

Air Filtration Product Overview



Air Filter Product Overview

CLEAN AIR

We can't see it, smell it, taste it or feel it, yet it is a vital part of our everyday lives: ensuring the efficient generation of energy; protecting valuable equipment and artifacts; making indoor environments healthier; even preserving life itself.

At MANN+HUMMEL Air Filtration, our entire business is about creating clean air, and our sole aim is to do so in the most efficient way, at the most cost effective price, and with minimal impact on the world around us.

From humble coarse dust filters through to the latest cleanroom technology, each product in our range is developed around our customers' exact needs using decades of application know-how.



MANN+HUMMEL is a founding member of the Eurovent Certification program for air filters. We provide quality you can count upon.



This document provides an overview of the various product families in our range. Each family contains products with different features for different applications. For full details on each product, please visit our website.



MANN+HUMMEL has been a filtration specialist for more than 80 years. Leadership in Filtration is what drives us.

TWENTY SIX

With every second that ticks by, another 26 filters roll off the MANN+HUMMEL production lines. And that is part of what makes us a world leader in filtration. But it is our commitment to quality and innovation too. Of the 22,000 people we employ worldwide, over 1,000 work in our R&D department. That means we are at the front when it comes to finding new ways

to improve air quality or deliver it more efficiently – which can be seen in the more than 3,000 patents that we have registered.

And when it comes to delivering excellent service, we are always close at hand, with more than 80 locations across the world.

Typical Contaminants

Group	Class	Typical Contaminants	Typical Applications
Coarse ISO 16890	50%	Leaves, insects, textile fibers	Low grade applications (e.g. for protection against insects and leaves)
	60%	Human hair, sand, water droplets	Low grade applications (e.g. for protection against sand and water droplets)
	70%	Beach sand, plant spores	Compact room air conditioners
	80%	Pollen, fog	Compact room air conditioners, prefilter for ePM2.5 and ePM1 filters
ePM10 ISO 16890	50%	Spores, sedimenting particles, cement	Inlet filter for very low requirement rooms, prefilter for ePM2.5 and ePM1 filters
	70%	Larger bacteria & germs, PM10 dust	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM2.5 ISO 16890	50%	Soot, lung damaging dust (PM2.5)	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM1 ISO 16890	60%	PM1 dust, cement dust (fine fraction)	Recirculated air in AC plants, prefilter for E11 and E12 filters
	85%	Oil smoke, bacteria	Prefilter for H13 and H14 filters and molecular filters
EPA Filters EN 1822	E10	Germs, tobacco smoke	Final filter for air-conditioned rooms of very high standard (e.g. hospitals)
	E11	Viruses on carrier particles, carbon black	Final filter for cleanrooms ISO class 7 - 8
	E12	Oil fumes, sea salt nuclei	Final filter for cleanrooms ISO class 5 - 6
HEPA Filters EN 1822	H13	Aerosol microparticles, radioactive particles	Final filter for ISO class 5 - 6 cleanrooms, military shelters and food, electronics and pharma industries
	H14	Viruses	Final filter for cleanrooms ISO class 4 - 5
ULPA Filters EN 1822	U15	All air suspended particulate matter	Final filter for cleanrooms ISO class 3 - 4
	U16	All air suspended particulate matter	Final filter for cleanrooms ISO class 2 - 3
	U17	All air suspended particulate matter	Final filter for cleanrooms ISO class 1
Molecular Filters	Physisorption	VOCs, solvent vapors, kitchen odors	Airports, office buildings, hotels, hospitals, improvement of IAQ
	Gas Filters	Acidic Gases, SO ₂ , SO ₄ , NO ₂ , NO _x	Computer and control rooms, microelectronics, museums, libraries
	Chemisorption	Amines, NH ₃ , NH ₄ , NMP, HMDS	Recirculated air in microelectronics industry

Coarse Filters



Airmat

Filter media cut into mats.

For coarse and fine dust filtration in exhaust and supply air applications. Prefiltration for gas turbine power plants.

5 products in this family

G Coarse



Airroll

Filter media wound into rolls.

Replacement filter roll for OEM systems. Separation of dry dusts in metal working plants, wood shops, etc. Dust filter in paint cabins and spray booths.

8 products in this family

G Coarse



Airpad

Pads of filter media in cardboard frames.

Prefiltration in HVAC and power gen systems to protect equipment and extend the life of higher cost secondary filters. Grease filtration in commercial kitchens.

4 products in this family

G Coarse

Coarse and Fine Dust Filters



Airpanel

Pleated media in a variety of frame types.

Pre or primary filtration for HVAC systems. Also suitable for use in close-control air conditioning units, such as computer rooms.

6 products in this family

G M Coarse ePM10



Airsquare

Mini-pleated media in various frame materials.

Pre or primary filtration in HVAC and power generation systems, where space is limited or a rigid filter construction is required.

4 products in this family

M F ePM10 ePM2.5 ePM1



Airpocket

Pocket (or bag) filters with plastic or metal frames.

Pre or primary filtration for air conditioning and ventilation systems. Prefiltration for gas turbine air intakes.

8 products in this family

G M F Coarse ePM10 ePM2.5 ePM1

Fine Dust Filters



Aircube

Compact filters, also known as a rigid bags.

Pre or primary filtration for HVAC and power generation systems.

