



ENTROPIC

ECOLOGY INDOORS

*Vita*

# Healthcare & Laboratory Solutions

Enabling wellbeing

*Vita*

# Wherever air quality we take care of everything

## Your partner in indoor air quality

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Entropic is your lifetime partner from the design of the systems, through construction process to annual maintenance. Our services cover your project from end to end, ensuring the best solution for all your needs.

- Project design and support
- Pre-validation with mock-up or CFD modelling
- Commissioning and performance validation
- Annual maintenance

Entropic is a key supplier for all indoor air solutions in the ultra-modern Nya Karolinska Solna University Hospital in Sweden – the world's largest PPP hospital with LEED Gold certification. Illustration: White Tengbom Team.

# Quality is critical, every breath you take.

## Entropic Vita Solutions

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### **Demanding spaces**

- Operating rooms
- Laboratories
- Patient environments
- Isolation rooms
- Hospital pharmacies

### **Specialised needs**

- Outdoor intake air hygiene
- Fire and smoke safety
- Air diffusion and thermal comfort
- Solutions for hospital kitchens

### **Entropic Vita solutions are designed for**

- Maximum safety, reliability and comfort for professionals and patients
- Easy and intuitive system use and monitoring with smart controls and interfaces
- Optimised energy efficiency with demand-based system operation

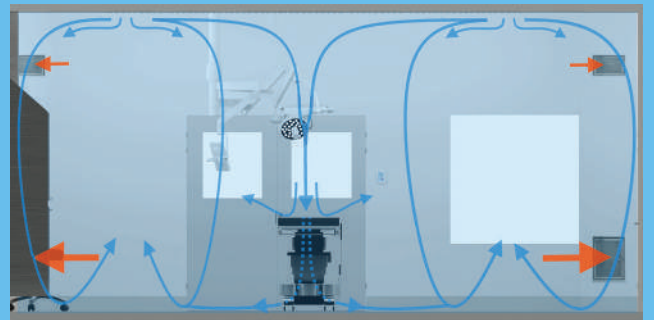
# Operating rooms

Hygienic and comfortable environments for patients, doctors and nurses.

Entropic's Vita solutions offer a full range of airflow systems for operating rooms, all meeting the highest standards.

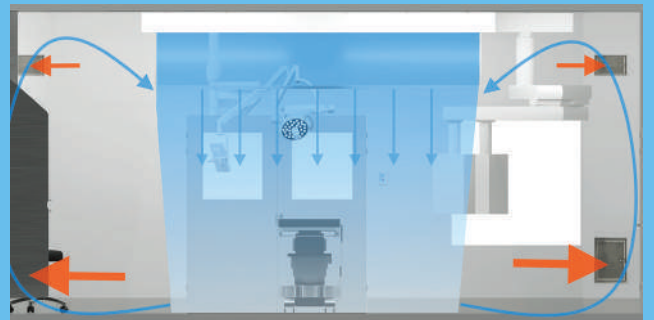
## Entropic Vita OR Space

Entropic Vita OR Space is an airflow solution that provides the highest required air cleanliness, ISO 5 level, for the entire operating space. This unique controlled-dilution innovation provides hygienic conditions and safety without compromising on comfort and freedom to use the whole room.



## Entropic Vita OR Zone

Entropic Vita OR Zone is a high-class low-turbulent-flow solution for high-risk ISO 5 environments. It provides a constant stream of ultraclean air to a defined zone with a traditional laminar flow principle.



## Entropic Vita OR Cell

Entropic Vita OR Cell is a mobile airflow solution providing clean air where needed. Mobile HEPA filtering units deliver ultraclean air to the patient's wound area or the instrument table.





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# Entropic Vita OR Space



New, unique ventilation solution for modern hospital operating rooms.



**Validation for Nya Karolinska Hospital**  
Entropic's unique simulated operation is a validation service that defines the room hygiene cleanliness level. In this test, Entropic Vita OR Space reached the highest hygiene level with less than 5 CFU's / m3.



**As the requirements for operating rooms increase, Entropic Vita OR Space brings together ultraclean (ISO 5) environments with comfortable conditions and high energy efficiency for the entire operating room.**

#### **Highest level of cleanliness**

Designed for high-risk operations (<5CFU). Provides the required cleanliness level for the entire operating space. The airflow is provided on the basis of the microbial load in the operating room.

#### **Comfortable conditions**

Enables an ideal and adjustable work environment for the medical team. The system allows for modifications in airflow patterns and thermal conditions according to individual needs.

#### **Flexible use of space safely**

Operational flexibility for the surgical staff and the medical equipment. The unique controlled-dilution innovation provides hygienic conditions and safety with freedom to use the entire space.

#### **Energy efficient**

The demand-based and highly automated control system makes Entropic Vita OR Space exceptionally energy efficient. The system adjusts the airflow to actual usage and the microbial load. Short recovery time of the room conditions creates substantial energy savings.

