

Condair HumiLife humidification systems

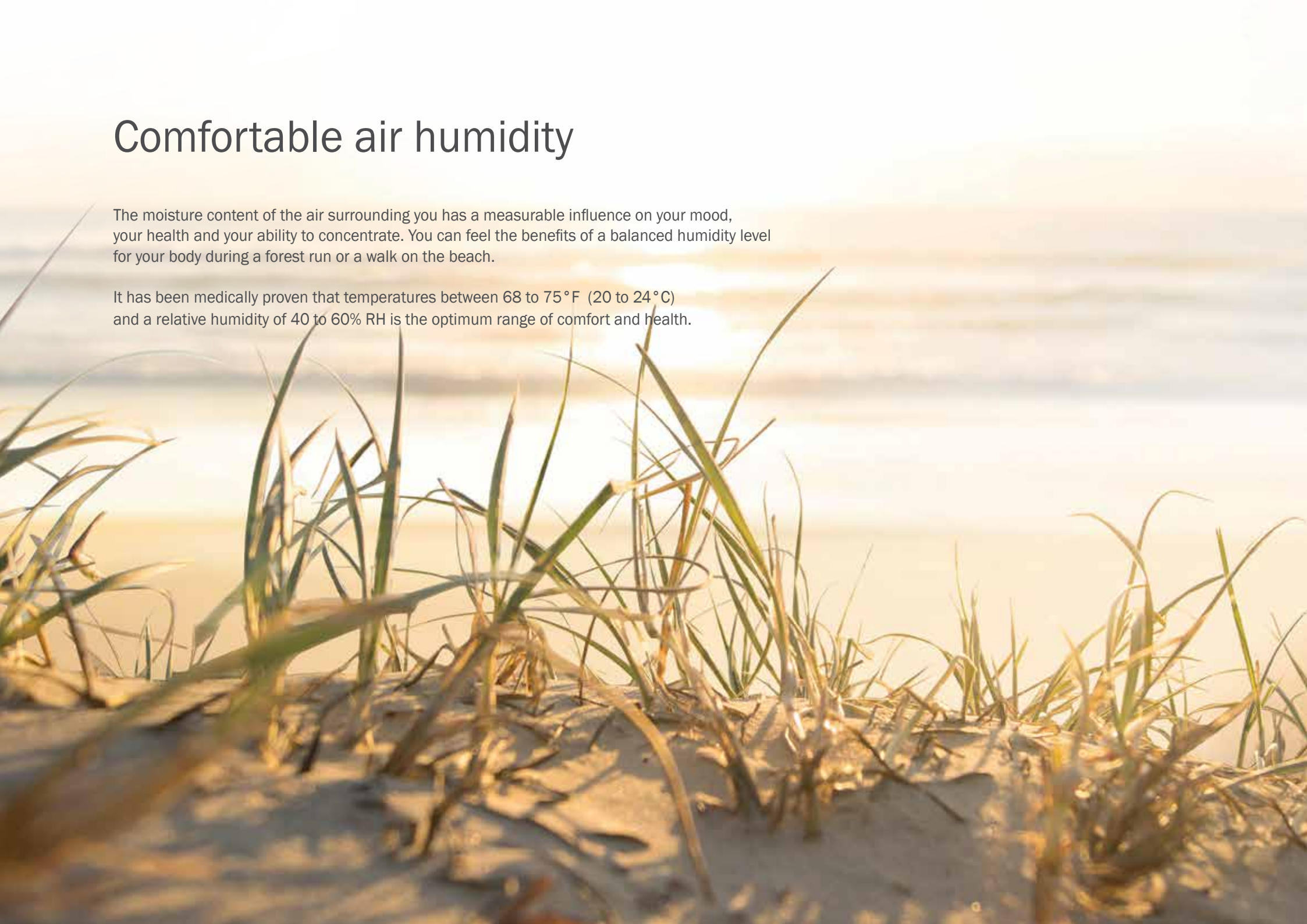
Healthy and comfortable indoor air humidity



Comfortable air humidity

The moisture content of the air surrounding you has a measurable influence on your mood, your health and your ability to concentrate. You can feel the benefits of a balanced humidity level for your body during a forest run or a walk on the beach.

