

# AIRCLEAN

YOUR AIR FILTER MANUFACTURER

P.O. BOX 147,  
MAIDSTONE, ME14 2LA.

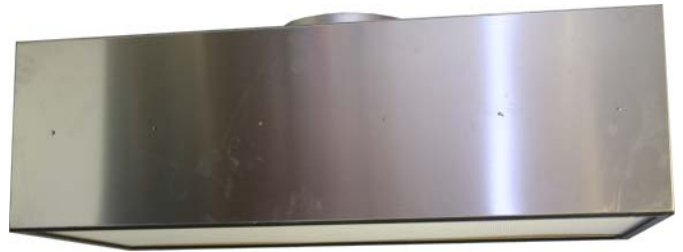
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## CASSETTE (HEPA) Filters

### Applications

The Cassette (HEPA) filters offer an economical method of installing a HEPA Filter into a Clean-room, Laminar Flow Cabinet or a specific application with the minimum of engineering.



The cassette filter ensures it yields only clean filtered air from the filter face, when connected to a duct system of fan via its spigot connection. This is without the concerns of clamping pressures, gaskets seals and the quality of the sealing mating face, associated with the traditional Terminal Housing. Once connected, only filtered air can leave the filter, as it has been factory tested and the cassette casing is the integral case of the HEPA filter as well.

Applications such as clean rooms, operating theatres, research facilities, the electronic and micro-electronic industries, nuclear and pharmaceutical industries and high speed turbines.

### Construction

Clean Rooms tend to employ the narrower 146mm filter pack for laminar flow conditions direct from the filter face. The cassette can have either a knife edge seal, into which can be laid a polyester eggcrate core, or a white powder coated grille, which affords good mechanical protection to the filter. The filter pack is sealed within a cassette which has a 300mm overall depth giving a suitable plenum behind the filter.

This overall size of the cassette can be reduced to 145mm, by utilising a minipleat pack, and in a few specifically engineered designs the traditional 292mm pack can be used giving an overall height of 500mm for the cassette. See Data sheet AC5/1 for filter construction.

### Technical (Absolute Filters)

These can be provided to efficiencies and performance as shown below:

| GRADE | Overall Efficiency | Local Value Efficiency | Suggested for ISO 14644 : 1999 |
|-------|--------------------|------------------------|--------------------------------|
| H11   | 95%                | -                      |                                |
| H12   | 99.5%              | -                      | ISO Class 8                    |
| H13   | 99.95%             | 99.75%                 | ISO Class 6                    |
| H14   | 99.995%            | 99.975%                | ISO Class 5                    |
| U15   | 99.9995%           | 99.9975%               | ISO Class 4                    |

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## AIRFLOW CAPACITIES Standard Flow Grade H12-H14 to EN1822

| SIZE |      |      | Flow              | Press |
|------|------|------|-------------------|-------|
| H mm | W mm | D mm | m <sup>3</sup> /s | Pa    |
| 508  | 508  | 75   | 0.12              | 200   |
| 609  | 609  | 75   | 0.17              | 200   |
| 609  | 762  | 75   | 0.21              | 200   |
| 609  | 918  | 75   | 0.25              | 200   |
| 609  | 1220 | 75   | 0.34              | 200   |
| 305  | 305  | 146  | 0.06              | 250   |
| 457  | 457  | 146  | 0.10              | 250   |
| 508  | 508  | 146  | 0.16              | 250   |
| 609  | 609  | 146  | 0.24              | 250   |
| 609  | 762  | 146  | 0.30              | 250   |
| 609  | 918  | 146  | 0.35              | 250   |
| 609  | 1220 | 146  | 0.47              | 250   |

## AIRFLOW CAPACITIES High Capacity Grade H12 to H14 to EN1822

| SIZE |      |      | Flow              | Press |
|------|------|------|-------------------|-------|
| H mm | W mm | D mm | m <sup>3</sup> /s | Pa    |
| 508  | 508  | 146  | 0.28              | 280   |
| 609  | 609  | 146  | 0.40              | 280   |
| 609  | 762  | 146  | 0.50              | 280   |
| 609  | 918  | 146  | 0.60              | 280   |
| 609  | 1220 | 146  | 0.80              | 280   |

### NOTES:

References are typically:

AK/H14 FI-cass for an aluminium cased, Kraft separator grade H14 and a 20mm flange with a white powder coated grille.

AK/H13/K-cass for an aluminium cased, Kraft separator grade H13 and a 40mm knife edge protruding below the filter packf.

A simple damper can be installed in the neck of the spigot for flow adjustment.

DOP insertion Points can be added into the plenum of the cassette to facilitate DOP to be introduced into the filter for In-situ leak testing

Pressure tapping points can be included in the cassette for measuring upstream filter pressure.

Non Standard sizes are available

The company reserves the right to change specifications without notice. E&OE