Live steam humidifier **ILS**

- Conditioning and distributing steam from central boiler
- Capacities from 4 to 3300lb/h [2 to 1500kg/h].
- Cost effective humidification system for large load.
- Designed to use steam from boiler operating with DI, RO or tap water.
- Drip free steam guaranteed.
- Single or Multi-ramp
- **ILS-P** : Horizontal preheated jacket type.
- ILS-SO : Vertical multi-ramp.
- **ILS-SE** : Vertical multi-ramp with high efficiency thermal insulation.
- **ILS-SE** reduces wasted energy and condensate by up to 80%.
- Rated for 500°F [260°C] continuous operation.
- Excellent thermal resistance Calculated R value = 0.33
- Thin insulation 0.142in [3.6mm].
- Certified to ASTM E84 (equivalent to UL723).
- No risk of damage during installation or during the life of the ramp.
- Zero water wasted to drain without expensive secondary heat exchanger or electrical connection.
- Can meet very short non wetting distance.
- 3 years warranty*.





ILS Live steam humidifier

ILS humidifier by steamOvap uses steam from a central steam boiler as a sourc of humidity for air duct or air handling unit.

The **ILS** includes all the components required for the treatment and conditioning of low pressure steam.

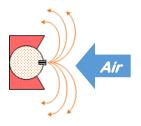
Its integral stainless steel construction of grade 304 and its robust design makes the **ILS** the humidifier by excellence in its category.

When low pressure clean steam is available on site it is the most economical and effective way to provide humidification meeting any capacity requirement.

Typical applications

- Institutional buildings
- Hospitals
- Health care facility
- Industrial buildings and processes
- University campuses
- Printing facilities
- Museums & galleries

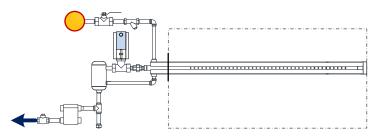
ILS-P with pre-heated jacket



ILS-P humidifier by steamOvap is using steam ramp with a pre-heated jacket. Steam is circulating into the jacketed tube before to pass through the steam separator and being distributed into AHU or the air duct.

The **ILS-P** includes the following components: strainer, separator, actuated control valve. steam ramps with pre-heated jacket and F & T condensate trap.

Single ramp



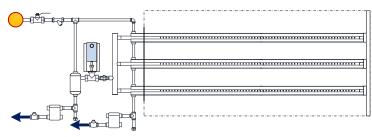
- Capacity from 4 to 150lb/h [2 to 68kg/h].
- Easy to install.
- Low investment cost.

Electronic controller

Any **ILS** models (**ILS-P**, **ILS-SO** or **ILS-SE**) can be supplied with our electronic controller, this controller is equipped with LCD display, allowing easy interaction with and set-up of your **ILS** humidifier:

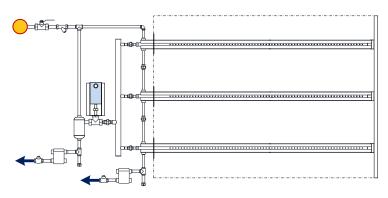
- **Peace of mind** for start-up and operation.
- Provide **one more layer of safety** with temperature monitoring.
- Log of operation and alarm.
- Ethernet remote connection.
- Optional **BACnet** or **Modbus**.

Mini-kit



- Capacity from 4 to 84lb/h [2 to 38kg/h].
- Compact design.
- Factory assembled ramps.
- Reduced distance between ramps.

Multi-ramp

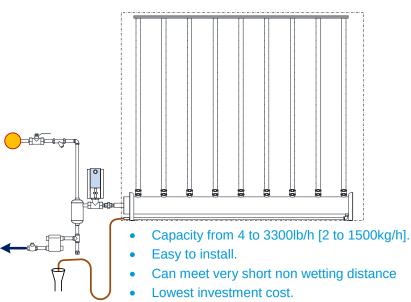


- Capacity from 4 to 3300lb/h [2 to 1500kg/h].
- In-field assembly.
- Best suited for large air handling unit.

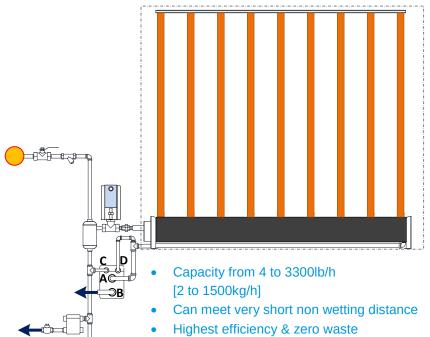
ILS-SO Vertical multi-ramps

ILS-SO & ILS-SE humidifier by steamOvap are using vertical steam ramp with or without thermal insulation.

Any condensate forming in the steam ramp will fall and collect into the large header, before to be directed to the drain or repressurized with pressure motive pump. Drip free steam distribution is ensured by the special design of the nozzles.



ILS-SE high efficiency vertical multi-ramps



Save energy and save money

- $\oplus\,$ Reduce wasted energy from steam condensation by up to 80%
 - = less energy required for same designed steam capacity
 - = saving money for operation.
- More capacity allowed for steam ramp
 = shorter and/or fewer steam ramps for same steam capacity
 - = saving money for acquisition.
- $\oplus\,\, {\rm Reduced}$ heat gain of air during cooling season
 - = reduced amount of cold outdoor dry air
 - = reduced required humidification load
 - = saving money for operation.

Unique hollow sleeve design

steamOvap high efficiency thermal insulation is made of two components:

- ⊕ Fiberglass braid hollow sleeve offering optimal thermal resistance with steam ramp.
- Iron oxide red silicone rubber outer shell with exceptional chemical, abrasion, UV and moisture resistance, ensuring robust and risk free damage during on-site installation.

Unlike the others, our high efficiency thermal insulation is made of a round sleeve which does not have longitudinal joint causing thermal bridge and premature degradation. It is also the only one safe to operate at 500°F [260°C].



Technical data

Model	ILS-P single ramp	ILS-P mini-kit	ILS-P multi-ramp	ILS-SO	ILS-SE
Capacity		4 to 84	4 to 3300	4 to 3300	4 to 3300
(lb/h) [kg/h]		[2 to 38]	[2 to 1500]	[2 to 1500]	[2 to 1500]
Steam pressure	1.8 to 15	1.8 to 15	1.8 to 15	1.8 to 15	1.8 to 15
(PSI) [kPa]	[13 to 103]	[13 to 103]	[13 to 103]	[13 to 103]	[13 to 103]
Distance between	n/a	3	6	3	3
ramps (in) [mm]		[76]	[150]	[76]	[76]
Actuated valve		24Vac	24Vac	24Vac	24Vac
(voltage & signal)		0-10Vdc	0-10Vdc	0-10Vdc	0-10Vdc

Features	Std	Opt
Bronze body valve with S/S trim	X	
Strainer with S/S screen	X	
1 to 100% fully modulating steam production	Х	
Stainless steel steam separator	Х	
Float & Thermostatic condensate trap	X	
Fail safe actuated valve	Х	
Proportional feed-back signal	X	
Made to measure to duct dimensions	X	
3 years* manufacturer warranty	Х	
Pressure motive pump (zero conden- sate to drain)		X
Thermo-contact for F&T trap(s)		X
Motorized on/off valve on steam supply		X
Electronic controller		X
DI water compatible construction		Х
BACnet or Modbus RS485 communication		x

(supplied)

6: Pressure motive pump (optional & supplied)

7 & 10: condensate return to boiler 8: F&T condensate trap (supplied)

9: Anti-return check valve (by others)



STEAMVAP

humidity provider



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