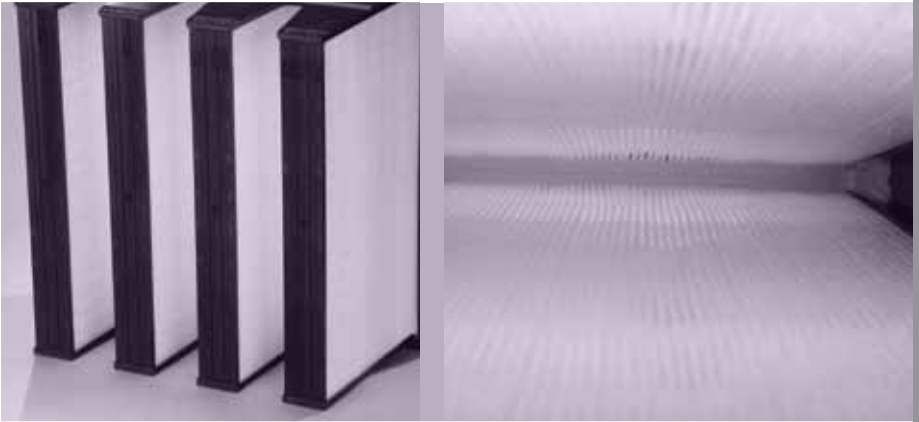


# FlowAir CATALOG

[www.flowairfilters.com](http://www.flowairfilters.com)



The FPR is a Vcells Filter type. Especially designed to remove fine dust, smoke and bacteria.

The FPR is suitable for air conditioning installations. It can be used as a final or a pre filter in clean rooms.

Its replacement is easy when it is clogged.

The FPR has a molded plastic frame. This frame is a fire retardant frame.

The filters are manufactured, tested and packed in a controlled environment. A sticker with the test results and the serial number of the filter is attached to the filter.

## Vcells Filter: FPR

### "FPR" Filter – Performances

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- The FPR can be used in positive or negative pressure.
- The mini-pleat technology extended the filter surface.
- Normal airflow: Up to 850 CFM.
- Media: fiber glass
- Strong plastic structure/ fully incenerable
- Light weight and easy installation.
- Energy saving (low pressure drop)

### Efficiency

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The FPR is available in different efficiency rates: 65%, 85%, 95% and 98% on dust spot efficiency: Merv 11, 13, 14, 15 on the ASHRAE standard 52.2 and 96% according to DOP efficiency.

### Structure

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- Fiber glass moisture resistant
- Frame Header thickness 7/8
- Plastic Frame
- Temp. of utilization 176°F maximum
- Filter depth 1 1/2 inch

**Final pressure recommended 2" w.g.**

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**Hotmelt separators**

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**Fiber Glass Media**

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**Fire retardant or UL 900 listed model**

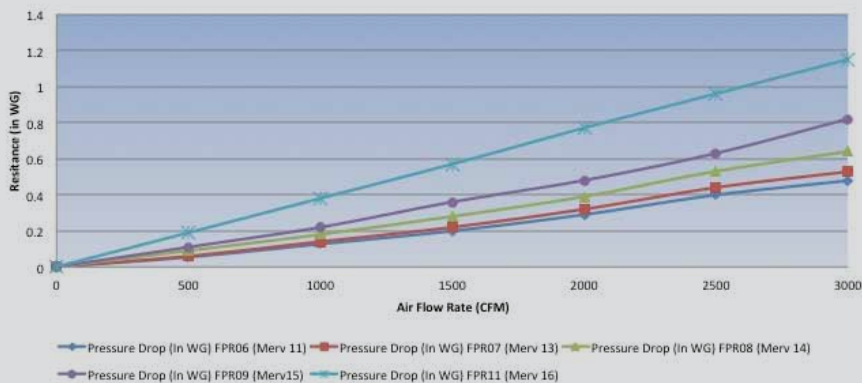
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**Technical data**

