

# 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.



Model: C90 2in  
C-cell Minipleat Rated high flow

Model: C90  
C-cell Minipleat 4" thickness  
Recommended design & selection for long lifespan

+ Secondary Filter with F6 – 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



Model: C90N  
C-cell N miniPleated 2"  
MERV14 short term upgrade

## 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.

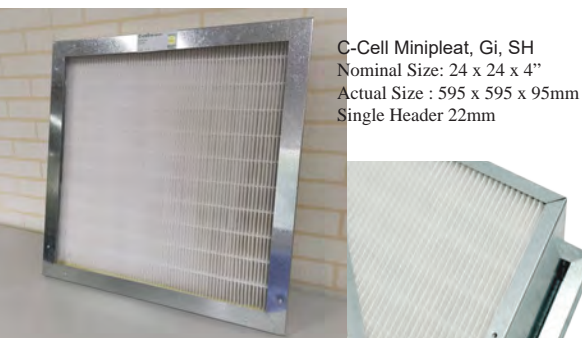
The filter is sealed with a water-based adhesive or hotmelt/PU adhesive and is enclosed with a moisture resistant Kraft board or galvanised steel or aluminium and completes as a no header rigid box cartridge filter of 4" (95mm) inline depth only instead of traditional 12" (290mm). 22mm Single header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

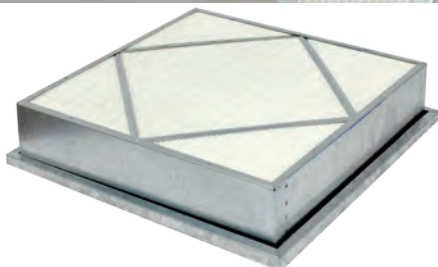
The N miniPleated is 2" (45mm) self supported wider pleat gap with glue lines and offer a valued high full ASHRAE 52.2 MERV14 efficiency to equip and retrofit older aircon system, air intake fans, ducted FCU without secondary filtration. 1" (21mm) thickness are for quick retrofit temporary short term use.

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

The filter can be manufactured in both 6" or 12" depth No Header (NH) or Single



C-Cell Minipleat, Gi, SH  
Nominal Size: 24 x 24 x 4"  
Actual Size : 595 x 595 x 95mm  
Single Header 22mm



# C-Cell Minipleat

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

## Specifications

Improved Pressure Drop

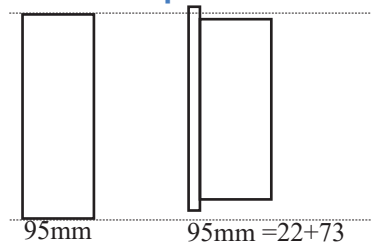
Model	C60		C90N		C90		C90 / C98		CH10	
	C-cell 60-65%		C-Cell N Pleated MERV14		C-Cell MERV14 90-95%		C-Cell MERV15 >95%		SemiHEPA MERV16	
Nominal Thickness	2"	3-4"	1"	2"	2"	3-4"	2"	3-4"	2"	3-4"
Actual Thickness mm	45	70-90	21	45	45	70-90	45	70-90	45	70-90
Initial Pressure Drop at Rated 2.5m/s ** 1.5m/s	104	87	190(NR) **105	153 **75	128	114	160	143	175 **125	155 **116
# Expected Lifespan months	6-12	6-12	1-3	3-6	3-6	6-12	6-12	6-12	6-12	6-12
ASHRAE 52.1-1992 @>5.0um Average Synthetic Dust Weight Arrestance	95%		99%		99%		99%		99%	
ASHRAE 52.1-1992 @>1.0um Average Atmospheric Dust Spot Efficiency	60-65%		90-95%		90-95%		>95%		>99%	
ASHRAE 52.2-2017 Range 1 (0.30-1.0um)	>35%		>75%		>75%		>85%		>95%	
ASHRAE 52.2-2017 MERV	MERV12		MERV 14		MERV 14		MERV 15		MERV16	
Media Area m <sup>2</sup>	5.5	7.5-11.0	1.6	3.5	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 75%		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  
# 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 / AI

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

