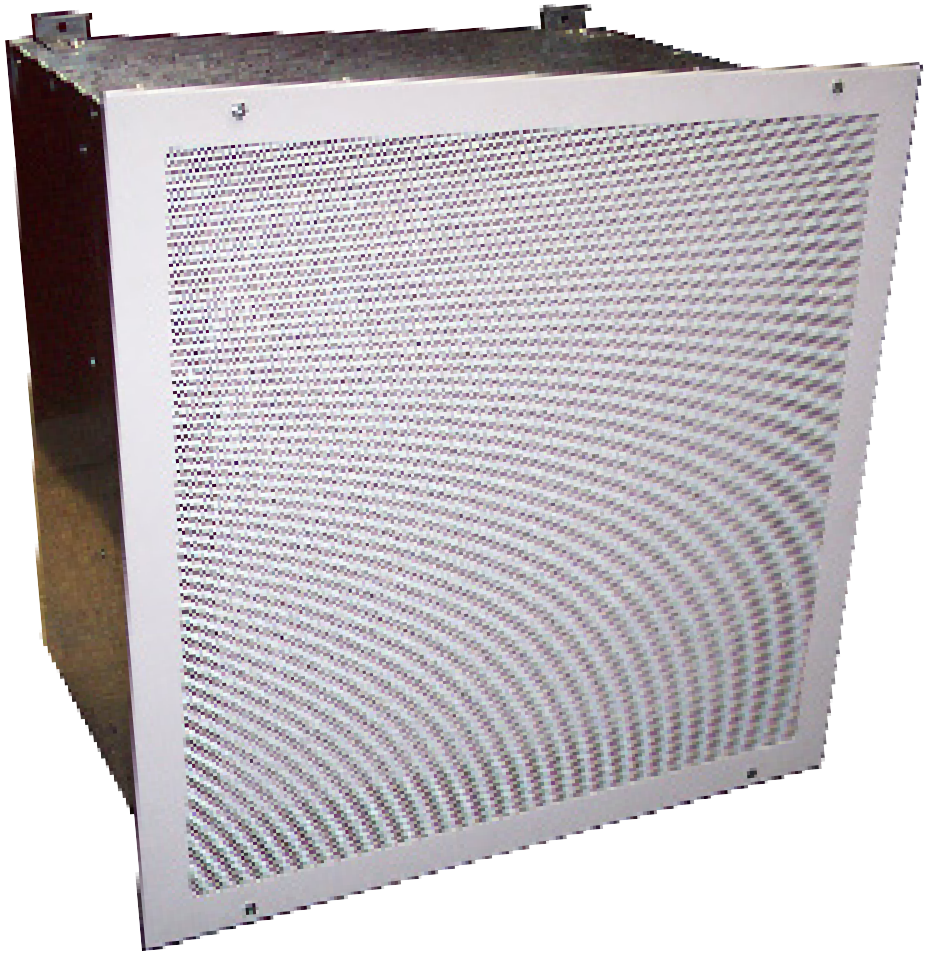
HEPA Filter Module

For critical air environments



Applications

IFC HEPA filter modules are designed for use in critical applications where product or personnel protection requires an environment free of airborne contaminants.

- Operating theatres
- Clean room facilities
- Pharmaceutical manufacture
- Electronics industry
- Food processing
- Optics

Description

The HEPA filter module is fully manufactured in Australia to conform with the performance requirements of AS 1386. It comprises a HEPA filter in a galvabond housing with an attractively styled fascia and the option of an integral fan/ blower.

Construction

Housing: Constructed from quality galvabond.

Fascia: Filter guard is satin polished 304# stainless steel or white painted finish.

Fan: A variable speed direct drive blower that enables airflow adjustment as required.

Filter: HEPA type, strictly conforming with AS 4260.

Power: Provided via a single phase 240 V, 10 amp 3 pin plug.

Filter seals: Modules can be supplied with either gasket or fluid seal HEPA filters.

