



WET ZEFIRO
ALL IN ONE





BALANCED COMFORT

The ideal temperature.
The perfect humidity rate.
A comfortable climate, in one Zefiro.
This concept lies at the base
of the revolutionary system
Wet Zefiro by Aertesi,
conceived, designed and manufactured
to combine the benefits
of a fan convector
and of an isothermal humidifier.



WET ZEFIRO

Complete with all its accessories, Wet Zefiro is a miniature air conditioning station to get the ultimate air quality and climate in summer and winter alike, that is a perfect balance between temperature and humidity.

THE HUMIDITY FACTOR



What's humidity?

Humidity is the amount of water vapour in the air.



What is the ideal humidity rate?

For ultimate comfort, the humidity rate should be between 40% and 60%.



When and where does humidity fall?

In closed environments, in summer or winter, relative humidity tends to fall when air conditioning or heating systems are used.



The humidity rate, a measure for comfort

Maintaining the correct humidity rate in your environment is essential for your physical well-being. When you live or work in a very dry environment, after a while you will start feeling uncomfortable because your skin, nose and throat dry out, which increases the risk of irritation and infection in your airways, of allergy and dermatitis.

The humidity rate for perfect conservation

Maintaining the correct humidity rate also means keeping buildings, materials and products unspoiled. Humidity also prevents the buildup of electrostatic charges, which may be annoying at home (when you touch something) and even dangerous if you work in an industrial plant.

AIR QUALITY



Filtration

Air contains a few suspended particles, such as powder, pollen, spores and bacteria, which are the main cause for a number of allergies that are now spreading at a fast rate. The regular recirculation of air through an efficient filter, coupled with a correct humidity rate (less fibres get broken while at the same time the particles will aggregate into larger agglomerates, which are more easily trapped in the filter) will help drastically reduce the content in impurities, and therefore improve air quality.



Air change

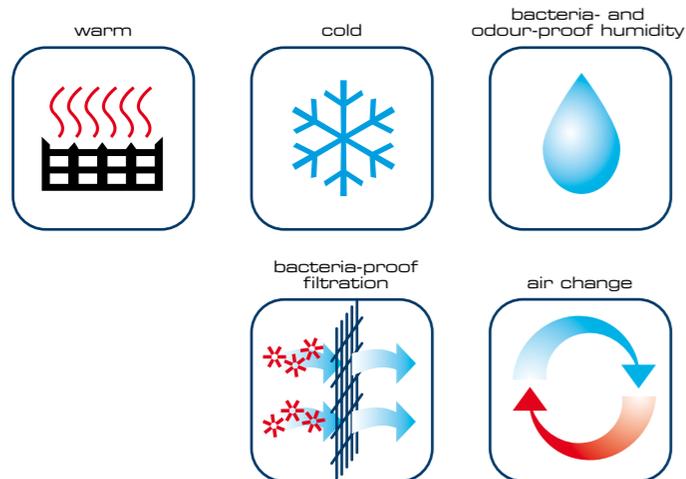
In a closed environment, air change is fundamental. Outdoor air, however, bears impurities, and its temperature is often the reverse of what is needed (the air is colder or warmer). If air is changed by mixing outdoor air and conditioned air, the effect required is obtained but the troubles above are avoided.



WET ZEFIRO ALL IN ONE



AIR QUALITY IN ONE TOUCH



A perfect match between a last-generation fan convector and a cutting-edge compact isothermal humidifier.

This is **Wet Zefiro**, a miniature air conditioning station to get an ideal air quality and climate in summer and winter.

Temperature control, humidity regulation, air filtration and change are all included to guarantee ultimate quality of the air and the greatest living comfort of the environment.

Such a simple and compact system also helps differentiate special temperature/humidity areas (the traditional conditioning systems, instead, create the same conditions for the whole environment).

+ BENEFITS FOR PEOPLE

Thanks to combined air humidification, filtration and change, **Wet Zefiro** guarantees quality air and a greater feeling of comfort, while reducing the risk of colds, asthma and all those unpleasant allergies that are increasingly spreading today.



