

THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# SAAF™ Cassette Heavy Duty

3-INCH V-BANK, 12-INCH DEEP GAS FILTRATION CASSETTE

- Form and fit unlike any other 12"-deep, 3" gas filtration cassette
- Improved fit and sealing, even when deployed in older cassette holding systems
- Enhanced media utilization design
- No-glue design eliminates problems from spills, off-gassing, bypass, and leakages
- Patented cassette design and manufacturing process. Patents covered under US 7,588,629 B2.
- Filled cassettes are UL Classified

SAAF™ Cassette Heavy Duty is the best 3" V-bank, 12"-deep gas filtration cassette in the industry. AAF designs, manufactures, and performs QC compliance on these cassettes under ISO 9001:2000 and other applicable global quality certifications.

## High Tech Features

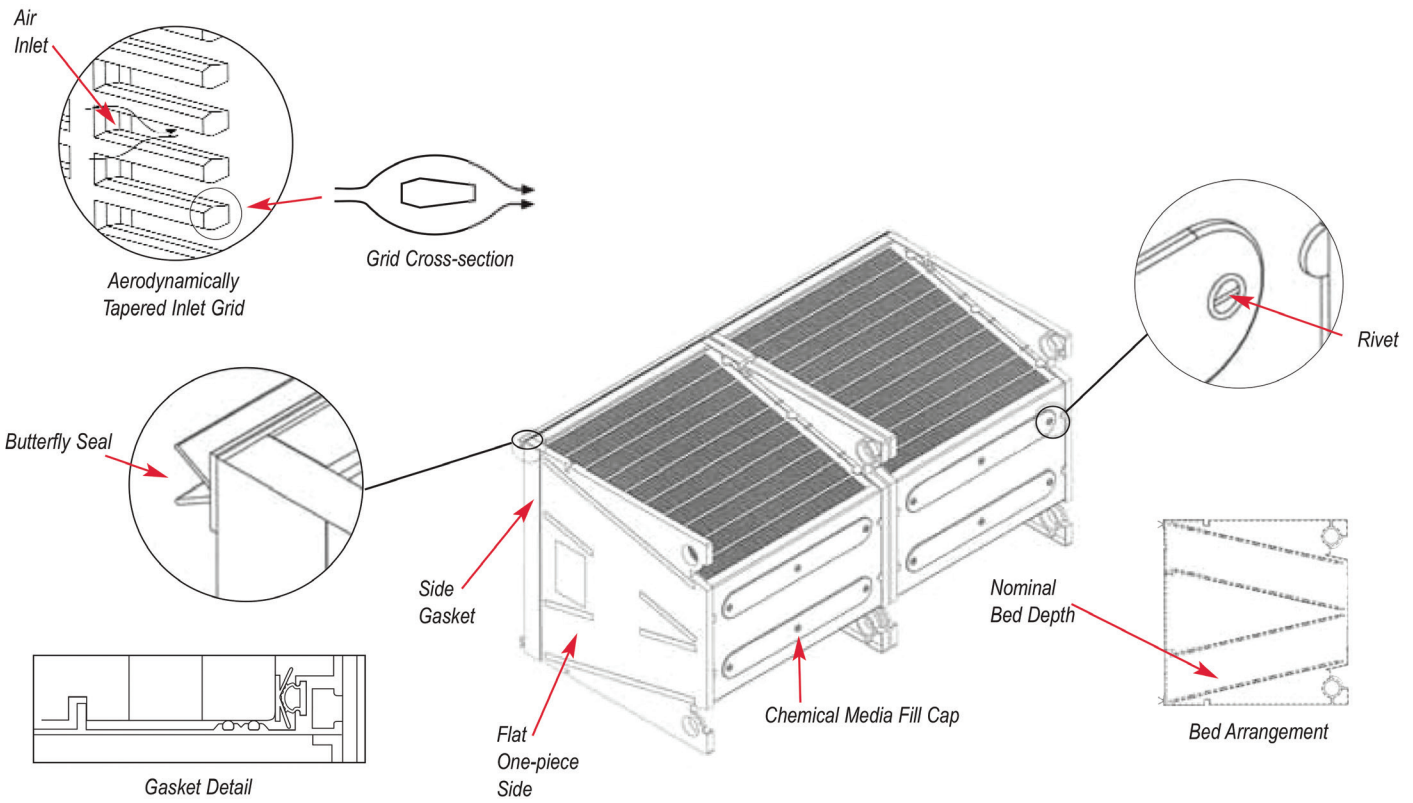
The SAAF Cassette Heavy Duty is constructed from High Impact Polystyrene (HIPS) and comes prefilled with SAAF chemical media. High technology design tools were employed to validate the design and confirm better performance. Computational Fluid Dynamics (CFD) modeling and performance tests confirm optimal design. The resulting design and construction surpasses any competitor's cassettes in the market, while allowing users a truly better design with value-enhancing features. The design retrofits easily and performs better than older legacy cassettes in existing installations.

