AmericanAirFilter®

SAAF™ Air Purification Systems

SAAF Recirculation Unit (SAAF:RU)

SAAF Pressurization and Recirculation Unit (SAAF:PRU)

Better Air is Our Business®

AAF® INTERNATIONAL

AmericanAirFilter®

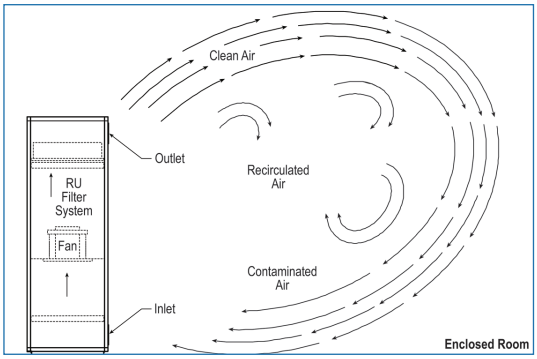
SAAF™ Air Purification Systems

Stand-alone Complete Air Purification Systems

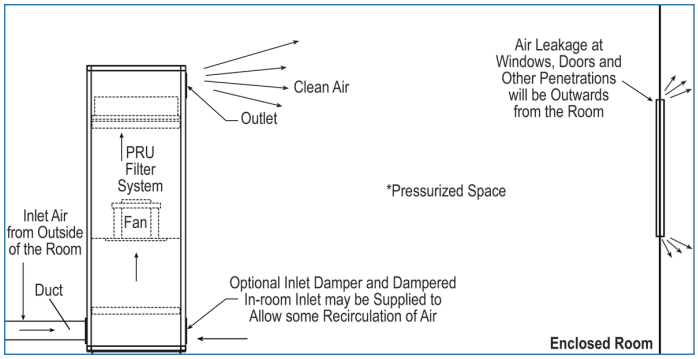
- *Available as Recirculation Unit (SAAF:RU) and Pressurization and Recirculation Unit (SAAF:PRU)*
- *Recirculate and clean the air in a controlled environment; suitable for in-room use or sheltered outdoor installation*
- *Combines particulate filters, gas phase cassettes, and high efficiency filters to create total clean air solutions; removes both airborne particulate and gaseous contaminants.*
- *Patent-pending SAAF Seal provides the best seal available and superior filtration efficiency*
- *Designed with internal fan and a wide range of filter sizes and combinations to meet your specific application requirements.*
- *Insulated double-wall construction provides whisper-quiet operation*
- *Easy installation, operation, and maintenance in a totally self-contained system*

Clean Contaminated Air From Within or Without

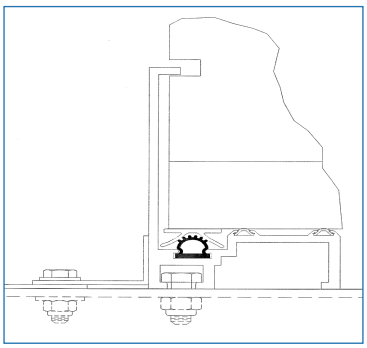
SAAF Recirculation Units (SAAF:RU) and SAAF Pressurization and Recirculation Units (SAAF:PRU) are designed to support SAAF chemical media cassette filters, prefilters and after-filters, and high efficiency particulate filters in one self-contained stand-alone unit. The units are designed for optimal removal of gaseous contaminants and airborne particulate from intake and recirculated ventilation air.



SAAF:RU draws contaminated air from a contained space; cleans the air; and then returns the cleaned air back into the space.



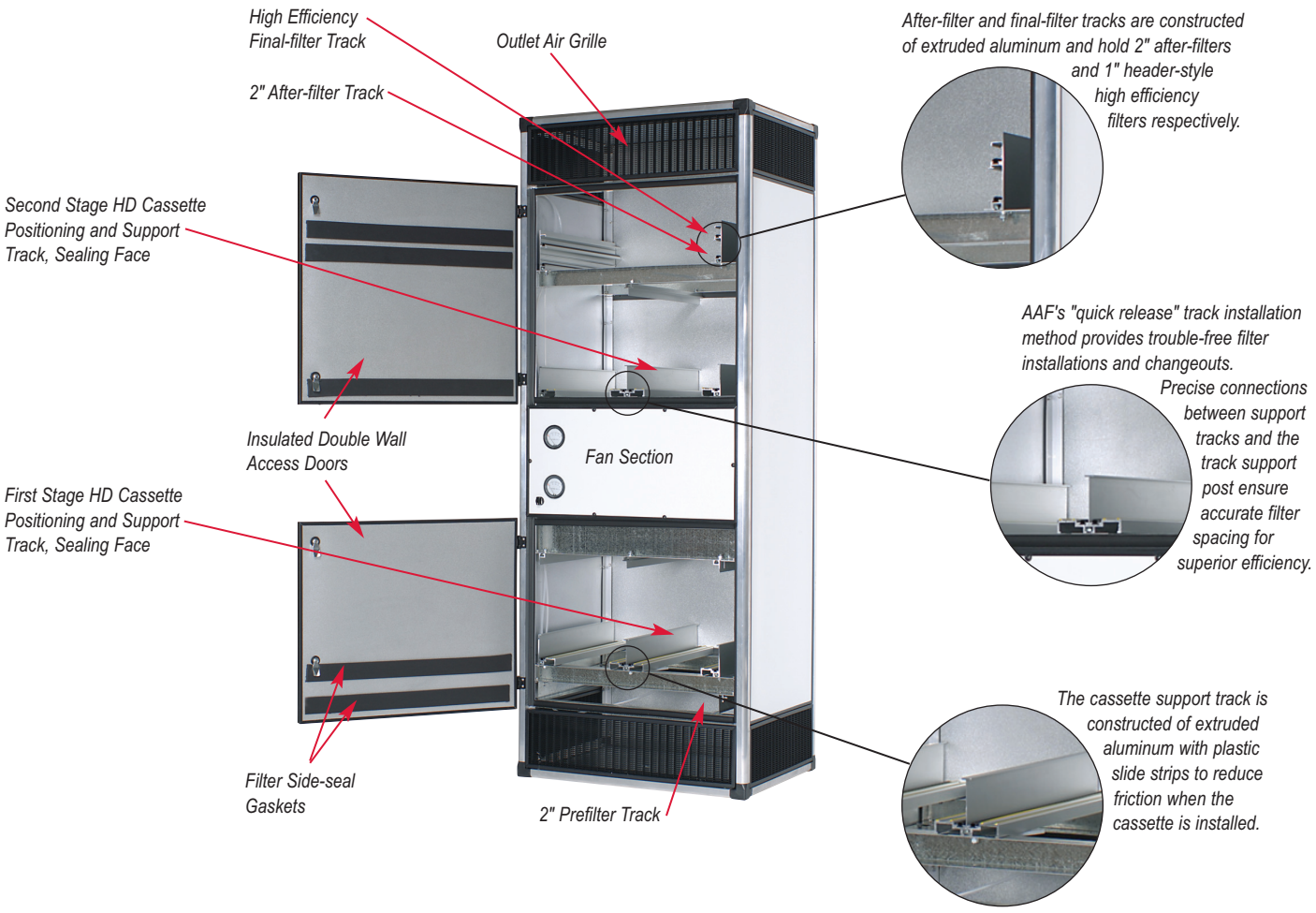
SAAF:PRU pressurizes the space by drawing air from outside the space. After cleaning the air, the unit discharges the cleaned air to the space. Air escaping from the higher pressure space within the room to the lower pressure surrounding environment prevents outside contaminants from infiltrating the space.



AAF Patent-pending SAAF™ Seal High Integrity Sealing System

Patented Sealing System Prevents Filter Bypass

SAAF:RU and SAAF:PRU systems are uniquely designed to hold and securely seal SAAF Cassettes. AAF's patent-pending SAAF Seal High Integrity Sealing System prevents bypass of unfiltered air. Cassettes and filters are locked in place by a combination of cassette notches and cassette locator bars. Designed to maintain optimal positioning of the cassettes, the locator bar compresses the cassette into the sealing gasket. This unique system is completely effective and ensures exceptional filter efficiency.



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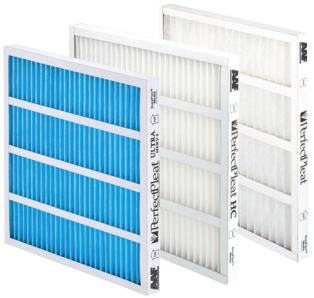
SAAF™ Air Purification Systems

Prefilters and After-filters

PerfectPleat® ULTRA (MERV 8), PerfectPleat® HC (MERV 7), and PerfectPleat® (MERV 7) filters are ideal prefilters used to prevent the buildup of lint and dust on the face of the SAAF cassettes and high efficiency filters.



High Efficiency Final Filters

Both the SAAF:RU and SAAF:PRU will accommodate a high efficiency final filter bank to ensure that filtered air meets the highest levels of efficiency. VariCel® M-Pak extended surface pleated filters (MERV 14, 13, and 11) are the perfect choice for high efficiency particulate removal. VariCel M-Pak filters boast a compact 6"-deep filter design while maintaining the same media area and performance as 12"-deep filters.

Chemical Media Cassettes

SAAF:RU and SAAF:PRU are designed to hold SAAF chemical media cassette filters: Medium Duty (SAAF:MD), Cleanroom Grade (SAAF:CG), and Heavy Duty (SAAF:HD) . SAAF:RU is typically configured for SAAF:HD Cassettes.

Product Model Designations

The SAAF:RU model is designated as follows (Substitute PU for RU when the unit is a Pressurization Unit):

RU - 500V – 2P – HD – F – HD – 2P – 6F

- *Recirculation Unit*
- *Nominally rated to deliver 500 CFM (for horizontal unit, replace V with H)*
- *Supports a 2" deep particulate prefilter, if required*
- *First gas-phase chemical filter bank, supports Type HD cassettes*
- *Fan*
- *Second gas-phase chemical filter bank, supports Type HD cassettes*
- *Supports a 2" deep particulate after-filter, if required*
- *Supports a 6" deep particulate final filter, if required*

Recirculation Unit (RU)	Pressurization Unit (PU)	Nominal Delivered Airflow (CFM)	Description
RU500V	PRU500V	500	RU-500V-2P-HD-F-HD-2P-6F
RU1000V	PRU1000V	1000	RU-1000V-2P-HD-F-HD-2P-6F
RU2000V	PRU2000V	2000	RU-2000V-2P-HD-F-HD-2P-6F
RU4000V	PRU4000V	4000	RU-4000V-2P-HD-F-HD-2P-6F

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ISO Certified 9001:2000

GPF-1-107C NOV '07 VI 5M

AmericanAirFilter®

SAAF™ Cassette Cleanroom Grade Model SC:CG

1-Inch V-Bank, 12-Inch Deep Gas Filtration Cassette

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SAAF™ Cassette Cleanroom Grade Model SC:CG

1-Inch V-Bank, 12-Inch Deep Gas Filtration Cassette

- *One-piece construction reduces by-pass*
- *Form and fit unlike any other 12"-deep, 1" gas filtration cassette*
- *Improved fit and sealing, even when deployed in older cassette holding systems*
- *Complete 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 International proudly announces the SC:CG — the best 1" V-bank, 12"-deep gas filtration cassette in the industry. AAF, the global leader and pioneer in air filtration, designs, manufactures, and performs QC compliance on these cassettes under ISO 9001:2000 and other applicable global quality certifications.

Design, Construction, and Patents

Creating the perfect SAAF Cassette presented unique challenges. The design needed to be such that it retrofits easily and performs better than older legacy cassettes in existing installations. The result — the SC:CG which was conceived and designed by AAF International's global engineering and design teams that span five continents.

High technology design tools were employed to validate the design and confirm better performance. Computerized 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 SC:CG is constructed from High Impact Polystyrene (HIPS) and comes pre-filled with SAAF Chemical Media.

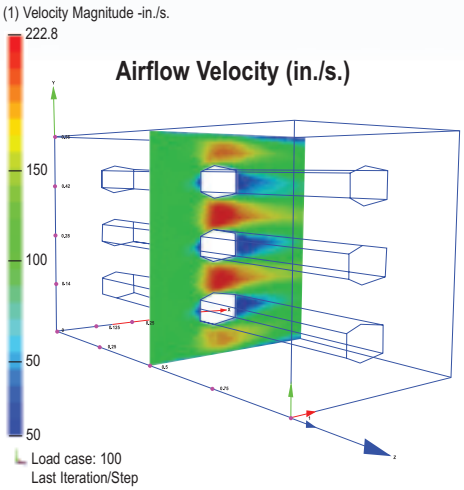
SAAF-V -Patent pending complete media utilization design eliminates the 'nose cavity' typically created by legacy cassettes. Nose cavities 'cocoon' up to 30% of the chemical media keeping it isolated from airflow contact at all times during the life of the cassette.

SAAF-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.

SAAF-T-Seal - Patent pending plastic rivets secure the solid fill caps at multiple points and allow complete security 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-Screens - Patent pending precision engineered SAAF-T-Screens allow optimized apertures for better media retention and improved airflow dynamics.



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

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%.

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

SAAF-V - Complete media utilization design allows the SC:CG to outperform legacy cassettes by 25%, as SAAF Cassettes are the only cassettes which completely utilize all chemical media in the cassette.