It has been medically proven that temperatures between 68 to 75°F (20 to 24°C) and a relative humidity of 40 to 60% RH is the optimum range of comfort and health.





Why is indoor air so dry, especially during winter?

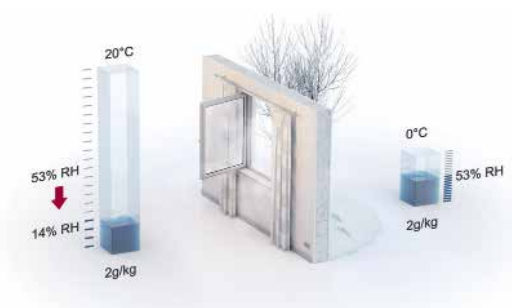
Cold air can absorb much less water than warm air. In summer it is therefore humid enough and is perceived as pleasant and comfortable. In winter, however, it contains very little water and indoor air becomes dry when heated.

The relative humidity [RH] is the most meaningful value for the current humidity content of the air. This value indicates in percent how far the moisture level is from the maximum saturation (100%).

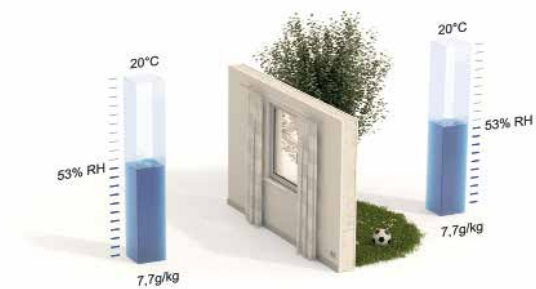
A value in the range of 40–60% RH is considered optimal both for human health and for hygroscopic materials (paper, wood, leather, etc.).

In winter, cold dry air enters our houses through the ventilation system, open doors, or through other points of infiltration.

There it is heated. The value of relative humidity drops rapidly and the already dry air becomes even drier.



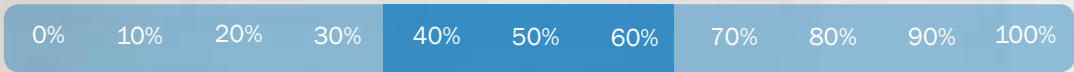
Ventilation in winter



Ventilation in summer



Relative humidity RH [%]



too dry

optimum humidity

too humid



Skin, especially baby skin, is sensitive to moisture

Lips, eyes and above all the skin are an ideal source of moisture for the dry, unsaturated winter air. The dry air extracts moisture and causes cracked, itchy and flaky skin. Neurodermatitis is significantly intensified by dehydration.

Active humidification plays a significant role in improving medical conditions such as asthma, allergies, and respiratory infections.

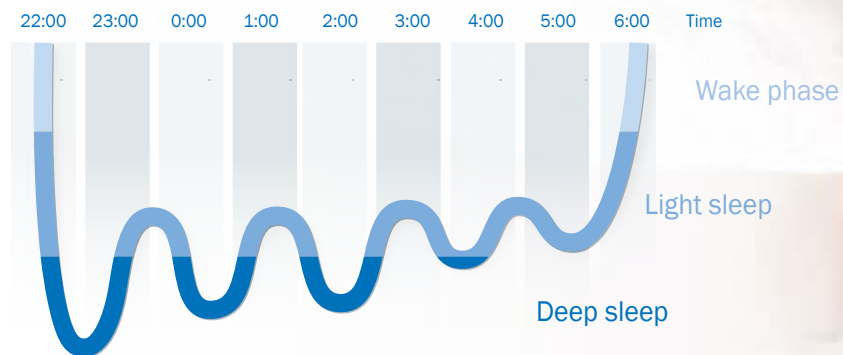
If the air in your child's bedroom is too dry, your child may not get the healthy, restful sleep he or she needs and instead often appears in his or her parents' bedroom at night, coughing. That is usually the end of the night's sleep—for the whole family.