Performance

IFC HEPA filters are individually tested on a NATA accredited Hot DOP test rig to AS 4260 and filter efficiency is always guaranteed. To pass inspection each filter must achieve an efficiency of 99.99%.

Modules are individually tested to conform with AS 1386 - sound level not exceeding 62dBA on a free field basis.

Standard specification

HEPA filter modules shall conform with AS 1386. A NATA accredited laboratory shall test modules and the manufacturer shall provide a certificate showing test results for the purpose of establishing full compliance with AS 1386. Individual HEPA filters shall be tested to AS 4260.

Installation

HEPA filter modules must be supported independently from the ceiling structure. The module's power supply must be interlocked with the air conditioning unit in such a way as to start the module fan before starting the air conditioner fan.

Construction

HOUSING	Constructed from quality galvabond.
FASCIA	Filter guard is satin polished 304# stainless steel or white painted finish.
FAN	A variable speed direct drive blower that enables airflow adjustment as required.
FILTER	HEPA type, strictly conforming with AS 4260.
POWER	Provided via a single phase 240 V, 10 amp 3 pin plug.
FILTER SEALS	Modules can be supplied with either gasket or fluid seal HEPA filters.

Maintenance and Service

To ensure conformity with AS 1386, HEPA filter modules should be inspected and tested on site:

- before use
- on at least an annual basis
- after modification
- after relocation
- when HEPA filter is renewed

On Site Testing

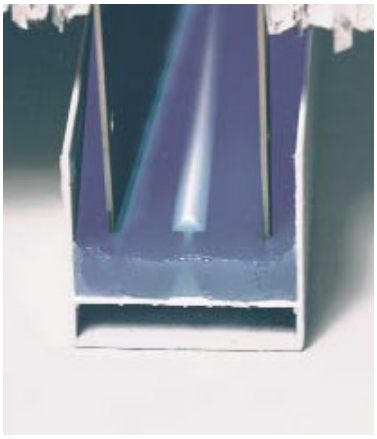
All HEPA filters shall be tested to AS 1807.6 or 1807.7 by AES Environmental or other NATA accredited laboratory.

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

Gel Seal Filter Frame Sealant

Gel-Seal is a unique, ice-blue silicone gel specifically designed to create and preserve an airtight seal between high-efficiency particulate air filters and their holding frames or housings.

The gel is factory-installed and factory-cured in the perimeter channels channels of filters designed for fluid seal applications. The cured gel has the self-healing qualities of a liquid while retaining the stability and non-flow characteristics of a solid.



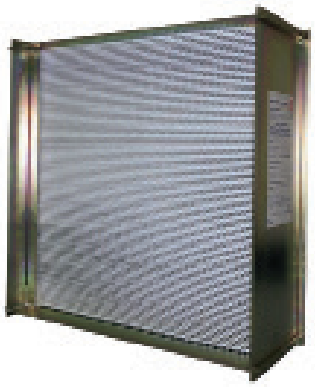
'BlueGel' Filter sealing arrangement

Gel Seal Filter Frame Sealant (Cont.)

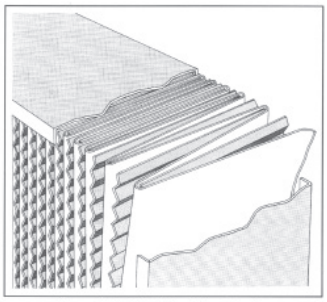
These properties are maintained at both high and low temperature extremes and are not lost even when aged continuously at high temperatures. Gel-Seal exhibits excellent bonding characteristics to many materials, it is also highly self-adhesive, allowing knife edges and filter skirts to be cleanly withdrawn. The hydrophobic nature of the gel makes it ideally suited for applications that require long-term sealing against moisture and other atmospheric contaminates.

HEPA Media Construction

The glass-paper filtering medium is pleated into a narrow vee formation and held in place by corrugated aluminum separators inserted between the pleats. This forms the filter element which is bonded into a rigid corrosion-resistant steel frame with all joints encapsulated and sealed in a special urethane elastomer.

