

VOS Halton Vita OR Space



Présentation

Halton Vita OR Space est une solution complète pour la ventilation des zones à environnement maîtrisé. La solution est basée sur le principe de la dilution, qui délivre une quantité d'air propre minimale et qui permet de respecter le temps nécessaire à la cinétique d'élimination des particules.

La solution est fournie avec les équipements nécessaires à la classe de propreté suivant le classement ISO des zones à risques. Halton Vita OR Space est disponible en 2 versions :

- Vita OR Space 5, Zones risque 4
- Vita OR Space 7, Zones risque 3 et inférieurs

Principe de fonctionnement

La solution Halton Vita OR Space est basée sur le principe de la dilution. L'air filtré et propre est introduit dans la zone de façon contrôlée, déplaçant et diluant les impuretés. Avec cette méthode la classe de propreté particulière de l'air est obtenue dans l'intégralité du volume, sans compromis pour la sécurité et le confort du patient et de l'équipe chirurgicale.

Le volume total étant intégralement traité, cela permet une liberté de circulation totale pour le personnel médical et les équipements. Cela ne signifie pas seulement une utilisation plus totale de l'intégralité de l'espace mais aussi une amélioration de la sécurité sanitaire car le risque de contamination est minimisé.

La régulation du système ajuste le débit en fonction du type d'opération, de la charge en

contaminants, avec un temps d'élimination des particules plus court et un gain considérable en terme de consommation énergétique.

La veine d'air de diffusion est ajustable en fonction du personnel et de la position des équipements, ce qui garantit un confort thermique optimal et un niveau sonore réduit pour le patient et le personnel médical.

For further information of our solutions, please contact sales.

Halton Services

Halton with its turnkey solutions and end-to-end services is your trusted partner throughout the lifecycle of the building.



Halton Design Studio

For support in the design phase and for a cost-effective validation of your design, the following optional Halton Design Studio Services are available:

- Advanced project design and support in cooperation with your design team.
- Halton CFD simulations for optimising room conditions, especially when experiments are difficult to set up.
- Halton Mock-up for ensuring that the indoor climate conditions are in accordance with the system safety and other design features.
- Simulated operations for evaluating the impact of different variables to the cleanliness level, such as the number of people, the quality of the clothing system, the impact of door opening and the ventilation airflow rate.



Halton Tune

The following Halton Tune Services help you ensure that all the design criteria are met in the real operating environment:

- Installation and commissioning of the Halton Vita OR Space and Zone solutions, including HEPA filter integrity testing.
- Complete system performance validation, including
 - space air tightness measurements

- airflow and diffusion validation
- temperature, humidity and sound level measurements
- adjustment of airflows and pressure rates
- Operating room validation, including
 - particle and microbial cleanliness classification
 - containment leak and entrainment tests
 - operating room and surgical light recovery time tests
 - face velocity measurement
- User training for medical and technical staff.



Halton Life Cycle

The following Halton Life Cycle Services help maintain safe and comfortable working conditions for space users, and prevent unexpected, costly and time-consuming renovations:

- Regular validation of safety, hygiene and comfort conditions to ensure continuous compliance with operating room standards.
- Halton Survey for gathering valuable user feedback about the perceived indoor environmental conditions.
- Maintenance services for preventive management of the ventilation system.

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Space 5

Features

Standard features

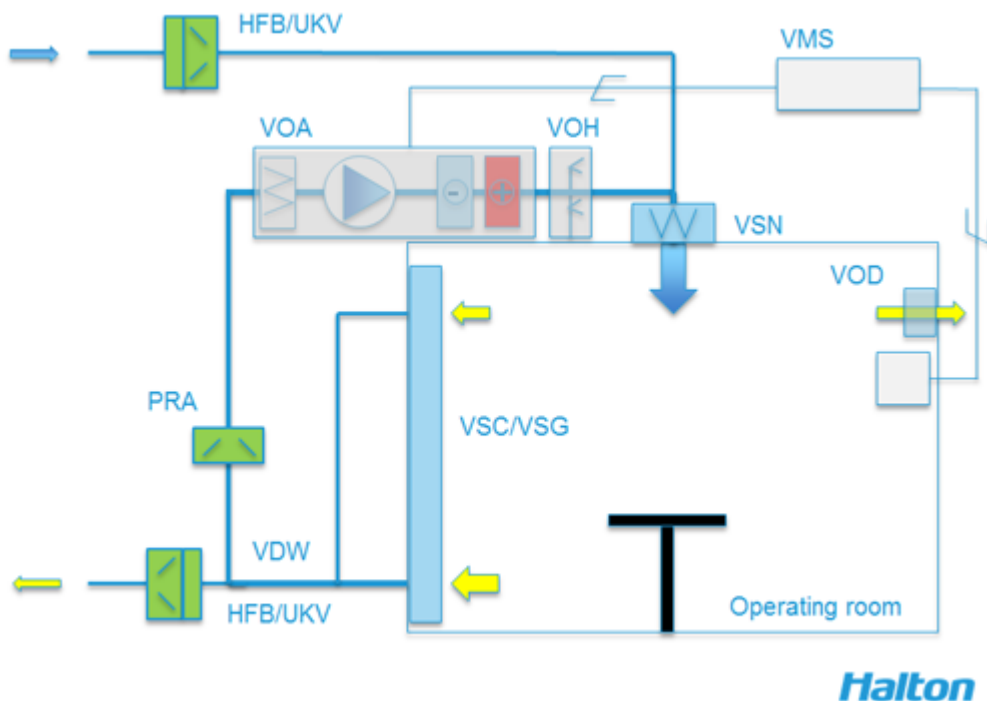
- Ultraclean air
 - Complies with the ISO 14644 standard for cleanrooms (particle count in *at rest* conditions ISO 5)
 - The microbial cleanliness *in operation* conditions < 10 CFU/m³
 - Fast recovery time, in *at rest* conditions < 15 min
 - Supply unit includes H14 filters
- Possibility for reduced airflow for *clean air* conditions (< 100 CFU/m³)
- Controlled dilution airflow distribution providing
 - Ultraclean air to the whole operating space
 - Flexibility in layout design and staff mobility