Filter	FPR 06	FPR 07	FPR 08	FPR 09	FPR 11
Dust spot efficiency	65%	85%	95%	98%	
Dop efficiency	-	-	-	-	96%
Filter Class according to ASHRAE 52.2	MERV 11	MERV 13	MERV 14	MERV 15	MERV 16
Max ambient temp	176°F	176°F	176°F	176°F	176°F
Max relative humidity	100%	100%	100%	100%	100%

**Data Table**

Model	Size code	Efficiency		Filter Size		CFM	Pressure Drop	Weight (Lbs)	Filtration surface (sft)
				Height	Width				
FPR 06	66	65%	MERV 11	24"	24"	2000	.29	12	202
	46	65%	MERV 11	24"	20"	1600	.29	10	156
	36	65%	MERV 11	24"	12"	1000	.29	7	97
FPR 07	66	85%	MERV 13	24"	24"	2000	.32	12	202
	46	85%	MERV 13	24"	20"	1600	.32	10	156
	36	85%	MERV 13	24"	12"	1000	.32	7	97
FPR 08	66	95%	MERV 14	24"	24"	2000	.39	12	202
	46	95%	MERV 14	24"	20"	1600	.39	10	156
	36	95%	MERV 14	24"	12"	1000	.39	7	97
FPR 09	66	98%	MERV 15	24"	24"	2000	.51	12	202
	46	98%	MERV 15	24"	20"	1600	.51	10	156
	36	98%	MERV 15	24"	12"	1000	.51	7	97
FPR 11	66	95% DOP	MERV 16	24"	24"	2000	.77	12	202
	46	95% DOP	MERV 16	24"	20"	1600	.77	10	156
	36	95% DOP	MERV 16	24"	12"	1000	.77	7	97



\* ASHRAE Std 52.2-2007 tested. Independent tests reports

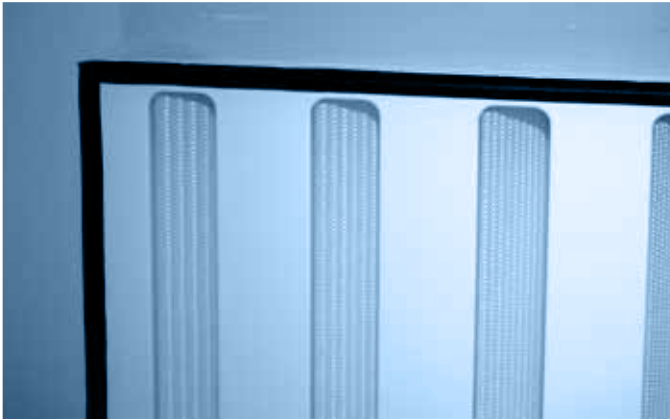
**FPR reference for order**

Efficiency code	ASHRAE 52.2
6	MERV 11
7	MERV 13
8	MERV 14
9	MERV 15
11	MERV 16

Size code	Dimension		
Size code	Height	Width	Depth
3 6	11 3/8	23 3/8	11 1/2
4 6	19 3/8	23 3/8	11 1/2
6 6	23 3/8	23 3/8	11 1/2

Model Code	
UL	UL 900 listed
-	Fire retardant

Filter Code	Efficiency Code	Size Code	Model Code
FPR			



The DH Filter is a high capacity filter. It has an extended media surface due to the minipleat technology with hotmelt separators and its 5 Vs design.

The DH can be used in contaminated environments and removes smoke, fine dust, bacteria, virus and particles.

Available in Ashrea sizes in galvanized frame, Flow Air proposes a unique High Capacity in resistant molded plastic frame which is fully incinerable.

The minipleat fiber glass media has an efficiency from E10 (Dop 95% @ 0,3µm) to H14 (DOP 99,999% @ 0,3 µm).

The filters are manufactured ,individually tested and packed in a controlled environment. A sticker with the test results and the serial number of the filter is attached to the filter.

