



AIRWATERGREEN

Air Technology Sweden

ENERGY-EFFICIENT AIR TREATMENT

Reduce cost, protect your infrastructure and equipment - improving the indoor working environment!

WWW.AIRWATERGREEN.COM

Dehumidification can be done in several ways, using different techniques and different types of dehumidifiers. It is all about removing water from the air to lower the relative humidity level. And to do this in an energy efficient way at the temperature you want to maintain in the room!

In general, to avoid damage from corrosion and mold, the relative humidity level should be kept below 55%, at the desired room temperature.

Our dehumidifiers are based on patented technology. In FLEX and REX, we use a separate regeneration process that is carried out in a closed box, which provides energy efficiency and the ability to dehumidify at all temperatures.

The products in the NEXT series instead use a liquid desiccant and our patent-pending CVP technology, which makes the process even more flexible and energy-efficient.



The infrastructure for handling Drinking Water and Sewage is very important for the society with buildings located both above and below ground.

DRINKING WATER

- Waterworks, Pipe galleries, Filter halls, Polymer rooms, Staff rooms and other spaces as well as storage.
- Pressure stations with cold pipe surfaces where dew point control is recommended.
- Water reservoirs

SEWAGE TREATMENT

- Treatment plants, Pipe galleries, Filter halls, Staff premises and other spaces as well as storage.
- Sewage Pump stations

A dry and cold building is an efficient and climate-smart building!

Many buildings, such as churches, are often designed to be kept at a low temperature.

And to be able to use limited heating without the risk of moisture-related damage. Airwatergreen dehumidifiers are easy to install without the need for alterations in the building or ventilation pipes.

- Easy installation without damage to sensitive buildings
- Low energy consumption
- Equally efficiency at low temperatures
- Connection to existing property management systems possible

When it's time for service - start warming up a day or two in advance!

PRODUCTS:

FLEX, REX or NEXT

PRODUCTS:

FLEX or REX

Efficiency is what makes our dehumidifiers unique!

Airwatergreen's technology is unique in that it removes moisture equally energy efficiently at all temperatures. Even down to below zero degrees Celsius. Cold air can hold less moisture, which becomes a problem if you lower the temperature without removing the water from the air at the same time!

Our technology enables reduction of heating costs, which often makes up a large part of the operating cost, in premises that are rarely used, or underground, and still maintain control over the humidity level.

Our dehumidifiers are equally efficient at all humidity levels - from 20% RH to 100% RH. This is an important capability in installation where a low relative humidity level is needed. Such as in warm buildings with cold pipes. If the dewpoint is below the temperature of the pipe there will be condensation and challenges with humidity.



The temperature in a cold storage is typically between + 2° C and + 12° C for efficient and correct storage of different types of goods - often food. With a correct relative humidity level in the air, ice formation, condensation, and mold formation as well as damage to stored goods can be avoided.

A correct humidity level also makes the cooling process more efficient by reducing the need for de-icing of the freezers!

Airwatergreen dehumidification technology is well suited for installations in warehouses that maintain a low temperature as the dehumidifiers are equally energy efficient even at low temperatures - down to below freezing.



This makes it possible to reduce the energy consumption with 50% at low temperature, as compared to traditional technology.

Airwatergreen products are very easy to install without the need for unnecessary installation of ventilation ducts.

All Airwatergreen dehumidifier models can be connected for local control via Modbus or remotely with Cloud solutions.

Connected dehumidifiers can both be controlled and also enable the collection of information from the dehumidifiers' sensors regarding the levels of humidity and temperature in the building where they are installed.

PRODUCTS:

FLEX, REX or NEXT

PRODUCTS:

FLEX, REX, NEXT or NEXT-S

FLEX: The portable easy-to-install dehumidifier



The FLEX series is adapted to reduce the amount of water from the air in all kinds of environments and it works equally energy efficiently in all temperatures down to minus degrees.

This makes the FLEX suitable for installation with a lower temperature and open up the possibility to reduce heating in buildings/rooms that are rarely used. This means an opportunity for large savings, both for you and the environment!

