

ORIGINAL FILTERS

www.andreaefilters.com



Produced by Aerem www.aerem.com

Summary







E. C. ANDREAE

GAS FILTER

Filed June 17, 1960

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Tig.2.

ERA BY

3,075,337

Mr. Erhard Charles Andreae, 55 years old, an independent mechanical engineer in the field of surface treatment for 25 years, patents a particle filter for paint booths, collapsible, disposable, made of cardboard and operating on the principle of inertia separation.

Andreae Filters is founded. The manufacture is done by hand in a garage with a worker at a rate of 6 m2 per day. E-C. Andreae sells door to door in Switzerland.

andreae

FILTERS

1967

Andreae filter.

BINKS.

The Binks Manufacturing Company (Binks), a

US and World No. 1 paint booth manufacturer, buys Bullows Ltd. UK and is interested in the

Exclusivity is granted to Binks for all of its

subsidiaries around the world, which will

give Andreae filters a lot of notoriety as Binks starts producing a line of spray booths under

the "Binks-Andreae" brand.

Mr. Robert Andreae purchases Andreae Filters. The production tool of Andreae Filters is modernized and the internal organization improved.

1984 1986 Extension of the Andrea Standard and HE+ filter rang with the introduction of a hig capacity filter (HC) and a hig productivity filter (HP).

Installation of an Andrea production line in Ardmore.

1997

Andreae Filters patents a high

efficiency filter (HE+).

Acquisition of the customers and production lines of 2 copiers, in Denmark and Sweden who are granted with exclusivity for Denmark and Sweden respectively. C2 The filte the

Andrea	
Andrea	e Filters
Invento	ors since
	1963
ae	1905
ge gh gh	
ae Andreae Filters becomes an AEREM brand.	
2019	
AEREM	
TO FILTER & PROTECT	
013	2020
e invention of the «Andreae» er and the company celebrate ir 50th birthday.	A new production line Andreae Filters is opened in the new manufacturing site located in Vietnam.



Separation by Inertia How does it work?

Filtration is not restricted to capturing particles with a succession of wider to smaller meshed apertures. Our ingenious filters use another principle: separation by inertia.

The migration phenomenon is common when slowdrying coatings are used in combination with mesh or fiberglass filters. This happens when the airflow pulls out particles previously trapped in the mesh or fiberglass. Consequently, the once deposited particles will again migrate throughout the system. However, with the Andreae Filter Separation by Inertia principle, the paint particles stay trapped in the retention pocket outside of the airstream.

Airflow loaded with paint particles (overspray) will suffer several radical changes in direction. These paint particles, heavier than air, follow tangent trajectories within the airflow. Thus paint particles will accumulate in the retention pockets, outside of the air stream, allowing the airflow to exit the filter virtually free of any overspray. As a result, our renowned high holding capacity filters hold up to 5 times more than common mesh filters.

Consequently, the static pressure within the booth increases slowly. This has two main advantages; the spray booth stays cleaner longer and the airflow around the coated parts stays uniform throughout the life of the filters.

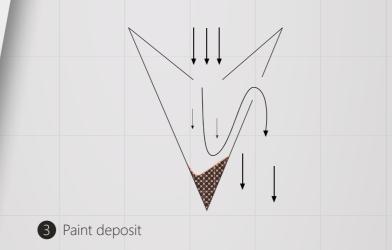
1 Airflow

Airflow enters the retention pockets and travels all the way through the twists and turns of the unique design of our accordion filter.



2 Overspray

The paint particles which are heavier than air, follow tangent trajectories within the airflow and gradually accumulate in the retention pockets outside of the airflow. This eliminates the migration phenomenon inherent to fiberglass and mesh type filters.



The paint deposits accumulate in voluminous retention pockets, as well as on the side and front of the filter.



