

Indoor Air Quality Filtration System Particulate and NO_x Filter

Applications

The Indoor Air Quality Filtration System combines particulate and gas filtration to remove pollutants prior to the air entering residences and commercial buildings through mechanical ventilation and heat recovery systems.

Particulate Filter, PM₁₀, PM_{2.5}

The Indoor Air Quality Filtration System can house up to two particulate filters. Panel filters of Grade G4 to EN779 having an arrestance above 90% make it suitable for the removal of PM₁₀ Particulates. An additional particulate filter of Grade F7 to EN779 can be included to further reduce smaller particles including PM_{2.5}.

Pollutant Gas Filter, NO₂, NO_x, SO₂, O₃, VOC

The Airclean Type 1 Gas Filters used in the Indoor Air Quality Filtration System are designed to remove pollutant gases at the rated air flow of the filtration system. A specially formulated activated carbon chemical mix, acts upon pollutant gases common in dirty city / town air, reducing them below guidelines set by current legislation.

NO_x, NO₂, Removal Efficiencies

Testing carried out under typical operational circumstances have shown that the Indoor Air Quality Filtration System using Type 1 Gas Filters will filter Nitrogen Dioxide concentrations to below EU Directive limits of 40µg/m³ when challenged with concentration levels up to 200µg/m³. Peak reduction efficiencies of Nitrogen Dioxide were measured at 87%.

Nitrogen Dioxide (NO_x, NO₂) Mitigation Solution

When the Indoor Air Quality Filtration System is used in conjunction with mechanical ventilation systems, pollutants that include Nitrogen Dioxide can be reduced to below target levels. Using this combination can be accepted as a Nitrogen Dioxide mitigation solution to meet the requirements of local authority planners.

Suitable for Domestic and Commercial Installations

	Domestic	Commercial
Typical Units	CB50 / CB100 / CB200 and CB300	CB450 / CB600 / CB900 / CB1200
Airflow Range	0 – 300l/s	300 - 1200l/s
Clean P.D. at maximum airflow	45Pa	45Pa
Mechanical Ventilation	MVHR Systems / Whole House	Centralised AHU / MVHR
Filter Access	Lift off doors as standard both sides	Lift off doors both sides
Mounting	Horizontal or Vertical Airflow	Horizontal Airflow Only
Construction	Sheet Metal (Insulated on request)	Pentapost, double skin insulated
Duct Transformations	Included (Rectangular or Spiral)	Available upon request

Bespoke Pollution Filtration Solutions

Where the standard Indoor Air Quality Filtration Systems do not fit the scope of your project speak to our technical design team who can produce a bespoke filtration system to meet your requirements.



INDOOR AIR QUALITY FILTRATION SYSTEM

Unit	Airflow Rating (m³/s)	Dimensions (mm)			Required Filters	Clean PD at Rated Air Flow	Part Numbers
		H	W	L*			
CB50	0.055	220	310	980	PM10 + Type 1 Gas Filter (2x) 1130523, (4x)1650501	45Pa	1841601
					PM10 + Type 1 Gas Filter + PM2.5 (1x) 1130523, (4x)1650501, (1x)1450502	100Pa	1841621
CB100	0.11	220	620	980	PM10 + Type 1 Gas Filter (4x) 1130523, (8x)1650502	45Pa	1841602
					PM10 + Type 1 Gas Filter + PM2.5 (2x) 1130523, (8x)1650501, (2x)1450502	100Pa	1841622
CB200	0.22	410	620	980	PM10 + Type 1 Gas Filter (8x) 1130523, (16x)1650501	45Pa	1841603
					PM10 + Type 1 Gas Filter + PM2.5 (4x) 1130523, (16x)1650501, (4x)1450502	100Pa	1841623
CB300	0.33	600	620	980	PM10 + Type 1 Gas Filter (12x) 1130523, (24x)1650501	45Pa	1841604
					PM10 + Type 1 Gas Filter + PM2.5 (6x) 1130523, (24x)1650501, (6x)1450502	100Pa	1841624
CB450	0.45	720	945	1100	PM10 + Type 1 Gas Filter (18x) 1130523, (36x)1650501	45Pa	1841605
					PM10 + Type 1 Gas Filter + PM2.5 (9x) 1130523, (36x)1650501, (9x)1450502	100Pa	1841625
CB600	0.6	720	1240	1100	PM10 + Type 1 Gas Filter (24x) 1130523, (48x)1650502	45Pa	1841606
					PM10 + Type 1 Gas Filter + PM2.5 (12x) 1130523, (48x)1650501, (12x)1450502	100Pa	1841626
CB900	0.9	1440	945	1100	PM10 + Type 1 Gas Filter (36x) 1130523, (64x)1650501	45Pa	1841607
					PM10 + Type 1 Gas Filter + PM2.5 (18x) 1130523, (64x)1650501, (18x)1450502	100Pa	1841627
CB1200	1.2	1440	1240	1100	PM10 + Type 1 Gas Filter (48x) 1130523, (96x)1650501	45Pa	1841608
					PM10 + Type 1 Gas Filter + PM2.5 (24x) 1130523, (96x)1650501, (24x)1450502	100Pa	1841628
TYPE 1 GAS FILTER							1650501
CB PM10 FILTER (G4 to EN779)							1130523
CB PM2.5 FILTER (F7 to EN779)							1450502
INSULATED LAGGING JACKET (CB50 / CB100 / CB200 / CB300)							1841601

*Length dimension for CB450 – CB1200 does not includes transformations to required duct size
For schematics of high volume duty units contact technical.

Indoor Air Quality Solutions

Monitor and improve your indoor air quality with our IAQ range. Where mechanical ventilation is not possible why not consider one of our Fan Filter IAQ Units or HEPA Air Purifier which to recirculate and clean the air within your room.

Air Quality Monitor



HEPA Air Purifier



Fan Filter IAQ Units

