

## HEPA Supply Air Fan Unit

### H14 HEPA Fan Filtration System

#### Applications

- High Care / Food Manufacture / Food Preparation
- IAQ Filtration System incorporating a fan up to 0.8m<sup>3</sup>/s
- Retrofittable for Fan Coil / Air Conditioning Systems that require HEPA Filtration
- Can be used to attain HEPA Filtered Positive Pressure environment
- Improvement of Indoor Air Quality on systems not designed originally for HEPA Filters
- Control HEPA filtered supply air based on CO<sub>2</sub> levels or constant pressure (Not fitted as standard)



#### Description

The HEPA Supply Air Fan Unit is a complete Fan-Filter air movement system incorporating HEPA Filtration up to grade H14 to EN1822. This Air Handling Unit can be fitted as a standalone supply or recirculation HEPA filtration system, or retrofitted and balanced to work with an existing mechanical ventilation system such as a fan coil system or air conditioning systems which do not have an existing ability to support HEPA filtered air.

The HEPA Supply Air Fan Unit is fitted with a high pressure and speed adjustable EC fan which is wired to an external terminal box to which power connections and speed adjustments can be made manually via a 0-10V signal potentiometer.

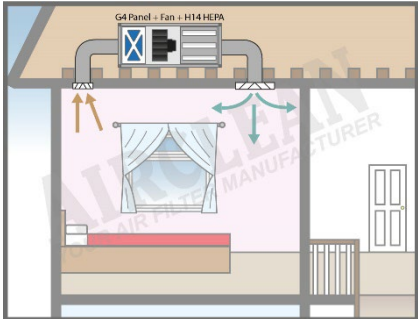
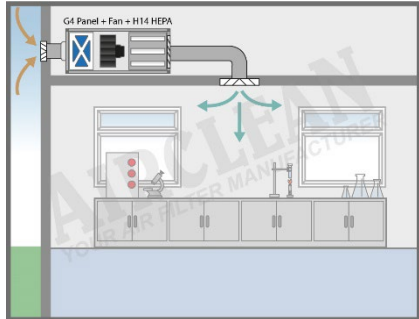
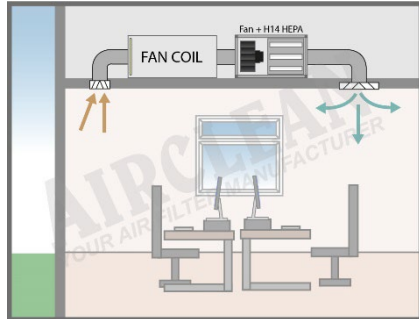
The HEPA Supply Air Fan Unit is manufactured in a standard Air Handling Unit construction with an anodised aluminium pentapost frame, fitted with double skinned mineral wool insulated panels. The unit is finished with a grey plastic-coated leatherette steel. A removable access door(s) provides access for changing the HEPA and any pre filters on a single side of the unit, and also allows for fan inspection and easy cleaning.

#### Optional Extras

Addition of Prefiltration: Pleated Panel Filters @ Coarse 75% (G4) to ISO16890. (HV+ UNIT)

Automatic Controls: Constant Pressure controls or Constant Volume controls (Part Number: 1908709).

Magnahelic gauges for filter pressure drops (supplied loose)

| HEPA Supply Air Recirculation   | HEPA Supply Air from outside   | HEPA Supply Air With Fan Coil   |
|---|--|---|
|  |  |  |
| <p>Recirculation HV+ unit including G4 Panel + Fan + H14 HEPA</p>                   | <p>Supply air HV+ unit including G4 Panel + Fan + H14 HEPA</p>                       | <p>HV unit including Fan + H14 HEPA, Fan coil system to include prefilter</p>         |