FLEX can be set to reach a preset level of relative humidity, but can also use external sensors such as a Dew Point sensor, or controlled via a Modbus connection.

FLEX is available in 4 models, Basic, Smart, Cloud, and Integrate.

The Temp Guard function alone creates the dehumidifier an optimal climate at the lowest cost. The Temp Guard function is available in the FLEX series Smart, Cloud and Integrate.

Color options	Black / White
Working area temperature (C)	-20° - 50°
Dehumidification capacity (kg/h)	5 kg/24h
Relative humidity levels (RH)	20 - 100%
Electrical connection	230V 1-50Hz 10A
Average power (W)	<400
Peak power (W)	2000
Enclosure	IP63
Air flow (m3/h)	400
Dimensions (mm)	340 x 650 x 1.060
Weight (kg)	20
Noise level (dB)	65
Air filter standard	G4

Easy plug'n play installation

All you need is electricity and drainage of the condensate. All dehumidifiers in the FLEX series are self-regulating on relative humidity and you always have full control of the functions in the display.

REX: A powerful industrial dehumidifier



Color options	Black / White
Working area temperature (C)	0° - 50°
Dehumidification capacity (kg/h)	30 kg/24h
Relative humidity levels (RH)	20 - 100%
Electrical connection	400V 3-50Hz 16A
Average power (W)	< 2250
Peak power (W)	4000
Enclosure	IP63
Air flow (m3/h)	1000
Dimensions (mm)	750 x 780 x 1.900
Weight (kg)	120
Noise level (dB)	65
Air filter standard	G4

The REX dehumidifier delivers high capacity, energy efficiency, and durability making it suitable for installations in industrial applications, warehouses, rock chambers, treatment plants and larger properties. REX has a high air flow capacity and works equally energy efficiently at all temperatures.

REX can operate independently to a set level of relative humidity controlled via connection to external systems via Modbus, which enables real-time monitoring and control via the web.

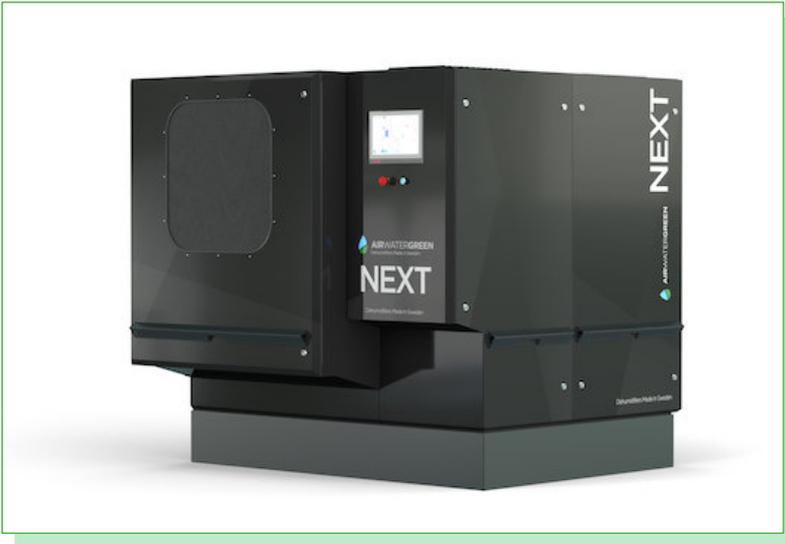
REX delivers a continuous flow of dry air and is prepared to be connected to ventilation ducts, if desired. Several dehumidifiers can be installed to work in parallel.

REX is available in 2 models: Basic and Integrate.

Easy plug 'n play installation

All you need is electricity and drainage of the water reduced from the air. REX is mounted on wheels and can easily be positioned or repositioned if the conditions change over time. Depending on the conditions at the installation the REX can operate free-blowing or connected to ventilation ducts. Various REX accessories are available for installations in very tough environments such as wastewater treatment plants.

NEXT240 & NEXT480: Industrial dehumidifiers for handling very large air volumes and humidity loads



NEXT is a family of dehumidifiers that are suitable for installations in warehouses, production facilities, process industries, treatment plants, ice hockey rinks and other premises with high air flows and a high level of humidity to handle.