8 products in this family

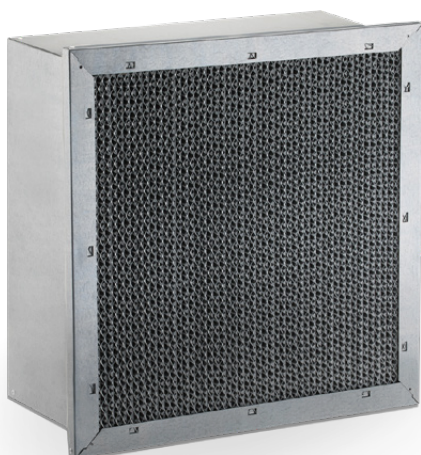
M

F

ePM10

ePM2.5

ePM1



Aircube Deeppleat

Box-shaped filters with aluminum separators.

For industrial environments with high temperatures and flow rates, such as paint-finishing applications.

1 product in this family

F

ePM1



Airtube

Cylindrical filters with round pleated media.

Pulse jet function for gas turbine intake filtration in areas with high levels of ambient dust.

2 products in this family

F

High Efficiency Filters



Nanoclass Square

EPA, HEPA and ULPA filters with mini-pleated media.

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols.

9 products in this family

E H U



Nanoclass Cube

EPA, HEPA and ULPA filters with rigid, compact frames.

Pre- or primary filtration for cleanroom systems. Final stage filtration for gas turbine power plants.

5 products in this family

E H



Nanoclass Cube N

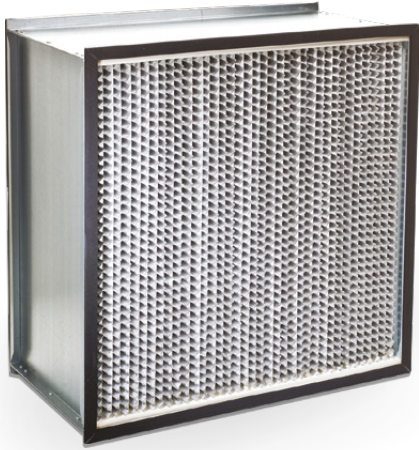
EPA, HEPA and ULPA filters with mini-pleated media panels.

High efficiency filters for terminal outlets in ventilation and clean room systems with high air quantities.

3 products in this family

E H

High Efficiency Filters



Nanoclass Deeppleat

High-capacity EPA, HEPA and ULPA filters.

Designed for supply, recirculation and exhaust air in cleanroom environments.

1 product in this family

E

H



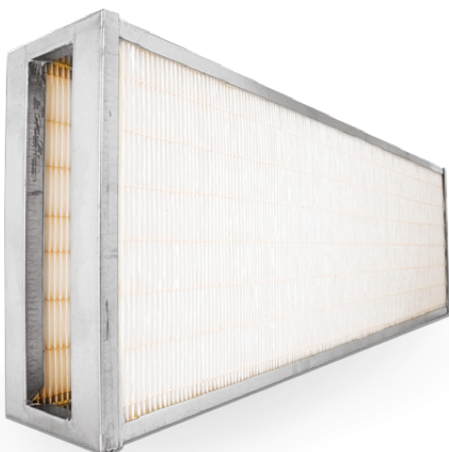
Nanoclass Tube

Cylindrical EPA, HEPA and ULPA filters.

Filtration of bacteria, viruses or general contaminants suspended in air, compressed air or gases.

1 product in this family

H



Nanoclass Wedge

Tapered EPA, HEPA and ULPA filters.

Pre and final filtration in HVAC and cleanroom systems.

1 product in this family

E

H

Molecular Filters



Carboactiv Fill & Media

Activated carbon loose, and in rolls, mats or blocks.

For the removal of gaseous, unpleasant odors from indoor environments.

4 products in this family



Carboactiv Pad

Pads of activated carbon media in cardboard frames.

Filtration of odors to improve comfort levels in public and commercial buildings.

1 product in this family



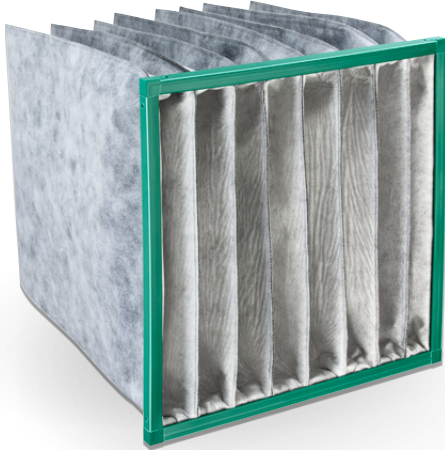
Carboactiv Panel

Pleated activated carbon media in plastic frames.

Odor removal to improve indoor air quality in places where people spend time or congregate.

3 products in this family

Molecular Filters



Carboactiv Pocket

Pocket filters impregnated with activated carbon.

For use in public or commercial buildings to improve indoor air quality and protect against sick building syndrome.

2 products in this family

M

F

ePM10

ePM2.5



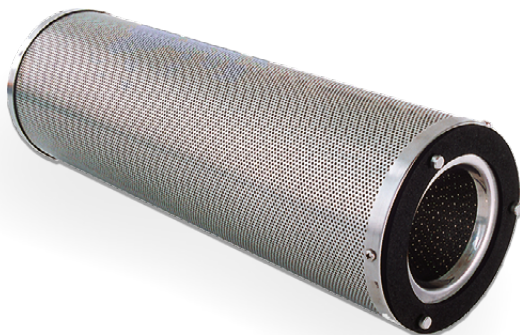
Carboactiv Cube

Activated carbon filters with rigid frames.

Filtration of environmentally-hazardous materials and unpleasant odors in HVAC systems to improve indoor air quality.

1 product in this family

ePM2.5



Carboactiv Tube

Cylindrical activated carbon filters.

For neutralizing odors in internal environments and a range of industrial processes. Also suitable for the removal of radioactive and hazardous gases.

1 product in this family



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