



**Hoval**

## **Indoor climate system for supermarkets**

The right temperature for  
every product area

**Over 300 satisfied  
customers in Europe**

# The right temperature for every product area

## Decentralised Hoval indoor climate systems for supermarkets.

In grocery stores and supermarkets in particular, air quality and maintaining the right temperature are hugely important. As well as determining customers' level of comfort as they shop, these aspects define in particular the shelf life of perishable food.

### That's why decentralised indoor climate systems from Hoval are the ideal solution for supermarkets:

- The decentralised units allow **temperature zones** to be implemented **for the various product areas of the store**. This is essential to ensure **food safety**.
- Installing multiple units guarantees a high level of **operational safety**. If one unit is switched off for **maintenance**, for example, the remaining units ensure the required conditions.
- Reliable, validated simulations mean the flexible climate system is adapted to subsequent requirements as early as the design phase. The unit type and performance are optimised. This ensures **decisions can be made with confidence** with predictable costs.



Three zones with different requirements are supplied with exactly the right temperature and air quality by the decentralised units.

### Precise temperature zones for the product areas

The supermarket is divided into temperature zones based on the product areas of the store, e.g.:

- Non-food, checkouts and entrance area
- Fresh produce (fruit and vegetables)
- Chilled and frozen food

Each zone has its own decentralised units that satisfy the relevant requirements (air quality and temperature). The units provide the appropriate air quality where it is required. There is no need for long air ducts involving air mixing systems, meaning that every product area of the store has the exact temperatures it needs.



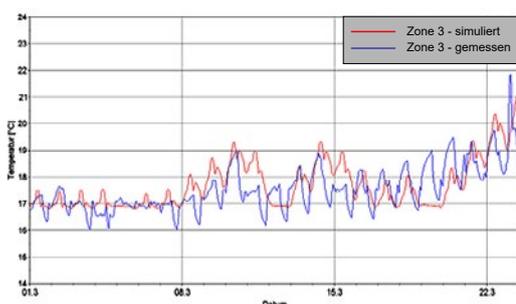
Stable temperature for freshness and shelf life of sensitive food.

### Food and operational safety

In the food industry in particular, even the slightest changes in temperature affect the freshness and shelf life of the products. Hoval indoor climate solutions are efficient systems with dependable components. And as multiple units are always used together to ventilate a zone, a certain level of redundancy is incorporated into the system. For example, if the filter is being changed on one unit, the climate in the zone will still remain stable.

### Make decisions with confidence

In Hoval indoor climate systems, various unit types (supply/extract air, recirculation/supply air) along with their specific functions (heating, cooling, ventilation) are combined flexibly with one another. As a result, several different solutions are usually possible and can be assessed using simulations during the design stage. Measured values from existing systems help ensure the customer is provided with the optimum combination of units for their application, along with reliable data regarding performance and investment and operating costs.



The clear match between forecast and actual values confirms the simulation results.



## Details

Area: 3000 m<sup>2</sup>  
 Height: 6-7 m  
 Room temperature in summer/winter: 24/18°C

3 temperature zones (controlled separately)  
 3 RoofVent RC-9C supply and extract air handling units  
 1 TopVent TC-9C recirculation unit

Reliable temperature control in over 300 supermarkets across Europe

## Practical example

### Supermarket with 3000 m<sup>2</sup> and 3 temperature zones.

A tailored combination of fresh air and recirculation units creates the perfect indoor climate in the supermarket.

- 3 RoofVent® units with heat recovery for ventilation with supply and extract air, heating and cooling
- 1 TopVent® unit for heating and cooling
- Centralised hot water and chilled water supply by central heat pump and from the waste heat generated by fridges and freezers
- 100% energy recovery from the waste heat generated by fridges and freezers
- Constantly precise temperatures in the three product areas of the store by means of zone control

#### Unit types



#### RoofVent® supply and extract air handling units

- Ventilation (supply and extract air) with high-efficient energy recovery
- Heating with own heat pump, gas condensing system or via centralised hot water supply
- Cooling with own heat pump via centralised chilled water supply
- Filtering of the fresh air and the extract air
- For air flow rates from 5500 to 8000 m<sup>3</sup>/h



#### TopVent® recirculation units

- Recirculation operation
- Heating with own heat pump, gas condensing system or via centralised hot water supply
- Cooling with own heat pump via centralised chilled water supply
- Air filtration
- For air flow rates from 2100 to 11000 m<sup>3</sup>/h

# Hoval

**Hoval quality.**  
You can count on us.

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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