NEXT uses a patented technology based on the use of a food grade liquid desiccant. This technology gives a number of unique benefits such as:

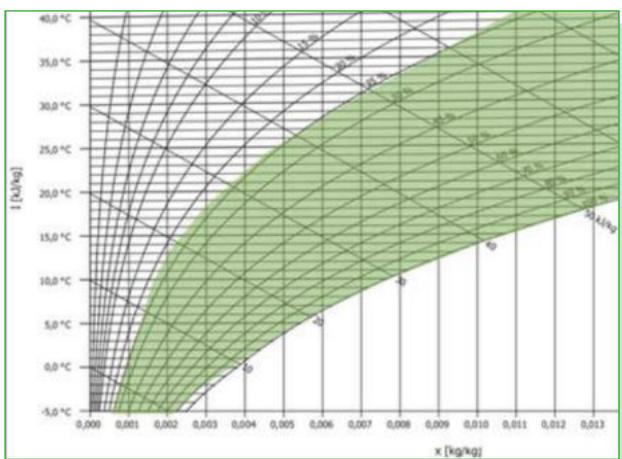
- Very low energy consumption and very low connection power
- Turbo mode for handling momentarily doubled moisture load
- The same high capacity over a wide temperature range
- Easy installation prepared for connection to ventilation system or free-blowing with built-in ventilation fan

THE LIFE CYCLE PERSPECTIVE

NEXT is designed with a modular component concept to support easy maintenance and service. All parts are individually interchangeable. This support enables a safe and secure operation for many years!

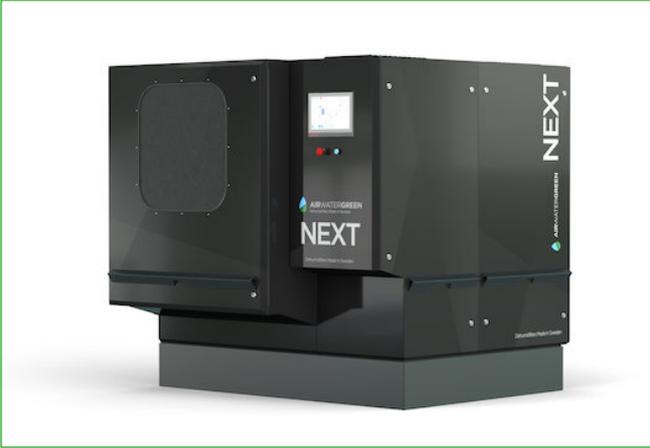
BUILT-IN INTELLIGENCE

NEXT has built-in sensors and intelligence making easy connection to control systems and remote monitoring possible.



Working area temperature (C)	0° - 40°
Dehumidification capacity	240 kg/24h - 480 kg/24h
Turbo Mode	Double
Relative humidity levels (RH)	30 - 100%
Electrical connection	400V 3-fas 50Hz 32A/64A
Air flow (m3/h)	Upp till 10.000
Available static pressure (Pa)	300
Dimensions BxHxL (mm)	1.800 x 1.800 x 1.800
Weight dry / operating (kg)	430 / 630
Noise level (dB)	<83
Communication	Modbus eller TCP/IP

NEXT-S: A one-step HVAC solution for total control of the indoor air



NEXT-S is a family of air handling units that are aimed at installations primarily where a stable climate is required, such as in food production, archives, laboratories, process industry, museums, etc. All properties where you want to maintain a stable humidity level AND a stable temperature all year round!

