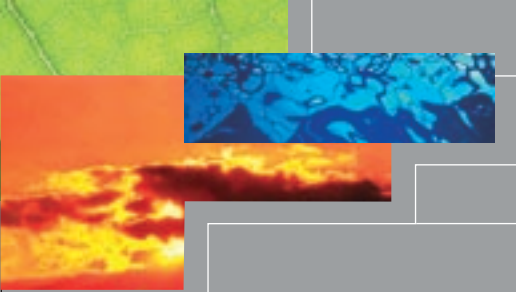


A Cleaner World for Industry



Donaldson®  
*Filtration Solutions*



# Global Resources for Filtration Solutions

Donaldson® Company, Inc., headquartered in Minneapolis, Minn., is a leading worldwide provider of filtration systems and replacement parts. Founded in 1915, Donaldson is a technology-driven company committed to satisfying customer needs for filtration solutions through innovative research and development. We serve customers in the industrial and engine markets including dust collection, power generation, specialty filtration, off-road equipment and trucks. More than 10000 employees contribute to our success at close to 30 manufacturing locations around the world.

Donaldson Europe was established in Belgium in 1966. Close to 40 years later, Donaldson Europe has approx. 50 operations doing business in excess of 18 countries throughout Europe, the Middle East and Africa. With its diverse product mix, technological capabilities, global presence and its customer care and support, Donaldson Europe is able to consistently provide quality to its customers region-wide.

# Donaldson Worldwide Filtration Solutions

• Belgium	<b>Leuven</b>	<i>Regional Headquarters - Europe, Middle East, and Africa</i>
• Austria	<b>Vienna</b>	<i>Sales Office</i>
• Belgium	<b>Bornem</b>	<i>Distribution Center</i>
• Belgium	<b>Brugge</b>	<i>Plant</i>
• Czech Republic	<b>Klasterec</b>	<i>Plant</i>
• Czech Republic	<b>Prague</b>	<i>Sales Office</i>
• Denmark	<b>Horsholm</b>	<i>Sales Office</i>
• Denmark	<b>Slagelse</b>	<i>Sales Office</i>
• France	<b>Bron</b>	<i>Sales Office</i>
• France	<b>Domjean</b>	<i>Plant</i>
• France	<b>Paris</b>	<i>Sales Office</i>
• France	<b>Vigny</b>	<i>Sales Office</i>
• Germany	<b>Berlin</b>	<i>Sales Office</i>
• Germany	<b>Dülmen</b>	<i>Plant and Sales Office</i>
• Germany	<b>Haan</b>	<i>Plant and Sales Office</i>
• Germany	<b>Senden</b>	<i>Sales Office</i>
• Germany	<b>Stadthagen</b>	<i>Sales Office</i>
• Germany	<b>Flensburg</b>	<i>Plant</i>
• Hungary	<b>Budapest</b>	<i>Sales Office</i>
• Italy	<b>Milan</b>	<i>Sales Office</i>
• Italy	<b>Ostiglia</b>	<i>Plant, Sales Office and Distribution Center</i>
• Netherlands	<b>Nieuwegein</b>	<i>Sales Office</i>
• Netherlands	<b>Wormerveer</b>	<i>Sales Office</i>
• Norway	<b>Moss</b>	<i>Sales Office</i>
• Poland	<b>Warsaw</b>	<i>Sales Office</i>
• Romania	<b>Bucharest</b>	<i>Sales Office</i>
• Slovakia	<b>Bratislava</b>	<i>Sales Office</i>
• Spain	<b>Barcelona</b>	<i>Sales Office</i>
• Spain	<b>Madrid</b>	<i>Sales Office</i>
• Spain	<b>Terassa</b>	<i>Plant</i>
• Sweden	<b>Landskrona</b>	<i>Sales Office</i>
• Sweden	<b>Vällingby</b>	<i>Sales Office</i>
• Switzerland	<b>Lenzburg</b>	<i>Sales Office</i>
• Switzerland	<b>Zurich</b>	<i>Sales Office</i>
• Turkey	<b>Istanbul</b>	<i>Sales Office</i>
• UK	<b>Bawtry</b>	<i>Distribution Center</i>
• UK	<b>Hull</b>	<i>Plant, Sales Office and Warehouse</i>
• UK	<b>Leicester</b>	<i>Plant and Sales Office</i>
• UK	<b>Newton Le Willows</b>	<i>Sales Office</i>
• United Arab Emirates	<b>Ajman</b>	<i>Sales Office</i>
• Saudi Arabia	<b>Dammam</b>	<i>Joint Venture</i>
• Singapore	<b>Singapore</b>	<i>Regional Headquarters - Asia Pacific</i>
• South Africa	<b>Cape Town</b>	<i>Regional Headquarters - Sub-Sahara Africa</i>
◊ USA	<b>Minneapolis</b>	<i>Worldwide Headquarters</i>

## Legend

◊ Worldwide Headquarters  
• Regional Headquarters

● Operations: Europe/Middle East/Africa Locations  
● Operations: Americas/Asia/Pacific/Sub-Sahara Africa



### SEMICONDUCTORS

Chemical and particulate filtration for semiconductor process.

