TECHNICAL ENTERPRISES AIR FILTERS

AIR FILTERS

TECHNICAL ENTERPRISES

APCS Korea AIR POLLUTION CONTROL SYSTEM

TECHNICAL ENTERPRISES AIR FILTERS

Introduction To Air Filtration

INTRODUCTION TO AIR FILTRATION

The term air filtration' refers to all applications in which contaminants are removed from an air flow. Having a filtering system, and therefore obtaining cleaner air, is useful for more than just comfort in homes, offices and hotels; there are other reasons for filtering the air, Technology increasingly requires rooms or work areas free of dust, smoke and odours, making it necessary to filter air in numerous industrial activities. Pure air is essential in operating theatres, pharmaceutical laboratories, cleanrooms for electronics, data processing centers, museums, libraries, food industries and public facilities.

PRINCIPAL FEATURES

Before selecting a filter, it is important to analyse the following points: efficiency, dust accumulation capaticy, pressure drop, test methods

Efficiency: This is the most important factor when selecting an air filter: measurement of the quantity of contaminant that the filter manages to remove from the air flow. It is expressed as a percentage and determined using various testing methods, described below.

Preessure Drop: This is the resistance the filter offers to the air flow, measured in water column millimetres or pascals (Pa), The value varies from filter to, depending on the efficiency,

Dust Accumulation Capacity: This characteristic indicates how much dust a filter can collect in the course of its lifetime, before it must replaced. It is another important factor in evaluating a filter.

TEST METHODS

The following test methods may be used to determine the efficiency of various stage in filtering.

Gravimetric Method (sec. AFI, ASHRE 52/76): A know quantity of synthetic dust is injected into the air flow passing through the filter to be tested. Downstream of the filter being tested is an absolute filter. The increase in the absolute filter's weight indicates the quantity of dust that has passed through the test filter, which may be subtracted to calculate the quantity of dust stopped.

D.O.P (DESH, DOS) optic method: A number of aerosols contaning Particles of uniform diameter measuring 0.30 microns are used as an air flow. The difference in the concentrations of these aerosols upstream and downstream of the filter to be tested, meansured by a photometer, determines efficiency.

Colorimetric, Atmospheric method (sec. AFI DUST SPOT, ASHRE 52/76): A colorimeter is used to analyse the colouring of two filter paper probes placed in a flow of atmospheric air, one downstream of it. Efficieny is calculated on the basic of the ratio between the volumes of air required to obtain the same colour in the two probes.

Sodium Flame (Na Cl) optic method: Dehydration of a 2% sodium chloride solution in water provides the test aerosol. Unlike in the D.O.P. method the size of the particles is not uniform, but varies from 0.1 to 1.7 microns. Efficiency is determined by using a photometer to measure the difference in the intensity of the colour of the hydrogen flame in contact with the aerosol upstream and downstream of the test filter.

CURRENT CLASSIFICATIONS

The test methods listed above and applicable international standards have been adopted by the European organisations EUROVENT and CEN, which have established the following classifications for standardisation:

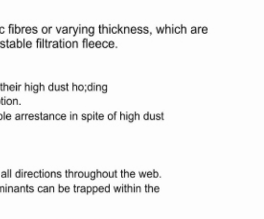
CEN-EN 779-2002 classified filters into two groups on the basis of efficiency: Grade G (efficiency < 20%), grade F (efficiency from 40% to 98%)

Roll Filters

Synthetic Roll Filters

Application

Synthetic filtration media are used as pre-filters or first level filters for air conditioning and ventilation units, as protection of compressor stations, electrical switchboards, production halls, industrial plants etc... They are used for filtration of coarse dust particles. The material are nonflammable, self-extinguishing and harmless to health.



Properties	
Recommended Final Pressure Drop	250 Pa
Temperature Resistance	100° C
Flammability DIN 53438	K1 / F1
Relative Humidity	100%

Code	Efficiency	Class En 779	Weight gr/m²	Thickness mm	Dimension m	Initial Pressure Drop@0,25 m/sec
T100	65%	G2	100	8	2x40	20
T 150/ M150	75%	G3	150	10	2x40	25
T200/M200	80%	G3	200	18	2x20	30
T270/M270	85%	G4	270	20	2x20	35
T500	95%	G4	500	22	2x20	40

FILTER DESCRIPTION

The filter media consist of randomly arranged, non-woven twisted synthetic fibres or varying thickness, which are reinforced with synthetic bonding material (or thermally) to make firm and stable filtration fleece.