## Efficiency and Performance

Most legacy cassette manufacturers state that their cassettes operate at >90% removal efficiencies. In reality, these efficiencies are not cassette efficiencies. In an installation, removal efficiency is dependent on the precise sealing of the chemical media delivery mechanism, i.e. the cassette with the cassette holding mechanism. Due to looser manufacturing tolerances, testing of most legacy cassettes shows removal efficiencies as low as 65%.



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## Design, Construction, and Patents

SAAF Cassettes perform and operate at optimum gas filtration efficiency, due to various patent pending features.

**SAAF-V** – Patented enhanced media utilization design eliminates the “nose cavity” typically created by legacy cassettes. Nose cavities “cocoon” up to 30% of the chemical media, keeping it isolated from airflow contact at all times during the life of the cassette. SAAF Cassettes are the only cassettes that utilize 92% of all chemical media in the cassette—outperforming legacy cassettes by 25%.

**SAAF-T-Snap** – Patented design provides a high pressure, no-glue snap assembly. This rigid construction excludes harmful glues, solvents, or Methyl Ethyl Ketone (MEK) from the manufacturing process. The SAAF-T-Snap design, unlike legacy cassettes, has no see-through holes in the solid end plates. This allows for better structural integrity and eliminates gas by-pass problems. The entire SAAF chemical media in the cassette can be used specifically to overcome the external gaseous contaminants, not contaminants from the cassette itself. SAAF Cassettes are the ideal choice in cleanroom or high-precision applications where zero off-gassing products are mandatory.

**SAAF-T-Butterfly Seal and SAAF-T-Groove** – Designs provide near absolute sealing, even in existing retrofit applications.

**SAAF-T-Seal** – Patented plastic rivets secure the solid fill caps at multiple points and secure against bursts or leaks in normal usage. Older legacy cassettes use stickers, labels, or low friction end caps that have high instances of failure and chemical media spillage.

**SAAF-T-Track** – System utilizes the **SAAF-T-Groove** feature and provides a compression fit that eliminates bypass. The solid top and bottom rail system on SAAF Cassettes eliminates yet another bypass zone.

**Cassette-To-Cassette Mating Seals** – Smooth mating end panels with no penetrations or outward turned flanges allow excellent cassette-to-cassette sealing.

**SAAF-T-Screens** – Patented design and precision engineering allow optimized apertures for better media retention and better energy efficiency through improved aerodynamics and reduced pressure drop.