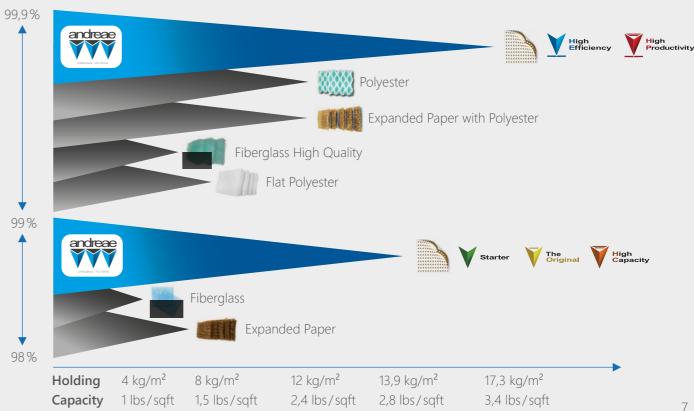


Why choose Andreae Filters?



		Polyester	Flat Polyester	Fiberglass	Fiberglass High Quality	Expanded Paper	Expanded Paper with Polyester
Cost/Rendement	Best	Moderate	Moderate	Low	Low	Low	High
Holding Capacity	Best	High	Low	Low	Low	Moderate	High
Easy Storage	\checkmark	×	×	×	×	×	×
Environmental friendly	\checkmark	\checkmark	\checkmark	×	×	\checkmark	\checkmark
Healthy	\checkmark	\checkmark	\checkmark	×	×	\checkmark	\checkmark

Filtration Efficiency %







Which filter is the best for your application ?

Starter																		
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or The Original																		
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High Capacity																		
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High Holding																		
	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥ ¥ ¥ ¥	¥¥ ¥¥	**	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥		¥ ¥¥	**	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥
High																		
Productivity	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	YY	¥¥ ¥¥	¥¥ ¥¥	* *	¥¥ ¥¥	¥¥ ¥¥	¥ ¥¥		YY	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥	¥¥ ¥¥





The Andreae Starter is a low intensity filter intended for least demanding spray booth operations. Developed with the same expectation level as the Original Andreae filters, the Starter is made with 2 layers of "kraft" paper, punched, pleated and glued together. This product is ideal for a casual use of the spray booth and a great way to start with the Andreae filters range.

Performances

Load	Efficiency	
* * * * *	* * * * *	Lacquers
* * * * *	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components



Load [kg/m²] [lbs/sqft]

Lacquers 10kg/m² 2lbs/sqft	High Solids 12kg/m² 2,4lbs/sqft	Polyester 13kg/m² 2,5lbs/sqft					
	Efficiency [%]						
Lacquers 93.10 %	High Solids 98.20%	Polyester 97.80%					
R	Recommended Air Velocity:						
	0.5 to 1 m/s						
	Pressure drop at	:/by:					
0.5 m/s 20 pa	0.75 m/s 30 pa	s 1.0 m/s 40 pa					
м	ax. recommended	pressure drop :					
	128 pa (possible up	o to 256)					

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Since over 50 years now, the Andreae Original has been the reference filter on the market. It remains the most universal and common filter in use. Our Original is made with 2 layers of heavy "kraft" paper, punched, pleated and glued together with 2 built-in extension limiters. Thanks to these limiters, the maximum load capacity is guaranteed. The Original is the filter for all paint types.

Performances

Load	Efficiency	
Y Y Y Y Y	* * * * *	Lacquers
Y Y Y Y Y	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components

	.oad [kg/m²] [lbs/sq	ft]
Lacquers 10kg/m² 2lbs/sqft	High Solids 12kg/m² 2,4lbs/sqft	Polyester 13kg/m² 2,5lbs/sqft
	Efficiency [%]	
Lacquers 93.10 %	High Solids 98.20%	Polyester 97.80%
	Recommended Air	Velocity:
	0.5 to 1 m/s	
	Pressure drop a	t/by:
0.5 m 20 p		
	Max. recommended	pressure drop:
	128 pa (possible u	p to 256)
		11





The Andreae HC Filter has a loading capacity up to 5 times higher than any other filter type on the market. Its unique structure allows for more paint deposit areas and a more even and in depth paint loading. The HC is made with 2 layers of heavy "kraft" paper, punched, pleated and glued together with additional large paper strips on the front to offer a higher load capacity.

