

# C-Cell Minipleat

Secondary Filters MERV14 F8 90-95% MERV15 F9 >95% MERV16 SemiHEPA



## General Characteristics

C-Cell Minipleat filters are minipleat design secondary filters with inline filter depth of only 4" as compared to traditional 12" depth filters. High media area and low pressure drop allows long life usage.

Industries Use: Electronics, wafer production, pharmaceutical production, nuclear establishments, industrial & chemical processing, hospitals, laboratories, pharmacies, biosafety laboratories, schools, public & office buildings, shopping malls, museums, airport airconditioning systems. Oil & Gas, Chemical refineries, Gas turbines, Industrial Factories. Wood, pulp and paper mills & plastics manufacturing. Ships, Trains.

Equipment: Airconditioning Systems of Air Handling Units AHU, PAU, Ducted FCU, FAF Fresh Air intake fans and Exhaust dust control.



+ Secondary Filter with M6 – E10  
MERV12 to MERV16 efficiencies

+ 4" depth Minipleat with thermoplastic  
separators

+ Synthetic anti-microbial filter media

+ Kraft Board, Galvanised Steel with Single  
Header Option or Aluminium Frame

+ Extremely Durable

## Construction

### Filter Media

The filter media is synthetic polypropylene made with a modified melt-blown process. The graded fibre density ensures coarse fibres upstream and fine fibres downstream, giving optimum particle capture characteristic. The media is then manufactured through a process where plastic separators are added to give a unique pleated V- configuration ensuring high media area, low resistance and longer lifespan.

The filter is sealed with a water-based adhesive or hotmelt/PU adhesive and is enclosed with a moisture resistant Kraft board or galvanised steel or aluminium and completes as a no header (NH) rigid box cartridge filter of 4" (95mm) inline depth only instead of traditional 12" (290mm). Standard Single header (SH) 22mm Galvanised steel and Kraft board are available.

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. Compact size allows easier transport and disposal.

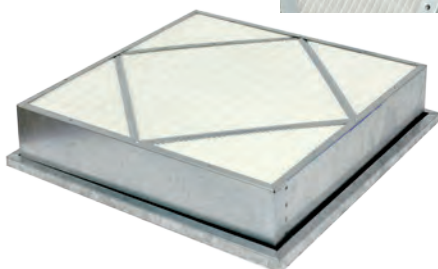
The filter media is anti-microbial and is a by-product of manufacturing process and does not require the addition of any chemicals to protect deterioration of media

The filter can be manufactured in both 6" or 12" depth No Header (NH) or Single Header (SH) frames to replace traditional 6 or 12 inches filters.



Recommended New or Retrofit  
C-Cell Minipleat, Gi, SH

Nominal Size: 24 x 24 x 4"  
Actual Size: 595 x 595 x 95mm  
Single Header 22mm



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## Specifications

*Improved Pressure Drop*

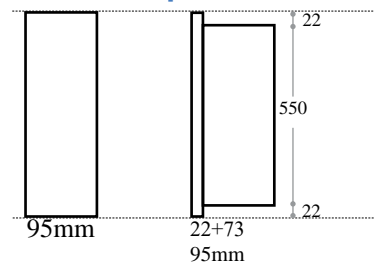
Model	C60		C90		C90 / C98		CH10	
	C-cell 60-65%		C-Cell MERV14 90-95%		C-Cell MERV15 >95%		SemiHEPA MERV16	
Nominal Thickness	2"	3-4"	2"	3-4"	2"	3-4"	2"	3-4"
Actual Thickness mm	45	70-90	45	70-90	45	70-90	45	70-90
Initial Pressure Drop at Rated 2.5m/s ** 1.5m/s	104 50	87 40	128 65	114 56	160	143	175 **125	155 **116
# Expected Lifespan months	6-12	6-12	3-6	6-12	3-6	6-12	3-6	6-12
ASHRAE 52.1-1992 @>5.0um Average Synthetic Dust Weight Arrestance	95%		99%		99%		99%	
ASHRAE 52.1-1992 @>1.0um Average Atmospheric Dust Spot Efficiency	60-65%		90-95%		>95%		>99%	
ASHRAE 52.2-2017 Range 1 (0.30-1.0um)	>35%		>75%		>85%		>95%	
ASHRAE 52.2-2017 MERV	MERV12		MERV 14		MERV 15		MERV16	
Media Area m <sup>2</sup>	5.5	7.5-11.0	5.5	7.5-11.0	5.5	7.5-11.0	5.5	7.5-11.0
Filter Class EN779 / EN1812 Class to ISO16890	F6 ePM 2.5 65%		F8 ePM1.0 80%		F9 ePM1.0 85%		E10/E11 ePM1.0 95%	

Performance data is based on ASHRAE 52.2-2017 Test method entitled "Method of Testing General Ventilation Air Cleaning Devices for Removal Efficiency by particle size, others provided is for comparison & information.  
MERV: Minimum Efficiency Reporting Value #All above MERV13 Efficiency filters must be protected by prefilters min MERV5/6 for longer lifespan. MERV16 by min MERV11  
# Lifespan is for typical design, vary on system design and setting and environment, in PAU or 100%, with construction outside air, lifespan expect to Half.  
NR: Not recommended, to use minimum 2" 45mm for better operation maintenance, longer lifespan. Use in lower airflow system.

## Dimensions

Nominal Size L x H inches	Actual Size L x H mm	Rated Air Flow cmh	pc Weight kg Thickness 4" / 3" / 2"	Packing pcs per carton Gi 4" / 3" / 2"
12 x 24	289 x 595	1700	1.5 / 1.2 / 0.8	6 / 8 / 12
16 x 20	395 x 495	1880	1.7 / 1.3 / 0.9	3 / 4 / 6
16 x 24	395 x 595	2265	2.7 / 2.0 / 1.4	3 / 4 / 6
16 x 25	395 x 622	2380	2.7 / 2.0 / 1.4	3 / 4 / 6
18 x 24	444 x 595	2550	2.3 / 1.8 / 1.3	3 / 4 / 6
20 x 20	495 x 495	2380	2.1 / 1.5 / 1.1	3 / 4 / 6
20 x 24	495 x 595	2830	2.7 / 2.0 / 1.4	3 / 4 / 6
20 x 25	495 x 622	2975	2.7 / 2.0 / 1.4	3 / 4 / 6
24 x 24	595 x 595	3400	3.0 / 2.3 / 1.5	3 / 4 / 6

## Header Option



Box /NH 22mm Single Header (SH)  
Standard Kraftboard Standard Gi  
Option: Gi Option: kraft board  
for CH10 NH/SH- Recommended Gi / Al

Odd sizes can be custom fabricated accordingly. Width and height dimensions are interchangeable  
Recommended Metal Enclosing Frame can also be fabricated for 2", 4", 6", 12" depth filters.

## Technical Data

### Filter Media

Polypropylene Synthetic

### Enclosing Frame

NH: Kraft board Option: Gi, Aluminum (Al)  
SH: Galvanised Steel (Gi), Option: Kraft board  
CH10: Gi or Al Option: Kraft board

### Header

No Header (NH) Box, Single Header (SH) 22mm

### Separator

Hotmelt N pleated: Self Support with Glue lines

### Sealant

Water based Glue or Hotmelt / Polyurethane

Continuous Operating Temperature 70°C  
Relative Humidity 90%  
Recommended Final Pressure Drop 250-375 Pa  
Maximum Final Pressure Drop 450 Pa