Your body needs active rest at night

Only if your body can regenerate at night can you develop your full mental and physical potential during the day.

An optimal room climate with the correct level of humidity plays a significant role in this. Dry air in the bedroom pollutes the respiratory tract and mucus membranes, encouraging coughing and snoring.

This also interrupts sleep phases and adversely affects regeneration.





Increased risk of infection due to dry room air humidity

Germ droplets are tiny particles that are capable of floating.

When sneezing or coughing, they enter the air via the respiratory tract and can transmit pathogens such as flu viruses to other people.

Germ droplets in dry air

In dry air, germ droplets contract and dry out. This preserves pathogens and keeps them airborne and highly infectious for a very long time.

Germ droplets in humidified air

At optimal humidity (40–60% RH) the germ droplets remain moist. The salt concentration inside increases to such an extent that pathogens are rendered inactive within a short time.





Dry respiratory tract

A dry respiratory tract, hoarseness and coughing are typical symptoms of damage to the mucus membrane caused by dry room air.

The mucus membranes of the respiratory tract are important for the immune defense in order to bind inhaled pathogens on the mucus layer and render them harmless.

The decisive factor for this is a moist, free-flowing mucus layer. But dry air also dries out the mucus layer, so that only a few pathogens remain attached to it and the contamination of the body by germs and viruses increases rapidly.



Dry skin

Dryness is not only unpleasant for humans, it is also dangerous. Dry air extracts moisture from the skin, eyes and mucus membranes of the body that is needed for organic functions.

Especially in the cold season, dry room air is a well-known problem. Lips become chapped, fingers and the back of the hand dry and cracked.

In extreme cases, inflammation of the skin can also occur.



Dry eyes

An intact tear film has the task of protecting the surface of the eye from environmental influences. The particles present in the air can cause considerable itchiness or infections of the conjunctiva.

Dry air leads to increased evaporation of the tear fluid. If the surrounding air humidity is constantly low, the tear film can thin out or even break down.

Consequences may include increased eye irritation or stinging, inflammation and even serious eye damage.



Allergies

The air that surrounds us contains a multitude of suspended particles such as pollen and fine dust particles, deteriorating products or from man-made emissions.

In other words, a range of allergy-inducing substances. A balanced room air humidity can help mitigate allergies by filtering suspended particles from the air.



Musical instruments

Pianos, stringed, plucked and numerous wind instruments are made of wood or have wooden components.

The quality of the humidity that these instruments are exposed to has a great influence on their longevity, playability and sound.

Therefore it makes perfect sense to consider the correct air humidity. After all, dry air not only extracts vitality from the instrument, it also damages the financial value of the object in the process.



Wood flooring and furniture

Wood is a hygroscopic material that can absorb indoor humidity or release moisture from the material.

These processes cause the wood to contract or expand, which is popularly known as “movement”.

To ensure that parquet flooring and furniture are not damaged, a balanced room air humidity is required.

How allergies vanish into thin air

From a medical point of view, house dust is the most common cause of an allergy.

Anyone who is allergic to house dust reacts to either mite constituents or animal allergens with complaints such as sneezing, eye irritations or asthma.

Together with pollen allergy sufferers, these people experience symptoms when exposed to airborne, allergy-triggering substances, known as allergens.

Why does a balanced humidity help against suspended particles?