#### **Silent operational environment**

The well-designed system enables low noise levels in the operating area.

\*The ISO 14644 standard is a classification system for air cleanliness in cleanrooms and associated controlled environments such as healthcare, pharmaceuticals or food industry.



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# Laboratory solutions

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Exceptionally safe and efficient workspaces for laboratory professionals.





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Entropic's Vita solutions offer intelligent and efficient management of laboratory pressure conditions and thermal comfort in healthcare, research, production and educational laboratories.

## Entropic Vita Lab Solo

Vita Lab Solo is a fast and accurate airflow management solution for all types of fume cupboards and exhausts in laboratories where safety needs to be ensured in all conditions.

- Suitable for all fume cupboards and laboratory exhausts
- Constantly safe operations
- User-friendly control and alarm panel
- Enhanced energy efficiency with occupancy control

## Entropic Vita Lab Room

Vita Lab Room provides intelligent and efficient control of laboratory pressure and thermal comfort for optimal space management.

- Thermal comfort and safety for the entire room
- Energy efficiency
- User-friendly control and alarm panel
- Integrated temperature control

## Entropic Vita Lab Zone

Vita Lab Zone provides enhanced system stability with integrated zonal pressure management. The system ensures constant conditions for the Vita Lab Solo and Vita Lab Room solutions.

- Increases safety by preventing zone-to-zone fluctuation
- Enhances energy efficiency by maximum airflow limitation
- Easy design and layout modification with simple installation and maintenance



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# Patient environments

Safe, controlled and comfortable environments for patients and hospital professionals.



**Entropic offers wide range of Vita solutions for different kinds of patient environments. The solutions provide safe and hygienic conditions for patient care with first-class comfort for patients and staff.**

### Entropic Vita Patient Room

Entropic Vita Patient Room solutions provide indoor environmental management solutions for various patient environments from basic to more demanding needs, such as emergency assessment units, intensive care units and nursery wards.

Entropic's chilled beam solutions provide excellent conditions for patient care while ensuring hygienic performance and energy efficient operations.

- Comfortable, silent and stable indoor climate
- Integrated ventilation, heating and cooling with demand-based controls
- World-leading hygiene qualities

For wards with high air exchange rate requirements, Entropic provides variable air volume solutions for both all-air and air-water systems.

### Entropic Vita Iso

Entropic Vita Iso solution is designed for environments that require patient isolation, for both preventive and infection isolation purposes. The solutions provide safety for both patients and hospital staff through accurate pressure control. The system also manages the comfort levels, providing a good thermal environment. Entropic's Vita solutions offer intelligent and efficient management of laboratory pressure conditions and thermal comfort in healthcare, research, production and educational laboratories.



# Specialised applications

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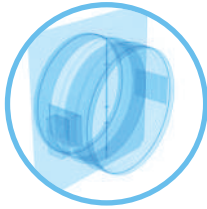
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# Specialised applications

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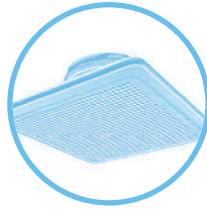


## Fire and smoke safety

Entropic fire and smoke management solutions ensure fire and smoke safety of the highest standard. In healthcare facilities where the mobility of the patients is reduced and the facilities unfamiliar to the patients, ventilation fire safety is crucial.

In particular, the use of compartments and limiting the spread of smoke ensure safe evacuation in case of fire. In addition to fire compartments, all patient rooms are considered as separate smoke zones that are equipped with active smoke dampers.

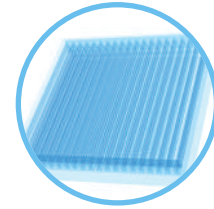
Safety of the evacuation routes can be ensured by separate smoke extraction systems with Entropic's smoke control dampers.



