Gas turbine air intake media
Gas turbine air intake filter media solutions

High energy cost and demand worldwide have increased the focus on energy efficiency in many industries and market sectors. Specifically, the Power Generation sector is driven by the need for affordable electricity. One key contributor to energy efficiency are Air Intake systems of Gas Turbines. This step of the power generation process takes a lot of energy to produce the clean air required for turbines to operate. As Gas Turbines are installed in many different environments worldwide, the requirements for air intake filter systems and the selection of the correct filters become crucial for the production of affordable energy.

Ahlstrom’s solutions for gas turbine air intake filtration are based on several technical platforms. Our expertise and latest knowhow in various nonwoven technologies and chemistries is applied to provide several advanced solutions to the filter manufacturers. The media technology utilized and the selection of the fiber composition and resin chemistries are carefully chosen according to the specific filter performance requirements.

Our filter media can be used in:
- Pleated filters for pre-filtration
- Pleated bank and cartridge filters for primary filtration
- Pleated filters for HEPA filtration

Full range of technologies and benefits - Ahlstrom is a single source provider of filter media solutions for both static and pulse-jet gas turbine air intake applications.

**Ahlstrom Trinitex® GT**

Ahlstrom Trinitex® GT technology offers filter media with excellent mechanical filtration efficiency and low pressure drop thanks to its unique 3-layer structure. Each layer can be customized to deliver specific properties and the optimal combination of strength, mechanical particle removal efficiency even at small particle sizes, and pressure drop. Ahlstrom Trinitex® GT is easy to process on rotary and knife pleating lines.

**Ahlstrom Microglass GT filter media**

Our Microglass technology guarantees consistent efficiency in the final stage of air intake filtration – which ultimately protects the turbine. Ahlstrom Microglass GT media is available in dual layer design, which provides the media with increased dust holding capacity while maintaining the highest possible efficiency. Our Microglass Gt media is the best media for static filters F7-F9 and HEPA filter applications.
Ahlstrom offers a complete range of Gas Turbine Air Intake filter media to meet the specific needs in various operational environments. We offer solutions for all stages of filtration - from pre-filtration to final stage HEPA filtration or pulse jet filtration.

Effective air intake filtration is critical in order to protect gas turbine blades and maximize the lifespan of the turbines. Different climate conditions deliver intake air at different temperatures and with different contamination, which makes the selection of the correct air intake filter media crucial.

**Benefits**

- **Complete range of media**
  - from 100% cellulose to 100% synthetic or microglass in various combinations for all stages of power generation air intake filtration
- **Filter media designed to**
  - offer solutions for a variety of operational environments and temperatures: high humidity, sand, salt, soot, dust, fog, snow and others
- **Ability to tailor-make products**
  - according to your specific performance requirements: A single source for all filter media solutions
**Ahlstrom SafePulse™**

Our portfolio of corrugated media for reverse-pulse applications covers material compositions from 100% cellulose over the famous 80/20 media to 100% synthetic solutions, and efficiency levels from M5 to F9 according to EN779-2002 and EN779-2012. We offer media with various physical properties tailored to our customers' individual needs and designed for different process conditions and requirements. Our proprietary resin chemistry provides high strength, superior water resistance to guarantee performance in humid conditions, and optional value adds such as fire retardancy.

**Ahlstrom XAir GT**

Ahlstrom’s XAir GT media combines the advantages of our SafePulse™ media and our Fine Fiber Meltblown technology to deliver a media with excellent reverse-pulsing properties as well as high dust holding properties for extended pulse cycles.

**Ahlstrom NanoPulse™**

Ahlstrom NanoPulse™ consists of our SafePulse™ media coated with electrospun nanofibers on the upstream side. This structure results in excellent reverse-pulsing behavior and high mechanical efficiency at the lowest possible pressure drop. Like our SafePulse™ family, NanoPulse™ can also be customized with value-added treatments such as fire retardancy.
## Ahlstrom media portfolio for gas turbine air intake

**Trinitex® GT**

Trinitex® GT is an Ahlstrom proprietary technology that produces filter media with 3 layers, which are customized for the specific needs of Gas Turbine Air Intake filtration. With high strength thanks to synthetic fibers and superior performance in diesel soot, Trinitex® GT can be used in both, static and pulse jet applications and is well suited for environments with high humidity, soot and salt.

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<th>Pre Filter</th>
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<th>HEPA Filter</th>
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**Microglass GT**

Microglass GT filter media is available in single or dual layer design, with great flexibility to incorporate additives or synthetic fibers for enhanced strength or pleatability of the media. Microglass GT media is suited for Static filters as used in various environmental conditions.

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**Ahlstrom SafePulse™**

Ahlstrom SafePulse™ filter media consists of cellulose, polyester and/or microglass fibers. Typically corrugated to aid pleat separation and dust cake release, our SafePulse portfolio was developed around the traditional 80/20 media with 20% PET fibers. Thanks to its excellent reverse-pulsing behavior in dusty environments, it is the standard media used for pre- and primary filtration of reverse-pulse filtration systems.

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**Ahlstrom XAir GT**

Ahlstrom XAir GT filter media is a family of products with a fine layer of Fine Fiber on top of a cellulose carrier sheet. Ahlstrom XAir GT offers superior filtration efficiency and dust holding capacity thanks due very fine layer of small fibers upstream. High corrugation also helps the Pulse Jet cleaning process.

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**Ahlstrom NanoPulse™**

Ahlstrom NanoPulse™ filter media consists of a SafePulse™ base sheet coated with true electrospun nanofibers. Depending on the media design, a wide range of filtration performance characteristics can be achieved.

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Ahlstrom is a high performance fiber-based materials company, partnering with leading businesses around the world to help them stay ahead. We aim to grow with a product offering for clean and healthy environment. Our materials are used in everyday applications such as filters, medical fabrics, life science and diagnostics, wallcoverings and food packaging. In 2014, Ahlstrom’s net sales from the continuing operations amounted to EUR 1 billion. Our 3,400 employees serve customers in 22 countries. Ahlstrom’s share is quoted on the NASDAQ OMX Helsinki. More information available at www.ahlstrom.com.

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Contact Ahlstrom sales

EMEA
📞 +49 89 419 4380
✉️ filtration@ahlstrom.com

Asia - South Korea
📞 +82 2 3452 7314
✉️ filtration@ahlstrom.com

North America
📞 +1 770 650 2100
✉️ filtration@ahlstrom.com

South America
📞 +55 19 3878 9238
✉️ filtration@ahlstrom.com

Learn more: www.ahlstrom.com

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