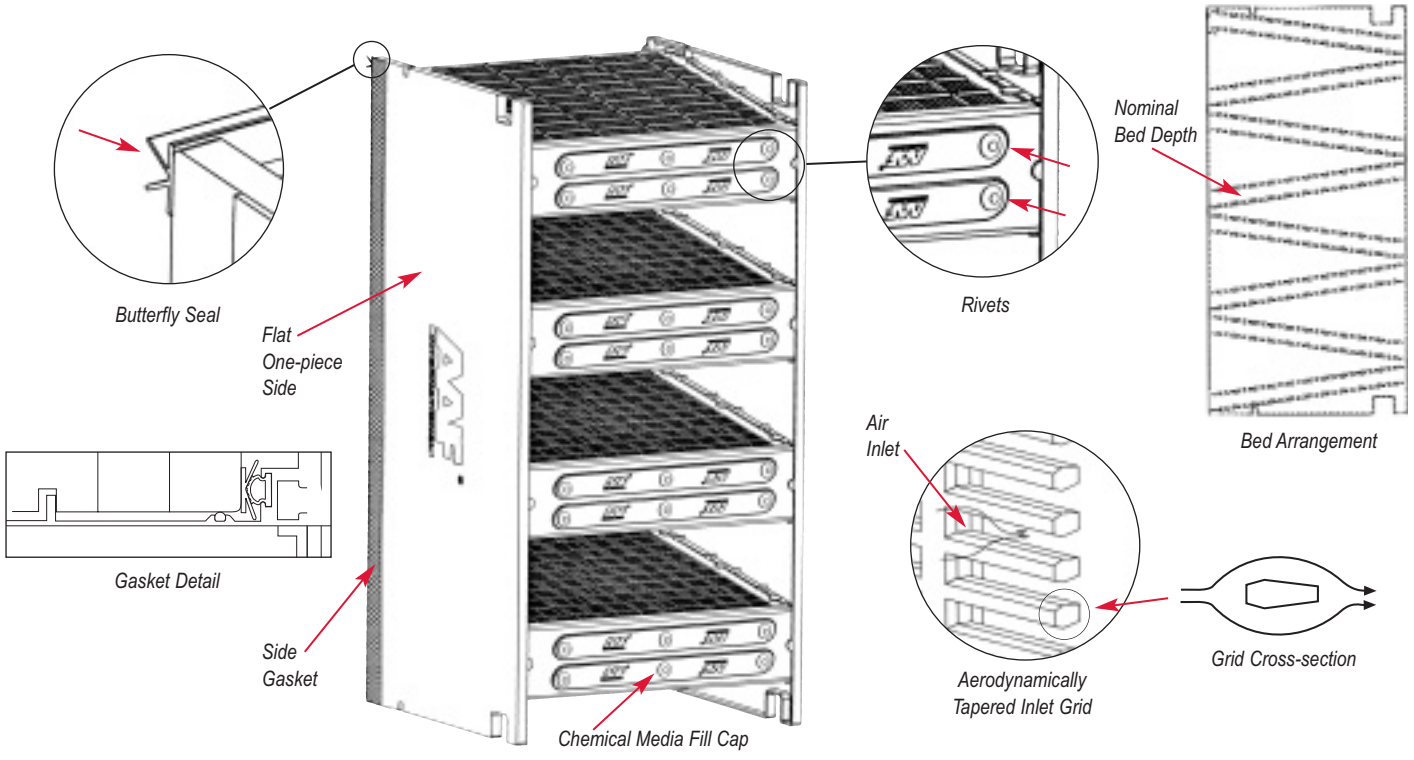
SAAF-T-Butterfly Seal and **SAAF-T-Groove -** Designs provide near absolute sealing, even in existing retrofit applications.

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-cassete sealing.

SAAF-T-Snap - Unique design eliminates harmful glues, solvents, or MEK's 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-Screens - Allow optimized apertures for better media retention and better energy efficiency through improved aerodynamics and reduced pressure drop.



AmericanAirFilter®

SAAF™ Cassette Cleanroom Grade Model SC:CG

Applications

SC:CG are used for gas removal applications in:

- *Museums, archives, or historical facilities*
- *ASHRAE energy savings related applications*
- *BioSafety*
- *High concentration airflows in institutional or commercial establishments*
- *High concentration cleanroom airflows*
- *High concentration emergency gas removal*
- *High concentration industrial airflows*
- *High concentration pharmaceutical airflows*
- *Odor control applications*

General Specifications and Application Parameters

Nominal Size
12 x 24 x 12 inches

Airflow
Designed for 500 FPM (2.5 m/s) face velocity or 1000 CFM (1700 m^3/h) airflow per cassette

Pressure Drop
0.47 in. w.g. @ 500 FPM (117 Pa @ 2.5 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
1" (25mm) nominal

Chemical Media Capacity
0.7 cubic feet (0.02 m^3)

Contains Chemical Media
Various (as stated in submittal or as approved)

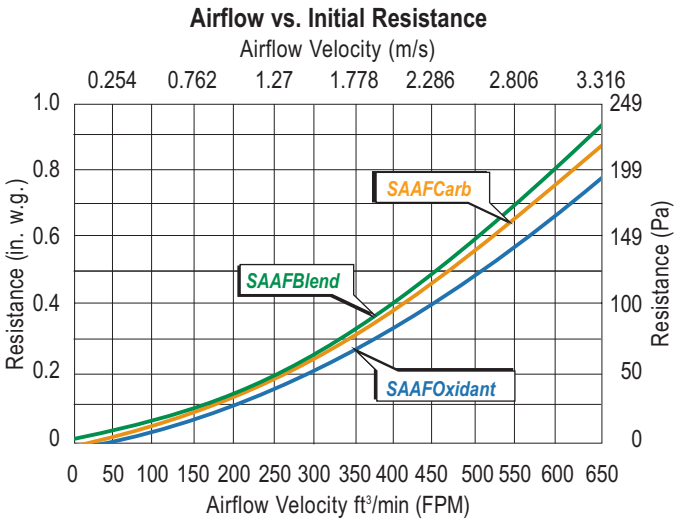
Gas Removal Efficiency
True >99% over life of chemical media

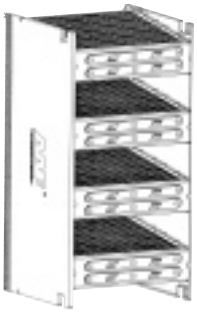
Humidity Range
5% - 99% RH

Temperature
-5ºF (-20ºC) to 130ºF (55ºC)

*Consult AAF sales representative for media/module combinations.

Performance Data





Disposal and Recycle Instructions

1. Remove the SC:CG 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 chemical may be sent for regular landfill or disposed of according to applicable local, state, and federal regulations.
4. The empty SC:CG cassette can then be sent for plastic recycling or for incineration.
5. The empty SC:CG cassette is completely incinerable/recyclable.

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ISO-9001 Certified Firm

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

GPF-1-111B SEP '06

AmericanAirFilter®

SAAF™ Cassette Heavy Duty Model SC:HD

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

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SAAF™ Cassette Heavy Duty Model SC:HD

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***
- ***Complete 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 International proudly announces the SC:HD — the best 3" V-bank, 12"-deep gas filtration cassette in the industry. AAF, the global leader and pioneer in air filtration, designs, manufactures, and performs QC compliance on these

Design, Construction, and Patents

Creating the perfect SAAF Cassette presented unique challenges. The design needed to be such that it retrofits easily and performs better than older legacy cassettes in existing installations. The result — the SC:HD which was conceived and designed by AAF International's global engineering and design teams that span five continents.

High technology design tools were employed to validate the design and confirm better performance. Computerized 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 SC:HD is constructed from High Impact Polystyrene (HIPS) and comes pre-filled with SAAF Chemical Media.

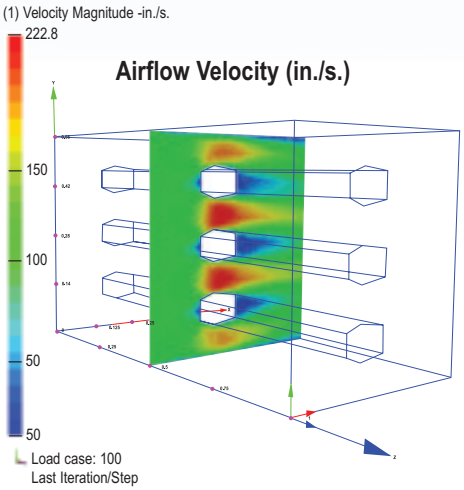
SAAF-V - Patent pending complete media utilization design eliminates the 'nose cavity' typically created by legacy cassettes. Nose cavities 'cocoon' up to 30% of the chemical media keeping it isolated from airflow contact at all times during the life of the cassette.

SAAF-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.

SAAF-T-Seal - Patent pending plastic rivets secure the solid fill caps at multiple points and allow complete security 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-Screens - Patent pending precision engineered SAAF-T-Screens allow optimized apertures for better media retention and improved airflow dynamics.



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

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%.

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

SAAF-V - Complete media utilization design allows the SC:HD to outperform legacy cassettes by 25%, as SAAF Cassettes are the only cassettes which completely utilize all chemical media in the cassette.

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

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-cassete sealing.

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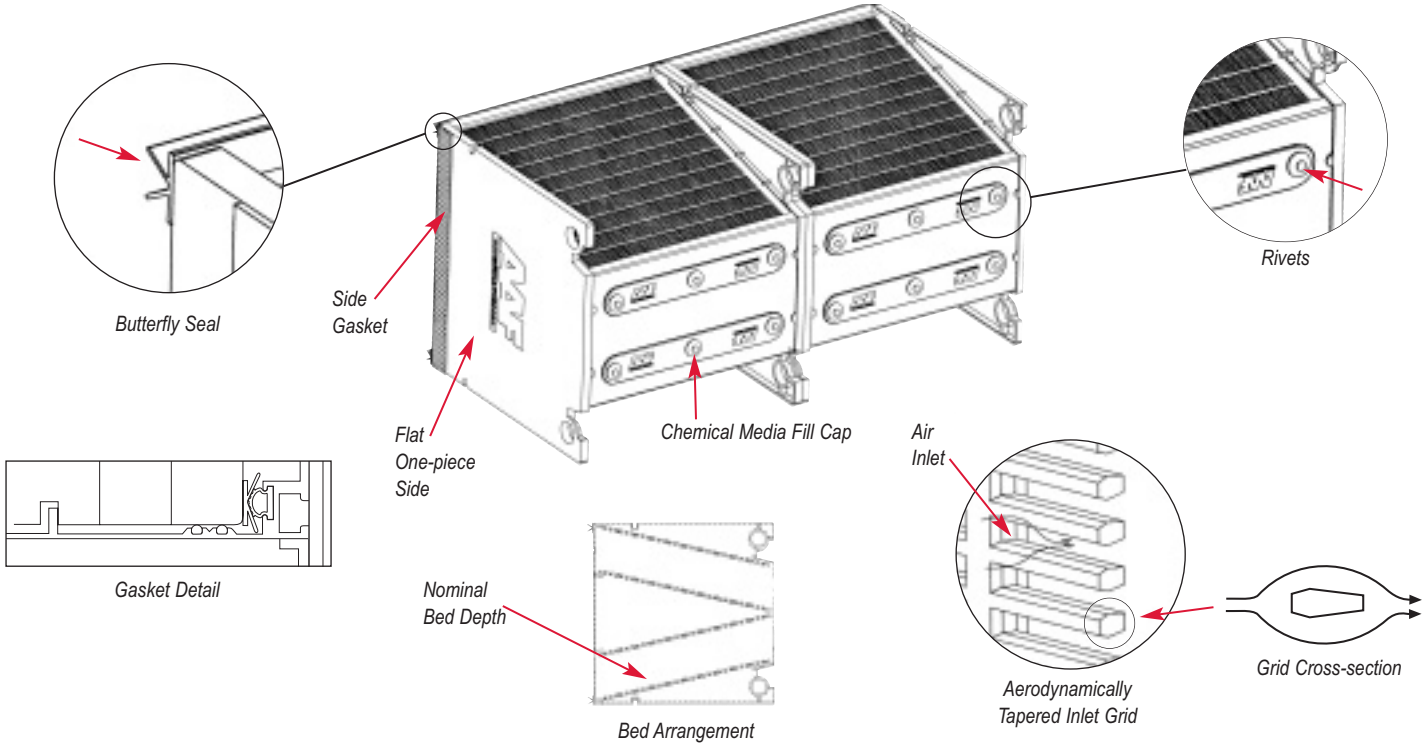
SAAF-T-Screens - Allow optimized apertures for better media retention and better energy efficiency through improved aerodynamics and reduced pressure drop.



AmericanAirFilter®

SAAF™ Cassette Heavy Duty Model SC:HD

Applications

SC:HD are used for gas removal applications in:

- *BioSafety*
- *Odor control applications*
- *High concentration emergency gas removal*
- *High concentration industrial airflows*
- *High concentration cleanroom airflows*
- *High concentration pharmaceutical airflows*
- *High 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 x12 inches (One SC:HD 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^3/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^3)

Contains Chemical Media
Various (as stated in submittal or as approved)

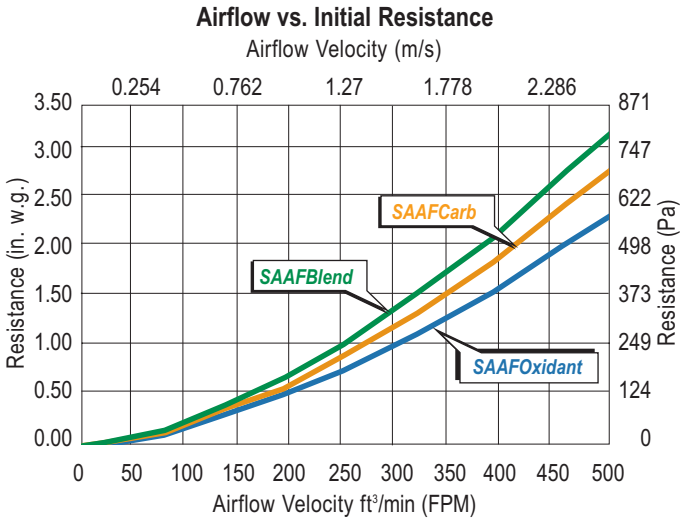
Gas Removal Efficiency
True >99% over life of chemical media

Humidity Range
5% - 99% RH

Temperature
-5ºF (-20ºC) to 130ºF (55ºC)

*Consult AAF sales representative for media/module combinations.

Performance Data



Disposal and Recycle Instructions

1. Remove the SC:HD 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 chemical may be sent for regular landfill or disposed of according to applicable local, state, and federal regulations.
4. The empty SC:HD cassette can then be sent for plastic recycling or for incineration.
5. The empty SC:HD cassette is completely incinerable/recyclable.