## Air diffusion and thermal comfort

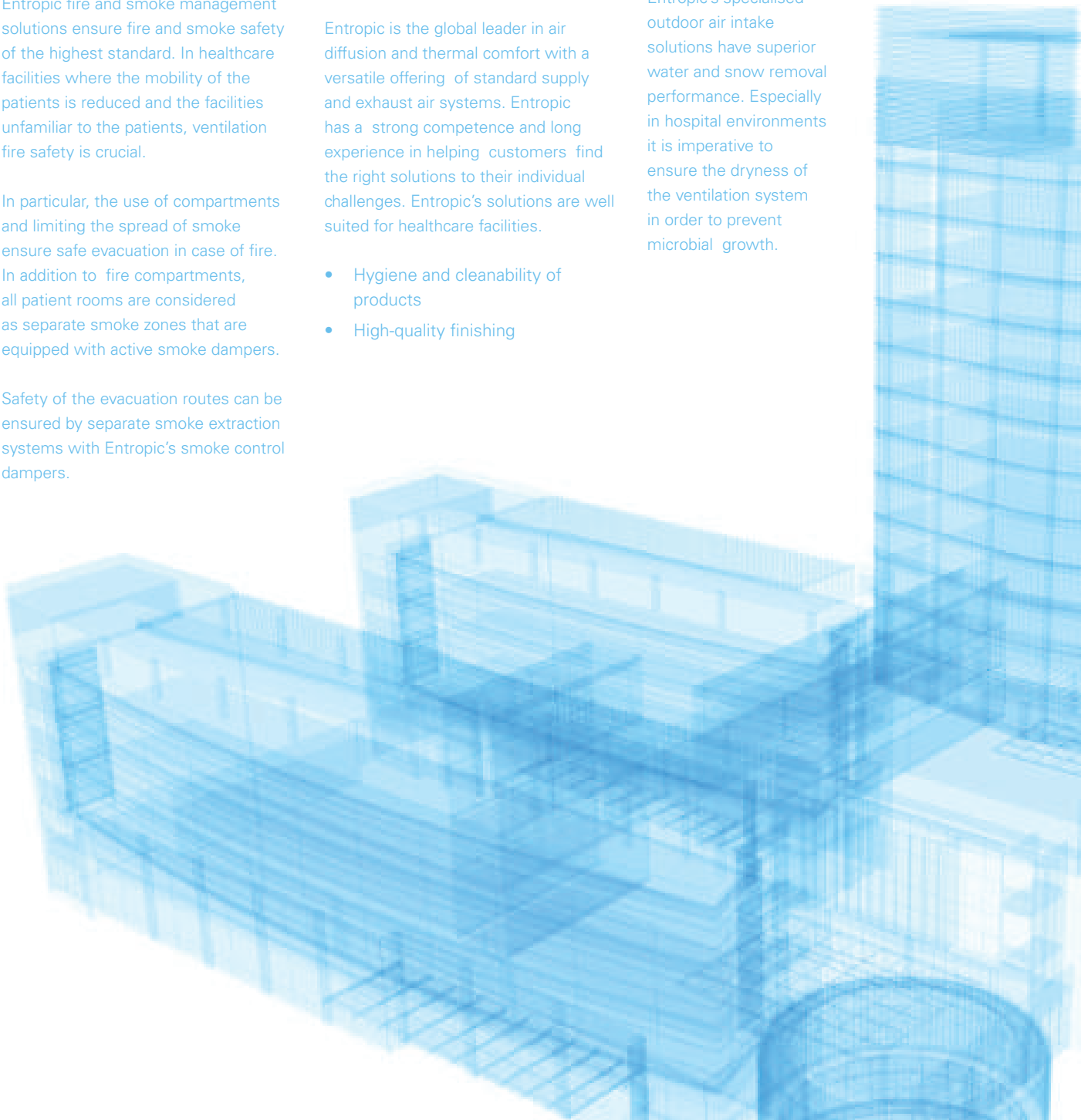
Entropic is the global leader in air diffusion and thermal comfort with a versatile offering of standard supply and exhaust air systems. Entropic has a strong competence and long experience in helping customers find the right solutions to their individual challenges. Entropic's solutions are well suited for healthcare facilities.

- Hygiene and cleanability of products
- High-quality finishing



## Outdoor air intake hygiene

Entropic's specialised outdoor air intake solutions have superior water and snow removal performance. Especially in hospital environments it is imperative to ensure the dryness of the ventilation system in order to prevent microbial growth.



# Kitchen ventilation

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The widest range of targeted solutions combining full safety with energy efficiency.



**Healthcare facilities are characterised by strict food and fire safety requirements, a large variety of menus, steam based cooking processes, large number of meals per day and high standards for kitchen staff working conditions.**

**Entropic's HACCP certified products and solutions for hospital kitchens ensure**

- The highest levels of safety, hygiene and easy serviceability
- Unrivalled energy savings
- Ideal working conditions for the staff



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Entropic is passionate about indoor environments. We offer business-enhancing products, systems and services for comfortable, energy-efficient, and safe environments for customers who value wellbeing of people. Entropic is involved from target-setting to the facilities use and focuses on creating positive indoor environment experiences for people.

Entropic solutions range from public buildings, industry to commercial kitchens and marine and offshore applications.

[www.entropic.ie](http://www.entropic.ie)

# Vita

## Entropic Vita Values

### Putting people first

Entropic Vita solutions are made for people who depend on them. From laboratory and pharmaceutical professionals to doctors, nurses and their patients, our first responsibility is the safety, comfort and wellbeing of these people and their environment.

### Passion for better solutions

We are driven by our customers' needs, and demanding spaces demand better solutions. Entropic Vita solutions are designed, produced and delivered to the highest standards of safety, quality and efficiency.

### Solving each challenge together

Delivering the best solutions for demanding spaces requires great flexibility, a commitment to continuous development, and close cooperation with our customers. Together, we can ensure that every Entropic Vita solution meets the unique demands of your project and the people it serves.

[www.entropic.ie](http://www.entropic.ie)