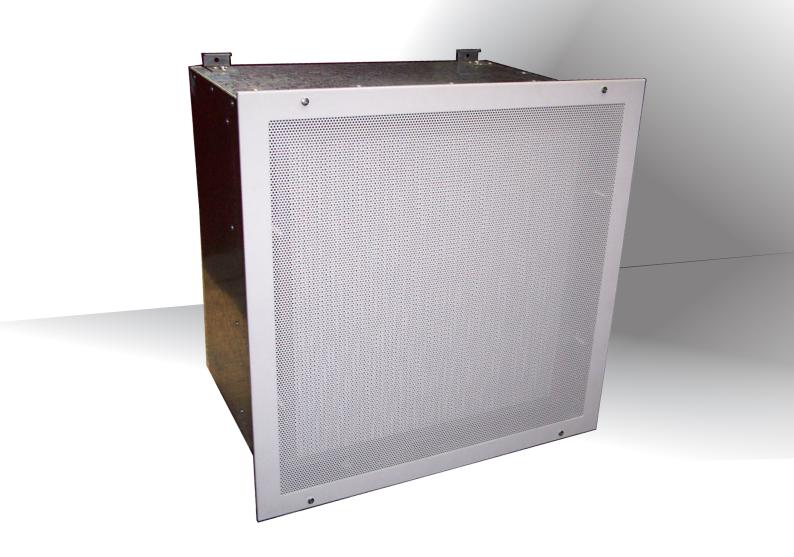


# **HEPA Filter Module**

For critical air environments







# **Applications**

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**

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.



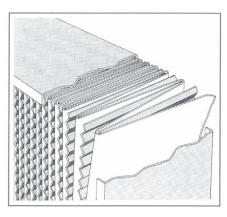


AES Environmental maintains an ISO 9001:2015 quality management system to ensure process and product conformance.





'BlueGel' Filter sealing arrangement



Conventional HEPA construction



#### **Gel Seal Filter Frame Sealant**

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

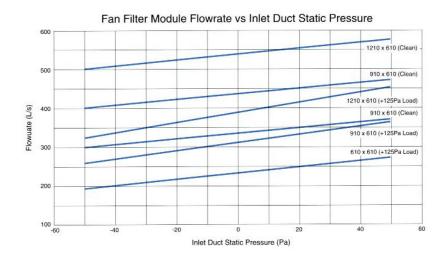
The gel is factory-installed and factory-cured in the perimeter channels channels of filters designed for fluid seal applications. The cured gel has the self-healing qualities of a liquid while retaining the stability and non-flow characteristics of a solid.

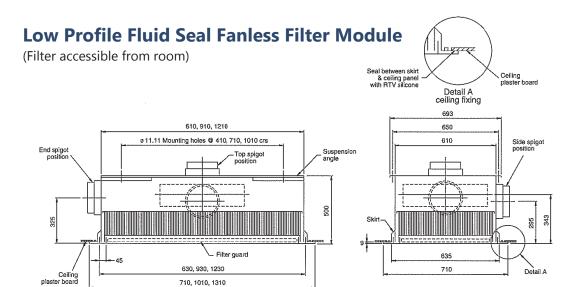
These properties are maintained at both high and low temperature extremes and are not lost even when aged continuously at high temperatures. Gel-Seal exhibits excellent bonding characteristics to many materials, it is also highly self-adhesive, allowing knife edges and filter skirts to be cleanly withdrawn. 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.