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GPF-1-109A JUL '06 VI 2M

AmericanAirFilter®

SAAF™ Cassette Medium Duty Model SC:MD

1-Inch V-Bank, 18-Inch Deep Gas Filtration Cassette

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SAAF™ Cassette Medium Duty Model SC:MD

1-Inch V-Bank, 18-Inch Deep Gas Filtration Cassette

- ***Form and fit unlike any other 18"-deep, 1" gas filtration cassette***
- ***Improved fit and sealing, even when deployed in older cassette holding systems***
- ***Complete 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 International proudly announces the SC:MD — the best 1" V-bank, 18"-deep gas filtration cassette in the industry. AAF, the global leader and pioneer in air filtration, designs, manufactures, and performs QC compliance on these cassettes under ISO 9001:2000 and other applicable global quality certifications.

Design, Construction, and Patents

Creating the perfect SAAF Cassette presented unique challenges. The design needed to be such that it retrofits easily and performs better than older legacy cassettes in existing installations. The result — the SC:MD which was conceived and designed by AAF International's global engineering and design teams that span five continents.

High technology design tools were employed to validate the design and confirm better performance. Computerized 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 SC:MD is constructed from High Impact Polystyrene (HIPS) and comes pre-filled with SAAF Chemical Media.

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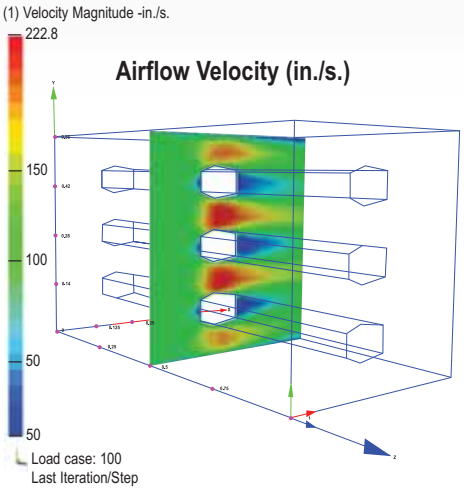
SAAF-T-Snap - Patent pending design provides a high pressure, no-glue snap assembly. This rigid construction excludes harmful glues, solvents, or MEK's from the manufacturing process. The SAAF-T-Snap design, unlike legacy cassettes, has no see-through holes in the solid end plates. This allows for better structural integrity and eliminates gas by-pass problems.

SAAF-T-Seal - Patent pending plastic rivets secure the solid fill caps at multiple points and allow complete security 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-Screens - Patent pending precision engineered SAAF-T-Screens allow optimized apertures for better media retention and improved airflow dynamics.



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Efficiency and Performance

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SAAF-V - Complete media utilization design allows the SC:HD to outperform legacy cassettes by 25%, as SAAF Cassettes are the only cassettes which completely utilize all chemical media in the cassette.

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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.

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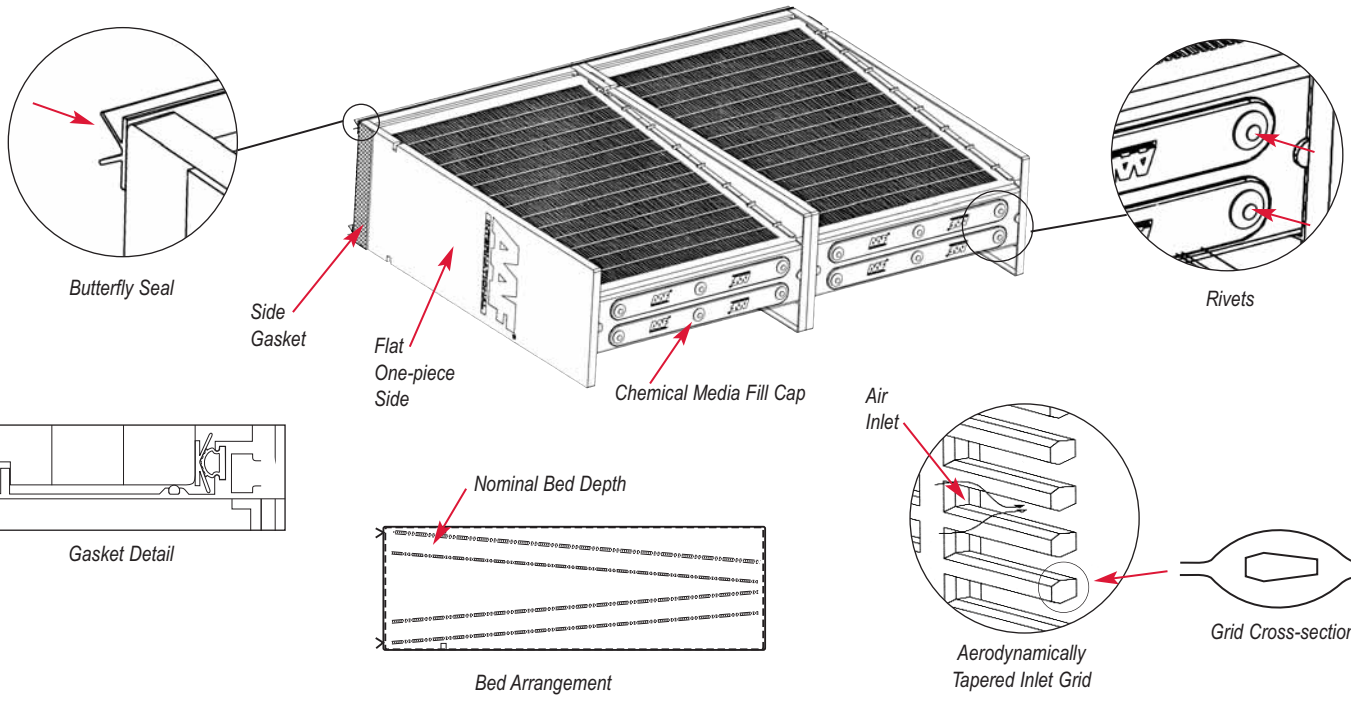
SAAF-T-Screens - Allow optimized apertures for better media retention and better energy efficiency through improved aerodynamics and reduced pressure drop.



AmericanAirFilter®

SAAF™ Cassette Medium Duty Model SC:MD

Applications

SC:MD are used for gas removal applications in:

- *BioSafety*
- *Odor control applications*
- *Intermittent high concentration emergency gas removal*
- *Medium and heavy industrial airflows*
- *Medium and heavy cleanroom airflows*
- *Medium and heavy pharmaceutical airflows*
- *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
6 x 24 x 18 inches (One SC:MD cassette is made up of two halves for easy lifting.)

Airflow
Designed for 500 FPM (2.5 m/s) face velocity or 500 CFM (850 m^3/h) airflow per cassette

Pressure Drop
0.31 in. w.g. @ 500 FPM (77 Pa @ 2.5 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
1" (25mm) nominal

Chemical Media Capacity
0.5 cubic feet (0.014 m^3)

Contains Chemical Media
Various (as stated in submittal or as approved)

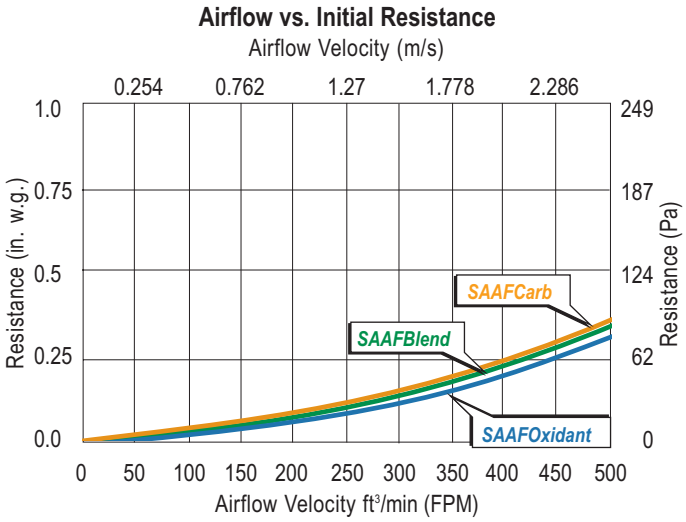
Gas Removal Efficiency
True >99% over life of chemical media

Humidity Range
5% - 99% RH

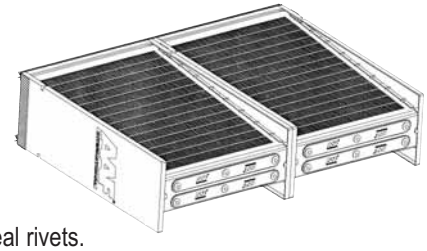
Temperature
-5ºF (-20ºC) to 130ºF (55ºC)

* Consult AAF sales representative for media/module combinations.

Performance Data



Disposal and Recycle Instructions



1. Remove the SC:MD 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 chemical may be sent for regular landfill or disposed of according to applicable local, state, and federal regulations.
4. The empty SC:MD cassette can then be sent for plastic recycling or for incineration.
5. The empty SC:MD cassette is completely incinerable/recyclable.

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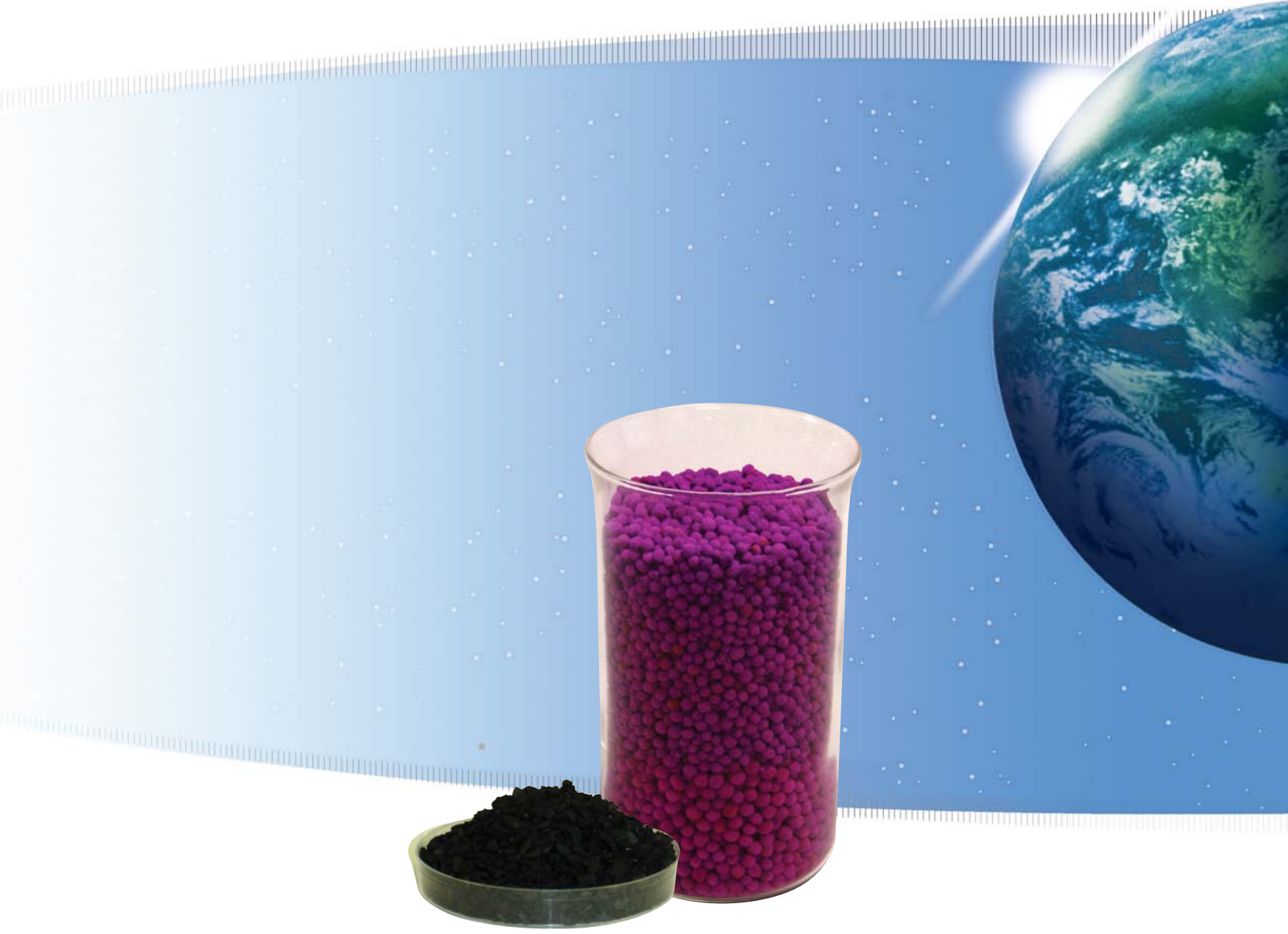

AmericanAirFilter®

SAAF™ Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

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SAAF™ Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

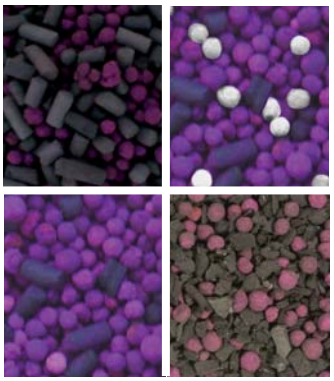
- ***Certified to the most rigid quality standards***
- ***Life test indicators***
- ***Backed by SAAF Technical Services teams***
- ***Backed by AAF's comprehensive warranties and guarantees***

SAAF™ AMC Chemical Media and Catalysts provide high efficiency filtration for effective removal of AMC's encountered in nuclear contamination, bio-hazard contamination, and chemical (gas) contaminated airstreams.

SAAF AMC media are designed to safely deliver superior gas removal effectiveness. Each blended media and gas specific media provides energy efficient indoor air quality control. The media are produced, used, and disposed of using environmentally friendly processes. SAAF AMC media adhere to the strictest quality standards which meet QC requirements up to Nuclear Air Quality Standards.

SAAF AMC Chemical Media are available as SAAF Custom Blends and SAAF Gas Specific Solutions. A variety of AAF specific pressure drop-friendly delivery mechanisms are available to easily incorporate SAAF AMC media into airflows. *(See brochure GPF-1-104.)*

SAAF Custom Blends



Each SAAF custom blend is a proprietary blend designed for air quality treatment within specific applications.

