

Static filtration solutions

Performance Enhancement
for Gas Turbines

| Advanced, high-performance moisture and
particulate protection



BETTER AIR IS OUR BUSINESS®



GAS TURBINE
SOLUTIONS

Highly durable, highly effective static filtration

Give your gas turbines the tough, effective filtration they deserve. Innovative depth-loading media and robust construction allow AAF static filters to withstand extreme cycles—including high heat, freezing cold and fluctuating moisture levels—without degrading performance.



Setting the standard in high-performance filtration

The harshest environments on earth demand filter solutions that are up to the challenge and more. You'll find AAF filters everywhere from the brutal cold of arctic regions to the searing heat of desert climates, and nearly every form of marine, industrial and agricultural application.

Helping protect and optimize the performance of your gas turbine and diesel machinery, AAF filters are certified to international and original equipment manufacturers' (OEM) standards. AAF's superior filtration products are operated by the finest operators worldwide where peace-of-mind performance comes as standard.

AAF's real-time monitoring capability allows remote capture of filter and engine performance data, ensuring comprehensive modeling of your existing and planned upgrades. Take full advantage of our extensive knowledge base to improve engine performance and operating costs year after year.

- | Filter Management Program
- | Quarterly GT Efficiency for your whole fleet
- | Equipment Health Check
- | Removal, Fit, Commission and Disposal service
- | Real-time monitoring
- | Engine performance improvement (EPI) report available quarterly



AAF filtration medias have proven to outperform competitors in direct field tests in back-to-back turbine applications studies. Enhanced removal of hydrocarbons, salt and water provides superior long-term output and efficiency.

Expert air treatment solutions, from concept to commissioning

AAF offers a complete line of solutions for gas turbine and rotating machinery equipment. A modular range of filtration options provides a platform for achieving higher performance as expectations within your business increase.

Protect your equipment and profitability with the AAF multi-stage filtration system, including:

- 1 | Icing protection (bleed or infrared)
- 2 | Moisture removal
- 3 | First-stage pre-filter
- 4 | Second-stage fine filter
- 5 | Third-stage (H)EPA filter





It's what's inside that counts

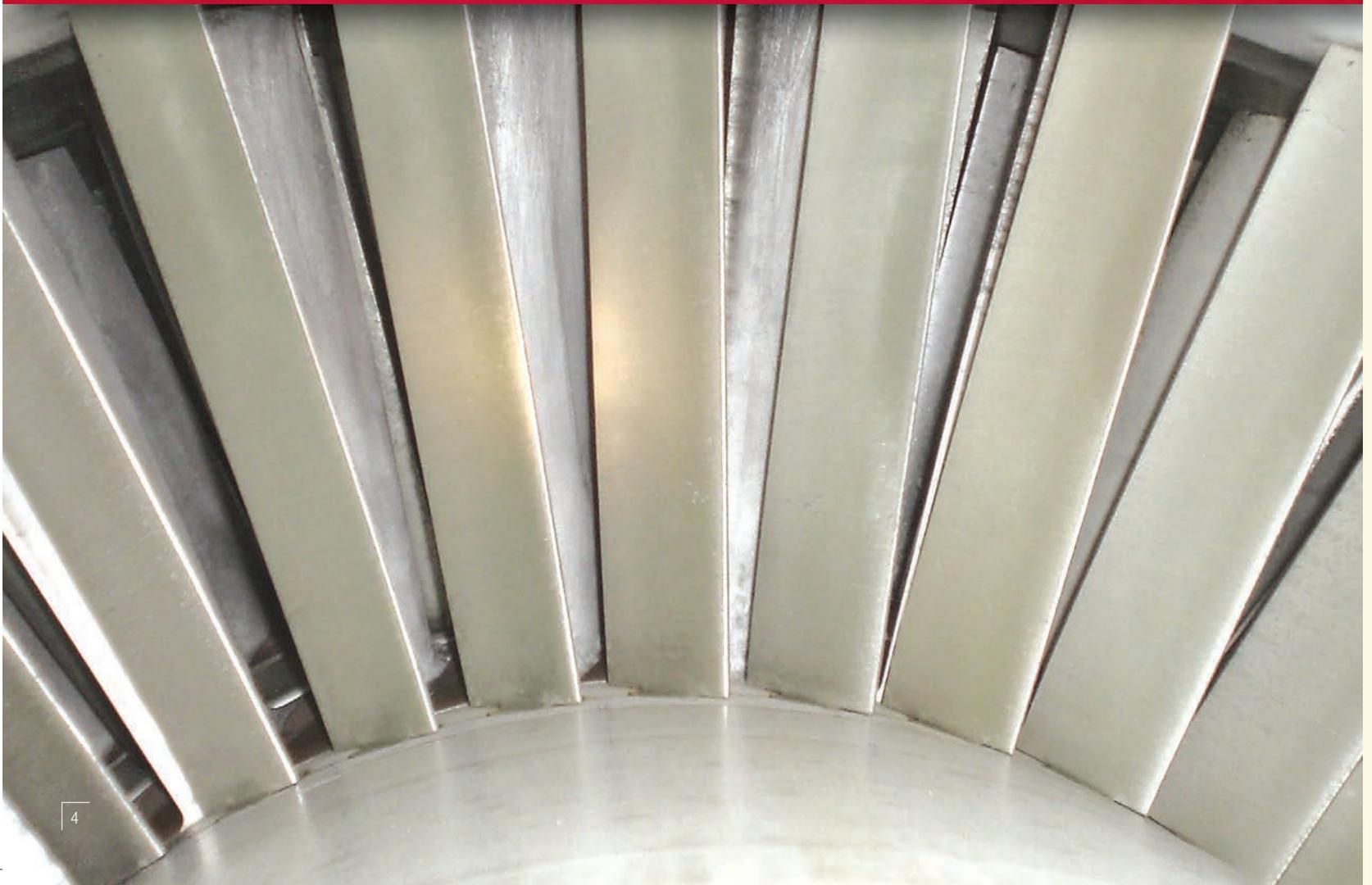
We've spent the last 90 years designing, building and perfecting air filtration, from intensive laboratory and field testing, to filtration science research.

