Air Intake Systems
Standard product offering for engines & vehicles

Ineffective filtration can cause serious wear to the engine and its components... leading to low engine power, excessive fuel consumption and ultimately, expensive repairs.

Donaldson air filtration systems can reduce down time and maintenance costs, and increase the life and performance of your engine, delivering clean air when your engine needs it most!
EPG Housings were one of the first series that featured radial seal technology. Metal end caps on pleated filters were replaced with a urethane end cap design. The unique feature simplified service for mechanics and created a more reliable critical seal between the housing cover and filter. Donaldson Endurance™ extended service filters with Ultra-Web Technology are an option.

FPG Housings are ideally suited for smaller engine intake requirements.

Why Donaldson

Broad Air Product Offering
- Light to Heavy Dust Conditions
- Air Cleaners for New Equipment
- Replacements for In-Use Equipment
- Wide Variety of Accessories

Proven Technology
- PowerCore® Systems
- Ultra-Web® Nanofiber Technology
- Pleatloc™ Media Spacing
- RadialSeal™ Sealing Technology
- Donaldson Endurance™
- Single & Two-Stage Filtration
- Pre-cleaners & Inlet Hoods
- Filter Indicators & Gauges

Lasting Quality & Value
- Quality & Environmental Management Practices
- TS & ISO Certified
- Durable products that protect engines and control maintenance costs

Readily Available
- Stock Product - No Lead Time
- Ship Orders Same Day Received
- Local Availability Through Distributors and OE Dealers

Single Filtration Source
- Not just air. Donaldson has lube, fuel, coolant, hydraulic, transmission filters for all vehicles from pick-ups and SUVs to mining haul trucks!

History of Innovation
- Established as a filtration company in 1915
- Over 1500 active patents worldwide

Air Cleaner Families
PowerCore® • E Series • F Series • S Series
PSD, ECD, EBB, ECD, EBA, ERA, ECG, FWA, FHG, FPG, FKB, FRG, FTG, XRB, SRG, STB, SSG

Custom PowerCore® intake systems are becoming standard on OE equipment around the world. Small OEs now have access to off-the-shelf line of original PowerCore PSD air cleaners.

New XRB Housings have radial seal technology, built in mounting brackets and latched covers. Each feature takes less time to service than older housing designs.

SSG Housings can be found on large mining vehicles. These units are massive in size and performance compared to most other housings. Their overall size is about 43” x 50” (1092mm x 1255mm).

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Materials • Finishes • Construction
Designed for long life, rust resistance and good looks!

Injection and Blow-Molded Air Cleaners
Our non-metal finish is black plastic and can be found on our DuraLites, PowerCore (PSD) and other radial seal air cleaners (FPG, XRB, FKB). Advantages include:
- Lighter weight than metal air cleaners
- Corrosion and chemical resistant
- Impact, mar and vibration resistant

Polymer Coating Resists Corrosion
Donaldson’s gloss black finish – on most of our metal air cleaners (ERA, FVG, FRG) – is resistant to chemicals and corrosion. Advantages include:
- Improved durability. Coating lasts 5 to 10 times longer than traditional paint.
- Impact and mar resistant. Coating is up to 17 times harder than most solvent-based paint.
- Consistent coating thickness – even in crevices and small, hard-to-reach places.

Buff Prime Finish
A buff prime finish is applied to our large S series air cleaners (SRG, STB, SSG and STG) so our customers can apply their own paint to match the overall look of the equipment.

Intake Accessories
for On and Off-Road Systems

Donaldson has what you need to:
✓ Mount or install an air cleaner
✓ Solve air intake water problems
✓ Pre-clean or protect air inlet from debris
✓ Know when to service a filter
✓ Aspirate (or scavenge) an intake system
✓ Connect intake components
✓ Reduce service time
✓ Replace the filter
Air Filter Features & Technology

**RadialSeal™ filter seals**
RadialSeal filters slip easily on and off the outlet tube during installation and service. This design eliminated the separate gaskets used with metal end-cap filters.

**Axial filter seals**
Strong, pliable gasket ensures a leak-free seal when properly installed. The gasket won’t harden or deteriorate over the useful life of the filter.

**Pleatloc™ media spacing**
Ensures uniform pleat spacing, keeps filter media from bunching during operation and promotes longer filter service life.

**Filter end caps**
Designed to protect the filter media and provide structural integrity.

**Beading**
Applied to both inner and outer liners, beading is designed to stabilize the media and prevent pleat tip wear.

**Heavy-duty liners**
Corrosion resistant, coated steel liners support the filter media during operation and maximizes airflow.

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**Original PowerCore® Filtration Technology**
PowerCore provides maximum design flexibility. You gain equal performance in significantly less space, freedom to design unique configurations to fit tight spots, and overall design simplicity.

**RadialSeal™ filter seals**
Our radial seal technology on PowerCore filters provides a tight critical seal on unique filter shapes.

**Non-metal construction**
Weighs less and with less disposal impact.

**PowerCore® Filtration Technology**
The standard filter media in our primary air filters is a cellulose based material used primarily in single and two-stage intake system applications (i.e., off-road, on-highway trucks, buses and underground mines.) We also have flame retardant and vibration resistant cellulose media variations that are required in specialty engine applications.

