STEAMOVAP

Engineered Humidifiers for Demanding Applications

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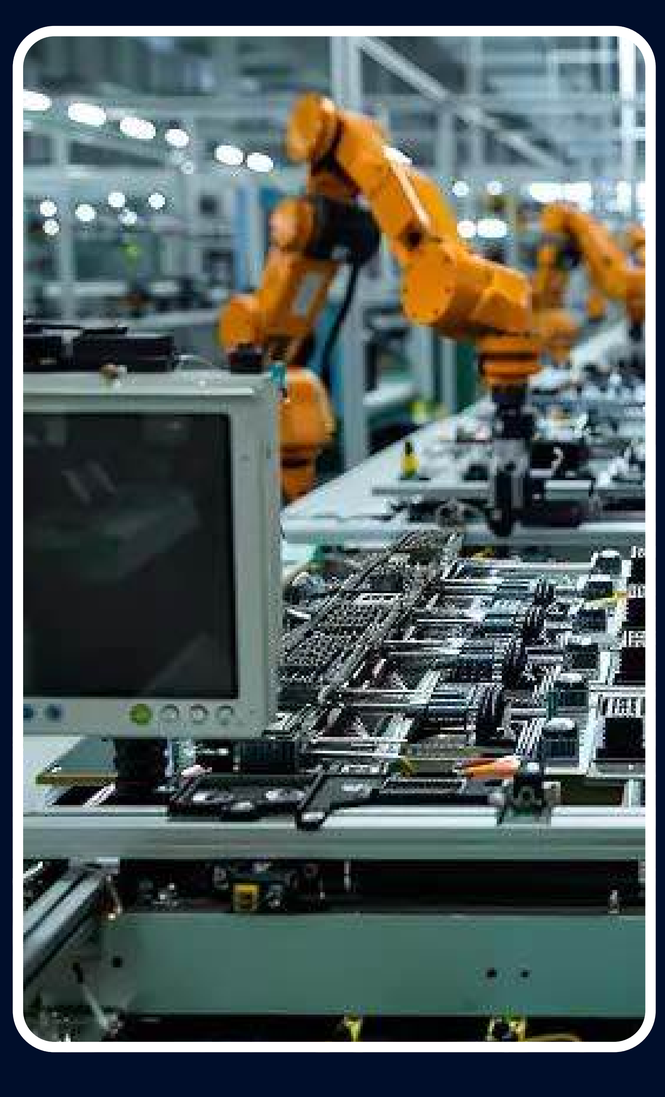
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About SteamOvap







Humidification Solutions Designed for Life

With 45+ years of expertise we deliver innovative and reliable solutions to keep humidity level in perfect balance for optimal indoor air quality.

Delivering advanced humidification solutions trusted in healthcare, data centers, commercial buildings, or greenhouses. Providing precise air control solutions that enhance comfort, boost productivity, and deliver lasting value for every environment.

steamOvap is committed to delivering innovative **isothermal or adiabatic humidification** and humidity control solutions that enhance efficiency, reliability, and sustainability across industrial applications. With a focus on engineering excellence and customer-centric design, we provide high-quality products and **first in class customer service.**





Decade of expertise in Humidification Solutions

Driven by innovation. Defined by precision. Trusted to perform where it matters most.

Our Mission

Our mission is to help our clients to achieve required humidity level for best indoor air quality using sustainable solutions.

Our Values

We envision a world where air comfort, health, and sustainability work hand in hand. Our values shape this vision.

- Satisfaction
- Excellence
- Integrity
- Expertise
- Innovation
- Sustainability

45+ Years of Experience	**15+** Industries Served
2000+ Projects Delivered	**3+** Patented Solutions

Built on Innovation and Integrity

Founded in 2016, steamOvap® is a Canadian company specializing in advanced humidification systems engineered for performance, energy efficiency, and sustainability.



Our Vision

Maintaining optimal indoor humidity levels typically between 30% and 50% is essential for health and home maintenance. Proper humidification can alleviate dryness, improve indoor air quality, and make temperatures feel warmer, potentially lowering energy bills.

Our Journey of Innovation

From our founding in 2016 to becoming a trusted name in sustainable humidification, our journey is marked by innovation, patents, and partnerships that continue to shape the future of indoor air solutions.

2016

steamOvap® was founded by Eric Landry, Msc science and Bernard Saint-Yves, bringing world-class expertise in steam humidification, quality, and productivity.

2017

Launch of the IER electric steam humidifier, featuring patented technology for precise and reliable performance.

2020

Rapid adoption by engineering firms and contractors as a new benchmark in humidification systems.

2021

Second patent filed for the innovative ISE steam exchange humidifier.

2025

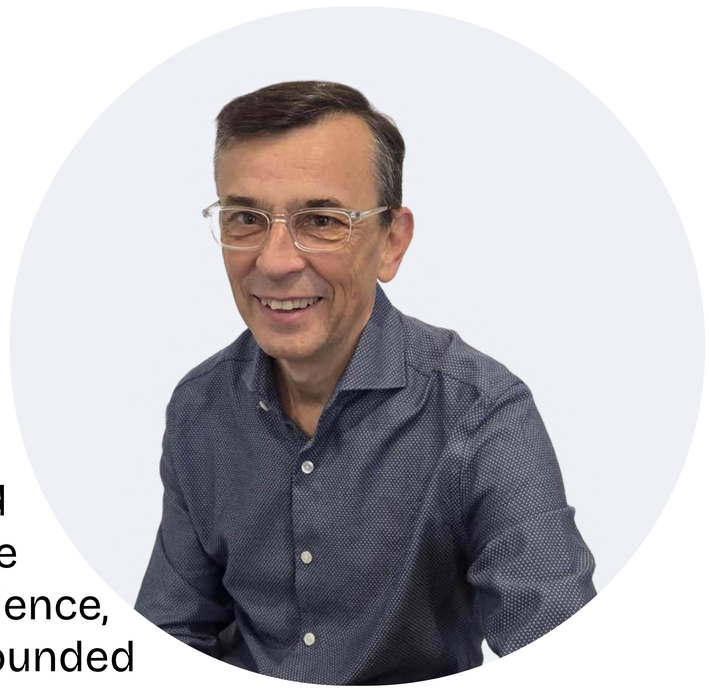
Recognized internationally as a trusted brand delivering constant, precise air solutions for demanding industries.

The Minds Behind steamOvap



Eric Landry

“Eric, co-founder of steamOvap®, holds a master’s in mechanical engineering and is a rare expert in steam humidification. A member of ASHRAE, he focuses on creating safe, robust, and reliable solutions.”



Bernard Saint-Yves

“Bernard brings global experience and deep expertise in Quality and Productivity. Passionate about innovation, excellence, and teamwork, he co-founded steamOvap® to deliver true innovation and customer satisfaction.”

Excellence isn't our goal, it's the standard behind every project we deliver.



Every Great Solution Starts with a Great Team

Engineering Excellence Together

steamOvap® has been founded in 2016 by Eric Landry Msc science and Bernard Saint-yves. Eric holds a master's degree in mechanical engineering, the subject of which is the definition of an algorithm to predict the non-wetting distance during the injection of saturated steam into an air stream; which makes him one of the few experts in steam humidification in the world.

Bernard is bringing a broad and long professional experience both from North America and Europe, he has worked in large multinational or very small organizations. He is an expert in Quality and Productivity. Our success is the result of the work of our extraordi nary team, made up of our employees who help us design and manufacture our products.

Innovation That Endures

Every solution is engineered with durability, efficiency, and long-term reliability at its core. Our products are designed to deliver consistent performance in demanding industrial environments while minimizing maintenance.

Precision Engineering for Tomorrow's World

"Progress is powered by precision, perfected through innovation."



Since its inception the company has heavily invested in research and development in order to offer our model IER an electric steam humidifier.

This was the opportunity to file a first patent for the unique and innovative concepts that ensure that our IER humidifier has been quickly adopted as a new benchmark.

A second patent application is pending, covering the unique and innovative design of our steam exchange humidifier—model ISE. Today our humidifiers are recognized and specified by more and more engineering firms as a basis of design, or chosen by renowned contractors or customers to provide constant and precise humidity for the most demanding applications.

We develop solutions that meet the highest standards of safety, precision, and performance .This enables our customers to reduce energy consumption.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since 1966, when designers at Letraset and James Mosley,

Trusted By

Sweden
Clean testing rooms

Illinois, USA
Clean Electronic room

Phitamkur, India
Pharmaceutical clean rooms

Quebec, Canada
Clean testing rooms

New York, USA
Electronic production floor

Sweden
Museum

Algeria
Medical facility

Tel Aviv, Israel
Pharmaceutical clean room

Several bases, USA
Medical facility

Sweden
Clean testing rooms

Illinois, USA
Museum

Rebecq, Belgium
Administrative building

IER Electric steam humidifier

Pennsylvania, USA
Pharmaceutical clean rooms

France
Production facility (train)

Vienna, Austria
Operating rooms

Ontario, Canada
Biology laboratory

Salamanca, Spain
Operating rooms (hospital)

Alaska, USA
Turbine steam disinfection

ILS & ISE steam humidifiers

Ontario, Canada
Data center
AEM Evaporative humidifier

Illinois, USA
Agro food production facility
ACA atomizing humidifier

California, USA
Archive room
AEM Evaporative humidifier

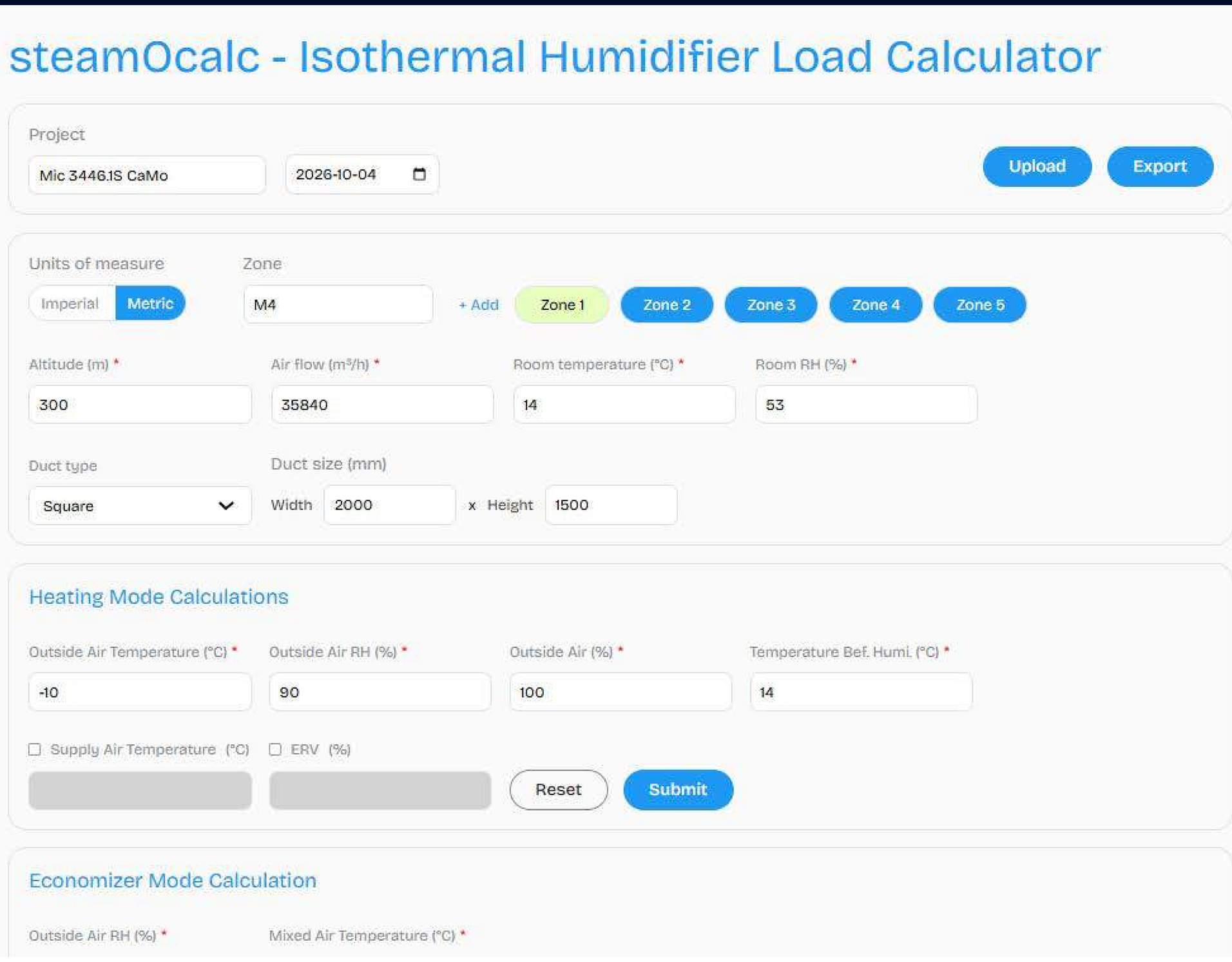
AEM & ACA adabiatic humidifiers

SteamOcalc

steamOcalc is a web application available online as part of our website. It is absolutely free to use it, no login or password are re quired to access it or to use it.

It allows anyone to calculate steam humidification load based on the common design parameters for heating (winter) or economizer (free cooling) modes. It is the only humidification load calculation program with Energy Recovery Ventilator (ERV) option included.

You simply have to enter in-space desired conditions, duct dimensions and air flow information, as well as outside air conditions. steamOcalc will calculate the required humidification load, will suggest a steam humidifier model and offer a list of options for the in duct steam distribution.



Every smart decision starts with the right numbers

Non-wetting distance and pressure drop across steam ramps are estimated for all possible steam distribution options, this will help you to select the best steam distribution option for your project.

If you need to compare calculation made by steamOcalc with an alternative calculation method. Click on "display calculated value" box and all of the data that have been generated by the program will be indicated.

You can enter information about your project, zone and date, and if you need to keep record , press the print button to quickly transfer the results on pdf file report.

A selection report as well as generic submittal can also be generated in a few seconds by clicking on the "submittal" button.

Quick Access to
steamOcalc

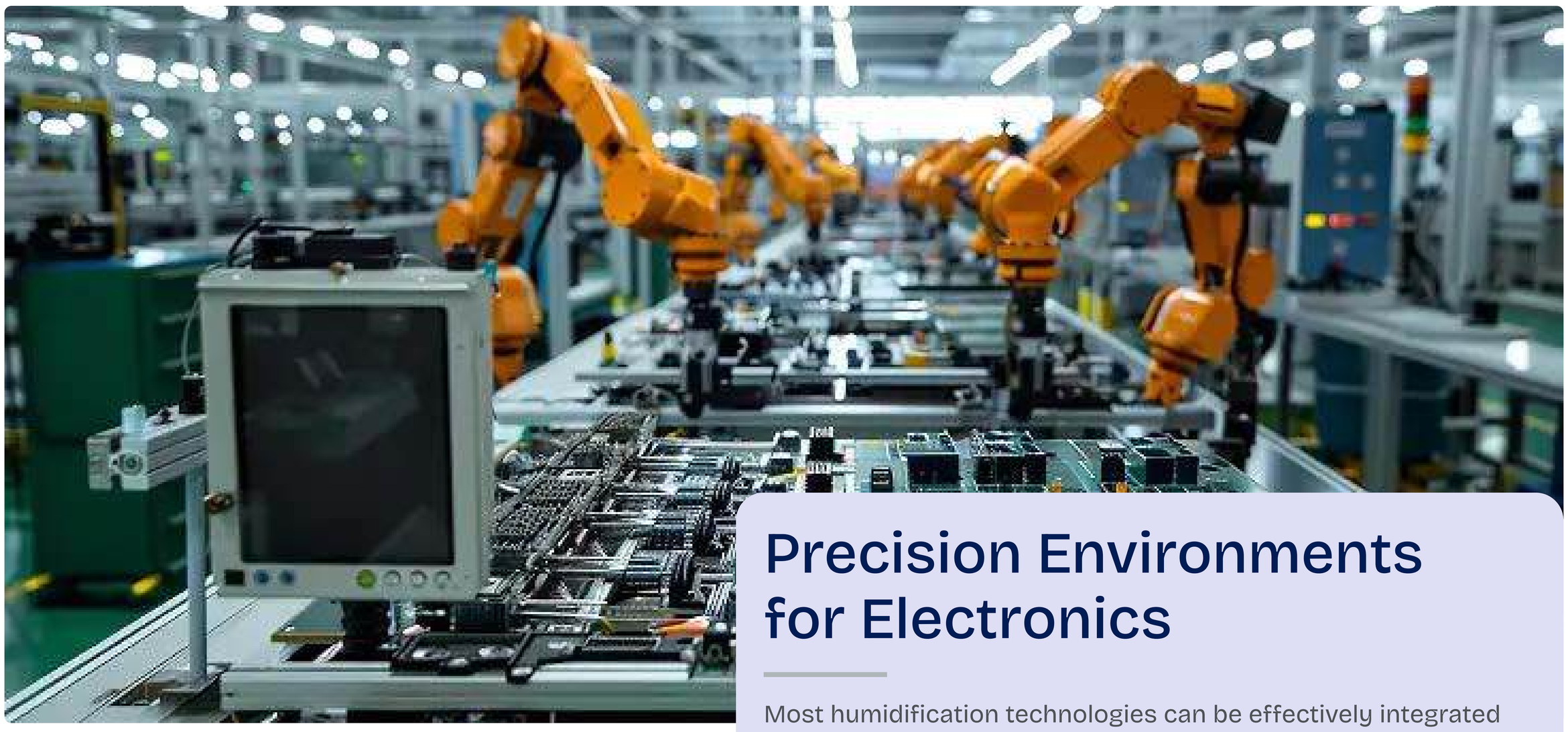
steamOcalc is free access to all, you can use it as often as you need. .Do not hesitate to share feedback and comments with us.

Electronics Industry

Electronic devices, printed circuit boards, and components are highly sensitive to electrostatic discharge (ESD). ESD is the sudden release of static electricity upon contact between objects, like carpet shocks or dryer static, and can cause costly failures in production.

Proper humidity levels minimize these risks effectively. Electrostatic discharge (ESD) is the release of static electricity when two objects come into contact. Familiar examples of ESD include the shock we receive when we walk across a carpet and touch a metal doorknob and the static electricity we feel after drying clothes in clothes dryer.

A more extreme example of ESD is a lightning bolt. While most ESD events are harmless, it can be an expensive problem during any electronic manufacturing process.



Humidity Solutions for the Electronics

steamOvap humidifiers are trusted by many electronics manufacturer such as Motorola or Eaton. IER electric steam humidifier is dependable and avoid high cost of ownership thanks to the easy service and stainless steel permanent cylinder.

