



ERS-LC SERIES

ELECTRIC STEAM HUMIDIFIERS





Armstrong® The ERS-LC Series

ERS-LC Series is heater type steam humidifier. It is designed to provide sterile steam for applications requiring precise and sanitary humidification. This is the only humidifier with a tilting tank allowing easy and fast maintenance.

Features:

- Capacities from 3 kg/h to 35 kg/h (7 lb/h to 75 lb/h).
- Accept all common signals, native Modbus and BACnet MSTP (slave) protocols.
- Over temperature protection.
- Sanitation system (keeping up tank temperature).
- Menus available in 8 languages.
- Signal accuracy : +/- 2%.

Easy servicing:

- Permanent tilting tank.
- Self-cleaning heater elements in incoloy.
- Maintenance & alert messages on display.
- Cooling cycles before maintenance.



How the ERS-LC Series works

Armstrong Series ERS-LC converts potable tap water to steam and distributes it to bring the relative humidity up to the desired level. It's ideal for providing humidification where no steam is available or where a steam line is too far.

The humidity demand, sensed by the transmitter, is indicated by the ERS-LC demand display. A microprocessor converts this demand signal into an amperage requirement. The internal power contactor closes, heating the resistances, and the fill valve begins to fill the tank.

Water enters the bottom of the steam generator tank and rises until it reaches the heating elements, causing it to boil water and produce steam (Figure 3-1).

When the heating elements are immersed in water, they will cause the water to boil and produce the required amount of steam (Figure 3-2).

Figure 3-3 shows what happens when the humidistat demand signal drops below a minimum demand: The contactor is de-energized, and steam output stops.

A duct high-limit humidistat or an air flow interlock switch may also stop steam output. These devices prevent excess moisture and condensation in the duct.

The ERS-LC Series may also be used in combination with an Armstrong Fan Package for direct area discharge of steam.

A high-water electrode sensor prevents water carryover into the duct due to a high water level in the tank.

An automatic drain cycle blows down mineral-laden water to extend tank life and reduce maintenance.

A high-temperature switch on the tank lid prevents from fire hazards due to overheating of the heating elements.

After a period of no demand, an "End of Season" drain is initiated to eliminate the potential for stagnant water to remain in the tank.

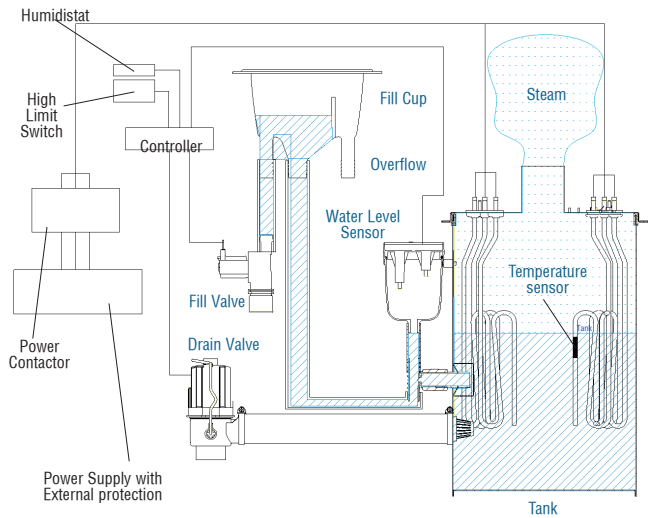


Figure 3-1.

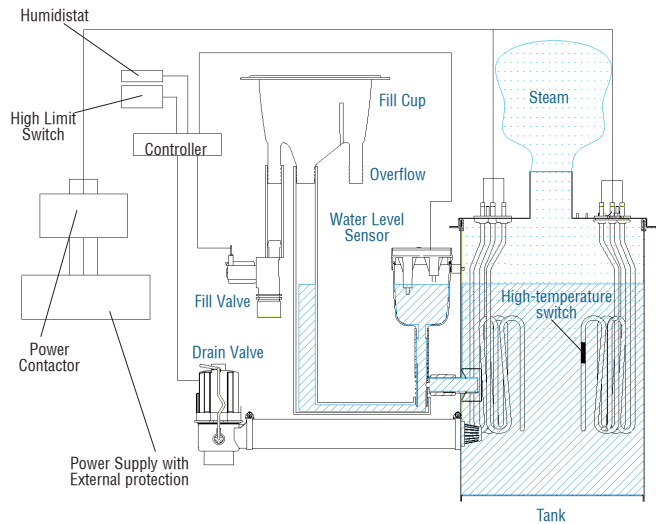


Figure 3-2.