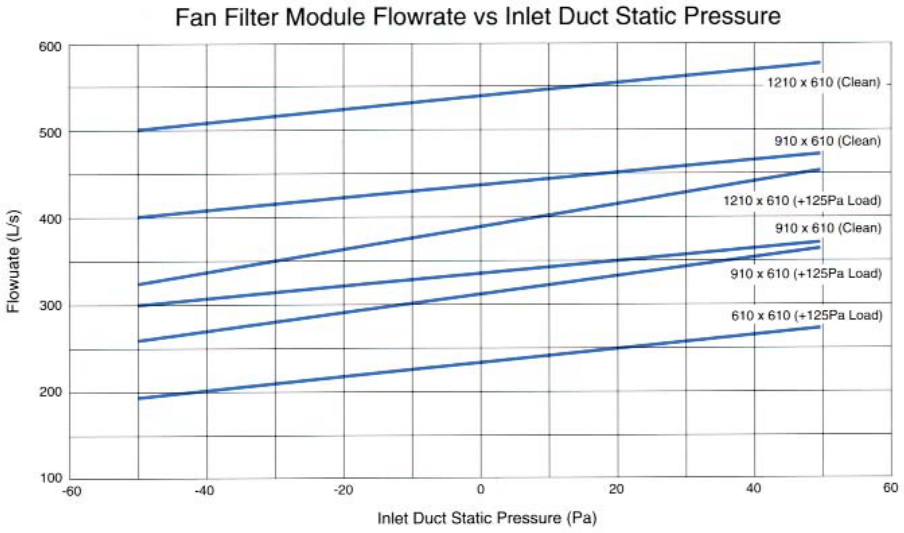


Channel Ceil HEPA



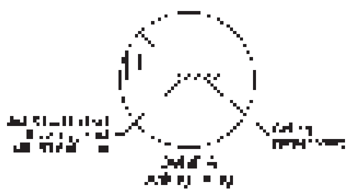
Conventional HEPA construction

Performance Data



Low Profile Fluid Seal Fanless Filter Module

(Filter accessible from room)