## DH Filter

### "DH" Filter – Performances

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- High holding, dust capacity.
- Micro Fiber Glass media.
- Extreme flow rate, up to 3000 CFM
- Up to 431 sft of media surface – long service life

### Structure

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- Plastic/Galvanized steel
- Hot melt separators.
- Fiber Glass media
- Filter depth 11½ inch

**Final pressure recommended 2½" (w.g)**

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**Very high capacity**

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**Temp of utilisation: 176°F maximum**

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**UL 900 listed model**

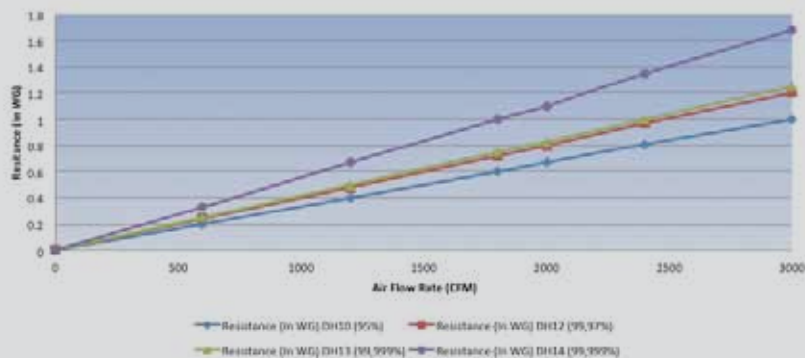
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### Technical data

Filter	DH 10	DH 12	DH 13	DH 14
Efficiency in EN 1822	E 10	E 12	H13	H 14
MPPS efficiency	85%	99.50%	99.95%	99.995%
Dop efficiency @ 0,3 µm	95%	99.97%	99.99%	99.999%
Max ambient temp	176°F	176°F	176°F	176°F
Max relative humidity	100%	100%	100%	100%

### Data Table

Model	Size code	Efficiency (DOP @ 0,3 µm)	Filter Size		CFM	Pressure Drop	Weight (Lbs)		Filtration surface (sft)
			Width	Height			Plastic Frame	Galvanized Frame	
DH10	66	95%	24"	24"	2400	.81	26	46	431
	36	95%	24"	12"	1200	.81	14	26	172
	55	95%	23 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	2400	.90		46	160
	25	95%	23 <sup>3</sup> / <sub>8</sub> "	11 <sup>3</sup> / <sub>8</sub> "	1200	.90		26	409
DH12	66	99.97%	24"	24"	2400	.97	26	46	431
	36	99.97%	24"	12"	1200	.97	14	26	172
	55	99.97%	23 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	2400	1		46	160
	25	99.97%	23 <sup>3</sup> / <sub>8</sub> "	11 <sup>3</sup> / <sub>8</sub> "	1200	1		26	409
DH13	66	99.99%	24"	24"	2400	1	26	46	431
	36	99.99%	24"	12"	1200	1	14	26	172
	55	99.99%	23 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	2400	1.16		46	160
	25	99.99%	23 <sup>3</sup> / <sub>8</sub> "	11 <sup>3</sup> / <sub>8</sub> "	1200	1.16		26	409
DH14	66	99.999%	24"	24"	2400	1.35	26	46	431
	36	99.999%	24"	12"	1200	1.35	14	26	172
	55	99.999%	23 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	2400	1.45		46	160
	25	99.999%	23 <sup>3</sup> / <sub>8</sub> "	11 <sup>3</sup> / <sub>8</sub> "	1200	1.45		26	409



