



3.3 Coarse Efficiency Main-sub Frame Air Filter

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Classification

Coarse Efficiency Air Filter

Product Description

Coarse Efficiency Main-sub Frame Air Filter

"Main-sub frame" typically refers to the physical housing or structure that holds the air filter element. The "main frame" is the primary outer structure, while the "sub frame" is often an internal component or a supporting element within the main frame. These frames are essential for securing the filter media, ensuring a proper seal, and providing a stable structure for the filter assembly.

Here's a more detailed breakdown:

※Main Frame:

- Function:** The main frame provides the overall shape and structure of the filter housing.
- Material:** It's typically made of durable materials like metal or plastic to withstand pressure and environmental conditions.
- Purpose:** It secures the filter media, creating a sealed environment for airflow.

※Sub Frame (or Secondary Frame):



●**Function:** The sub frame can be an internal support structure within the main frame, further securing the filter media.

●**Material:** Similar to the main frame, it may be made of metal or plastic.

●**Purpose:** It helps maintain the shape and integrity of the filter media and can also aid in sealing the filter element.

※**Importance of Frames:**

●**Proper Filtration:**

Frames ensure that the filter media is correctly positioned and sealed, preventing bypass airflow and maximizing filtration efficiency.

●**Structural Support:**

They provide the necessary support for the filter media, preventing it from being damaged or deformed.

●**Durability:**

Well-designed frames can withstand the wear and tear of regular use, ensuring the long-term effectiveness of the filter.

※**Product Features**

1. Detachable plate-type aluminum alloy frame, fixed with aluminum alloy feet. The structure is firm and stable, ensuring that the filter does not deform or get damaged in poor working condition.
2. The outer frame adopts a detachable design, which facilitates the replacement of filter media, enabling the frame to be reused.
3. The filter screen reinforcing ribs enhance the firmness of the filter, achieving maximum dust-holding capacity with minimum resistance.
4. Polyester synthetic fiber can be cleaned and reused multiple times, with a long service life.
5. The loose-to-dense fiber structure effectively extends the service life of the subsequent medium-efficiency filter.

※**Application Field**

1. Prefiltration for ventilation and air-conditioning systems in large - scale buildings such as offices, conference rooms, hospitals, shopping malls, airports, as well as in the centralized ventilation and air-conditioning systems of ordinary industrial plants or clean rooms.





2. Primary filtration for central air-conditioners and household air-conditioners, and ventilation filtration for special acid-and alkali-resistant applications.

※Material Composition and Running Condition

Filter element: Non-woven filter cotton

Frame material: aluminum profile/ aluminum sheet/ galvanized sheet/

Filtration efficiency: 40%~90%@2.0μm

Optional thicknesses for aluminum profiles (mm): 46,50,69,80,90,96

Maximum operating temperature: 80℃

Maximum humidity applicable: 100%

※Size&Data

Size (W*H*D) (mm)	Rated airflow (m³/h)	Initial resistance (≤pa)	Final re sistance (pa)	Filtrati on area (m²)	Dust c apacity (g)	Efficien cy
592*592 *46	3200	30	100~200	0.82	90	G1
592*592 *46	3200	35	100~200	0.82	110	G2
592*592 *46	3200	45	100~200	0.82	130	G3
592*592 *46	3200	50	150~250	0.82	165	G4
287*592 *46	1560	30	100~200	0.44	50	G1
287*592 *46	1560	35	100~200	0.44	60	G2
287*592 *46	1560	45	100~200	0.44	70	G3
287*592 *46	1560	50	150~250	0.44	90	G4
490*592 *46	2660	30	100~200	0.70	77	G1





490*592 *46	2660	35	100~20 0	0.70	90	G2
490*592 *46	2660	45	100~20 0	0.70	112	G3
490*592 *46	2660	50	150~25 0	0.70	140	G4
592*592 *96	3200	30	100~20 0	1.26	138	G1
592*592 *96	3200	35	100~20 0	1.26	163	G2
592*592 *96	3200	45	100~20 0	1.26	201	G3
592*592 *96	3200	50	150~25 0	1.26	251	G4
287*592 *96	1560	30	100~20 0	0.63	69	G1
287*592 *96	1560	35	100~20 0	0.63	82	G2
287*592 *96	1560	45	100~20 0	0.63	101	G3
287*592 *96	1560	50	150~25 0	0.63	126	G4
490*592 *96	3100	30	100~20 0	1.13	124	G1
490*592 *96	3100	35	100~20 0	1.13	147	G2
490*592 *96	3100	45	100~20 0	1.13	181	G3
490*592 *96	3100	50	150~25 0	1.13	226	G4

Besides the size above, custom size acceptable.





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