Synthetic Filter Media

MATS are used for intake air filtration in all kinds of ventilation systems. Thanks to their high dust ho;ding capacity and the resultant long useful lifetimes, MATS are particularly economic option.
The filter mats from this series are especially effective in applications requiring stable arrestance in spite of high dust holding capacity and high air flow rates.

Depth Loading

The airlaid principle of Fiberbond polyester media is to randomly disperse fibers in all directions throughout the web. This forms a uniform media of high strength and durability. A high volume of contaminants can be trapped within the complete depth of fiber.

We offers a wide range of high quality polyester filter media available in rolls and pads. Rolls are offered in any size slit widths and pads are cut to your exact dimensions. This media is used in our Filter Pad Holding Frames.

Pre Filters

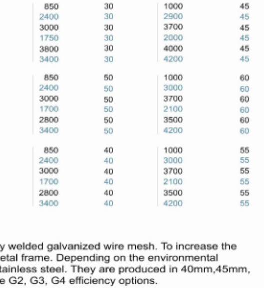
Panfil Metal Frame

Application

PANFIL Metal frame filters are designed for commercial and light - medium industrial applications. They can be used in general air filtration systems and as pre-filtration to protect more expensive higher efficiency filters. They are particularly applicable in humidity or coastal areas where disposable filters are quickly degraded and in applications which demand higher airflow through the filters.

Advantage

- High dust holding capacity
- Fully Cleanable and reusable
- Robust construction for high velocity operation
- Unaffected by high humidity
- Inert to most chemicals and fumes
- No risk to media migration
- Range of efficiencies



Properties		
UNI EN 779 class	G3	G4
EUROVENT class DIN 24185	Eu3	EU4
Average Arrestance A_m in %	80 ≤ Am ≤ 90	90 < Am
Final Pressure Drop	250 Pa	250 Pa
Max. Operating Temperature	80°C	80°C
Frame	Metal, Plastic	
Media	Polyester Sytnhetic Fibre-Polyurethane PPI	
Type	PANFIL Metal Frame	
Fire Resistance Class	K1/F1 according to DIN 53438	
Filter Stage	I - II	

PRODUCT CODE
P F • G S Z • w / h / d • G4

Max Recommended face Velocity: 5 m/ sec

Code/Dimensions WxHxD	Media Pleats #	Media Area m²	Airflow Capacity m³/h @ Resistance (Pa) 1,5m/sec		2,5 m/sec		3,2 m/sec	
PF-GSZ-287x287x45-G3	4	0.2	500	30	850	45	1000	55
PF-GSZ-500x500x45-G3	10	0.6	1500	30	2400	45	3000	55
PF-GSZ-500x625x45-G3	13	0.7	1800	30	2400	45	3700	55
PF-GSZ-592x287x45-G3	6	0.4	1000	30	1750	45	2100	55
PF-GSZ-592x490x45-G3	10	0.6	1700	30	2400	45	3500	55
PF-GSZ-592x592x45-G3	12	0.8	2000	30	3400	45	4200	55
PF-GSZ-287x287x95-G3	4	0.4	500	25	850	30	1000	45
PF-GSZ-500x500x95-G3	10	1.2	1500	25	2400	30	2900	45
PF-GSZ-500x625x95-G3	13	1.4	1800	25	3000	30	3700	45
PF-GSZ-592x287x95-G3	6	0.8	1000	25	1750	30	2000	45
PF-GSZ-592x490x95-G3	10	1.2	1700	25	3800	30	4000	45
PF-GSZ-592x592x95-G3	12	1.6	2000	25	3400	30	4200	45
PF-GSZ-287x287x45-G4	4	0.2	500	35	850	50	1000	60
PF-GSZ-500x500x45-G4	10	0.6	1500	35	2400	50	3000	60
PF-GSZ-500x625x45-G4	13	0.7	1800	35	3000	50	3700	60
PF-GSZ-592x287x45-G4	6	0.4	1000	35	1700	50	2100	60
PF-GSZ-592x490x45-G4	10	0.6	1700	35	2800	50	3500	60
PF-GSZ-592x592x45-G4	12	0.8	2000	35	3400	50	4200	60
PF-GSZ-287x287x95-G4	4	0.4	500	30	850	40	1000	55
PF-GSZ-500x500x95-G4	10	1.2	1500	30	2400	40	3000	55
PF-GSZ-500x625x95-G4	13	1.4	1800	30	3000	40	3700	55
PF-GSZ-592x287x95-G4	6	0.8	1000	30	1700	40	2100	55
PF-GSZ-592x490x95-G4	10	1.2	1700	30	2800	40	3500	55
PF-GSZ-592x592x95-G4	12	1.6	2000	30	3400	40	4200	55

FILTER DESCRIPTION

PANFIL Metal Frame filters are made from polyester synthetic media, two size by welded galvanized wire mesh. To increase the surface area and provide rigidity, this structure is corrugated and retained in a metal frame. Depending on the environmental conditions of operation, frames may be constructed from either galvanized or stainless steel. They are produced in 40mm,45mm, 48mm,95mm,98mm thickness. Different grades of media are available to provide G2, G3, G4 efficiency options.