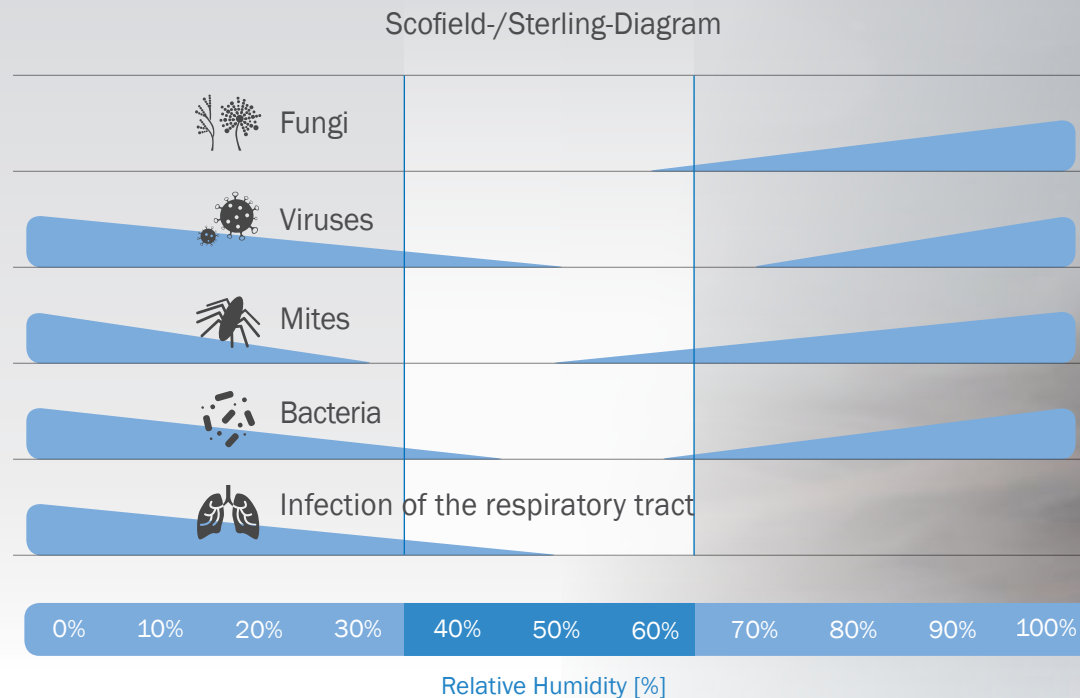
The air humidity plays a major role in the extent of dust turbulence. Experiments show that the adhesion of moistened dust to smooth floor surfaces increases dramatically above approximately 40% RH.

In this area, the weight of the dust particles also increases drastically due to water condensation. The allergenic substances

stick together, form clusters, and fall to the floor more rapidly. On the other hand, the risks of mold problems increase above 60%.

The optimal humidity range for minimizing allergies is therefore between 40–60% RH.

The Scofield/Sterling diagram illustrates very clearly that the contamination of the air by undesirable microorganisms is lowest in the range of 40–60% RH.





Condair HumiLife

The economic solution for forced air heating

The economic solution for forced air heating is a bypass-style humidifier which introduces humidification by passing some warm furnace air across a unique ceramic evaporation pad. Install this directly to your furnace to supply your entire home with healthy and comfortable air.

Simple installation and automatic operation makes the economic solution for forced air heating a seamless solution for improving your home's indoor climate.



Ceramic media pad
for the economic solution for
forced air heating





No hassle cleaning

Other bypass humidifiers may require the purchase of multiple replacement media pads every year. Instead, the unique ceramic media pad for the economic solution for forced air heating can be easily removed by the home owner and cleaned in a normal dishwasher cycle.

Eliminate the additional cost and inconvenience of purchasing a new media pad every year.

Powerful connectivity

Connect, control and monitor the humidifier and the home's relative humidity through a smartphone app.

Integrate into existing smart home platforms for complete flexibility.

Minimize utility bills

This solution has very low energy consumption during operation and includes a user programmable water saving feature.

In addition, built in sensors monitor the furnace air temperature to optimize evaporation and reduce water waste.

Condair HumiLife
The economic solution for forced air heating

Condair HumiLife

The proven steam solution

Condair HumiLife — The proven steam solution generates hygienic, atmospheric steam by boiling water at 212 °F (100 °C).

