

# AIR FILTERS



Airwellcare Products are Tested & Certified by various International Labs.



## Our Product Ranges

### Dampers

- 1 Fire Dampers
- 2 Fire / Smoke Dampers
- 3 Volume Control Dampers
- 4 Motorized Control Dampers
- 5 Pressure Relief Dampers /Non Return Dampers

### Variable Air Volumes

- 6 Pressure Independent VAV
- 7 Constant Air Volume VAV
- 8 By Pass VAV

### Louvers

- 9 Sand Trap Louvers
- 10 Acoustic Louvers
- 11 Stationery Louvers / Architectural Louvers
- 12 Storm Louvers
- 13 Weather Louvers

### Sound Attenuators

- 14 Rectangular Sound Attenuators
- 15 Circular Sound Attenuators
- 16 Crosstalk Attenuators

### Electric Duct Heaters

- 17 Flange & Slip 'n' Type
- 18 Modulating & On/Off Type

### Air Outlets

- 19 Registers & Grilles
- 20 Diffusers (Linear Diffusers, Sq. & Rect. Ceiling Diffusers, Round Diffusers, Jetflow Diffusers)
- 21 Swirl Diffusers & Disc Valves
- 22 Drum Louvers

## INTRODUCTION

The use of AIRWELLCARE Synthetic Air Filter Media within frame system are ideal for those specialized applications, where a high level of filtration are required for low air flow applications.

The replacement Synthetic Air Filter Medias are available to meet a wide range of filter requirements from coarse to fine, some products being able to withstand a light cleaning operation & others being disposable

Air filters used in ventilating systems are used to remove an extremely wide variety of contaminants from the air, ranging from dust and smoke to bacteria, mold and spores. It is important to select the exact type of filter based on the criteria.

The recent scientific evidences that shows the indoor air quality is on average 4 times (occasionally 100 times) more polluted and harmful to human health than the air outdoors.

## APPLICATIONS



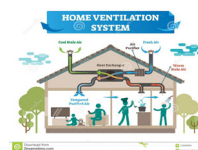
All Kinds of HVAC applications with high relative humidity



Onshore & Offshore Applications



Cement Factories & Power Plants



All Kinds of Ventilation & Airconditioning Systems



## MODEL AHS PF 100

**Airwellcare** Synthetic Panel Filter Media are available to meet a wide range of filter requirements in Residential, Industrial & Oil Field Applications.



AHS PF 100

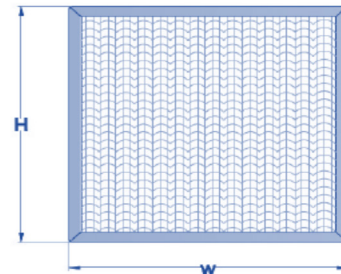
## Construction Details

### Standard Depth

1/2 Inch, 1.0 Inch, 2.0 Inches upto 4 Inches.

### Filter Class

G-4 Based on EN 779 : 2012

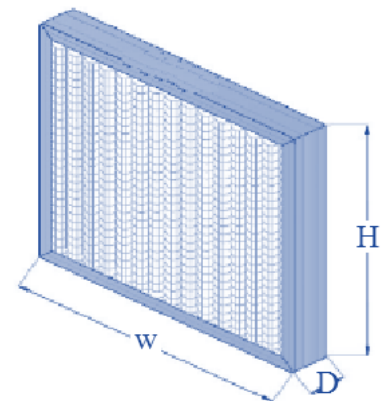


Front View

### Frame / Housing

1.0mm Thick. Galvanized Steel Construction.