Our blue primary air filters (Donaldson Endurance™ and PowerCore® filters) contain Ultra-Web® nanofiber filtration technology. This media is composed of a cellulose or a cellulose/synthetic substrate with nanofibers applied to one side. Filters with Ultra-Web media deliver consistent, high efficiency filtration. The Donaldson Endurance air filters are guaranteed to go twice the distance compared to their original cellulose filters. Blue filters in PowerCore housings offer high efficiency, with the added benefit of a more compact air cleaner.

Many Donaldson air cleaners have safety (or secondary) filters to protect the engine during the service of the primary filter or in case the primary filter is damaged. A variety of safety filter medias are used including pleated cellulose, pleated or flat cellulose/synthetic and spun bond materials treated with special additives.

Donaldson efficiency is based on ISO 5011 – the test standard for air filter life and efficiency.

**Filtration Performance**

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The emissions solutions introduced to meet diesel engine emissions regulations have resulted in numerous vehicle design changes for original equipment manufacturers. Changes that we have seen include engine compartment size reductions and lower system weight requirements.

For engine manufacturers, regulators now recognize that engine blow-by gas emitted from the crankcase is a major emissions source and require that the vent be closed or filtered with high efficiency filtration.

Donaldson has been providing OEMs with custom and standard filtration solutions that meet their specifications to be emissions compliant: PowerCore® G2 Filtration Technology and Spiracle™ Crankcase Filtration Systems.

Our PowerCore G2 Filtration Technology is a perfect fit for the new space limitations, offering higher capacity and improved efficiency in a much smaller footprint. The geometric flexibility of PowerCore air intake systems gives OEM engineers the freedom to design unique configurations to fit tight spots.

Our Spiracle™ Crankcase Filtration Systems for CCV or OCV systems reduce or eliminate harmful and unwanted crankcase emissions. Our Synteq XP™ coalescing media technology offers high efficiency filtration with low operating pressure drop.

Three standard models (small, small extended and mid-sized) are available for engine blow-by flow ranges up to 300 lpm / 10.6 cfm and with blow-by mass flow rates up to 15 gms/hr.
Our History of Air Filtration Innovation

Donaldson was established in 1915. The timeline displays the innovations introduced into the market place.

1910s
First-ever air cleaner invented by Frank Donaldson

1930s
First closed crankcase ventilation system (pollution control device) invented for cars
Patent issued for oil-washed air cleaner

1950s
Innovative dry-type air cleaner and filter

1970s
Developed Self Cleaning Air Filter (SCAF)

1980s
Donaldson pioneered Ultra-Web® Nanofiber Filtration Technology
Innovative RadialSeal™ sealing technology
Pleatloc™ media spacing invented

1990s
Ultra-Web® Nanofiber Filtration Technology first used in engine filtration products
Donaldson PowerCore® Filtration Technology developed
Donaldson Endurance™ extended service filters introduced
Pulse Jet Air Cleaner (PJAC™) applied on M1 Abrams tank

2000 and Beyond
Ground-breaking PowerCore® G2 Filtration Technology introduced
Spiracle™ crankcase filtration introduced to eliminate emissions from open crankcase vents
Synteq™ XP filter media launched in next generation Duramax® and Spiracle™ crankcase filtration system
 Introduced PJAC™ Ultra®
PSD PowerCore Standard Air Cleaner Line offered and expanded
FKB Air Cleaner Family launched
Donaldson introduces PowerCore retrofit kit for 7.3L Ford PowerStroke Engine
Donaldson Endurance™ air filter line expanded
Redesigned TopSpin™ pre-cleaner
XRB Air Cleaners for medium dust conditions
Dust Dumpa new accessory simplifies maintenance at mines
SSG Retrofit Kit introduced for older SRG air cleaner
Air Filtration Go-To Place  
www.donaldson-filters.com

Need to find a local source for Donaldson air filtration products?
---->> go to https://dynamic.donaldson.com/webc/WebStore/locator/locator.html

Need to select a new air cleaner?
---->> go to www.donaldson.com/aircleaners

Need a replacement filter for your air cleaner?
---->> go to www.donaldson-filters.com

Looking for a PDF file of our Engine Intake Systems Catalog?
---->> go to http://www.donaldson-filters.com/literature.html

View what we have for your industry
---->> go to http://www.donaldson-filters.com/industries.html

Looking for helpful maintenance tips?

Why is Ultra-Web Better?
---->> go to http://www.ultrawebisalwaysbetter.com/

Single Filtration Source
Not just air. Donaldson has lube, fuel, coolant, hydraulic, and transmission filters for all vehicles, from pick-ups and SUVs, to mining haul trucks!

Global Presence with Local Touch
Donaldson has established a global distribution network to serve our customers locally as well as worldwide. We operate as a global company with a network for primary distribution locations that support a mature hub of regional distribution centers and warehouses.

Donaldson distribution centers are strategically located to quickly and accurately deliver products wherever replacement products are needed. We work with a network of transportation, third part logistics companies, consolidators, and cross-docking facilities to meet or exceed our customers’ requirements.

All regions of the world benefit from our global umbrella of distribution centers. We focus our efforts on local support and the capabilities of our staff.