This effectively kills all germs and bacteria in the water, providing pure, clean water vapor to humidify the air in the most hygienic way.

The vaporization process uses normal tap water without additional water treatment. The water vapor is introduced into the

forced air ventilation system to provide whole-home humidity control.

The proven steam solution is constructed of high-quality materials, proven electronics and diligent workmanship to ensure long and reliable operation.





Stay connected

The proven steam solution can be remotely controlled and monitored through a smartphone app, allowing maximum control to maintain proper room air humidity at all times.

It can tie into existing smart home platforms to be controlled in a central location with other smart home devices.



Easiest maintenance

The boiling process occurs in a removable cylinder which is where all water minerals and impurities remain. Exchanging the cylinder brings the system to like-new condition.

The proven steam solution has an industry-unique cylinder exchange mechanism which is quick and simple. No tools required – anyone can do it.



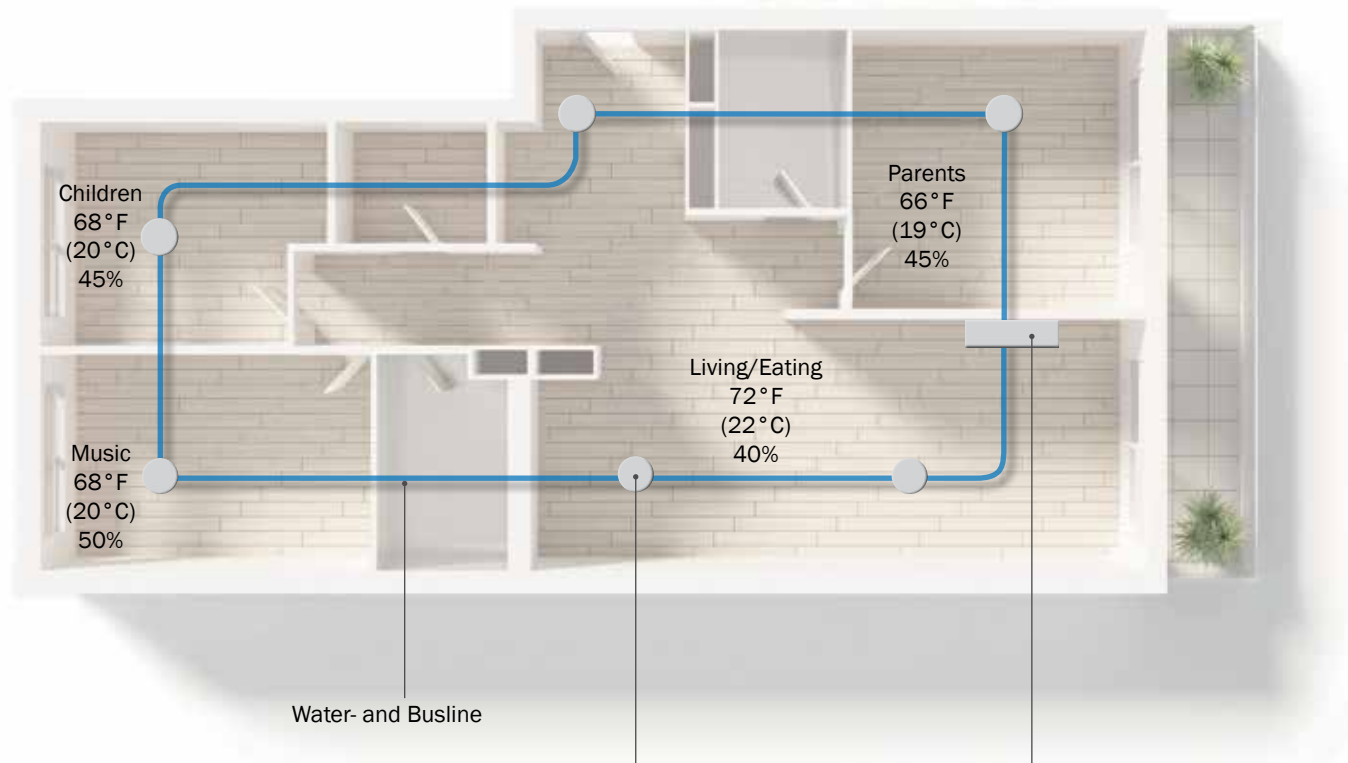
Flexible installation

Mount the humidifier directly to a furnace to maximize space. Steam can be introduced directly into the furnace supply air through a distribution nozzle.

