THE WORLD LEADER IN CLEAN AIR SOLUTIONS



Gas-Phase Filtration Products & Capabilities

PARTICULATE AND GASEOUS FILTRATION SOLUTIONS



AAF: Clean Air Solutions

AAF International is the name recognized globally for quality, expertise, and innovation in air filtration. As one of the world's largest manufacturers of commercial and industrial air filters, AAF makes a wide variety of products for removing and controlling airborne particulates and gaseous contaminants. Because the need for clean air is universal, AAF designs air filter products for use in all types of air filtration systems, regardless of the original manufacturer. The scope of applications is unlimited and ranges from ultra-clean air for electronics and pharmaceutical manufacturing, to preventing the spread of infection in hospitals, to removing odors and harmful gases in occupied spaces. We protect people, processes, and systems every minute of every day.

AAF is a company with an outstanding industry record. The diversity of our customers' air filtration requirements has given us the expertise to provide products and systems based on a broad industry perspective. Superior industry knowledge and an outstanding team of Indoor Air Quality (IAQ) professionals mean our customers receive top quality products and services at a competitive cost.

Throughout our rich history, AAF filtration experts have created and developed many of the filtration products and equipment being used in the industry today. We have been a key innovator in air filtration, and we continue to place great emphasis on Research and Development (R&D) to meet the increasing demand for clean air.

AAF: Your Partner

- ✓ Extensive expertise and dedicated technical support
- ✓ Always the most suitable solution based on the full, versatile range of air filter products and systems
- ✓ Innovative designs through continuous focus on research and development
- ✓ Logistics: the right answer, at the right time, and the right place
- ✓ Optimum filtration performance
- ✓ Nationwide distribution network



Global Manufacturing Plants

From its world headquarters in Louisville, Kentucky, AAF maintains operations in 22 countries and has more than 2,600 employees worldwide. AAF is supported in its international ventures through the resources of its parent company, Daikin Industries Ltd., Osaka, Japan, a diversified international manufacturing company and a global leader in air conditioning.

Clean Air Technology

Innovative Engineering and Design

The R&D group is lead from our global headquarters with staff located in Europe and Asia. Each member of the group is committed to advancing the state-of-the-art in air filtration. Their role in serving AAF's customers 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 lead from our global headquarters and located in key manufacturing facilities around the world. They are a team focused on current markets, with an objective of continuous improvement in products and services to provide maximum value to our customers. They also quickly adapt our products to meet short-term changes in air filtration requirements as they arise in the marketplace.

State-of-the-Art Testing

AAF subjects all of its products to stringent testing using certified, comprehensive, and industry-recognized testing laboratories. Testing is essential in documenting filter efficiency, diagnosing problems, and assisting in research and development of our filtration products. AAF's testing meets the highest standards for quality control. Our testing team is comprised of focused professionals committed to one goal – accumulating the most accurate data possible from each test.



A world-class R&D test facility is now available to support product development. The new facility allows AAF to quickly develop innovative products for our customer base.



Innovative Product Line

AAF has assumed an industry leading position with the development of its innovative SAAF (pronounced as "SAFE") product line designed to reduce or eliminate harmful gaseous contaminants. In combination with our expertise in airborne particulate filtration, SAAF products and solutions allow us to develop unique and effective total filtration solutions to protect people, processes, and equipment.

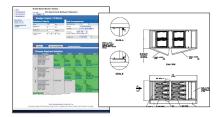
The SAAF product line features:

- Patent pending chemical media cassettes with superior sealing and energy savings. These cassettes also fit in most legacy units. The housings are designed for quiet operation and durability.
- Complete chemical media line adsorbents, oxidants, and blends configured by and produced under the supervision of our world-class global research and development teams.
- Environmental Measurements related to the ISA Standard S71.04: "Environmental Conditions for Process Measurement and Control Systems. Airborne Contaminants to determine types of contaminants and their relative concentrations."
- RoHS compliant Corrosion Control (ASHRAE TC 9.9 Guideline).
- Comprehensive, industry leading software SAAF Tech Tools analyzes applications, develops solutions, configures equipment and media, and delivers a complete technical proposal.

No other company offers this combination of experience, expertise, innovation, and capability to combat airborne contaminants, particulate and/or gaseous, and deliver the best clean air solutions.

SAAF™ Tech Tools

SAAF Tech Tools is the filtration industry's most complete decision-sciences software for configuring



clean air products to remove airborne gaseous contaminants. Using SAAF Tech Tools, AAF experts can enter application specific data or select from a list of pre-defined applications to configure the exact clean air solution required for our customers. Detailed information on contaminants, adsorbers, oxidants, and links to industry information relevant to specific applications is also readily available.