+ BENEFITS FOR ENVIRONMENTS

An accurate control of temperature and humidity is required in all environments where works of art, artefacts and antiquities are stored. In fact, sudden changes in temperature and dry air cause fibres to break down and, as a consequence, objects to deteriorate fast. Temperature and humidity control is also necessary wherever goods whose integrity depends on the humidity rate are stored, exhibited or sold (e.g. exhibition halls in greenhouses, florist's shops, greengrocer's shops, paper and textiles storehouses, etc.).



+ THE BENEFITS OF AN ALL-IN-ONE SYSTEM

Compared to a system where the fan convector and the humidifier are separate units, **Wet Zefiro** guarantees that:

- + installation is easier, less bulky and cheaper;
- + operation is user-friendly (only one control);
- + air and vapour are mixed to help a more even distribution and prevent condensation spots;
- + creation of areas with special temperature and humidity rates.

+ THE BENEFITS OF AN ISOTHERMAL HUMIDIFIER

Wet Zefiro integrates an isothermal humidifier, with the following benefits:

- + vapour is bacteria- and odour-proof;
- + vapour is easily mixed with conditioned air and gets evenly distributed into the environment;
- + the system is easily and fast maintained;
- + vapour is free of mineral salts, and therefore will not make deposits on the objects.



Easy Wet



Compact isothermal humidifier with immersed electrodes, operated with tap water

Easy is an isothermal humidifier with immersed electrodes.

Vapour output can reach 1 kg/h (version 3xx-6xx) or 2 kg/h (version 8xx and greater), but the system will modulate the flow so as to avoid that air contains an excessive and uncomfortable humidity rate, and to prevent condensation. This modulation helps reach a constant humidity rate, free of sudden changes, in a very short time.

cheap + Power absorption, while being always low, gets at its highest only when the unit is started, i.e. when the humidity rate in the environment is far from the setup value. As soon as the system runs regularly, then consumption gets very small.

easily installed + The heat transferred to water for vaporization is introduced into the environment and combined to heating, that is energy efficiency is guaranteed. Installation requires a mains water pipe to feed the humidifier, complete with an outlet for condensation.

great potential + Maintenance requires that the boiler be replaced once a year on average (the time depends on frequency of usage and quality of available water). However, replacing the boiler is a simple operation and requires few staff.



One Control

Integrated control of temperature and humidity.

The logic of operation is as follows: once the temperature set-point is reached, the valves will cut water supply to the exchange battery. However, if the required humidity rate is not reached, the fans will not stop. This way, proper vapour distribution into the environment is ensured. Moreover, the control will act on the system with a 0-10V modulating signal. This means that the amount of vapour output is adjusted to the real needs (and depending on how far from the set-point the ambient humidity is). The result is that power consumption is optimized (reduced) and an accurate humidity rate is maintained (free of sudden changes).



Filter with bacteria-proof treatment*

Regenerating filter with a galvanized frame and filtering pad of synthetic acrylic fibre. Filtration class is G2.

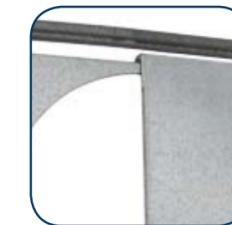
Treated with AEmina®, a powerful long-lasting anti-bacterial substance.



*optional



Back panel for air change*



This panel will "bump" the lower part of the back of the unit. Provided with a round flange for connection to a pipe to let in outdoor air. The amount of air changed is regulated with a small sliding door that will plug the suction inlet partially or totally (the door can be reached by removing the front grid of the unit).

*optional



Stainless steel pipe for vapour distribution* and gauged nozzles



In place of a standard copper duct.

The advantage is that the material features higher corrosion strength (for instance, if vaporized water is extremely hard) and that distribution is uniform along the whole length of the duct (gauged nozzles).