Manufacturers such as Motorola, Samsung and Eaton trust steamOvap humidifiers. Built to last, the IER electric steam humidifier features a permanent stainless steel cylinder: no disposable cylinders to replace, simplified maintenance, and controlled operating costs year after year. Its thermally insulated cylinder and EcoEnerSmart™ function make the IER one of the most energy-efficient humidifiers in its class, while delivering precise relative humidity control. It also integrates easily with building management systems and can be monitored and controlled remotely via Modbus or BACnet, hassle-free. Compatible with both tap water and reverse osmosis deionized water, the IER is the ideal solution for maintaining stable humidity in your production areas, reducing the risk of electrostatic discharge.

Precision Environments for Electronics

Most humidification technologies can be effectively integrated into electronic manufacturing and assembly facilities. Choosing the right humidification solution depends on your plant's specific operational requirements, including the required humidification capacity, available energy sources, HVAC and air distribution configuration, and the overall energy efficiency of the system.

Smarter Humidity. Better Results.

- Maintains 40-50% RH to minimize electrostatic discharge damage to sensitive components like PCBs.
- IER humidifier achieves up to ±1% RH accuracy with fast response for 24/7 uninterrupted production.
- Accepts RO-treated water without extras, leveraging on-site purification already used in processes.
- Optimizes overall HVAC energy use based on capacity, site energy sources, and air distribution needs.
- ILS and ISE provide sterile steam with minimal upkeep and low ownership costs.

Laboratories and Clean rooms

Biotechnology or electronic cleanrooms, medical device manufacturing, operating theatres, hospital pharmacies, research, analytical and calibration laboratories: these environments share some of the most stringent air control requirements of all. Governed by standards such as ISO 14644, Good Manufacturing Practice (GMP) and USP <797>, they must guarantee air cleanliness, stable ambient conditions and reproducible results, day after day.

In these spaces, relative humidity is as critical a parameter as temperature or pressure. Air that is too dry encourages static electricity, which attracts particles, disrupts precision weighing and can damage sensitive components. It also affects the stability of certain products, skews test results and undermines the comfort of staff wearing protective clothing. Conversely, excessive or unstable humidity compromises hygroscopic powders, sterile packaging and samples, and creates conditions favourable to microbial growth. Some testing laboratories are even required to maintain a precise humidity level set by the relevant standard for their results to be valid.



Humidification for Climate Control

The microbiology laboratories of the University of Toronto in Canada and Malmö University in Sweden, as well as leading companies such as Kruger and Teva, have chosen steamOvap humidifiers. On-site measurements have confirmed that the IER maintains relative humidity to within ±1% RH, even with 100% fresh air. The IER also accepts both mains water and treated by reverse osmosis , deionisation producing steam free of minerals.

The IER is also designed to keep maintenance time and downtime to a minimum. Its permanent stainless steel cylinder never needs replacing, and the patented Guide & Lock system allows it to be descaled quickly, with no tools and no consumables. Its large touchscreen provides built-in diagnostics and contextual help that guide the technician directly at the unit. Modbus or BACnet communication makes it possible to monitor humidification, manage alarms and ensure traceability from the building management system , a key advantage for facilities subject to validation and compliance requirements.

Precision Environments for Laboratory

Humidity is one of the most critical air-quality factors in cannabis cultivation, yet it’s often poorly managed. Too much humidity promotes mold that can ruin entire crops, while too little stresses plants and can lead to die-off. The level for clean room is 45 +/-3% RH , depending on the type of experiment conducted.

Smarter Humidity. Better Results.

- Tight humidity control (e.g., 35±3% RH for tablet coating) prevents coatings from drying too fast or slow, ensuring quality.
- IER humidifier delivers ±1% RH accuracy for 24/7 production in powder storage, milling, and capsule areas.
- Uses on-site RO-treated water without extras, matching pharmaceutical purity standards seamlessly.
- Choose based on capacity, energy sources, and HVAC efficiency for specific needs like colloids (30-50% RH).
- ILS for clean boiler steam or ISE for pure atmospheric steam with minimal maintenance.

Pharmaceutical Industry

In a pharmaceutical plant, every production stage has its own humidity requirements. During powder blending, granulation and compression, relative humidity is generally held between 30% and 50% to ensure good powder flow, prevent sticking to the punches and limit static electricity.

Capsule filling calls for a slightly higher range, typically 40% to 55% RH, as gelatin capsules become brittle in dry air and deform when the air is too humid. In aseptic filling areas, where humidity is usually kept between 30% and 60% RH depending on the process, the priority is to prevent any contamination while keeping operators in full gowning comfortable. Further downstream, packaging areas, generally kept between 40% and 55% RH, must maintain the dimensional stability of labels, leaflets and cartons to prevent jams on high-speed lines, while warehouses, which are subject to Good Distribution Practice (GDP), are often kept below 60% RH to ensure products are stored in proper conditions.



Humidification for Climate Control

Leading pharma companies such as Lupin, Teva and Merck trust steamOvap humidifiers. Unlike boiler steam, which may contain chemical treatment products such as amines, the IER generates its own steam, with no additives.

It accepts both mains water and reverse osmosis , deionised water, whereas electrode humidifiers require sufficiently conductive water and therefore cannot operate with high-purity water. Its accuracy, confirmed by on-site measurements to within ±1% RH even with 100% fresh air, makes it possible to hold the tightest set points in granulation, compression and capsule-filling areas, and to limit static electricity where powders are handled. With a capacity of up to 84 kg/h per module and 168 kg/h in master-slave configuration, the IER meets the needs of a single production room as well as those of large facilities, adjusting its output to actual demand. In a GMP facility, a humidity deviation in a controlled area means a deviation report, an investigation and sometimes the quarantine of a batch.

Precision Environments for Pharmaceutical

Most of the humidifier technologies can be applied to humidify pharmaceutical plant. Most of the time, pharmaceutical production plant requires humidifier able to produce very accurate humidity level with tolerances of +/-1%RH during the production process and sometimes to maintain proper humidity levels 24/7.

Smarter Humidity. Better Results.

- Tight humidity control (e.g., 35±3% RH for tablet coating) prevents coatings from drying too fast or slow, ensuring quality.
- IER humidifier delivers ±1% RH accuracy for 24/7 production in powder storage, milling, and capsule areas.
- Uses on-site RO-treated water without extras, matching pharmaceutical purity standards seamlessly.
- Choose based on capacity, energy sources, and HVAC efficiency for specific needs like colloids (30-50% RH).
- ILS for clean boiler steam or ISE for pure atmospheric steam with minimal maintenance.



Healthcare

In hospitals, humidity affects both patients and staff. Air that is too dry, common in winter in cold climates, dries out the mucous membranes that form the body's first defence against infection, irritates the eyes and airways, and increases static electricity around sensitive medical equipment. A relative humidity of 40% to 60% is widely recommended for healthcare environments, and research indicates that many airborne respiratory viruses survive less well within this range.

Some areas have more specific needs. In hospital pharmacies, the cleanrooms used for preparing sterile medicines require stable, controlled humidity to protect the preparations and keep staff in full gowning comfortable. In medical imaging, MRI, CT and X-ray equipment manufacturers specify the temperature and humidity ranges their systems must operate within. Air that is too dry encourages electrostatic discharges, which can disrupt sensitive electronics and cause artefacts in MRI images.

Precision Humidity. Proven Benefits.

- Helps maintain comfortable humidity levels for patients, visitors, and healthcare staff.
- Supports indoor air quality by reducing excessively dry conditions
- Helps protect sensitive medical equipment, and furnishings from moisture-related issues.
- Provides precise humidity control for critical healthcare environments.

Choosing the Right Humidification for Healthcare Facilities

Each country has its own standards for healthcare ventilation, setting humidity requirements for operating theatres, intensive care units and other critical areas, and these must be met. Doing so day and night, in buildings that often run with large volumes of fresh air, calls for humidification that is precise, hygienic and dependable.



Climate Control for Healthcare

Klinik Donaustadt in Vienna, Austria, chose steamOvap ILS humidifiers to replace its ageing humidification system. In Spain, the hospital in Salamanca selected ISE-HT heat exchanger humidifiers for its new extension, primarily because they are much easier to maintain than competing products. Whether for a renovation or a new building, steamOvap humidifiers are chosen by hospitals that want reliable equipment their own technical teams can service easily.

The steamOvap range lets each project use the most suitable energy source. Electric humidifiers such as the IER are ideal where no other heat source is available and for dedicated areas such as MRI and CT scanner rooms, while ISE-HT heat exchanger humidifiers use the building's existing heating network to produce clean steam from treated water

Our Products, Your Confidence

Explore our complete range of humidification systems, designed with innovation, reliability, and sustainability at the core.

Isothermal Humidifier

Engineered to deliver clean, consistent steam with exceptional precision, our high-performance isothermal humidifiers maintain optimal humidity levels for mission-critical environments.



IER

Electric Resistive Steam Humidifier

IER humidifier by steamOvap® is an electric steam generator that uses water immersed resistive heating elements to produce pure and sterile steam that is easy to distribute in air handling unit or ventilation duct. It can be supplied with tap or treated water such as softened or reverse osmosis water.

- Electric
- Pure and sterile steam
- SmartTouch Interface



RES

Residential Steam Humidifier

RES by steamOvap® is an electric steam generator that uses water immersed resistive heating elements to produce pure and sterile steam to humidify your home or office during winter. It has been designed for life. Its steam cylinder is made of stainless steel to last a lifetime.

- Electric
- Pure and sterile steam
- SmartThermostat Ready



ISE

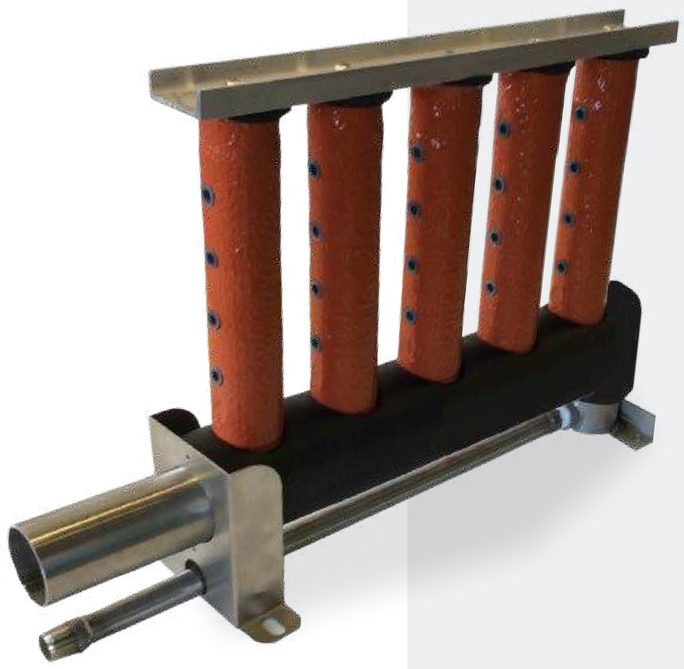
Steam Exchange Humidifier

ISE steam exchange humidifier from steamOvap uses energy from a central boiler to produce pure, sterile steam that is easy to distribute into the air handling unit or ventilation duct.

- Pressurized steam or HTHW
- Pure and sterile steam
- Unique vertical heat exchanger

Isothermal Humidifier

Engineered to deliver clean, consistent steam with exceptional precision, our high-performance isothermal humidifiers maintain optimal humidity levels for mission-critical environments.



Steam Distribution

It is the easiest humidification method to deal with: steam is sterile so there are no hygiene concern to deal with, also there is not much risk of water carry over in the duct. Nevertheless some basic considerations must be considered to ensure that your humidification system will be safe and efficient; with steam humidification more is not better

DripFree Steam

MultiRamp Flex

High efficiency



ILS

Live Steam Humidifier

ILS humidifier by steamOvap is a live steam humidifier using steam from a central steam boiler. ILS is conditioning and distributing steam in air handling unit or air duct. ILS humidifier is available with steam jacketted horizontal ramp(s): model ILS-P or with steamOsorb vertical multi-ramps steam grid: model ILS-SO.

DripFree Steam

MultiRamp Flex

High efficiency

Adiabatic Humidifier

Engineered to deliver clean, consistent steam with exceptional precision, our high-performance isothermal humidifiers maintain optimal humidity levels for mission-critical environments.



AEM

Evaporative Humidifier

AEM Evaporative humidifier and cooler using media is designed to be installed in Air Handling Unit (AHU) or ventilation duct. Air passing through the wet media is getting humidifier and cooled down naturally. It is one of the oldest cooling technology and also the most sustainable one.

- Energy from Air
- Pure and sterile steam
- SmartThermostat Ready



ACA

Atomizing humidifier

ACA by steamOvap is an atomizing humidifier & cooler that uses patented nozzle producing a “solid con” jet of micro droplets (2 to 4µm size) as a uniform “dry fog” which evaporates quickly into the air. Patented nozzle creates 2–4 µm dry fog for rapid humidification and cooling.

- Compressed Air
- Dry Fog
  2 to 4µm water droplet
- High humidity and
  high accuracy

IER
Electric Resistive Steam Humidifier

Performance That Never Compromises

IER humidifier by steamOvap® is an electric steam generator that uses water immersed resistive heating elements to produce pure and sterile steam that is easy to distribute in air handling unit or ventilation duct.

IER humidifier can be supplied with tap or treated water such as softened or reverse osmosis water. When tap water is used, the scale will comes off the heating elements by the natural contraction and expansion of the tube heaters. Scale pieces then accumulate at the bottom of the cylinder without the risk of clogging the drain outlet.



Innovation in Every Detail. Powering Reliable Humidity Control

The IER humidifier by steamOvap® is engineered to deliver exceptional performance, efficiency, and reliability for modern humidification systems. Featuring advanced resistive immersed heater technology, it eliminates disposable plastic canisters, reduces maintenance, and provides consistent steam output while optimizing energy and water consumption through the patented EcoEnerSmart® function. Its thermally insulated cylinder, robust low watt density heating elements.

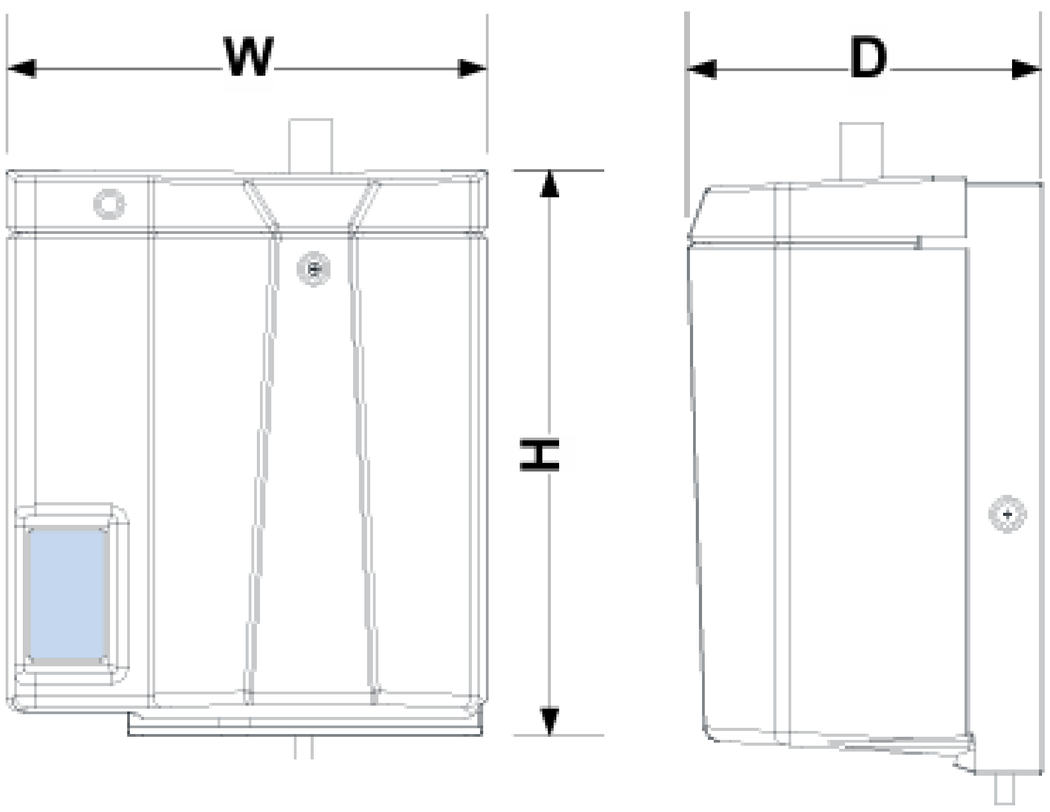
The Standard for Pure Steam Humidification

- Produces pure, sterile steam with precise humidity control (±1% RH) and capacities from 2.8–42.1 kg/h, expandable up to 168.1 kg/h.
- Permanent stainless steel cylinder, ultra-low watt density heating elements, polymeric access door, and patented Guide & Lock system for long-lasting performance.
- Equipped with a 7-inch touchscreen, intelligent board computer, Modbus RTU (RS485) as standard, with optional BACnet remote control integration.
- Operates efficiently with both tap water and RO water without additional options, making installation simple and versatile for a wide range of applications.



Technical Data

	IER02	IER04	IER05	IER09	IER12	IER17	IER22	IER31
Capacity	2.8kg/h	4.5kg/h	6.8kg/h	11.3kg/h	15.9kg/h	22.7kg/h	29.5kg/h	42.1kg/h
Power (kW)	2.0kW	3.3kW	5.0kW	8.3kW	11.7kW	16.7kW	21.7kW	30.9kW
Voltage (Vac) / Phase	230/1	230/1, 400/3	230/1, 400/3	230/1, 400/3	230/1, 400/3	400/3	400/3	400/3
Size	small	small	small	small	medium	medium	medium	medium
Dimension W	510mm	510mm	510mm	510mm	585mm	585mm	585mm	585mm
Dimension H	585mm	585mm	585mm	585mm	686mm	686mm	686mm	686mm
Dimension D	330mm	330mm	330mm	330mm	432mm	432mm	432mm	432mm
Steam outlet (ø)	DN40	DN40	DN40	DN40	DN50	DN50	DN50	DN65
Weight Net	21kg	21kg	21kg	21kg	31kg	31kg	31kg	31kg
Weight Oper	34kg	34kg	34kg	34kg	54kg	54kg	54kg	54kg





Where Precision Engineering Meets Lasting Performance

Optional Features

- Wall mounting bracket
- Floor mounting rack
- Roof top weather proof enclosure (IP65)
- BACnet remote control

Nomenclature

IER 17 - 400 / 3 - B

- IER 17 — **Type & Model**
- 400 — **Nominal Voltage**
- 3 — **Nb of Phase**
- B — **Options**
  - **RT** Roof Top enclosure
  - **FS** Floor Stand
  - **B** BACnet
  - **MB** Mounting Bracket

IER
Super Heavy Series

Performance That Never Compromises

IER Super Heavy series is using same technology as the IER, it can be supplied with tap or treated water such as softened or reverse osmosis water.

When tap water is used, the scale will comes off the heating elements by the natural contraction and expansion of the tube heaters. Scale pieces then accumulate at the bottom of the cylinder without the risk of clogging the drain outlet.



Technology Refined.
Performance Redefined.
Reliability You Can Trust.