SAAF Gas-Phase Filtration Solutions

Environmental Monitoring Technology

SAAFShield® Technology

Allows users to take immediate action to protect expensive electronics and priceless works of art by monitoring corrosion in real-time or on a periodic basis to determine equipment or material vulnerability to corrosion. The SAAFShield Detecting Unit works together with either the SAAFShield Reading Unit or the SAAFShield Communications Module to display

and trend corrosion data over time, which allows users to evaluate operational procedures, environmental factors, or other items that occur at specific times for their impact on sensitive materials.

Brochure GPF-1-140





The SAAFShield® Detecting Unit utilizes quartz crystal microbalance to measure the corrosion of metal due to reactions with the environment.

SAAF™ Reactivity Monitoring Coupons

Reactivity Monitoring Coupons (RMCs) function by reacting with the environmental conditions to form various corrosion films. Analysis of the corrosion that forms on the specially prepared copper and silver strips (coupons) provides an excellent indication of the type and amount of gaseous contamination present in the environment.

Brochure GPF-1-129



Remaining Life Analysis

Remaining Life Analysis provides information on media activity to assist customers in checking the condition of media, scheduling media replacements, and controlling costs by replacing media at the proper time. AAF recommends this analysis for standard SAAF media to best optimize media choices and maximize system life.

Brochure GPF-1-133

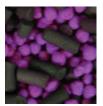


SAAF™ Chemical Media

SAAF™ Chemical Media

SAAF Chemical Media and Catalysts provide high efficiency filtration for effective removal of gases encountered in commercial and industrial applications. Media are available in SAAFBlends, individual SAAF Chemical Media, and gas specific solutions designed to safely deliver superior gas removal effectiveness on a variety of target gases.

Brochure GPF-1-103



 $SAAFBlend^{\mathsf{TM}}$ GP



SAAFCarb™



SAAFOxidant™

SAAF™ Cassettes

SAAF™ Cassettes

Unique, patent-pending design ensures maximum media utilization and improves fit and sealing, even when deployed in older cassette holding systems. The most energy efficient design and construction surpasses any competitor's cassettes in the market, while allowing users a truly better design with value-enhancing features. Available in Heavy Duty, Medium Duty, and Cleanroom Grade. Brochures GPF-1-108, GPF-1-109, and GPF-1-111

Configuration and Performance

- Filter frame: High-impact polystyrene cell sides; extruded vertical components made of acrylonitrile butadiene
- Media: Pre-filled with SAAF™ Chemical Media
- No glue design or off-gassing
- Filled cassettes are UL Classified







SAAF™ Cassette HD

SAAF™ Gas-Phase Equipment (Chemical Filtration Equipment)

SAAF™ Deep Bed Systems

Suitable for the most challenging applications where heavy particulate and chemical loading is anticipated. These systems are workhorses and provide the largest media volume holding capacity and air-to-media ratios. Systems can be combined with AAF's patented technologies to provide clean air free of particulates and problem gases. Available as Deep Bed Adsorbers and Deep Bed Scrubbers.

Brochure GPF-1-128

Configuration and Performance

- Painted CRS or stainless steel
- Internal or externally mounted fan
- Structural skid base for easy installation
- Bulk media filling ports and clean out gates
- Optional pre-wired control panel w/VFD
- · Optional redundant fans



SAAF™ Machine Intake Filter Systems

Designed as a state-of-the-art total air cleaning solution to protect and prolong the life and performance of expensive, mission-critical systems, such as air compressors. Multi-stage systems are specifically designed for machinery air intakes in hostile air quality environments, such as industrial manufacturing facilities, mining, smelting, fuel processing, and pulp and paper processing. Provide the lowest operating pressure drop possible in air intake filtration options, while simultaneously combining high efficiency, high capacity filtration in proven fail-safe design. *Brochure GPF-1-117*

Configuration and Performance

- Industrial grade stainless steel, aluminum, painted steel
- Double-walled panels and doors
- Certified for energy efficiency
- Suitable for outdoor or indoor installation



SAAF™ PORTA-Scrubbers

Extremely quick, low maintenance solution for scrubbing high concentrations of odorous gases from low to moderate airflows. A portable solution for a variety of applications within the industry, e.g., sewage treatment plants and odor scrubbing in commercial kitchens or laboratory exhausts. Users can utilize the capabilities of versatile innovative equipment for a multitude of uses. Targeted for outdoor use applications that require long maintenance-free service.

Brochure GPF-1-120

Configuration and Performance

- Powered and non-powered models
- Corrosion resistant
- Cast aluminum fan on Powered Units



SAAF Gas-Phase Filtration Solutions

SAAF™ Gas-Phase Equipment (Chemical Filtration Equipment)

SAAF™ Side Access Housings

Stand-alone, multi-stage systems designed to remove particulate and gaseous contaminants from confined spaces, while reducing the amount of outside air needed to dilute contaminants. Designed to support chemical media cassettes, prefilters and after-filters, and high efficiency particulate filters in one self-contained unit for the removal of gas contaminants and airborne particulate. Easy installation, operation, and maintenance. Brochure GPF-1-106

Configuration and Performance

- Suitable for in-room or sheltered outdoor installations
- Double wall insulated construction
- No special ducting or installation required
- Ultra-modern construction
- Patent-pending SAAF Seal prevents bypass
- Options allow easy blending with room's aesthetics.
- Internal fan optional
- Variety of sizes and combinations available



SAAF™ Air Purification Systems

Stand-alone, multi-stage systems designed to remove particulate and gaseous contaminants from confined spaces, while reducing the amount of outside air needed to dilute contaminants. These systems are suitable for in-room use or sheltered outdoor installations. The systems require no special ducting or installation, and use ultra-modern construction and options to allow easy blending with a room's aesthetics. Small footprint, easy installation and maintenance.

