



## HEPA Filter Module

### Applications

Email Air Handling 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

Email Air Handling 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.

### On-site testing

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

### 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.

### Maintenance / service

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

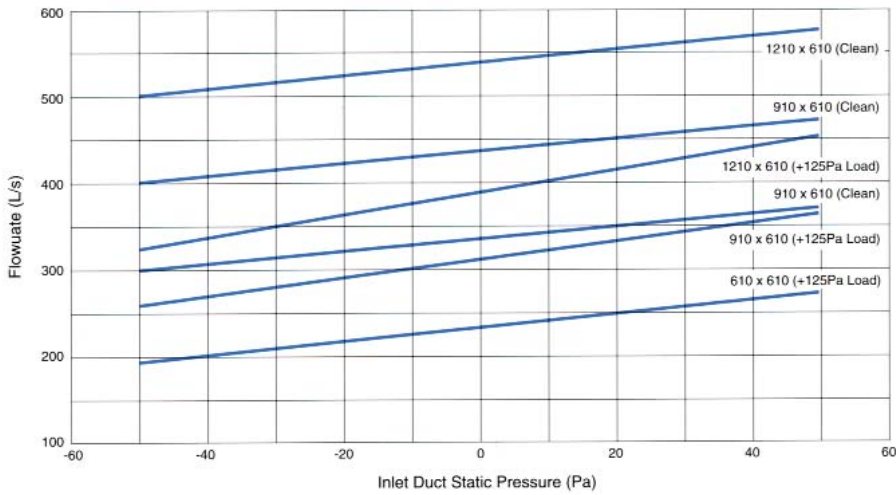
- before use
- on at least an annual basis
- after modification
- after relocation
- when HEPA filter is renewed

### Installation

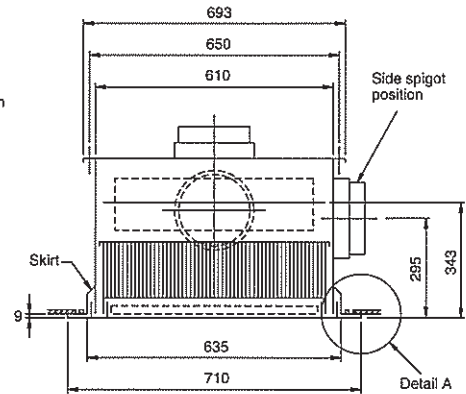
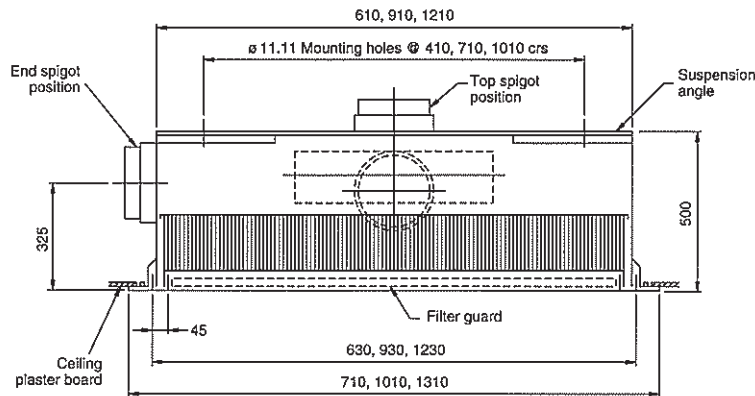
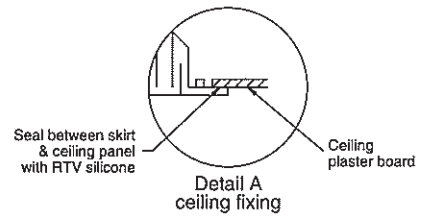
HEPA filter modules must be supported independently from the ceiling structure. The module's power supply must be interlocked with the air conditioning unit in such a way as to start the module fan before starting the air conditioner fan.