*optional



WET ZEFIRO

			308	316	320	628	634	840	847	1250	1260	1575
Air flow	MAX	m³/h	300	300	300	530	530	730	730	1130	1130	1310
	MED	m³/h	250	235	235	445	445	585	585	1050	1050	1220
	MIN	m³/h	175	156	156	300	300	390	390	860	860	1055
Vapour output	EASY	kg/h	1	1	1	1	1	2	2	2	2	2
	FREE	kg/h	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
Total cooling capacity	SUPER ⁽²⁾	W	1220	1600	2030	2820	3360	4070	4850	5090	6160	7270
	MAX	W	970	1420	1800	2480	2930	3650	4320	4850	5850	6790
Sensible cooling capacity	MAX	W	850	1150	1350	1830	2260	2900	3260	4040	4610	5340
Water flow	MAX	l/h	170	258	312	476	493	629	744	837	1010	1171
Pressure drop	MAX	kPa	2,2	6,4	12,9	7,5	6,0	18,8	15,2	31,1	26,1	13,2
Heating output in primary exchanger	SUPER ⁽²⁾	W	2940	3900	4530	6840	7920	9350	10790	12080	14700	17030
	MAX ^(E)	W	1470	1990	2340	3450	3720	4860	5590	6680	7860	9230
Water flow in primary exchanger	MAX ⁽²⁾	l/h	229	301	347	522	598	725	831	1004	1174	1384
	MAX ^(E)	l/h	170	258	312	476	493	629	744	837	1010	1171
Pressure drop in primary exchanger	MAX ⁽²⁾	kPa	2,8	6,9	11,9	8,0	6,2	18,3	14,0	32,4	25,7	13,4
Heating output in secondary exchanger	MAX ^(E)	kPa	1,8	5,2	10,6	6,1	5,3	15,3	12,4	25,3	21,2	10,8
	MAX ^(E)	W	1920	1920	1920	3360	3360	4540	4540	5980	5980	7290
Water flow in secondary exchanger	MAX ^(E)	l/h	169	169	169	287	287	399	399	526	526	640
Pressure drop in secondary exchanger	MAX ^(E)	kPa	5,5	5,5	9,5	20,3	50,3	6,3	6,3	10,2	10,2	17,7
Sound pressure	MIN ⁽³⁾	dB(A)	22,6	22,7	22,7	27,7	26,7	29,9	29,9	49,2	49,2	51,3
	MAX ^(E)	dB(A)	41	48	48	49	49	54	54	64	64	65
	MED	dB(A)	35	43	42	44	45	49	49	62	62	63
	MIN	dB(A)	29	31	31	36	35	38	38	58	58	60
Net weight	EASY	kg	18	19	20	24	25	28	29	28	29	34
	FREE	kg	19	20	21	25	26	29	30	29	30	35
Max absorption of engine ⁽⁴⁾	A		0,170	0,221	0,222	0,306	0,306	0,459	0,460	0,809	0,804	0,908

(E) Eurovent-certified performance
 (1) environment: 27° C - 47% UR - water temperature (in/out): 7/12° C
 (2) ambient temperature: 20° C - water temperature (in/out): 70/60° C
 (3) sound pressure is measured at the lowest speed, at 1.5 m distance, with a mirroring surface placed onto the back of the unit in a 100 cub. m. environment, with a reverberation time of 0.3 s.
 (4) at the greatest air flow set-point (speed 1/6)
 (*) the maximum power absorption is maintained only for a short time until the set-point is reached; afterwards