Pre Filters

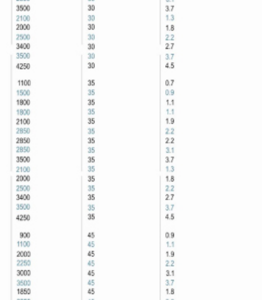
Prebag

Application

Prebag filters are using as pre filter main filter element to separate coarse dust in ventilation and air-conditioning units. Spacer between the individual bags ensure an even flow, as well as the evenly distribution of dust throughout the entire filter. They considerably increase service life of subsequent fine dust filters, thus contributing significantly to operating cost savings.

Advantage

- High dust holding capacity
- Low pressure drop
- High economic efficiency
- Reduced energy operating costs
- Controlled media spacing



Properties			
UNI EN 779 CLASS	G3	G4	F5
EUROVENT class DIN 24185	EU3	EU4	EU5
Average Arrestance A_m in %	86%	95%	-
Efficiency E_a	-	-	50%
Initial Pressure Loss	30 Pa	35 Pa	45 Pa
Final Pressure Loss	250 Pa	250 Pa	250 Pa
Continuous Temperature Resistance	80°C	80°C	80°C
Max. Relative Humidity Resistance	100 %	100 %	100 %
Frame	Metal & Plastic (25 mm thickness)		
Media	Synthetic Media		
Fire Resistance Class	K1/F1 according to DIN 53438		
Filter Stage	I - II		

Various sizes and design on request
Optional with foamed hygiene-gaskit on the dust air side
Plastic header frame is completely incinerable

PRODUCT CODE
T F • G S 6 • w / h / d • G 4

Code/Dimensions WxHD	Width mm	Height mm	Depth mm	Number of Bags	Air Flow m³/h	Pressure Drop Pa	Filtering Surface m²
TF-GS3-287x287x360-G3	287	287	360	3	1100	30	0.7
TF-GS3-287x287x500-G3	287	287	500	3	1500	30	0.9
TF-GS3-287x287x600-G3	287	287	600	3	1800	30	1.1
TF-GS3-287x592x360-G3	287	592	360	3	1800	30	1.1
TF-GS3-287x592x500-G3	287	592	500	3	2100	30	1.9
TF-GS3-287x592x600-G3	287	592	600	3	2850	30	2.2
TF-GS5-287x592x360-G3	490	592	360	5	2850	30	2.2
TF-GS5-490x592x500-G3	490	592	500	5	2850	30	3.1
TF-GS5-490x592x600-G3	490	592	600	5	3500	30	3.7
TF-GS6-592x287x360-G3	592	287	360	6	2100	30	1.3
TF-GS6-592x287x500-G3	592	287	500	6	2000	30	1.8
TF-GS6-592x287x600-G3	592	287	600	6	2500	30	2.2
TF-GS6-592x592x360-G3	592	592	360	6	3400	30	2.7
TF-GS6-592x592x500-G3	592	592	500	6	3500	30	3.7
TF-GS6-592x592x600-G3	592	592	600	6	4250	30	4.5
TF-GS3-287x287x360-G4	287	287	360	3	1100	35	0.7
TF-GS3-287x287x500-G4	287	287	500	3	1500	35	0.9
TF-GS3-287x287x600-G4	287	287	600	3	1800	35	1.1
TF-GS3-287x592x360-G4	287	592	360	3	1800	35	1.1
TF-GS3-287x592x500-G4	287	592	500	3	2100	35	1.9
TF-GS3-287x592x600-G4	287	592	600	3	2850	35	2.2
TF-GS5-287x592x360-G4	490	592	360	5	2850	35	2.2
TF-GS5-490x592x500-G4	490	592	500	5	2850	35	3.1
TF-GS5-490x592x600-G4	490	592	600	5	3500	35	3.7
TF-GS6-592x287x360-G4	592	287	360	6	2100	35	1.3
TF-GS6-592x287x500-G4	592	287	500	6	2000	35	1.8
TF-GS6-592x287x600-G4	592	287	600	6	2500	35	2.2
TF-GS6-592x592x360-G4	592	592	360	6	3400	35	2.7
TF-GS6-592x592x500-G4	592	592	500	6	3500	35	3.7
TF-GS6-592x592x600-G4	592	592	600	6	4250	35	4.5
TF-GH3-287x287x500-F5	287	287	500	3	900	45	0.9
TF-GH3-287x287x600-F5	287	287	600	3	1100	45	1.1
TF-GH3-287x592x500-F5	287	592	500	3	2000	45	1.9
[illegible]	287	592	600	3	2250	45	2.2
TF-GH5-490x592x500-F5	490	592	500	5	3000	45	3.1
TF-GH5-490x592x600-F5	490	592	600	5	3500	45	3.7
TF-GH6-592x287x500-F5	592	287	500	6	1850	45	1.8
TF-GH6-592x287x600-F5	592	287	600	6	2250	45	2.2
TF-GH6-592x592x500-F5	592	592	500	6	3500	45	3.7

