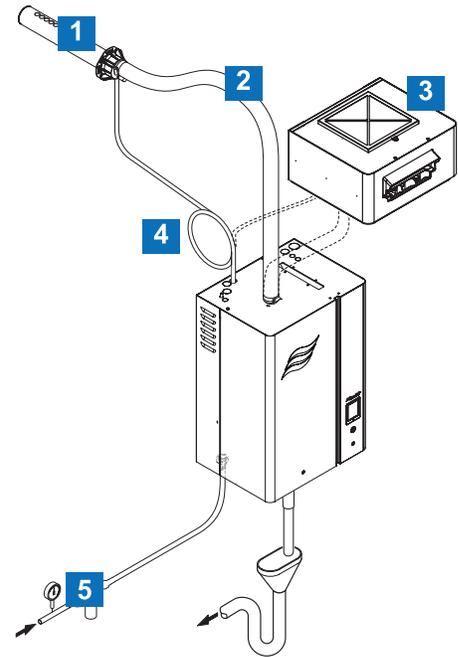


Typical System Overview

- Replacement steam cylinder
- Touchscreen controller for intuitive user-interface
- Internal PI humidity controller
- Self-diagnostic system
- Real-time clock
- Modbus and BACnet connectivity
- BACnet IP, BACnet MSTP, and Modbus as standard
- BLT certified BACnet and LonWorks options are available

Accessories

1. Steam distribution tube for duct installation
2. Steam distribution hose
3. Remote mounted blower pack for direct room humidification
4. Condensate hose
5. Filter valve



Technical Data

SPECIFICATION	EL 005	EL 010	EL 020	EL 030	EL 050	EL 075	EL 100	EL 150	EL 200
Capacity: lbs/hr	1-5	2-10	4-20	6-30	10-50	15-75	20-100	30-150	40-200
Capacity: kg/hr	1-2	1-5	2-9	3-14	5-23	7-34	9-46	14-68	18-91
Input kW max	1.9	3.7	7.5	11.2	18.7	28.1	37.4	56.1	74.8
Voltage	110-120	208-600	208-600	208-600	208-600	208-600	208-600	208-600	208-600
Phase	1	1	1 and 3	3	3	3	3	3	3
No. of Cylinders	1	1	1	1	1	1	1	2	2
 Built-on Blower Pack	yes	no	no						

Contact us today and ensure you have the best humidification solution for your application.

Condair Group, founded in 1948 and based in Switzerland, is the global leader in humidification and a leading manufacturer of dehumidification and evaporative cooling systems. Supported by science, we engineer individual, holistic solutions that customers can trust through the entire lifecycle. With optimal humidity, we increase productivity and create healthier built environments. Condair Group has production sites in Europe, North America and China, its own sales and service organizations in 23 countries, and representatives in 50 locations worldwide.

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