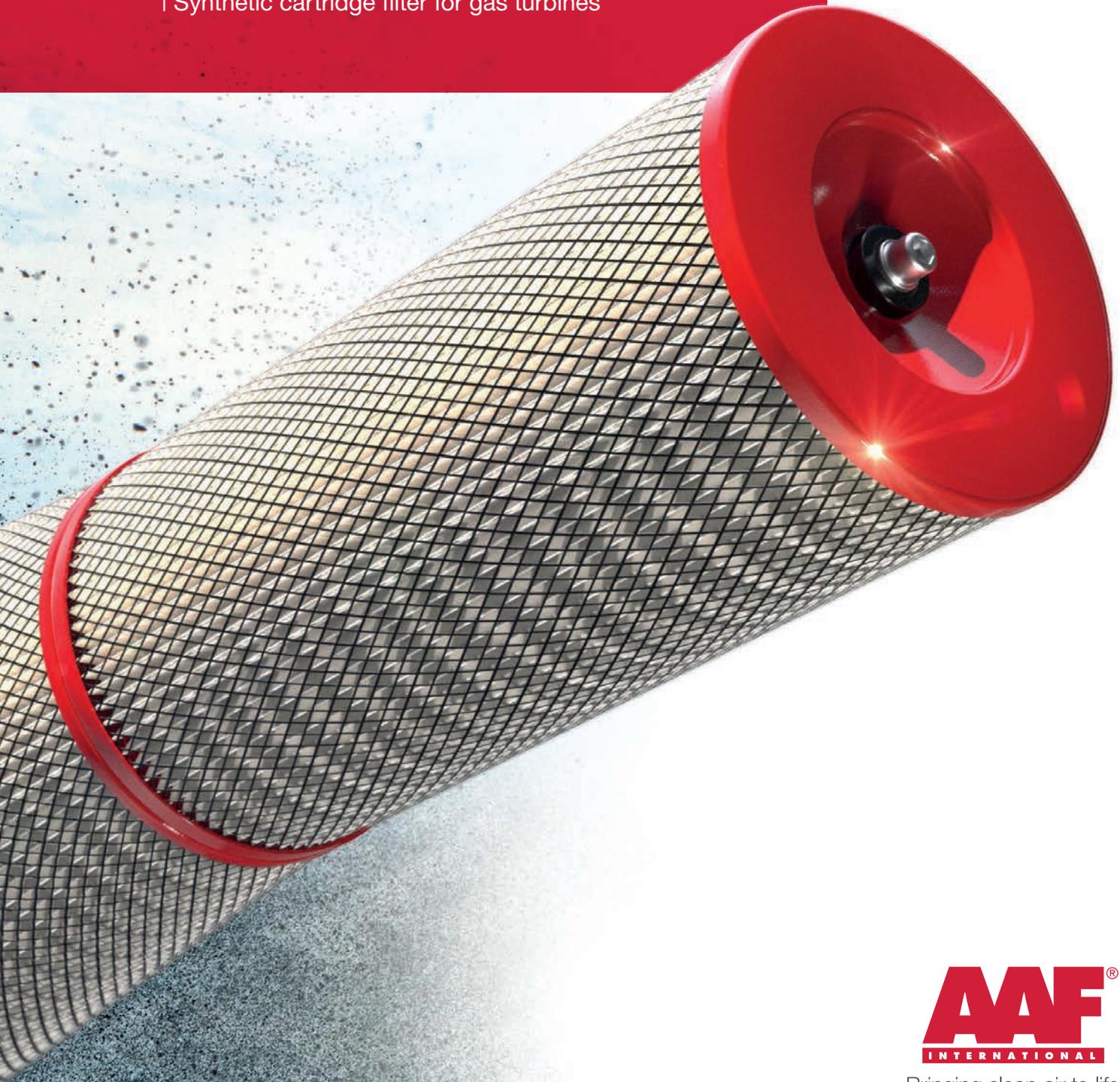




# DuraShield® S

Sustainable performance in high humidity

| Synthetic cartridge filter for gas turbines



Bringing clean air to life.®

# Sustainable Filtration Performance

The DuraShield S filter cartridge has been specifically designed to protect gas turbines and increase machine availability, while maintaining output. The DuraShield S has a high MERV 15 (F9) initial efficiency that will provide a sustainable performance over its operational life, increasing availability and reducing compressor fouling.

The DuraShield S has excellent particle efficiency, capturing 100% of particles greater than 3 microns, 98% of particles between 1-3 microns and significantly 88% of particles below 1 micron. It utilizes a depth-loading media with a high dust holding capacity, optimizing filter life even when humidity remains high for most of the day, such as coastal environments.

The DuraShield S will reduce compressor fouling as well as reduce cold and hot end corrosion. The unique blend of sustainable depth-loading fibers and superior pleat geometry reduces the initial pressure drop of the cartridge. The particle retention behavior of captured particulate will maintain your compressor efficiency thus improving your engines fuel consumption, heat rate and carbon emissions.