### DH reference for order

Efficiency code	dop efficiency
10	96%
12	99.97%
13	99.99%
14	99.999%

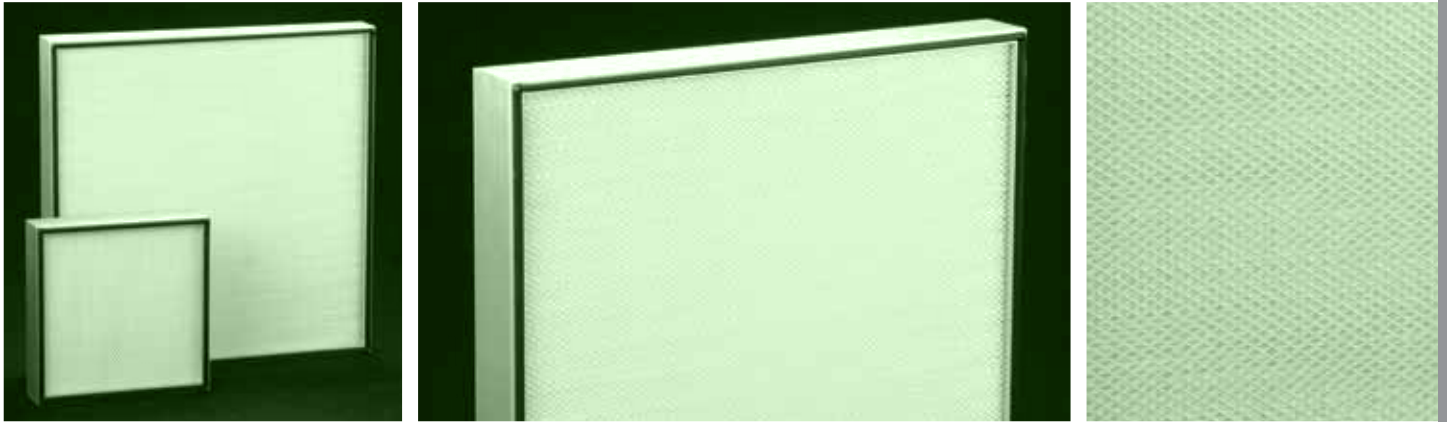
Size code	Dimension		
	Height	Width	
36	12"	24"	12
66	24"	24"	12
25	11 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	12
55	23 <sup>3</sup> / <sub>8</sub> "	23 <sup>3</sup> / <sub>8</sub> "	12

Frame Code	
P	Plastic
G	Galvanized
X	Inox

Gasket Code	
0	Without
1	One side
2	Two sides

filter code	efficiency code	size code	frame code	gasket code	model code
DH					

Model Code	
UL	UL 900 listed
-	Fire retardant



The « M » Filter from Flow Air Filters is an HEPA and ULPA filter type with minipleats and hotmelt separators. This special technology optimizes the media density. The M filter is an integral element of the clean rooms, laminar flow hoods or fan filter units.

Available in H14 (99,999% DOP efficiency) to U17 (99,999999% DOP efficiency). Flow Air proposes the M filter in a large range of sizes and media pack depth.

The filters are all manufactured. Then they are individually tested and packed in a controlled environment. A sticker with the test results and the serial number is attached on each filter.

## M Filter

### Structure and Data

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- A solid and light anodized aluminum frame.
- Hotmelt separators
- Polyurethane sealant: the elasticity of the seal improve its air tightness during the filter life.
- The filter is tested by a "Leak Detection System" scan
- Each filter is controlled and serialized according to strict procedures.
- All the filter data appears on its frame: Efficiency, Flow Rate, Pressure drop and nominal dimensions.
- Certificate of Testing is added to each filter.
- The filters are conditioned in rigid cardboard for a perfect protection.
- Media of Ultra Fine Fiber Glass

### Options

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1. Laminator Net: The purpose of the net is to neutralize turbulences and increase the airflow laminarity.
2. Recyclable HEPA filters - In order to conform with ecological norms, "M" filters can have Plywood frame with no metallic parts. The filter may be incinerated without emitting residual toxic gas or dust.
3. Blue gel sealant - Instead of polyurethane gasket the filter can be sealed, in better way, by putting Blue gel sealant.

