

Quality, Expertise and Innovation



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AAF also represented in 66 countries globally.

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efficiency, performance and economy

Revolutionise Gas Turbine Power Output and Efficiency

HEPA (EPA) gas turbine filtration products

www.aafintl.com



Better Air is Our Business®

more power,
greater
efficiency,
lower emissions



“You cannot manage what you cannot measure”

Mel Owen
Efficiency Engineer, AAF, P & I

gas turbine performance partnership

AAF site surveys extend beyond physical condition, providing in-depth analysis of Compressor Efficiency performance and opportunities to increase Gas Turbine power output and lower heat rate.

1 Define the Baseline

AAF accurately model past engine performance against validated benchmarks to provide technical and commercial assessment

2 Identify Opportunity

AAF can assess specific areas of wasted energy.

3 Setting Targets

Understanding our customers operating goals is key in helping the process of output target setting, and reduced energy use..

4 Performance Enhancement

AAF stand alone in our ability to cohesively provide the latest technology whilst supporting our claims with analytical systems to predict future performance.

5 Monitor, Report and Manage Energy Consumption

AAF provides both on-line and off-line performance monitoring, ensuring that GT inlet systems consistently meet expectations.

Primary technical benefits

- Greater machine availability (%)
- Consistent and higher power output
- Increased fuel efficiency
- Longer hot end component life
- Remove the need to machine wash
- Improved machine reliability
- Lower emissions

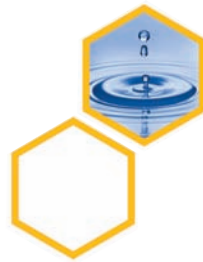
Commercial advantages

- Increased plant revenue
- Greater production yield (i.e. Oil & Gas, Steam)
- Lower fuel and labour costs
- Lower component spend
- Greener technology use
- Reduced maintenance spend



highest available power

AAF's HEPA (EPA) technology ensures airborne deposits which normally foul rotor and stator blades and diminish turbine performance are removed from the incoming air. Providing filtration efficiency of 99.5% and above at the smallest penetrating particle size AAF's specialist gas turbine filters ensure maximum available power output through maintaining gas compressor performance.



greatest machine availability

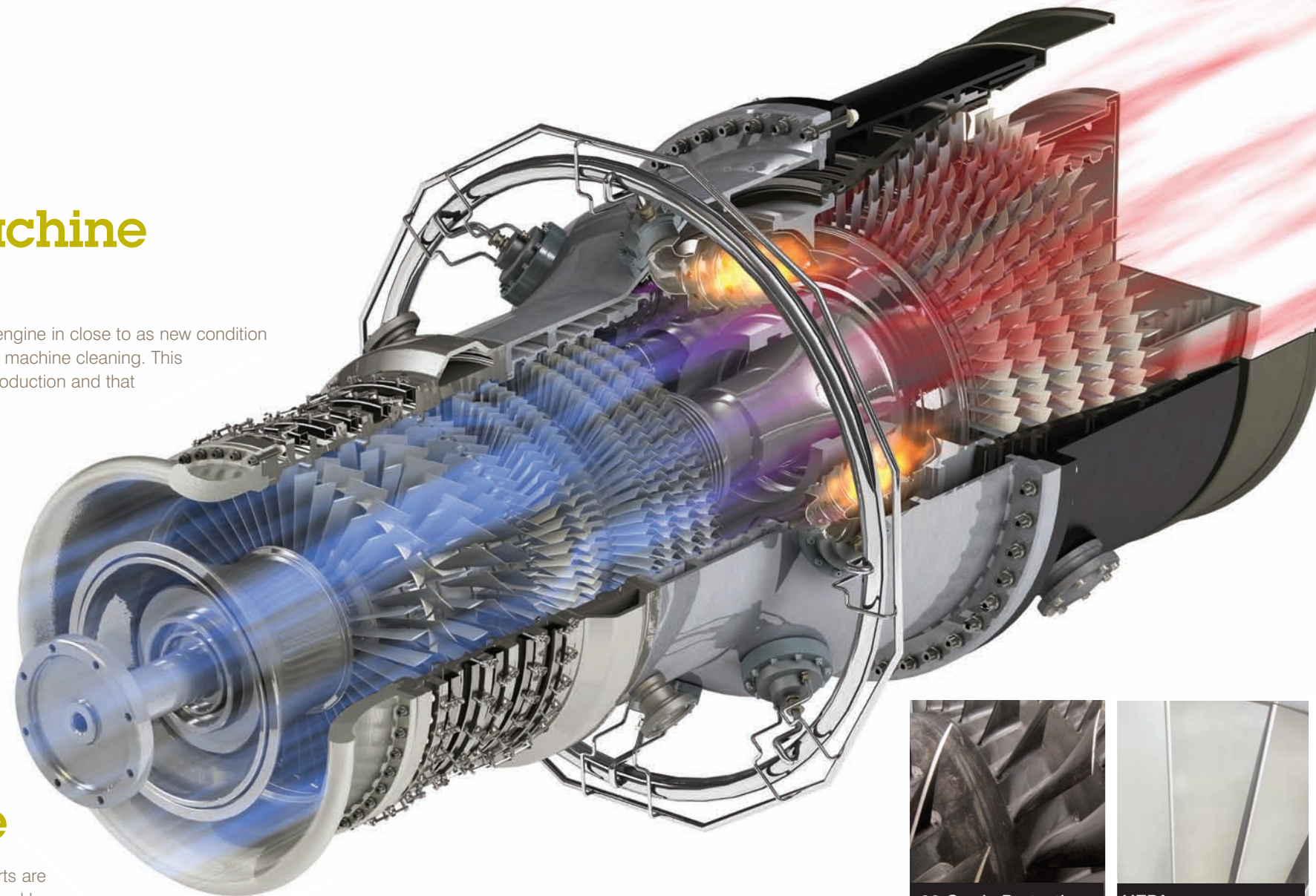
Since AAF's technology maintains the engine in close to as new condition there is no requirement for on or offline machine cleaning. This means there's no reason to interrupt production and that maximum availability can be achieved.



