



**AmericanAirFilter®**  
**SAAF™ Cassette Heavy Duty**

*3-Inch V-Bank, 12-Inch Deep  
Gas Filtration Cassette*

# SAAF<sup>™</sup> 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
- Multiple patents pending
- Filled cassettes rated UL Class 2

AAF<sup>®</sup> International's SAAF<sup>™</sup> 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.

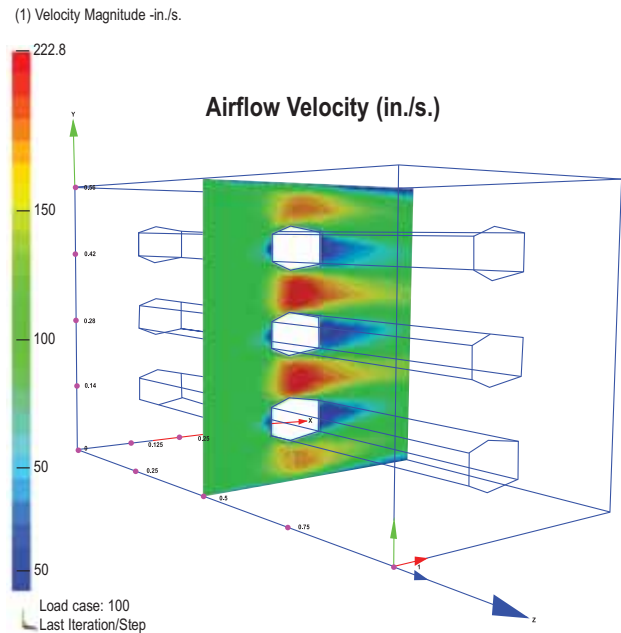


### High Tech Features

The SAAF<sup>™</sup> Cassette Heavy Duty is constructed from High Impact Polystyrene (HIPS) and comes pre-filled 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%.



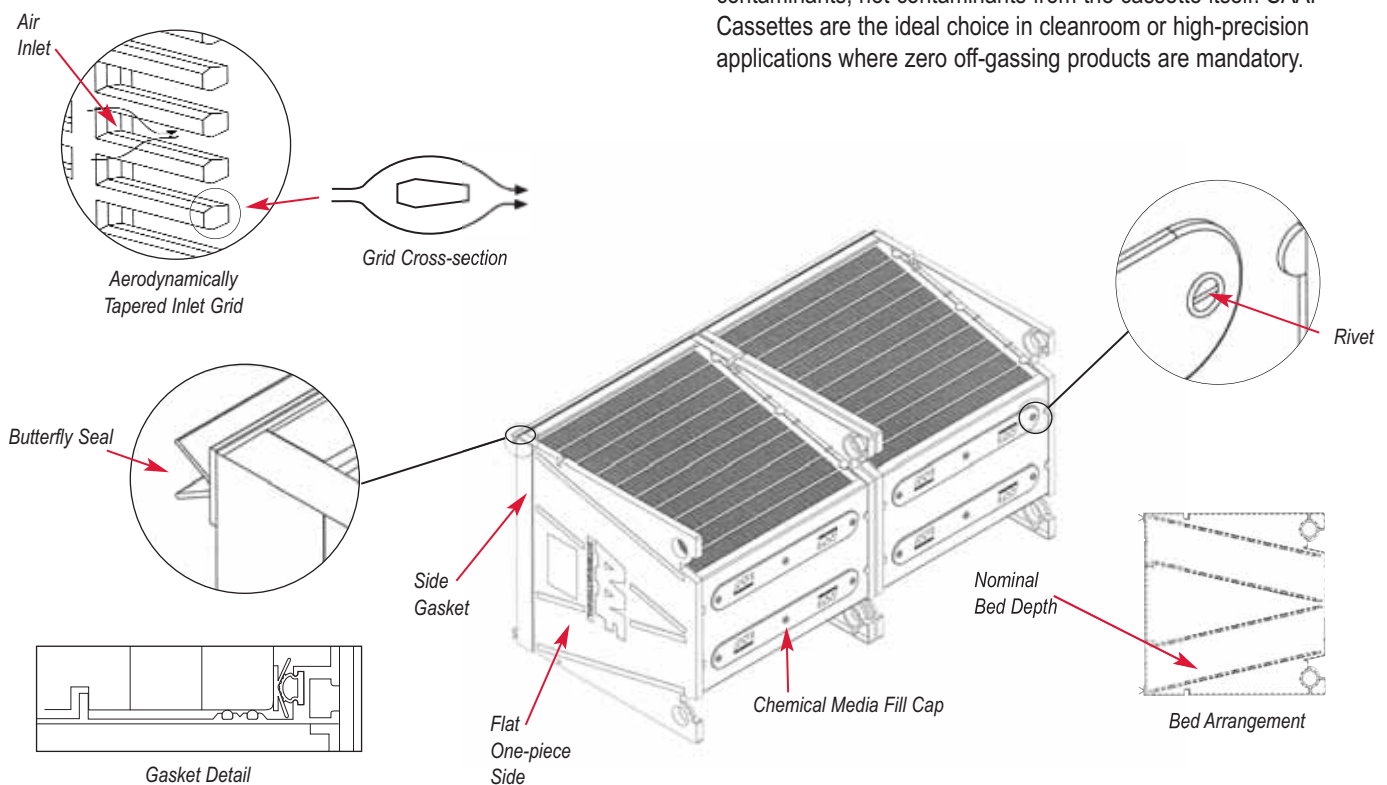
AAF's patent pending cassette design offers improved airflow characteristics to ensure full media utilization.