*Stainless Steel Construction with different Grades are optional.*



Isometric View

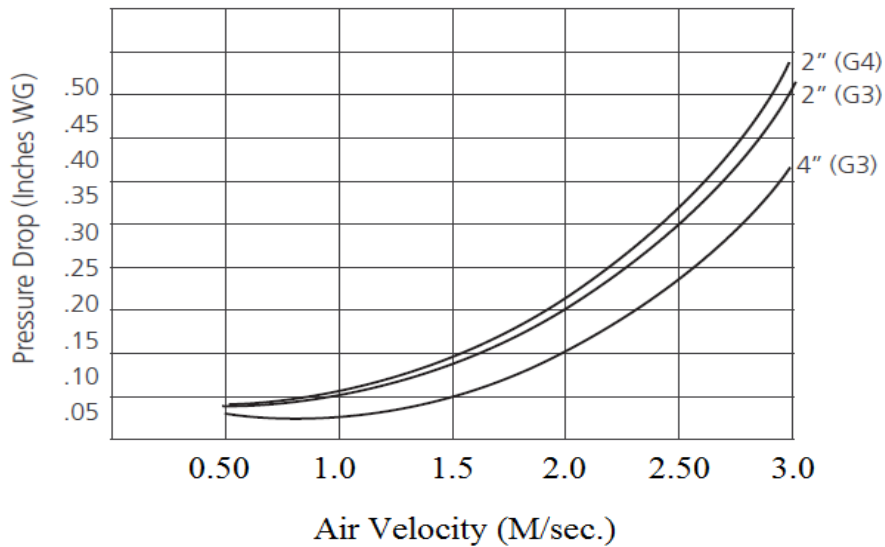
- Panel Filter with a pleated Synthetic Filter medium.
- The Filter medium is supported by a 16 x 38 mm Galvanized Steel Expanded Wire Mesh both at the inlet and outlet side.
- The Filter media is secured in place by Galvanized Steel Housing.
- The Pleated filter surface is 2 to 3 times larger than the total front elevation of the filter.



Engineering Guidelines

MODEL AHS PF 100

Air Velocity & Pressure Drop



Selection Chart

|  | Model        |              |              |              |
|--|--------------|--------------|--------------|--------------|
|  | AHS PF 100 A | AHS PF 100 B | AHS PF 100 C | AHS PF 100 D |
| <b>Depth</b>                           | 2            | 2            | 4            | 4            |
| <b>Efficiency (Dust Spot)</b>          | 22-25%       | 25-30%       | 22-25%       | 25-30%       |
| <b>Face Velocity (M/Sec.)</b>          | 2.5          | 2.5          | 2.5          | 2.5          |
| <b>Grade (EN 779 : 2012)</b>           | G-3          | G-4          | G-3          | G-4          |
| <b>Average Efficiency (Arrestance)</b> | 92%          | 95%          | 93%          | 95%          |
| <b>Initial Resistance (In WG)</b>      | 0.25         | 0.30         | 0.21         | 0.24         |
| <b>Final Resistance (In WG)</b>        | 1.00         | 1.00         | 1.10         | 1.10         |



## Model AHS F3 25A

### Construction Details

**Airwellcare** Synthetic Flat Filter Media are available to meet a wide range of filter requirements in Residential, Industrial & Oil Field Applications.

#### Standard Depth

1/2 Inch, 1.0 Inch, 2.0 Inches upto 4 Inches.

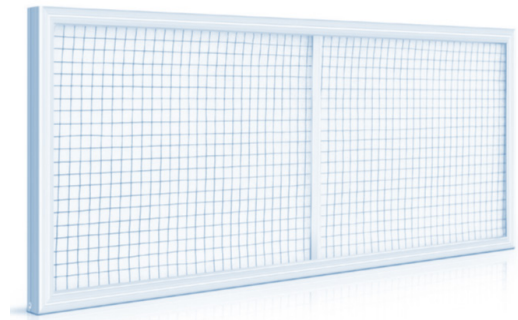
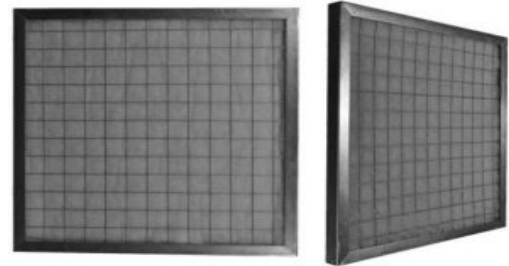
#### Filter Class

G-3, G-4 & G-5 Based on EN 779 : 2012

The High dust holding capacity non-woven synthetic polyester media reinforced with Front & Rear secured with PVC coated wire mesh assembled in flat and encased with metal frames.