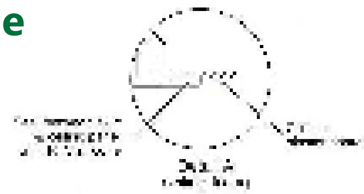


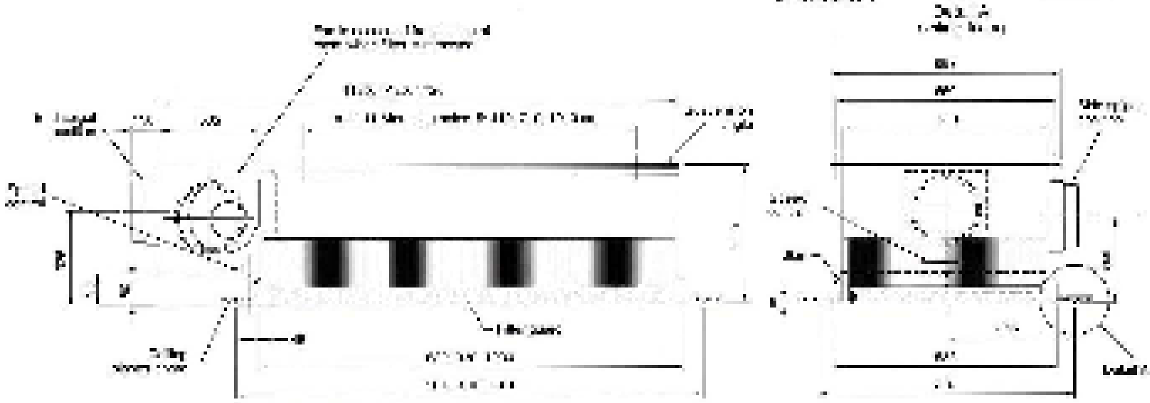
Engineering data

Clean airflow (m³/h)	[illegible]	Capacity [illegible]	Flow direction	Filter seal*	Nominal size (mm) Length	Width	Height	Spigot location	Spigot diameter**	Installed weight (kg)	Part number
841	300	175	Supply	Fluid	610	610	[illegible]	Side	200	40	[illegible]
1117	275	272	Supply	Fluid	910	610	[illegible]	Side	200	60	[illegible]
1217	250	370	Supply	Fluid	1210	610	[illegible]	Side	200	74	[illegible]
841	300	175	Supply	Fluid	610	610	[illegible]	End	[illegible]	40	[illegible]
1117	275	272	Supply	Fluid	910	610	[illegible]	End	[illegible]	60	[illegible]
1217	250	370	Supply	Fluid	1210	610	[illegible]	End	[illegible]	74	[illegible]
841	300	175	Supply	Fluid	610	610	[illegible]	Top	[illegible]	40	[illegible]
1117	275	272	Supply	Fluid	910	610	[illegible]	Top	[illegible]	60	[illegible]
1212	250	370	Supply	Fluid	1210	610	[illegible]	Top	[illegible]	74	[illegible]
841	300	175	Supply	Fluid	610	610	[illegible]	Side	[illegible]	40	[illegible]
1112	275	272	Supply	Fluid	910	610	[illegible]	Side	[illegible]	60	[illegible]
1217	250	370	Supply	Fluid	1210	610	[illegible]	Side	[illegible]	74	[illegible]
841	300	175	Supply	Fluid	610	610	[illegible]	End	[illegible]	40	[illegible]
1117	275	272	Supply	Fluid	910	610	[illegible]	End	[illegible]	60	[illegible]
1217	250	370	Supply	Fluid	1210	610	[illegible]	End	[illegible]	74	[illegible]
841	300	175	Supply	Fluid	610	610	[illegible]	Top	[illegible]	40	[illegible]
1117	275	272	Supply	Fluid	910	610	[illegible]	Top	[illegible]	60	[illegible]
1212	250	370	Supply	Fluid	1210	610	[illegible]	Top	[illegible]	74	[illegible]

Low Profile Fluid Seal Fan Filter Module

(Filter, fan and controls accessible from room)



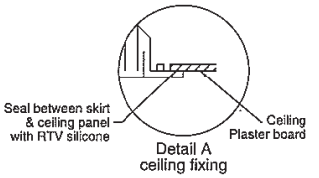


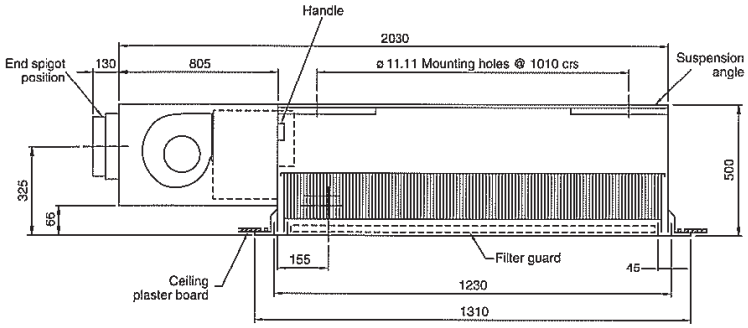
Engineering data

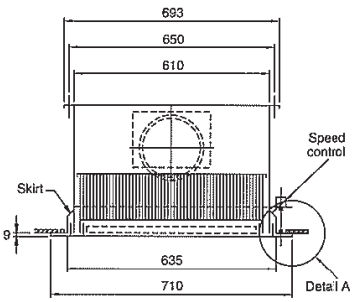
Clean airflow (m³/h)	[illegible]	Operation [illegible]	Flow direction	Filter seal*	Nominal size (mm) Length	Width	Height	Spigot location	Spigot diameter**	Installed weight (kg)	Part number
840	240	175	Supply	Fluid	610	610	500	Side	[illegible]	68	[illegible]
445	330	272	Supply	Fluid	910	610	500	Side	[illegible]	87	[illegible]
945	290	370	Supply	Fluid	1210	610	500	Side	[illegible]	100	[illegible]
840	240	175	Supply	Fluid	610	610	500	End	[illegible]	60	[illegible]
445	330	272	Supply	Fluid	910	610	500	End	[illegible]	87	[illegible]
945	290	370	Supply	Fluid	1210	610	500	End	[illegible]	100	[illegible]
840	240	175	Exhaust	Fluid	610	610	500	End	[illegible]	64	[illegible]
440	330	272	Exhaust	Fluid	910	610	500	End	[illegible]	87	[illegible]
940	290	370	Exhaust	Fluid	1210	610	500	End	[illegible]	100	[illegible]