## Design, Construction, and Patents

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

**SAAF-V** - Patent pending 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 which utilize 92% of all chemical media in the cassette - outperforming legacy cassettes by 25%.

**SAAF-T-Snap** - Patent pending design provides a high pressure, no-glue snap assembly. This rigid construction excludes harmful glues, solvents, or MEK's 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 and allows the entire SAAF Chemical Media in the cassette to 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** - Patent pending 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 by-pass. The solid top and bottom rail system on SAAF Cassettes eliminates yet another by-pass 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** - Patent pending and precision engineering allow optimized apertures for better media retention and better energy efficiency through improved aerodynamics and reduced pressure drop.

## SAAF™ Cassette Heavy Duty

### Applications

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

- Odor control applications at waste water treatment plants
- Odor control for exhaust air streams
- 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
- ASHRAE energy savings related applications

### 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 High Impact Polystyrene (HIPS) plastic

#### UL Rating

Class 2 (when tested in accordance with UL Standard 900 and CAN 4-S11)\*

#### Chemical Filter Bed Depth

3" (75mm) 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

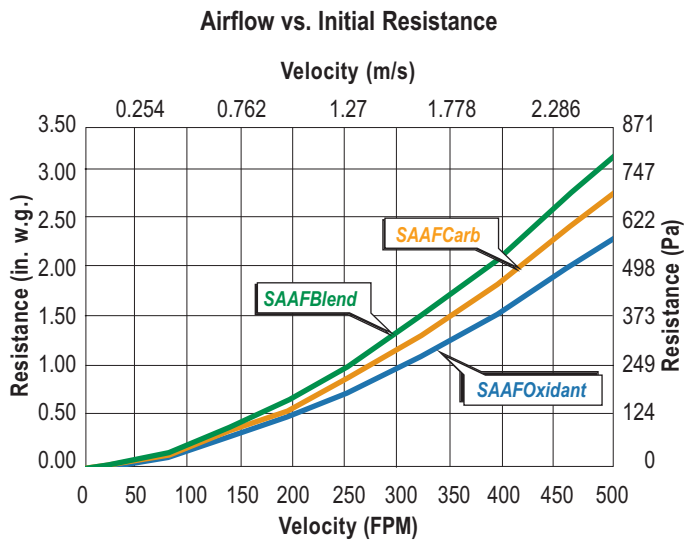
5% - 99% RH

#### Temperature

-5°F (-20°C) to 130°F (55°C)

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

### Performance Data



### 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 for 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.