Performances

Load	Efficiency	
* * * * *	Y Y Y Y Y	Lacquers
* * * * *	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components



Load [kg/m²] [lbs/sqft]

Lacquers 13,7kg/m² 2,7lbs/sqft	High Solids 14,7kg/m² 2,9lbs/sqft	Polyester 13,9kg/m² 2,8lbs/sqft					
	Efficiency [%]						
Lacquers 93.90 %	High Solids 98.30%	Polyester 98.20%					
Re	Recommended Air Velocity:						
	0.5 to 1 m/s						
	Pressure drop at/	by:					
0.5 m/s 21 pa	0.75 m/s 32 pa	1.0 m/s 42 pa					
Max. recommended pressure drop:							
	128 pa (possible up	to 256)					



High Efficiency

The Andreae HE Filter will bring a filtration efficiency near 100% while keeping the high loading capacity of the Andreae Original filter. The HE is made with 2 layers of heavy "kraft" paper, punched, pleated and glued together completed with a polyester layer on its back increasing its filtration efficiency.

Performances

Load	Efficiency	
* * * * *	* * * * *	Lacquers
* * * * *	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components

Loa	ad [kg/m²] [lbs/sq1	ft]					
Lacquers 9kg/m² 1,85lbs/sqft	High Solids 12,2kg/m² 2,4lbs/sqft	Polyester 14,7kg/m² 2,9lbs/sqft					
	Efficiency [%]						
Lacquers 97.90%	High Solids 99%	Polyester 99.40 %					
	Recommended Air Velocity:						
	0.5 to 1 m/s						
	Pressure drop at	:/by:					
0.5 m/s 21 pa	0.75 m/ 32 pa	s 1.0 m/s 42 pa					
N	lax. recommended	pressure drop:					
	128 pa (possible up	o to 256)					
		13					

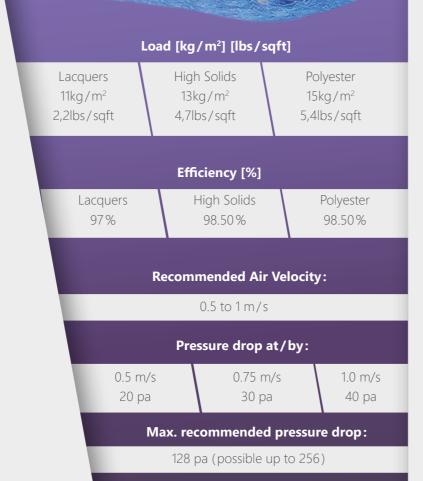




The Andreae HH filter has a higher filtration efficiency while keeping low airflow resistance. This means the filter lasts longer, ensuring a reduction in maintenance costs. The HH is made out of 2 layers of heavy "kraft" paper punched, pleated and glued together, completed with a fiberglass layer increasing both the filter's holding capacity and filtration efficiency.

Performances

Load	Efficiency	
* * * * *	* * * * *	Lacquers
* * * * *	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components



Productivity

High





J

Top Capacity P

The Andreae HP filter combines the performances of the High Capacity and the High Efficiency filters. The HP is made with 2 layers of heavy "kraft" paper punched, pleated and glued together, completed with a polyester layer and additional large paper strips. It is the bestin-class choice for demanding spray booth operations.