#### **Performance Data**





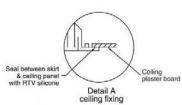
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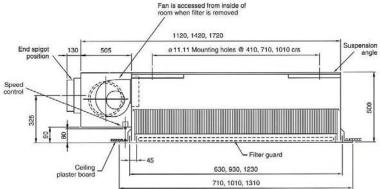
Clean	Filter plenum	Capacity#	Flow	Filter		inal size		Spigot	Spigot	Installed	Part
capacity(L/s)	static press.(Pa)	(AS1386)	direction	seal*	Length	Width	Height	location	dia.(mm)**	weight (kg	) number
340	300	175	Supply	Fluid	610	610	500	Side	300	40	1687-1706/1
445	275	272	Supply	Fluid	910	610	500	Side	300	59	1687-1706/2
545	250	370	Supply	Fluid	1210	610	500	Side	300	74	1687-1706/3
340	300	175	Supply	Fluid	610	610	500	End	300	40	1687-1706/4
445	275	272	Supply	Fluid	910	610	500	End	300	59	1687-1706/5
545	250	370	Supply	, Fluid	1210	610	500	End	300	74	1687-1706/6
340	300	175	Supply	Fluid	610	610	500	Тор	300	40	1687-1706/7
445	275	272	Supply	Fluid	910	610	500	Тор	300	59	1687-1706/8
545	250	370	Supply	Fluid	1210	610	500	Top	300	74	1687-1,706/9
340	300	175	Supply	Fluid	610	610	500	Side	500Wx200H	40	1687-1706/1
445	275	272	Supply	Fluid	910	610	500	Side	500Wx200H	59	1687-1706/1
545	250	370	Supply	Fluid	1210	610	500	Side	500Wx200H	74	1687-1706/1
340	300	175	Supply	Fluid	610	610	500	End	500Wx200H	40	1687-1706/1
445	275	272	Supply	Fluid	910	610	500	End	500W×200H	l 59	1687-1706/1
545	250	370	Supply	Fluid	1210	610	500	End	500Wx200H	74	1687-1706/1
340	300	175	Supply	Fluid	610	610	500	Тор	300Wx300H	40	1687-1706/2
445	275	272	Supply	Fluid	910	610	500	Тор	300Wx300H	l 59	1687-1706/2
545	250	370	Supply	Fluid	1210	610	500	Top	400Wx400H	74	1687-1706/2

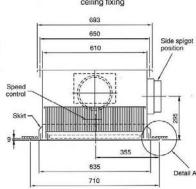
<sup>#</sup> AS1386 - Capacity @ 0.6m/s face velocity \* Standard petroleum jelly or optional Blu Jel seal. \*\* Round spigots are 130mm long; rectangular spigots, 80mm long. Ceiling opening sizes are 685x685, 985x685, 1285x685.

## Low Profile Fluid Seal Fan Filter Module

(Filter, fan and controls accessible from room)







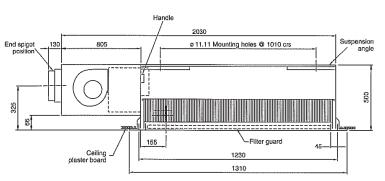
#### Engineering data

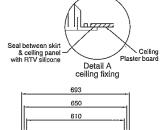
Clean	+125Pa	Capacity#	Flow	Filter	Nominal size (mm)			Spigot	Spigot	Installed	Part
capacity(L/s)	capacity(L/s)	(AS1386)	direction	seal*	Length	Width	Height	location	dia.(mm)**	weight (kg)	number
340	240	175	Supply	Fluid	610	610	500	Side	300	68	1687-1704/1
445	320	272	Supply	Fluid	910	610	500	Side	300	87	1687-1704/2
545	390	370	Supply	Fluid	1210	610	500	Side	300	100	1687-1704/3
340	240	175	Supply	Fluid	610	610	500	End	300	68	1687-1704/4
445	320	272	Supply	Fluid	910	610	500	End	300	87	1687-1704/5
545	390	370	Supply	Fluid	1210	610	500	End	300	100	1687-1704/6
340	240	175	Exhaust	Fluid	610	610	500	End	300	68	1687-1704/7
445	320	272	Exhaust	Fluid	910	610	500	End	300	87	1687-1704/8
545	390	370	Exhaust	Fluid	1210	610	500	End	300	100	1687-1704/9

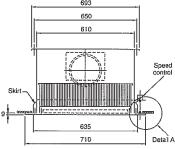
<sup>#</sup> AS1386 - Capacity @ 0.6m/s face velocity \* Standard petroleum jelly or optional Blu Jel sealing medium. \*\* Spigots are 130mm long. Ceiling opening sizes are 685x685, 985x685, 1285x685.