Bag Filters

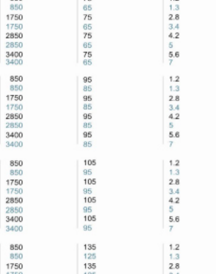
Multibag

Application

Multibag filters are using in air-conditioning units as the second or last filtration level for environments with high demands on separation of fine dust particles, especially for medicine, pharmaceutical industry, electrical engineering, nuclear power station, food processing industry,etc... Spacers between the individual bags ensure an even flow as well as the evenly distribution of dust throughout the entire filter. It is recommended to use the Prebags filters to remove coarse dust in order to extend service life of Multibag filters and to reduce operational coast.

Advantage

- High dust holding capacity
- Low pressure drop
- High economic efficiency
- Reduced energy operating costs
- Controlled media spacing



Properties					
UNI EN 779 class	F5	F6	F7	F8	F9
Average Efficiency E_m %	40-60	60-80	80-90	90-95	>95-95
Initial Pressure Loss	35 Pa	65 Pa	85 Pa	95 Pa	125 Pa
Final Pressure Loss	450 Pa	450 Pa	450 Pa	450 Pa	450 Pa
Continuous Temperature Resistance	80° C	80° C	80° C	80° C	80° C
Max. Relative Humidity Resistance	100%	100%	100%	100%	100%
Frame	Metal & Plastic (25 mm thickness)				
Media	Polypropylene meltblown				
Fire Resistance Class	F1 according to DIN 53438				
Filter Stage	II - III				

Various sizes and design on request
Optional with foamed hygiene-gaskit on the dust air side
Plastic header frame is completely incinerable

PRODUCT CODE
T F • G S 8 • w / h / d • F 5

Code/Dimensions WxHD	Width mm	Height mm	Depth mm	Number of Bags	Air Flow m³/h	Pressure Drop Pa	Filtering Surface m²
TF-GS4-287x287x535-F5	287	287	535	4	850	45	1.2
TF-GS4-287x287x635-F5	287	287	635	4	850	35	1.3
TF-GS4-287x592x535-F5	287	592	535	4	1750	45	2.8
TF-GS4-287x592x635-F5	287	592	635	4	1750	35	3.4
TF-GS6-490x592x535-F5	490	592	535	6	2850	45	4.2
TF-GS6-490x592x635-F5	490	592	635	6	2850	35	5
TF-GS8-592x592x535-F5	592	592	535	8	3400	45	5.6
TF-GS8-592x592x635-F5	592	592	635	8	3400	35	7
TF-GS4-287x287x535-F6	287	287	535	4	850	75	1.2
TF-GS4-287x287x635-F6	287	287	635	4	850	65	1.3
TF-GS4-287x592x535-F6	287	592	535	4	1750	75	2.8
TF-GS4-287x592x635-F6	287	592	635	4	1750	65	3.4
TF-GS6-490x592x535-F6	490	592	535	6	2850	75	4.2
TF-GS6-490x592x635-F6	490	592	635	6	2850	65	5
TF-GS8-592x592x535-F6	592	592	535	8	3400	75	5.6
TF-GS8-592x592x635-F6	592	592	635	8	3400	65	7
TF-GS4-287x287x535-F7	287	287	535	4	850	95	1.2
TF-GS4-287x287x635-F7	287	287	635	4	850	85	1.3
TF-GS4-287x592x535-F7	287	592	535	4	1750	95	2.8
TF-GS4-287x592x635-F7	287	592	635	4	1750	85	3.4
TF-GS6-490x592x535-F7	490	592	535	6	2850	95	4.2
TF-GS6-490x592x635-F7	490	592	635	6	2850	85	5
TF-GS8-592x592x535-F7	592	592	535	8	3400	95	5.6
TF-GS8-592x592x635-F7	592	592	635	8	3400	85	7
TF-GS4-287x287x535-F8	287	287	535	4	850	105	1.2
TF-GS4-287x287x635-F8	287	287	635	4	850	95	1.3
TF-GS4-287x592x535-F8	287	592	535	4	1750	105	2.8
TF-GS4-287x592x635-F8	287	592	635	4	1750	95	3.4
TF-GS6-490x592x535-F8	490	592	535	6	2850	105	4.2
TF-GS6-490x592x635-F8	490	592	635	6	2850	95	5
TF-GS8-592x592x535-F8	592	592	535	8	3400	105	5.6
TF-GS8-592x592x635-F8	592	592	635	8	3400	95	7
TF-GS4-287x287x535-F9	287	287	535	4	850	135	1.2
TF-GS4-287x287x635-F9	287	287	635	4	850	125	1.3
TF-GS4-287x592x535-F9	287	592	535	4	1750	135	2.8
TF-GS4-287x592x635-F9	287	592	635	4	1750	125	3.4
TF-GS6-490x592x535-F9	490	592	535	6	2850	135	4.2
TF-GS6-490x592x635-F9	490	592	635	6	2850	125	5
TF-GS8-592x592x535-F9	592	592	535	8	3400	135	5.6
TF-GS8-592x592x635-F9	592	592	635	8	3400	125	7

