IFC

MAXI-SAFE
DOWNDRAFT BOOTH

DESIGNED FOR SAFETY AND PEACE OF MIND

AES ENVIRONMENTAL

MAXI-SAFE DOWNDRAFT BOOTH

APPLICATION

Contaminants produced during media preparation are swept down and away from the operator as laminar air-flow bathes the internal work zone with clean air which has been filtered through Grade H14 HEPA filters. This process ensures that the stringent requirements of Class 5 (ISO) – necessary for the protection of products and operators during filling, transfer and packaging – are met.

Air at the work zone floor level is then mixed with ambient air from outside the booth which has been drawn in from under the protective solid wall or flexible PVC curtain, through a bank of prefilters located at the base of the rear work zone wall. The air is then recirculated with 30% being exhausted to ambient at ceiling height via a second HEPA filter. This procedure ensures that negative pressure within the working space is maintained, thus guaranteeing that there will be no breach of the containment boundary.

AES Environmental stand-alone "Maxi-Safe" Laminar Flow Booths are the optimal solution for a wide range of processing applications such as:

- Aseptic dispensing
- Assembly of electronics and optical components
- Cell culturing
- Media pouring
- Preparation of medical devices
- Sterility testing

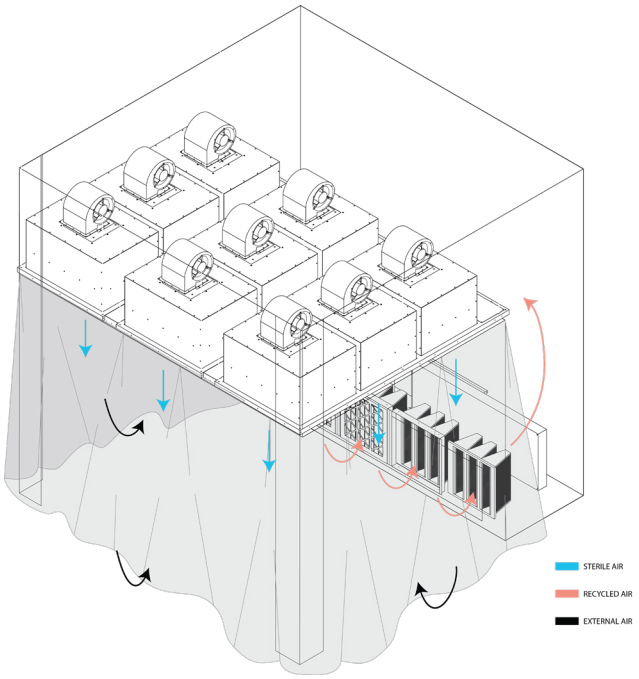
These are applications where products, processes and at times the environment are highly sensitive to contamination.

CONSTRUCTION

AES Environmental Maxi-Safe down flow booths are constructed in powder coated mild steel, 304 or 316 stainless steel or a combination of both. With a variety of standard dimensions (height, width and safe working depths) our booths can also be custom engineered to any size.

FAN

Variable speed direct drive centrifugal fan/blowers enable separate airflow adjustment throughout the filter life and allow adjustment of the supply air velocity.



FILTERS

AES Environmental HEPA Filters are tested to 99.99% (Grade 2) or 99.999% (Grade 3) Efficiency to AS 4260 to ensure full protection. All filters are tested in strict accordance with the requirements of Standards Australia and the performance of the pre-filters and final filters are continuously monitored by Magnehelic differential pressure gauges.

SPECIFICATIONS

Model Code	Overall Dimensions (mm)			Work Area Dimensons (mm)			Power	Power Kw
	W	D	H	W	D	H		
VLFB20	2400	2200	2700	1900	1800	2100	240V 60Hz	1.5
VLFB24	2400	2200	2700	2300	1800	2100	240V 60Hz	1.85
VLFB36	3600	2200	2700	3500	1800	2100	240V 60Hz	2.1

Model Code	Heat Generated Kca/Hr	Lighting (Lux)	Noise Level
VLFB20	1300	1000	56dB(A)
VLFB24	1600	1000	59dB(A)
VLFB36	1900	1000	61dB(A)

CLIMATE CONTROL

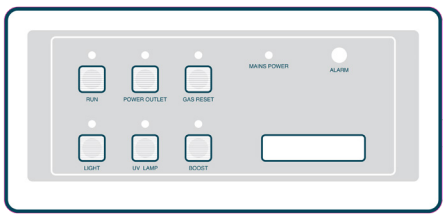
In dealing with applications involving powder materials, optimum temperatures and relative humidity need to be maintained. As an option, cooling can be achieved by the fitting of an air-conditioning system. As well as the fans, any machinery inside the booth must be factored into selecting an appropriate capacity cooling system.