Brochure GPF-1-107

Configuration and Performance

- Available as Recirculation Unit or Pressurization and Recirculation Unit
- Patent-pending SAAF Seal provides the best seal available and superior filtration efficiency
- Designed with internal electronically commutated fan providing easy speed control
- Sliding Fan Tray Design provides easy access and servicing of fan
- Hinged Instrument Panel provides easy access and servicing of gauges, disconnect, and speed control
- Return Air Grilles for Pressurization and Recirculation Units are single deflection grilles with dampers to provide control of recirculation air
- Supply Air Grilles are double deflection to provide maximum control of air pattern for spread and deflection in two planes



SAAF™ Front Access Housings

Excellent for quick retrofit solutions. Energy efficient design reduces operating costs allowing the maximum recirculation of tempered air. Combine particulate filters and chemical media cassettes to remove both airborne particulate and gaseous contaminants from intake, recirculated, or discharged ventilation air. Housings can be stacked vertically or horizontally into filter banks for total system flexibility.

Brochure GPF-1-115

Configuration and Performance

- Stand-alone system
- Easily integrated into new and existing air handling units
- Patent-pending SAAF Seal prevents bypass
- Energy efficient design
- Built for 2" prefilter option



Pleated Panel and High Efficiency Supported Filters

VariSorb® XL15

Particulate and gaseous contaminant removal. 8-panel high efficiency filter. Highest activity carbon = highest adsorption. Energy efficient mini-pleat design.

Brochure GPF-1-141

Configuration and Performance

- MERV 15
- Media: Mini carbon granulate embedded between two non-woven synthetic layers
- Filter frame: High-impact polystyrene cell sides; extruded vertical components made of acrylonitrile butadiene
- Fully incinerable
- UL Classified



VariSorb® XL

Energy efficient mini-pleat design for assembly in front, rear, or side-access track systems. High media area-to-weight ratio results in a high spontaneity adsorption and reaction. Effective removing medium and low concentrations of gaseous contaminants.

Brochure GPF-1-121

Configuration and Performance

- Media: Mini carbon granulate embedded between two non-woven synthetic layers
- Filter frame: High-impact polystyrene cell sides; extruded vertical components made of acrylonitrile butadiene
- Fully incinerable
- UL Classified



VariSorb® HC

High capacity disposal filter designed for effective removal of common indoor and outdoor gaseous contaminants at high airflows. Suitable for retrofit into existing HVAC systems for specification in new construction and equipment designed for 12"-deep, single header filters.

Brochure GPF-1-126

Configuration and Performance

- Media: Available with SAAFCarb™, SAAFOxidant™, or SAAFBlend™ GP (50/50 Blend)
- Filter frame: High-impact polystyrene cell sides; extruded vertical components made of acrylonitrile butadiene
- Fully incinerable



VariCel® RF/C and RF/C+SAAFOxi™

Rigid air filter for the removal of gaseous contaminants, odors and particulate removal. Provide high efficiency removal of medium and low concentrations of gaseous contaminants.

Brochure GPF-1-122

Configuration and Performance

- MERV 8
- Media: ¼" thick polyester media is embedded with activated carbon (VariCel RF/C) or a blend of 50% carbon and 50% SAAFOxi (VariCel RF/C + SAAFOxi)
- Filter frame: Galvanized steel
- Plastic pleat spacers
- Available in single-header and no-header models
- UL Classified



Gas-Phase Filtration Products & Capabilities

Pleated Panel and High Efficiency Supported Filters

AmAir[®]/C, AmAir[®]/C+SAAFOxi[™], AmAir[®]/SAAFOxi[™], and AmAir[®]/CP

Economical solutions to many gaseous contaminant problems including odors and corrosion control protection. Directly interchangeable with standard air filters.

Brochure GPF-1-118

Configuration and Performance

- MERV 7 and 5
- Media: Activated carbon (C, CP), proprietary activated alumina impregnated with (SAAFOxi) potassium permanganate, and 50/50 blend (C+SAAFOxi).
- Filter frame: High wet-strength beverage board
- Available in 1", 2", and 4" pleats, panels, and pads
- UL Classified



Contact your local AAF representative for a complete list or AAF Air Filtration Product Solutions

888.223.2003 www.aafintl.com



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