- Superior comfort
 - Comfortable, draught-free environment
 - Users can raise or lower the temperature during the operation without compromising the cleanliness level
 - Silent operational environment
- High-quality components with flexible sizing
- Heating, cooling and air filtration with a separate recirculation air-handling unit (Halton VOA)
- Airflow control based on microbial load
- Digital management system (Halton VMS) with an easy-to-use touch panel user interface for an intelligent control of air cleanliness, airflow, pressure and temperature

Optional features

- Humidity control, Halton VOH (add-on to the recirculation air-handling unit, Halton VOA)
- Halton Services for the planning, implementation and maintenance phases of the building project

System components



Standard components

- Halton VSN supply air unit with H14 filters consisting of 4-8 Halton VSN supply air modules in a square or rectangular ring
- Halton VSC exhaust units or Halton VSG exhaust grilles

- Halton VOD overflow damper
- Halton HFB or UKV airflow control dampers
- Halton PRA airflow adjustment damper
- Halton VOA recirculation air-handling unit, vertical or horizontal model
- Halton VMS air cleanliness and ventilation management system

Optional components include

- Halton VOH steam humidifier (requires Halton VOA)
- Halton VDW internal ductwork within the operating room

Space 7

Features

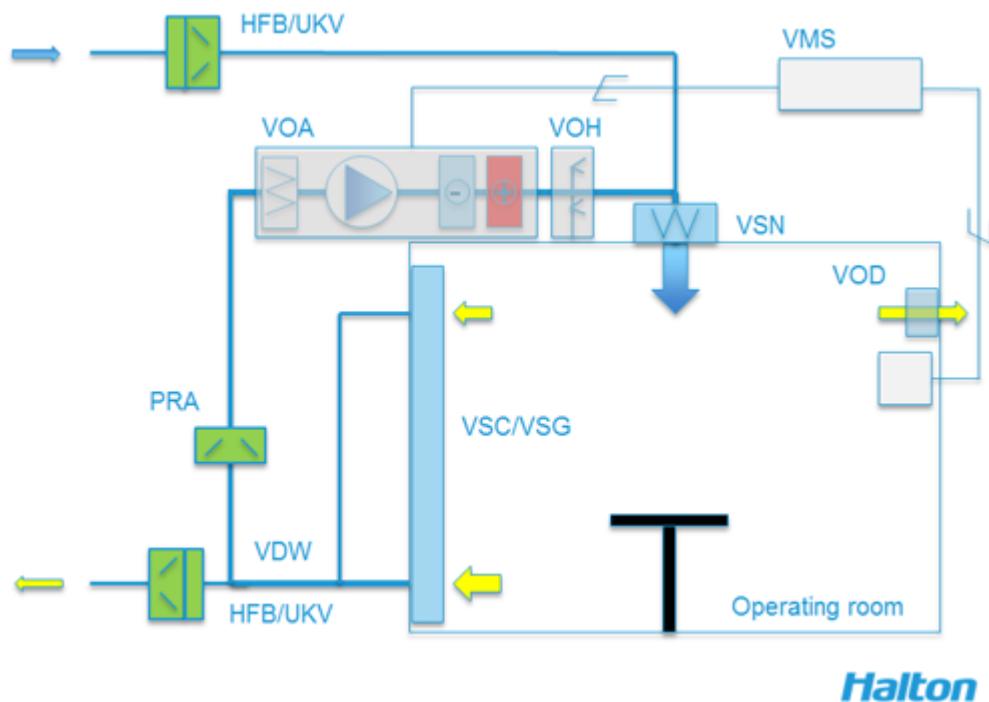
Standard features

- Clean air
 - Complies with the ISO 14644 standard for cleanrooms (ISO 7)
 - Microbial cleanliness in *in operation* conditions < 100 CFU/m³
 - Fast recovery time, in *at rest* conditions < 20 min
 - Supply unit includes H14 filters
- Controlled dilution airflow distribution providing
 - clean air to the whole operating space
 - flexibility in layout design and staff mobility
- Superior comfort
 - Comfortable, draught-free environment
 - Users can raise or lower the temperature during the operation without compromising cleanliness levels
 - Silent operational environment
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System components



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