Performances

Load	Efficiency	
* * * * *	* * * * *	Lacquers
* * * * *	* * * * *	High solids
* * * * *	* * * * *	Polyester Bi-Components





Loa	d [kg/m²] [lbs/sqft]
Lacquers 13,7kg/m² 2,7lbs/sqft	High Solids 16,2kg/m² 3,2lbs/sqft	Polyester 17,3kg/m² 3,4lbs/sqft
	Efficiency [%]	
Lacquers 98.50 %	High Solids 98.80 %	Polyester 99.70 %
R	ecommended Air Ve	locity:
	0.5 to 1 m/s	
	Pressure drop at/	by:
0.5 m/s 21 pa	0.75 m/s 32 pa	1.0 m/s 42 pa
Ma	ax. recommended p	ressure drop:
	128 pa (possible up	to 256)
		15

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		~	He	ight		ngth	Su	rface)
		Wodel	SU.	.ndr	5	Keet	m2	, dt	pleats
Which filter is		AF101	100	40	10	32′ 10″	10	108	260
available in your		AF701	75	30	13,5	44′ 3″	10	108	350
-	Brown	AF801	90	36	9,14	30	8,35	90	240
region?	DIOWII	AF901	90	36	11,20	36′ 9″	10	108	290
3		Pads: AF201	50	20	50cm	20″	0,25	2.7	13
		Pads: AF401	50	20	63cm	25″	0,31	3.3	16
		AF103	100	40	10	32′ 10″	10	108	260
Starter	\A/la:ta	AF703	75	30	13,5	44′ 3″	10	108	350
	White	AF803	90	36	9,14	30	8,35	90	240
		AF903	90	36	11,20	36′ 9″	10	108	290
		AF102	100	40	10	32′ 10″	10	108	260
	Flame	AF702	75	30	13,5	44′ 3″	10	108	350
	retardant	AF802	90	36	9,14	30	8,35	90	240
		AF902	90	36	11,20	36′ 9″	10	108	290
		A F111	10.0	10	10	22/ 10/	10	100	260
		AF111	100	40	10	32' 10"	10	108	260
	Brown	AF711	75	30	13,5	44' 3"	10	108	350
		AF811	90	36	9,14	30	8,35	90	240
		AF911	90	36	11,20	36' 9"	10	108	290
		AF113	100	40	10	32' 10"	10	108	260
		AF713	75	30	13,5	44′ 3″	10	108	350
The Original	White	AF813	90	36	9,14	30	8,35	90	240
•		AF913	90	36	11,20	36′ 9″	10	108	290
		Pads: AF213	50	20	50cm	20″	0,25	2.7	13
		Pads: AF413	50	20	63cm	25"	0,31	3.3	16
		AF112	100	40	10	32' 10"	10	108	260
	Flame retardant	AF712	75	30	13,5	44' 3"	10	108	350
	returdunt	AF812	90	36	9,14	30	8,35	90	240
		AF912	90	36	11,20	36′9″	10	108	290
		AF121	100	40	8	26′ 3″	8	86	210
	Brown	AF721	75	30	10,75	35′ 3″	8	86	280
		AF921	90	36	9,14	30	8,35	90	240
		AF123	100	40	8	26' 3"	8	86	210
	,	AF723	75	30	10,75	35′ 3″	8	86	280
	White	AF923	90	36	9,14	30	8,35	90	240
		Pads: AF223	50	20	50cm	20″	0,25	2.7	13
		Pads: AF423	50	20	63cm	25″	0,31	3.3	16
			_						
		AF133	100	40	8	26′ 3″	8	86	210
High Capacity	White	AF733	75	30	10,75	35′ 3″	8	86	280
·		AF933	90	36	9,14	30	8,35	90	240
		15410	100	10		261.25		0.0	240
High		AF143	100	40	8	26' 3"	8	86	210
High Productivit	y White	AF743	75	30	10,75	35' 3"	8	86	280
		AF943	90	36	9,14	30	8,35	90	240
		AF153	100	40	8	26′ 3″	8	86	210
High Holding	White	AF753	75	30	10,75	35' 3"	8	86	280
	VVIIILE	AF953	90	36	9,14	30	8,35	90	240
		AF333	- 50	50	5,14	50	0,00	50	240