### CONSTRUCTION

Donaldson is the world's leading first fit supplier of air filtration, exhaust and hydraulic systems for construction and mining markets, requiring heavy-duty protection.

### AGRICULTURE

For hardworking agriculture equipment engines, Donaldson provides that extra measure of engine protection in difficult working environments.

### MANUFACTURING

Donaldson dust, fume, and oil mist collectors reduce environmental health-hazards and provide energy savings. Donaldson hydraulic filters help safeguard critical components in machinery.



Donaldson products are available worldwide



## AIRCRAFT

Donaldson has developed a wide range of state-of-the-art filters for several types of commercial airplanes.

## TRANSPORTATION

Leading truck and bus manufacturers around the globe rely on Donaldson for quality engine protection products. Superior design features optimize performance and efficiency while reducing maintenance costs.

## POWER GENERATION

Donaldson's high performance air intake filtration systems have been successfully applied on gas turbines and compressors, in environments from light to severe.

## CHEMICAL

Donaldson provides dust collection equipment that improves the air quality in the work environment, even under difficult conditions.



# Our Customers Come First

# Engine Systems & Technologies

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for long-life and reduced maintenance

Applying innovative technology, Donaldson products maximize engine performance and reduce maintenance costs for customers all over the world.

The Engine product range includes superior filtration and exhaust systems that meet the needs of tomorrow's engines.



## **Intake Air Filtration Systems and Accessories**

Innovative vehicle designs call for new engineering solutions. With the RadialSeal™ and Alexin™ filtration technology, Donaldson is right there. Our latest innovation – PowerCore™ – offers you peak performance in half the space of a conventional air filter. Donaldson provides total air intake systems and a full range of one stage, two-stage and scavenging air cleaners for heavy, medium and light duty vehicles. The air cleaner accessory line offers pre-cleaners, clamps, indicators and rain caps.



## **Hydraulic Filtration Systems and Accessories**

Donaldson develops, manufactures and markets a full line of hydraulic filters for the protection of machinery and components in hundreds of applications on heavy duty-mobile equipment. When you need high-, medium- or low pressure filters, filter housings, filter heads, replacement cartridges, spin-ons (e.g. Duramax™) or hydraulic accessories, turn to Donaldson.



## **Lube, Fuel, Coolant and Crankcase Filtration**

Donaldson's extended line of high quality filters for lube, fuel, coolant and crankcase filtration ensures optimal protection for heavy-duty diesel engines. The Donaldson Spiracle™, a closed crankcase ventilation filtration system for turbocharged diesel engines, is one of the innovative filtration solutions for this product range.



## **Exhaust and Emission Control Systems and Accessories**

Donaldson exhaust and emission system products can be found as original equipment on a wide variety of diesel-powered vehicles and equipment. We're focused on developing integrated solutions to meet current and future regulatory standards around the world. Whether you need high quality silencers, tubes, mounting material and accessories for a full exhaust system, Donaldson is ready today!



## **Replacement Elements**

We offer a full line of replacement air, lube, fuel, coolant and hydraulic filter elements for the heavy-duty mobile equipment market. Our products carry the Donaldson brand or that of our OEM partners and are available through an international dealer/distributor network.



# Special Markets

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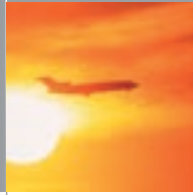
particle and gas filtration for high purity applications

Donaldson focuses on critical applications requiring a high degree of cleanliness and protection for the work place, processes and equipment.

Our products are designed to remove particulate, odours and gaseous contaminants from air streams in highly sensitive environments, such as semiconductor processing, aircraft, electronic sensors, photocopiers and fuel cells.

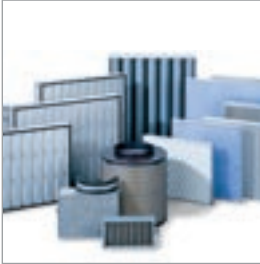






## **Aircraft Filters**

Donaldson has developed a wide range of state-of-the-art filters for commercial and military airplanes, helicopters and general aviation aircraft. Cabin air re-circulation HEPA and odor filters, electronic equipment filters and engine air intake filters operate at the highest efficiency, providing comfort to passengers and crew, as well as protecting equipment.



