



*Vita*

# Gas and Smoke Extraction Solution

# Safer environments for medical staff



Halton Vita Extract is a solution for anaesthetic gas and surgical smoke extraction in medical use. Even low concentrations of anaesthetic gases in the room air can cause headaches, nausea and tiredness to medical staff. Surgical smoke generated in laser and electrosurgical procedures is an inconvenience and can be hazardous to medical personnel. Halton Vita Extract was created to ensure better air quality in the hospital environment by evacuating anaesthesia gases and surgical smoke directly from the source.

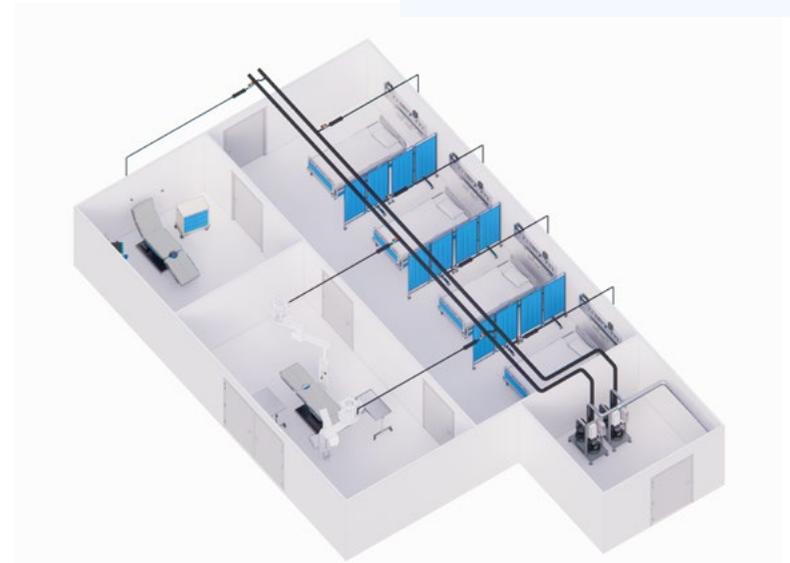
The vacuum is generated by one or multiple blower fans of the central unit that is typically located in a ventilation machine room. Vacuum piping is routed throughout the building to individually controlled suction inlets. Constant vacuum pressure in the pipework, generated by the vacuum blowers in the central units, extracts the gases out of the medical equipment and forces them out through the exhaust piping. Dedicated sound attenuators suppress pipe noises for the user's comfort.

## Halton Vita Extract applications

- Smoke extraction in diathermy and laser cutting surgery (operating rooms)
- Gas extraction in anaesthesia (operating rooms, recovery rooms)
- Gas extraction in pain relief (delivery rooms)

## Key features

- Removes hazardous gases and minimizes exposure to unhealthy substances
- Energy-efficient performance ensured by one or several frequency controllers
- Reliable performance thanks to high-quality components
- Low noise level
- Low maintenance need
- Connectivity with Building Management System (BMS)



# Designed to meet your specific needs

## Operating principle

- The vacuum blowers in the central unit generate a constant vacuum pressure in the pipework.
- The vacuum extracts the gases out of the medical equipment and forces them out through the exhaust piping.
- The system can have multiple suction inlets that are connected to the trunk pipework.
- The medical equipment (patient masks or diathermy devices) are connected to the suction inlets.
- The vacuum airflow for each suction inlet can be adjusted with the control valves that can be operated manually or with an actuator.
- The vacuum airflow for each suction inlet can be controlled with a control panel. The control panel options are the following: on-off, 0-low-high, 0-100%.
- A dedicated sound attenuator suppresses the flow noise.