SAAF custom blends contain different compositions of SAAF media which when utilized in the intended application, provide a comprehensive environmental air quality solution. SAAF custom blends may be employed for use in treatment of outside air, recirculation air, or use in specific microclimate environments.

SAAF Gas Specific Solutions

Designed for targeted gas removal, SAAF Gas Specific Solutions serve as enhanced value replacements for existing and older chemical filtration systems.

SAAFOxidant
Effective air quality control via removal of hydrogen sulfide, sulfur oxides, formaldehyde, and nitric oxides.

SAAFCarb
Effective air quality control via removal of Volatile Organic Compounds (VOC's), jet and diesel fumes, and hydrocarbons.

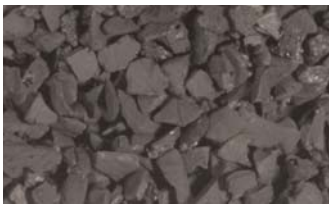
SAAFCarb MA
Effective air quality control via targeted removal of acid gas.

SAAFCarb MA.HT
Effective air quality control via targeted removal of acid gases. This chemical media has a high ignition temperature and is useful in critical application areas.

SAAFCarb MB
Effective air quality control via targeted removal of amines and ammonia.

SAAFCarb MC
Effective air quality control via targeted removal of chlorine gas.

SAAFCarb MM
Effective air quality control via targeted removal of mercury vapors.



SAAFCarb CBR
AAF's ASZM-TEDA carbon for chemical warfare protection and national security uses.

SAAF Custom Blend and Typical Applications

SAAFBlend GP
General purpose air quality control

SAAFBlend WS
Wide spectrum air quality control applications

SAAFBlend Odor
Refuse odor removal

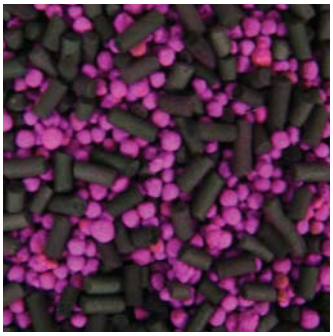
SAAFBlend Corrosion
Corrosive gas removal in industrial and cleanroom applications

SAAFBlend Protect
Heritage protection in museums, archives and historical storage applications

SAAFBlend City
Air quality control in urban environments

SAAFBlend Healthcare
RA applications in acute care facilities

Other custom blends are available.



SAAFBlend GP, one of the SAAF custom blends available, is a general purpose engineered gas removal chemical media.

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SAAF™ Airborne Molecular Containment (AMC) Chemical Media and Catalysts

The SAAF Technical Services Group has the instrumentation and training to perform comprehensive evaluations and environmental assessments. All tests are carried out and correlated to applicable industry standards.

SAAF Technical Services

Evaluations Include:

- Particulate contamination assessments, recommendations, and product solutions
- Gaseous contaminant assessments, recommendations, and product solutions
- Humidity assessments, recommendations, and product solutions
- Product life cycle assessments and recommendations
- Room integrity verification, sealing checks, and HVAC system checks

AAF Innovation and Engineering

AAF's technologies and innovations have steered the air filtration industry for the past eight decades. From its modest beginning in 1921, when the first air filtration technology was developed by our founder, William Reed, the company today employs more than 100 engineers and has sales offices worldwide. We hire design and product development engineers who understand the importance of global design validity, the benefits of easy product use, protection of natural resources, and the need to provide a product experience that enriches human existence.

AAF Service and Commitment

AAF is committed to an exceptional end-user product experience. AAF is the only air filter company with a direct force of factory trained representatives. AAF's sales, service, and technical employees provide back-up and product support around the globe. All this, while making it easy to work with AAF.

AAF Quality Control, Operations, and Manufacturing Standards

AAF maintains quality, operating, and manufacturing standards as a major cornerstone of its global strategy. Our QC teams are present in every manufacturing facility. We are proud to display the various supplier awards with which we have been credited. While ISO certification and quality compliance are important to us, it is consumer awards, such as the G.E. Global Quality Supplier Award and Rolls Royce Best Manufacturer Award, that make us proud. It is assuring to see that our end-users value quality as much as we do.

AAF's Global Operations Teams, supported by skilled teams of industrial, manufacturing, and project engineers, work continuously to improve AAF's product reliability, quality, and global manufacturing practices.

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GPF-1-103B AUG '06 QG 2M

AmericanAirFilter®

SAAF™ Deep Bed Systems

SAAF Deep Bed Adsorbers (SAAF:DBA)

SAAF Deep Bed Scrubbers (SAAF:DBS)

SAAF Deep Bed Type III Nuclear Grade Systems

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SAAF™ Deep Bed Systems

SAAF Deep Bed Systems are suitable for the most challenging applications where heavy particulate and Airborne Molecular Contaminant (AMC) loading is anticipated. These systems are workhorses and provide the largest media volume holding capacity.

Deep Bed Adsorbers (SAAF:DBA)

- ***Available as Deep Bed Adsorbers (SAAF:DBA)***
- ***Available as Deep Bed Scrubbers (SAAF:DBS)***
- ***Available as Deep Bed Type III Nuclear Grade Systems***
- ***Can be combined with AAF's patented technologies to provide air free of particulates and problem gases***
- ***Best solution for total protection from airborne particulate and gaseous hazards***

Features

- Rugged heavy-duty industrial and nuclear grade construction for maximum protection
- Welded construction for zero air leakage and by-pass
- Certified energy efficient design
- Advanced safety features, electronic controls, and sensing technologies
- Automatic chemical media loading and unloading capability for reduced maintenance down-time
- Automatic chemical media life test capabilities
- Designed, engineered, and manufactured by AAF's global design and R&D teams
- Quality systems compliance to ISO, CE, nuclear quality assurance program NQA-1 and AAF-McQuay QA
- Serviced and protected by AAF in-country global manufacturing and service network

Options

- Heavy-duty automatic particulate removal sections for installation in high dust locations
- Single and double-walled construction for whisper-quiet operation
- Available in modular reinforced FRP, 316 and 304 stainless, aluminum, and CRS painted or galvanized MOC
- 100% fan redundancy and back-up capability
- Easy integration with AAF-McQuay high efficiency and high capacity energy efficient products
- Custom bed depths
- Explosion proof options
- Silencers
- Temperature and pressure sensors
- Wide range of custom sizes and options

Deep Bed Scrubbers (SAAF:DBS)

Applications

- Heavy-duty gas protection
- Emergency gas scrubbing
- Odor control
- Corrosion protection
- Nuclear hazard protection
- Bio-hazard protection
- Safe bunkers
- Safe Shelters from war gases

SAAF Deep Bed Systems are in use in mission-critical govermental and industrial applications around the world.

Typical industries where SAAF Deep Bed Systems are effectively employed are:

- Pulp and paper mills
- Petrochemical and refinery facilities
- Specialty chemical processing facilities
- Nuclear power plants and associated facilities
- Classified facilities for protection against war and other hazard gases
- Water and waste water treatment facilities

Deep Bed Type III Nuclear Grade Systems

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SAAF™ Deep Bed Systems

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SAAF Technical Services

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AAF's Global Operations Teams, supported by skilled teams of industrial, manufacturing, and project engineers, work continuously to improve AAF's product reliability, quality, and global manufacturing practices.

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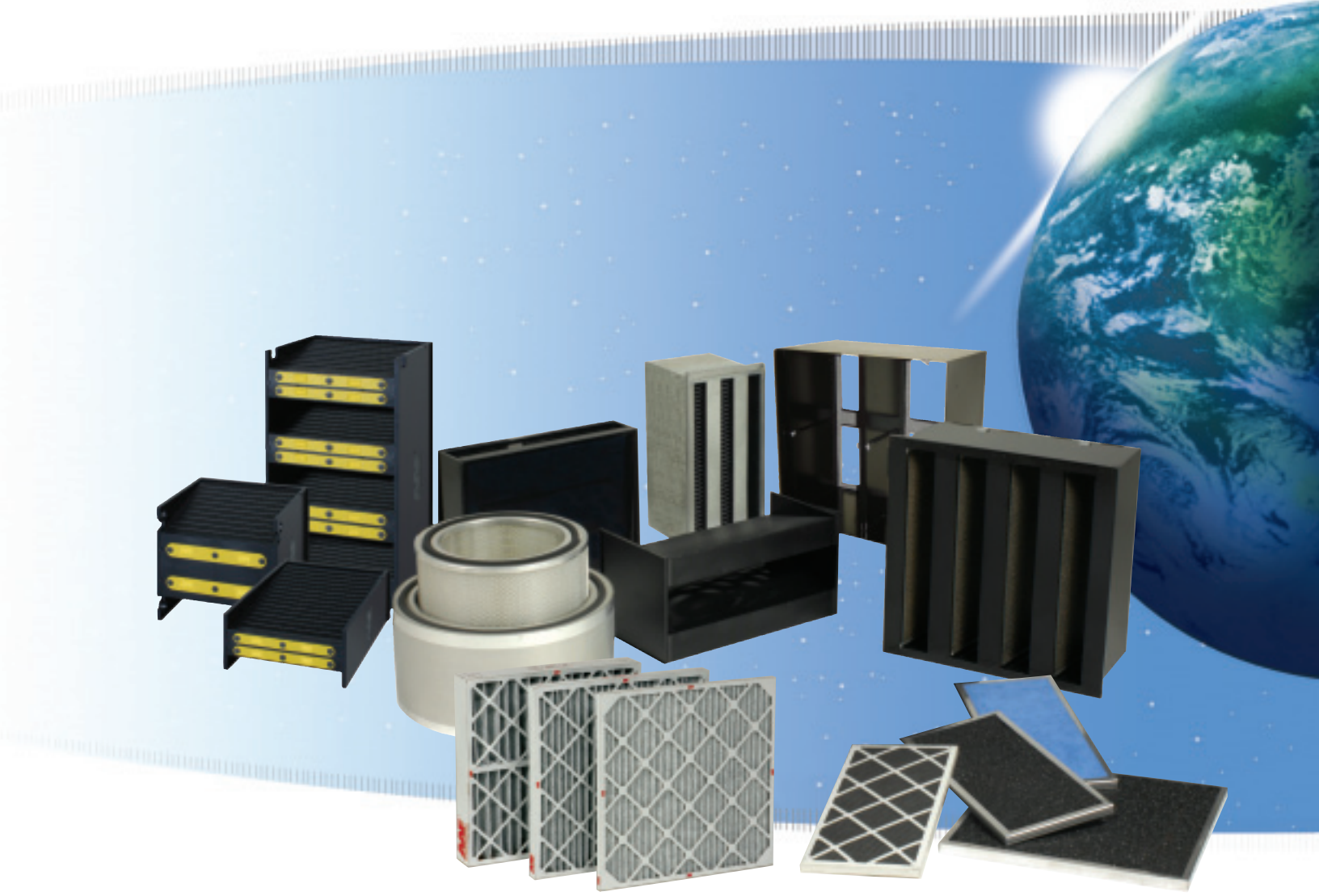

AmericanAirFilter®

SAAF™ Delivery Systems for Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

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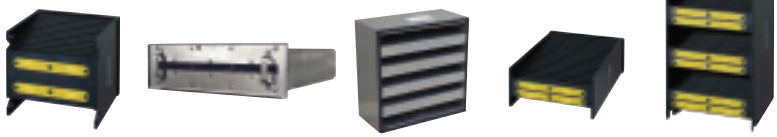
SAAF™ Delivery Systems for Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

SAAF products have effective AMC chemical media delivery mechanisms which include SAAF Deep Bed type systems, Cassettes, Cartridges, Multi Panel V-Banks, Pleated Filters and MiniPleat High efficiency gas removal filters. SAAF AMC delivery mechanisms can be easily incorporated into existing HVAC systems. SAAF products are pressure drop-friendly and fail-safe delivery mechanisms which contain SAAF AMC Chemical media.

See Brochure GPF-1-103.

SAAF Family of Products

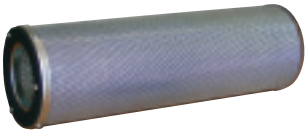


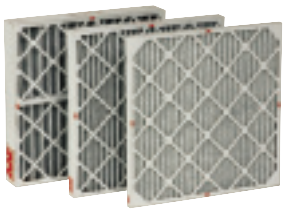
Technology	**Deep Bed Systems**			**Cassettes**				
Product Description	Deep Bed Adsorber	Deep Bed Adsorber Type III	Deep Bed Scrubber	SAAF Cassette 3" Deep Single-V -Heavy Duty	SAAF Cassette 2" Deep Nuclear Grade	SAAF Nuclear Cassette	SAAF Cassette 1" Deep Single-V Medium Duty	SAAF Cassette 1" Deep Multiple V Cleanroom Grade
Brand Name	SAAF:DBA	SAAF:DBA III	SAAF:DBS	SC:HD	SC:Type II,RM	SC:Type IV,RM	SC:MD	SC:CG
Size (nominal) inches **No. per set of elements/set** **No. of sets per 24 x 24" area**	Custom Sizes	Custom Sizes	Custom Sizes	12 x 12 x 24 2 2	8 x 13 x 48 1 3	24 x 24 x 12 1 1	6 x 18 x 24 2 4	24 x 12 x 12 1 2
Materials of construction	Single and Double Walled, FRP, 304SS, 316SS, Aluminum, Galvanized , CRS, CRS Painted			304SS, 316SS, Aluminum, High Impact Polystyrene (HIPS), Galvanized, CRS Powder coated				
Typical Applications								
Nuclear Hazard Containment/ Air Filtration Applications	•	•	•	•	•	•	•	
BioHazard Containment/ Air Filtration Applications	•	•	•	•	•	•	•	
Emergency Gas Removal Response Applications	•	•	•	•	•	•		
Industrial Grade Gas Removal Applications	•	•	•	•	•	•	•	
Cleanroom Grade Gas Removal Applications				•			•	•
Institutional/Commercial Gas Removal Applications				•			•	•
Museum and Archival Gas Removal Applications				•			•	•
ASHRAE IAQ/Energy Savings Applications				•			•	•

SAAF products are designed using the following main criteria:

- *Safety*
- *Gas Removal Effectiveness*
- *Energy Efficiency*
- *Environmentally Friendly Production, Usage and Disposal*
- *Strictest Quality Standards that meet QC requirements up to Nuclear Air Quality Standards*

SAAF products offer enhanced value replacements for existing older Nuclear, Biological, and Chemical Air filtration systems.