Ultimately, our scientists have perfected the ideal combination of synthetic and natural materials to optimize each filter for its intended environment.

So when you choose AAF, you're always getting the right tool for the job.



The highest quality medias with the most advanced pleating and production techniques ensure low pressure loss, longest life and excellent air quality.



Choose the right filter for your application

AAF offers a wide variety of filters that are optimized for different climates and environments around the world.

	Moisture Removal		Pre-Filters		
	<p>The presence of water and salt can cause irreversible harm to pre, fine and (H)EPA filter medias. Free moisture allowed to interact with pre and fine filters coalesces on media fibers, mixing with captured dirt particles which absorb the moisture, swell and increase pressure drop. Water accelerates dirt- and salt-laden water leaching which carries over to foul the engine compressor. Keep it dry, keep it clean.</p>		<p>The AAF pre-filtration range of filters is designed to offer operators a wide range of proven brands. Regardless of the environment, life requirements or air quality, AAF has the technology to ensure reliable and continuous performance.</p>		
Key Data	AmerDrop	AmerVane VI	AmerShield	DriPak GTR	DriPak GT
					
Filter class to EN779:2012 / EN1822:2009	Droplets	Fine Mist	G4	G4 M5	M6 F7
Filter class to ASHRAE 52.2 - 2007	99% at 65 micron	96% at 25 micron	MERV 8	MERV 7–9	MERV 9, 13
Features & benefits	AmerDrop is a low pressure loss droplet catcher. The AmerDrop is interchangeable with all other manufacturers units and is a good complement to improve intake filter weather hoods or to use downstream of evaporative cooling systems.	The AmerVane VI high-velocity weather louver, designed and patented by AAF, is a heavy-duty, high-efficiency mist eliminator. Ultra-low operating pressure drop makes the AmerVane VI a truly cost-effective, first-stage separator to any intake filter system.	Offering state-of-the-art pre-filter technology, AmerShield provides maximum protection to fine and entry-grade (H)EPA filters, moisture coalescing and particle protection to fine and entry-grade (H)EPA class filters.	A unique self-supporting, fully plastic, high-velocity filter which close couples directly to fine and (H)EPA filters. Reverse flow enhances water capture and run-off while providing installed life up to and over 16k hours.	A premium-engineered rigid pocket filter, the DriPak GT is well suited for moisture-laden environments compounded by a heavy dust load. Its class-leading capacity makes it ideal as a tertiary filter or as a pre-filter to the AAF high-efficiency and (H)EPA filters.
Nominal airflow rate	4.5 m/s (900 FPM)	4.5 m/s (900 FPM)	4250 m³/h 2500 CFM	4250 m³/h 2500 CFM	4250 m³/h 2500 CFM
Initial pressure drop at nominal airflow rate	5 Pa @ 2.5m/s 0.021" WG @ 490 FPM	27 Pa @ 2.5m/s 0.11" WG @ 490 FPM	70 Pa 0.28" WG	58 Pa 0.24" WG	72 Pa 137 Pa 0.29" WG 0.55" WG
Recommended final pressure drop	—	—	450 Pa 1.8" WG	450 Pa 1.8" WG	635 Pa 2.55" WG