## Halton delivery includes:

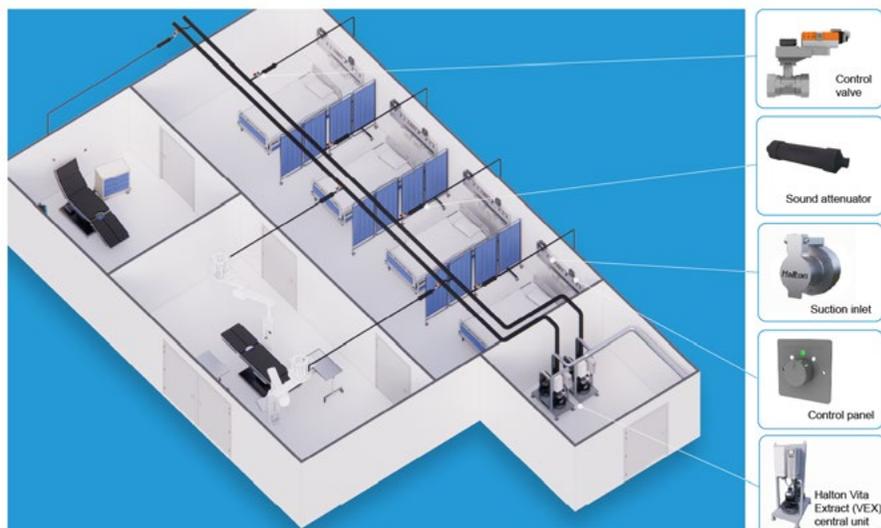
- Design support
- Critical system components\*
  - » Central units
  - » Suction inlets
  - » Flow control valves
  - » Sound attenuators
  - » Control panels
- Commissioning and start-up of the system

\*The pipework and consumables, such as medical masks and their tubing, are not included in the delivery.

## Reliable performance with multiple device options

The central unit of Halton Vita Extract is available in three models (single, dual and secure) and in three sizes (S,M,L).

- The single central unit is equipped with 1 blower fan.
- The dual central unit is equipped with 2 blower fans which can work simultaneously at full airflow.
- The secure central unit is equipped with 2 blower fans and duplicated critical components that can work alternatively to ensure the system continues running during maintenance or in case there is a component failure. A built-in surveillance function automatically starts using a secondary component if a primary component in the system fails.



HALTON VEX SINGLE



HALTON VEX SECURE  
(1 motor running)



HALTON VEX DUAL  
(2 motors running)

Model type	S	M	L	S	M	L	S	M	L
Rated power (kW)	3.45	4.55	7.5	3.45	4.55	7.5	6.9	9.1	15
Full load amps (A)	6.6	8.6	15.7	6.6	8.6	15.7	13.2	17.2	31.4
Maximum air volume (m <sup>3</sup> /h)									
-50 mbar	350	550	830	350	550	830	700	1100	1660
-100 mbar	320	500	750	320	500	750	640	1000	1500
-150 mbar	280	450	700	280	450	700	560	900	1400
Unit weight (kg)	116	125	149	231	256	302	231	256	302

# 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 extracting medical gases and surgical smoke at the design phase and verifies excellent system performance at the handover. Our services offer a proactive and user-centric tool for managing the safety and comfort of your indoor environment.



## Halton design support

- Co-designing with the customer: defining the requirements and performance targets, matching the targets to an optimal solution.



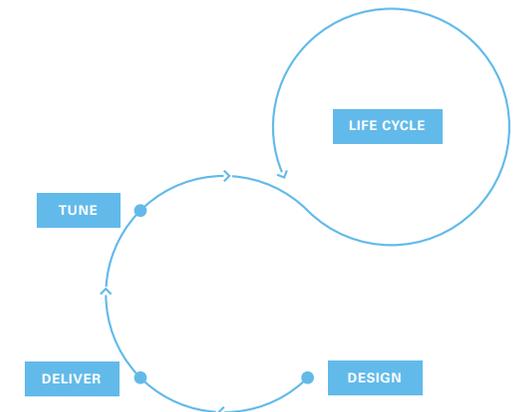
## Halton tune

- Halton Vita solutions always include on-site commissioning to ensure the safety and functionality of the solutions.
- Verifying and adjusting the optimal performance of systems.
- Service personnel and end user training.



## Halton life cycle

- Halton offers a maintenance agreement for installed systems. As part of this service, the Halton service team tests all the critical components and the system operation to ensure continuous functionality of the solution.



# Vita

## 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.