

# The Halton-Lifa Concept



## Secure solutions for better Indoor Air Quality (IAQ)

In recent years more emphasis has been placed on both the quality and the safety of indoor air. Since people spend 70-90% of their time indoors, clean air is clearly important for health and well-being.

Threats such as SARS, Legionella and Tuberculosis are drawing attention to the control of airborne diseases, and other hazardous biological or chemical airborne contaminants. Halton-LIFA offers a total concept for effective airborne contamination control.

The newest components of the Halton-LIFA Concept are the Halton-LIFA 3G Filters and Halton-LIFA High Security Filters. These advanced flow resistance, high efficiency Halton-LIFA supply air filters remove both particulate and gaseous contaminants from the supply air, without extensive building modifications. Their unique design translates into significant financial and safety benefits.



- Superior filtration efficiency – up to 99.99% for particles and up to 99.5% for gases
- Long filter service life with low maintenance costs
- Easily retrofitted into existing heating, ventilation and air conditioning (HVAC) systems

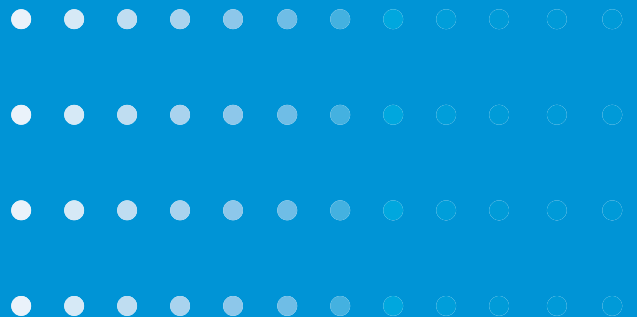


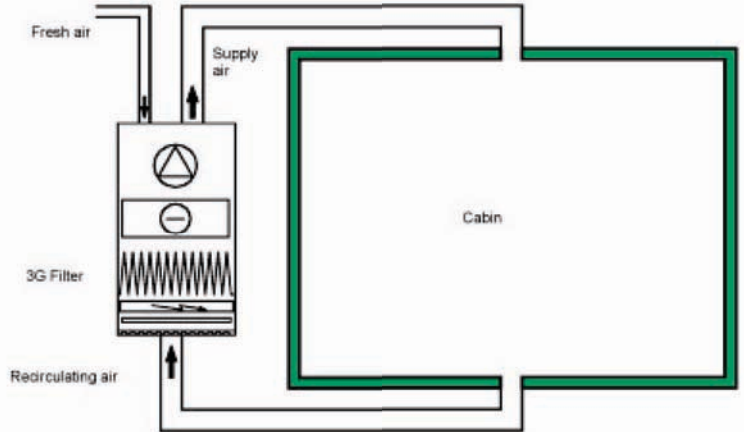
Figure 1

# Designed for superior filtration

The Halton-LIFA 3G Filters and Halton-LIFA High Security Filters prevent the spread of airborne contaminants by effectively removing harmful particles from the supply air. Figure 1 shows how these harmful contaminants are filtered from the supply air.

## Flexible filter placement

The Halton-LIFA 3G Filters and Halton-LIFA High Security Filters operate with a low pressure drop, permitting easy installation without the need for expensive modifications to existing HVAC systems. Units can be installed at the point of entry to target specific rooms. Mobile units are also available for hospitals and other emergency purposes.

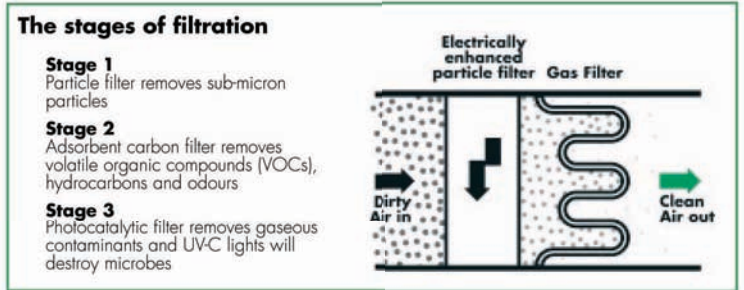


Installation of the 3G Filter in the fan coil unit.

## Unique multistage filtration

The new technology increases filtration efficiency by combining an electrostatically charged filter with both a particle charging section and a gas filter made of activated carbon media (figure 2). A nanoelectric UV light can be added to the system to effectively destroy any airborne virus or bacteria, even small molecules.

Figure 2



## Halton-LIFA 3G Filter

The Halton-LIFA 3G Filter is designed to maintain healthy indoor air by preventing airborne contaminants typical to urban environments, like fine particles, VOCs and odours, from entering room air. It provides heightened, although not complete, protection against biological agents and removes some chemical agents with low vapour pressure.

- Filtration efficiency
  - >99.5% for 0.1 µm sized particles
  - >95% for gaseous contaminants
- Low air flow resistance (low energy consumption)
- Typical service life is 12 months

## Halton-LIFA High Security Filter

The Halton-LIFA High Security Filter system is specifically designed to provide protection against both biological and chemical agents.

- Efficient filtration system – >99.99% for 0.1 µm sized particles
- High filtration efficiency for gases >99.5%
- Equipped with the tested and proven nanoelectric UV light
- Halton-LIFA 3G Filter acts as a pre-filter to extend the service life of the active carbon filter
- NBC active carbon filters can be tailormade to protect against various types of gaseous contaminants