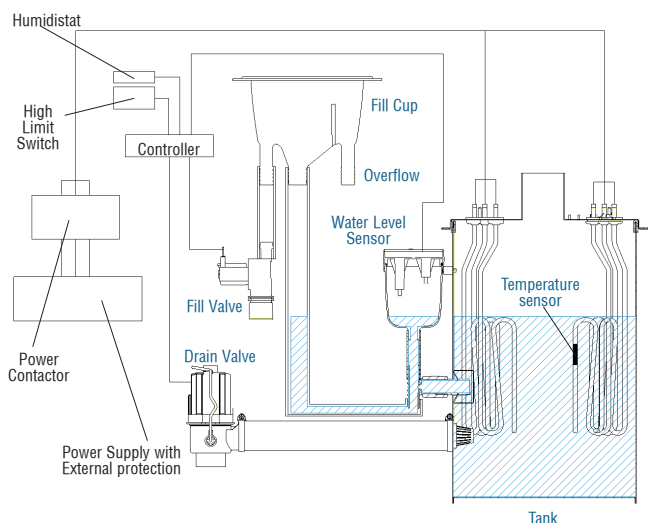
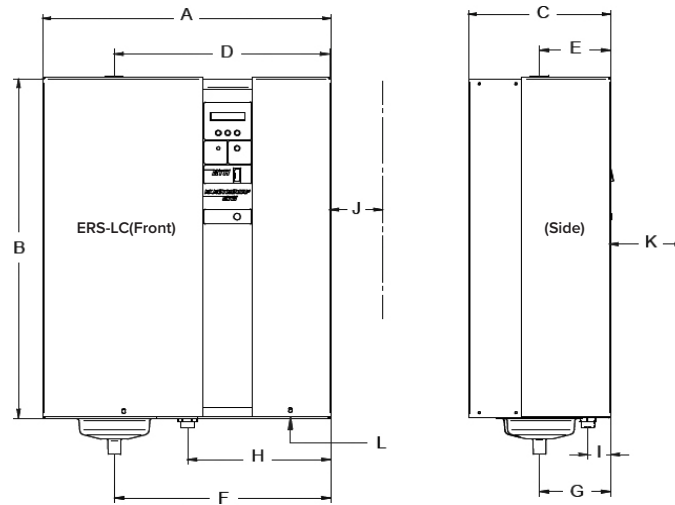


Figure 3-3.

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.



Physical Data		
ERS-LC	inches	mm
A - Width	21.65	550
B - Height	26.77	680
C - Depth	10.71	272
D - Steam Outlet 1	16.14	410
E - Steam Outlet - Side	5.35	136
F - Tank Drain - Front	16.14	410
G - Tank Drain - Side	5.35	136
H - Water Supply - Front	10.63	270
I - Water Supply - Side	1.69	43
J - Clearance - Right	24	600
K - Clearance - Front	49	1250
L - Electrical Inlet Diameter	1" - 2x0.63	25 - 2x16
	lbs	Kg
Weight Operating	77	35
Weight Shipping	55	25

*If the humidifier is connected to a BlowerPack, provide an adaptation in Ø 40 mm in case the steam outlet is of different Ø.

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ERS-LC Series Capacity tables



CapacityTable						
Supply (V)	230V - 1 ph			400V - 3 ph		
ERS-LC	kg/h	lb/hr	kW	kg/h	lb/hr	kW
3	2.5	6.6	1.9	-	-	-
5	6	13.2	4	6	13.2	4
7	-	-	-	8	17.6	6
8	8	17.6	6	-	-	-
10	-	-	-	12	26.4	9
15	-	-	-	17	37.4	13
20	-	-	-	24	52.9	18
30	-	-	-	29	63.9	22

CapacityTable						
Supply (V)	480V - 3 ph			600V - 3 ph		
ERS-LC	kg/h	lb/hr	kW	kg/h	lb/hr	kW
3	-	-	-	-	-	-
5	-	-	-	-	-	-
7	8	17.6	6	8	17.6	6
8	-	-	-	-	-	-
10	-	-	-	-	-	-
15	17	37.4	13	17	37.4	13
20	25	55.1	19	25	55.1	19
30	35	74.9	26	35	74.9	26

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Armstrong® Other options

The **Armstrong SJDT** (Steam Jacketed Dispersion Tube) is an all stainless steel dispersion tube with the unique ability to accept jacketing steam from atmospheric steam generating humidifiers. The SJDT utilizes a portion of the steam to “jacket” the entire length of the tube, keeping the dispersion tube hot, even during periods of low demand. This “jacketing” effect improves the quality of steam discharge and reduces the chance for spitting or dripping in your air handling system.



The **Armstrong HumidiPack®** and **ExpressPack®** are pre-assembled sets with a separator/collector and several dispersion tubes to reduce the humidification distance. Designed for an installation in ducts or air handling units.

There are 3 models:

- ExpressPack® for atmospheric pressure applications.
- HumidiPack® CF for pressurized applications.
- HumidiPackPlus® for pressurized systems with jacketed dispersion tubes.

The **Armstrong EHF** fan package expands the steam into the air when there is no duct or AHU to convey the steam. To mount on a wall. EHF III: blowing capacity: 54 kg/h (119 lb/h).





INTELLIGENT SOLUTIONS IN STEAM, AIR AND HOT WATER

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