## Excels in high humidity

AAF's DuraShield S replacement cartridges are specifically designed for rural, urban, tropical and coastal applications. The media is hydrophobic, withstanding high humidity from mists, fogs or sustained levels of rain. This means differential pressure can remain predictable and stable and spiking during these conditions will no longer be a concern. This is due to the fact the hydrophobic fibers in the media of the DuraShield S will not swell, even when saturated from prolonged high humidity, such as tropical or coastal environments.



# Features and Benefits

| Sustained MERV 15 (F9 or ISOePM1 85%) efficiency reduces compressor fouling.

| Optimized pleat geometry increases dust holding capacity.

| Smart design to create the best balance between filter media area, media density and pleat geometry.

| G90 coated end caps, with the option to powder coat to eliminate oxidation or rust.



| Positive sealing gasket removes any risk of air bypass.

| Depth-loading hydrophobic media acts as a water barrier.

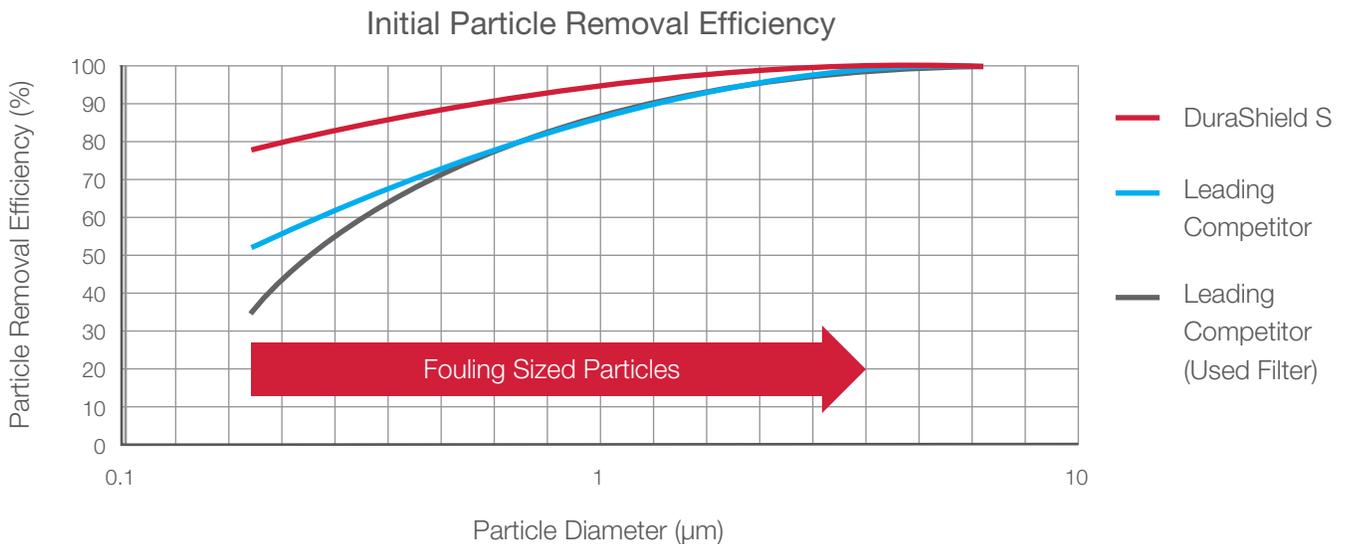
| Long filter life due to durable synthetic media and high dust holding capacity.

| Reduced fuel usage, heat rate and emissions over the operating life of the cartridge.

## Product Comparison

The DuraShield S is made up of a multilayer filter media that utilizes an inorganic depth-loading synthetic and a polymer-based carrier layer designed to ensure sustainable efficiency. The carrier layer stabilizes the pleats during the pleating process to ensure well-formed V pleat geometries, that eliminates any obstruction to airflow while allowing even particle loading during the operational life of the cartridge.

The graph below compares the DuraShield S with one of the leading gas turbine synthetic cartridges with nanofibers. It highlights the vast differences in the initial and sustainable efficiency and why the superior filtration efficiency of the DuraShield S is most evident in the sub-micron particle sizes. This higher efficiency will ensure the output of the gas turbine is maintained.



# The Ultimate Protection



The principle benefit of upgrading to the DuraShield S is that it will not lose its specified filter efficiency as tested by ASHRAE 52.2-2017, therefore significantly reducing lost output with an initial efficiency of 88% on particles 0.3–1 microns and 99% 1–10 microns versus generic me too 80/20 blends that lose 1-3 MERV values over their operational life.

The durable, resilient media ensures maximum filter efficiency during the operational life of the cartridge, even when being continually pulsed. For more challenging and aggressive operating environments speak to us about our stainless steel options, please see the DuraShield S datasheet for further details.

## HydroSleeve™ pre-filter wrap option

AAF's HydroSleeve pre-filter wrap has been specifically designed to extend the life of cartridge filters.

HydroSleeve captures large particles, airborne fibers and sticky hydrocarbons and protects against seasonal problems such as insects, large debris, pollen or seeds.

The HydroSleeve is hydrophobic and repels mist, fog, and rain particles that may penetrate poorly designed rain hoods. It will also repel and coalesce hydrocarbons that congeal into oil-like liquids during very persistent rainfall.

The HydroSleeve is a cost-effective solution, easy to remove and replace and will extend the filter life of the DuraShield S.



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