NEXT-S uses a patented technology based on a liquid desiccant. This technology gives a number of unique benefits such as:

- Air treatment in ONE process step for control of both temperature and humidity level - both up and down
- Very low energy consumption and also low connection power
- Easy control and high robustness against rapid changes in incoming air flow
- Small foot-print with little need for floor space
- Easy installation prepared for connection to ventilation system or free-blowing with built-in ventilation fan.
- Prepared for connection to cold and/or heat sources for temperature control

Air flow (m ³ /h)	Upp till 10.000
Working area temperature (C)	5° - 35°
Working area humidity (RH)	30 - 80%
Dehumidification capacity	240 kg/24h
Humidification capacity	480 kg/24h
Incoming air temperature (C)	0° - 40°
Relative humidity level of incoming air (RH)	0 - 100%
Electrical connection	400V 3-fas 50Hz 32A
Connection power (kW)	17
Cooling water temperature (C)	0° - 15°
Heating water temperature (C)	40° - 60°
Typical power level cooling/heating kW)	0 - 50
Static pressure (Pa)	300
Dimensions BxHxL (mm)	2.000 x 1.800 x 1.800
Weight dry / operating (kg)	480 / 680
Noise level (dB)	<83
Communication	Modbus eller TCP/IP

THE LIFE CYCLE PERSPECTIVE

NEXT-S is designed with a modular component concept to support easy maintenance and service. All parts are individually interchangeable. This support with a safe and secure operation for many years!

BUILT-IN INTELLIGENCE

NEXT-S has built-in sensors and intelligence. Advantages of this include the possibility of easy connection to control systems and remote monitoring.

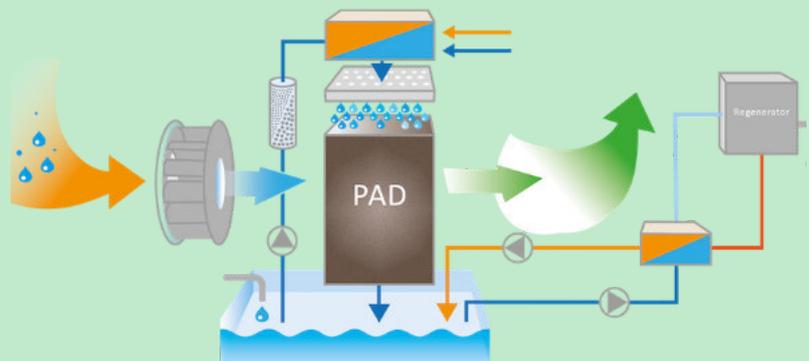


Illustration of the NEXT-S running in Cooling & Dehumidifying mode

BLACKBOX: Carbon filter for an odorless climate



Color alternative	Svart
In- and outlet connection (mm)	Ø 125
Electrical connection	220V 3-50Hz 10A
Enclosure	IP63
Air flow (m3/h)	Max 150
Dimensions(mm)	750 x 780 x 1,900
Weight without content (kg)	70
Weight with content (kg)	120

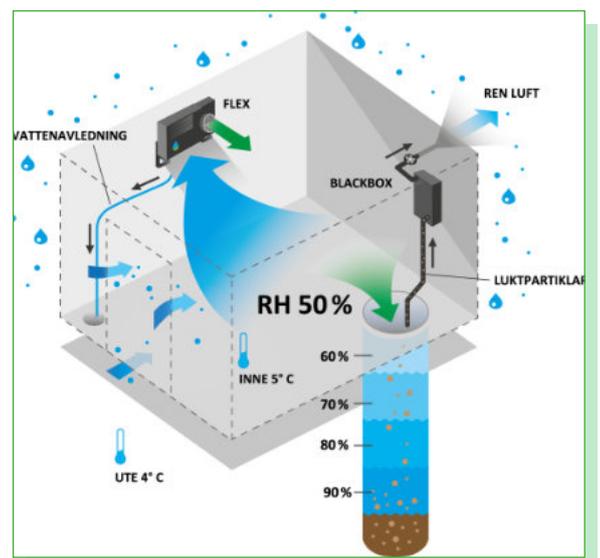
BLACKBOX is a carbon filter that efficiently reduce hydrogen sulfide and other molecules from the air. The BLACKBOX is made of acid-proof sheet metal.

Together with Airwatergreen's dehumidifier FLEX, optimal operating economy is achieved as the carbon filter only filter dry dehumidified air. A perfect solution for waste water pump stations.

BLACKBOX works by taking in the air from the upper part of the sewage pit. The air is then filtered through the BLACKBOX and then out of the building using a standard duct fan.