#### Frame / Housing

1.0mm Thick. Galvanized Steel Construction.



**Airwellcare** Polyfiber Flat Filters are cleanable / washable panel filters made up of non-woven, high lofted synthetic (polyester) filter media and are available in various efficiency grades ranging from G2 to G4, having very high dust Arrestance and dust holding capacity than the other types of similar grade panel filters.

**Airwellcare** Polyfiber Filters are widely used in Fan Coil Units, Packaged Units and AHUs for various HVAC applications.

A PVC Coated Wire Mesh having 98% Open Area is provided on the up-stream and downstream which reinforces & supports the filter media.

- Panel Filter with a pleated Synthetic Filter medium.
- The Filter medium is supported by a 16 x 38 mm Galvanized Steel Expanded Wire Mesh both at the inlet and outlet side.
- The Filter media is secured in place by Galvanized Steel Housing.
- The Pleated filter surface is 2 to 3 times larger than the total front elevation of the filter.



## Engineering Guidelines

### Technical Data

| MODEL                        | AHS F3 25A                                  |
|------------------------------|---|
| GRADE (EN 1822)              | G3  |
| FRAME MATERIAL               | Galvanized Steel                            |
| TYPE                         | FLAT TYPE PANEL FILTER                      |
| FILTER NOMINAL SIZE (INCHES) | 24 (W) x 24 (H) x 1 (D)                     |
| FILTER ACTUAL SIZE (MM)      | 592 (W) x 592 (H) x 20 (D)                  |
| MEDIA                        | Non-Woven High Lofted Synthetic (Polyester) |
| MEDIA SUPPORT                | PVC Coated Wire Mesh Support on Both sides  |
| RATED FACE VELOCITY (M/s)    | 2.54  |
| INITIAL PRESSURE DROP (Pa)   | 123   |
| FINAL PRESSURE DROP (Pa)     | 250   |
| MAXIMUM TEMPERATURE          | 80° C                                       |
| MAXIMUM HUMIDITY             | 100%  |



## Operational & Maintenance

This manual will be of use to all those directly involved with the correct and proper installation, Operation & Maintenance of air filtration systems.

The particles stay in the Filter and fill in filter fibers, reducing the spaces through which air can flow. This restriction causes an increase in the resistance to the airflow through the filter.

Push the Air Filter towards up with the help of given Handles and remove the Filter. The same way reattach the Filter in place after Cleaning.

Visually inspect the filters. If the filter media appears damaged in any way, or if the media becomes wet, the prefilters should be changed immediately.

Do not change air filters when the HVAC system is operating.

Check the Pressure Drop. If it reaches to final value (PD), Replace or Clean it properly.

Rule of thumb: Clean every 3 months. If the air in the room is extremely contaminated, increase the cleaning frequency, which is also depends on the Climatic / Weather conditions.

Randomly check the Filter for dust accumulation.

Clean the filter with lukewarm water or detergent.

Dry the air filter, prior to reinstall in place.





**P.O Box 2620  
Office/Factory No.3, Umm Al Thoub 7, Al Ittihad Street  
Modern Industrial Area, Umm Al Quwain  
United Arab Emirates  
Tel. 00971 6 768 0473**

**Email : [info@airwellcare.com](mailto:info@airwellcare.com) / [sales@airwellcare.com](mailto:sales@airwellcare.com)  
[www.airwellcare.com](http://www.airwellcare.com)**