If there is no space on the furnace, the proven steam solution can be mounted remotely on a wall, in a closet or ceiling space and piped into the supply air duct.

Condair HumiLife
The proven steam solution





Coming Soon

Condair HumiLife

The flexible room solution

Condair HumiLife – The flexible room solution blends almost invisibly into the architecture of the home.

The system facilitates individual humidity levels and provides optimum humidity adapted to each room.

The cloud based control system provides ease of operation to meet the highest demands.



Humidity Spot



Central Unit



The all-in-one carefree maintenance solution

Condair HumiLife — The flexible room solution is permanently connected to a cloud based monitoring system.

System function and performance values are monitored online via an autonomous network, enabling continuous system optimization and extremely short response times in case of a fault.

Hygiene safety

Condair HumiLife — The flexible room solution is fitted with a water treatment unit as standard.

An integrated UV lamp sterilizes the humidification water during operation. In addition, continuous conductance monitoring and a system flush that triggers automatically on a daily basis ensure top hygiene quality.

Everything under control

Condair HumiLife — The flexible room solution can be conveniently controlled with a smartphone. Using a web app, you can set the desired relative humidity values for each room individually, even if you are not at home.



Ceiling mounting

Innovative humidifier discs

The core element of this system are the humidifier discs, which feed the humidification water silently into the room. They are hardly noticeable in the room and can be individually integrated into any building.

A high-precision sensor measures the ambient humidity and keeps the humidifier output constant at the desired level. The network of humidifier discs is supplied with demineralized water via a central unit.



Wall mounting





Condair HumiLife
The economic solution

RE



Condair HumiLife
The proven steam solution

RH



Condair HumiLife
The flexible room solution

MN

Technical Data

Recommended for room sizes	Up to 3000 ft ² (280 m ²)	Up to 5200 ft ² (480 m ²)	1100 to 6500 ft ² (100 to 600 m ²)
Dimensions (W x H x D)	15.8 x 16.9 x 9.9 in. (400 x 430 x 251 mm)	10.4 x 18.4 x 6.9 in. (265 x 467 x 175 mm)	D = 4.1 x 0.5 in. (105 x 12 mm) 19.7 x 22.6 x 9.8 in. (500 x 575 x 250 mm)
Capacity	Up to 12.7 gpd (4.4 lbs/hr / 2 kg/hr)	Up to 22 gpd (7.8 lbs/hr / 3.6 kg/hr)	Up to 29 gpd (10 lbs/hr / 4.5 kg/hr)
Mounting Location	Direct furnace mount	Direct furnace mount or remote mount	Standalone, humidification heads in rooms

Specifications

- Whole-home bypass style humidifier
- Smartphone App for remote control and monitoring
- Unique cleanable ceramic media pad for simple maintenance
- Integration into smart home platforms for flexible connectivity
- Quiet operation
- Water saving mode for energy savings

- Hygienic whole-home steam humidifier
- Smartphone App for remote control and monitoring
- Easiest maintenance with industry unique cylinder exchange mechanism
- Integration into smart home platforms for flexible connectivity
- Quiet operation
- Automatic cylinder lifetime detection to avoid manual reset
- Automatic drain water tempering
- Patented auto-adaptive water management maximizes cylinder life

- Direct room, whole-home humidification system
- Innovative, aesthetic humidifier nozzles with integrated high precision humidity sensor
- Remote control via Service Cloud with smartphone
- Surface mounted or flush mounted installation to match the room construction and design
- Silent operation

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