IER Humidifier is purpose-built to deliver superior performance, simplified installation, and long-term reliability for today's demanding humidification applications. Powered by advanced resistive immersed heater technology, it eliminates disposable plastic canisters while maximizing energy efficiency through the patented EcoEnerSmart® system.

A thermally insulated stainless-steel cylinder, real-time energy monitoring, intuitive 7-inch touchscreen, and maintenance-friendly design ensure effortless operation with minimal servicing.

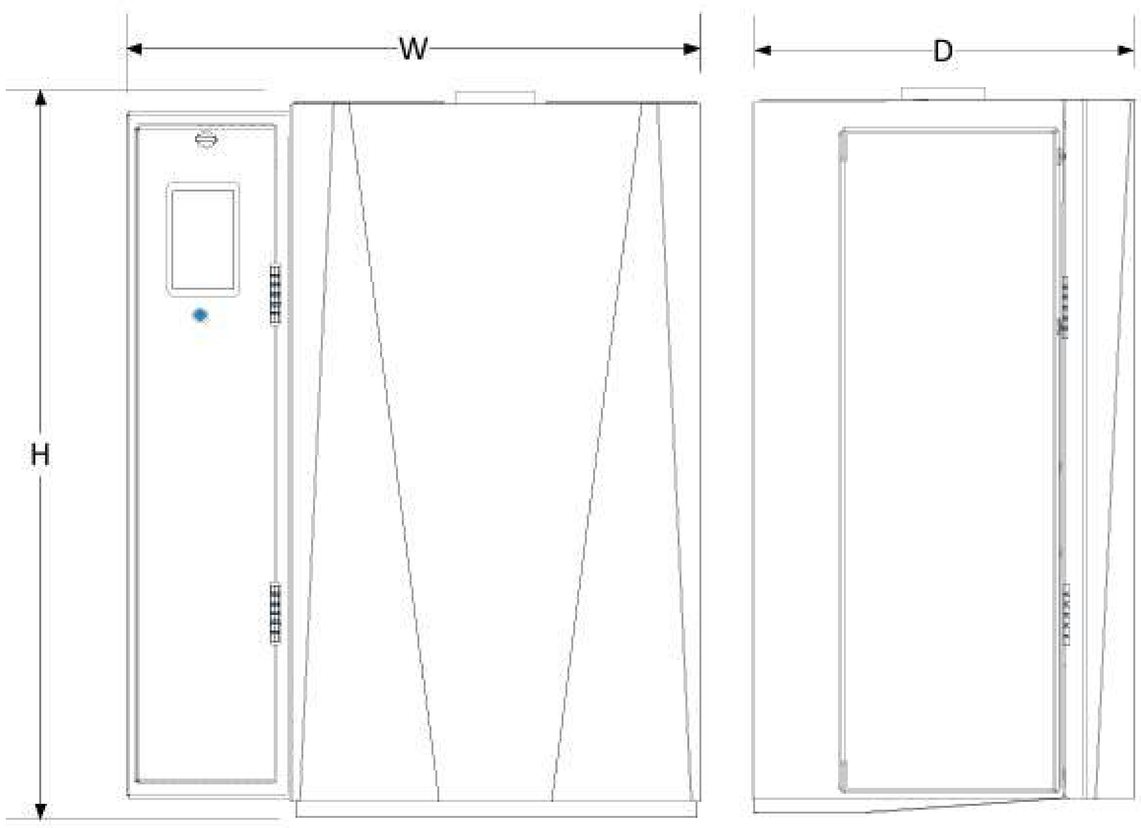


Every Feature Designed to Deliver Excellence

- Delivers pure, sterile steam with capacities ranging from 59 to 168.1kg/h for reliable industrial humidification.
- Features a permanent stainless-steel cylinder, ultra-robust low watt density heating elements, and a durable polymeric access door for long service life.
- Equipped with a 7-inch touchscreen, integrated board computer, Modbus RTU (RS485) communication, and optional BACnet remote control for seamless system management.
- Compatible with both tap water and RO water without additional accessories, with wall-mount brackets included and optional floor-mount legs for installation flexibility.

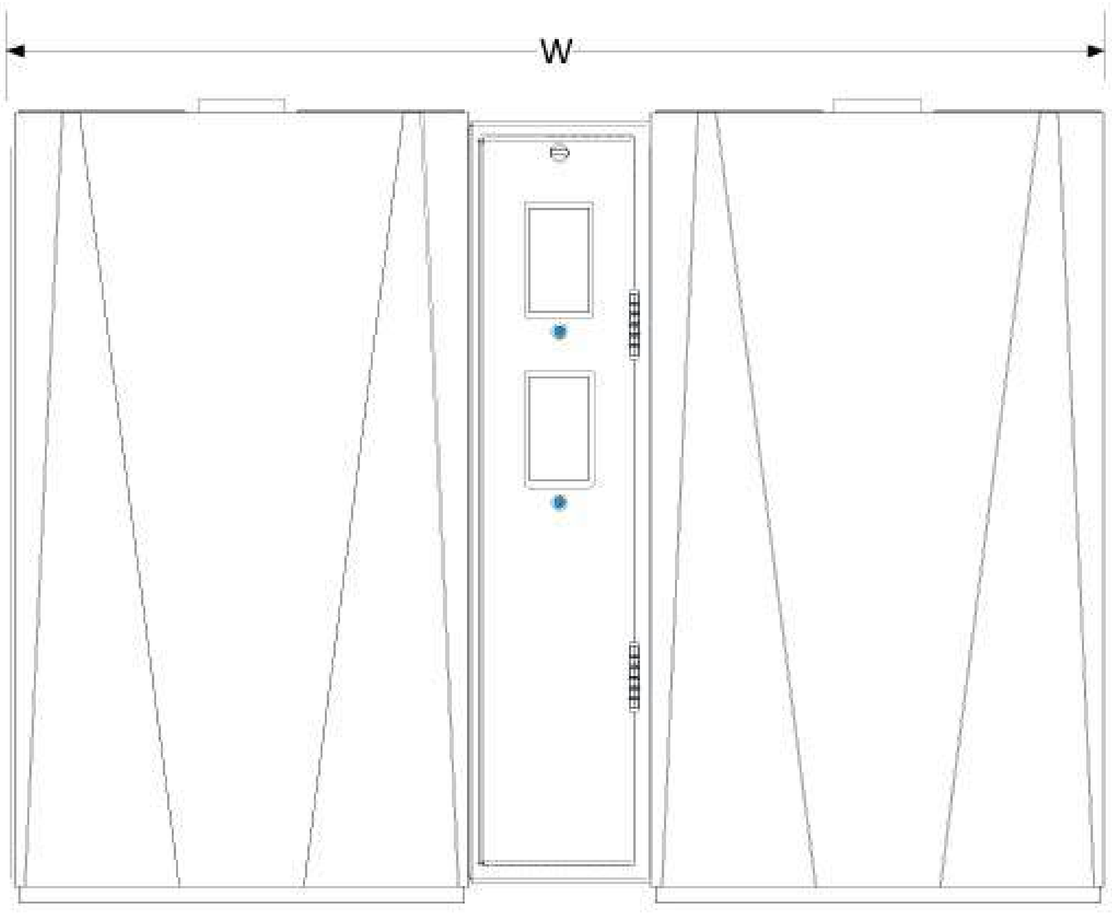
Technical Data

	IER44	IER62	IER88	IER105	IER124
Capacity	59kg/h	84kg/h	118.1kg/h	143.1kg/h	168.1kg/h
Power (kW)	43.3kW	61.7kW	86.6kW	105.0kW	123.4kW
Voltage (Vac) / Phase	400/3	400/3	400/3	400/3	400/3
Size & Qty of module	1x large	1x large	2x large	2x large	2x large
Dimension W	915mm	915mm	1677mm	1677mm	1677mm
Dimension H	1099mm	1099mm	1099mm	1099mm	1099mm
Dimension H2	1403mm (floor mount rack)	1403mm (floor mount rack)	1403mm (floor mount rack)	1403mm (floor mount rack)	1403mm (floor mount rack)
Dimension D	585mm	585mm	585mm	585mm	585mm
Steam outlet (Qty)	1x	1x	2x	2x	2x
Steam outlet (ø)	DN80	DN90	DN80	DN90	DN90
Weight (Net)	36kg	36kg	68kg	68kg	68kg
Weight (Oper)	[54kg]	[54kg]	104kg	104kg	104kg



Single module

The Blueprint Behind Precision Engineering, Reliable Performance, and Seamless Installation



Double module

Optional Features

- Floor mounting rack
- Roof top weather proof enclosure (IP65)
- BACnet remote control

RES
Residential Steam Humidifier

Designed for Demanding Environments

RES residential humidifier by steamOvap® is an electric steam generator that uses water immersed resistive heating elements to produce pure and sterile steam to humidify your home or office during winter.

RES humidifier has been designed for life. Its steam cylinder is made of stainless steel to last a lifetime. It is the only steam residential humidifier with thermal insulation offered on the market with thermal insulation of the steam cylinder and with full proportional output to save energy and improve your comfort.



Advancing Humidity Control Through Intelligent Engineering.



The RES Humidifier is engineered to deliver exceptional performance, durability, and ease of use, making it the preferred choice for engineers, contractors, and facility managers alike. Built with advanced resistive immersed heater technology, it eliminates the need for disposable plastic canisters, reducing waste while providing sustainable, long-lasting operation.Its thermally insulated cylinder, 0–100% proportional steam output, and low watt-density heating elements ensure precise humidity control, outstanding reliability, and extended equipment life.

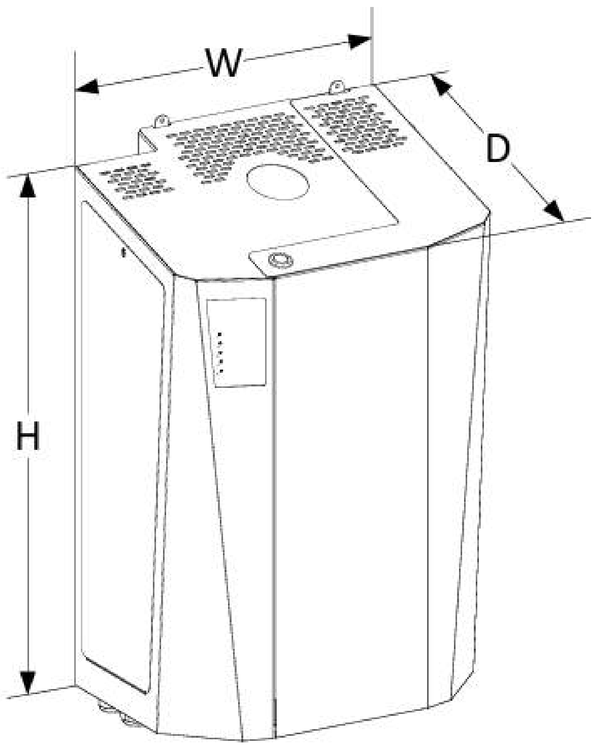
Designed for quick installation, every required accessory is included in the box, while the intuitive touch pad controller and embedded Modbus connectivity enable effortless setup, commissioning, and seamless integration with building management systems and equipment such as HRVs.

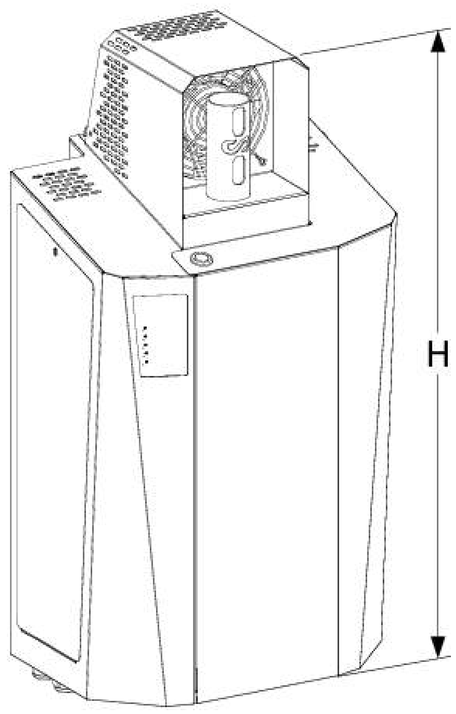
Every feature is engineered with purpose, delivering performance you can trust

- Delivers pure, sterile steam with accurate, fully proportional humidity output for consistent climate control.
- Works seamlessly with tap or RO water and integrates with smart thermostats (Ecobee, Nest, Honeywell) and Modbus RTU (RS485).
- Permanent stainless steel, thermally insulated cylinder ensures long-lasting reliability and energy-efficient operation.
- Includes all installation accessories and can be serviced in minutes without specialized tools, skills, or spare parts.

Technical Data

	RES230-23	RES230-29	RES230-37	RES230-42
Capacity	3.0kg/h	4.0kg/h	5.0kg/h	5.6kg/h
Power (kW)	2.3kW	2.9kW	3.7kW	4.2kW
Current (A)	10.0A	12.8A	16.0A	18.0A
Voltage (Vac) / Phase	230/1	230/1	230/1	230/1





Kit D (in Duct), supplied with wall mounting bracket, steam ramp, steam hose, air proving switch, water supply braided hose, and drain hose.

Kit S (in Space), supplied with space blower distribution, wall mounting bracket, steam hose (if applicable), water supply braided hose, and drain hose.

Dimensions [cm]	Kit D (in duct)			Kit S (in space) with SB-BI (Built-in)			Kit S (in space) with SB-RM (Remote)			Kit S (in space) with SB-TW (Through Wall)		
	W	H	D	W	H	D	W	H	D	W	H	D
RES humidifier	30cm	45cm	25cm	30cm	56.3cm	10.3cm	30cm	45cm	25cm	30cm	45cm	25cm
SB blower	-	-	-	-	-	-	12.5cm	16.3cm	15cm	18.8cm	22.5cm	8.8 to 16cm

Weight [kg]	Net	Operating	Net	Operating	Net	Operating	Net	Operating
RES humidifier	10kg	13kg	12kg	15kg	10kg	13kg	10kg	13kg
SB blower	-	-	-	-	2.3kg	-	2.3kg	-

Optional Features

- Floor mounting rack
- BACnet remote control



Every angle, every dimension, every detail engineered to perform

ISE
Steam Exchange Humidifier

Confidence in Every Condition

ISE steam exchange humidifier by steamOvap® is using energy from a central boiler steam to produce pure and sterile steam that is easy to distribute in air handling unit or ventilation duct.

ISE humidifier can be supplied with tap or treated water such as softened or reverse osmosis water. When tap water is used, the scale will comes off the heat exchanger by the natural contraction and expansion of the tube. Scale pieces then accumulate at the bottom of the cylinder without the risk of clogging the drain outlet.



Redefining Humidity Control Through Innovation.



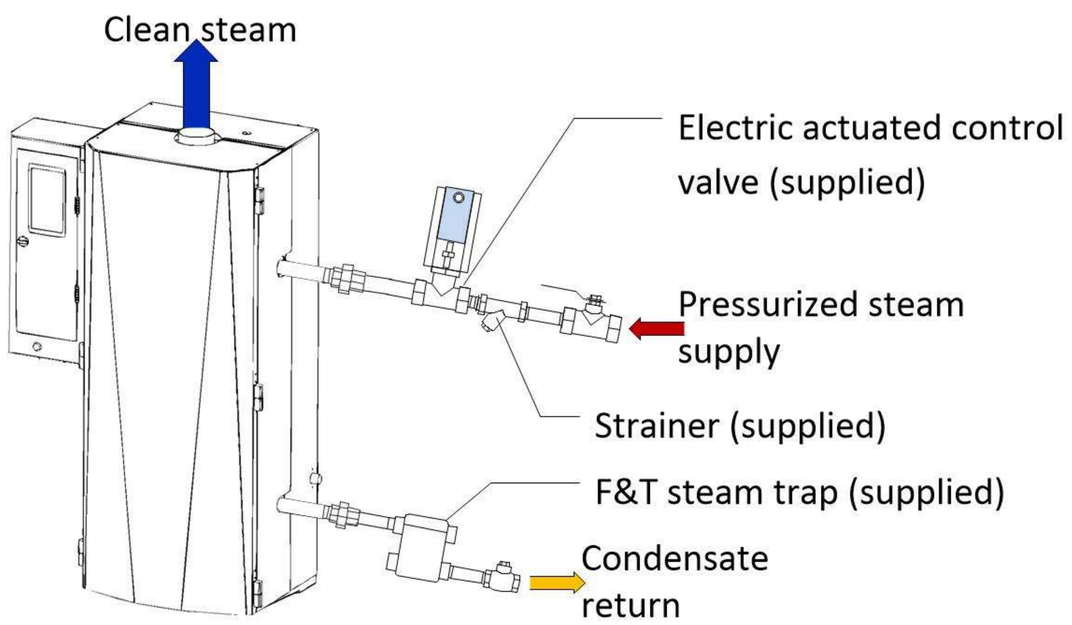
Designed with engineers and contractors in mind, this steam humidifier features a thermally insulated cylinder, a self-cleaning vertical heat exchanger, and flexible left- or right-side steam connections for seamless integration. Its compact, lightweight design, wall-mount installation, and intuitive 7-inch touchscreen make installation, setup, and operation fast and effortless.

Built for innovation and long-term reliability, it incorporates the patented EcoEnerSmart® technology to reduce energy and water consumption, along with an optimized hydraulic circuit for dependable performance. Proudly designed and manufactured in Canada with over 40 years of humidification expertise, it is backed by an industry-leading 3-year warranty (with validated installation) for complete peace of mind.

Precision Crafted. Performance Delivered. Reliability You Can Count On

- Produces pure, sterile steam with ±1% RH accuracy, offering 1–100% linear modulation and capacities from 1.8–272 kg/h.
- Features a permanent stainless steel, thermally insulated cylinder, and a self-cleaning vertical coil heat exchanger for reliable performance
- Equipped with a 7-inch touchscreen, intelligent board computer, Modbus RTU as standard, and optional BACnet integration.
- Compatible with tap or RO water without additional options and designed with one of the industry's smallest footprints for easy installation.

ISE [Pressurized steam]



ISE for pressurized steam is supplied with electric control modulating actuated valve (24Vac, signal 0-10Vdc) with fail safe, strainer and F&T condensate trap. It is also including a wall mounting bracket, water supply braided hose and drain connection sleeve DN32.