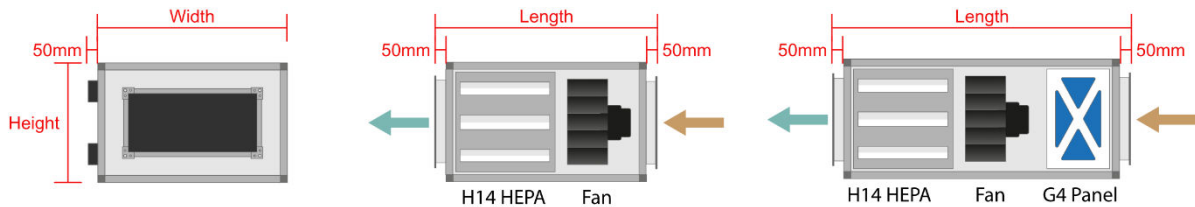
## Technical

- Airflow operating Range: up to 0.8m<sup>3</sup>/s
- Single Phase 240 Volt 50 Hz operation
- Supplied with HEPA Grade H14 to EN1882
- Prefilters when fitted are G4 Pleated Panel Coarse 75% to ISO16890

| UNIT                                  | Flow Rates & Available Pressure |                               | Unit Dimensions mm |       |        |                            | Part Number |
|---------------------------------------|---------------------------------|-------------------------------|--------------------|-------|--------|----------------------------|-------------|
|                                       | Airflow (m <sup>3</sup> /s)     | Clean External Pressure (Pa)* | Height             | Width | Length | MEZ 20mm Flange Spigots ** |             |
| <b>H14 HEPA + Fan</b>                 |                                 |                               |                    |       |        |                            |             |
| HV33                                  | 0.15 – 0.2                      | 100                           | 450                | 450   | 1050   | 250 x 250                  | 1908861     |
| HV63                                  | 0.3 – 0.5                       | 100                           | 450                | 750   | 1050   | 550 x 250                  | 1908863     |
| HV66                                  | 0.5 – 0.8                       | 100                           | 750                | 750   | 1200   | 550 x 550                  | 1908865     |
| <b>Prefiltration + H14 HEPA + Fan</b> |                                 |                               |                    |       |        |                            |             |
| HV33+                                 | 0.15 – 0.2                      | 100                           | 450                | 450   | 1250   | 250 x 250                  | 1908862     |
| HV63+                                 | 0.3 – 0.5                       | 100                           | 450                | 750   | 1250   | 550 x 250                  | 1908864     |
| HV66+                                 | 0.5 – 0.8                       | 100                           | 750                | 750   | 1400   | 550 x 550                  | 1908866     |

\* External Pressures are calculated allowing for 100Pa for dirty filters.

\*\* Spigots protrude main unit by 50mm (included in unit length).



## Unit Weight

| Units Excluding Pre Filters |            |             | Units Including Pre Filters |            |             |
|-----------------------------|------------|-------------|-----------------------------|------------|-------------|
|                             | No Filters | Inc Filters |                             | No Filters | Inc Filters |
| HV33                        | 57 Kg      | 63 Kg       | HV33+                       | 74 Kg      | 80 Kg       |
| HV63                        | 71 Kg      | 81 Kg       | HV63+                       | 93 Kg      | 103 Kg      |
| HV66                        | 82 Kg      | 101 Kg      | HV66+                       | 115 Kg     | 135 Kg      |

## Unit Approx Noise

### HV33 / HV33+ / HV63 / HV63+

| Working Point      | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
|--------------------|-------|--------|--------|--------|---------|---------|---------|---------|
| Breakout (High)    | 35    | 36     | 46     | 51     | 46      | 37      | 35      | 33      |
| Breakout (Med/Low) | 29    | 31     | 40     | 46     | 41      | 32      | 30      | 28      |

Sound power spectrum in dB(A)

Noise breakout figures standard 25mm double skin panel

### HV66 / HV66+

| Working Point   | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
|-----------------|-------|--------|--------|--------|---------|---------|---------|---------|
| Breakout (High) | 36    | 40     | 59     | 59     | 58      | 51      | 44      | 39      |
| Breakout (Low)  | 30    | 33     | 52     | 51     | 50      | 44      | 37      | 31      |

Sound power spectrum in dB(A)

Noise breakout figures standard 25mm double skin panel