**Final recommended pressure: 2" w.g.**

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**Efficiency in accordance with: EN 1822 standard: H14 – U17 levels**

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**Maximum ambient Temp.: 176°F**

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**Technical data**

Filter	M 14	M 15
Efficiency in EN 1822	H14	U15
MPPS efficiency	99,995%	99,9995%
Dop efficiency @ 0,3 µm	99,999%	99,9999%
Max ambient temp	176°F	176°F
Max relative humidity	100%	100%

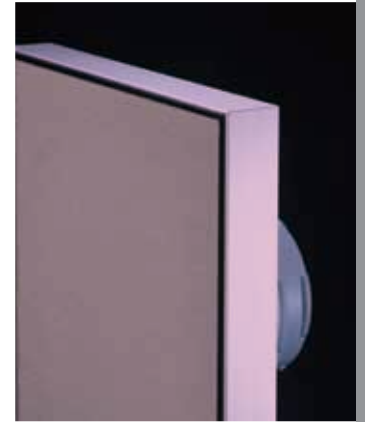
**Data Table**

Size Code	Size (inch)			H14		U15		Weight (lbs)
	Length	Width	Depth	DOP efficiency 99,999% @ 0,3µm		DOP efficiency 99,9999% @ 0,3µm		
				Pressure DROP @ 100 FPM	Flow rate in CFM	Pressure DROP @ 100 FPM	Flow rate in CFM	
2/2	8	8	2.68	0.54	44	0.67	44	2
3/3	12	12	2.68	0.57	100	0.71	100	4
3/6	12	24	2.68	0.80	283	1.00	283	8
3/7	12	30	2.68	0.57	100	0.72	100	12
3/9	12	36	2.68	0.61	300	0.76	300	14
6/4	24	18	2.68	0.56	100	0.70	100	10
6/6	24	24	2.68	0.57	400	0.71	400	18
6/7	24	30	2.68	0.56	100	0.69	100	22
6/9	24	36	2.68	0.57	600	0.71	600	28
6/12	24	48	2.68	0.57	100	0.71	100	36
6/15	24	60	2.68	0.61	1000	0.76	1000	44
6/18	24	72	2.68	0.61	100	0.76	100	52
7/7	30	30	2.68	0.61	625	0.76	625	28
7/9	30	36	2.68	0.61	100	0.76	100	34
7/12	30	48	2.68	0.61	1000	0.76	1000	46
7/15	30	60	2.68	0.61	100	0.76	100	58
7/18	30	72	2.68	0.61	1500	0.76	1500	68
9/9	36	36	2.68	0.61	100	0.76	100	42
9/12	36	48	2.68	0.61	1200	0.76	1200	56
9/15	36	60	2.68	0.61	100	0.76	100	68
9/18	36	72	2.68	0.61	1800	0.76	1800	74

**M reference for order**

Efficiency code	dop efficiency	Frame Depth Code		Frame Code		Grid Code	
14	99.999%	68	3"	A	Aluminum	P	Epoxy
15	99.9999%	96	4"	X	Inox	X	Stainless steel
		150	6"	G	Galvanized	L	Laminator
				W	Wood		

Filter Code	Efficiency Code	Size Code	Frame Depth Code	Frame Code	Grid Code	Gas ket Code	Gasket Code	
M							BG	blue gel
							POLY	polyurethane



The Jet filter from Flow Air Filters is a unique terminal filter. It is lighter than the regular terminal filters and with no need of insulation. Those advantages are due to the unique concept of the plastic top part molded on an HEPA or ULPA minipleat panel filter.

Used in the cleanroom environment, the Jet filter is the best combination between high quality and small budget. Moreover the light weight of the plastic model simplify the maintenance and its installation.

To answer to all the requests a standard aluminum/ galvanized steel model is also available. The filters are all manufactured ,individually tested and packed in a controlled environment. A sticker with the test results and the serial number is attached on each filter.

The Jet is available in H14 (99,999% Dop efficiency) to U17 (99,999999% Dop efficiency)

## Jet Filter

### Jet Filter structure and performances

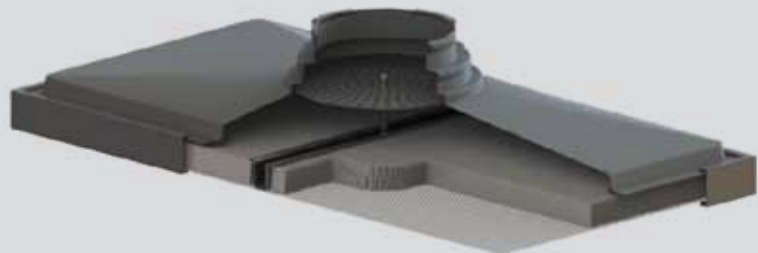
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- Unique plastic top part: lighter, no need of insulation and two size of collar on the top.
- Minipleat technology -higher media surface – long service life
- High dust holding capacity
- The plastic model simplify the maintenance
- Each filter is tested (Dop/ Emmery and Scanning) to assure its performances.