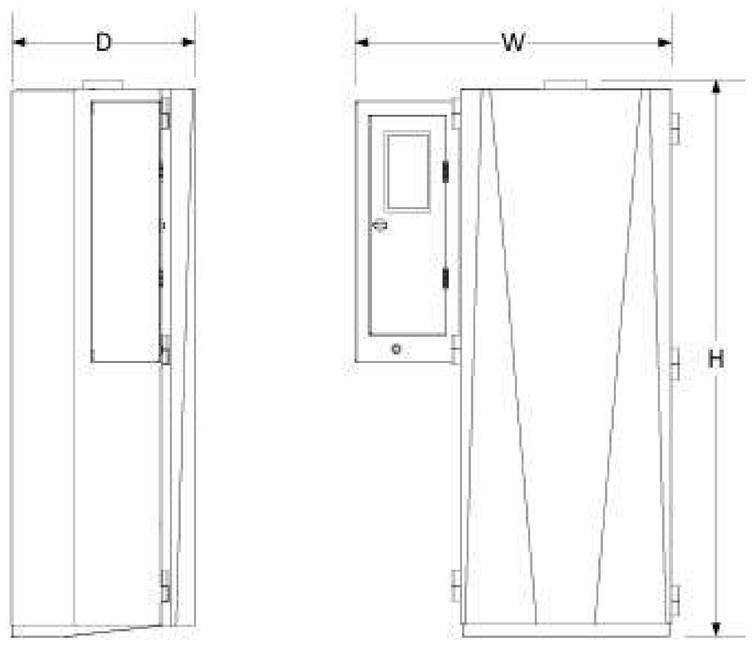
Supply voltage is 120Vac/1ph, 50/60Hz. It has never been so easy and simple to install a steam exchange humidifier. Thanks to its unique & patent pending vertical heat exchanger ISE is the only steam exchange humidifier on the market that can use city (tap) water with a steam cylinder that can be opened and cleaned in minutes without the need of tool.

Technical Data

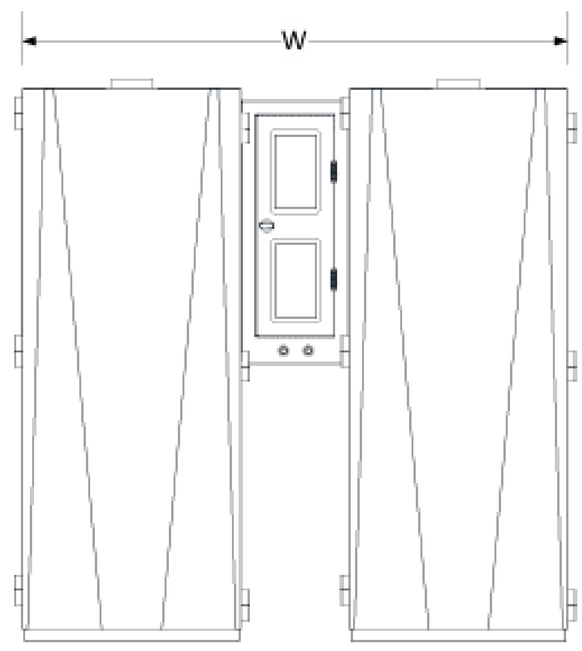
		ISE30	ISE70	ISE120	ISE170	ISE220	ISE300	ISE400	ISE600
Capacity (kg/h) stainless steel heat exchanger	[34kPa]	1.8	4.1	7.2	10.4	13.1	18.1	21.8	36.3
	[69Kpa]	6.8	15.9	27.2	38.6	50.0	68.1	90.9	136.3
	[103kPa]	13.6	31.8	54.5	77.2	100.0	136.3	182.0	272.7
Cylinder Qty & Size		1x small	1x medium	1x medium	1x medium	1x large	1x large	2x larges	2x larges
Dimensions (W) [mm]		508mm	711mm	711mm	711mm	1169mm	1169mm	1619mm	1619mm
Dimensions (H) [mm]		813mm	1219mm	1219mm	1219mm	1219mm	1219mm	1346mm	1346mm
Dimensions (D) [mm]		330mm	406mm	406mm	406mm	406mm	406mm	66mm	66mm
Steam outlet (Qty)		1x	1x	1x	1x	1x	1x	2x	2x
Steam outlet (ø)		DN40	DN50	DN80	DN80	DN100	DN120	DN100	DN125
Weight (Net) (kg)		27kg	39kg	39kg	39kg	55kg	55kg	109kg	109kg
Weight (Oper) (kg)		50kg	79kg	79kg	79kg	109kg	109kg	190kg	190kg

Optional Features

- Floor mounting rack
- BACnet remote control
- Roof top weather proof enclosure (IP65)



ISE30 to 220



ISE300 to 600

ISE-HTHW

High Temperature Hot Water



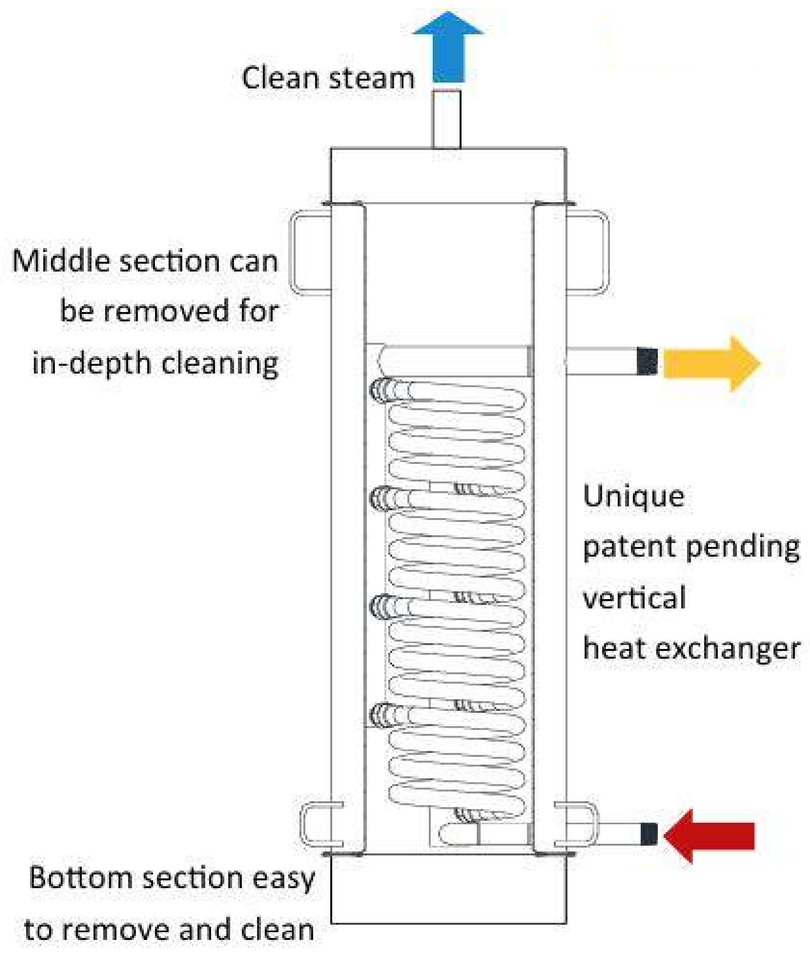
There are several advantages for HTHW boilers compared to pressurized steam boilers, such as : Lower initial equipment costs ; Lower operating costs ; Higher system efficiency ; Elevation changes do not affect HTHW systems.

ISE steam exchange humidifier by steamOvap® is the perfect fit for HTHW systems, ISE humidifier is designed with latest technology for control and energy conservation, it is safe to operate with all components enclosed in a cabinet. Its unique vertical cylinder made of three sections is thermally insulated, allows for easy service in few minutes with no tool required. It is the only one of its kind that is truly serviceable

Innovation Perfected. Performance Proven. Reliability Assured.

This steam exchange humidifier offers a safe, highly efficient design that prevents condensate from flooding the heat exchanger. It features a thermally insulated cylinder, flexible left- or right-hand steam connections, standard wall mounting, and a compact, lightweight design for easy installation. The self-cleaning vertical copper heat exchanger with nickel plating and unique 7-inch touchscreen make setup and operation simple and reliable.

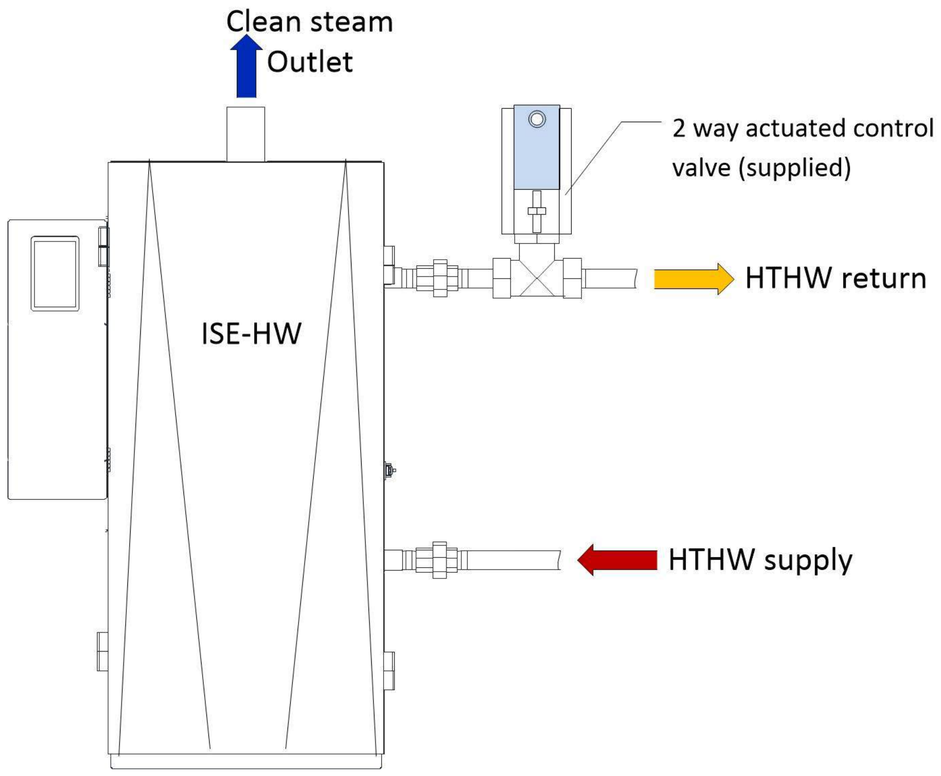
Service is quick and tool-free, requiring no spare parts. The patented EcoEnerSmart® function helps save energy and water, while the unique vertical heat exchanger and internal hydraulic circuit without check valves enhance reliability. Proudly designed and made in Canada by a dedicated team with over 40 years of humidification experience.



Built Around Performance. Driven by Innovation.

- Produces pure, sterile steam with full linear modulation from 1–100% and precise steam production of ±1% RH.
- Available in capacities from 2 to 130 kg/h and suitable for both tap water and RO water without additional options
- Includes Modbus RTU (RS485), optional BACnet remote control, a built-in computer, and a 7-inch touchscreen.
- Features the smallest footprint in the industry, a permanent stainless-steel cylinder, thermally insulated cylinder, and a self-cleaning vertical coil-shaped heat exchanger (patented pending).

ISE [High Temperature Hot Water]



ISE for high temperature hot water is supplied with a 3 way electric control modulating actuated valve (24Vac, signal 0-10Vdc) with fail safe. It is also including a wall mounting bracket, water sup ply braided hose and drain connection sleeve DN32. Supply voltage is 230Vac/1ph, 50/60Hz.

It has never been so easy and simple to install a steam exchange humidifier. Thanks to its unique & patent pending vertical heat exchanger ISE is the only HTHW humidifier on the market that can use city (tap) water with a clean steam cylinder that can be opened and cleaned in minutes without the need of tool.

Technical Data

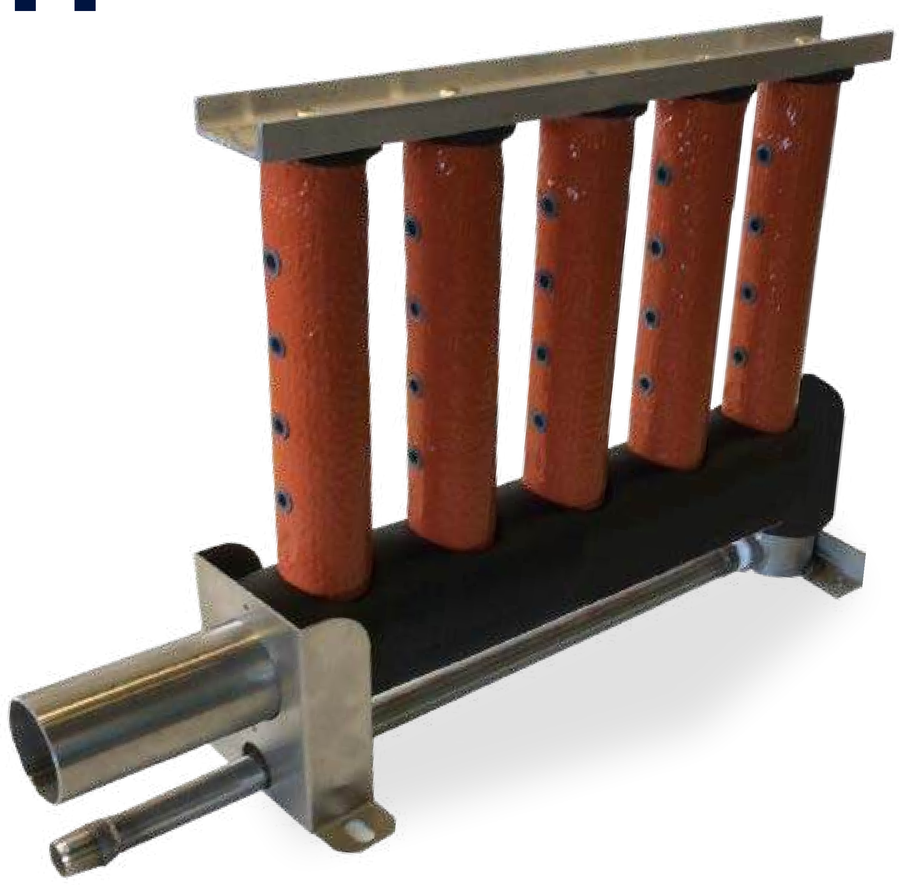
Model		ISE30-HW			ISE70-HW			ISE120-HW			ISE220-HW		
HTHW Flow (l/min)		30	45	64	30	45	64	30	45	64	30	45	45
Clean steam Capacity (kg/h)/ HTHW Temp.r	115°C	2	4	8	10	15	20	12	20	35	25	40	55
	125°C	13	20	25	25	30	40	28	47	55	53	68	90
	135°C	20	26	31	35	40	50	45	60	75	70	90	110
	145°C	27	30	35	40	50	60	62	20	100	89	112	130
Pressure drop (kPa)		10	15	20	20	25	30	30	45	60	30	50	70
ΔT across heat exchanger [°C]	115°C	5			5			5			5		
	125°C	8			8			8			8		
	135°C	10			10			10			10		
	145°C	15			15			15			15		
Steam outlet Qty & ø [mm]		1x DN50			1x DN50			1x DN80			1x DN100		
HTHW inlet Qty & ø [in]		1x 3/4BSP			1x 3/4BSP			1x 3/4BSP			1x 3/4BSP		
HTHW outlet Qty & ø [in]		1x 3/4BSP			1x 3/4BSP			1x 3/4BSP			1x 3/4BSP		
Cylinder Qty & Size		1x small			1x medium			1x medium			1x large		

Optional Features

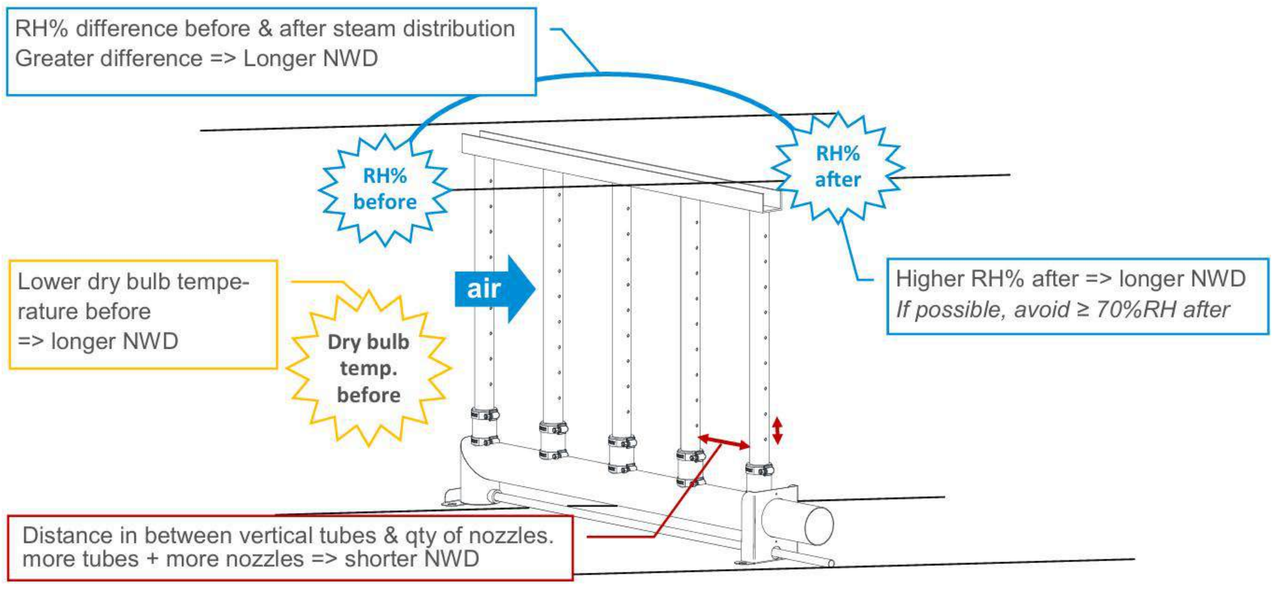
- Floor mounting rack
- BACnet remote control
- Roof top weather proof enclosure (IP65)

Steam Distribution

Steam humidification is the easiest humidification method to deal with: steam is sterile so there are no hygiene concern to deal with, also there is not much risk of water carry over in the duct. Nevertheless some basic considerations must be considered to ensure that your humidification system will be safe and efficient; with steam humidification more is not better : Oversizing your system will not only cause energy losses but can also lead to improper operation, early failure and in few cases condensate dripping in the supply duct.



Non Wetting Distance



Non wetting distance (NWD) is the distance downstream steam distribution at which there will be no condensing on the surfaces (except air filters or cooling coils) even if water vapour is still visible to our eyes.

Pressure drop & quantity of condensate losses during operation will increase as more vertical tubes are added. An efficient humidification design is not a design with the shortest non wetting distance but rather a design with the minimal losses and optimal NWD for your application.