Hepa Filters

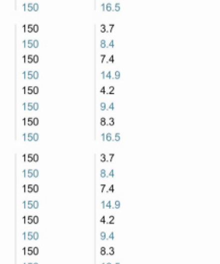
Hepafil 150

Application

HEPA Filters are used in situation requiring high or very high levels air purity. Typical Applications can be found in hospitals, microelectronics, medicine, chemistry, pharmacy, microbiology, and food industry.

Advantage

- For laminar flows
- Large filter surface
- Low pressure drop, reduced energy consumption
- Optimise velocity distribution
- Guaranteed Leak-free
- Mechanically stable
- Minimum risk of damage
- One piece, no leak gasket



Properties				
FILTER CLASS (En1822)	H10	H13	H14	U15
Global Efficiency % for MPPS	≥ 95 %	≥ 99,95 %	≥ 99,995 %	≥ 99,9995 %
Local Efficiency % for MPPS	-	99.75%	99.975%	99.9975%
Recommended Final Pressure Drop	600 Pa	600 Pa	600 Pa	600 Pa
Max. Final Pressure Drop	1000 Pa	1000 Pa	1000 Pa	1000 Pa
Continuous Temperature Resistance	80°C	80°C	80°C	80°C
Max. Relative Humidity Resistance	100%	100%	100%	100%
Frame	Aluminium and MDF			
Face Guard	Epoxy Pinted expanded aluminium girds on both sides			
Gasket	One piece foamed polyurethane			
Fire Resistance Class	K1 / F1 according to DIN 53438			
Filter Stage	III			
TESTING	Each filter individually tested according to EN 1822			

PRODUCT CODE
H F • A R L • w / h / d • H 13

For MDF Frame one and two side with protective grids Optional

Code/Dimensions WxHxD	Width mm	Height mm	Depth mm	Air Flow m³/h	Pressure Drop Pa	Filtering Surface m²
HF-ARN-305x305x149-H10	305	305	150	230	150	3.7
HF-ARN-457x457x149-H10	305	457	150	550	150	8.4
HF-ARN-305x610x149-H10	305	610	150	500	150	7.4
HF-ARN-610x610x149-H10	610	610	150	1000	150	14.9
HF-ARL-305x305x149-H10	305	305	150	300	150	4.2
HF-ARL-457x457x149-H10	457	457	150	660	150	9.4
HF-ARL-305x610x149-H10	305	610	150	600	150	8.3
HF-ARL-610x610x149-H10	610	610	150	1200	150	16.5
HF-ARN-305x305x149-H10	305	305	150	230	150	3.7
HF-ARN-457x457x149-H10	305	457	150	550	150	8.4
HF-ARN-305x610x149-H10	305	610	150	500	150	7.4
HF-ARN-610x610x149-H10	610	610	150	1000	150	14.9
HF-ARL-305x305x149-H10	305	305	150	300	150	4.2
HF-ARL-457x457x149-H10	457	457	150	660	150	9.4
HF-ARL-305x610x149-H10	305	610	150	600	150	8.3
HF-ARL-610x610x149-H10	610	610	150	1200	150	16.5
HF-ARN-305x305x149-H10	305	305	150	230	150	3.7
HF-ARN-457x457x149-H10	305	457	150	550	150	8.4
HF-ARN-305x610x149-H10	305	610	150	500	150	7.4
HF-ARN-610x610x149-H10	610	610	150	1000	150	14.9
HF-ARL-305x305x149-H10	305	305	150	300	150	4.2
HF-ARL-457x457x149-H10	457	457	150	660	150	9.4
HF-ARL-305x610x149-H10	305	610	150	600	150	8.3
HF-ARL-610x610x149-H10	610	610	150	1200	150	16.5