Canister	**Multiple Panel V-Banks**	**Pleated Gas Removal Filters**			**High Efficiency Mini Pleat Gas Removal Filters**	
SAAF Canister SAAF Mini Pleated	AMERSORB Honeycomb Panels, Bonded Carbon Panels, Trays				SAAF Pleated GP Filters GP Filters	
SAAF:Round-RP SAAF:Round-RM	AmerSorb MPV	AmerSorb P			VariSorb	
6ø x 18 1 16	24 x 24 x 1 6 1	24 x 24 x 2 1 1	24 x 24 x 4 1 1	24 x 24 x 12 1 1	24 x 24 x 12 1 / V8 1	24 x 24 x 17 1 / V 1
304SS, 316SS, Aluminum, High Impact Polystyrene (HIPS) Galvanized, CRS Powder coated	304SS, 316SS, Aluminum, High Impact Polystyrene (HIPS), Galvanized, CRS Powder coated	304SS, 316SS, Aluminum, High Impact Polystyrene (HIPS), Galvanized, CRS Powder coated			304SS, 316SS, Aluminum, High Impact Polystyrene (HIPS), Galvanized, CRS Powder coated	
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AmericanAirFilter®

SAAF™ Delivery Systems for Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

The SAAF Technical Services Group has the instrumentation and training to perform comprehensive evaluations and environmental assessments. All tests are carried out and correlated to applicable industry standards.

SAAF Technical Services

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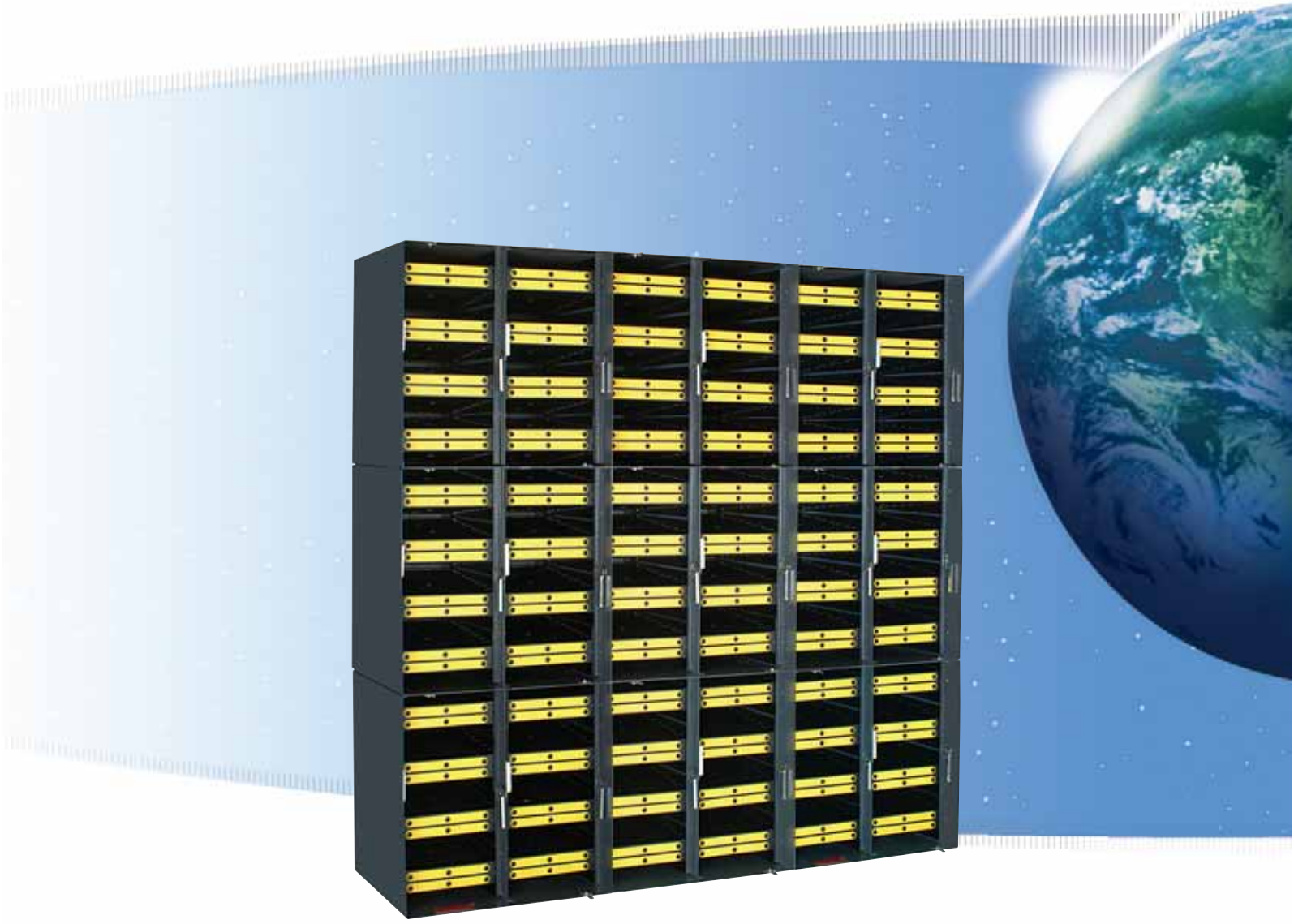

AmericanAirFilter®

SAAF™ Front Access Housings (SAAF:FAH)

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AmericanAirFilter®

SAAF™ Front Access Housings (SAAF:FAH)

Two-Stage Total Clean Air Systems

- ***Combines particulate filters and gas phase cassettes to create total clean air solutions; removes both airborne particulate and gaseous contaminants***
- ***Stand-alone system can be easily incorporated into new and existing air handling units; excellent for quick retrofit solutions***
- ***Patent-pending SAAF™ Seal provides the best seal available and superior filtration efficiency***
- ***Energy efficient design reduces operating costs associated with air conditioning by allowing the maximum recirculation of tempered air***

Value Solution for Gas-Phase Air Filtration

SAAF Front Access Housings (SAAF:FAH) are designed to support SAAF chemical media cassette filters: Heavy Duty (SAAF:HD), Medium Duty (SAAF:MD), and Cleanroom Grade (SAAF:CG).

The housings are designed to be stacked vertically into filter banks, up to four housings tall and as many wide as you need, to meet the specific demands of your application. SAAF:FAH is the value solution for total air cleaning.

Model FAH-202-2P-MD housing holds four Medium Duty (SAAF:MD) chemical media cassettes.

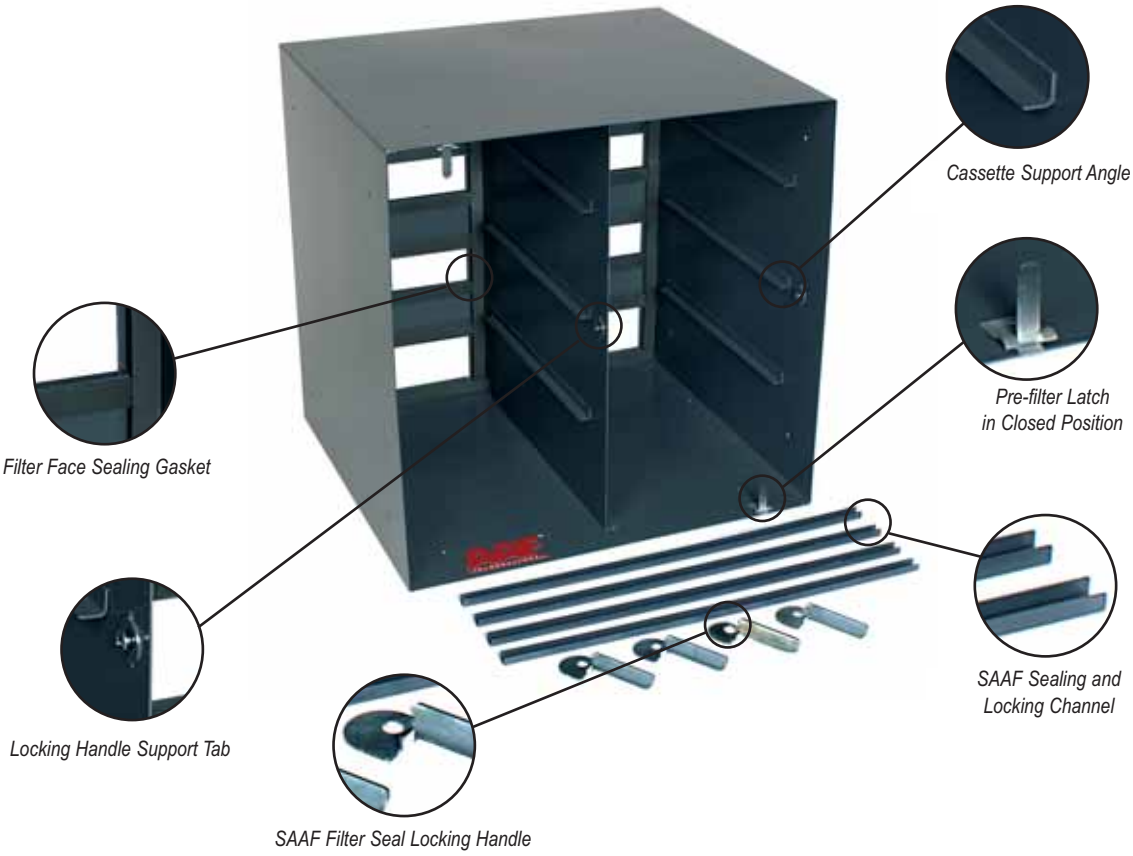
Model FAH-202-2P-HD housing holds two Heavy Duty (SAAF:HD) chemical media cassettes.

Model FAH-202-2P-CG housing holds two Cleanroom Grade (SAAF:CG) chemical media cassettes.

SAAF Seal Provides Superior Integrity

AAF's patent-pending SAAF Seal High Integrity Sealing System is a unique sealing system that prevents by-pass of unfiltered air. Cassettes are held in place by a combination of channels and locking handles which compress the cassettes firmly against the face gaskets.

This system is completely effective and simple to use, allowing quick and easy installation and replacement of cassettes. This prevents by-pass of contaminated air around the filter and ensures exceptional filter system efficiency.



SAAF cassettes, cartridges, and replacement panels are available across a complete range of pressure drop and removal efficiencies.

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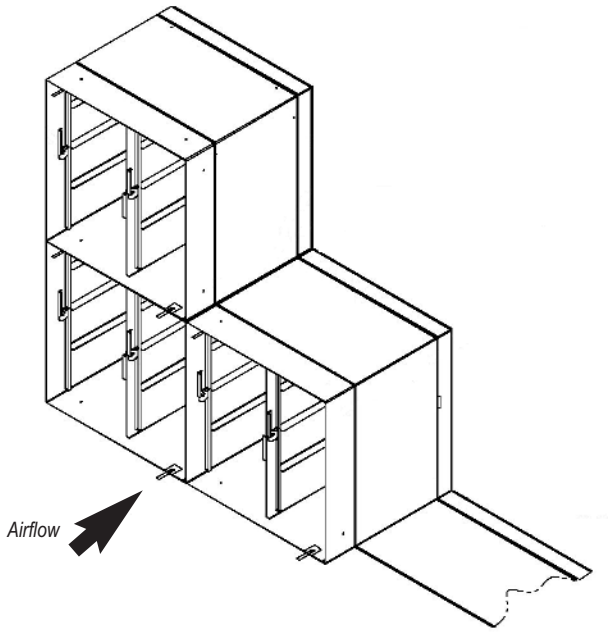
SAAF™ Front Access Housings (SAAF:FAH)

Typical Bank Construction



Individual or multiple SAAF:FAH are assembled into complete filter banks as shown.

Built for Prefilter Option

SAAF:FAH is designed to hold one 2" deep prefilter to prevent build-up of lint and dust on the face of the cassette filters. Spring-loaded prefilter holding latches secure the prefilter into the housing frame. For best results, the MERV 8 PerfectPleat® ULTRA filter is recommended.

PerfectPleat ULTRA (MERV 8), PerfectPleat HC (MERV 7), and PerfectPleat (MERV 7) filters are ideal prefilters for SAAF:FAH.

Product Information

Model	Dimensions (H x W x D) (in.)	Rated Airflow (FPM / CFM)	Pressure Drop* (in. w.g.)
FAH-102-2P-MD	12" x 24" x 21½"	500 / 1000	0.31
FAH-201-2P-MD	24" x 12" x 21½"	500 / 1000	0.31
FAH-202-2P-MD	24" x 24" x 21½"	500 / 2000	0.31
FAH-102-2P-HD	12" x 24" x 15¾"	250 / 500	0.73
FAH-201-2P-HD	24" x 12" x 15¾"	250 / 500	0.73
FAH-202-2P-HD	24" x 24" x 15¾"	250 / 1000	0.73
FAH-201-2P-CG	24" x 12" x 15¾"	500 / 1000	0.47
FAH-202-2P-CG	24" x 24" x 15¾"	500 / 2000	0.47

* Pressure drops shown are based on cassettes filled with AAF's SAAFOxidant media. Pressure drops may differ slightly when alternative media are supplied.