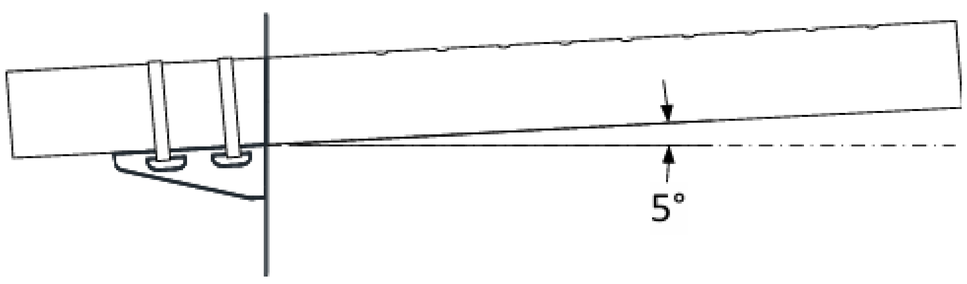
Guiding You to the Ideal Humidification

- Define location of the steam distribution in the HVAC system. Once the humidification load (steam capacity under the worst conditions) is defined, available distance downstream the steam distributor(s) depends on its location in the HVAC system. Steam distributor(s) must be placed in supply air.
- Best location for steam distribution is as closed as possible from the space to be humidified, and where air temperature is as high as possible. When ideal location is not possible, try to find the second best location.
- Use steamOcalc our steam selection web calculator to help you find the best configuration it will indicate estimated NWD and pressure drop across the steam distributor(s) for all the possible steam distributor(s).
- There are many possible valid locations in HVAC system ; however there are two locations to avoid: before air filters, or before cooling coils when cooling coils are in operation at same time as the humidifier, in both cases the steam will condense on the cold coil surfaces or in the air filter meshing.
- Having in mind that a short non wetting distance requirement will not only result in higher initial cost, but also in higher recurring operation costs due to more condensate losses and higher pressure drop.
- Single horizontal ramp(s) (model SR) or multiple vertical tube (model SO) for a given humidification load and air conditions. When air temperature is low (55ºF [12.8ºC] or lower) we do recommend the use of high efficiency (option E) steam distribution in order to reduce the condensate losses.

As a manufacturer we will design and produce the steam distribution in order to meet your required NWD. However, as designer avoiding very large increase of RH% or low air dry bulb temperature will greatly affect the quantity of required vertical tubes thus the cost of the steam grid and its efficiency (condensate losses and pressure drop of the steam grid).

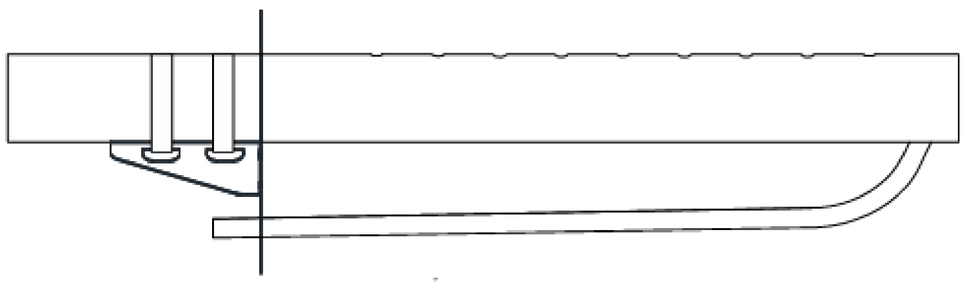
Technical Data

Method	In duct				In space
Type	Single ramp	Single ramp	Distribution grid		Blower pack
Max capacity	SRC	SRC	SO steamOsorb		SB
Diameter	[DN40, 50 or 65]	[DN40, 50 or 65]	Header SO-H [DN50 to 200]	Vertical ramp SO-R [DN40 or 50]	[DN40, 50 or 65]
Capacity	2 to 30kg/h	2 to 38kg/h	2 to 1500kg/h	2 to 1500kg/h	12 to 44kg/h
Distance between ramps	As per duct height & qty, min. 76mm	As per duct height & qty, min. 76mm	As per duct width and required NWD, minimum 76mm		N/A
Options	2 rows of nozzles (option X) Thermal insulation (option E)	2 rows of nozzles (option X) Thermal insulation (option E)	Thermal insulation (option E) Frame with flanges (option FF) Frame for Insertion (option FI)		Built-in or Remote



SRS - Steam ramp

SRS - Steam ramp without dedicated condensate return Condensate is returned in same steam pipe, with the 5° slope. Simpler to install, but not recommended when large quantity of condensate is produced, in case of long steam line run or large duct with low air temperature. -V for Vertical flow and/or - R for Round duct.



SRC - Steam ramp

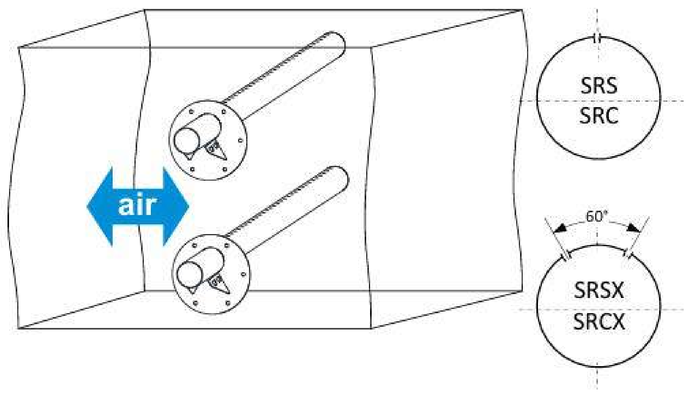
SRC - Steam ramp with dedicated condensate return Condensate is returned in a dedicated pipe. This allow to carry more steam in steam line. This design avoids any possible trouble due to condensate flowing against the steam flow inside steam line. A condensate line must be installed and connected to drain or returned to humidifier. -V for Vertical flow and/or - R for Round duct.



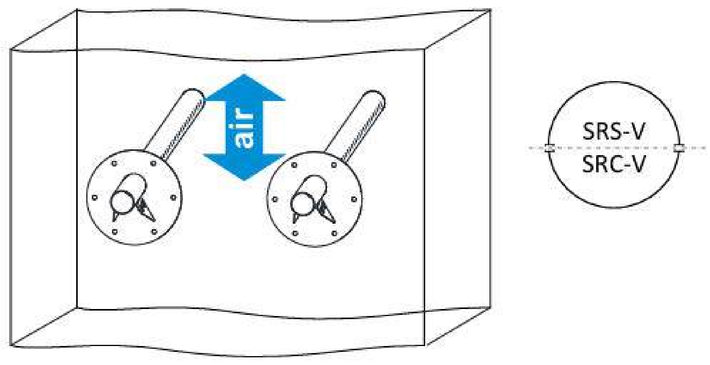
Option X

SRSX or SRCX - single steam ramps with 2 rows of nozzles . This option allows for more steam capacity for the steam ramps. It reduces the required quantity of steam ramps when one ramps is not enough to distribute the steam capacity. Two rows of nozzles would not reduce non wetting distance.

Engineering You Can Trust and Rely On



Horizontal duct



Vertical duct

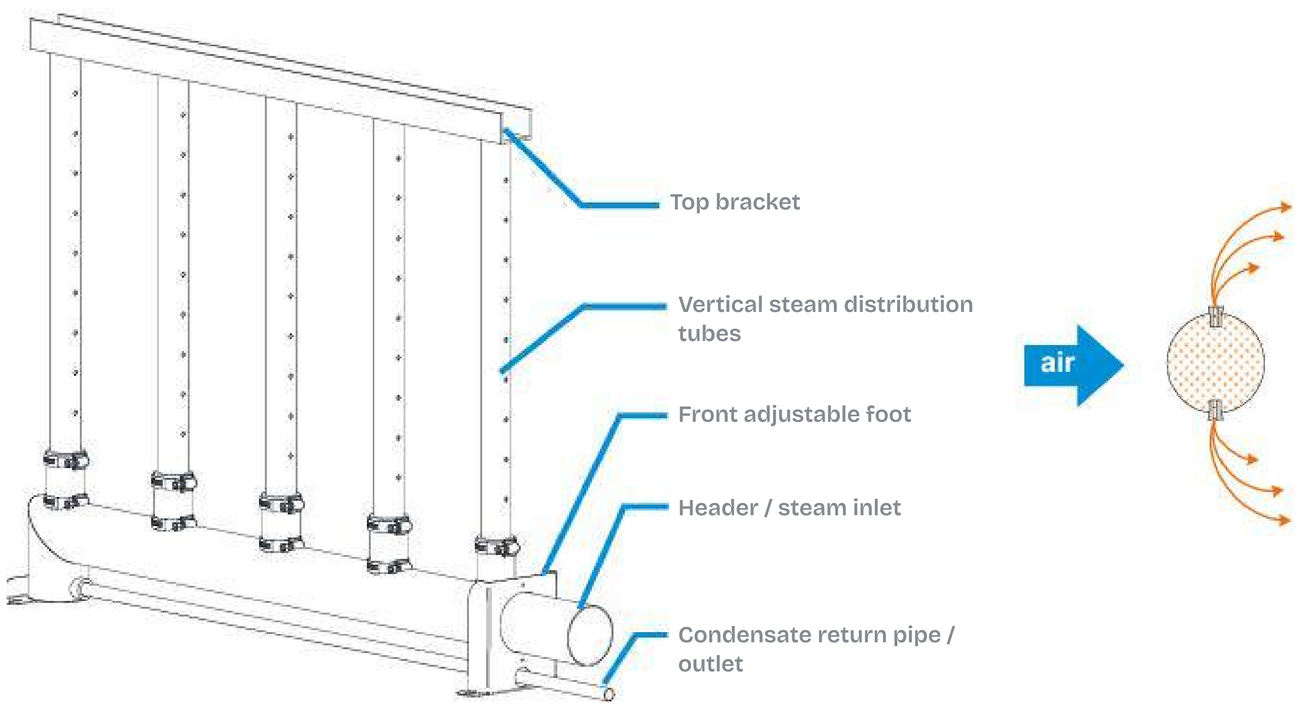
steamOsorb multi-ramps

SOS - standard steamOsorb



Model steamOsorb is made of vertical tubes equipped with steam distribution nozzles. These nozzles are positioned perpendicular to the air flow; the tubes are connected to the header which is provided with a condensate return pipe and two feet. A top mounting bracket completes the assembly to maintain the vertical tubes and allow for easy installation of the SO in the ventilation duct or AHU.

Each SO steamOsorb is designed and adapted to fit inside ventilation duct and to meet the calculated non-wetting distance; header diameter will depend on maximum steam capacity; quantity of vertical tubes and quantity of nozzles will depend on steam capacity and non-wetting distance.

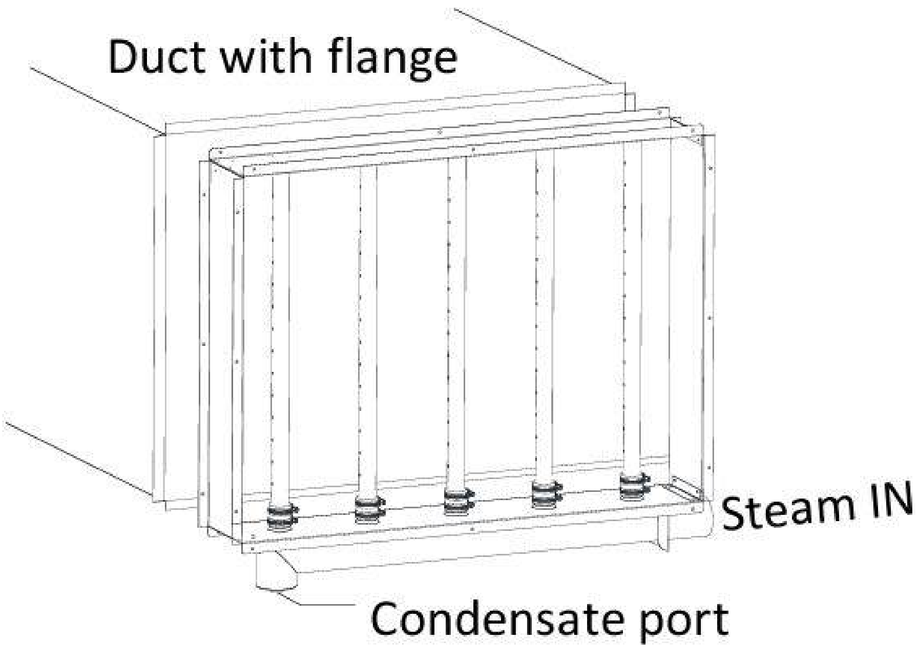


Solutions For Application

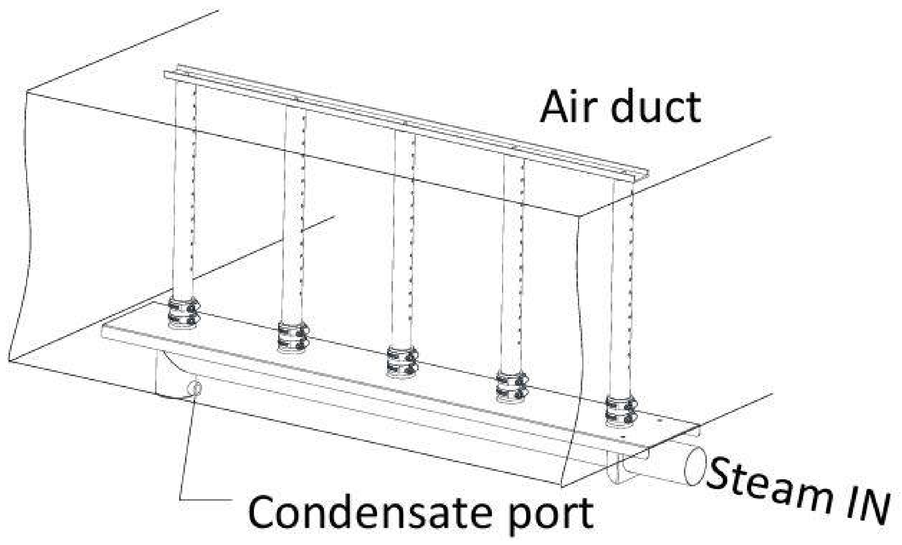
- Integral stainless steel construction.
- Made to measure to fit duct or AHU dimensions.
- Fits horizontal or vertical flow duct.
- Achieve very short non-wetting distance.
- 3 year warranty

Installation Option for Precision

Standard mounting is by seating the SO steamOsorb inside the duct. The front and back foot bracket are attached duct bottom plate and top backet is attached to the top plate of the duct,



In some cases, for large steam capacity into small duct and/or very short non-wetting distance requirements, mounting options -FF (Frame with flanges) or -FI (Frame for insertion) will allow to place the steam header outside the duct. Frame for -FF & -FI are made of stainless steel and are adapted to the exact size of your duct.

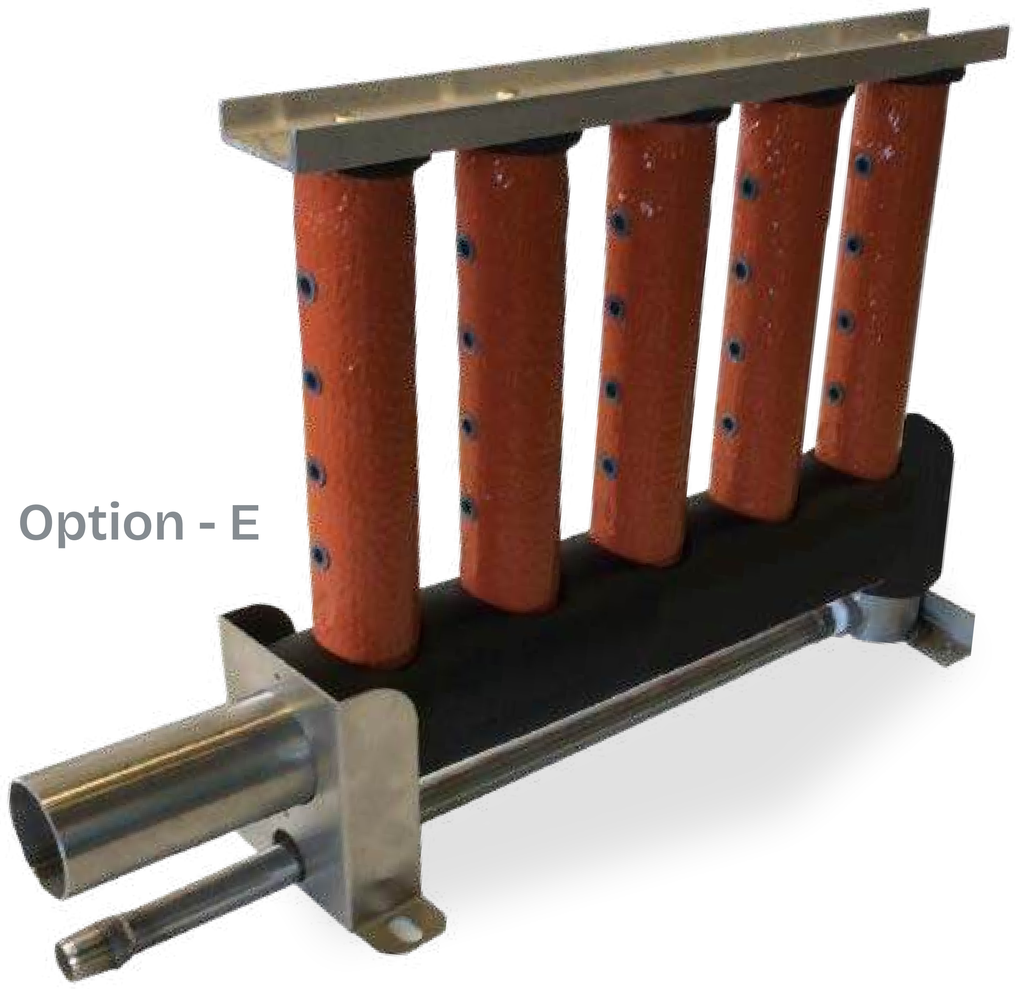


High Efficiency Steam Distribution

High Efficiency steam ramps with thermal insulation - option E - is available on any steam ramp model, single ramp, model SRS, or SRC, or steamOsorb multi-ramps, model SO.

This solution combines two very efficient and robust insulation materials in hollow sleeve with no longitudinal joint. It is covering all parts in contact with cold air. This thin thermal insulation is allowing to significantly increase efficiency by reducing condensate loss and air heat gain. It is a proven and affordable design.

Insulation material is rated for direct contact with flame and a 260°C continuous operation, UL rated, certified to ASTM E84 (equivalent to UL723) and bearing more safety certifications than any others.



Option - E

Redefining Humidity Control Through Innovation.



Save Energy:
High-efficiency thermal insulation helps reduce energy waste by minimizing steam condensation by up to 80%, allowing the same steam capacity with lower energy consumption. It also enables greater steam ramp capacity, reducing the number or length of steam ramps required and lowering installation costs. During free cooling, the insulation minimizes heat gain from outdoor air, reducing humidification demand and delivering long-term operational savings.

Reduce Costs:
The steamOvap® high-efficiency insulation features a fiberglass braided hollow sleeve for exceptional thermal resistance and an iron oxide red silicone rubber outer shell that resists chemicals, abrasion, UV exposure, and moisture. Its seamless round-sleeve design eliminates longitudinal joints, preventing thermal bridges and premature wear while ensuring reliable performance and durability during installation and operation.