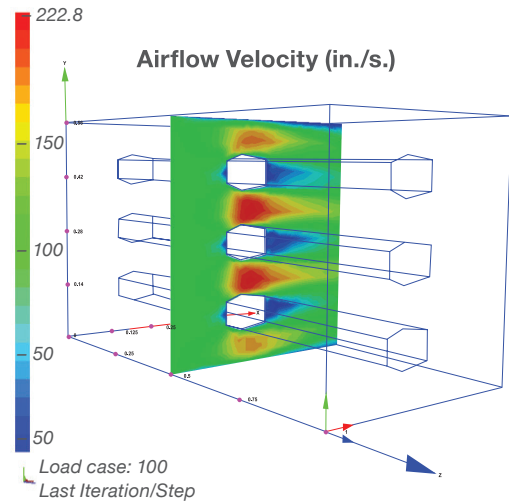


## Applications

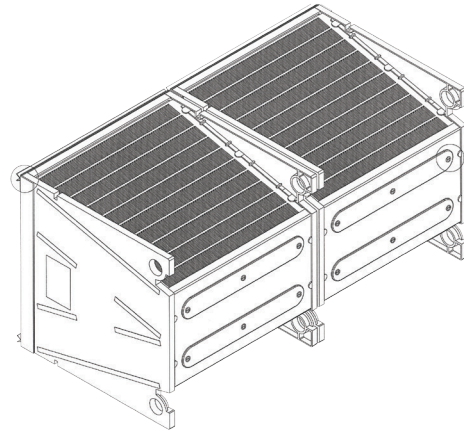
SAAF Cassette Heavy Duty is used for gas removal applications in:

- Odor control applications at wastewater treatment plants
- Odor control for exhaust airstreams
- Purification of pressurization air for corrosion control
- Outdoor air purification for cleanroom or pharmaceutical airflows
- Higher concentration airflows in institutional or commercial establishments
- Airflows in museums, archives, or historical facilities
- Energy savings related applications

(1) Velocity Magnitude -in./s.



AAF's patented cassette design offers improved airflow characteristics to ensure full media utilization.



## Disposal and Recycle Instructions

- 1 Remove the cassette after use.
- 2 Empty out the SAAF Chemical media by removing the SAAF-T-Seal rivets.
- 3 Depending on the SAAF Chemical media in use, the media may be sent to a regular landfill or disposed of according to applicable local, state, and federal regulations.
- 4 The empty cassette can then be sent for plastic recycling or for incineration.
- 5 The empty cassette is completely incinerable/recyclable.

# SAAF™ Cassette Heavy Duty

## General Specifications and Application Parameters

### Nominal Size

12 x 24 x 12 inches (One cassette is made up of two halves for easy lifting)

### Airflow

Designed for 250 FPM (1.25 m/s) face velocity or 500 CFM (850 m<sup>3</sup>/h) airflow per cassette

### Pressure Drop

0.73 in. w.g. @ 250 FPM (181 Pa @ 1.25 m/s) face velocity

### Construction

100% recyclable/incinerable HIPS plastic

### UL Rating

UL Classified (in accordance with UL Standard 900 and ULC-S111)\*

### Chemical Filter Bed Depth

3" (75 mm) nominal

### Chemical Media Capacity

1.0 cubic feet (0.028 m<sup>3</sup>)

### Contains Chemical Media

Various (as stated in submittal or as approved)

### Humidity Range

5% – 99% RH

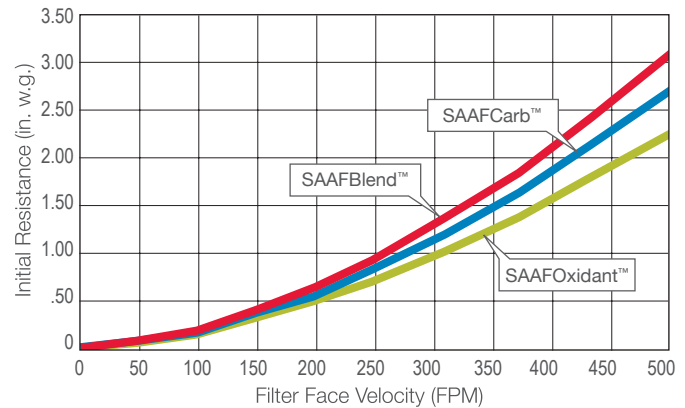
### Temperature

-5°F (-20°C) to 130°F (55°C)

\*Consult AAF sales representative for media/module combinations.

## Performance Data

### Initial Resistance vs. Filter Face Velocity



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AAF has a policy of continuous product research and improvement. We reserve the right to change design and specifications without notice.

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ISO Certified Firm

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