# Performance Data - HEPA filter modules

Fan Filter Module Flowrate vs Inlet Duct Static Pressure



## Low profile fluid seal fanless filter module (Filter accessible from room)

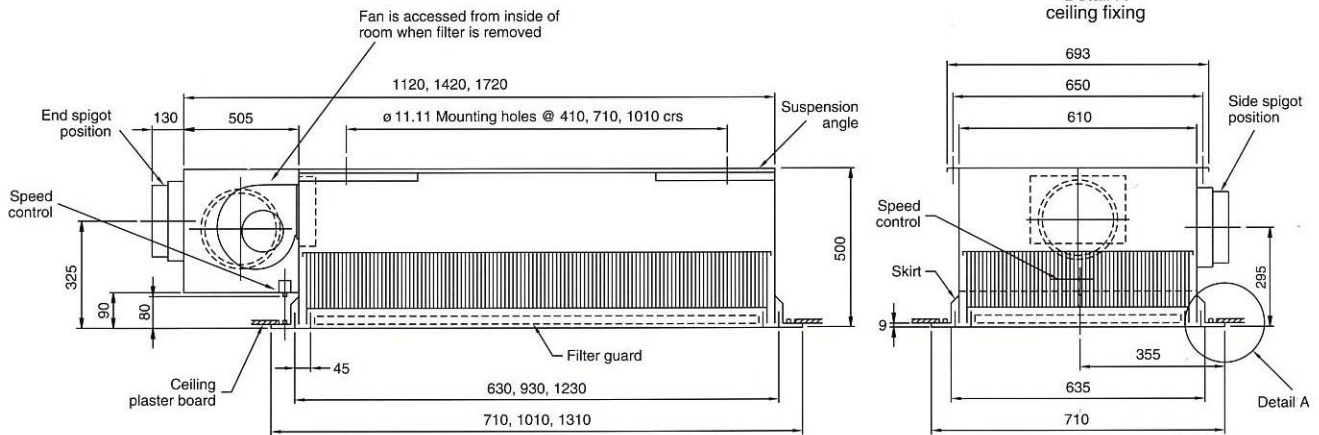


## Engineering data

Clean capacity(L/s)	Filter plenum static press.(Pa)	Capacity# (AS1386)	Flow direction	Filter seal*	Nominal size (mm)			Spigot location	Spigot dia.(mm)**	Installed weight (kg)	Part number
					Length	Width	Height				
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	Top	300	40	1687-1706/7
445	275	272	Supply	Fluid	910	610	500	Top	300	59	1687-1706/8
545	250	370	Supply	Fluid	1210	610	500	Top	300	74	1687-1706/9
340	300	175	Supply	Fluid	610	610	500	Side	500Wx200H	40	1687-1706/13
445	275	272	Supply	Fluid	910	610	500	Side	500Wx200H	59	1687-1706/14
545	250	370	Supply	Fluid	1210	610	500	Side	500Wx200H	74	1687-1706/15
340	300	175	Supply	Fluid	610	610	500	End	500Wx200H	40	1687-1706/16
445	275	272	Supply	Fluid	910	610	500	End	500Wx200H	59	1687-1706/17
545	250	370	Supply	Fluid	1210	610	500	End	500Wx200H	74	1687-1706/18
340	300	175	Supply	Fluid	610	610	500	Top	300Wx300H	40	1687-1706/22
445	275	272	Supply	Fluid	910	610	500	Top	300Wx300H	59	1687-1706/23
545	250	370	Supply	Fluid	1210	610	500	Top	400Wx400H	74	1687-1706/24