Acoustic Fluid Seal Fan Filter Module

(Filter, fan and controls accessible from room)







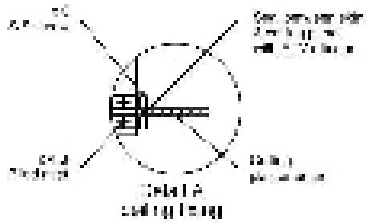
Engineering data

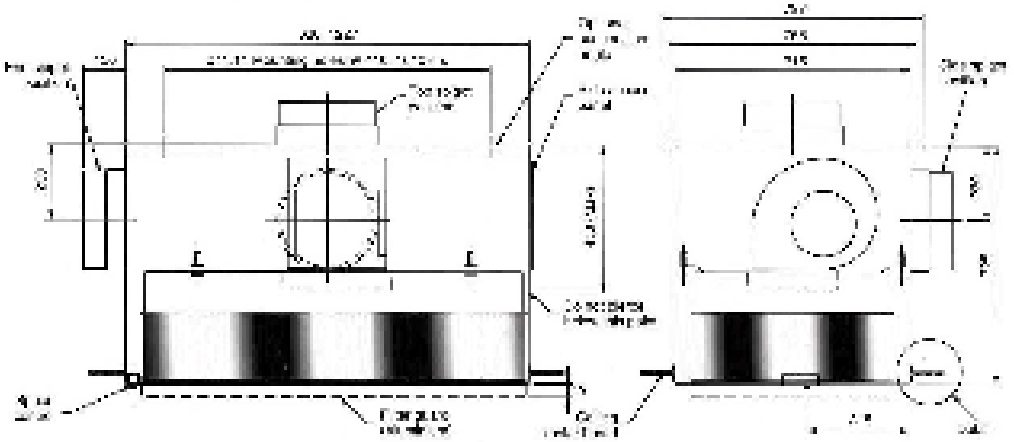
Capacity (L/s)	Capacity# (AS1386)	Flow direction	Filter seal*	Nominal size (mm) Length	Width	Height	Spigot location	Spigot dia.(mm)**	Installed weight (kg)	Part number
290	290	Supply	Fluid	1210	610	500	End	300	110	1687-1708/1
290	290	Exhaust	Fluid	1210	610	500	End	300	110	1687-1708/2

AS1386 - Capacity @ 0.47m/s face velocity and is restricted to limit noise levels to 50dBA at 1 metre free field
* Standard petroleum jelly or optional Blu Jel sealing medium. ** Spigots are 130mm long.
Ceiling opening sizes are 685x685, 985x685, 1285x685.