Product Model Designations

The SAAF:FAH model is designated as follows:

FAH – 202 – 2P – MD

- *Supports Type MD cassettes*
- *Supports a 2" deep particulate prefilter, if required.*
- *Is nominally 2' high x 2' wide*
- *Front Access Housing*

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ISO Certified 9001:2000

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

GPF-1-115A AUG '07 MP 5M

AmericanAirFilter®

SAAF™ High Capacity PORTA-Scrubber (SAAF:HCPS)

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AmericanAirFilter®

SAAF™ High Capacity PORTA-Scrubber (SAAF:HCPS)

Multipurpose, Industrial Grade PORTABLE Scrubber

- *Units available as Powered and Non-Powered*
- *Ideal for a wide variety of applications*
- *Suitable for outdoor installation*
- *Compact design is space efficient while reducing capital and installation costs*
- *Quick, easy installation and operation in a self-contained system - virtually maintenance free*
- *Standard weatherproof fan and single-phase motor on powered units*
- *Designed to remove gaseous and particulate contaminants from the airstream in the most demanding applications*
- *Ultra-high capacity SAAFCarb MA.HT chemical media provides complete contaminant removal and longer service life than conventional scrubber media currently available*

The SAAF™ High Capacity PORTA-Scrubber can be used to capture fugitive emissions from laboratory vent hoods or chemical storage tanks.

High Capacity Solution in a Portable, Economical Unit

The SAAF High Capacity PORTA-Scrubber (SAAF:HCPS) is an economical, yet heavy-duty, quick fix for removal of high concentrations of gaseous contaminants from low volume airflows. This portable scrubber is effective within a wide variety of municipal odor control, industrial, and commercial gas removal applications. Its compact size and quick-connect portable design make SAAF:HCPS an easy solution in high PPM gas applications.

SAAF:HCPS can be effectively deployed in a variety of fugitive emission applications, including sewage/septic wet well odor control, sewage pumping station odor control, laboratory vent hood scrubbing, and at breather exhausts of chemical storage tanks. SAAF:HCPS is designed to induce a positive or negative pressure, depending on the application, on any enclosed space or vent.

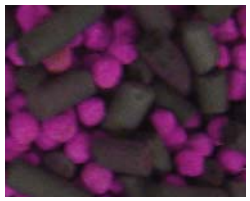
SAAF™ Airborne Molecular Contaminant (AMC) Chemical Media and Catalysts

AAF offers the largest variety of high efficiency filtration media for effective removal of AMCs encountered in chemical (gas), nuclear, and biohazard contaminated airstreams. SAAF AMC Chemical Media are available as SAAF Custom Blends and SAAF Gas Specific Solutions.

The SAAF Technical Services Group performs comprehensive evaluations and environmental assessments, including remaining media life analysis calculations.

SAAF Gas Specific Solutions are designed for targeted gas removal. SAAFCarb MA, manufactured expressly for odorous environments, is ideal for pump stations located near schools or sensitive neighborhoods.

SAAF Custom Blends are proprietary blends designed for specific applications to provide comprehensive environmental air quality solutions.



SAAF:HCPS is suitable for removal of corrosive gas in targeted industrial and cleanroom applications.

SAAF AMC Chemical Media are powerful enough for high capacity industrial applications, yet suitable in mission-critical applications.

Applications

The versatility of SAAF:HCPS makes it an ideal solution for gas removal applications in:

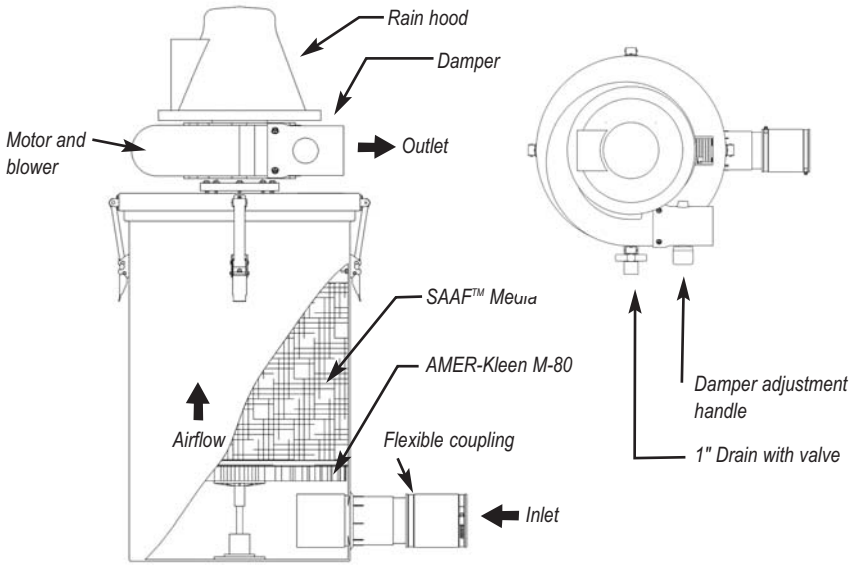
- Laboratory Exhaust Systems
- Automotive Manufacturing
- WWTP Collection Systems
- Pharmaceutical
- Pulp and Paper
- Oil Refining
- Semiconductor
- Food Processing

Industrial Strength Scrubbing Power

Contaminated air enters the bottom plenum from the 4" inlet, and encounters a patent-pending baffle plate that evenly distributes air through a bed of SAAF media.

SAAF media neutralizes the gaseous contaminants within the air as the contaminated air is drawn through the media. Once the air has passed through multiple layers of SAAF media, it is exhausted through the standard 120V, single-phase fan/motor assembly. The fan is weatherproof and protected by a PVC weather cover.

The airflow can be reduced, when necessary, by adjusting the outlet damper.



Typical Schematic Arrangement

Product Information

Model Type	Nominal Height	Nominal Diameter	Inlet Diameter	Max Airflow	Nominal Media Capacity
HCPS-100	55	23¾"	4"	100 CFM	4 cu. ft.
HCPS-300	70	33"	6"	300 CFM	7 cu. ft.
HCPS-500	72	39"	6"	500 CFM	17 cu. ft.

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SAAF™ High Capacity PORTA-Scrubber (SAAF:HCPS)

Engineering Solutions

The Research & Development group is headquartered in Louisville, Kentucky, USA ,with staff located in Europe and Asia. Each member of the group is committed to advancing the state-of-the-art in air filtration. R&D's role is to recognize emerging needs and anticipate future air filtration requirements, in order to provide solutions in a timely manner. Their accumulated years of experience, in synergy with a worldwide network of academic and industrial resources, ensure that AAF will always offer excellence in air filtration.

The Product Engineering staff is also located in Louisville, Kentucky, USA, and in key manufacturing facilities around the world. They are a team focused on current markets, with an objective of continuous improvement and services to provide maximum value to our customers. They also quickly adapt our products to meet short-term changes in filtration requirements as they arise in the marketplace.

SAAF™ Technical Services

The SAAF Technical Services Group has the instrumentation and training to perform comprehensive evaluations and environmental assessments. All tests are carried out and correlated to applicable industry standards.

Evaluations include: particulate contamination assessments, gaseous contaminant assessments, humidity assessments, product life cycle assessments, room integrity verification, and sealing and HVAC circuit checks.

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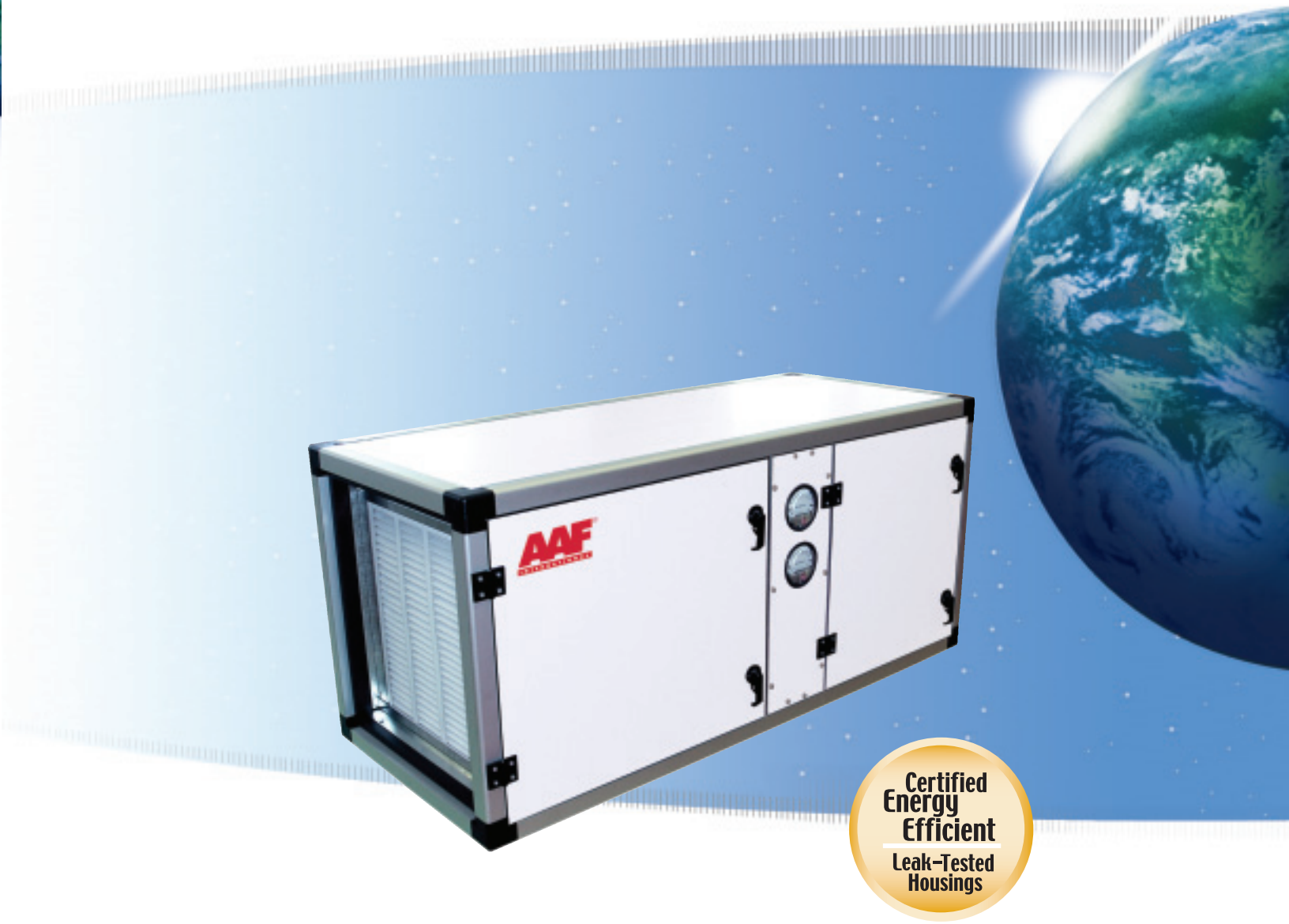

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SAAF™ Side Access Housings (SAAF:SAH)

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SAAF™ Side Access Housings (SAAF:SAH)

Multi-Stage Total Clean Air Systems

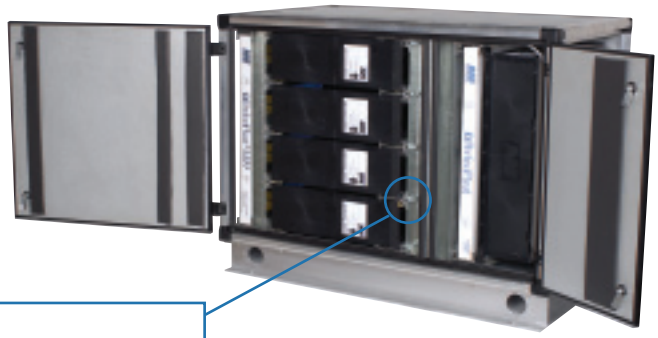
- ***Combines particulate filters, gas phase cassettes, and high efficiency filters to create total clean air solutions; removes both airborne particulate and gaseous contaminants***
- ***Patent-pending SAAF™ Seal provides the best seal available and superior filtration efficiency***
- ***Available with internal fan; wide range of sizes and combinations of housings and filter banks***
- ***Insulated double-wall construction***
- ***Allows easy installation, operation, and maintenance in a totally self-contained system***

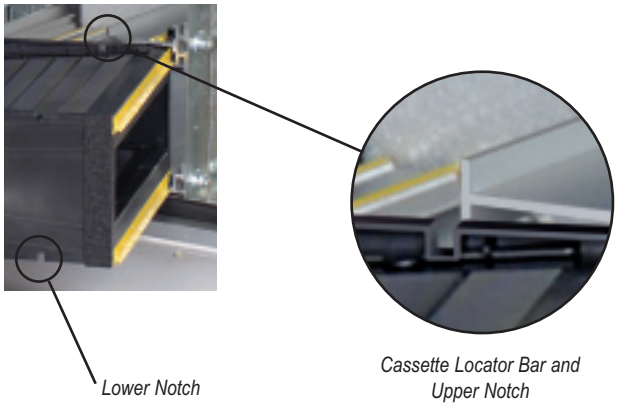
Certified Energy Efficient
Leak-Tested Housings

SAAF Side Access Housings (SAAF:SAH) are designed to support SAAF chemical media cassette filters, prefilters and after-filters, and high efficiency particulate filters all in one self-contained unit for the removal of gas contaminants and airborne particulate. The housings are available in many different combinations and sizes to meet a wide range of applications. SAAF:SAH is a state-of-the-art solution for total air cleaning.

Sealing System Prevents Filter Bypass

AAF's patent-pending filter sealing system prevents bypass of unfiltered air. Cassettes and filters are locked in place by a combination of cassette notches and cassette locator bars. Designed to maintain optimal positioning of the cassettes, the locator bar compresses the cassette into the sealing gasket. This unique system is completely effective and ensures exceptional filter efficiency.





