Air Scrubbers Explained

Air Scrubbers or negative air machines utilising 2-stage Filtration. This includes 5.0µmparticulate filters and a 0.3µm HEPA filter making them ideal for the control of particulate within data centres, comms rooms etc. They also utilise a powerful blower that can pull high volumes of air through dirty filters to maintain sufficient airflow and negative pressure. Our Air scrubbers are portable and wheeled. Our air scrubber can be operated using four different methods: recirculation, negative pressure, positive pressure and air cleaning in remote areas, making them extremely versatile machines for a wide range of uses within the data centre environment.

Q) How does our Air Scrubber clean the air?

A) Our air scrubber utilises two stages of progressively efficient filters to remove particulate from the air:

Stages 1 Particulate Pre-filters

A 5.0µm particulate pre-filters remove visible particles and protect the HEPA filters from premature loading. The first stage is a 2" deep pleated disposable filter for capturing larger particles 10µm +.

Stage 2: HEPA Filtration

The final stage is a HEPA filter with a minimum particulate efficiency of 99.99997% at 0.3 microns. These filters are designed to capture microscopic particulates and bio aerosols (including metal fumes, asbestos fibres, lead dust, smoke particles, bacteria, and mould and fungal spores) that pass right through other filters. This level of filtration often eliminates the need for final cleaning and dust removal after construction and renovation jobs.

Q) How are Air Scrubber utilised?

A) Our air scrubber can be utilised using four different methods of operation: recirculation, negative pressure, positive pressure and remote location cleaning:

Recirculation

Air scrubber can be utilised to continuously filter and re-circulate air within a local area to provide general air cleaning. Recirculation is used to capture airborne contaminants generated by cleaning processes and during disaster restoration, construction, and renovation projects in unoccupied or occupied buildings. This method is also effective for protecting I.T. equipment from contaminants that settle out of the air after construction activities.

Negative/Positive Pressure

This utilizes the movement of filtered air into or out of a work area (negative pressure) or into a work area (positive pressure) each way stops the movement of particulate to clean areas. This will require the use of a plastic barrier.

Remote Location Cleaning:

The air scrubbers have roving heads and ducting to can be used to clean the dust from air in remote locations. Such as underfloor voids, ceiling voids etc. Example during cable retrieval from an underfloor cold air plenum, as the cables are pulled trapped dust is released, the air scrubber can remove this airborne dust before it enters the data hall.