High Temperature Hepa Filters

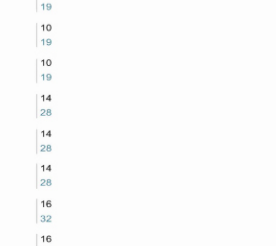
Hepa-As

Application

HEPA-AS is a high efficiency, extended surface air filter designed for use in HVAC applications of all types. Rigid construction akes the HEPA-AS a superior filter in variable-air-volume (VAV) systems, or any application where extreme conditions require additional filter strength and reliability.

Advantages

- Large filter surface with deep-pleated micro-glass filter media
- Temperature resistance up to 120°C
- Low installation depth
- High dust holding capacity
- High air flow capacity with low pressure drop
- High economic efficiency
- Reduced energy operating costs



Properties			
EN 1822 CLASS	H11	H13	H14
MPPS Efficiency	99,5 %	99,95 %	99,99 %
0,3 um DOP effieiency	99,95%	99,99%	99,999 %
Recommended Final Pressure Drop	600 Pa	600 Pa	600 Pa
Max. Final Pressure Drop	1000 Pa	1000 Pa	1000 Pa
Continuous Temperature Resistance	up to 120°C	up to 120°C	up to 120°C
Max. Relative Humidity Resistance	100%	100%	100%
Frame	MDF, Galvanized, Stainless Steel Frame		
Media	Microfine glass media formed into full pack depth pleats separated by corrugated aluminum separators		
Seperators	Corrugated Aluminum Separators		
Flange Type	T: Single D : Double I : No Flange		
Fire Resistance Class	K1 / F1 according to DIN 53438		
Filter Stage	II		

PRODUCT CODE
H F • A R L • w / h / d • H 13

Optional Handle is is available on request
Optional Protective faceguards on request
Optional protective gaskets for side-access of front-loading housings
Optional high temperature conditions on request

Code/Dimensions WxHxD	Width mm	Height mm	Depth mm	Air Flow m³/h	Intial Pressure Drop Pa	Filtering Surface m²
HA-GRM-305x610x292-H11	305	610	292	1000	200	10
HA-GRM-610x610x292-H11	610	610	292	2000	200	19
HA-GRM-305x610x292-H13	305	610	292	1000	250	10
HA-GRM-610x610x292-H13	610	610	292	2000	250	19
HA-GRM-305x610x292-H14	305	610	292	1000	280	10
HA-GRM-610x610x292-H14	610	610	292	2000	280	19
HA-GRN-305x610x292-H11	305	610	292	1400	200	14
HA-GRN-610x610x292-H11	610	610	292	2800	200	28
HA-GRN-305x610x292-H13	305	610	292	1400	250	14
HA-GRN-610x610x292-H13	610	610	292	2800	250	28
HA-GRN-305x610x292-H14	305	610	292	1400	280	14
HA-GRN-610x610x292-H14	610	610	292	2800	280	28
HA-GRH-305x610x292-H11	305	610	292	1750	200	16
HA-GRH-610x610x292-H11	610	610	292	3400	200	32
HA-GRH-305x610x292-H13	305	610	292	1750	250	16
HA-GRH-610x610x292-H13	610	610	292	3400	250	32
HA-GRH-305x610x292-H14	305	610	292	1750	280	16
HA-GRH-610x610x292-H14	610	610	292	3400	280	32

Industrial Filters

Cartridge-Puls

Application

For dedusting in the sand-blasting and power-coating areas, in the chemical, wood and metal working sector as well as for adsorption of welding smoke.