Precision Crafted. Performance Delivered. Reliability You Can Count On

- Reduces condensate loss by up to 80%, increasing steam efficiency and capacity while shortening absorption distance.
- Thin 3.6 mm insulation with R-value 0.33, rated for continuous operation up to 260°C with minimal pressure drop.
- Resistant to heat, flames, abrasion, moisture, chemicals, and corrosive environments. Features durable, drip-free polymer nozzles.
- Suitable for atmospheric or live steam, single or multi-ramp systems, and certified to ASTM E84 (UL723 equivalent) for safe, reliable performance.

steam distribution
SB - Space blower



SB - Space blower allows for direct in-space steam distribution when no ventilation duct is present or for humidification at a very specific location. Space blower can be factory installed built-in on the IER or ISE humidifier or on-site installed remotely from the humidifier

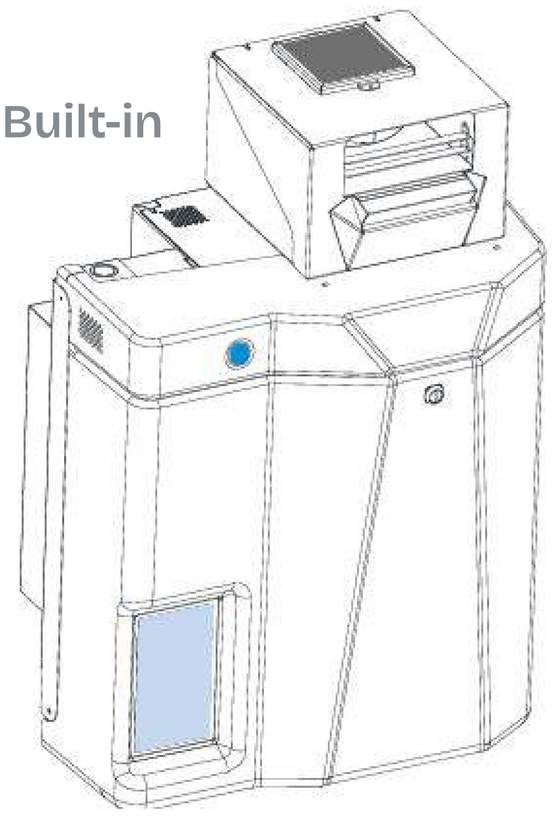
SB is robust and unique to the industry as the stainless steel steam distributor is thermally insulated in order to reduce condensate loss and optimize steam output. It also reduces temperature of all the internal components during operation increasing the life expectancy of the electrical motor fan.

Technical Data

	SBS	SBM	SBL
Steam inlet Diam.	[DN40]	[DN50]	[DN65]
Max capacity	12.0kg/h	29.0kg/h	44.0kg/h
Dimensions WxHxD (cm)	23x18x23	29x23x30	29x23x30

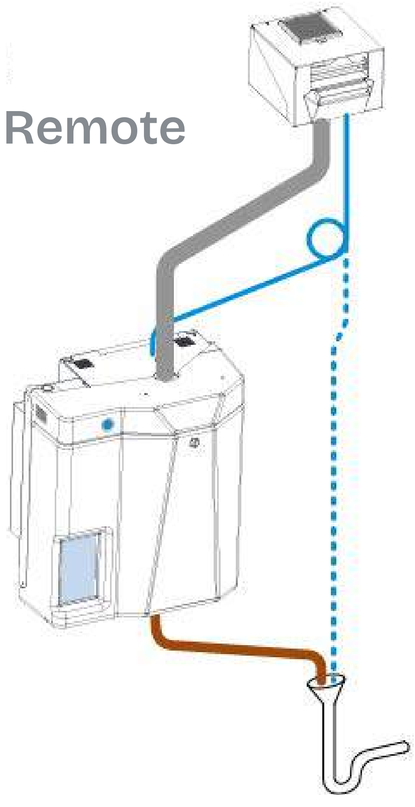
Installation Option for Precision

Built-in



Power supply from humidifier **IER** or **ISE**

Remote



Supplied with 230Vac/1ph power cord and outlet adapted to country's standard receptacle

Solutions For Application

- Thermally insulated steam diffuser made of stainless steel - unique to the industry.
- Adjustable air flow deflector.
- Built-in or remote mounting from IER or ISE humidifiers.
- Washable inlet air filter.

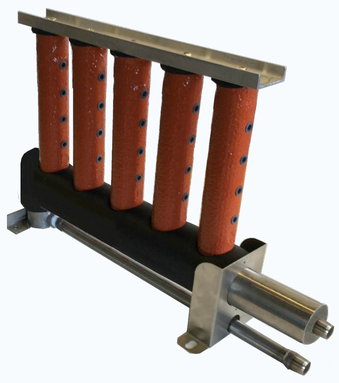
Live Steam Humidification



Live steam humidification is a very efficient and cost effective way for air humidification when pressurized steam is available on site. Some precautions and good design practices must be considered:

1. Use chemical-free pressurized steam compliant with FDA 21 CFR Sec. 173.310 for safe human consumption.
2. Condition the steam using a strainer, steam separator, and properly sized steam valve for smooth, reliable operation.
3. Maintain steam pressure between 34 to 103kPa for optimal efficiency, performance, and component life.

Selection guide

		ILS-P	ILS-SO	ILS-SE
	Model	Jacketed live steam 	Live steam with standard steamOsorb steam distribution grid 	Live steam with insulated steamOsorb steam distribution grid 
	Heat Gain	Large heat gain in the air stream. Best use when humidification is required only in winter	Some heat gain in the air stream. Best use when humidification is required only in winter	Very Limited heat gain in the stream. All year long humidification, i.e. also when cooling is ON.
Condensate	Amount	Large amount of condensate	Good amount of condensate	Very few condensate
	Handling	Pressurized condensate returned to boiler	Atmospheric condensate to drain	Atmospheric condensate to drain
	Option	N/A	Optional pressure motive pump (model PMP) can pressurize atmospheric condensate and lift it back to the boiler	Optional pressure motive pump (model PMP) can pressurize atmospheric condensate and lift it back to the boiler
Condensate	Range	2 to 1,500kg/h or more	2 to 1,500kg/h or more	2 to 1,500kg/h or more
	Limit	Single ramp best adapted for small capacity	Not adapted for small capacity	Not adapted for small capacity
Non-wetting distance (NWD)		Very short	Steam distribution grid is fully adaptable to NWD requirements	Steam distribution grid is fully adaptable to NWD requirements
Duct	Dim.	Small to large duct dimensions	Best adapted for medium to large duct dimensions	Best adapted for medium to large duct dimensions
	Options.	N/A	Options - FF & -FI with header below and outside the duct for large steam capacity with shorter NWD	Options - FF & -FI with header below and outside the duct for large steam capacity with shorter NWD
Initial cost		Moderate initial cost	Lowest initial cost	Lowest initial cost
Other Options		Integral stainless steel construction for pure steam (boiler supplied with DI water).		
		Steam control valve with stainless steel trim and seal or PFTE seal material are avalaible.		

ILS
Live Steam Humidifier

ILS humidifier by steamOvap® uses steam from a central steam boiler as a source 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





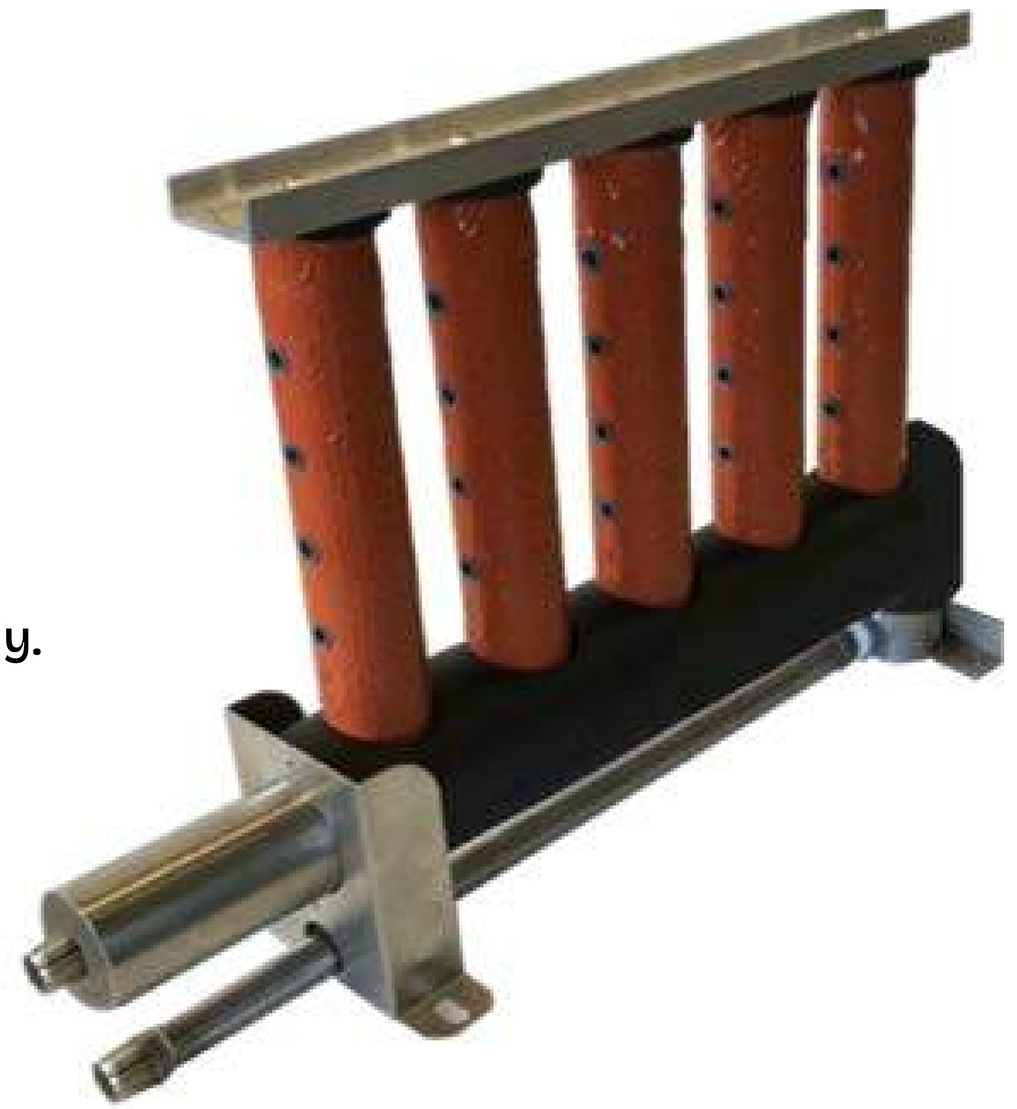
Comprehensive Steam Humidifier Solutions

The ILS-P live steam humidifier is a pre-heated jacketed model that circulates steam through a jacketed tube before distributing it into the AHU air stream, ensuring efficient and reliable humidification. It is available in Single Ramp, Mini Rack (factory assembled), and Horizontal Multi-Ramp (on-site assembly) configurations. The range also includes the ILS-SO steamOsorb® vertical multi-ramp model and the ILS-SE high-efficiency steamOsorb® model, offering robust, easy-to-install solutions for a wide range of commercial and industrial applications.

Each system is supplied with premium steam distribution components, including a bronze control valve, fully modulating electric actuator, stainless steel steam separator, stainless steel strainer, float and thermostatic steam trap, and a stainless steel steam-jacketed distribution ramp.

Solutions That Fit Your Application

- Condensate drain cooler with thermostatic valve or electric
- S/S body control valve, S/S body strainer.
- Thermo contact for F&T steam trap
- Manual or actuated shut-off valve for steam supply.
- Pressure motive pump for condensate lifting.
- BACnet remote control.



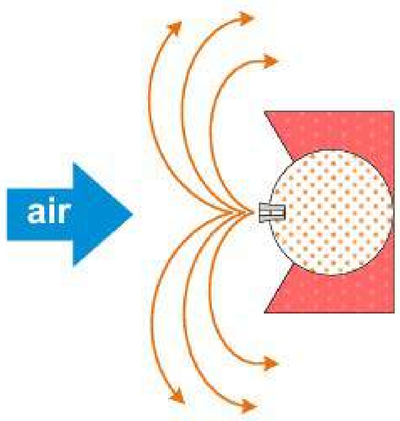
ILS-P
Live Steam Humidifier (Jacketed)



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.

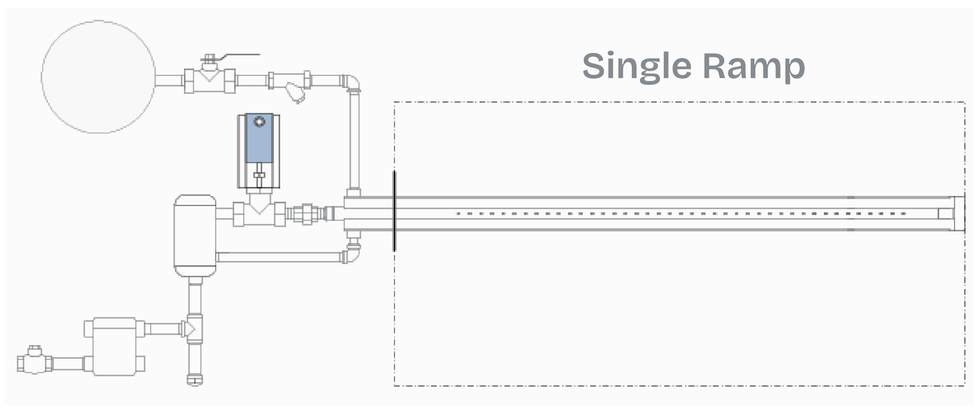
It includes following components: strainer, separator, actuated control valve. steam ramps with preheated jacket and F & T condensate trap.

This old technology is still the best suited solution when clean steam from central boiler is available onsite and humidification requirement correspond to the heating season.



Solutions That Fit Your Application

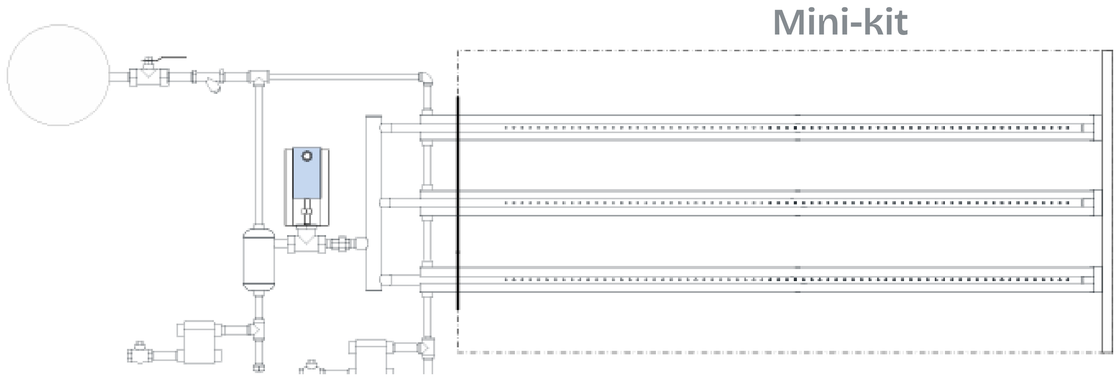
- 2–1500 kg/h capacity for medium to large humidification applications.
- Compatible with DI, RO, or tap water steam, offering drip-free performance and multiple ramp configurations.
- Includes a modulating electric valve with optional thermo-contact for seamless system integration.
- Supplied with fully modulating electric actuated valve (24vac, signal 0-10 or 2-10Vdc)

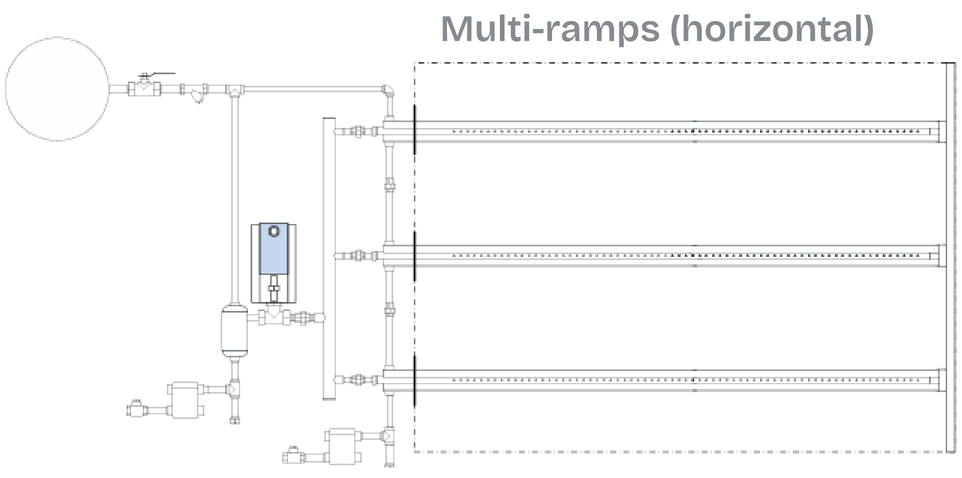


Installation Option for Ramps

Single ramp type provides lowest initial investment cost for steam humidification. Capacity from 2 to 150kg/h.

Mini-kit (factory assembled) provides a compact design. Capacity from 2 to 150kg/h.





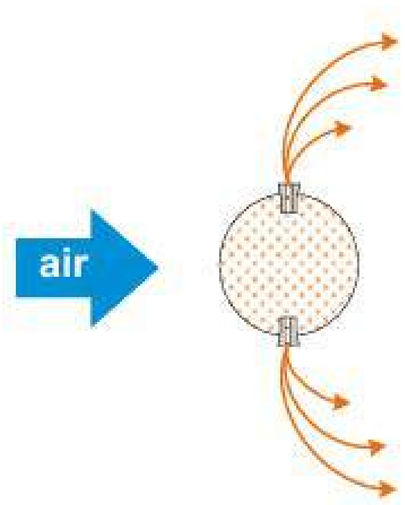
Horizontal multi-ramp (on-site assembly) is the best option for large AHU. Capacity from 2 to 1500kg/h.

ILS-SO
Live Steam Humidifier (Steamosorb)

ILS-SO humidifier by steamOvap® is using vertical steam ramp. Any condensate forming in the steam ramp will fall and collect into the large horizontal header, before to be directed to the drain or re-pressurized with pressure motive pump.

Drip free steam distribution is ensured by the special design of the nozzles. It is a simple and very cost effective way to humidify when pressurized clean steam is available onsite and humidification requirement correspond to the heating season, as the huge heat gain from the steam ramps will contribute to air heating.