### Options

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1. Available in pack depths from 2" to 4".
2. Frame: Knife edge seal for clean room.
3. Structure: Stainless steel, Aluminum.
4. Lateral drive connection.
5. Adjustable flow Rate and internal test port for integrity test.
6. Stainless steel filter screen.
7. Gasket black closed-cell neoprene.





### Technical data

Filter	JET 14	JET 15
Efficiency in EN 1822	H 14	U 15
MPPS efficiency	99.999%	99.9995%
Dop efficiency @ 0,3 µm	99.999%	99.9999%
Max ambient temp	176°F	176°F
Max relative humidity	100%	100%

### Data Table

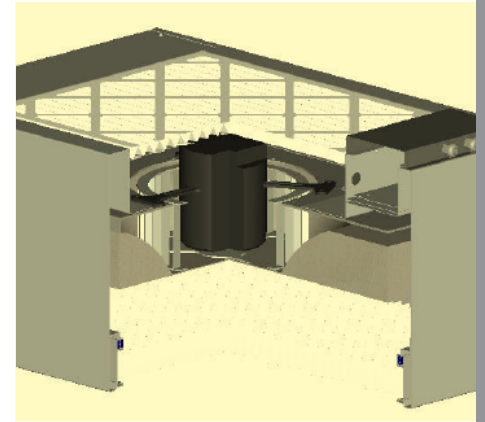
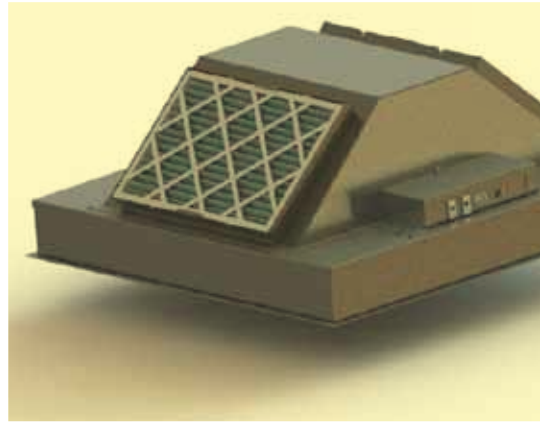
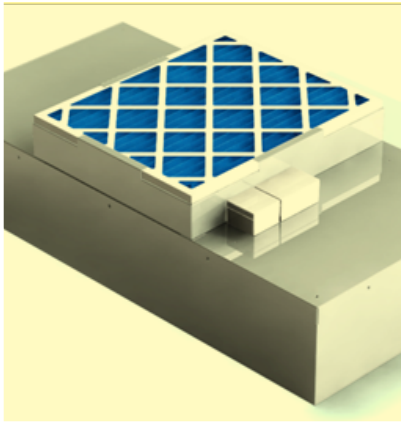
Size Code	Size (inch)			Pressure DROP @ 100 FPM		Flow rate in CFM	
	Length	Width	Pack Depth	H14	U15	H14	U15
FRENCH STANDARD							
3/6-FR	12	24	2.68	0.57	0.67	200	200
3/7-FR	12	30	2.68	0.57	0.68	250	250
6/6-FR	24	24	2.68	0.54	0.66	400	400
6/12-FR	24	48	2.68	0.56	0.67	800	800
ISRAELI STANDARD							
6/6-IL	23.63	23.63	2.68	0.53	0.65	388	388
6/12-IL	23.63	47.63	2.68	0.55	0.67	781	781
USA STANDARD							
6/6-US	23.38	23.38	2.68	0.54	0.65	379	379
6/12-US	23.38	47.63	2.68	0.55	0.67	773	773