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	Model	est t	JUN Y	EULO NAT	AL JH	Pri acli	(lo
	₩ AF101	<i>₹</i> ,0,	-Mo	~20 V	<u>د</u> و د	► ~	
	AF101 AF701	× ×	• •	v	•	•	
	AF801	¥	• •	¥	¥	¥	
Brown	AF901	, V	• •	,	•	v V	
	Pads: AF201			¥	¥	¥	
	Pads: AF401			¥.	· •	· V	
	AF103	٧	V	¥	V	٧	
	AF703	٧	V			_	
White	AF803	٧	V	¥	¥	٧	
	AF903	٧	V			٧	
	AF102		V				
Flame	AF702		V				
retardant	AF802		V				
	AF902		V				
	Filter/Box per palle	t 60	60	60/52	60/52	60/52	
	AF111	¥	V				
Brown	AF711	¥	V				
brown	AF811	¥	V				
	AF911	۷	V				
	AF113	۷	V	۷	V	٧	
	AF713	۷	¥	_			
White	AF813	¥	¥	۷	¥	٧	
	AF913	۷	V			¥	
	Pads: AF213	-		¥	V	V	
	Pads: AF413	-		¥	¥	¥	
	AF112	-	V				
Flame retardant	AF712	-	¥				
retardant	AF812	-	¥				
	AF912 Filter/Box per pallet	t 60	60	60/52	60/52	60/52	
	AF121	¥	V	00/ 52	00/ 52	00/ 52	
Brown		¥	• •			_	
DIOWII	AF921	¥ V	• •				
	AF123	• •	• •	¥	¥	¥	
	AF723	¥	V V	•	v	•	
White	AF923	· V	· •	¥	¥	¥	
	Pads: AF223			× ·	· ·	V	
	Pads: AF423			¥.	V	V	
	Filter/Box per palle	t 60	60	56/52	56/52	52	
	AF133	¥	¥	¥	¥	¥	
White	AF733	٧	¥			_	
	AF933	¥	¥	٧	¥	¥	
	Filter/Box per palle	t 60	60	56	56	56	
	AF143	¥	V	۷	V	٧	
White	AF743	¥	¥				
	AF943	¥	×	٧	V	¥	
	Filter/Box per palle		60	56	56	56	
	AF153	¥	¥				
White	AF753	¥	¥				
	AF953	V	V				
	Filter/Box per palle	t 52	52				

Channel frame installation

1 Cut filter length to fit frame opening:

Count marks to length the frame opening and cut. (i.e. 10 ft wide frame opening, count 10 marks and cut on the 10th mark; i.e. 3m wide frame opening, count 9 marks and 6 pleats, then cut).

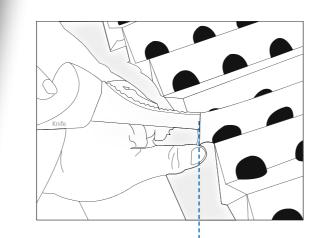
To cut, slide knife under pleat (and polyester if cutting the HE). After knife is in position, firmly grasp the filter and lift knife.

Gather filter: (2)

Gather filter into a tight accordion for easy transport. Slide filter into frame, white side facing toward spray gun. Release.

Tuck first and last pleats: (3)

Behind clips on each end of exhaust frame.



andrea

You will cut through two paper layers (plus synthetic material in the High range). Pinch the pleats on either side beneath the knife for additional control while cutting.



Three simple elements constitute the Andreae Filter frame:

(1) An L-shaped channel is positioned at the side and bottom of the frame to create the filter stand support.

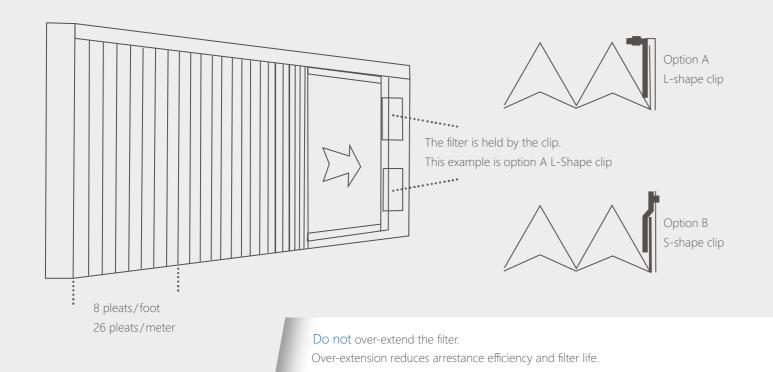
Dimensions:

Outside height 1 1/2 (3,81 cm) width 3" (7,62 cm), Length as required. Inside 2 13/16" (7,14 cm)

- (2) The side clips secure the first and last filter pleat in place and seal the exhaust wall
- (3) A U-shaped channel is positioned upside down to create the upper part of the frame. This seals the top of the filter and prevents the filter from falling forward when the ventilation is turned off.

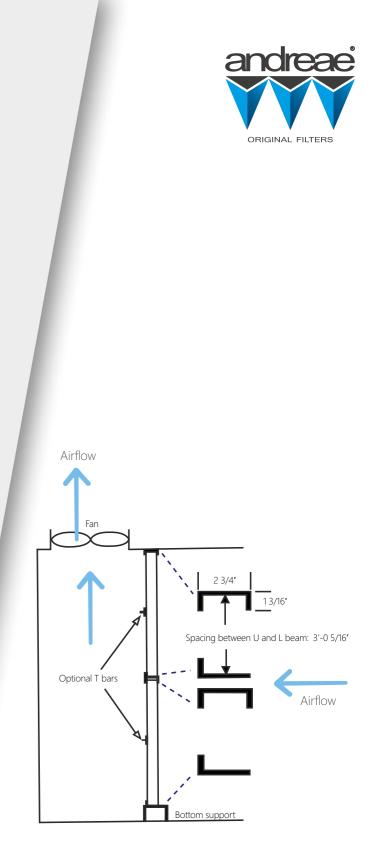
Dimensions:

Outside height 1 1/2 (3,81 cm) width 3" (7,62 cm), Length as required. Inside width 2 5/8" (6,66 cm)



the adjoining beam.

The inner dimensions between the U and L beams must be sized ~0.2"" more than the actual filter height to allow room for the filter to slide into the frame.

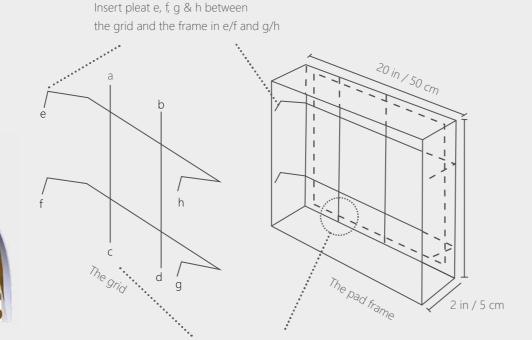


Andreae Filters are held in place by an inverted U-beam on top and an L-beam on bottom. If the booth has several rows of filters, each row is installed on top of

The Pad frame installation

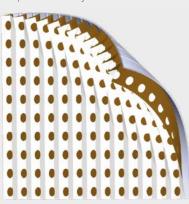
Andreae Wire Supports is necessary for the installation of Andreae pad size filters: 20×20 inch and 20×25 inch (50×50 cm and 50×63.5 cm).

An initial adjustment of the wire supports is required for proper fit. Over bend wires to allow 1/8 in (0.32 cm) gap between wire support arm and frame wall.



andrea

The pad is already cut



Example of 20 x 20 inch (50 x 50 cm) pad (14 pleats)

Tines a,b,c & d go behind the back of the frame to secure wire support while removing loaded filter

One time installation

If you are changing from other media, we will provide Andreae Filter Supports free of charge.

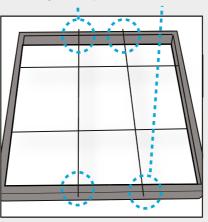
The Pad filter support installation

Front view cell frame Straight tines behind the filter frame

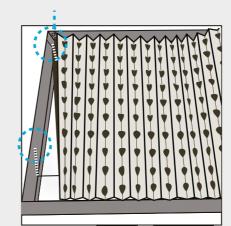
Wire support grid into filter frame

Back view cell frame

Four straight tines positioned behind the filter frame



Front view cell frame Filter is held between the bent tines and the filter frame.