# 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)

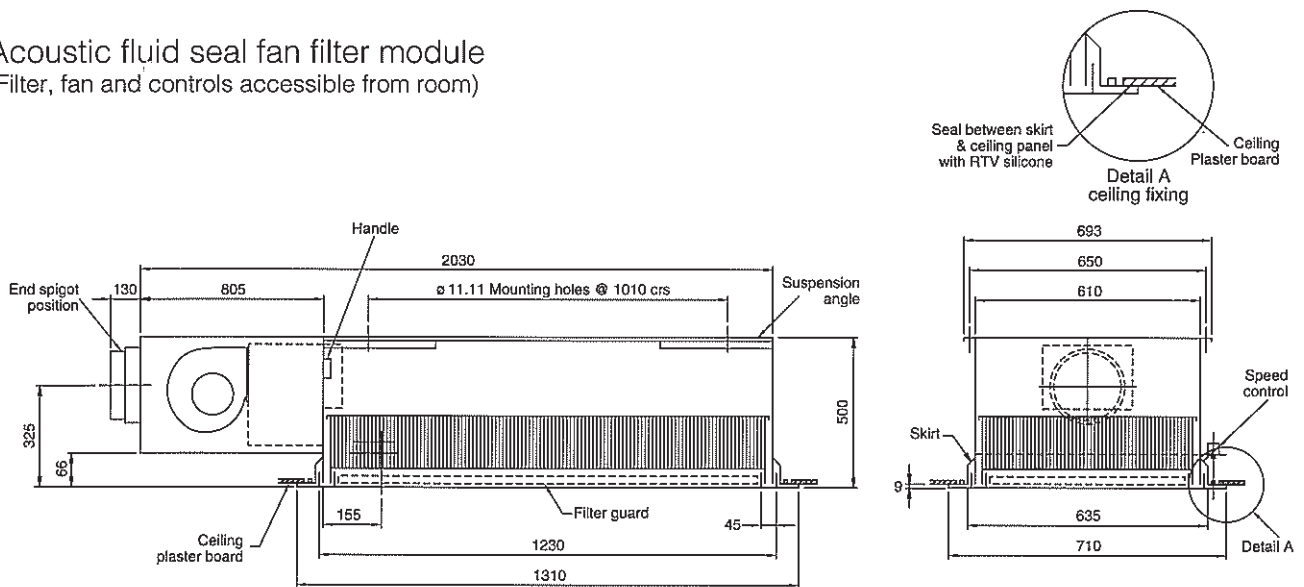


**Engineering data**

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

# 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)



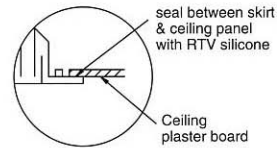
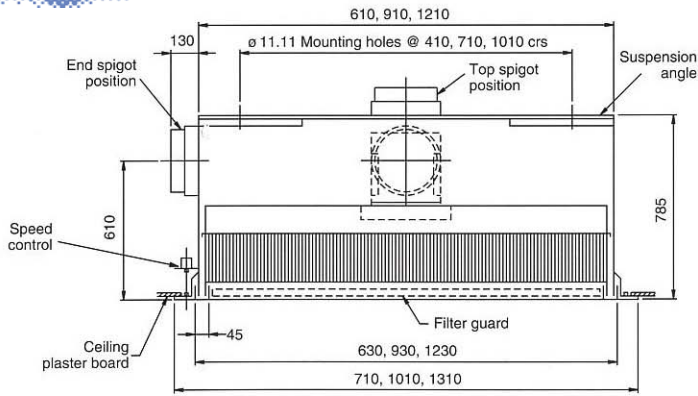
**Engineering data**

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

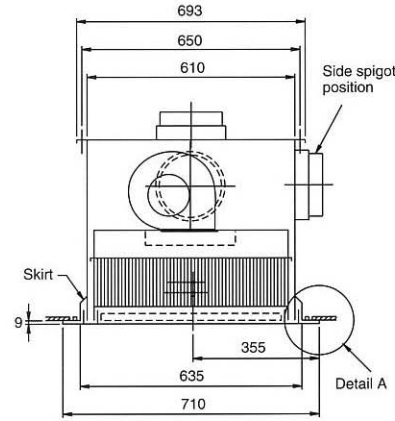
# AS1386 - Capacity @ 0.47m/s face velocity and is restricted to limit noise levels to 50dBA at 1 metre free field \* Standard petroleum jelly or optional Blu Jel sealing medium. \*\* Spigots are 130mm long. Ceiling opening sizes are 685x685, 985x685, 1285x685.

# Standard fluid seal fan filter module

(Filter, fan and controls accessible from room)



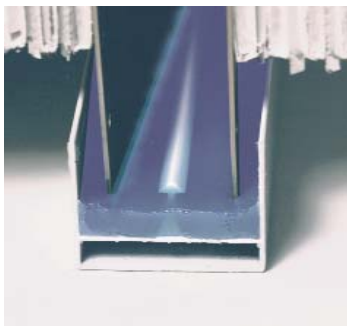
Detail A ceiling fixing



## Engineering data

Capacity (L/s)	Capacity# (AS1386)	Flow direction	Filter seal*	Nominal size (mm)			Spigot location	Spigot dia.(mm)**	Installed weight (kg)	Part number
				Length	Width	Height				
545	370	Supply	Fluid	1210	610	785	Top	300	98	1687-1700/1
545	370	Supply	Fluid	1210	610	785	Side	300	98	1687-1700/2
340	175	Supply	Fluid	610	610	785	Top	300	65	1687-1700/3
340	175	Supply	Fluid	610	610	785	Side	300	65	1687-1700/4
340	175	Supply	Fluid	610	610	785	Top prefilter		65	1687-1700/5
545	370	Supply	Fluid	1210	610	785	Top prefilter		98	1687-1700/6
340	175	Exhaust	Fluid	610	610	785	Side	300	65	1687-1700/7
545	370	Exhaust	Fluid	1210	610	785	Side	300	98	1687-1700/8
445	272	Supply	Fluid	910	610	785	Top	300	84	1687-1700/9
445	272	Supply	Fluid	910	610	785	Side	300	84	1687-1700/10
545 (fanless)	370	Ducted	Fluid	1210	610	785	Side	300	73	1687-1701/1

