

# HydroShield™

## Performance Enhancement for Gas Turbines

| Depth-Loading Membrane (H)EPA Filters

### Conical and Cylindrical (H)EPA E10-E12

#### Description

Specifically designed to eliminate compressor fouling and water washes for gas turbines, HydroShield depth-loading cartridges offer an outstanding combination of filtration efficiency, low cost of operation and filter life.

AAF's multi-layer HydroShield filters employ a special depth-loading membrane that acts as a reservoir for oil, hydrocarbon and dust. This multi-layer construction also allows HydroShield to provide E12-grade efficiency while maintaining a predictable pressure drop in high hydrocarbon environments, unlike other surface-loading membrane technologies, which can increase suddenly in resistance when challenged with oils and oily particulate.

The (H)EPA grade filtration of the HydroShield canister filter helps recover lost power due to fouling and increases engine reliability.

Optimum performance and maximum lifetime of AAF HydroShield filters is achieved using AAF's proprietary HydroSleeve and AmerShield pre-filtration system.

#### Benefits

##### Recover lost power

With an initial filtration efficiency of 99.5% at the most penetrating particle size, HydroShield ensures maximum available power output by maintaining compressor cleanliness.

##### Increased machine availability

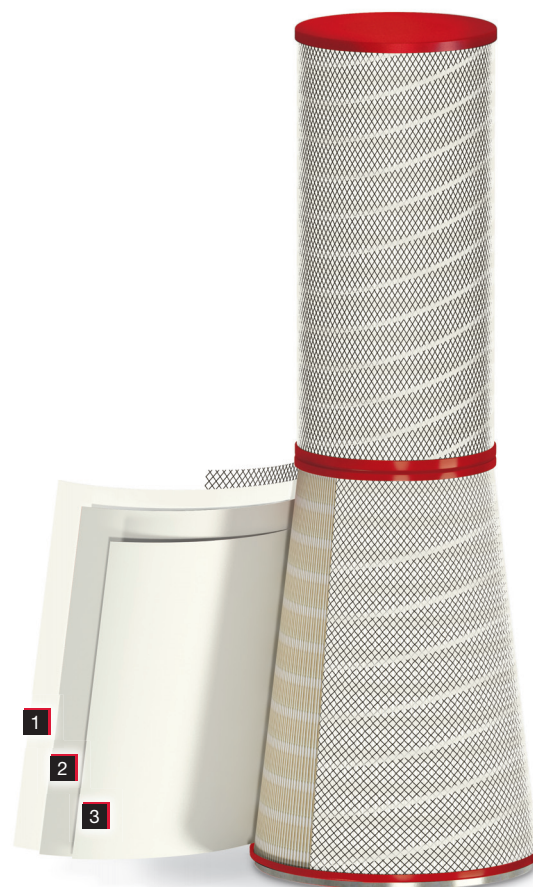
HydroShield helps engine cores remain in close-to-new condition, extending water washing maintenance intervals, reducing downtime and decreasing maintenance shutdowns.

##### Enhanced fuel efficiency

HydroShield's ability to remove compressor fouling particulate allows the gas turbine to operate more efficiently and increase fuel efficiency.

##### Rugged construction

The HydroShield exceeds standards for both dry and wet burst strength.



- 1 | Hydro-Phobic Pre-Filter Layer**  
From AAF Offshore Systems -accelerated removal of salts and hydrocarbons
- 2 | Depth-Loading Membrane (H)EPA**  
Membrane removes sub-micron dust and resists salt-water penetration
- 3 | High-Strength Substrate**  
Ensures class leading burst strength

#### Product features

- Up to E12 initial filtration efficiency at MPPS\* of 99.5%
- Membrane prevents salt and water ingestion
- Tested to GT OEM standards
- Low differential pressure loss
- Direct replacement filters with no filter modifications required

\*MPPS: Most Penetrating Particle Size



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GAS TURBINE SOLUTIONS

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Red end caps available at additional cost.

## Performance Specification Data

Efficiency	E10-E12 according to EN 1822 @ MPPS
Initial Pressure Drop	HydroShield - 224 Pa (0.90" WG) HydroShield XL - 238 Pa (0.95" WG) 26" long canister tested at 1275 m <sup>3</sup> /hr (750 CFM)
Burst Pressure	>7500 Pa (30" WG)
Temperature Range	-40°C to +65°C (-40°F to +149°F)
Humidity Range	0 to 100% relative humidity

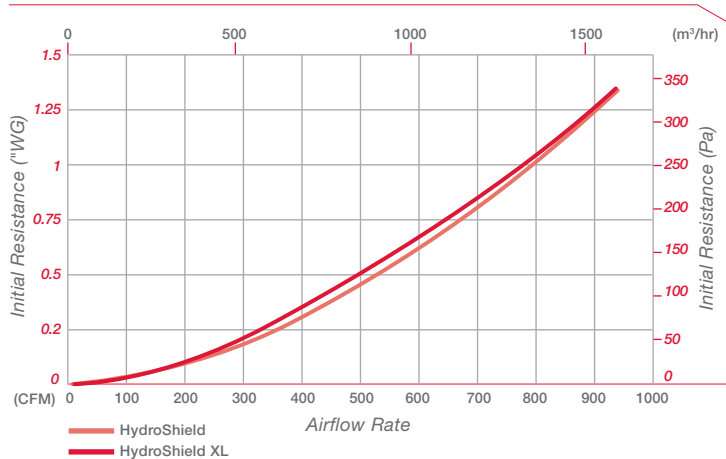
### CONSTRUCTION

Filter Media	Layer 1: Hydrophobic Pre-Filter
HydroShield XL	Layer 2: Depth-Loading Membrane Layer 3: Synthetic
HydroShield	Depth-loading, gradient density, hydrophobic microfiber
Endcaps	Galvanized or stainless steel
In/Outside Liner	Galvanized (stainless steel available on request)
Potting	Polyurethane
Gasket	EPDM rubber

### DIMENSIONS

	Conical	Cylindrical
Large Dia.	445mm (17.5")	323mm (12.75")
Small Dia.	323mm (12.75")	323mm (12.75")
Length	660mm (26.0")	660mm (26.0")

### RESISTANCE CURVE



1.855.583.HEPA (4372)  
aafgtsolutions.com

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