### JET reference for order

Efficiency code	DOP EFFICIENCY	Duct connection code		Duct diameter code		Frame Code	
14	99.999%	H	Horizontal	6	6"	P	Plastic
15	99.9999%	V	Vertical	8	8"	A	Aluminum
				10	10"	X	Stainless steel
				12	12"		

Frame Height Code	Frame Height	Media pack Height	Gasket Code		Damper Code		Dop port code		Grid Code	
A	9	3	0	without	0	Damper	N	No DOP port	P	Epoxy
B	10	3.5	1	Flat gasket	1	No Damper	P	With DOP port	X	Stainless steel
			2	EPDM rond gasket						

Filter Code	Efficiency Code	Size Code	Duct Connection Code	Duct Diameter Code	Frame Code	Grid Code	Frame Thickness Code	Gasket Code	Damper Code	Dop Port Code
JET										



The FanJet and Igel are our latest generation of Fan Filter Units. Their DC motor with ECM (Electronically Commutated Motor) motor from General Electric, permits to assure automatically a constant air flow and energy saving.

Their aluminum and epoxy painted frame with noise catcher and insulation guarantee the best laminarity of the flow with a very reduce noise level.

## Fan Filter Units (FFU) I-GEL and FANJET

### ECM Technology (available in DC motors only)

Thanks to ECM technology, the motor speed and power consumption are monitored. The motor changes its speed (the air flow) according to the increasing or reducing of the pressure drop.

The technology permits an auto regulation of the motor which give the possibility to keep a constant air flow without the need of gauges. The Fan filter can be controlled by a preprogrammed controller installed in the front of the cleanroom, by the software "EOL2" from lemmens or by a general building system type Modbus from Honeywell.

### Advantages

- The DC motor with ECM technology is more precise and efficient than an AC motor. The measurements are internal and do not depend of external measuring instruments, using the internal electronic card.
- Several parameters can be analyzed at the same time as: Intensity, Coupling and motor speed.
- Energy saving - Lower electrical consumption than the regular AC motor - 30 to 40% less
- Low noise level thanks to the integrated noise catchers between 48 dba to 54 dba

	FAN JET 6/12		FAN JET 12/12		IGEL 6/12	
Model	Regular Maintenance				ROOM SIDE REPLACEABLE	
Fan	DC Motor From GE with ECM technology				DC Motor From GE with ECM technology	
Pre Filter	1x MERV 5		2x MERV 5		1x MERV 5	
	W 04 20/24/1		W 04 14/24/2		W 04 20/24/1	
Supply Filter DOP 99,999% @ 0,3µm	M14 6/12/250 for Fan Jet		M14 12/12/250 for Fan Jet		MK 14 6/12 for IGEL - Blue Gel Gasket	
Maximal temperature	131°F	55°C	131°F	55°C	131°F	55°C
Maximal hygrometry	80%		80%		80%	
Noise level 100 fpm (0,45m/s)	47 dB(A) in false ceiling		47 dB(A) in false ceiling		47 dB(A) in false ceiling	
	To maximum 54 dB(A)		To maximum 54 dB(A)		To maximum 54 dB(A)	

**FanJet 6/12 and 12/12 + Igel 6/12 sizes**

	FAN JET 6/12				FAN JET 12/12				IGEL 6/12			
	Actual Size		Nominal size		Actual size		Nominal size		Actual Size		Nominal size	
Lenght	47,6''	1210mm	47,8''	1215mm	45,6''	1160mm	47,6''	1210mm	45,5''	1157mm	47,6''	1210mm
Width	23,6''	600mm	23,8''	605mm	45,6''	1160mm	47,6''	1210mm	21,5''	547mm	23,6''	600mm
Height	9,8''	250mm	13,9''	353mm	6''	150mm	18,7''	475mm	15''	400mm	16,9''	431mm
Weight	66 lbs		30 kg		143 lbs		65 kg		76 lbs		34,5 kg	

