

INDUSTRIAL AIR FILTRATION

Filtration for Grain Processing



Dust Control for Efficiency & Safety

Grain Handling is Dusty Business

You don't have time for dust to slow down production or, worse yet, cause a shut down.

A properly chosen and installed dust collection system from Donaldson can help you incorporate reliable new technologies that help:

- Mitigate combustible dust risks
- Increase throughput
- Lower costs
- Improve energy efficiency
- Meet dust emissions standards

Proven Partner

Backed by more than 250,000 installations over four decades, no other global equipment manufacturer is more capable — or more trusted — to solve your dust collection challenges than Donaldson.









Processes

We Know Filtration

Donaldson has filtration expertise to meet the most challenging grain handling operations and dusty situations at every stage of processing, including:

- Unloading
- Storage
- Transfer
- Grinding
- Milling
- Crushing
- Blending
- Packaging







Challenges

With so many challenges outside of your control, including shifting markets, trade policies, and equipment costs, effectively managing your process environment is more important than ever.



Environmental Health & Safety

You need reliable dust control to reduce emissions, and comply with health and safety regulations intended to prevent catastrophic combustible dust events.



Productivity

Increased material throughput to meet market demand — as well as competition between grain trading companies — puts pressure on you to maximize uptime and productivity.



Energy Efficiency

Energy usage is a big part of your operational expenses. Proper filtration supports efficient energy usage, which can directly impact your profitability.

Solutions

As a knowledgeable and responsive global industrial filtration partner, Donaldson helps design and implement reliable systems that integrate easily into grain handling operations.



Advanced Filtration Solutions

Manage your emissions with our Ultra-Web[®] fine fiber media and other advanced filtration technologies that maximize airflow while capturing fine particulate and combustible dust.



Industry-Leading Technology

With durable construction, innovative engineering and time-saving features, we offer an extensive range of first-fit and aftermarket products and services to keep your process running efficiently — from incoming materials all the way through to packaged products.



Manage Energy Consumption

The right dust management equipment can help reduce the air volume needed for dust control, lowering your horsepower investment, and minimizing operational energy costs.

High Performance at Every Stage

Advance your processing with high performance filtration technology installed at every point of production. No matter what type of grain you process, Donaldson can provide solutions at the source of collection.

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With a Donaldson Smart Collector, organizations can save time while easily tracking dust collector operations in real-time and leverage the data to optimize performance.

Technology for Today's Grain Facilities

RP Baghouse

Our most maintenance-friendly design ever, the Rugged Pleat (RP) Baghouse combines a cyclone pre-cleaner and baghouse into a single unit to handle heavy dust loads and large air volumes.



PowerCore® CP Series Bin Vent

Perfect for small spaces, the PowerCore CP is an excellent choice for applications that have high airflow, high grain loading or challenging particulate operations.



Dalamatic[®] G2

The Dalamatic G2 delivers state-ofthe-art technology to help you control challenging and sticky dust. This continuous-duty collector is simple to install, easy to maintain, and provides a low total cost of ownership.



Downflo® Evolution

A high efficiency collector for free-flowing dust, the Downflo uses fewer filters and requires less space.



RF Baghouse

RF collectors are rugged, high performance baghouse collectors for heavy dust loads and large air volumes. They use a high-volume, low-pressure pulse cleaning system.





Choosing a Donaldson Smart Collector means choosing an industry-leading dust, fume, and mist collection solution for your operation and employees. Smart Collectors come equipped with Donaldson's iCue[™] Connected Filtration Technology. The system tracks your equipment, providing real-time data and analytics to help maximize uptime, increase maintenance efficiency, and manage your operation's critical compliance data.

Combustible Dust Management

Grain handling and processing generates dust which may become airborne, allowing it to settle on surfaces and in crevices throughout your facility. Eventually these particles can create a housekeeping issue, but they can also create a potentially explosive dust cloud when disturbed.

As global standards and requirements are updated or enacted, Donaldson can work with you and your fire and explosion experts to help support your combustible dust mitigation strategies. Donaldson can help process owners and operators incorporate Donaldson filtration products into their comprehensive mitigation strategy.*



*To provide this support, Donaldson needs complete and accurate information on all potentially combustible contaminants and the fire and/or explosion mitigation strategies that a process owner/operator intends to pursue.

Replacement Filters & Parts

With access to more than 100,000 replacement filters and parts for most popular brands of dust collectors, Donaldson's aftermarket specialists can help you find the ideal solution for your operation's filtration challenges. Donaldson's industry-leading cartridge and bag filters are an effective choice for grain processing operations. Find filters and parts for your collector at shop.donaldson.com.



Ultra-Web[®] Cartridge Filters

Ultra-Web technology is made with an electrospinning process that produces a very fine, continuous fiber of 0.2-0.3 micron in diameter. Ultra-Web fine fibers form a web-like net with very fine spaces that trap dust on the surface of the media.



Dura-Life[™] Bag Filters

Dura-Life filters are engineered with a unique hydroentanglement process that uses water to blend the fibers, resulting in more uniform material with smaller pore size, better surface loading of dust, and improved pulse cleaning and lower operating pressure drop.

Case Study Dura-Life[™] Filter Bags Provide 3x Filter Life in Soybean Processing

Industry: Soybean Processing

Problem: Abraded filter bags and insufficient airflow through the old baghouse

Solution: Donaldson Torit Dura-Life filter bags and a modification of the inlet airflow resulted in 3x filter life.

A major agribusiness soybean processing company had an older baghouse dust collector on its flake dryer that had been modified several times over the years as facility production increased, yet the baghouse collector simply couldn't keep up with growing production needs. The processor noted that the filter bags closest to the air inlet were wearing out quickly — and bag wear caused shutdowns and costly, labor-intensive bag changes. The processor suspected that the only option was to replace the entire unit with a larger collector.

He called Donaldson for a new collector and was surprised when the sales engineer suggested he first make modifications to his existing collector. Donaldson Torit recommended:

- Replacing the polyester bags with Dura-Life "Twice the Life" filter bags. The increased air permeability and lower pressure drop of Dura-Life enables less restriction and increases airflow, thereby increasing baghouse performance.
- Diverting the abrasive airflow around the inside edge of the collector — a simple baffle was designed that keeps the inlet air from abrading the front-row bags.

Results:

- Baghouse airflow is now sufficient for the expanding facility, bags are not prematurely abrading, and filter life has tripled.
- Saved the cost of a new, larger collector
- Avoided costly labor-related downtime
- Saved many hours and dollars in filter changes
- Reduced production disruptions

Let Donaldson apply our hands-on filtration expertise and experience to your application.



The Right Resources at the Right Time

Maintaining your organization's critical equipment is getting harder every day. Productivity demands, aging equipment, and staffing shortages can put a strain on any maintenance team. Ensuring your operation is running at peak efficiency can feel like a second full-time job.

Donaldson's certified Filtration Services technicians can provide your organization with site-level solutions to help monitor, manage, and maintain any brand of dust collection, industrial fan, compressed gas, hydraulic, power, and process filtration equipment.

For more information about our service offerings, visit Donaldson.com/service.

The Donaldson Difference

From your initial process review and dust analysis through collector installation and operation, Donaldson's engineers, certified service technicians, and support specialists can help ensure your dust collection equipment is operating at peak performance.

To learn more about dust control solutions or services for your grain processing application, contact your local Donaldson representative today.



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