Lower Notch

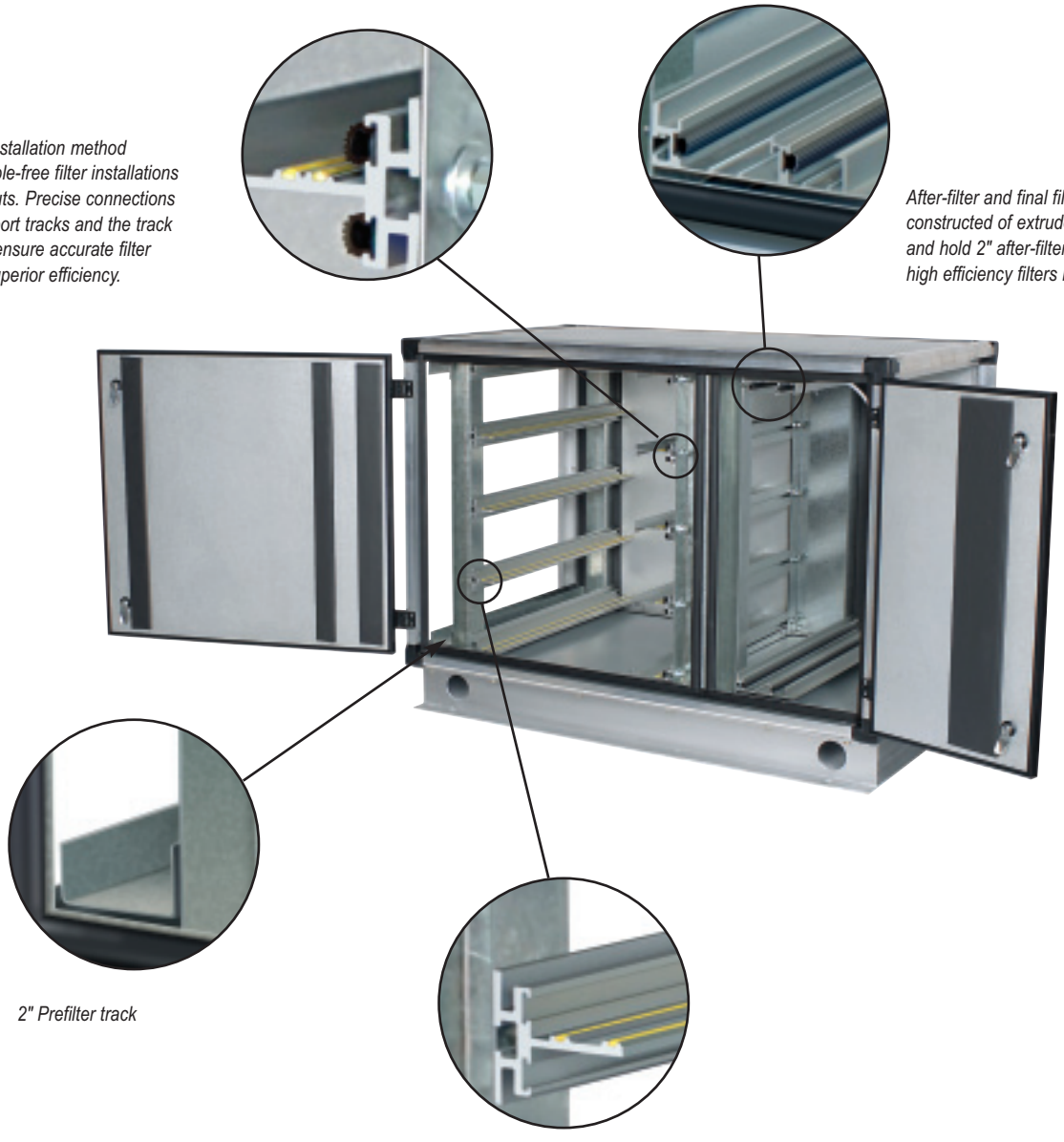
Cassette Locator Bar and Upper Notch

Model SAH-202-2P-MD-2P-6F:
One of many available combinations, this housing accommodates one PerfectPleat® ULTRA 2" prefilter, four SAAF:MD cassettes, PerfectPleat® 2" after-filter, and VariCel® M-Pak high efficiency filter.

Built for Strength

SAAF:SAH is constructed of heavy-duty industrial grade stainless steel, aluminum, painted steel, or corrosion resistant Galvalume® for maximum protection and durability. Ultra-modern double walled panels and doors provide whisper quiet operation. Each housing is leak tested and certified for energy efficiency.

AAF's track installation method provides trouble-free filter installations and changeouts. Precise connections between support tracks and the track support post ensure accurate filter spacing for superior efficiency.



After-filter and final filter tracks constructed of extruded aluminum and hold 2" after-filters and 6" deep high efficiency filters respectively.

2" Prefilter track

The cassette support track (non-sealing face shown above) is constructed of extruded aluminum with plastic strips to reduce friction.

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SAAF™ Side Access Housings (SAAF:SAH)

Prefilters and After-filters

PerfectPleat ULTRA (MERV 8), PerfectPleat HC (MERV 7), and PerfectPleat (MERV 7) filters are ideal prefilters used to prevent the buildup of lint and dust on the face of the cassette and high efficiency filters.

High Efficiency Final Filters

SAAF:SAH will accommodate a high efficiency final filter bank to ensure that filtered air meets the highest levels of efficiency.

Chemical Media Cassettes

SAAF:SAH is designed to hold SAAF chemical media cassette filters: Medium Duty (SAAF:MD), Heavy Duty (SAAF:HD) and Cleanroom Grade (SAAF:CG)

Product Information

Model	Nominal Dimensions H Ft	Nominal Dimensions W Ft	Cassette Selection SAAF:HD Airflow @ 250 FPM Velocity	Cassette Selection SAAF:MD Airflow @ 500 FPM Velocity	Cassette Selection SAAF:CG Airflow @ 500 FPM Velocity
102	1	2	500	1,000	1,000
104	1	4	1,000	2,000	2,000
202	2	2	1,000	2,000	2,000
204	2	4	2,000	4,000	4,000
206	2	6	3,000	6,000	6,000
302	3	2	1,500	3,000	3,000
304	3	4	3,000	6,000	6,000
306	3	6	4,500	9,000	9,000
402	4	2	2,000	4,000	4,000
404	4	4	4,000	8,000	8,000
406	4	6	6,000	12,000	12,000
408	4	8	8,000	16,000	16,000
410	4	10	10,000	20,000	20,000
504	5	4	5,000	10,000	10,000
506	5	6	7,500	15,000	15,000
508	5	8	10,000	20,000	20,000
510	5	10	12,500	25,000	25,000
604	6	4	6,000	12,000	12,000
606	6	6	9,000	18,000	18,000
608	6	8	12,000	24,000	24,000
610	6	10	15,000	30,000	30,000

Product Model Designations

The SAAF:SAH model is designated as follows:

SAH - 202 – 2P – MD – F – MD – 2P – 6F

- *Side Access Housing*
- *Is nominally 2' high x 2' wide*
- *Supports a 2" deep particulate pre-filter, if required*
- *First gas-phase chemical filter bank, supports Type MD cassettes*
- *Fan*
- *Second gas-phase chemical filter bank, supports Type MD cassettes*
- *Supports a 2" deep particulate after-filter, if required*
- *Supports a 6" deep particulate final filter, if required*

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GPF-1-106B FEB '07 VI 5M

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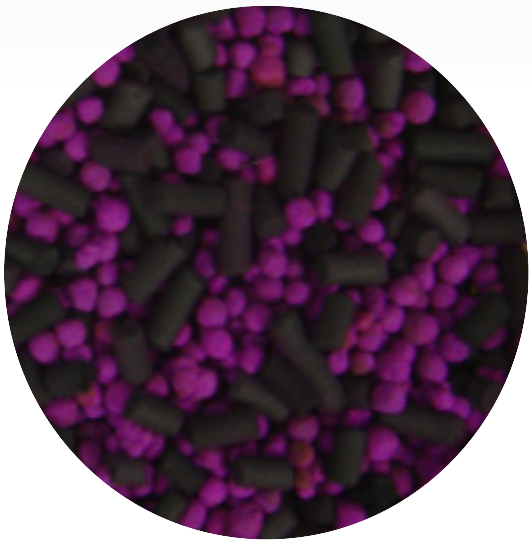
SAAFBlend™ GP

General Purpose Engineered Gas Removal Chemical Media



- ***Non-toxic and non-hazardous***
- ***Accurate service life testing***
- ***Will not support bacterial and fungal growth***
- ***Does not support desorption***
- ***Easy disposal***

Engineered Media

SAAFBlend™ GP engineered gas removal chemical media is designed to efficiently remove 99.5% of specific gaseous contaminants from airstreams. Target contaminants include:

- Sulfur dioxide
- Hydrogen sulfide
- Nitric oxide
- Formaldehyde
- Hydrocarbons (VOC's)
- Lower molecular weight aldehydes and organic acids

Manufactured from an equal volumetric mix of SAAFOxidant™ and SAAFCarb™. Manufactured of spherical and porous pellets, SAAFOxidant engineered media is composed of a combination of activated alumina and other binders. Potassium permanganate is impregnated to this media combination in order to provide optimum adsorption, absorption, and oxidation of various gaseous contaminants. Potassium permanganate is applied uniformly during pellet formation and is distributed throughout the pellet volume. This process provides the maximum amount of impregnate for chemical reaction and optimal performance. SAAFCarb is manufactured of pelletized activated carbon media, composed of high quality virgin substrates in order to provide optimum adsorption for various gaseous contaminants.

Adsorptive Process

The unimpregnated SAAFCarb media removes toxic and impure gases by physical adsorption. In this process, the gases remain on the surface of the pellet. The process is reversible.

Chemisorptive Process

The SAAFOxidant chemisorptive process removes the contaminant gases by adsorption, absorption, and chemical reaction. In this process the gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby eliminating the possibility of desorption. SAAFOxidant's engineering allows this to be instantaneous, irreversible, and safe chemical reaction.

Quality Control

SAAFBlend GP media undergoes the following quality control tests before being shipped:

- Moisture content
- Hardness
- Bulk density
- Ash content
- Carbon tetrachloride adsorption

Service

AAF International will be pleased to offer you a maintenance contract for your chemical filter system. This includes sampling, removal of the used elements, cleaning of the installation and installation of new elements. Disposal in accordance with regulations and/or refilling is part of our scope.

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SAAFBlend™ GP

Specifications

Physical Properties SAAFOxidant™ Fraction

Moisture content:	35% maximum acc. ASTM D2867
Crush strength:	35 - 70%
Abrasion:	4.5% maximum acc. ASTM D3802
Apparent bulk density:	800 kg/m^3 acc. ASTM D2854
Nominal pellet diameter:	3.175 mm
Potassium permanganate content:	8% minimum

Physical Properties SAAFCarb™ Fraction

Moisture content:	< 3[wt %] acc. ASTM D2867
BET rating, active area:	> 1000 [m_/g] acc. DIN 66132
Abrasion resistance:	> 95 [%] acc. ASTM D3802
Ash content:	< 12 [wt %] acc. ASTM D3472
Ignition temperature:	> 400 [˚C] acc. ASTM D3466
Pore volume:	> 1 [cm^3/g] acc DIN 66132
Apparent bulk density:	480 [kg/m^3] acc. ASTM D2854
Nominal pellet diameter:	4 mm
CTC rating:	> 60 [wt%] acc. ASTM 3467

Application Guidelines

Packaging Options

Containers:	28 liter (1 ft^3)
Big bags:	560 liter (20 ft^3)
Ready factory filled into:	SAAF Canisters, Cassettes and Trays

Performance

Temperature:	-20˚C to 50˚C
Humidity:	10-95% r.H.

Applications

Airflow:	From 40 m^3/h to over 170,000 m^3/h
Velocity:	From 0.30 to 2.5 m/s

Refer to appropriate AAF documentation for additional information on delivery systems.

Precautions

Installation:	Use dust masks, safety goggles, and rubber gloves
MSDS:	Included in each shipment
Disposal:	Must be disposed of according to local, state, and federal regulations

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

GPF-1-102 JUL '06

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SAAFCarb™ Media

- ***Non-toxic***
- ***System design ensures standard removal capacity***
- ***Quick and easy media changeovers***
- ***Resists a wide range of impure gases***
- ***Low pressure drop and high adsorptive capacity***
- ***Capable of being destroyed for use as fuel***

The SAAFCarb media is pelletized activated carbon that removes toxic and impure gases from the environment. The activated carbon is composed of bituminous coal substrate.

Application Note

The SAAFCarb media efficiently removes 99.5 percent of the contaminant from the SAAFCarb systems.

Target Impurities

- *Nitrogen dioxide*
- *Hydrocarbon*
- *Chlorine*
- *Volatile organic compounds*

Adsorptive Process

The SAAFCarb media removes toxic and impure gases by adsorption. In this process, the gases remain on the surface of the pellet.

Removal Capacity

SAAFCarb media meets the following contaminant removal capacities by weight:

- *Nitrogen dioxide: 6.6% minimum*
- *Toluene: 20.0 % minimum*
- *Chlorine: 10.0 % minimum*
- *Trichloroethane: 20.0%*

For instance, 100 pounds (45.36 kg) of SAAFCarb media will remove a minimum of 10 pounds (4.53 kg) of chlorine gas.

Quality Control

SAAFCarb media undergoes the following quality control tests before being shipped:

- *Moisture content*
- *Hardness*
- *Bulk density*
- *Ash*
- *Carbon tetrachloride adsorption*

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SAAFCarb™ Media

Product Specifications

- *Moisture content: 3% maximum*
- *Hardness: 95% maximum*
- *Bulk density: 30 lbs/ft³ (0.49 gms./cc)*
- *Pellet diameter: 4.0 mm*
- *Substrate CTC: 70%*
- *Pressure drop @ 50 FPM: 1.7 inch of water/ft. of bed (900 Pa/m)*
- *Ash: 12% minimum*
- *Carbon tetrachloride adsorption: 60%*

Packaging Options and Application Guidelines

Packaging Options
SAAFCarb media is packaged in 1 cubic foot boxes and bulk containers (super sacks).

Application Guidelines
SAAFCarb media performs under the following application guidelines:

- *Temperature: -4°F to 125°F (-20°C to 51°C)*
- *Humidity: 10% – 95% RH*
- *Airflow is effective in commercial and industrial systems, and ranges from less than 25 CFM (42.5 m³/h) to over 100,000 CFM (169,920 m³/h) and with velocities from 60 to 500 FPM (1,080 to 9,000 m³/h).*

Installation and Disposal Requirements

Installation
The installers must use dust masks, safety goggles, and rubber gloves.

Disposal
The spent SAAFCarb media must be disposed of according to local, state, and federal guidelines.