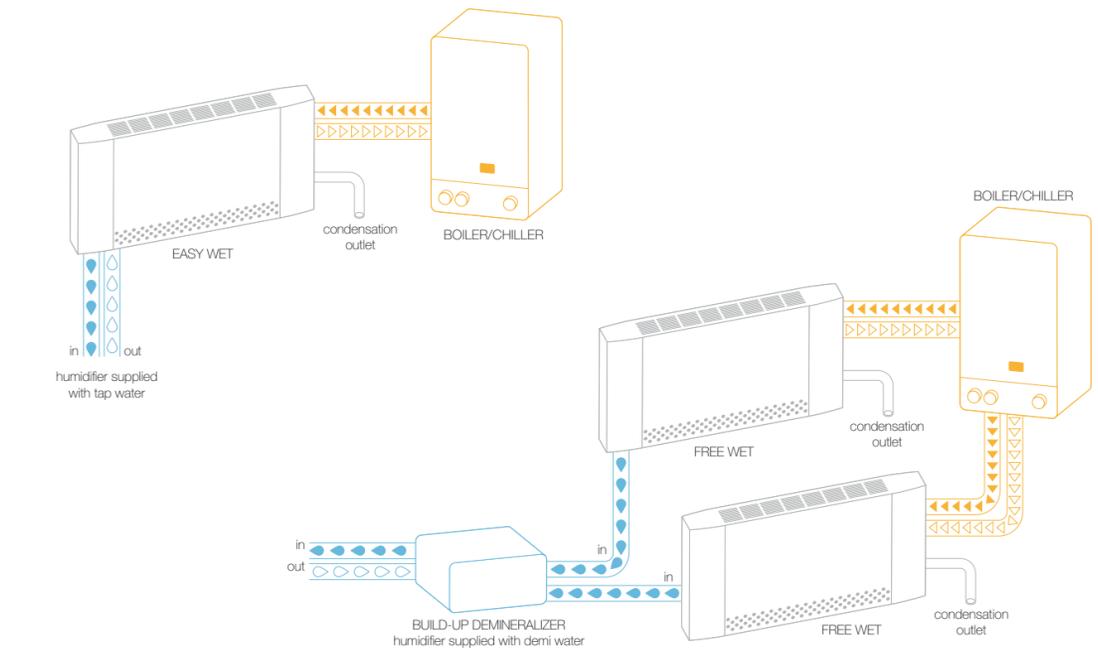
Free Wet

Isothermal humidifier with a heated plate, operated with demi water

The **Free** version is a humidifier with a plate heated by a resistor. Demi water will drip onto the plate and evaporate, and will not leave any remarkable deposits. The installation requires a dedicated circuit to convey demi water to the unit, but no outlets are needed (there is only an outlet for condensation back from the distribution pipe, which may also be conveyed to the discharge tank of the fan coil). Ordinary maintenance is virtually none. For this reason, the system is recommended when there are several units.