# **Acoustic Fluid Seal Fan Filter Module**

(Filter, fan and controls accessible from room)







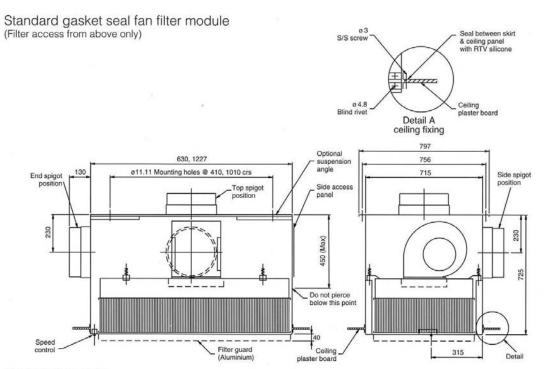
#### Engineering data

Capacity	Capacity#	Flow	Filter	Nominal size (mm)			Spigot	Spigot	Installed	Part
(L/s)	(AS1386)	direction	seal*	Length	Width	Height	location	dia.(mm)**	weight (kg)	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

<sup>#</sup> 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

Clean	Capacity#	Flow	Filter	Nominal size (mm)			Spigot	Spigot	Installed	Part
capacity (L/s)	(AS1386)	direction	seal*	Length	Width	Height	location	dia.(mm)**	weight (kg)	number
345	245	Supply	Gasket	630	715	725	Top	300	61	1687-1520/5
345	245	Supply	Gasket	630	715	725	Side	300	61	1687-1520/6
345	245	Exhaust	Gasket	630	-715	725	Side	300	61	1687-1520/68
560	475	Supply	Gasket	1227	715	725	Top	300	91	1687-1520/7
560	475	Supply	Gasket	1227	715	725	Side	300	91	1687-1520/8
345	245	Supply	Gasket	630	715	725	End	300	61	1687-1520/9
560	475	Supply	Gasket	1227	715	725	End	300	91	1687-1520/10
345	245	Supply	Gasket	630	715	725	Both ends	300	61	1687-1520/11
560	475	Supply	Gasket	1227	715	725	Both ends	300	91	1687-1520/12
560	475	Recirc	Gasket	1227	715	725	None		91	1687-1520/13

<sup>#</sup> AS1386 - Capacity @ 0.6m/s face velocity \*\* Spigots are 130mm long. Ceiling opening sizes are 685x685, 985x685, 1285x685.

# **Range of Air Filtration Products**

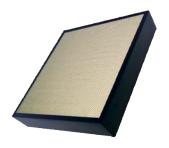


**Nano-V**<sup>™</sup> F6, F7, F8 & F9 Rating **Sizes:** 610x610 & 610x305.

**Depth:** 300

Xref: V-Cell, Compact

Vee

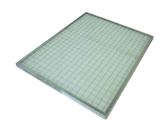


**Nano-P**<sup>™</sup> F6, F7, F8 & F9 Rating **Sizes:** 610x610 &

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**<sup>™</sup>
F4 & F5 Rating **Sizes:** 610x610,
610x305, 305x508,
508x508, 406x508,
406x635, 508x635 &

custom.

**Depth:** 50 & 100. **Xref:** Vee-form



Intervee<sup>™</sup> 95% Rating Sizes: 610x610 &

610x305 **Depth:** 300



**Interfold™**F4 Rating **Sizes:** 610x610,
610x305, 305x508,
508x508, 406x508,
406x635, 508x635 &

custom.

**Depth:** 25, 50 & 100.

Xref: G-Pleat



**Duovee**<sup>™</sup> 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.



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.

#### 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, 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.

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In keeping with our policy of continuing product improvement, we reserve the right to alter specifications without notice.