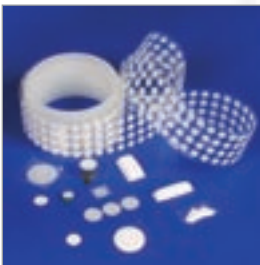
## **Filtration for Semiconductors**

Targeted against gas-phase contaminants, Donaldson's LITHOGUARD™ filters offer the broadest range of chemical and particulate protection for lithography and other critical semiconductor processes.



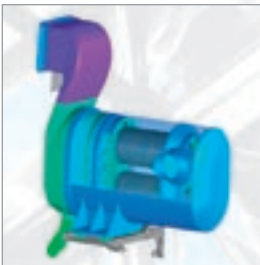
## **Breathers/Venting**

Donaldson PTFE membrane filters and assemblies with optional carbon or desiccant layers protect highly sensitive sensors, disk drives, electronic equipment and medical devices.



## **Filters for Fuel Cell Application**

Particulate and chemical filtration solutions, integrated with a noise reduction system, protect the fuel cell from contaminants present in the ambient air to ensure system durability.



## **Filters for Imaging Applications**

Our filters remove toner, ozone and other gases generated within copy machines and high speed printers. We improve the environment and safeguard the sensitive parts of the equipment.



# Gas Turbine Air Intake Filtration

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for optimal performance in all environments

Donaldson is the leading supplier of custom-engineered complete air intake systems for gas turbines and industrial compressors, for new and retrofit applications.

The on-going development efforts in gas turbine air treatment is supported by the most advanced engineering tools in the industry including structural analysis, fluid dynamic analysis and filter modeling.





**Donaldson**  
Filtration Solutions



### **Self Cleaning Pulse Jet Filter Systems**

The industry standard Donaldson GDX™ self-cleaning filter, is now followed by the advanced XLR next generation pulse clean filter system. Both systems using Donaldson's patented Spider-Web® filter media technology. The XLR™ provides for more compact design, thus minimizing transportation and installation cost. Key to these features is Donaldson high density PowerCore® filter media. Both GDX and XLR are ideal for applications in remote, desert, arctic as well as complex adverse environments.



### **GDS™ Static Filter Systems**

The GDS is a high performance long life multi-stage filter for gas turbines operating in urban and industrial environments, offshore and marine climates. Along with our patented Spider-Web technology, a large number of air treatment accessories are available.



### **GTM™ Off-Shore Filter Systems**

The Donaldson high-velocity GTM inlet air filtration system is specially designed for gas turbine combustion and ventilation intake applications on FPSO's, offshore platforms, light duty and other marine applications. The GTM fits industry-standard skid systems, meeting today's requirements for a small envelope and light weight.



### **Air Inlet Silencers and Cooling Equipment**

Donaldson designs and produces customized inlet cooling systems, such as evaporative coolers and chiller coils, that provide additional power output from gas turbine operating in warm climates. Patented silencers provide for advanced acoustical performance on noise emissions stemming from gas turbine systems.

### **Replacement Filters**

For all types of gas turbine houses, Donaldson provides upgraded media and filter geometries that help improve the protection of gas turbines and compressors. Donaldson also offers genuine replacement parts for most systems, full service contracts and maintenance overhaul of air intake filters. Donaldson further provides analysis of retrofit and augmentation possibilities for improved gas turbine performance.



# Industrial Filtration Solutions

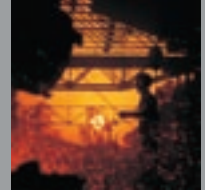
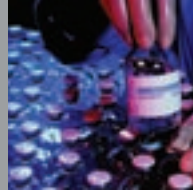
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your partner for industrial filtration solutions  
and service from one source

**D**onaldson Industrial Filtration Solutions is committed to providing superior filtration solutions that enable users of industrial filtration to obtain a comprehensive portfolio of safe, reliable and highly cost effective filtration products and services from one single source on a global basis.

We uniquely ensure consistent improvement of filtration processes through the technological expertise of our individual field specialist application engineers in each area of industrial filtration.





### **Filtration Solutions for Purification**

Donaldson provides innovative system engineered solutions for the purification of compressed air, technical gases and liquids. The product portfolio covers industrial and process filtration, refrigerant and adsorption dryers, chillers, condensate drains and condensate purification systems.

### **Dust, Fume and Mist Extraction**

We offer complete energy efficient industrial filtration solutions for dust, fume and mist extraction. From Dryflo mist filtration systems that fit directly onto machining centres to Unimaster dust collectors to DFPRO with its powerful, compact filtration technology, Donaldson has the expertise to offer filtration solutions for virtually any application.

### **Replacement Filters**

Donaldson provides you all filter replacements from one source, for all applications such as compressed air, atmospheric air, technical gases, process liquids and hydraulic fluids.