(4) Secure Andreae Filter within frame: tuck first rear pleat of the filter between bent tines and filter frame.

The tines will puncture the polyester backing of the filter when installing the Andreae High Efficiency Filter, but this does not affect the filter's performance.



 Insert two straight tines behind the filter frame. (Frame shown depicts a cell opening in an existing spray booth exhaust bank.).

The straight tines must run vertically in order to be able to extend properly the Andreae Filter from side to side.

You may insert either the top or bottom pair, it does not matter which end is inserted first.

2 Push the wire support grid into filter frame, sliding grid up or down so that the remaining two straight tines can also be positioned behind the filter frame.

3 Once all four straight tines are behind the frame, slide the support to center it within the frame. It is not necessary to position the support perfectly.

Rear view of filter frame showing all four straight tines positioned behind the filter frame. These may overhang the frame more on one end or the other, depending on how well the support is centered within the frame.

It is not necessary to perfectly center the wire support.

AEREM® **TO FILTER & PROTECT**

OUR MISSION

Aerem focuses on its customers and partners needs in the finishing industry. Every relationship is a privileged partnership based on professionalism, dialog and trust. Delivering the best service with performant, environmentally friendly quality products easy to dispose of is our commitment since 1963.

Our mission is to develop, manufacture and supply high performant filtration and protection products for spray booths that aim to keep a clean and safe working environment while enhancing the spray booths productivity.

OUR VISION

Aerems ambition is to affirm its position by becoming an international multi-brand company focused on the global finishing industry with a wide variety of renowned and innovative filtration and protection products.

Consult the «Toolbox» section of our website for all your technical questions: www.andreaefilters.com or contact our technical advisor at reb@aerem.com

For quotes or orders, contact one of our sales representatives located in your region.

OUR VALUES

Aerem is above all a work of men and women united around the world for the success of the Group. They all share the same values in a solidarity and caring climate.

Protecting the environment is the responsibility of everyone. Aerem uses recycled raw materials in all of its products. Our sharply tuned and performant production processes results in low waste and low energy consumption.

PROTECTION

We seriously consider the need to protect the operator and provide a secure working environment through our products and services. This is why our filters are free of polluting or toxic products. They can be stored, handled and incinerated or landfilled safely.

CUSTOMER CARE

Because all our customers are important, our priority is to support them in their projects, build and maintain a long-term partnership to be able to bring the answers adapted to each need. Over 900 distributors around the world trust us.



Aerem is a selfie of multiculturalism and diversity. Our teams are made of men and women of different languages, cultures and origins. It is in this spirit of openness and diversity that we seek to build a partnership with you.



We treat others with respect and comply with all internal and external norms and regulations. We strive to always act with transparency and honesty.





AEREM LOCATIONS WORLDWIDE



AMERICAS



5000 Rue Hickmore Saint-Laurent, QC H4T 1K6 Tel: +1 514-375-7100 Customers.ame@aerem.com



USA 422 2nd Ave NW Ardmore, OK 73401 Tel: +1 866 263 7323 Customers.ame@aerem.com

EUROPE

SWITZERLAND Rue du Jeu de L'Arc 15 CH - 1207 Genève Tel: +41 21 869 93 63 Customers.eur@aerem.com

POLAND ul. Lubczyńska 6 F PL - 70-895 Szczecin Tel: +48 91 884 90 00 Customers.eur@aerem.com

ASIA-PACIFIC



VIETNAM

Workshop No. 54, road No. 1-7 Long Thanh Industrial Zone Long Thanh district, Dong Nai province Tel: +84-251-352-6688 Customers.api@aerem.com



HONG-KONG

20th Floor, Euro Trade Center 21-23 Des Voeux Road Central Tel: +852 2824 8156 Customers.api@aerem.com



WWW.aerem.com

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