longest engine life

A Modern gas turbine rotating parts are complex in design and structure and have a critical profile for maximum working efficiency. AAF HEPA (EPA) technology is shown to extend the life and reliability factor of Air Compressor components.

Within the hot gas path section our superior protection against salt ingestion has proven to greatly enhance engine performance through protecting the Power Turbine Rotor & Stator Blades from hot gas path corrosion. Component life is maximised through best in class protection of critical cooling passages.

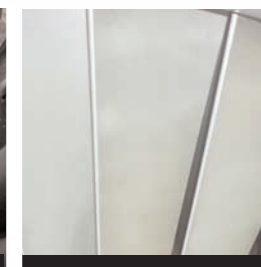


highest available efficiency

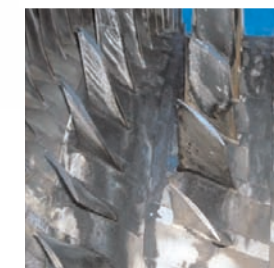
Our long-term study of gas turbine compressor efficiency and its relationship to the incoming compressor air quality has proven that power is also produced at a much greater level of efficiency. Thus the new higher levels of output are achieved at reduced fuel costs and associated CO2 and NO2 emissions.



98 Grade Protection



HEPA



90 Grade Protection

Optimized filter selection provides more power at lower heat rates and maintains compressors in as-new condition. Improve output and efficiency at the same time as reducing compressor downtime and repair costs.

HEPA facts & figures

MORE POWER

Cleaner combustion air generates **6% more** than conventional filters over a 6 month period.

LESS ENERGY

HEPA (EPA) filtration uses **2.5% less energy per MWh** than conventional filters in comparative 6 month assessments.

