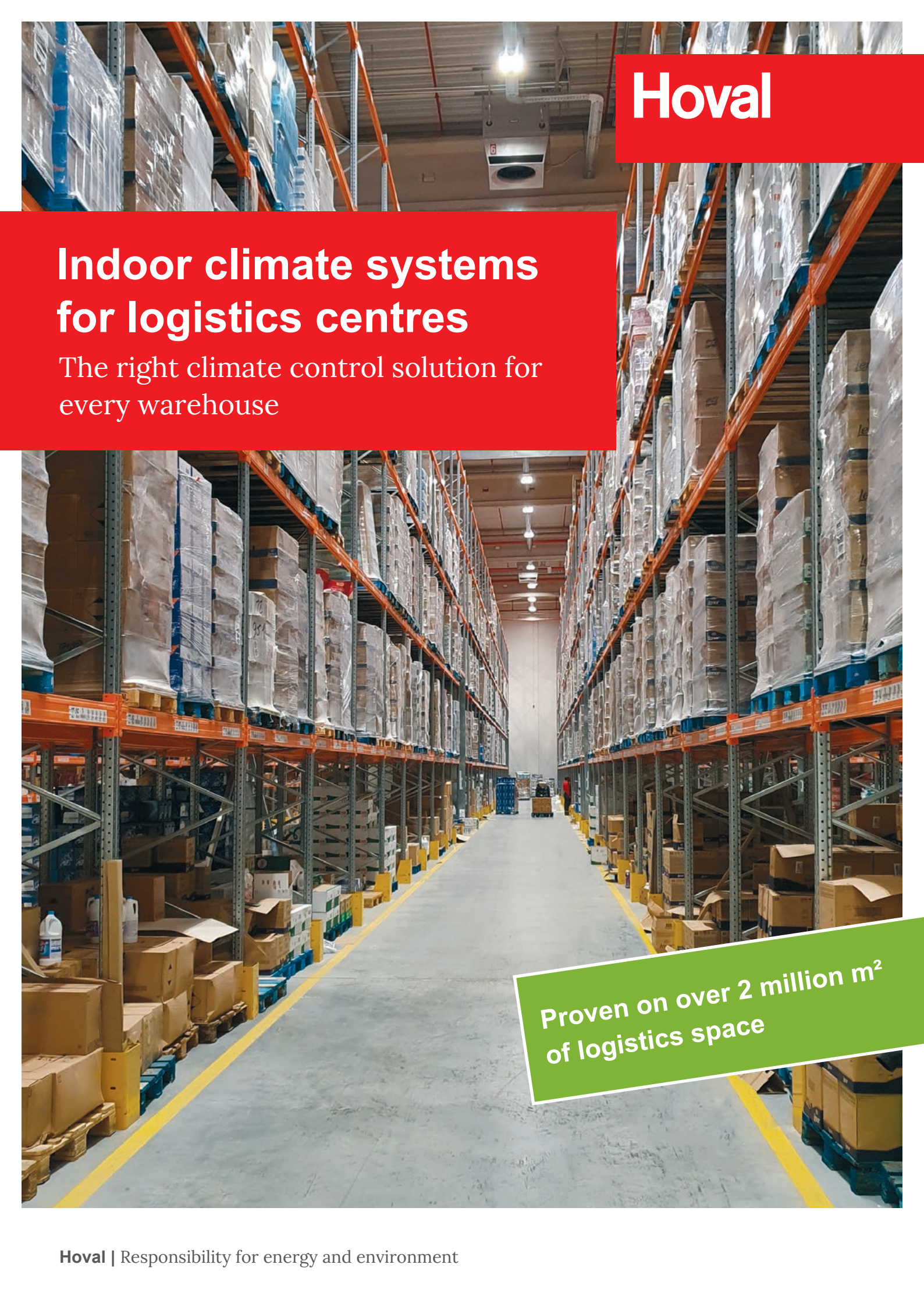




Hoval

Indoor climate systems for logistics centres

The right climate control solution for
every warehouse

Proven on over 2 million m²
of logistics space

The right climate control solution for every warehouse

Decentralised Hoval indoor climate systems for logistics centres

Storing of goods in logistics centres places special demands on their climate control. These are usually warehouses with roof heights between 10 m and 20 m, which are divided into different temperature zones. In the simplest case, frost-free conditions are required; however, room temperatures between 15 and 25 °C are usually required, which necessitates cooling in summer. The aim is to achieve a uniform temperature throughout the hall without large temperature differences between the floor and the roof. The ventilation system must not interfere with operations in the hall. Last but not least, a high level of operational reliability is required.



