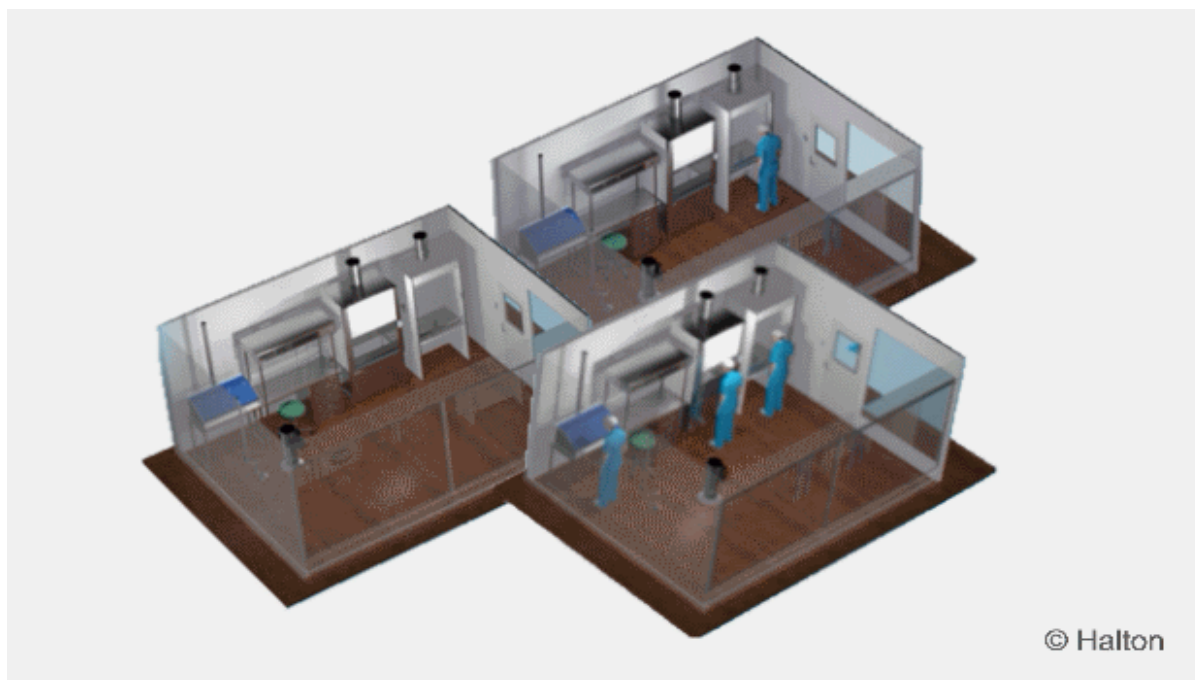


Private: Halton Vita Lab Zone (VLZ)



Yleiskuvaus

The Halton Vita Lab Zone solution allows the system to have a constant duct pressure inside the exhaust duct. The primary function for the system is to provide a constant condition for the Halton Vita Lab Solo solution and to regulate it correctly.

The Halton Vita Lab Zone allows the fume cupboard control system to have a constant response time and to assure the safety of the user, regardless of the conditions outside the laboratory.

The Halton Vita Lab Zone is also used in Halton Vita Lab Room (VLR) to measure the total exhaust airflow with the cross-type measurement probe, mounted on the damper. It can also be used to decrease the total room exhaust airflow when the consumption is deemed too high within a room (zonal exhaust airflow management).

This system can be linked to the Building Management System (BMS), it can also have a Touch Panel or other user interface devices. These allow the user to view the status of the control and to control the various set-points.

For the standard application, Halton will provide:

- The Exhaust VAV damper with a Differential pressure sensor mounted on
- VLZ controller with a transformer (transformer optional), mounted on the damper
- Static pressure measuring unit

Halton Services

Halton Design Studio

Selecting, planning and designing the optimal solution are the first steps of a successful implementation. Halton offers the following services in the design and planning phase to help you reach the best possible end result and life cycle performance of your Vita Lab solution:

- Advanced project design and support in the concept creation and design phase to specify and customize the optimal solution in co-operation with your design team, when safety, comfort and life cycle performance targets are set.
- Halton computational fluid dynamics (CFD) simulation is a cost-effective method of testing and validating the selected solution before realization. Computer-based flow simulations are used to optimize room conditions and compare alternative solutions during the design or the pre-design phase.
- Halton Mock-up services are used to ensure that the indoor climate conditions are in accordance with the system safety and comfort design and features. Tailored tests and mock-ups are strongly recommended especially for special rooms and other demanding situations where the loads and the ventilation system differ from standard applications. Mock-ups are performed in Halton Innovation Hubs.

Halton Tune

Halton offers comprehensive commissioning and start-up services for demanding Halton Vita Lab solutions, in order to ensure optimal safety and comfort conditions, as well as functionality and energy performance of the delivered solution according to industry standards. Standard commissioning and start-up services include:

- Checking of the following prerequisites, which are to be performed by the customer or subcontractors of the customer, prior to implementation of any Halton Services on site:
 - General power supply is turned on
 - Ventilation is stabilized and pressure rates between spaces are set correctly
 - All units and components related to the Halton project scope are installed correctly, including all sensors and panels
 - Air-handling unit, airflow control damper and duct pressure adjustment functionality is verified
 - Supply and exhaust airflows are measured and set correctly
 - Power is supplied to all controllers, airflow control dampers and actuators
 - All required controllers are connected to the BMS
 - All other cabling and connection tasks specified in the order documentation are done correctly
- Verification of general system implementation according to good practice
- Start-up of the system:
 - Finalization of operational parameter settings to controller software and actuators
- Calibration of all sensors
- Airflow measurements and finalization of ductwork balancing

- Testing of system functionality and performance
- User training for all space users and technical personnel, concerning system characteristics, performance, operation principles (with regard to the automation system) and proper maintenance of potential faults.

Halton Life Cycle

Halton offers preventive maintenance services for all demanding solutions. Our maintenance services include performance validation of the system and changing of spare parts, according to solution-specific maintenance agreements. With our maintenance services, we offer extended warranties for all Halton Vita Lab solutions.

For further information of our services, please contact sales.

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