

Cleanroom solution

Enabling wellbeing





Taking care of your safety and comfort while securing the process



Cleanrooms are spaces where safety and cleanliness are crucial for the security of the process and the staff.

In spaces that require the highest level of cleanliness, air flow management, room air diffusion, and stability of environmental conditions are crucially important. The staff must be focused, calm, and be sure the conditions in the spaces are stable, accurate, and reliable.

Halton secures your workplace air quality and controls and monitors clean and safe environments for professionals in cleanroom spaces. We take care of the safety and comfort, so you can be sure your working conditions are in good hands.

Watch Halton Vita Cleanroom animation

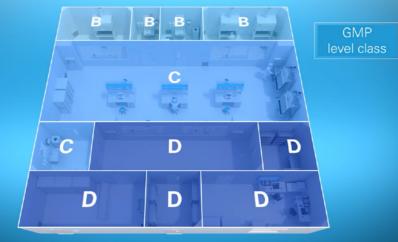


Controlling the conditions to provide accurate working environments

Halton Vita Cleanroom controls and maintains accurate pressurization, level of cleanliness and thermal conditions, keeping it adequate to the room class and procedures that are carried out. It will also respond quickly to process variations when needed.

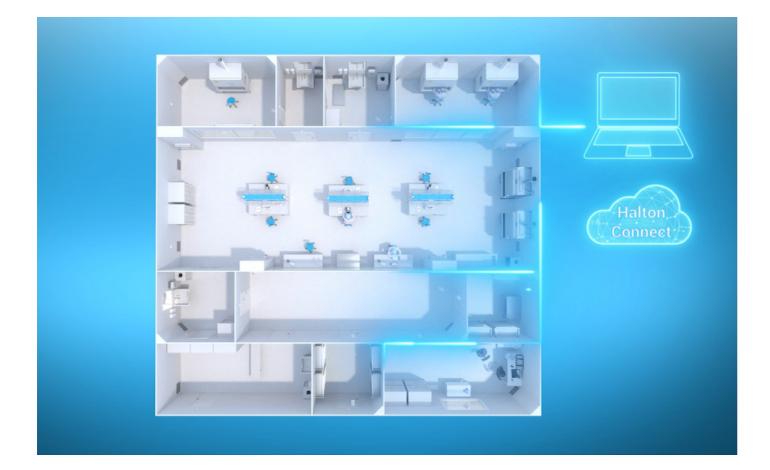


Halton can adjust the airflow pattern so that it creates a comfortable and safe working environment according to process needs. A draft free and temperature-controlled environment benefits the whole process.





Ensuring maximum security and immediate reaction for any changes



The Halton Vita Cleanroom solution includes an independent monitoring system that takes care of follow-up, logging and reporting of operational conditions. The monitoring system is compliant with GMP regulations and enables working both on site and remotely.

Information can also be reviewed remotly from Halton Connect, a clousedbased system that enables 24/7 monitoring of the solutions designed by Halton. Halton Connect allows access to useful information along with powerful data analytics to the end users. It also provides crucial information to our engineers. In return, they can remotely and safely control all systems and their settings when required.

The Halton Vita Cleanroom control system can be linked to the Building Management System (BMS).

The Halton Vita Cleanroom monitoring system provides reliable, continuous monitoring, measurement, and recording of particles, humidity, temperature, pressure, and several other parameters.

The Halton Vita Cleanroom monitoring system provides the following:

- Real-time data trending and complete data protection
- Logging of all necessary environmental parameters
- Connected with Ethernet or wireless
- Gap-free data acquisition
- Redundant recording running parallel to control systems
- Flexible alarming and automated reporting
- Graphical user interfaces for data monitoring
- Mobile-optimised user interface for smartphones and tablets
- Browser-based access
- Custom reports on demand

Access to information from both control and monitoring systems helps operators to react quickly to any changes. This increases the level of security and allows a response to possible environmental challenges.

User friendly and energy efficient



The staff can ensure safe operation conditions at any time via supervisory and touch panels that inform the users about temperature, air pressure, door position and alarms in real time.