Lowering the relative humidity from the air in the pumping station extend the life-time of the carbon but also protect the building and other equipment from corrosion and mold.

The experience from a large number of installations with the odorless climate solution prove the capability to reduce energy consumption, remove bad odors, improve the working environment and reduce maintenance costs for the pump station.



INSTALLATIONS: Some Examples



Installation of our solution Odorless climate where a FLEX keeps the air dry and our carbon filter BLACKBOX removes the hydrogen from the air.



FLEX dehumidifiers equipped with dew point sensors to avoid condensation on cold surfaces.



Installation in a cold church building where a lot of energy can be saved by reducing heating. The dehumidifier FLEX stands on a trolley which is also a tank for the water that is reduced from the air.



Installation of a REX dehumidifier in a cold storage for food storage. Equally effective at the low temperatures in the warehouse and easy to relocate when storage volume and position change over time.



A NEXT dehumidifier in a cold storage. Free-blowing installation that is possible because the moisture in the air from the gates quickly distribute over the storage room. Drier air in the cold storage and less humidity in the freezer storage located inside the cold storage building saves energy and reduce damage from moisture.



Our smart NEXT-S delivering the desired temperature and humidity level continuously the year round. This is important in many process industries but also in hospitals and archives.

Airwatergreen's service agreement guarantees optimal operation.

A service agreement in dialogue with you ensure that your solution works optimally in the long term. We dare to say that we know our products better than anyone else and together with authorized partners we can provide service and support on your terms.

Through planned service and preventive maintenance activities in the Airwatergreen's service agreement, dehumidification is easy to budget for, no unforeseen expenses.

SERVICE AGREEMENT

Services included:

- Regular review (according to the manual)
- Troubleshooting
- Remediating simple errors, including work effort
- Materials included:
 - Wear parts such as air filters etc.
 - Spare parts
- 12-month service agreement
- Extended automatically with 1 month notice before the next period



AIRWATERGREEN SERVICE OFFERING

Our service delivery guarantees you a continued optimal performance for your dehumidifiers and ensures the expected investment period - both for the dehumidifier but in particular for your building and the equipment inside it.

We are also happy to give tips and advice on site based on our experience and knowledge of moisture!

Extended warranty during the service period where we perform regular service adapted to the installation. Our original spare parts are designed for the best performance of the machines.

It provides an extended warranty period of up to 5 years.

We offer both standard agreements and tailor-made solutions!

We also give you the opportunity to rent our products. We offer rental agreements with different arrangements and different agreement periods. Either you choose a rental agreement where you are offered to buy out the equipment after 6 months, or you can lease the equipment for exactly the period you want. Of course, we include full service and support in our product lease contracts.

It all started with the idea of producing drinking water out of the atmosphere in places where there is a shortage.

Along the way, we realized that the dehumidification market would benefit greatly from the unique benefits of our patented technologies.

The company was founded in 2009 and has now established itself in a number of different types of installations.

Airwatergreen is a company originating from Uppsala with close ties to the Uppsala University during the start-up.

We develop, manufacture and sell products for air treatment under all climatic conditions.

All our products are manufactured in Sweden.



Airwatergreen technology

Our patented technology has a number of unique advantages. The same energy efficiency and capacity regardless of temperature or season - the same solution for all times of the year. Easy to install without the need for unnecessary ventilation ducts, built in intelligence and a product architecture that promote simplified service and maintenance using only standard components..



Reduced maintenance costs

Keep areas dry with effective dehumidification even at low temperatures. No condensation, no corrosion, no mold.