Advantage

- High filtering surface on small space
- Excellent quality
- Best ratio Price to filter area
- Longer filter life

Properties	
Max. Operating Temperature	80°C
Optional	Protective mesh outer side is optional Venture is optional
Flange Type	F: Single, I: No Flange, D: Rectangular, V: Venture

PRODUCT CODE
K S • F C T • P O • w/h/d • 10

Code/Dimensions WxHxD	H mm	OD O	ID O	Filtering surface m²
KS-FCT-PO-324x215x600-6	600	324	215	6
KS-FCT-PO-324x215x600-10	600	324	215	10
KS-FCT-PO-324x215x600-7	660	324	215	7
KS-FCT-PO-324x215x600-12	660	324	215	12
KS-FCT-PO-324x215x985-10	985	324	215	10
KS-FCT-PO-324x215x985-16	985	324	215	16
KS-FCT-PO-324x215x1205-12	1205	324	215	12
KS-FCT-PO-324x215x1205-20	1205	324	215	20

Filter Media

PO Polyster, LU Cellulose, UP Cellulose+Polyester
PA Polyester+ Antistatic, PT PTFE Membran Polyester

Acitvated Carbon Filters Carbocat

Application

CARBOCAT serves to absorb gaseous polution and odours. It may be installed for supply and exhaust air in domestic and technical applications. Due to a simple modular construction system, one can easily build large filtration units by screwing base frames together. If needed, gaseous contamination can be adsorbed through diverse filtering layers with different kinds of impegnated carbon. F7, F8 or F9 preliminary filtration is necessary to protect the activated carbon.

Advantage

Re-Fillable cartridges with new media
Very high mechanical efficiency
Carbocat with base plate and cylinders made of galvanised or stainless steel
Cylinder filled with activated carbon granule supply high performance of odour control
Exchangeable cartridges can be regenerated
Simple replacement thanks to bayonet coupling
Robust construction allows easy mounting and removel
Lower pressure drop according to its high performance
Available in gas adsorption and chemisorption varieties

Properties	
Max. Operating Temperature	50° C
Max. Relative Humudity	70%
Supporting Frame	Epoxy painted steel
Cartridges	Epoxy painted steel flanges and expanded nets Foamed rubber gasket Connection type 3-point bayonet
Protection	O: Filter for VOCs C: Filter for Chemical treatment I: Radioiodine and methyl iodine

PRODUCT CODE
C C • G C L • w / h / d • CRB

Compact Filters

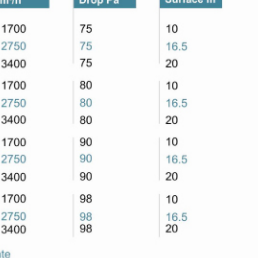
Multitur (Gas Turbine)

Application

MULTITUIR GAS TURBINE filter remove airborne particulate matter from combustion engine intake air, providing full protection from foulding, corrosion and erosion of the turbines key components. MULTITUR GAS TURBINE filters are Most suitable for gas turbines, diesel engines, compressors and air conditioning units for power plants, offering lower pressure drop and extended life.

Advantage

- Foamed one-piece pu-gasket with closed surface
- Large filter surface with compact construction
- Low Installation depth
- High dust holding capacity
- Minimisation of overall system pressure drop
- Reduced energy operating costs
- Without pollutant emission fully incinerable
- High bursting pressure, dust migration impossible
- can be installed horizontally as well as vertically



Properties				
UNI EN 779 CLASS	F6	F7	F8	F9
Average Efficiency Em %	60-80	80-90	90-95	>95
Long Service Life Initial Pressure Loss	75-Pa	80-Pa	90-Pa	98-Pa
Nominal Service Life Pressure Drop	105-Pa	115-Pa	130-Pa	140-Pa
Recommended Final Pressure Drop	450 Pa	450 Pa	450 Pa	450 Pa
Max. Final Pressure Drop	800 Pa	800 Pa	800 Pa	800 Pa
Continuous Temperature Resistance	80° C	80° C	80° C	80° C
Max. Relative Humidity Resistance	100%	100%	100%	100%
Frame	Full Plastic			
Media	High water repellence dual layer glass fiber media			
Seperators	Thermoplastic			
Sealant	Two component Polyurethane			
Gasket	Poiyurethane, foamed in one piece with closed surface			
Protective Grids	Both Sides Optional			
Fire Resistance Class	K2 / F2 according to DIN 53458			
Filter Stage	II - III			

PRODUCT CODE
M T • P R 4 • w / h / d • F 6

Gasket Options for Front-Face and Rear-Face is optional
Plastic header frame is completely incinerable