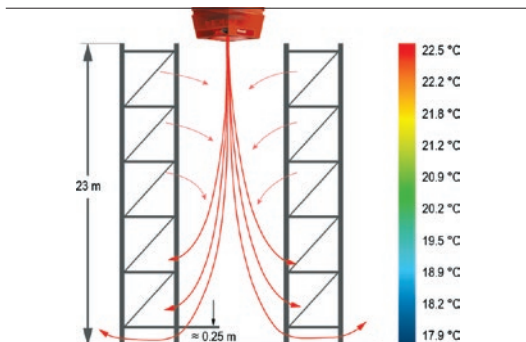
The decentralised ventilation units from Hoval air-condition the logistics centre without ducts and without disrupting operations. The entire hall remains fully usable.

Tailor-made for warehouses – a decentralised indoor climate system from Hoval

Instead of a centralised system, several small, self-sufficient ventilation units are installed. For logistics centres with the aforementioned requirements, the following **roof units** from the Hoval product range are particularly suitable for **heating and cooling**:

- RoofVent® supply and extract air handling units with heat recovery
- TopVent® supply air or recirculation units

With combinations of these units, a customised solution can be put together for every application. The **HK-Select design programme** with validated unit data, supplemented by room temperature simulations, provides certainty during planning.



Temperature stratification is kept to a minimum thanks to air distribution with the Hoval Air-Injector.

Even temperature thanks to Hoval Air-Injector

A key feature of Hoval ventilation units is the patented Air-Injector vortex air distributor. It is automatically controlled depending on the temperature. This results in high induction, i.e. a large amount of room air is mixed with the supply air. This keeps the temperature stratification small; the temperature gradient is generally **less than 0.15 K per meter of hall height**. Important: This also functions with high-bay warehouses.

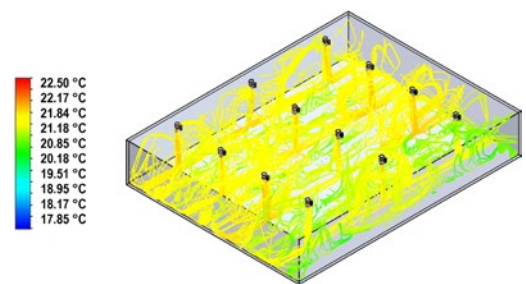
Trouble-free hall utilisation and operational safety

Maintenance work is carried out **from the roof** without any disruption to the use of the hall. The decentralised system also ensures continuous operation: while work is being carried out on one unit, the remaining units ensure that the required setpoint values are maintained.

Need-based control

The parameters for each unit can be set and controlled individually, which ensures maximum flexibility. Meanwhile, units that run under the same conditions can be grouped together to form control zones. This ensures constant temperatures in predefined ranges.

The connection to the HovalSupervisor cloud enables clear, resource-saving operation of the system.



Simulations of the temperature distribution provide certainty for planning and design.



Details

Floor area: 16000 m²
Hall height: 24 m

2 control zones

20 RoofVent®
Supply and extract air handling units
with highly efficient energy recovery

Practical example of Edeka Rhein-Ruhr

Edeka Rhein-Ruhr once again relied on Hoval's expertise for the construction of its new central warehouse in Oberhausen. The logistics centre has a floor area of 16,000 m² and a hall height of 24 m. For ventilation, heating and cooling, 20 Hoval RoofVent® size 9 units were installed, divided into two control zones of ten units each. A highly efficient plate heat exchanger is integrated into each of the roof units for heat recovery; this saves energy and costs for heating and cooling. Free cooling is also possible under the right temperature conditions. Maintenance work can be carried out from the roof without interrupting operations. A consistent temperature level throughout the entire hall volume is guaranteed and optimal storage conditions are ensured.

Unit types



RoofVent® supply and extract air handling units

- Ventilation with highly efficient energy recovery
- Heating and cooling with own heat pump or via central heating or cooling water supply, utilisation of free cooling
- Filtering of the fresh air and the extract air
- Air distribution and destratification with adjustable Air-Injector
- For air flow rates from 5500 to 8000 m³/h



TopVent® roof supply air units

- Fresh air, mixed air and recirculation operation
- Heating and cooling with own heat pump or via central heating or cooling water supply, utilisation of free cooling
- Filtering of the fresh air and the extract air
- Air distribution and destratification with adjustable Air-Injector
- For air flow rates from 6000 to 9000 m³/h
- Also available as pure recirculation units

Hoval quality.
You can count on us.

Hoval

Hoval is one of the leading international companies for heating and indoor climate solutions. Drawing on more than 80 years of experience and benefiting from a close-knit team culture, the Hoval Group delivers exciting solutions and develops technically superior products. This leadership role requires a sense of responsibility for energy and the environment, which is expressed in an intelligent combination of different heating technologies and customised indoor climate solutions.

Hoval also provides personal consultations and comprehensive customer service. With around 2500 employees in 15 companies around the world, Hoval sees itself not as a conglomerate, but as a large family that thinks and acts globally.

Hoval heating and indoor climate solutions are currently exported to more than 50 countries.

Responsibility for energy and environment

Your Hoval partner

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