# **Interfirm Rigid Box**

Secondary Filters M6 60-65% MERV12, F7 80-85% MERV13, F8 90-95% MERV14

#### **General Characteristics**

Interfirm Rigid Box filters are mostly used in commercial and industrial variable air volume airconditioning systems. The extended pleated surface rigid construction design allows more media area, lower pressure drop, excellent dust loading capacities and longer lifespan compared to traditional pocket filters. This filter is widely used in electronics and injectable production, pharmaceutical production, nuclear establishments, industrial and chemical processing, hospitals and laboratories. AHU of biosafety labs, public and office buildings, airport airconditioning systems, pulp and paper mills, oil refineries, gas turbines and plastics manufacturing.



- + Secondary Filter with F6 F8 MERV14 efficiencies
- + Paper and Plastic or Metal Finger Pleat Separators
- + Lofted Synthetic filter media
- + Galvanised Steel Frame
- + Available in Box-style (NH) or Single Header (SH)
- + Custom sizes and depth

Description: Interfirm Rigid Box, SH Nominal Size: 24 x 24 x 12" Actual Size : 595W x 595H x 292mmD Single Header 21mm thickness



Description: Interfirm Rigid Box, NH Nominal Size: 24 x 24 x 12" Actual Size: 595W x 595H x 292mmD

#### Construction

#### **Filter Media**

The filter media is lofted synthetic polypropylene is made using meltblown process. Synthetic Media offers superior performance in high humidity applications, elimination of fibre media shedding, better media integrity as compared to traditional fibreglass media. The two-stage synthetic fibre allows good dust loading capacity. The rigid construction eliminates dust particles unloading downstream of filter.

The filter media is sealed with adhesive on all sides and is enclosed with galvanised steel frame and completes as a rigid cartridge filter with Single Header (SH) or No Header Box Style (NH) frame. The filter is given diagonal steel support bracing downstream and contour paper, plastic or metal finger pleat stabilisers.

The rigid construction eliminates dust particle migrating downstrem of the filter and allows use in variable air volume systems.

The filter is manufactured in 6 and 12 inches standard depth frame. Other custom sizes and depth can also be manufactured.



# **Interfirm Rigid Box**

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### **Specifications**

Model	IFR60		IFR80		IFR90	
Description	Interfirm 60-65%		Interfirm 80-85%		Interfirm 90-95%	
Nominal Thickness	6"	12"	6"	12"	6"	12"
Initial Pressure Drop at Face Velocity 2.5m/s for 12", Face Velocity 1.5m/s for 6"	60	60	82	82	89	89
Filter Class EN779 / Eurovent 4/4	M6 / F6 / EU6		F7 / EU7		F8 / EU8	
ASHRAE 52.1-1992 Average Synthetic Dust Weight Arrestance	98%		99%		99%	
ASHRAE 52.1-1992 Average Atmospheric Dust Spot Efficiency	60-65%		80-85%		90-95%	
ASHRAE 52.2-1999 MERV	MERV 12		MERV 13		MERV 14	
Media Area m <sup>2</sup>	2.7	5.4	2.7	5.4	2.7	5.4

Performance data is based on ASHRAE 52.2-1992 Test method entitled "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter" and ASHRAE 52.2-2012 Method of Testing General Ventilation for Removal Efficiency by Particle Size" other data provided is for comparision and information MERV: Minimum Efficiency Reporting Value

#### Dimensions

Nominal	Actual Size	12" Depth (292mm)				6" Depth (145mm)			
Size L x H inches	L x H mm	Rated Airflow cmh	Media Area m <sup>2</sup>	Weight kg	Packing per carton	Rated Airflow cmh	Media Area m <sup>2</sup>	Weight kg	Packing per carton
12 x 24	289 x 595	1700	2.7	2.0	2	1000	1.3	1.5	4
16 x 24	395 x 595	2265	3.6	2.5	1	1330	1.8	2.0	2
20 x 20	495 x 495	2380	3.6	3.0	1	1380	1.8	2.0	2
20 x 24	495 x 595	2830	4.3	3.5	1	1660	2.2	2.5	2
20 x 25	495 x 622	2975	4.6	3.5	1	1730	2.3	2.5	2
24 x 24	595 x 595	3400	54	4.0	1	2000	27	3.0	2

Odd sizes can be custom fabricated accordingly. Width and height dimensions are interchangeable.

450 Pa

### **Technical Data**

Filter Media Lofted Synthetic Polypropylene	
Enclosing Frame Galvanised Steel (Gi)	
Separator Paperboard and Plastic ABS Fingers, Galvanised Steel Fingers	
<b>Header</b> No Header (NH), 21mm Single Header (SH)	
Continuous Operating Temperature Relative Humidity	80°C 90%
Final Pressure Drop	

250-375 Pa Recommended Maximum Final

Final Pressure drop filter (dirty) changeout may be lower depending on system design.



### **Header Option**





595

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Same as NH (Custom if required)

Tolerances+/-3mm

# International Filtration

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