

# V-Cell Minipleat

Secondary Filters F6 60-65% F7 80-85% F8 90-95% F9 >95% E10/E11 95%@0.3um, H13

## General Characteristics

V-Cell Minipleat filters are used in all types of applications. High media area ensures very low pressure drop and enables extremely long life usage. It is proven to be low energy usage, low operating costs, long filter replacement periods. This filter is highly recommended and ultimate choice for use in all industries such as electronics and injectable production, pharmaceutical production, nuclear establishments, industrial and chemical processing, hospitals and laboratories, biosafety laboratories, public and office buildings, airport air conditioning systems, oil refineries, gas turbines and plastic manufacturing.



Description: V-Cell Minipleat  
Nominal Size: 24 x 24 x 12"  
Actual Size : 592 x 592 x 292mm

- + Secondary Filters F6 – F9 efficiencies
- + Low Resistance SemiHEPA E10,E11 and HEPA H13
- + V-Shaped Minipleat with thermoplastic separators
- + Synthetic Electrostatic anti-microbial filter media
- + Plastic Frame
- + Extremely Durable
- + Low Pressure Drop, Energy and Operating Costs

## Construction

### Filter Media

The filter media is 100% synthetic made from a modified melt-blown process and special process which is permanent electrostatically charged during media manufacturing as opposed to active or non-permanent charged. This tremendous increase the efficiency at 0.3-3um and ensures very low pressure drop during lifespan of filter. The gradual fibre density ensures coarse fibres upstream and fine fibres downstream giving optimum particle capture characteristic. The media is then manufactured through minipleating where plastic separators are added to give a unique pleated V configuration ensuring high media area, very low resistance and longer lifespan.

The filter is arranged in V shaped and sealed with hotmelt adhesive and is enclosed with standard plastic frame, and completes as a single header rigid cartridge filter of 12" inline depth.

The final minipleat filter is extremely durable with high compressive strength in the airflow direction. It has been tested to burst strength of 6250 Pa. The durability also ensures that there will be no damage to pleats during transportation or assembly.

The filter media is anti-microbial and is a by-product of manufacturing process and does not require the addition of any chemicals.

Optional galvanised steel or aluminium U channel for No header/Double header/Box installations. Optional gaskets can be requested.

# V-Cell Minipleat

Secondary Filters F6 60-65% F7 80-85% F8 90-95% F9 >95%

SemiHEPA E10/E11 95%@0.3um HEPA H13 99.97%@0.3um

## Specifications

Model	V60	V80	V90	V98	VH10	VH12
Description	V-Cell 60-65%	V-Cell 80-85%	V-Cell 90-95%	V-Cell >95%	V-Cell E10/11	V-Cell H12
Nominal Thickness	12"	12"	12"	12"	12"	12"
Initial Pressure Drop at Face velocity = 2.5m/s	55	66	66	75	110	200
Filter Class EN779 / Eurovent 4/4 / EN1 822	M6	F7	F8	F9	E10/E11	H12
ASHRAE 52.76 Average Dust Arrestance Efficiency (>5µm)	95%	99%	99%	99%	99%	-
ASHRAE 52.1-1992 Average Dust Spot Efficiency (>1µm)	60-65%	80-85%	90-95%	>95%	>99%	-
ASHRAE 52.2-2012 Range 1 (0.30-1.0um)	>35%	>50%	>75%	>85%	>95%	-
ASHRAE 52.2-2012 MERV	MERV 11	MERV 13	MERV 14	MERV 15	MERV 16	-
PSL/DEHS/DOP @0.3um	-	-	-	>85%	>95%	>99.9%
EN1822 MPPS Global/ Integral Value @MPPS	-	-	-	-	>95%	>99.5%
Media Area m <sup>2</sup>	19.2	19.2	19.2	19.2	19.2	19.2

Performance data is based on ASHRAE 52.2-2012 Test method entitled "Method of Testing General Ventilation Air Cleaning Devices for Removal Efficiency by particle size, other data provided is for comparison and information

MERV: Minimum Efficiency Reporting Value

\* EN1822 -Semi-HEPA E10,E11, H13 Testing. MPPS: Most Penetrating Particle Size (at 0.1-0.2um for particle counter). US IES RP-CC-001.3, MPPS is at 0.3um for photometer

ASHRAE 52.2-2012 MERV Range 1 of 0.3-1.0um uses KCL as aerosol.

## Dimensions

Nominal Size L x H x D inches	Actual Size L x H x D mm	Rated Air Flow cmh	Face Area m <sup>2</sup>	Weight kg	Packing per carton
24 x 24 x 12	592 x 592 x 292	3400	0.35	5.0	1
24 x 20 x 12	592 x 492 x 292	2830	0.29	5.0	1
24 x 16 x 12	592 x 391 x 292	2260	0.23	5.0	1
24 x 12 x 12	592 x 289 x 292	1700	0.17	5.0	1

Plastic Frame available in 24x24, 24x20, 24x16, 24x12. Odd sizes can be custom fabricated with Galvanised Steel (Box Shaped only)

Plastic Frame header of 22mm.

Box or No Header (NH) can be fabricated by adding additional metal header on V-cell or fabricating a separate holding frame box

Optional Gaskets can be requested on downstream or upstream.

V-cell can be installed in both directions, in reverse air flow.

Width and height dimensions are interchangeable.

## Technical Data

### Filter Media

Synthetic Polypropylene

### Enclosing Frame

Polystyrene

22mm Header

Option: Galvanised Steel (Gi) for custom sizes

### Separator

Hotmelt

### Sealant

Hotmelt

Continuous Operating Temperature 50°C

Relative Humidity 90%

Recommended Final Pressure Drop 250-375 Pa

Maximum Final Pressure Drop 450 Pa