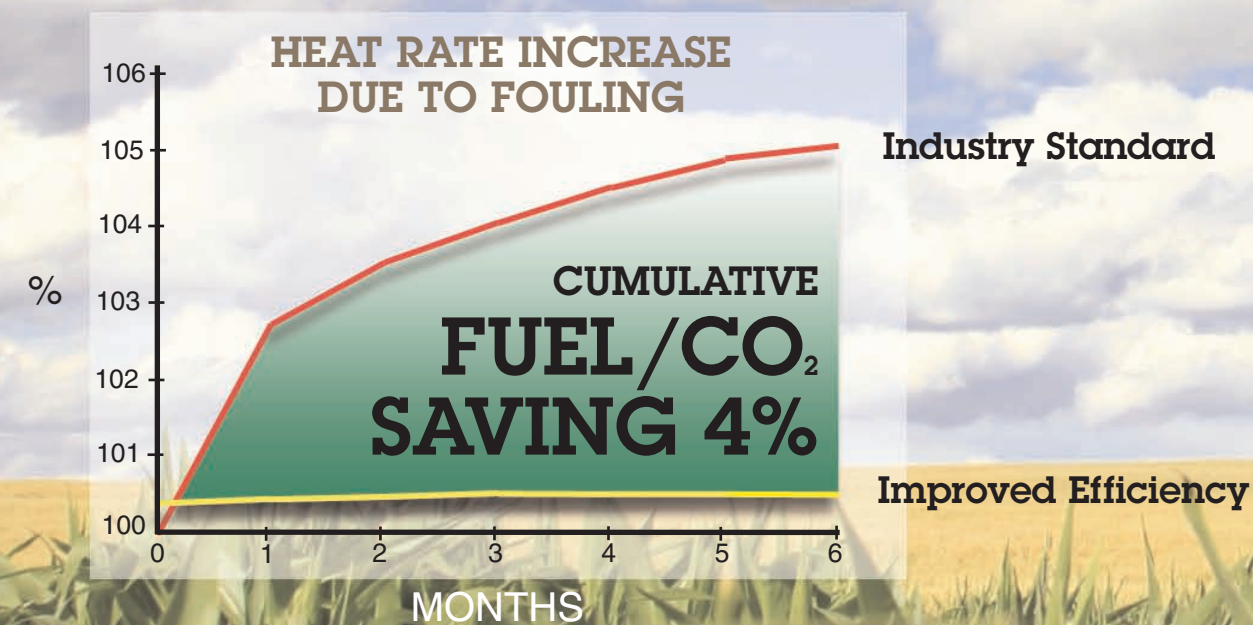
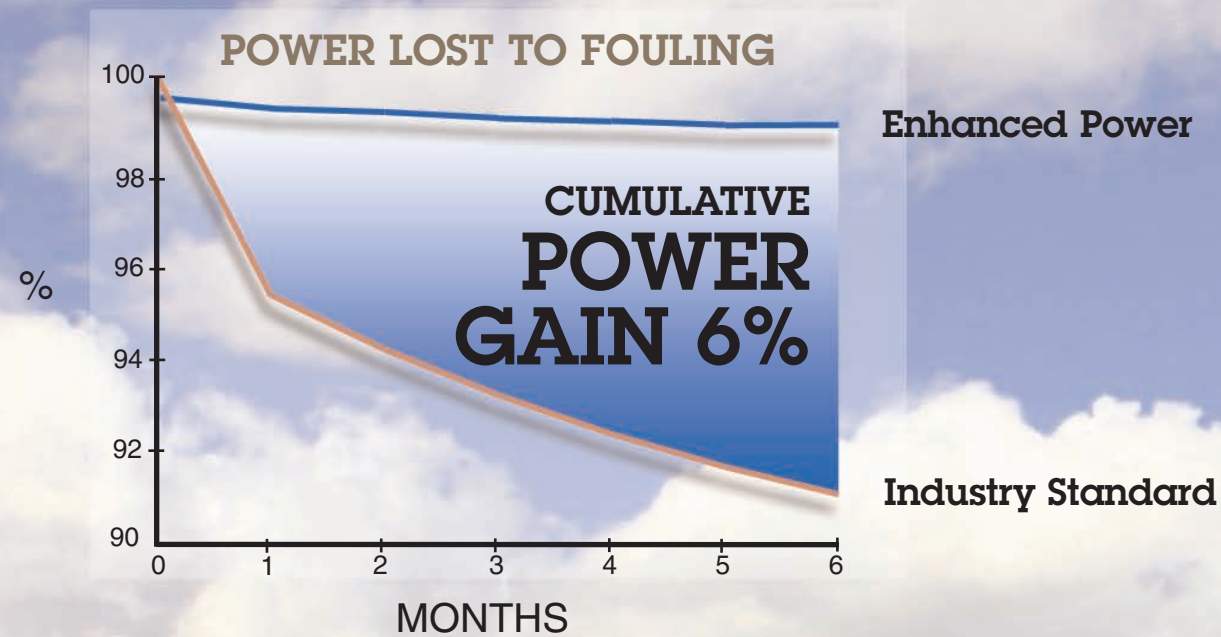
LASTS LONGER

In a well designed system AAF HEPA filters regularly **operate for more than 24 months before change out**

CARBON CREDITS

AAF can support energy producers with their program to develop **certified carbon credits**.

saving money is our business



supreme performance

Products of Evolution

AAF take the responsibility of protecting your gas turbine fleet very seriously. Even before we began breaking new ground in the nineties with our specialist HEPA technology we appreciated the challenge imposed by the environment made gas turbine protection no ordinary form of filtration engineering. At AAF we have invested many thousands of hours in research and development of our media technology. This media expertise is prevalent across our entire range of gas turbine products regardless of their efficiency.

A Pedigree for Success

Our HEPA (EPA) filters are now proven on over fifty advance F class machines worldwide and at any-one-time you will find greater than 25 thousand filters providing continuously clean air at continuously reliable differential pressure. You will be reassured to know that AAF's technology is proven across this fleet of machines recording results for over fifty thousand continuous hours on some of our earliest installations.

Setting the record straight

In the harshest of environments our premier filtration range has pioneered levels of turbine operating availability previously not believed possible. AAF's specialist protection against salt and water has set world records for component life on aero derivative gas turbine engines.

A Reliable partner for performance

We have invested heavily in listening to the top professionals across the oil and gas and energy market. All our systems are designed and tested to offer a stable and assured extended operating life. A process of careful evaluation of our wide installed fleet and our program of site testing across the harshest environments has reinforced the dependability of our range.

greater efficiency and power output