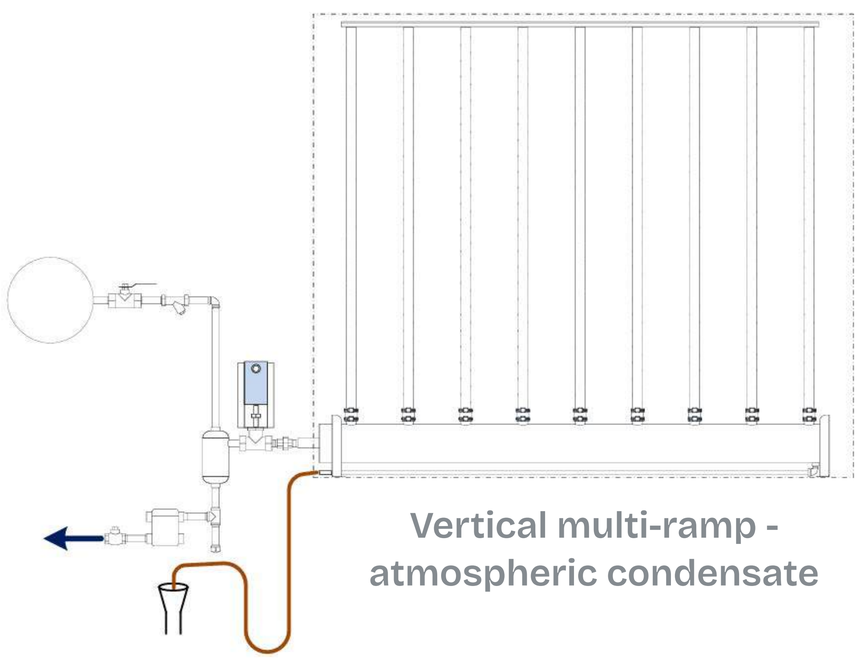


Solutions That Fit Your Application

- 2–1500 kg/h capacity with simple installation for small to large humidification loads.
- Designed for DI, RO, or tap water boiler steam with atmospheric or pressurized condensate return options.
- Features a fully modulating electric valve, with optional BACnet remote control and thermo-contact for F&T steam trap.
- Supplied with fully modulating electric actuated valve (24vac, signal 0-10 or 2-10Vdc)

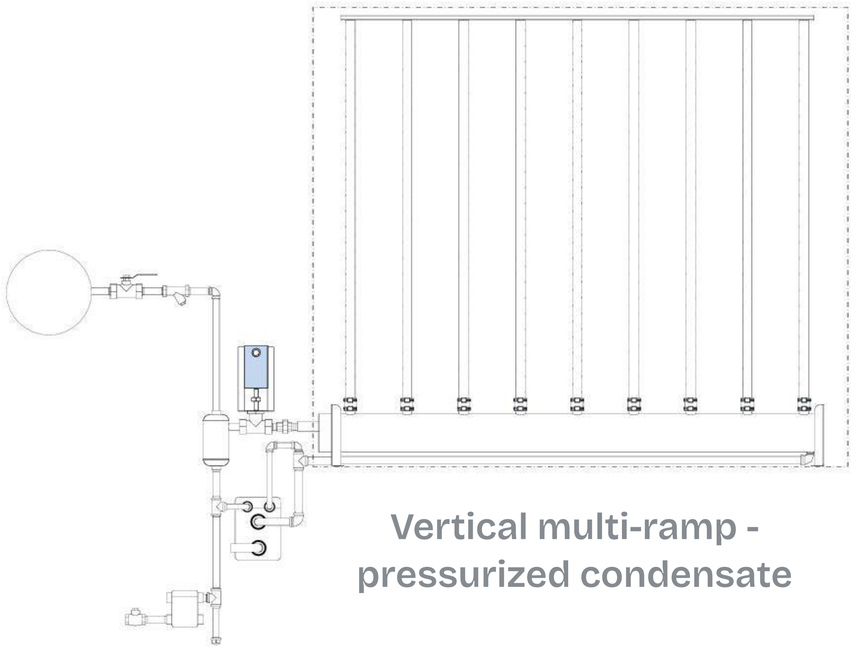
Installation Option for MultiRamps

Condensate is atmospheric and returned to main drain of the building. Optional condensate drain cooler with thermostatic or electric valve.



Vertical multi-ramp - atmospheric condensate

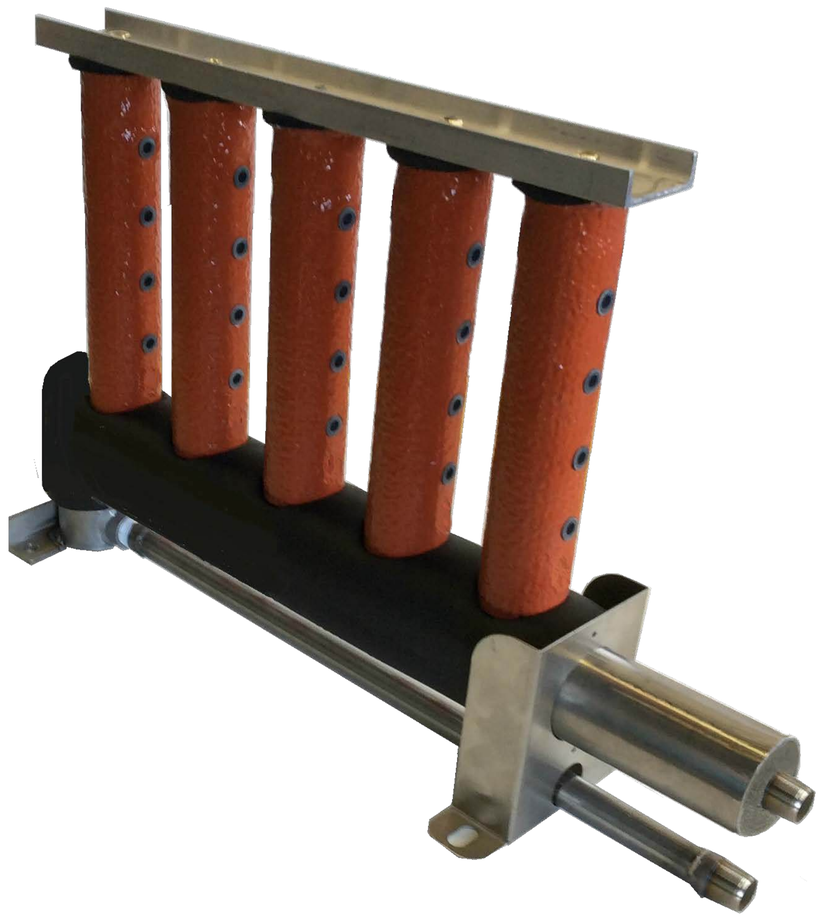
Condensate collected in the header is re-pressurized with pressure motive pump and returned to the boiler. 0 waste to drain.



Vertical multi-ramp - pressurized condensate

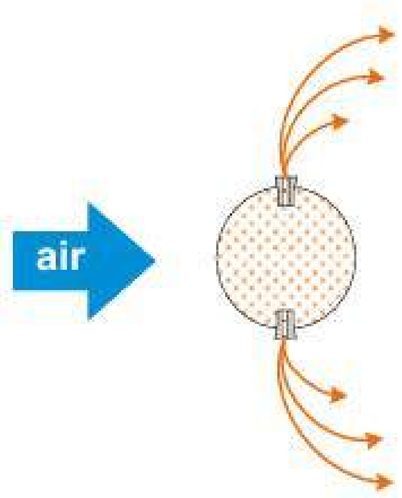
ILS-SE

Live Steam Humidifier (High Efficiency Steamosorb)



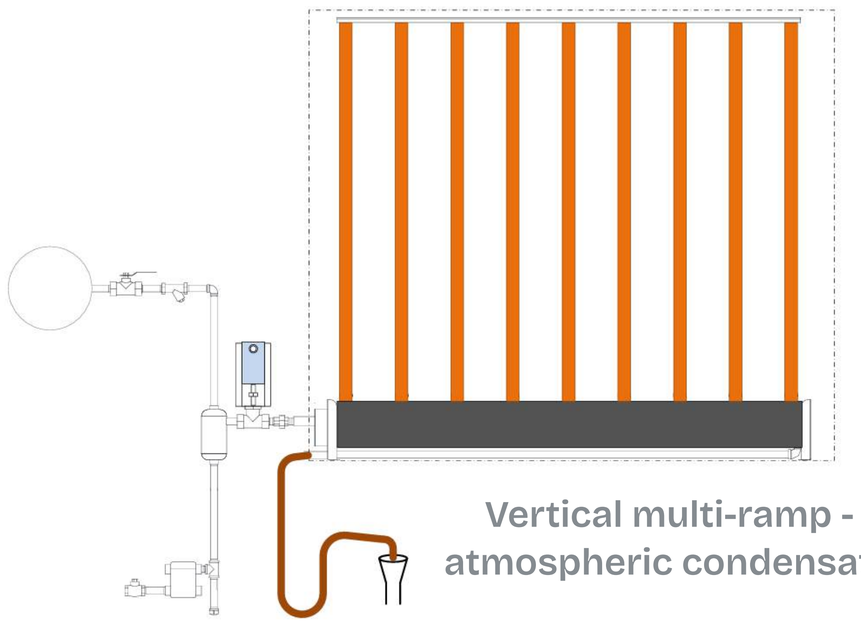
ILS-SO humidifier by steamOvap® is using vertical steam ramp. Any condensate forming in the steam ramp will fall and collect into the large horizontal header, before to be directed to the drain or re-pressurized with pressure motive pump.

Drip free steam distribution is ensured by the special design of the nozzles. It is a simple and very cost effective way to humidify when pressurized clean steam is available onsite and humidification requirement correspond to the heating season, as the huge heat gain from the steam ramps will contribute to air heating.



Solutions That Fit Your Application

- 2–1500 kg/h capacity with high-efficiency thermal insulation for reliable performance.
- Rated for 260°C continuous operation & certified ASTM E84 (eq. UL723)
- High efficiency with robust very thin thermal insulation covering all parts in contact with air.
- Supplied with fully modulating electric actuated valve (24vac, signal 0-10 or 2-10Vdc)

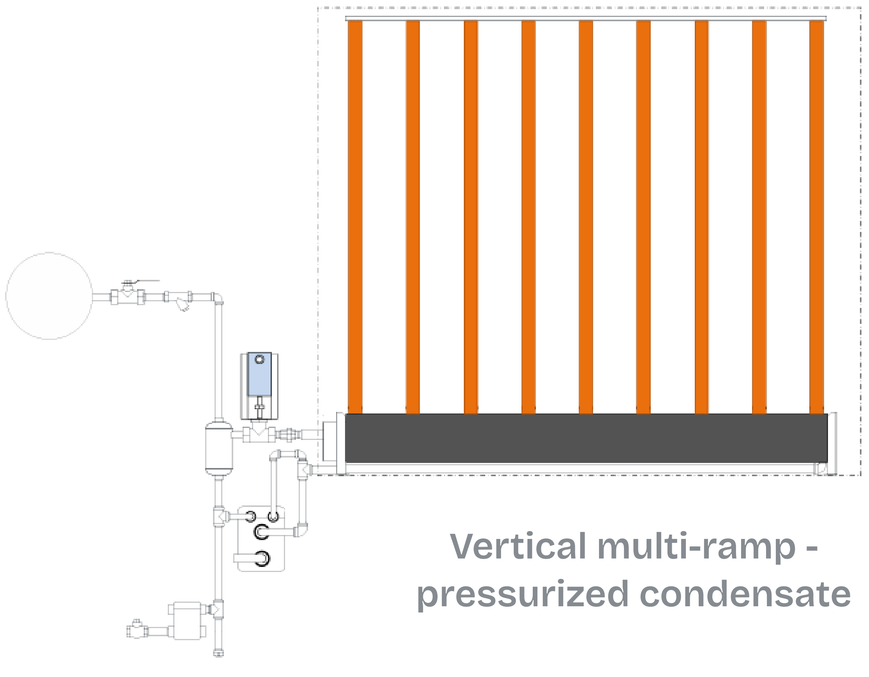


Vertical multi-ramp - atmospheric condensate

Installation Option for MultiRamps

Condensate is atmospheric and returned to main drain of the building. Optional condensate drain cooler with thermostatic or electric valve.

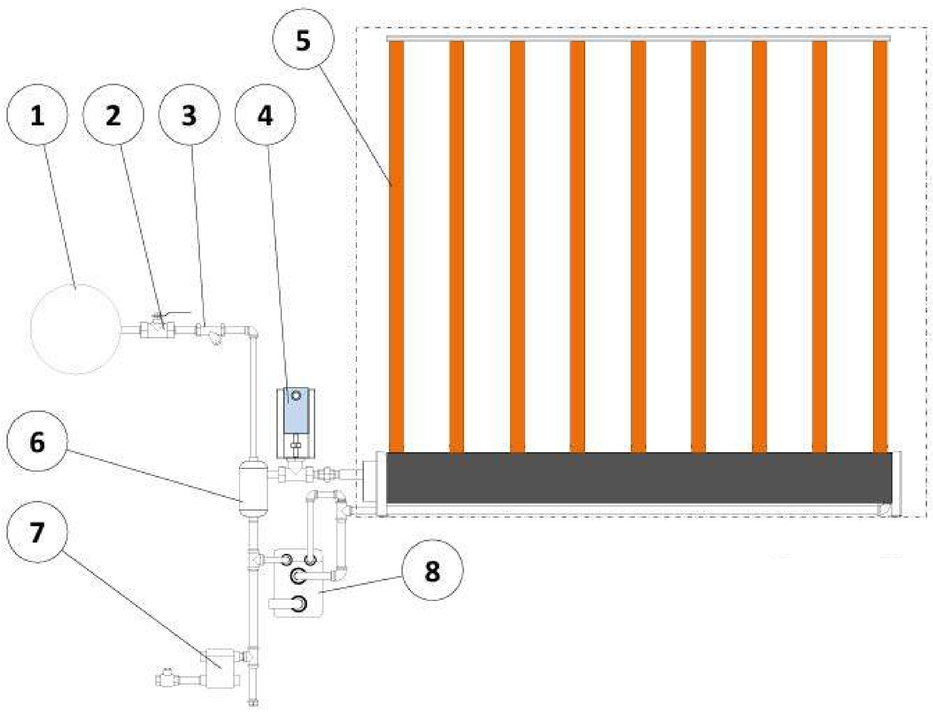
Condensate collected in the header is re-pressurized with pressure motive pump and returned to the boiler. 0 waste to drain.



Vertical multi-ramp - pressurized condensate

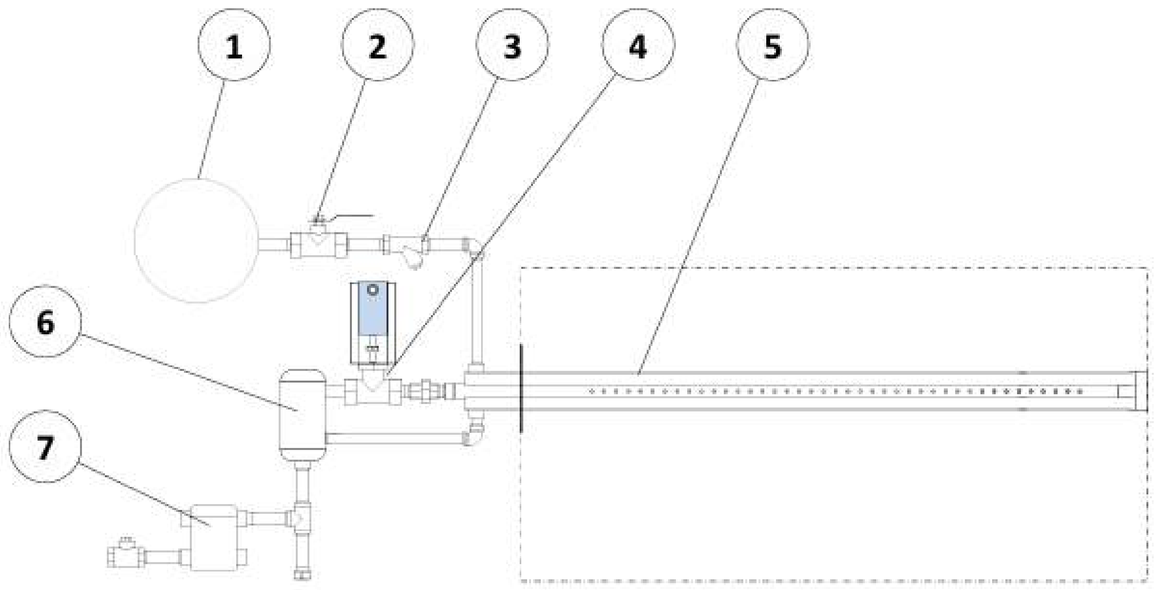
Technical Data

	ILS-P single ramp	ILS-P mini-kit	ILS-P multi-ramp	ILS-P multi-ramp	ILS-P multi-ramp
Capacity	2 to 150kg/h	2 to 150kg/h	2 to 1500kg/h	2 to 1500kg/h	2 to 1500kg/h
Max capacity	13 to 103kPa	13 to 103kPa	13 to 103kPa	13 to 103kPa	13 to 103kPa
Distance between ramps	N/A	76mm	150mm	76mm	76mm
Actuated valve (voltage & signal)	24Vac 0-10 or 2-10Vdc	24Vac 0-10 or 2-10Vdc	24Vac 0-10 or 2-10Vdc	24Vac 0-10 or 2-10Vdc	24Vac 0-10 or 2-10Vdc



System Components at a Glance

1. steam source
2. shut-off valve (by others)
3. Strainer (supplied)
4. Electric modulating actuated valve (supplied)
5. Steam jacketed ramp or steam grid (supplied)
6. separator: (supplied)
7. F&T steam trap (supplied)
8. Pressure motive pump (optional)



Nomenclature

ILS-P | 1 - 30x18 | TC

- **ILS-P** — Type & Model
- **1** — Nb of ramp
- **30x18** — Duct dimensions (cm)
- **TC** — Options
  - **B** BACnet
  - **TC** Safety thermo-contact
  - **SS** All components in Stainless steel

Nomenclature

ILS-SO | 9 - 50x45 | SS

- **ILS-SO** — Type & Model
- **9** — Nb of ramp
- **50x45** — Duct dimensions (cm)
- **SS** — Options
  - **B** BACnet
  - **TC** Safety thermo-contact
  - **SS** All components in Stainless steel

DHL
Duct HI-Limit Humidistat

DHL is used as High limit humidistat safety when humidifying in duct. It is suitable for steam or adiabatic humidification.



Advanced Control Parameters

- Control mode: ON/OFF
- Sensitive element: synthetic fabric bands
- Set point range: 30 to 100%RH
- Switching differential: 5%RH
- Contacts type & rating: NO & NC SPDT potential free contacts maximum 15A at 230Vac



DAP
Duct Air Proving Switch

DAP is used as Air proving safety switch when humidifying in duct. It will prevent from operating humidifier in case there is no air flow.

Advanced Control Parameters

- Control mode: ON/OFF
- Set point range: 20 to 300Pa
- Max pressure: 7500Pa
- Max Switching frequency: 6 cycles / min
- Contacts type & rating: NO & NC SPDT potential free contacts maximum 2A at 250Vac or 1A at 30Vdc

FLS
Floor Leak Switch

FLS is used to detect any water accumulation on the floor of a room or duct, it is used to prevent from any water damage.