**FanJet 6/12 and 12/12 + Igel 6/12 performances**

	FAN JET 6/12		FAN JET 12/12		IGEL 12/12	
	USA	International	USA	International	USA	International
Nominal Air Flow	471 cfm	800 m3/h	1058 cfm	1800 m3/h	471 cfm	800 m3/h
Maximal Air Flow	706 cfm	1200m3/h	1765 cfm	3000 m3/h	706 cfm	1200m3/h
Initial pressure drop	0.4''wg	100 pa	0.8''wg	120pa	0.4''wg	100 pa
Clogging pressure drop	1''wg	250 pa	1.2''wg	300pa	1''wg	250 pa
Maximum pressure drop	1.2''wg	300pa	2.6''wg	400pa	1.2''wg	300pa

**FanJet 6/12 and 12/12+ Igel 6/12 electrical characteristics**

	FAN JET 6/12		FAN JET 12/12		IGEL 12/12	
	110 v + ground	220 v + ground	110 v + ground	220 v + ground	110 v + ground	220 v + ground
I nominal ≈	2A	1A	3,5A	1,7A	c	1,7A
I max ≈	5A	2,5A	12,8A	6,4A	12,8A	6,4A
I start up ≈	5A	4A	13A	10A	13A	10A
Protection	5A curve D	4A curve D	5A curve D	4A curve D	5A curve D	4A curve D
Nominal power ≈	150W	150W	300W	300W	300W	300W
Maximal power ≈	400W	400W	700W	700W	700W	700W

**FanJet and Igel reference for order**

Efficiency code	DOP EFFICIENCY	Size Code	Available sizes			Frame Code		Fan Code	
			Length	Width	Height				
14	99.9999%	6/6	23.8	23.8	13.9	A	Aluminum	DC	ECM technology
15	99.9999%	6/7	23.8	25.8	13.9	X	Inox		
		6/9	23.8	35.9	13.9			Hanging hooks Code	
		6/12	23.8	47.8	13.9				
		12/12 (Fan Jet only)	47.6	47.6	18.7				
Grid Code								N	Without
P	Epoxy							H	With
X	Stainless steel								
L (Fan Jet only)	Laminator								

FILTER CODE	EFFICIENCY CODE	SIZE CODE	FRAME CODE	FAN CODE	GRID CODE	HANGING HOOKS CODE
FANJET						
IGEL						



## Company profile

Flow Air Filters is one of the largest European company able to design, develop, manufacture a large range of EPA, HEPA and ULPA Filters.

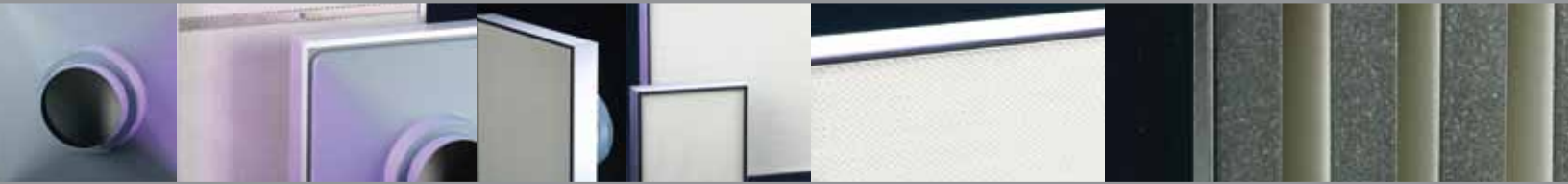
Our filters are especially design for high requirements of air handling units and air filtration systems. Those filters are used in majority in laboratory environment, hospitals, pharmaceutical, electronic and food industries.

Flow Air Filters is able to manufacture and supply standard filters and most of customs requests.

Our 30 years of experience, our factory with 50,000 sqft of controlled environment give use the possibility to deliver the best product to our customers. The filters are manufactured, tested and packed in a cleanroom ISO 7.

Moreover, to be able to answer to our customer last minute need we are keeping in stock in France and in our middle eastern factory more than 10 000 standard filters.

Our presence worldwide has been embellished since 2009 by our USA office in CHICAGO, IL



[www.flowairfilters.com](http://www.flowairfilters.com)

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