Bursting strength	—	—	—	—	> 6225 Pa > 25" WG
Average arrestance	—	—	> 90%	> 90%	98% 99%
Average efficiency	—	—	—	45%	60% 84%
Initial efficiency @ MPPS	—	—	—	—	—
Dimensions	135mm deep. Length and width of mist eliminator to suit filter housing.	185mm deep vane. Length and quantity of vanes to suit filter housing.	Nominal: 24" x 24" x 4" Exact: 592 x 592 x 95mm Nominal: 24" x 24" x 6" Exact: 592 x 592 x 150mm	Nominal: 24" x 24" x 13" Exact: 592 x 592 x 330mm	Nominal: 24" x 24" x 26" Exact: 592 x 592 x 650mm

The filters that stand up to nature's challenges

From searing heat to bitter cold, and from fine particulates to scouring sand, AAF filtration solutions perform in any climate. Each filter is built from materials that are tested and optimized for the most arduous environmental challenges.



Fine Filters

Filters designed to excel in mainland two-stage systems acting as the final stage for F- and MERV-rated systems, or where a tertiary barrier is preferred for a multi-stage (H)EPA system.

All of AAF's products are extensively tested to International and OEM standards to ensure reliable performance.

Key Data	DuraVee XL	DuraVee HXL
		
Filter class to EN779:2012 / EN1822:2009	F8 F9	F8 F9
Filter class to ASHRAE 52.2 - 2007	MERV 14, 15	MERV 14, 15
Features & benefits	Employing vertical media configuration with hot melt separators to maintain effective spacing between pleats. The DuraVee XL provides optimal flow of air into and through the filter, ensuring effective dust distribution for longer filter life with low stable pressure loss.	The extended depth provides greater media area and huge dust-holding capacity, offering longer filter life with no pressure-loss penalty. The HXL is perfect where filter housings are too small to meet the desired expectations.
Nominal airflow rate	4250 m ³ /h 2500 CFM	4250 m ³ /h 2500 CFM*
Initial pressure drop at nominal airflow rate	102 Pa 149 Pa 0.41" WG 0.60" WG	94 Pa 108 Pa 0.38" WG 0.43" WG
Recommended final pressure drop	635 Pa 2.55" WG	635 Pa 2.55" WG
Bursting strength	> 6225 Pa, > 25" WG	> 6225 Pa, > 25" WG
Average arrestance	98%, > 99%	98%, > 99%
Average efficiency	88%, 95%	91%, 97%
Initial efficiency @ MPPS	—	—
Dimensions	Nominal: 24" x 24" x 12" Exact: 592 x 592 x 292mm	Nominal: 24" x 24" x 17" Exact: 592 x 592 x 440mm

*Note the HXL product can be rated in excess of 5100 m³/h (3000 CFM)

AAF elements are also available for use in the following inlet systems:

| Donaldson | Braden | Camfil Farr | Pnuemafil | R&M | VAW | Others

Specialist/Media Filters (H)EPA and Coastal Application

The absolute filtration stage for removal of ultra-fine (sub-micron) particulate. Technology designed specifically for turbo machinery application to guarantee the elimination of compressor fouling. Proven technology which negates the requirement for on or offline water washing while recovering otherwise reduced engine output and fuel economy. AAF (H)EPA filters allow investment in cleaner combustion air which enhances your business profitability.

