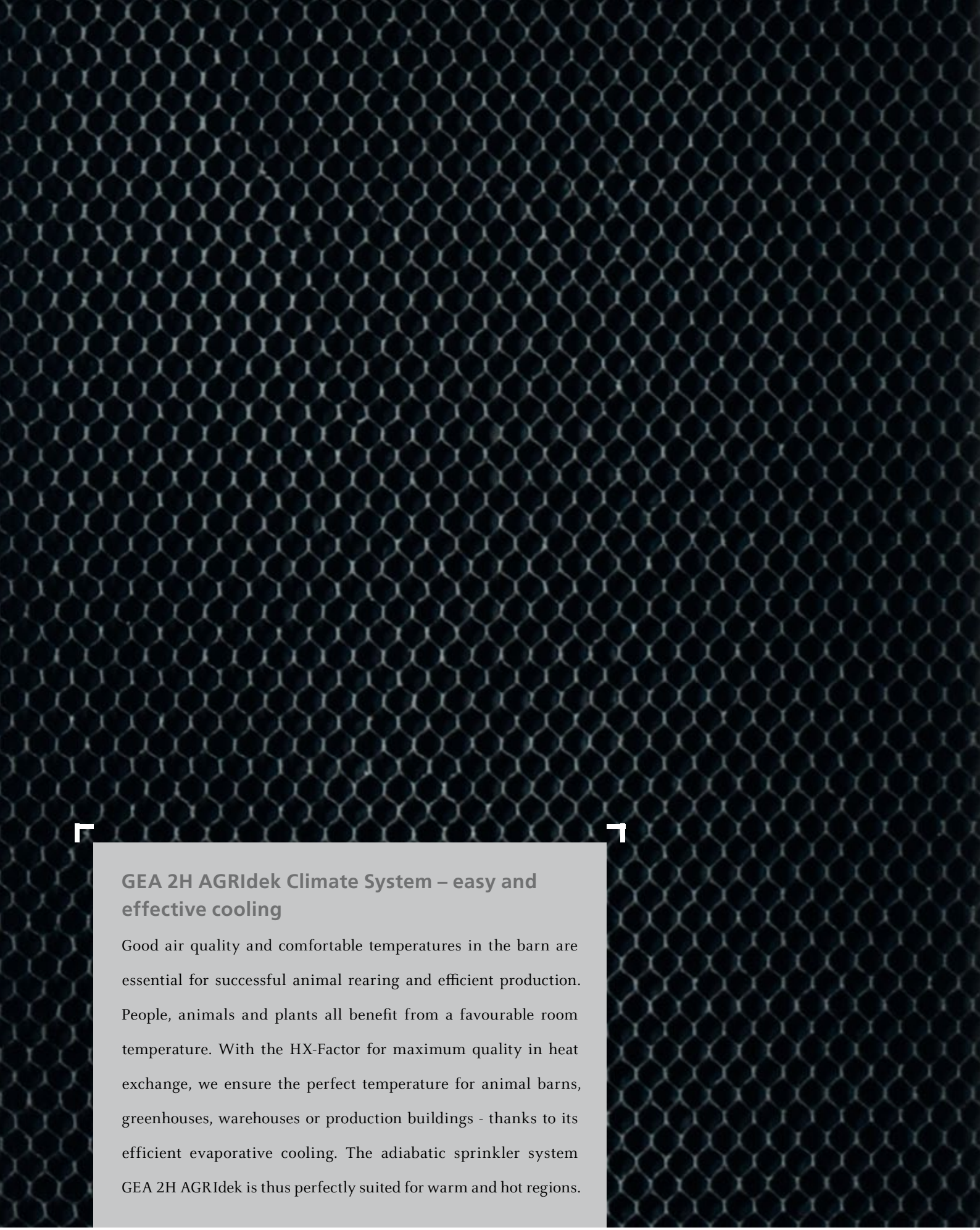


GEA 2H AGRIdek Climate System with HX-Factor

Cool air in barns and greenhouses



GEA 2H AGRIdek Climate System – easy and effective cooling

Good air quality and comfortable temperatures in the barn are essential for successful animal rearing and efficient production. People, animals and plants all benefit from a favourable room temperature. With the HX-Factor for maximum quality in heat exchange, we ensure the perfect temperature for animal barns, greenhouses, warehouses or production buildings - thanks to its efficient evaporative cooling. The adiabatic sprinkler system GEA 2H AGRIdek is thus perfectly suited for warm and hot regions.

Excellent cooling performance

The GEA 2H AGRIdek Climate System consists of the 2H Humipacking® fill as a heat exchange medium, a sprinkler unit for the distribution of water across the pad and one or more pumps for the circulation of the water.

Within the system, air is brought into close contact with water; this evaporates and, in doing so, draws heat energy from the warm inlet air. Excellent cooling performance is generated thanks to the very large evaporation surface in the 2H HUMIPACKING® fill. The deflector creates an ideal distribution of the water. The result: immediate cooling with low energy input.



GEA 2H AGRIdek Climate System for barn cooling

Easy self-installation

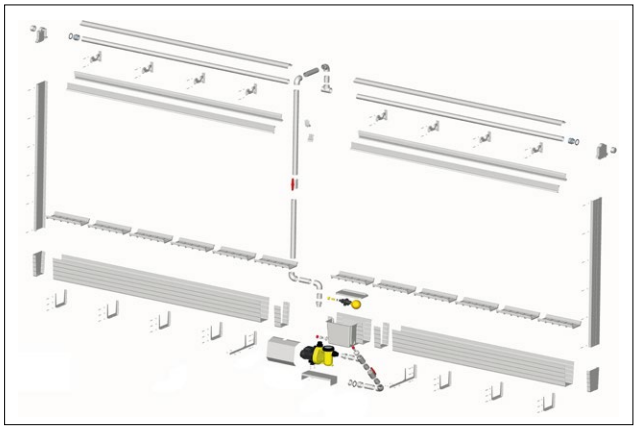
A great advantage of the system is its easy installation without the need for any previous knowledge. All functional parts are supplied. Thanks to the newly developed clip profiles, fitting is easy to carry out.

