Donaldson Gas Turbine Systems (GTS) operates globally, producing air inlet filter systems and related air inlet products that protect turbine engines from airborne contaminants. GTS began designing and producing gas turbine inlet systems in the late 1960’s, and in 1976 became well known for innovative self-cleaning filter technology, dubbed Huff ‘n Puff. The company’s strategy is to provide high quality filtration and silencing products to gas turbine OEM’s and end users, at competitive prices, everywhere in the world.

Donaldson Gas Turbine Systems is headquartered in Minneapolis, Minnesota, USA, and has engineering centers in Minneapolis, Minnesota; Leuven, Belgium; Tokyo, Japan; and New Delhi, India.
Donaldson Company, Inc. is a worldwide designer and manufacturer of filtration products. It was founded in 1915 by Frank Donaldson, Sr. when he invented the first successful engine air cleaner for an agricultural tractor.

Since then, the company has grown to provide filter systems for heavy duty mobile equipment, in-plant applications, gas turbine engines, and high purity applications. Donaldson has 42 production facilities in 22 countries around the world. Common stock is traded on the New York Exchange. Donaldson has experienced strong sales growth for the past eleven years, with total sales in fiscal year 2000 of more than a billion US dollars. Worldwide, more than 8,000 people are employed by Donaldson.

Donaldson Company’s business focus is to diversify around the core technology of filtration. We have developed hundreds of proprietary filter media, each formulated for maximum performance in specific applications. The company’s engine-related filtration products generate about 65% of total sales revenue and industrial-related products about 35%. Gas Turbine Systems business unit is part of the industrial products group.

A Full Offering of Filter Systems to Conquer Even the Most Challenging Environments

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Self-Cleaning Filter Systems

Self-cleaning filter systems are designed for environments with high concentrations of dust; when frost & snow build-up is a problem; and for remote areas where filter maintenance is difficult.

- **GDX™ Pulse-Clean Air Filter** -- The GDX system is the ‘next generation’ pulse-clean filter after the original self-cleaning TTD Huff ‘n Puff. The system has a 50% smaller footprint and weighs significantly less, while the GDX filter elements -- the heart of the system -- provide higher efficiency. The GDX downflow design, combined with Spider-Web® filter media treatment, enhance the pulse cleaning performance. Also designed to accommodate inlet treatment accessories such as chiller coils or evaporative cooler (see photo above.) The GDX is now used on more than 1000 turbines and generators worldwide.

- **DZ2000™ Air Filter System** -- This unique system takes advantage of Donaldson’s high-capacity DZ2000 filter media to provide high efficiency in a slim profile. Media is packaged in a spiral that makes the filter unit comparatively lightweight for easy handling, and high capacity for long life.

- **GDS™ Static Air Filter** -- Donaldson offers this compact, high value system (pictured above) in a variety of configurations for small and medium-sized turbines and generators. With integral moisture separation devices, and cartridge filter pairs that yield 99.9% filtration efficiency, GDS systems currently protect more than 4,500 turbines and generators worldwide.

- **Composite-Filter™ 2-Stage Air Filter** -- Our Composite-Filter System (CFS) is a 2-stage, high efficiency static air inlet filter system specially designed for urban/industrial environments.
Donaldson Offers a Wide Choice of Media so That You Can Choose the Best Filter for Your Particular Environment!

**Synthetic** --- man-made fibers that have superior dust-holding capacity, and are sturdy, durable, and moisture resistant. Best filtration performance in most cases, especially consistently wet environments, those with salt-laden air, and/or urban/industrial.

**Duratek™** --- our special blend of man-made and natural fibers designed to resist moisture and thereby avoid media swelling & bunching. This works well in environments that are intermittently wet, humid or damp.

**Spider-Web®** --- a fine-fiber layer (see photo at right) that catches very fine (even sub-micron!) particulate before it reaches the media substrate. Spider-Web® is a treatment that is bonded to either synthetic or Duratek™ filter media. You’ll know it’s authentic Donaldson Spider-Web® because it’s blue!

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A Full Line of Replacement Filters.....for Donaldson Systems, and for Other Brands

- Cartridge filters for Donaldson GDX and TTD self-cleaning systems
- Cartridge filters for Donaldson GDS static systems
- Donaldson Composite-Filter™ 2-stage static cartridge filters
- Donaldson DZ2000 24”x 24” square panels
- Donaldson DZ2000 27” round panels
- 20”x 20” panels
- Flange-Top cartridges (like Farr Tenkay)
- Twist-Lock cartridges (like Pneumafil)
- 2by4 panels (like AAF)

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**DZ2000 Filtration Technology**

DZ2000 is one of Donaldson’s uniquely designed filter media. It is fluted and packaged such that the air is forced through media layers in a ‘Z’ pattern. DZ2000 offers the advantages of more media per unit volume and very high dust-loading capacities. Can be provided with or without Spider-Web®.

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Spider-Web® helps reduce turbine and stator blade fouling by removing very fine dust (particles smaller than 5µ) from the airstream. The photo below from the scanning electron microscope shows how the fine fiber Spider-Web® is overlaid on the thicker fibers of the substrate media, which can be either Duratek or synthetic. Spider-Web® fine fibers capture the very small particulate that the larger fibers don’t.

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Here’s ‘Webster,’ a little character we use to help explain our proprietary fine fiber media technology, Spider-Web®.
Global Capability

Donaldson Gas Turbine Systems has developed a network of qualified suppliers to complement Donaldson Company’s worldwide production and engineering capabilities. We meet local content requirements through the combination of the supplier network and our own facilities located throughout the world.

Air filter systems and filter elements are produced in Donaldson’s own facilities in Europe, India, Japan, and the U.S. Metal fabrication and/or filter element production is also performed in more than 10 other countries worldwide.

Donaldson uses the most advanced computer-aided design engineering for structural analysis, fluid dynamic analysis, and filter modeling. We have state-of-the-art laboratories for filter media development and media evaluation; a chemical analysis lab to study the chemical composition of contaminants and the effectiveness of various filter media formulations on them; and several laboratories dedicated to acoustic analysis that include an anechoic chamber and engine dynamometers.

World Class Quality

Donaldson quality control systems and quality engineering staff ensure that our products meet world class quality levels. Donaldson operations in Europe, U.S. and India have been qualified to ISO 9001 standards.