Room and control panels show the information regarding each room, fumecupoard and biosafety cabinet individually. The supervisory panel next to the main door of



Halton Vita Supervisory Panel (VSP)

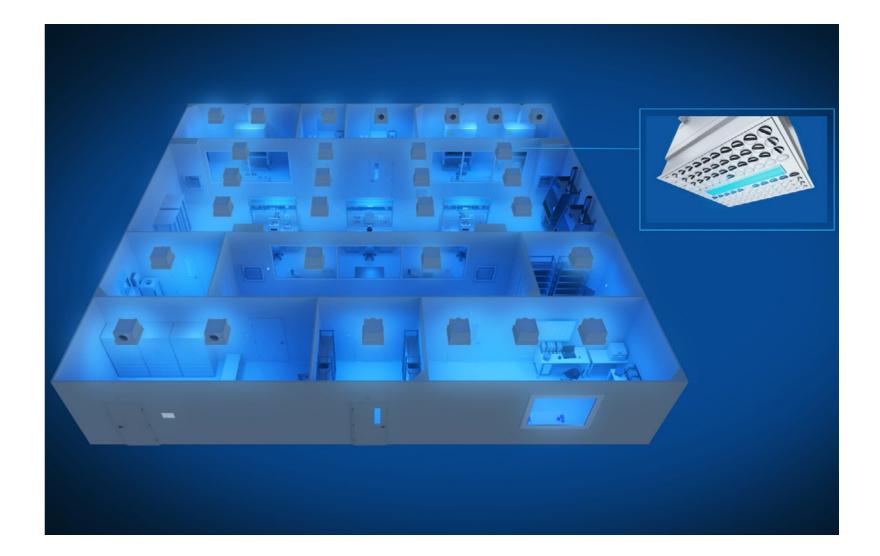
When the work is done and staff are leaving the space, the system can switch to Eco mode, which maintains the pressure and environmental conditions while simultaneously saving energy.

The air flow goes to ECO mode but the pressure control continues controlling as set. The normal mode can be controlled using time control, occupancy sensor or occupancy button.

The ECO mode (the general airflow rate set to 30% of the basic value, for example) can also be activated by using a motion detector when, after a predefined delay time, the sensor has not detected movement in the room.

Reliable and hygienic components

The air flow management, room air diffusion, and stability of environmental conditions are strictly important. The Halton Vita Cleanroom solution delivers these with reliable, hygienic, and cleanable system components. Halton Vita HEPA diffusers are covered in antibacterial paint and are easy to clean, validate and maintain.





The diffusers are equipped with adjustable nozzles which can be directed according to specific needs, creating different airflow pattems.



The version of the solution featuring the additional blue light in the diffusers can disinfect spaces during non-working hours, making the workplace even safer.

A lifetime journey with Halton

Halton ensures the best outcome from early design to validation and support throughout the building lifecycle.

Halton helps you find the optimal solution for cleanroom environments at the design phase and verifies excellent system performance at the handover. During building use, our services offer a proactive and user-centric tool for managing the safety and comfort of your indoor environment.



Halton Design Studio services

- Co-designing with the customer, defining the requirements and performance targets, matching targets to optimal cleanroom solutions
- Halton CFD simulations for thermal comfort, air quality and system performance analysis
- Halton Mock-up for system performance and full-scale indoor environment testing conducted in Halton Innovation Hubs



Halton Tune services

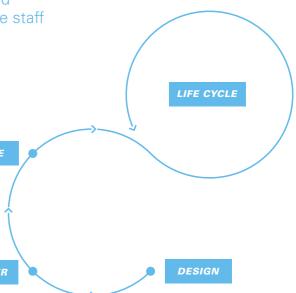
- Securing the safety and functionality of spaces with smooth commissioning and optimal system performance validation services
- Ensuring safe and comfortable working conditions with space cleanliness and indoor climate validation services
- End-user and maintenance staff training





Halton Life Cycle services

- Continuous validation and fine-tuning services for guaranteeing the safety, hygiene and comfort of spaces
- Regular maintenance services
- System performance evaluation and optimization
- Halton Connect, a cloud-based system for remote control





Wherever air quality is critical, we take care of every breath you take.

KAROLINSKA

Your partner in indoor air quality

Halton is your lifetime partner from the design of the systems,

- Project design and support
- Pre-validation with mock-up or CFD modelling
- Commissioning and performance validation
- Annual maintenance
- Halton HIT Design tool and solution documentation

Halton 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.

Halton Vita Solutions

Demanding spaces

• Operating rooms

- Laboratories
- Patient environments

- Cleanrooms
- Solutions for

Specialised needs

• Outdoor air intake

• Fire and smoke

Halton Vita solutions are designed for

- reliability and comfort for professionals and patients
- ased system operation



Halton Vita Values

Putting people first

Halton 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. Halton 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 Halton Vita solution meets the unique demands of your project and the people it serves.