It is practical, too: The system does not require an additional external power supply. Connections to the fresh water and electricity supply are all that are necessary to fit the system so that the system is provided with power and water.

To set up the AGRIdek Climate System only a wooden frame is required, which is mounted in the air intake section of the barn wall. The AGRIdek Climate System is attached to this frame using U-profiles.



Water storage tank with a solid support area for the 2H HUMIPACKING® fill



The AGRIdek system is assembled using plug-and-click connections, the parts are glued in the final assembly stage.

Long operating life

Both the low energy consumption and long operating life contribute to making the system highly economical. The components are made of robust PVC, PP and stainless steel. The advantage: The materials are non-corrosive as well as being resistant to most chemicals. Since they are not prone to cracking, erosion is being prevented. Even extremely hard water does not damage the system.

The pump for the water circulation is maintenance-free. Any possible contamination of the water is detained by the pump filter.

A small animal protection device aids the trouble-free operation of the system. It prevents, for example, birds nesting in the water supply area.



A maintenance-free pump for water re-circulation



A small animal protection device for trouble-free operation of the system

HX-Factors of the AGRIdek Climate System

- High cooling and sprinkling power
- Also suitable for extremely hard water
- Quick cleaning possible – generally with water
- Low operating costs
- High corrosion and erosion resistance
- Strong chemical and UV resistance
- Simple handling and low weight
- Environmentally friendly as it is free of halogens and heavy metals
- Simple operation
- Highly economical

The 2H HUMIPACKING® fill – especially powerful

A main component of the GEA 2H AGRIdek Climate System is the 2H HUMIPACKING® fill. Its polypropylene-compound surface and its cross-pattern structure have many advantages: The highly resistant plastic sheets can be easily and safely cleaned. Their thermal welded construction ensures a long service life. Thanks to the addition of UV additives the component is particularly UV-resistant.

Its special geometric form guarantees good heat exchange and mass transfer for excellent cooling performance and reduces the incidence of light. In addition, the component is characterised by a low pressure loss. Additional information may also be found in our 2H HUMIPACKING® product profile.

GEA 2H AGRIdek Climate System

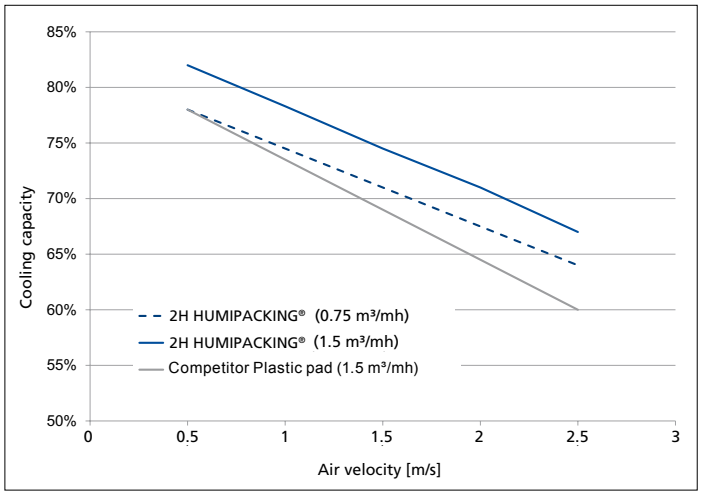
	Length of system m	Max. height of system m	Depth of HUMIPACKING® m	Pump type	Required number of pumps pc(s)
6 m Basic set	6	2.5	0.15	P 050	1
12 m Basic set	12	2.5	0.15	P 050	1
18 m Basic set	18	2.5	0.15	P 050	2
24 m Basic set	24	2.5	0.15	P 050	2

The basic sets can be combined with each other. The climate system can be adjusted to the barn wall dimensions by cutting.

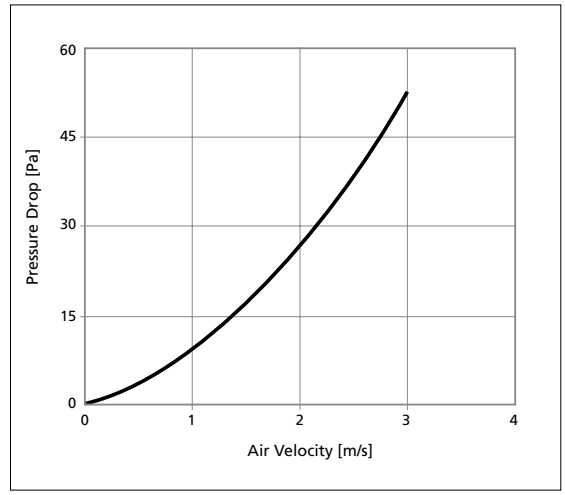
Efficiency of GEA 2H HUMIPACKING®

Air velocity (m/s)	0.5	1	1.5	2	2.5
2H HUMIPACKING® (0.75 m³/mh)	78.0 %	74.5 %	71.0 %	67.5 %	64.0 %
2H HUMIPACKING® (1.5 m³/mh)	82.0 %	78.3 %	74.5 %	71.0 %	67.0 %
Competitor Plastic pad (1.5 m³/mh)	78.0 %	73.5 %	69.0 %	64.5 %	60.0 %

Efficiency



Pressure Drop



Average values for water flows between 0.4 and 1.7 m³/h

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GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

GEA Heat Exchangers

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