AAF Optimize™

Data driven evaluation of your gas turbine air inlet

Optimize
GT Operational Excellence

AAF INTERNATIONAL
Bringing clean air to life.®

The Need to Optimize

The gas turbine filtration market is very diverse, with many different filter types, terminologies and international standards, it can be a very confusing landscape.

In addition, the many different air intake systems available for turbomachinery all have very different performance characteristic and life cycles, which are highly influenced by both plant operational demands and ambient conditions.

Many air intake systems have been supplied by gas turbine OEMs based on meeting lower filtration efficiency specifications leading to suboptimal performances. The wrong product selection can also significantly impact gas turbine efficiency, availability and reliability leading to increased plant operating costs.

An Individual Solution

The individuality and complexities of gas turbine air inlet filtration systems can present operators with an unwanted problem when it comes finding the right solution. It's easy to be misled and assume a gas turbine filter can solve the problems of any application.

At AAF, our products are designed for different applications and deliver different performance goals. Optimize ensures you get the right products for your individual application, resulting in a solution that is tailored to your needs. It is not just as simple as replicating a successful system in operation at another site. The site, the individual gas turbine, the existing system, the surrounding environmental conditions and the operational parameters are all taken into consideration.

Maximize your GT Performance

AAF Optimize is an industry-leading support service that provides gas turbine users with the capability to optimize all aspects of their air inlet systems. Optimize will provide you with the intelligence you need to lower system life cycle costs, maximize plant revenues and help to extend the operational life of your gas turbine.

Transparent Benefits

Focusing on a Total Cost of Ownership (TCO) based methodology, we will ensure expert support is provided throughout the process with the sole aim of achieving your optimum performance levels.

The benefits are very transparent and can be extremely impactful with significant savings available - up to $500,000 per year for an F-Class gas turbine.

- Sophisticated service with no hidden cost
- Data driven intelligence you can rely on
- Supported by an expert team
- Receive a detailed proposal for your individual gas turbine
- Discuss recommendations in detail

The Optimization Process

Gas Turbine Data

e.g. Gas turbine manufacturer, heat rate, inlet airflow and total annual operating hours.

Environmental Data

e.g. Air quality, ambient temperature and weather data.

Optimize™

Review and evaluate alternative filter and system options to determine the optimal filtration system with the lowest TCO.

Total Cost of Ownership Analysis

Proposals are individual solutions, projected outcomes are clearly presented and discussed in detail in a follow-up meeting.

Plant Performance & Commercial Data

e.g. Power output, fuel price, cost of CO_2 emissions and electricity sale price.

Existing Product Data

e.g. Filter manufacturer, quantity, cost of filters, filter differential pressure and filter life.

Applicable Applications

Optimize assesses your site's operational, commercial, and environmental data to evaluate the current impacts and losses associated with your air inlet filtration system. Alternative solutions are then identified and assessed, and the key benefits of each solution are highlighted for further discussion.

Power Generation

Gas turbine power generation is heavily influenced by air filtration. Recommended solutions will be influenced by demand, considering if the installation is base or peak load. Operating conditions are evaluated in combination with the surrounding air quality to ensure we determine the right solution for your power demands.

Onshore Oil & Gas

Onshore oil and gas industries include LNG production, oil refineries, gas processing and gas transmission. Site locations will vary considerably from remote inland compressor stations to industrial oil refineries and coastal LNG plants. Each application has a need for optimized air filtration to empower GT operational excellence.

Offshore Oil & Gas

The air offshore has very high levels of salt and moisture. Compressor blades, inlet variable guide vanes and pneumatic parts are particularly exposed to contamination and corrosion. This can lead to damage, seizure and ultimately the failure of these critical components. To avoid the most severe levels of damage water washing is regularly adopted but this results in production downtime. AAF can optimize existing filtration systems to enhance reliability and availability.

Optimize Benefits

AAF Optimize allows you to evaluate your potential financial improvements, power output or production efficiency, fuel consumption and CO_2 emissions. You are under no obligation and there is no service fee, so it makes perfect sense to experience the Optimize approach with AAF!

Reduce Operational Expenditure

- Optimize provides the intelligence to lower system life cycle costs and help extend the operational life of a gas turbine.
- Savings can be significant, up to $500,000 per year for an F-Class gas turbine.

Increase Availability & Capacity

- Advanced air filtration will significantly reduce compressor fouling and in doing so will increase gas turbine availability and efficiency.
- This will maximise performance, plant revenues and increase overall profitability.

Reduce CO_2 Emissions

- Optimize will assist you to find solutions that will lower your CO_2 emissions and your carbon footprint.
- Good news for the planet, your net zero ambitions and your profit margins as associated costs are reduced.

Want to learn more?

Contact your usual sales representation for further details or email **optimize@aafintl.com** to arrange an initial presentation and discuss the process.

Bringing clean air to life.®

AAF International

Filtration has been at the heart of our business since 1921 and thanks to the high calibre of our products and services, we are trusted by many of the world's leading power and industrial companies. We provide our customers with the expertise, the solutions and the best available filtration technology to increase operational performance. Bringing clean air to life, our products provide the highest levels of indoor air quality, the lowest environmental emissions and the optimum safety conditions for employees and the wider community.

aafintl.com

aafmarketing@aafintl.com

GT.OPT.BR.EN.0323.2