Code/Dimensions WxHxD	Width mm	Height mm	Depth mm	Air Flow m³/h	Pressure Drop Pa	Filtering Surface m²
MT-PR4-287x592x292-F6	287	592	292	1700	75	10
MT-PR4-490x592x292-F6	490	592	292	2750	75	16.5
MT-PR4-592x592x292-F6	592	592	292	3400	75	20
MT-PR4-287x592x292-F7	287	592	292	1700	80	10
MT-PR4-490x592x292-F7	490	592	292	2750	80	16.5
MT-PR4-592x592x292-F7	592	592	292	3400	80	20
MT-PR4-287x592x292-F8	287	592	292	1700	90	10
MT-PR4-490x592x292-F8	490	592	292	2750	90	16.5
MT-PR4-592x592x292-F8	592	592	292	3400	90	20
MT-PR4-287x592x292-F9	287	592	292	1700	98	10
MT-PR4-490x592x292-F9	490	592	292	2750	98	16.5
MT-PR4-592x592x292-F9	592	592	292	3400	98	20

MT-PR4-592x592x292-F7-3400 m³/h @80 Pa is Long Service Life Air Flow Rate
MT-PR4-592x592x292-F7-4250 m³/h @115 Pa is Nominal Service Life Air Flow Rate

Industrial Filters

Industries Filters

Celling Filter

Application

They are used as celling filters in paint and spry booths.

Paint Stop Filter

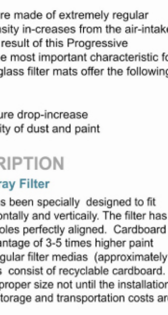
Application

PAINT COLLECTOR as an exhaust - air filter for paint spraying cabins and paint shops. It is used for wet particulate arrestance in varnishing and paint spray application.

Cardboard Paint Spray Filter

Application

They are used in paint finishing systems and colour spraying plants to hold paint particles with its high particle holding capacity that regular filter medias.



Properties		
Code	LF 300	NF 600
Class En 779	F5	F5
Average Arrestance %	97.50%	95.43%
Weight gr/m²	300	600
Thickness mm	22	22
Thermal Stability	up to 100C	up to 100C
Dust Holding Capacity g/m²	234	236
Roll Dimension m	2x20	2x20
Initial Pressure Drop@0, 25m/sec	31	26
Final Pressure Drop	250 Pa	
Flammability DIN 53438	K1 / F1	

FILTER DESCRIPTION

Celing Filter

The special fine filter media are made of 100% polyester fibres progressively compressed, fortified with a plastic binder (or thermally) into a solid and stable filter lap. The material is saturated with a dust-binding agent. On the side of clean air. the medium is fixed with a special plastic protecting grid for preventing the release of the medium fibres.

Properties		
Code	FA 500	FA 1000
Weight Aprox gr/m²	200	300
Thickness mm	60	110
Initial Pressure Difference PA	10	10
Degree of Dedusting %	90-95*	90-98*
Final Pressure Difference Pa	250	250
Reaction to Fire	F1 DIN 53438 inflammable self-extinguishing	
Regenerability	not washeable	
Temprerature Resistance	up to 100 C	

FILTER DESCRIPTION

Paint Stop Filter

GLASS-FILTER mats are made of extremely regular glass fibres, whose density in-creases from the air-intake to the clean-air side. As a result of this Progressive construction which is the most important characteristic for a high-performance fiberglass filter mats offer the following advantages:

- Long service life
- Regularity of pressure drop-increase
- High holding capacity of dust and paint

Properties	
Thickness	65 mm
Average Separation Rate	80-98%
Temperature Resistance max	180C
Initial Pressure Drop	0,25 m/sec 8Pa - 0,50 m/sec 20 Pa 0,75 m/sec 30 Pa- 1,00 m/sec 40 Pa
Recommended Max. Pressure Drop	128 Pa

Code	Weight (cm)	Area (m²)	Pleats
Point Paper 75	75	10	270
Point Paper 90	90	10	290
Point Paper 100	100	10	350

FILTER DESCRIPTION

Cardboard Paint Spray Filter

Cardboard filter pads has been specially designed to fit spray booths both horizontally and verticaily. The filter has a V-shaped design, with holes perfectly aligned. Cardboard filter pads have the advantage of 3-5 times higher paint storage capacity than regular filter medias (approximately 18 Kg/m²).The folded filters consist of recyclable cardboard. They are drawn to their proper size not until the installation takes place. Therefore storage and transportation costs are very low.

Optimized using conditions: :0.25-1M/S
Recommended air velocity :0.25m/s 8 Pa
Pressure drop at 0.5m/s 20 Pa
0.75m/s 30 Pa
1,00m/s40 Pa

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