# 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.



'Blue-Gel' Filter sealing arrangement

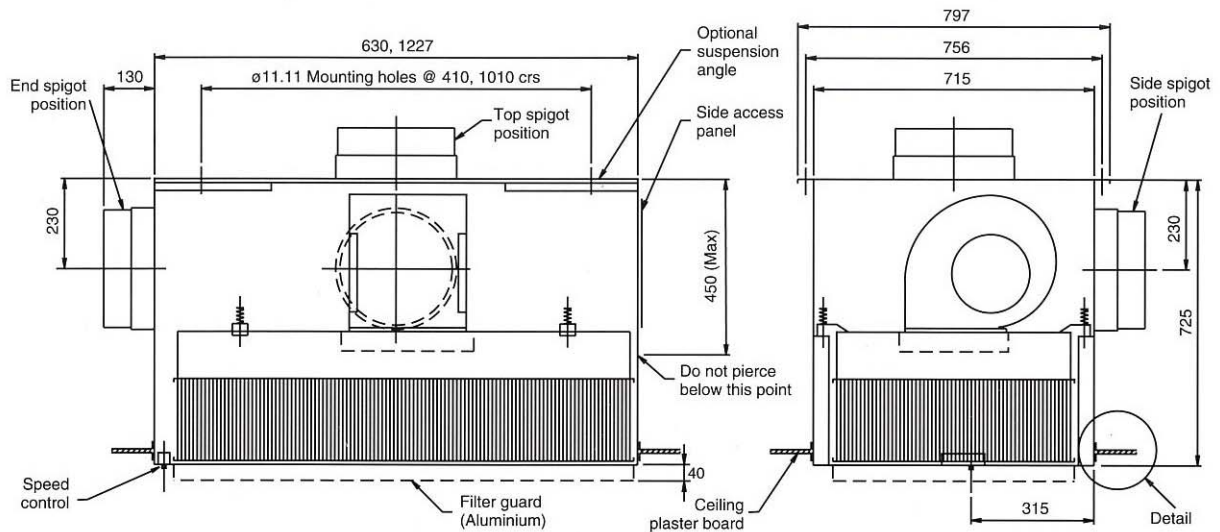
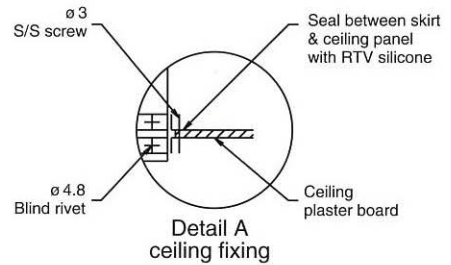
## Gel-Seal filter frame sealant

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 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 contaminants.

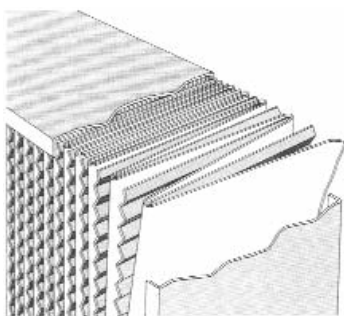
Standard gasket seal fan filter module  
(Filter access from above only)



Engineering data

Clean capacity (L/s)	Capacity# (AS1386)	Flow direction	Filter seal*	Nominal size (mm)			Spigot location	Spigot dia.(mm)**	Installed weight (kg)	Part number
				Length	Width	Height				
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	1687-1520/6E
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

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



Conventional HEPA construction

HEPA Media Construction

The glass-paper filtering medium is pleated into a narrow vee formation and held in place by corrugated aluminium 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

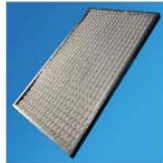
**EMAIL  
AIRHANDLING**

**VOKES**

**Air filters  
for all  
applications**



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



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



**Intervee™**  
95% Rating  
Size: 610x610, 610x305,  
Depth: 300



**Duovee™**  
F4 & F5 Rating  
Size: 610x610, 610x305,  
Depth: 400, 600  
Xref: EX, VA320, VA340  
Twin cell



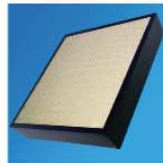
**Multipeak™**  
F4 & F5 Rating  
Size: 610x610, 610x305,  
Depth: 570  
Xref: TPAC, Tricell



**Pyracone™**  
F4 & F5 Rating  
Size: 610x610, 610x305,  
Depth: 660  
Xref: EX



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



**NANO-P™**  
F6, F7, F8 & F9 Rating  
Size: 610x610, 610x305,  
Depth: 25, 50, 100  
Xref: P-Pleat



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



**Interfold™**  
F4 Rating & F5 (Interplus™)  
Size: 610x610, 610x305,  
305x508, 508x508,  
406x508, 406x635,  
508x635, custom  
Depth: 25, 50, 100  
Xref: G-Pleat



**Fourpeak™**  
F4 & F5 Ratings  
Size: 610x610, 610x305,  
Depth: 346  
Xref: 4P



**Pyracube™**  
F4 & F5 Ratings  
Size: 610x610, 610x305,  
Depth: 623  
Xref: EEX, ES Series



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



**HEPA /Absolute**  
99.999%, 99.995% Rating  
Size: Various standard  
sizes available,  
custom available  
on request  
Depth: 149, 292

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