Key Data	HydroVee XL	HydroVee HXL	AstroCel III 4000	HydroShield™	HydroShield XL
					
Filter class to EN779:2012 / EN1822:2009	E10 E12	E10 E12	E12	E10	E12
Filter class to ASHRAE 52.2 - 2007	MERV 16, –	MERV 16, –	—	MERV 16	—
Features & benefits	Developed from the success of the class-leading HydroCel offshore unit, HydroVee filters deliver high-efficiency performance with minimal pressure loss. Employ AAF HydroVee when experiencing salt and hydrocarbon compressor fouling in high-moisture coastal or tropical environments.	The big brother to the HydroVee XL, the HXL's 450mm-deep casing allows for 28.8 m ² for longer filter life while reducing pressure loss. Featuring a huge dust-holding capacity, the HXL provides peace-of-mind performance in the harshest environments.	Designed for use in high-volume applications up to 4250 m ³ /h, AstroCel filters help provide excellent efficiency on fine particulate matter. With over 25,000 E12-class filters installed, AstroCel reliably protects F-class turbines worldwide.	Today's gas turbines depend upon sustainable filtration performance in order to maintain output and limit fouling. HydroShield uses AAF's proprietary depth-loading media and a specially formulated treatment that repels both water and hydrocarbons for low resistance and maximum filter life.	Featuring a specially designed, multi-layer media, HydroShield XL employs depth-loading membrane technology that resists "wetting" to help maintain power and efficiency. In environments with excessive moisture, salt and hydrocarbons, HydroShield XL protect gas turbines for longer life and reliability.
Nominal airflow rate	4250 m ³ /h 2500 CFM	4250 m ³ /h 2500 CFM	3400 m ³ /h 2000 CFM	1275 m ³ /h 750 CFM	1275 m ³ /h 750 CFM
Initial pressure drop at nominal airflow rate	285 Pa 442 Pa 1.14" WG 1.77" WG	187 Pa 329 Pa 0.75" WG 1.57" WG	234 Pa 0.94" WG	224 Pa 0.90" WG	237 Pa 0.95" WG
Recommended final pressure drop	635 Pa 2.55" WG	635 Pa 2.55" WG	635 Pa 2.55" WG	1000 Pa 4.0" WG	1000 Pa 4.0" WG
Bursting strength	> 6225 Pa, > 25" WG	> 6225 Pa, > 25" WG	> 6225 Pa, > 25" WG	> 6225 Pa, > 25" WG	> 6225 Pa, > 25" WG
Average arrestance	100%	100%	100%	100%	100%
Average efficiency	—	—	—	—	—
Initial efficiency @ MPPS	89.6%, 99.9%	92.7%, 99.5%	99.9%	91%	99.5%
Dimensions	Nominal: 24" x 24" x 12" Exact: 592 x 592 x 292mm	Nominal: 24" x 24" x 17" Exact: 592 x 592 x 440mm	Nominal: 24" x 24" x 11.5" Exact: 610 x 610 x 292mm	Multiple standard and specialty sizes	Multiple standard and specialty sizes

Quality, expertise and innovation

Sales Offices:

Europe & North Africa

AAF Ltd

Bassington Lane, Cramlington,
Northumberland NE23 8AF, UK
Tel: +44 1670 713 477
Fax: +44 1670 714 370

AAF-SA

Urartea, 11
Polig. Ali Gobeo
01010 Vitoria, Spain
Tel: +34 945 214851
Fax: +34 945 248086

AAF-SA

Rue William Dian,
B. P. 3
27620 Gasny
France
Tel: +33 2 32 53 60 68
Fax: +33 2 325 21917

AAF S.r.l.

Via Lario, 1
22070 Fenegrò (CO)
Italy
Tel: +39 031 35 25 311
Fax: +39 031 35 25 333

Middle East & Asia

AAF International

P.O. Box 28564
Dubai, UAE
Tel: +971 4 339 7688
Fax: +971 4 339 7881

AAF (Wuhan) Co. Ltd

268 CheCheng Road
Wuhan Economic & Technological
Development Zone
Wuhan, Hubei Province PR
China 430056
Tel: +86 27 84236698
Fax: +86 27 84236646

North & South America

AAF International Building

9920 Corporate Campus Drive, Suite 2200
Louisville, KY 40223-5000, USA
Tel: +1 502 637 0408
Toll Free: 888 AAF 3596
Fax: +1 502 637 0147

AAF, S de RL de CV

Av. Primero de Mayo 85
San Andres Atenco
54040 Tlalnepantla
Estado de Mexico
Tel: +52 55 5565 5200
Fax: +52 55 5390 5814



1.855.583.HEPA (4372)
aafgtsolutions.com

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