NOTE: Refer to the appropriate AAF documentation for additional details.

Safety

Wet activated carbon adsorbs atmospheric oxygen, causing low oxygen supply in enclosed areas or packed containers. This can be potentially hazardous for workers who enter these oxygen-depleted areas. Make sure that the workers adhere to the provincial and state safety guidelines.

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SAAFCarb™ MA Media

- ***Provides maximum contaminant removal capacity for H_2S***
- ***Provides extended equipment protection with infrequent media changeovers***
- ***Compatible for use in all carbon-based air filtration systems***
- ***Low pressure drop and high adsorptive capacity***

The SAAFCarb™ MA media is manufactured exclusively for corrosive environments. The media consists of spherical and/or porous pellets. The pellets are composed of carbon, alumina and other binders suitably impregnated for the removal of acid gases. The impregnant is applied during pellet formation and are distributed uniformly throughout the pellet volume, thereby allowing undeterred chemical reaction.

Application Note

The SAAFCarb MA media efficiently removes 99.5 percent of the contaminant from the SAAFCarb MA systems.

Target Impurities

- Hydrogen sulfide
- Sulfur dioxide
- Volatile Organic Compounds (VOCs)

Chemisorptive Process

The SAAFCarb MA media chemisorptive process removes the impure gases by adsorption, absorption, and chemical reaction. In the process, the gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby eliminating the possibility of desorption. SAAFCarb MA media's engineering allows the process to be instantaneous, irreversible, and chemically safe.

Removal Capacity

SAAFCarb MA media meets the following contaminant removal capacities by weight:

- *Hydrogen sulfide: 17.0% minimum*
- *Sulfur dioxide: 5.0 % minimum*
- *Chlorine: 8.0 % minimum*

For instance, 100 pounds (45.36 kg) of SAAFCarb MA media will remove a minimum of 17 pounds (7.71 kg) of hydrogen sulfide.

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SAAFCarb™ MA Media

Product Specifications

- *H_2S capacity: 0.16g H_2S/cc*
- *Moisture content: 35% maximum*
- *Crush strength: 35% - 70% maximum*
- *Abrasion: 4.5% maximum*
- *Bulk density: 34 lbs/ft³ (721 kgs/m³)*
- *Pellet diameter: 1/8 inch (3.175 mm)*
- *Substrate surface area: 1250 m²/g*
- *Pressure drop @ 50 FPM: 1.7 inch of water/ft. of bed, 900 Pa/m*

Packaging Options and Application Guidelines

Packaging Options

SAAFCarb MA media is packaged in 1 cubic feet containers, 55-gallon fiber drums, and 6 cubic feet super sacks.

Application Guidelines

SAAFCarb MA media performs under the following application guidelines:

- *Temperature: -4° to 125° F (-20° to 51° C)*
- *Humidity: 10 – 95 percent RH*
- *Airflow is effective in commercial and industrial systems, and ranges from less than 25 CFM (42.5 m³/h) to over 100,000 CFM (169,920 m³/h) and with velocities from 60 to 500 FPM (1,080 to 9,000 m³/h).*

Installation and Disposal Requirements

Installation

The installers must use dust masks, safety goggles, and rubber gloves.

Disposal

The spent SAAFCarb MA media must be disposed of according to local, state, and federal guidelines.

NOTE: Refer to the appropriate AAF documentation for additional details.

Safety

Wet activated carbon adsorbs atmospheric oxygen, causing low oxygen supply in enclosed areas or packed containers. This can be potentially hazardous for workers who enter these oxygen-depleted areas. Make sure that the workers adhere to the provincial and state safety guidelines.

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GPF-1-112A JUL '06

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SAAFCarb™ MA.HT Media

High-Temperature Chemical Media for Acid Gas Removal

- ***Provides maximum contaminant removal capacity for H_2S***
- ***Provides extended equipment protection with infrequent media changeovers***
- ***Compatible for use in all carbon-based air filtration systems***
- ***Low pressure drop and high adsorptive capacity***
- ***Rated UL Class 1***

Ideal for Acid Gas Removal

SAAFCarb™ MA.HT is a high capacity, UL certified chemical media targeted for acid gas removal. The media is specifically engineered for safe operation and includes proprietary ingredients that withstand flammability concerns.

Designed exclusively for sensitive corrosive environments, SAAFCarb MA.HT is ideal for applications requiring very high acid gas removal. The media pellets are composed of carbon and other proprietary binders suitably impregnated for the removal of acid gases.

Environmentally Safe

The media contains the maximum amount of proprietary ingredients for effective H_2S removal and is still safe to handle before, during, and after use and safe for the environment. SAAFCarb MA.HT media is the most cost-effective choice for removal of H_2S from the airstream.

Application Note

The SAAFCarb MA.HT media efficiently removes 99.5 percent of the contaminant from the system.

Target Impurities

- Hydrogen sulfide
- Sulfur dioxide
- Chlorine

Chemisorptive Process

The SAAFCarb MA.HT media chemisorptive process removes the impure gases by adsorption, absorption, and chemical reaction. In the process, the gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby eliminating the possibility of desorption. SAAFCarb MA.HT media's engineering allows the process to be instantaneous, irreversible, and chemically safe.

Removal Capacity

SAAFCarb MA.HT media meets the following contaminant removal capacities by weight:

- *Hydrogen sulfide: up to 85% by weight*
- *Sulfur dioxide: 11% minimum by weight*
- *Chlorine: 16% minimum by weight*

For instance, 100 pounds of SAAFCarb MA.HT media will remove 85 pounds of hydrogen sulfide.

AmericanAirFilter®

SAAFCarb™ MA.HT Media

Product Specifications

- *H_2S capacity: up to 0.33g H_2S/cc*
- *Moisture content: 2.1 maximum*
- *Bulk density: 28 lbs/ft³ nominal*
- *Pellet diameter: 4 mm nominal*
- *Iodine adsorption: 1010 mg/g*

Packaging Options and Application Guidelines

Packaging Options

SAAFCarb MA.HT media is packaged in 1 cubic foot containers and 6 cubic feet super sacks.

Application Guidelines

SAAFCarb MA.HT media performs under the following application guidelines:

- *Temperature: -4 °F to 125 °F (-20 °C to 51 °C)*
- *Humidity: 10 – 95 percent RH*
- *Airflow ranges from less than 25 CFM (42.5 m³/h) to over 100,000 CFM (169,920 m³/h) and with velocities from 60 to 500 FPM (1,080 to 9,000 m³/h).*
- *UL Rating: Class 1*
  Tested in accordance with UL Standard 900 and CAN 4-S11.

Installation and Disposal Requirements

Installation

The installers must use dust masks, safety goggles, and rubber gloves.

Disposal

The spent SAAFCarb MA.HT media must be disposed of according to local, state, and federal guidelines.

NOTE: Refer to the appropriate AAF documentation for additional details.

Safety

Wet activated carbon adsorbs atmospheric oxygen, causing low oxygen supply in enclosed areas or packed containers. This can be potentially hazardous for workers who enter these oxygen-depleted areas. Make sure that the workers adhere to the provincial and state safety guidelines.

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GPF-1-119A OCT '07 QG 2M

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AmericanAirFilter®
SAAFCarb™ MB Media

- ***Specifically impregnated media provides effective removal of ammonia gas***
- ***System design ensures standard removal capacity***

SAAFCarb MB contains an acid impregnant to enhance the capacity for removal of ammonia.

Application Note

SAAFCarb MB media efficiently removes 99.5 percent of the contaminant from SAAFCarb MB systems.

Target Impurity

- *Ammonia*

Product Specifications

- *Moisture content: 2.0% maximum*
- *Bulk density: 34 lbs/ft³ (641 kgs/m³)*
- *Carbon tetrachloride adsorption: 55.0% minimum*

Application Guidelines

SAAFCarb MB media performs under the following application guidelines:

- *Temperature: -4°F to 125°F (-20°C to 51°C)*
- *Humidity: 10% – 95% RH*
- *Airflow is effective in commercial and industrial systems, and ranges from less than 25 CFM (42.5 m³/h) to over 100,000 CFM 169,920 m³/h) and with velocities from 60 FPM to 500 FPM (0.30 to 2.54 m/s).*

Installation and Disposal Requirements

Installation
The installers must use dust masks, safety goggles, and rubber gloves.

Disposal
The spent SAAFCarb MB media must be disposed of according to local, state, and federal guidelines.

NOTE: Refer to the appropriate AAF documentation for additional details.

Removal Capacity

SAAFCarb MB media meets the following contaminant removal capacities by weight:

- *Ammonia: 7.0% minimum*

Quality Control

SAAFCarb MB media undergoes the following quality control tests before being shipped:

- *Moisture content*
- *Bulk density*
- *Carbon tetrachloride adsorption*

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AAF INTERNATIONAL *Better Air is Our Business®*

AmericanAirFilter®

SAAFCarb™ MC Media

- ***Non-toxic***
- ***Landfill disposable***

The SAAFCarb MC media is recommended for emergency removal of chlorine. Scrubber capacities range from 150 pounds to one ton and greater.

SAAFCarb MC media consists of manufactured, generally spherical, porous pellets measuring 1/8" in diameter. Pellets are formed from a combination of powdered activated carbon, alumina and other binders, suitably impregnated to enhance the capacity for removal of chlorine. Impregnants shall be applied during pellet formation, such that the impregnant is uniformly distributed throughout the pellet volume.

Removal Capacity

SAAFCarb MC media meets the following contaminant removal capacity by weight:

- *Chlorine gas (Cl_2): 10% minimum*

For instance, 100 pounds (45.36 kg) of SAAFCarb MC media will remove a minimum of 10 pounds (4.53 kg) of chlorine gas.

Chemisorptive Process

The SAAFCarb MC media chemisorptive process removes the impure gases by adsorption, adsorption, and chemical reaction. In the process, the gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby eliminating the possibility of desorption. SAAFCarb MC media's engineering allows the process to be instantaneous, irreversible and chemically safe.

AmericanAirFilter®

SAAFCarb™ MC Media

Product Specifications

- *Moisture content: 35% maximum*
- *Crush strength: 35% - 70% maximum*
- *Bulk density: 34 lbs/ft³ (721 kgs./m³)*
- *Abrasion: 4.5% maximum*
- *Nominal Pellet Diameter: 1/8" (3.2 mm)*

Application Guidelines

SAAFCarb MC media performs under the following application guidelines:

- *Temperature: -4°F to 125°F (-20°C to 51°C)*
- *Airflow: For emergency Cl_2 scrubbing applications, the scrubber and SAAFCarb MC media shall be designed to handle flow rates equal to and greater than 400 lbs/min.*
- *Media performance: Regular media samples of SAAFCarb MC media shall be taken for determining remaining media life and providing scheduled maintenance and ensuring performance.*

Installation and Disposal Requirements

Installation
The installers must use dust masks, safety goggles, and rubber gloves.

Disposal
The spent SAAFCarb MC media must be disposed of according to local, state, and federal guidelines.

NOTE: Refer to the appropriate AAF documentation for additional details.

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AAF INTERNATIONAL *Better Air is Our Business®*

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SAAFOxidant™

Engineered Gas Removal Chemical Media

- ***Non-flammable, non-toxic, and non-hazardous***
- ***Accurate service life testing***
- ***Inhibits bacterial and fungal growth***
- ***Does not support desorption***
- ***Easy disposal***

SAAFOxidant™ engineered gas removal chemical media is designed to efficiently remove 99.5% of specific gaseous contaminants from the airstream. Target contaminants include:

- Sulfur dioxide
- Hydrogen sulfide
- Nitric oxide
- Formaldehyde
- Lower molecular weight aldehydes and organic acids

Manufactured of spherical and porous pellets, SAAFOxidant engineered media is composed of a combination of activated alumina and other binders. Potassium permanganate is impregnated to this media combination, in order to provide optimum adsorption, absorption, and oxidation of various gaseous contaminants.

Potassium permanganate is applied uniformly during pellet formation and is distributed throughout the pellet volume. This process provides the maximum amount of impregnate for chemical reaction and optimal performance.

Chemisorptive Process

The SAAFOxidant chemisorptive process removes the contaminant gases by adsorption, absorption, and chemical reaction. In this process the gas is trapped within the pellet where oxidation changes the gases into harmless solids, thereby eliminating the possibility of desorption. SAAFOxidant's engineering allows this to be instantaneous, irreversible, and safe chemical reaction.

Removal Capacity

SAAFOxidant media meets the following contaminant removal capacities by weight:

- Hydrogen sulfide: 14.0% minimum
- Sulfur dioxide: 7.0% minimum
- Nitric oxide: 4.9% minimum
- Formaldehyde: 2.5% minimum

For instance, 100 pounds (45.36 kg) of SAAFOxidant media will remove a minimum of 14 pounds (6.35 kg) of hydrogen sulfide.

AmericanAirFilter®

SAAFOxidant™

Product Specfications

- *Moisture content: 35% maximum*
- *Crush strength: 35 – 70%*
- *Abrasion: 4.5% maximum*
- *Bulk density: 55 lbs/ft³ (800 kgs/m³)*
- *Nominal pellet diameter: 1/8" (3.175 mm)*
- *Potassium permanganate content: 8% minimum*

Packaging Options and Application Guidelines

Packaging Options

SAAFOxidant media shall be packaged in one cubic foot container, and is also available in 20 cubic feet super sacks.

SAAFOxidant media shall be ready packaged in SAAF cartridges, cassettes, and trays.

Application Guidelines

SAAFOxidant media performs under the following application guidelines:

- Temperature: -4° to 125° F (-20°C to 51°C)
- Humidity: 10% – 95% RH
- Airflow: Effective in commercial and industrial systems; ranges from less than 25 CFM (42.5 m³/h) to over 100,000 CFM (169,920 m³/h) with velocities from 60 to 500 FPM (0.30 to 2.54 m/s).

NOTE: Refer to appropriate AAF documentation for additional information on contaminant gases.

Installation and Disposal Requirements

Installation

It is recommended that installers must use dust masks, safety goggles, and rubber gloves.

Disposal

The spent SAAFOxidant media must be disposed of according to local, state, and federal guidelines.

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