### **Service**

A European-wide service network provides filtration solutions that help to protect employees' health and our facilities' environment, both inside and out. Our comprehensive range of services are especially designed to keep your production at peak performance and at the lowest cost of ownership.

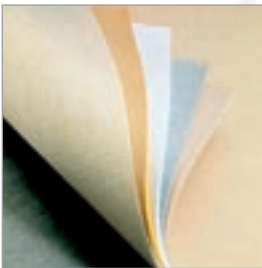
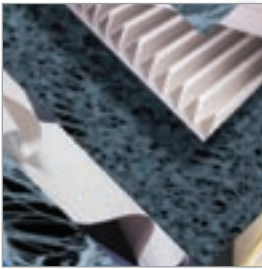
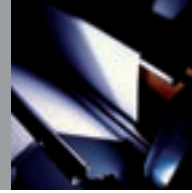
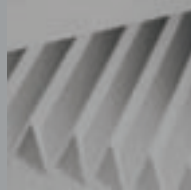
# Membranes

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performance under pressure

Donaldson Membranes is a leading worldwide manufacturer of expanded microporous PTFE membranes, films and laminates. Tetratex® ePTFE membranes are designed for use in a wide range of applications including industrial filtration, microfiltration, health care, wet filtration, lab equipment and vent filter/breather applications.





## Quality & Expertise

PTFE (Polytetrafluoroethylene) is chemically and thermally stable even in extreme conditions. The expertise of Donaldson Membranes enables us to manufacture ePTFE membranes to a range of pore structures, widths and thicknesses to meet the most demanding requirements of the industry.

## Membrane Technology

Tetratex<sup>®</sup> ePTFE membrane's unique microstructure is comprised of millions of small, randomly connected fibrils that render an effective pore size many times smaller than the nominal pore size.

## Dust Collection and Air Pollution

Tetratex ePTFE filter media is the technology of choice in many industries. The benefits of Tetratex PTFE membrane technology (increased throughput, lower pressure differential, increased life time, near zero particle emissions and reduced energy conditions) meet the demands of modern plant operation.

## Microfiltration

Tetratex is dimensionally and chemically stable in almost any environment ranging in temperature from  $-270^{\circ}\text{C}$  to  $260^{\circ}\text{C}$ . This means that Tetratex is ideally suited as a microfiltration membrane and can be used in many chemical processes where other materials fail.

# Total Filtration Systems

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# Support

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from concept to delivery

## Our Customers

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By working to understand our clients' needs and providing on-going support, we've built long-term customer relationships. We've built these strong relationships, in part, through distinct routes to market.

Donaldson is best known for its ability to work with OEM customers to develop filtration solutions for applications ranging from construction equipment to computer disk drives.

Donaldson also has an extensive international network of distributors and dealers that provide quality Donaldson replacement parts to enduser customers. We support distributors and dealers with a complete product line, state-of-the-art distribution centers, a highly trained sales force, technical support and informed customer service representatives.

## Our Technology

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Our super-computer-based modeling tools enable us to test our technologies at the first step of development, dramatically shortening the design cycle and reducing prototype expenses.

But we don't stop there. Donaldson takes filtration technology to a higher level by combining it with other disciplines, including fluid dynamics, structural mechanics and acoustics technology. These skills enable us to develop proprietary medias and package them into working systems for a multitude of applications.

By continually designing smaller, more efficient filtration systems with fewer components, they are more economical to ship and we therefore help our customers reduce costs and stay competitive.

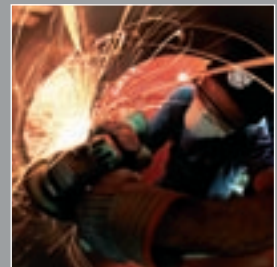


## **Our Manufacturing**

Our product diversity requires a wide array of manufacturing processes and facilities, each with a different specialisation. The foundation of our business is the ability to manufacture cylindrical, pleated-media air filtration cartridges around the world.

Donaldson has state-of-the-art metal fabricating facilities for producing dust collection and gas turbine filtration housings. Other fabricating plants process orders for exhaust, hydraulic and air intake filtration products for diesel engine applications.

These diverse manufacturing capabilities and operations support our sales and customer service organizations and enable us to deliver a varied product mix to our customers around the world.



## **Our Ultra-Web® Nanofiber Filter Media**

Our Ultra-Web® nanofiber filters are made from the smallest polymer fibers in the world. The small pores between these fibers provide large increases in filtration efficiency on small and sub-micron contaminants. These fibers extend filter life in industrial and engine applications. When used in self-cleaning filtration applications, the nanofiber layer causes surface loading, preventing dust from entering the depth of the filter media, creating better filter cleaning and longer filter life. Donaldson's nanofiber filter products are patented and patent-pending around the world.





**Donaldson**  
Filtration Solutions

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