Advanced Control Parameters

- Supply voltage: 11 to 27Vac or Vdc
- Contacts type & rating: NO & NC SPDT potential free contacts maximum 1A at 24Vac/Vdc
- Display: Green LED = Power On Red LED = Alarm Probes Gold plated 38mm adjustable
- Housing: Cast aluminum, Stainless steel cover

ACA
Compressed Air & Water Atomizing Humidifier

ACA dry fog atomizer are supplied with water and compressed air. Atomizer's patented acceleration chamber creates an airflow pattern reaching supersonic speeds. The airflow sucks in water from a venturi column. The impact between the supersonic flow of air and the water generates shock waves, which produce the micro-droplets. The "solid con" jet of micro droplets forms a uniform "dry fog" which evaporates quickly into the air.

This atomizer producing a very fine mist (2 to 4µm) is the ideal humidification solution for cold storage as droplets are not freezing up even at very low temperature such as 0°C. ACA atomizer is robust and can accept untreated water up to 100ppm TDS or RO treated water.



Reliable Humidity Starts with Better Engineering

ACA Atomizer provides efficient humidification for both direct in-room and in-duct applications. The direct in-room system is ideal for printing, woodworking, and cold storage, while the in-duct configuration is designed for data centers, server rooms, and HVAC systems, offering easy installation and reliable performance. Featuring a patented Venturi design with no moving parts, the ACA Atomizer is clog-free, maintenance-free, and compatible with untreated water (up to 100 ppm TDS). Its rugged construction is backed by 15-year atomizer durability and an industry-leading 3-year warranty

Redefining Dry Fog Humidification

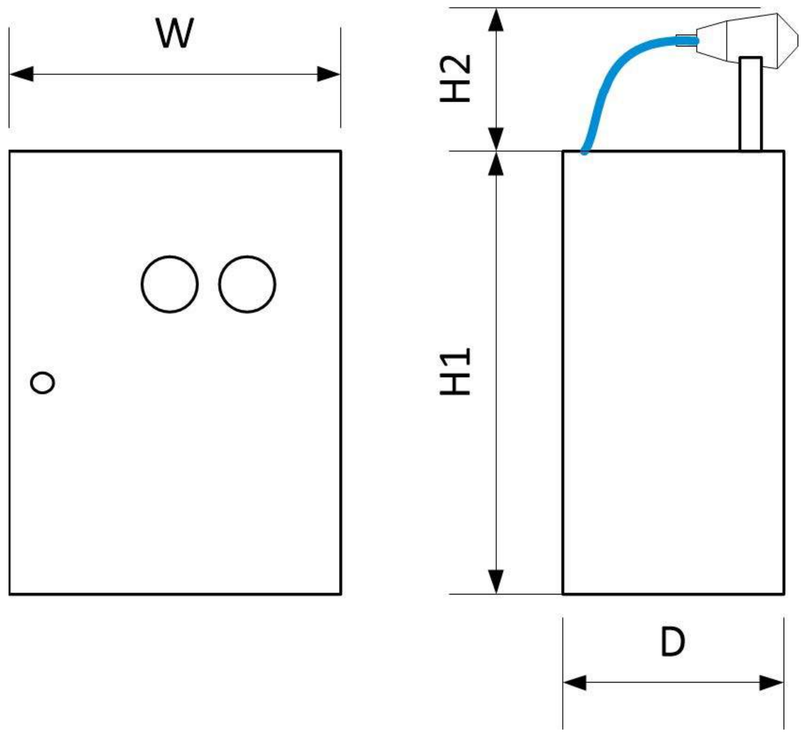
- Produces ultra-fine 2–4 µm dry fog droplets with capacities from 6 to 472kg/h for precise and efficient humidification.
- Operates with low energy consumption, requires only 87 PSI compressed air, and delivers ±1% RH accuracy with humidity levels up to 96% RH.
- Features a patented Venturi atomizer with a large, non-clogging orifice, no maintenance requirements, and compatibility with untreated water.
- Operates at very low temperatures and includes an electronic controller capable of managing single, dual, or multiple humidification zones.



15 years warranty on nozzle industry's longest'

Technical Data

	ACA-S2	ACA-S4	ACA-S6	ACA-Dx
Capacity (kg/h)	12.0	24.0	36.0	6.0 to 472.0
Air pressure	600 to 800	600 to 800	600 to 800	600 to 800
Air consumption (l/min)	120 @ 600kPa	240 @ 600kPa	360 @ 600kPa	120 @ 600kPa per atomizer
Water pressure (kPa)	275 to 415	275 to 415	275 to 415	275 to 415
Total Dissolved Solids (ppm)	100ppm max	100ppm max	100ppm max	100ppm max
Voltage (Vac)	100 to 250Vac	100 to 250Vac	100 to 250Vac	100 to 250Vac
Power (W)	15	15	15	15 to 100
Dimensions W) [cm]	40.0	40.0	40.0	-
Dimensions H1) [cm]	50.0	50.0	50.0	-
Dimensions H2) [cm]	10.0	10.0	10.0	-
Dimensions D) [cm]	20.0	20.0	20.0	-
Net Weight	11kg	12kg	13kg	-



Components supplied

- Electronic controller for 1 or 2 zones control
- RH% & Temperature sensor.
- Water & air hoses
- 2 stages water filters 1µm + anti-bacterial silver ions cartridge
- Power supply (100 to 250Vac, 1ph, 50/60Hz)

Optional Features

- Modbus remote communication
- BACnet remote control
- Stainless steel enclosure

Nomenclature

Model	Designation
ACA-S2	ACA in space 2 nozzles
ACA-S4	ACA in space 4 nozzles
ACA-S6	ACA in space 6 nozzles
ACA-Dx	ACA Duct distribution (1 to 80 nozzles)
ACA-NOZZ6	Nozzle only
ACA-OCUx	Control panel (X = 1 or 2 zones)

AEM
Evaporative Media Humidifier & Air Cooler

AEM evaporative humidifier and cooler using evaporative media is designed to be installed in Air Handling Unit (AHU) or ventilation duct. Water is circulated in the evaporative media , as hot air is passing through the wet media, water is evaporated by the latent energy of the air. As a result the air gets cooled off up to 12°C and humidified at the same time (humidity) is introduced into the space via a rigid tube.

It is intrinsically safe regarding the risk of bacteria growth since it is not re-circulating any water, and at no time would cause stagnant water in internal circuit or surrounding. It is also the humidifier that consumes the least electricity in the industry with only 30W whatever its capacity.

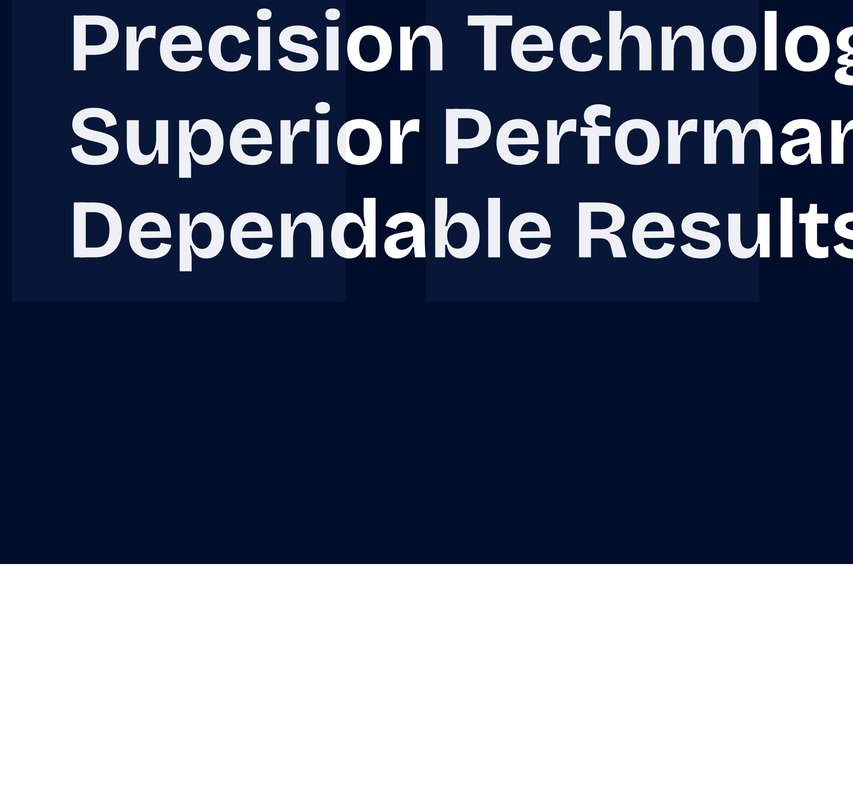




Precision Technology. Superior Performance. Dependable Results.

AEM In-Duct Humidifier offers an advanced adiabatic solution without droplet eliminators, wet duct sections, or pure water requirements. Its innovative design prevents stagnant water and bacterial risks while operating efficiently with tap water, delivering the industry's lowest pressure drop and consuming less than 50W of power.

With pulse-to-demand water flow technology, AEM ensures precise control, zero water loss, and safe operation. Proudly designed and made in Canada, it features a 7-inch touchscreen interface and is backed by an industry-leading 3-year warranty for reliable performance.



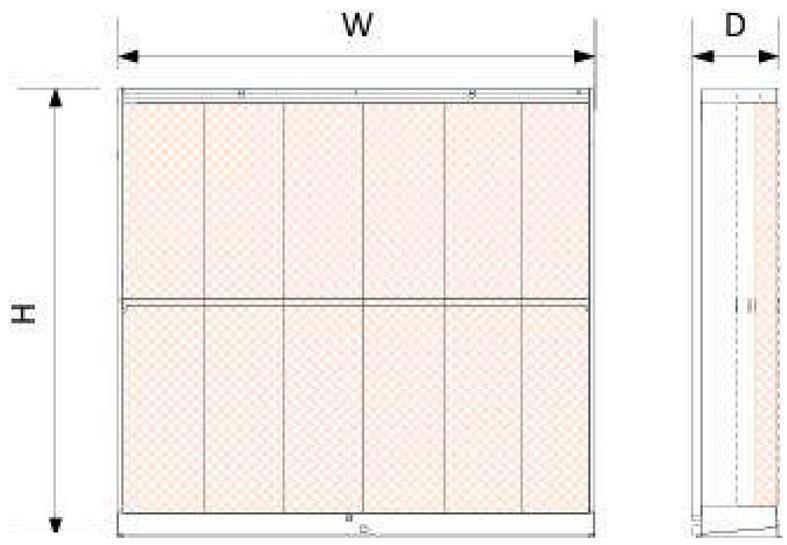
Every Feature Designed to Deliver Excellence

- Delivers up to 99% efficiency with ultra-low energy consumption (<50W) and minimal pressure drop (<99Pa.).
- Features an intrinsically safe design that prevents bacterial growth and supports reliable humidity control.
- Uses inorganic ceramic GLASdek® evaporative media by Munters, UL900 Class 1 and GREENGUARD Gold Certified, suitable for tap or RO water without additional options.
- Equipped with pulse-to-demand control for minimal water loss and built with integral stainless steel construction for long-lasting performance.

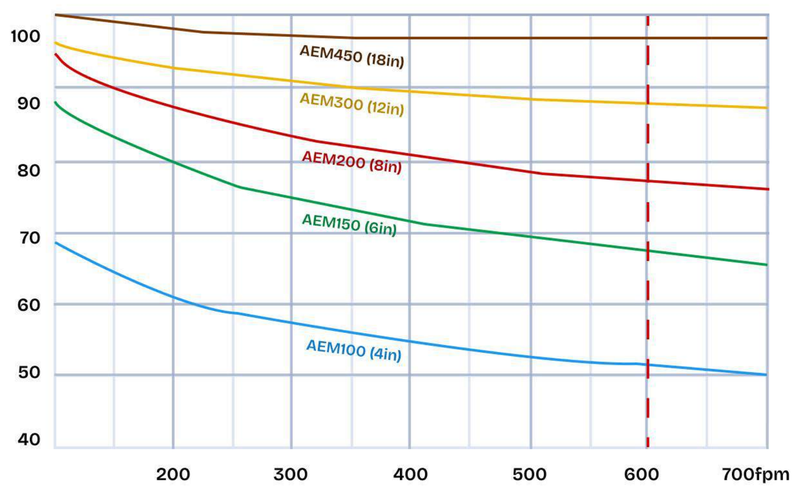
Technical Data

	AEM100	AEM150	AEM200	AEM300	AEM450
Evaporation efficiency	62% @ 1.0m/s	76% @ 1.0m/s	85% @ 1.0m/s	92% @ 1.0m/s	99% @ 1.0m/s
Capacity (kg/h)	4 to 2200	4 to 2200	4 to 3200	4 to 4500	4 to 4500
Pressure Drop	Below 5Pa at 1.0m/s	Below 5Pa at 1.0m/s	Below 5Pa at 1.0m/s	Below 10Pa at 1.0m/s	Below 10Pa at 1.0m/s
Water TDS (ppm)	30 to 1,000ppm	30 to 1,000ppm	30 to 1,000ppm	30 to 1,000ppm	30 to 1,000ppm
Power supply (Vac & W)	230Vac, 1ph 30W	230Vac, 1ph 30W	230Vac, 1ph 30W	230Vac, 1ph 30W	230Vac, 1ph 30W
Dimensions (W) [cm]	Min=60cm Max=180cm	Min=60cm Max=180cm	Min=60cm Max=180cm	Min=60cm Max=180cm	Min=60cm Max=180cm
Dimensions (H) [cm]	Min=60cm Max=300cm	Min=60cm Max=300cm	Min=60cm Max=300cm	Min=60cm Max=300cm	Min=60cm Max=300cm
Dimensions (D) [cm]	60cm Max.	60cm Max.	60cm Max.	60cm Max.	60cm Max.

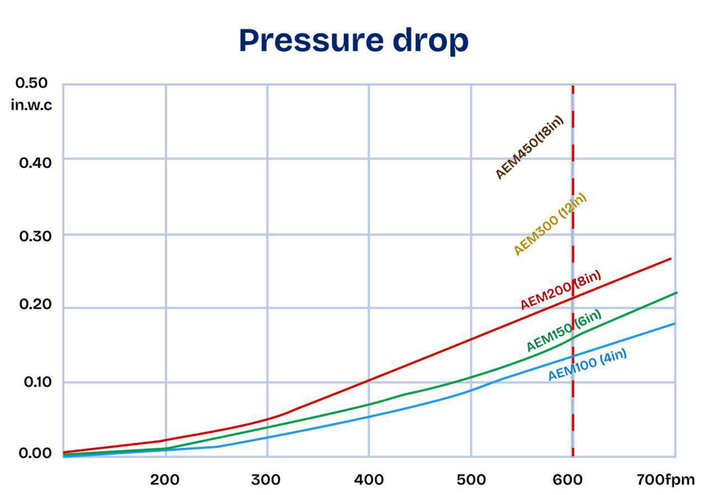
Precision Design. Reliable Performance. Easy Installation.



Evaporation efficiency



Pressure drop

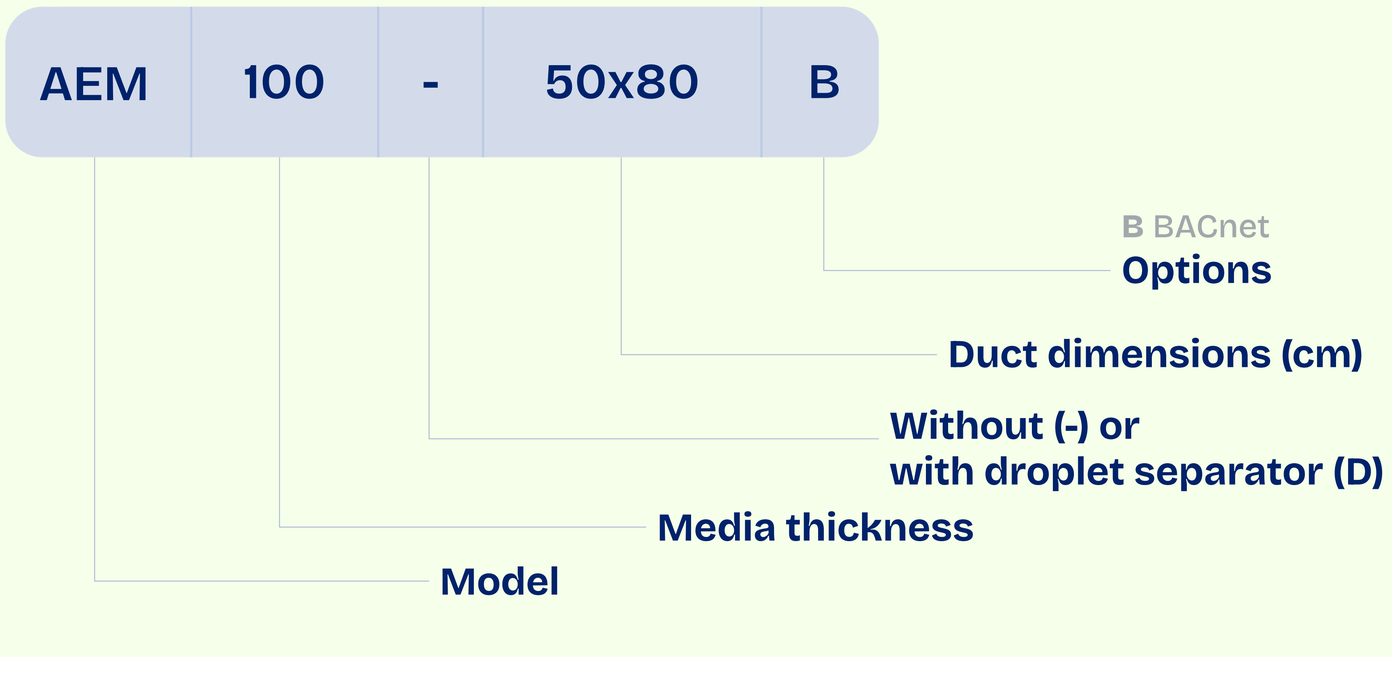


Note: Installation of droplet separator is required when air velocity is above 3.0m/s.

Optional Features

- Electronic controller with 7in touch screen
- 2 stage water filters 1micron + anti bacterial silver ions cartridge
- Electric water valve(s) (24vac) , Water hoses
- 230Vac, 1ph power supply

Nomenclature



Steam Humidifiers Isothermal







Steam humidification ensures that people's health is protected because steam is pure and sterile; it is also the humidification method that allows for high precision without the need for complex control systems.



Adiabatic Humidifiers & Air Coolers









Adiabatic humidification offers significant advantages for low-temperature food storage humidification, or for reducing airborne dust in woodworking or textile workshops, or in industries such as data centers or printing facilities, where the heat load allows this energy to be used to evaporate water.

Particular care must be taken to prevent any contamination of the air by bacteria or pathogens that could grow in stagnant water.

Enabling Excellence.
Engineering Humidity.

Scan to know more

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