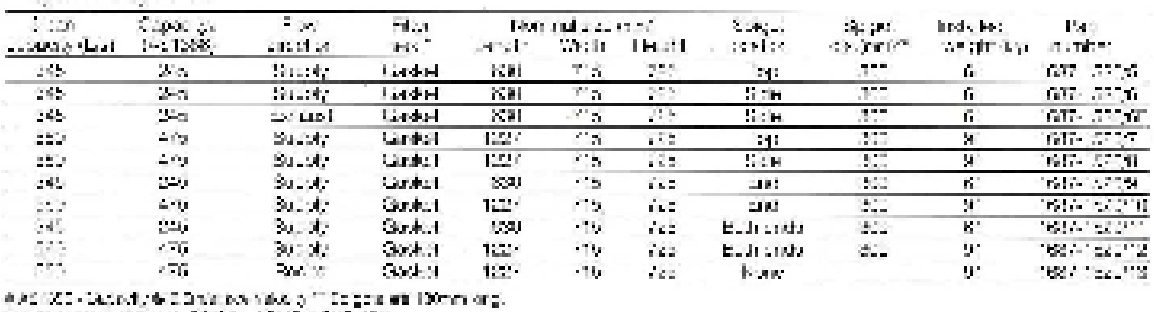
Standard Gasket Seal Fan Filter Module

(Filter access from above only)



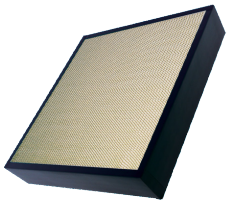


Engineering data

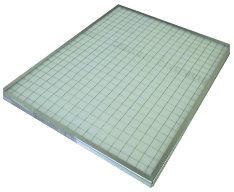


Filter Modules

Nano-V™
F6, F7, F8 & F9 Rating
Sizes: 610x610 & 610x305
Depth: 300
Xref: V-Cell, Compact Vee



Nano-P™
F6, F7, F8 & F9 Rating
Sizes: 610x610 & 610x305
Depth: 25, 50 & 100.
Xref: P-Pleat



DY Filter™
F4 & F5 Rating
Sizes: 610x610, 610x305, 305x508, 508x508, 406x508, 406x635, 508x635 & custom.
Depth: 25 & 50.

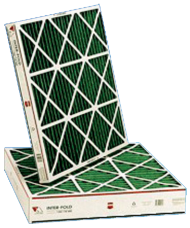
V-Form™
F4 & F5 Rating
Sizes: 610x610, 610x305, 305x508,508x508, 406x508, 406x635, 508x635& custom.
Depth: 50 & 100.
Xref: Vee-form

Intervee™
95% Rating
Sizes: 610x610&610x305
Depth: 300

Duovee™
F4 & F5 Rating
Sizes: 610x610 & 610x305.
Depth: 400 & 600.
Xref: EX, VA320 & VA340.
Twin Cell

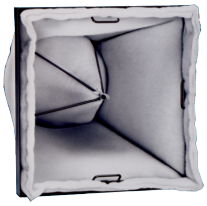
Fourpeak™
F4 & F5 Ratings
Sizes: 610x610 & 610x305.
Depth: 346
Xref: 4P

Multipeak™
F4 & F5 Rating
Sizes: 610x610 & 610x305.
Depth: 570
Xref: TPAC & Tricell.

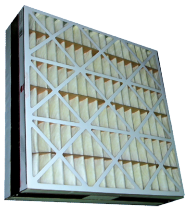


Interfold™
F4 Rating
Sizes: 610x610, 610x305, 305x508, 508x508, 406x508, 406x635, 508x635 & custom.
Depth: 25, 50 & 100.
Xref: G-Pleat

Pyracube™
F4 & F5 Ratings
Sizes: 610x610 & 610x305.
Depth: 623
Xref: EEX & ES Series.

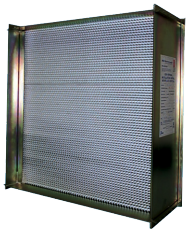


Pyracone™
F4 & F5 Rating
Sizes: 610x610 &610x305.
Depth: 660
Xref: EX.



Inter-Firm™
F6, F7, F8 & F9 Rating
Sizes: 610x610 & 610x305.
Depth: 150 & 300.

Interpocket™
F5, F6, F7, F8 & F9 Ratings
Sizes: 610x610 & 610x305.
Depth: 360, 560 & 720.
Xref: Multi-wedge & Univee.



HEPA /Absolute™
99.999% & 99.995% Rating
Sizes: Various standard sizes & custom available on request.
Depth: 149 & 292.

AES ENVIRONMENTAL
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NATA ACCREDITED FOR TECHNICAL COMPETENCE
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