QUALITY ASSURANCE

AES Environmental Maxi-Safe down flow booths are constructed in powder coated mild steel, 304 or 316 stainless steel or a combination of both. With a variety of standard dimensions (height, width and safe working depths) our booths can also be custom engineered to any size.

CONTROL PANEL

A modern, proven control panel provides one touch access to all functions including servicing. A fully integrated self diagnostic processor with digital status display up by an audible and visual alarm guarantees your safety.



OPTIONS

- Adjustable Preparation Table
- Air Conditioning System
- Carbon Filters
- Magnahelic Gauge
- Power Outlets
- RS 232 Ports
- Stainless Steel External Sides
- Swivelling Lockable Castors
- UV Lights
- 6mm Laminated Safety Glass Front Doors/ Sides

TESTING AND CERTIFICATION

TESTING

Your investment in health and safety by using laminar products is one that requires regular monitoring and testing. This is to ensure an environment free from biological or other hazardous particulates contamination.

Regular maintenance will ensure protection for your workers and the sterility of products which may require manipulation in these special areas. AES Environmental provides a comprehensive testing and certification services for all clear air applications.

The essential service is your assurance that the stated performance criteria of your laminar flow cabinet, booth and facility is maintained.

AES Downflow Booths are tested in accordance with ISO 14644.1 to acheive an ISO 5 air cleanliness classification.

Our laboratory is National Association of Testing Authorities (NATA) Accredited to perform field-testing of all High Efficiency Particulate Air (HEPA) are filter installations, (HEPA Filters demand an efficiency greater that 99.97 percent to a 0.3 micrometre test aerosol).

NATA is an independent organization which registers laboratories in many fields of testing. To meet NATA requirements, a laboratory must have appropriately qualified testing and administrative personnel as well as equipment, capable of measuring performance with a very high degree of accuracy and consistency

All equipment is controlled and regularly calibrated to the appropriate standard and the accredited laboratory is periodically re-assessed to ensure maintenance of standards.

SPECIAL SERVICES

Mechanical Inspection — This includes the motor/ blower unit, vibration mountings, switch functions, gaskets, pre-filters and HEPA filters.

Prevent cross contamination in the work area — check and adjust air velocity and uniformity of airflows.

Establish HEPA filter life and performance — measure static pressure of filters and electronic motor current.

Check environment factors — measure light output, sound level and germicidal ultraviolet lamp efficiency.

Repair and Adjust to specification— when necessary and whenever possible, on-site repairs are included in our service.

Check for System Integrity — challenge for filter leakage to AS 1807.6 and AS 1807.7

Ensure the work area is not violated by room air — test for induced air leakage in the work zone.

CERTIFICATION

To certify that the performance meets Australian Standard specifications — a certificate of compliance, which is issued under the terms of AES Environmental Accreditation by NATA, is available following the completion of each service program. Additionally, a full report is issued which shows the result of each test and the accuracy of the result.

The certification process guarantees that the installation will comply with following standards:

- ISO 14644.1: Air Cleanliness classification
- AS 1807: Testing Methods

bsi. ISO 9001:2015 Quality Management

AES Environmental maintains an ISO 9001:2015 quality management system to ensure process and product conformance.

The Company

AES Environmental is an Australian owned manufacturing business producing products under Clyde-Apac, Email Air Handling and IFC brand names for industries that are as varied as industrial plants, commercial buildings, power stations, food processing, healthcare, science and electronics. AES Environmental considers the Australian Standards as a core component of its product mix and has developed an export market in 25 countries, promoting Australian Standards, engineering and manufacturing solutions. AES Environmental, a trusted manufacturer capable of delivering reliable product solutions to highly-critical applications, where the control of hazardous airborne contamination is often critical to process and personnel.

AES ENVIRONMENTAL
CLYDE-APAC
EMAIL AIRHANDLING

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Unit 5, Arcot Court, Cramlington, Northumberland, NE23 1BB
Ph 01670 712 113 **E:**sales@IFC.com
www.internationalfilter.co.uk