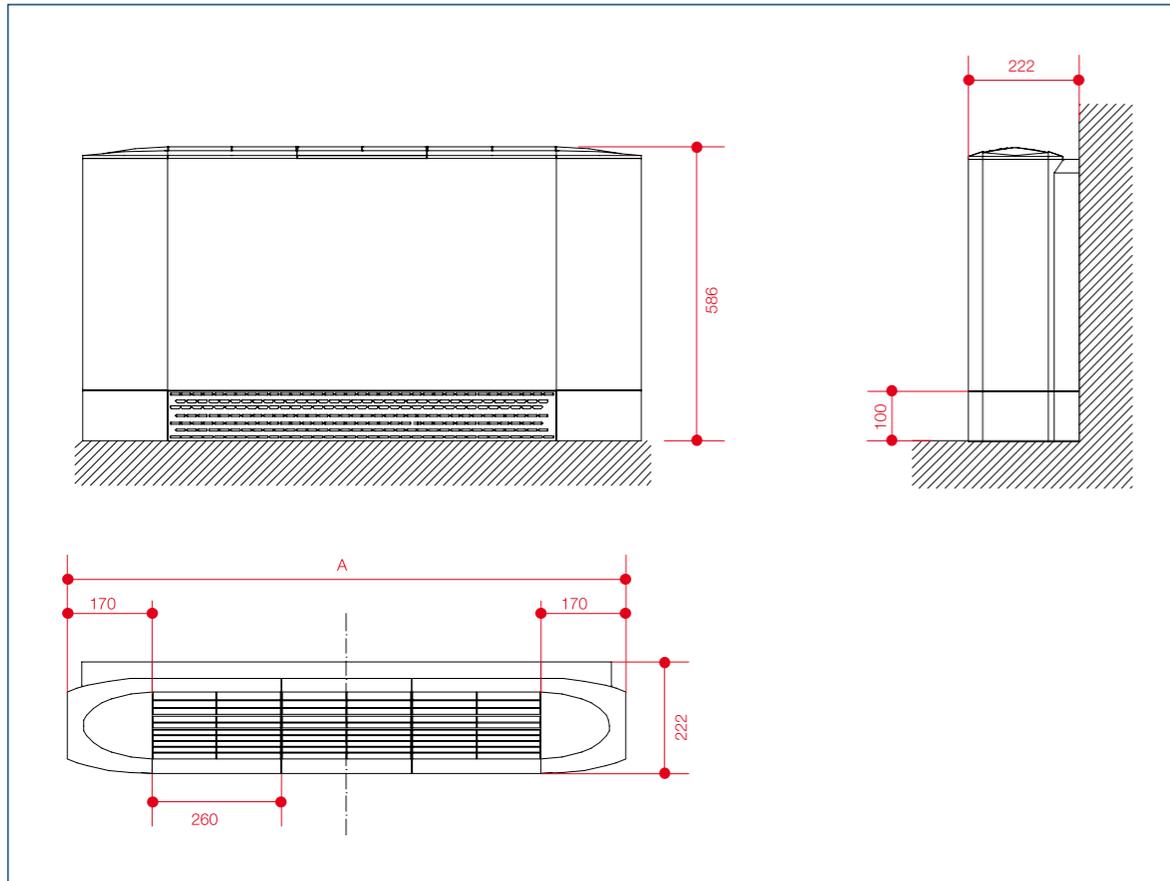
- no ordinary maintenance +
- accurate +
- noiseless +
- fit for applications +
with several units

Easy Wet	Vapour output	MAX	kg/h	up to 2
	Power absorption	MAX*	kW	0 - 1,5
	Regulation of vapour output			constant modulation
	Water supply		µS/cm °C bar	mains water (125-1250) 1-40 1-10
	Width of water in/out		in/mm	¾" / 22 (inside)
	Power supply		V/ph/Hz	230 / 1 / 50-60



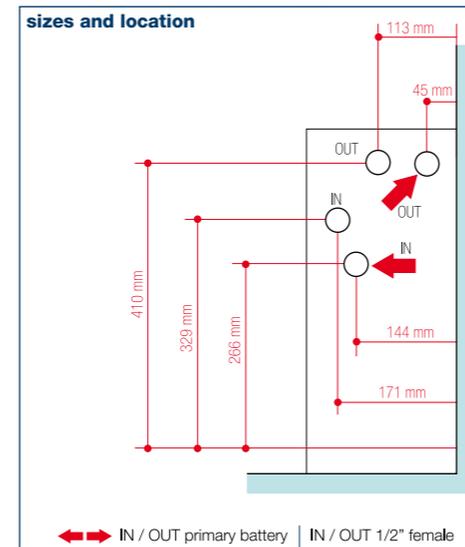
Free Wet	Vapour output	MAX	kg/h	0,5 - 0,7
	Power absorption	MAX*	kW	0,45
	Regulation of vapour output			constant modulation
	Water supply		µS/cm °C bar	demi water (<22) 1-40 1-6
	Width of water in/out		in/mm	¾" / 22 (inside)
	Power supply		V/ph/Hz	230 / 1 / 50-60

SIZES



SIZES	
version	A
308	1120 mm
316	1120 mm
320	1120 mm
628	1380 mm
634	1380 mm
840	1640 mm
847	1640 mm
1250	1640 mm
1260	1640 mm
1575	1900 mm

CONNECTIONS WATER BATTERY





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