



Gas Turbine System

GTM™ Air Inlet Filter for Gas Turbines



filtration ltd

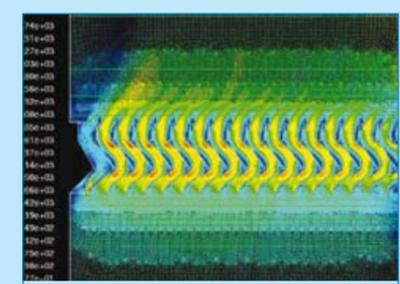
Experts in Filtration Technology
www.filtration-ltd.co.uk



GTM™, Air Inlet Filter for Gas Turbines



Protecting gas turbines operating offshore and in coastal regions.



4-STAGE MARINE/OFFSHORE FILTRATION SYSTEM: GTM

The Donaldson GTM Inlet Air Filtration System is specially designed for gas turbine combustion and ventilation intake applications on FPSO's, offshore platforms, coastal regions and other marine applications. Four filtration stages protect your rotating equipment by removing salt and dirt particulate and water droplets from the intake air.

The high-velocity GTM fits industry-standard skid systems, meeting today's requirements for a small envelope and light weight. This is beneficial on both first-fit and retro-fit applications. GTM units are fully assembled and delivered in a single lift (subject to transportation limitations) so that installation is faster and easier.

DESIGNED IN MODULES FOR FULL SCALABILITY

The Donaldson GTM can be sized in many ways to accommodate airflow requirements for turbines of different sizes and space restrictions.

SIGNIFICANT SYSTEM IMPROVEMENTS

Donaldson brings its 90 years of air filtration experience to bear on the GTM, with substantial improvements over competitive offerings.

- **Leak-free construction:** The GTM element holding frame is fabricated using only seal welds for dirty-air-to-clean-air joints, thus eliminating any leak potential. Each filter element is sealed against the holding frame by a 1-piece, chemically resistant gasket. The gasket is securely attached to the holding frame to provide a reliable leak-proof seal.
- **Easier filter servicing:** The GTM drawer slides in and out easily to allow for speedy and convenient exchange of the pre-filters or main filter elements. The door handle locks safely into place for a positive seal, yet is easy to release at service time. Pre-filters and final filters are not nested together, resulting in (a) no water carry-over and (b) easier service access. Pre-filter servicing can be done safely without turbine shut-down.
- **Element retention:** GTM elements are positively sealed to the frame and firmly secured with latches that preclude leaks. This ensures that the seal remains effective even when the turbine is not running.
- **Low ΔP and high performance:** Vane design was developed using the latest fluid dynamic software, as shown in this CAD screen. This optimizes ΔP and removal efficiency of water droplets.

BEST PROTECTION FOR TURBINES OPERATING OFFSHORE

- High-velocity, 4-stage filtration removes dirt and salt particulate and water droplets.
- Easier servicing! Choose pull-out front section or side access door.
- All 316L stainless steel for best corrosion resistance.
- Corrosion-free filters with flame-retardant media.
- Can be fabricated almost anywhere in the world - Donaldson has facilities worldwide for your benefit.

4 STAGES OF PROTECTION WELL-ENGINEERED FILTER ELEMENTS

STEP 1 - Marine louver vanes

Made of 316L stainless steel remove water and salt droplets in the first stage. Drain connections are on both sides.

STEP 2 - Coalescer/pre-filters

Capture dry salts, particles and other large contaminant, as well as the finer water droplets. Choose from G4 to F7 efficiency media, depending on the severity of your environment. Pockets are sonically welded.

STEP 3 - Fine filters

Provide high-efficiency performance - choose up to F9 depending on your environment. The multi-pocket design optimizes airflow and ensures low ΔP over the life of the filter. Each pocket is sonically welded and contains spacers to maintain maximum filtering surface availability.

STEP 4 - Marine louver vanes

A second bank of 316L stainless steel vane does the final cleaning before the clean, dry air is directed to the turbine.

To even further reduce compressor fouling, Donaldson proposes low velocity systems equipped with very high efficiency Donaldson Tetratex® Membrane technology.

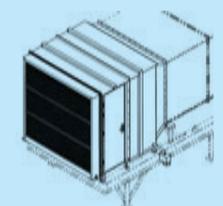


GTM SYSTEM OPTIONS AND ACCESSORIES

- **Special materials:**
 - stainless steel 304L, 316L, or 316L with high molybdenum content
 - painted carbon steel
 - aluminium
- Support structures and skidmount systems
- Combustion and ventilation inlet ducting
- Bird screens and insect screens
- Exhaust ducting and silencing
- Inlet silencing
- Flexible connections
- Weather hoods
- Inlet heaters
- Inlet coolers



FRONT ACCESS: Unlatch the handle to pull out (drawer-style) the first set of vanes and pre-filters. This design requires about half the space that traditional swing-out doors need.



SIDE ACCESS: A door on the side of the unit for service access enables pre-filter change-out without turbine shut down. It's standard on larger systems, optional on smaller units.



Filtration Ltd,
303B Dean Road
Avonmouth
Bristol
BS11 8AT

Tel: 0117 9822206

**Regional Headquarters
Europe, Middle East and Africa
Donaldson Europe b.v.b.a.**

Research Park Zone 1
Interleuvenlaan 1
B-3001 Leuven
Belgium

Tel. + 32 16 38 39 40

Fax + 32 16 38 39 39

Email: GTS-europe@donaldson.com

**Regional Headquarters
Asia Pacific
Donaldson Filtration Pte. Ltd.**

No.3, Changi Business Park Vista #02-00
Singapore 486051

Tel. + 65 6311 7373

Fax + 65 6311 7398

Email: GTS-asiapacific@donaldson.com.sg

**Worldwide Headquarters
Donaldson Company Inc.**

1400 W. 94th Street
PO Box 1299

Minneapolis

Minnesota 55440

USA

Tel. + 1 952 887 3131

Fax + 1 952 887 3843

Email: filterinfo@donaldson.com

www.donaldson.com