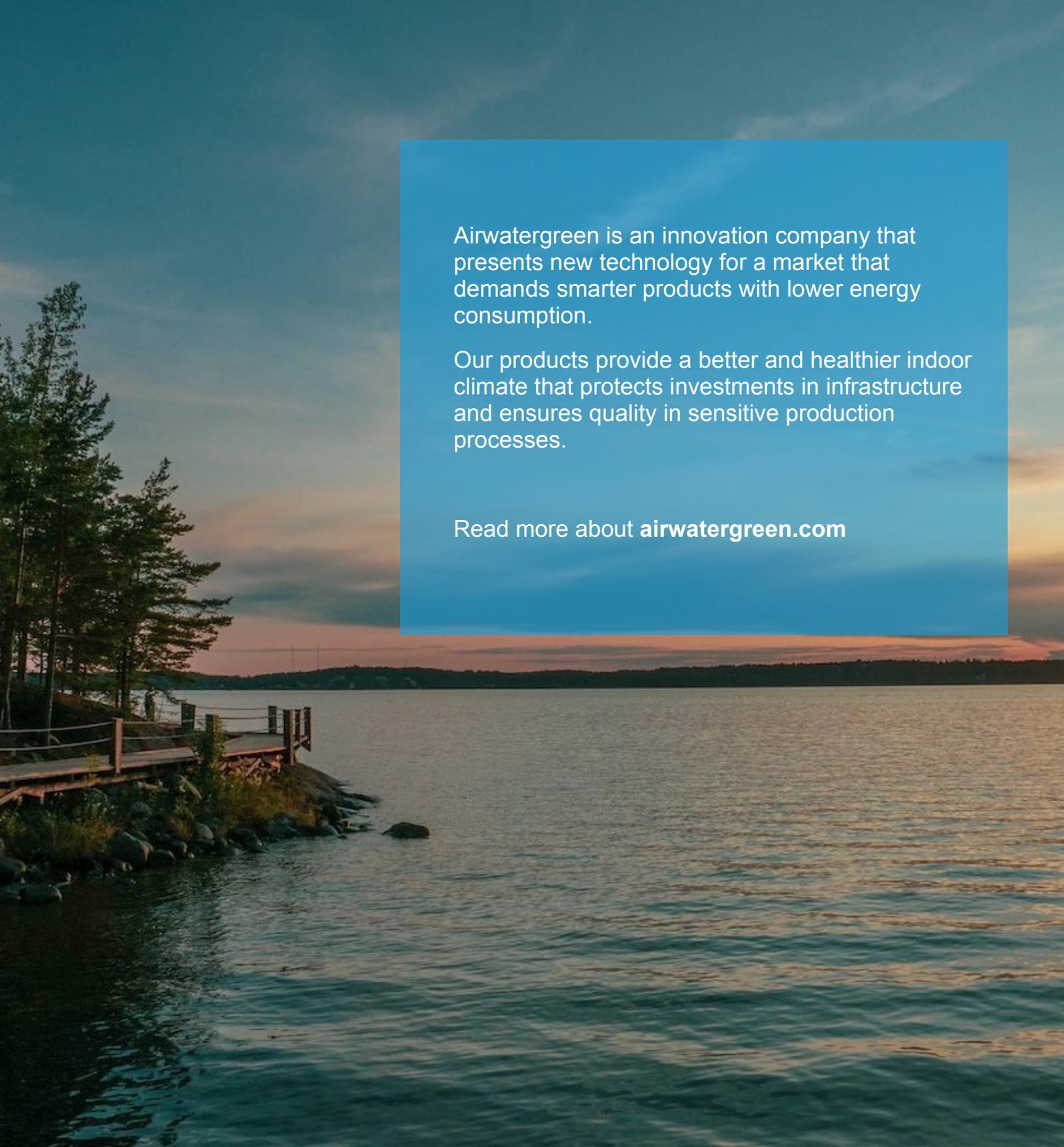


Improved working environment

The right indoor climate reduces the spread of bacteria and viruses and provides a more pleasant workplace.

The company's products create a healthier working environment, the right humidity level and temperature to secure buildings, goods and equipment. Airwatergreen has developed new methodologies and technologies for efficient air handling that are used for dehumidification of the air and the establishment of a stable indoor climate.

The technologies deliver the possibility of reduced energy consumption and efficient air treatment at all temperatures. A safe climate has therefore never before been so climate-smart and cost-efficient!



Airwatergreen is an innovation company that presents new technology for a market that demands smarter products with lower energy consumption.

Our products provide a better and healthier indoor climate that protects investments in infrastructure and ensures quality in sensitive production processes.

Read more about airwatergreen.com



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