

**RELIABLE PERFORMANCE
WHEN THE PRESSURE IS ON.**



Donaldson
FILTRATION SOLUTIONS

COMPRESSOR FILTRATION

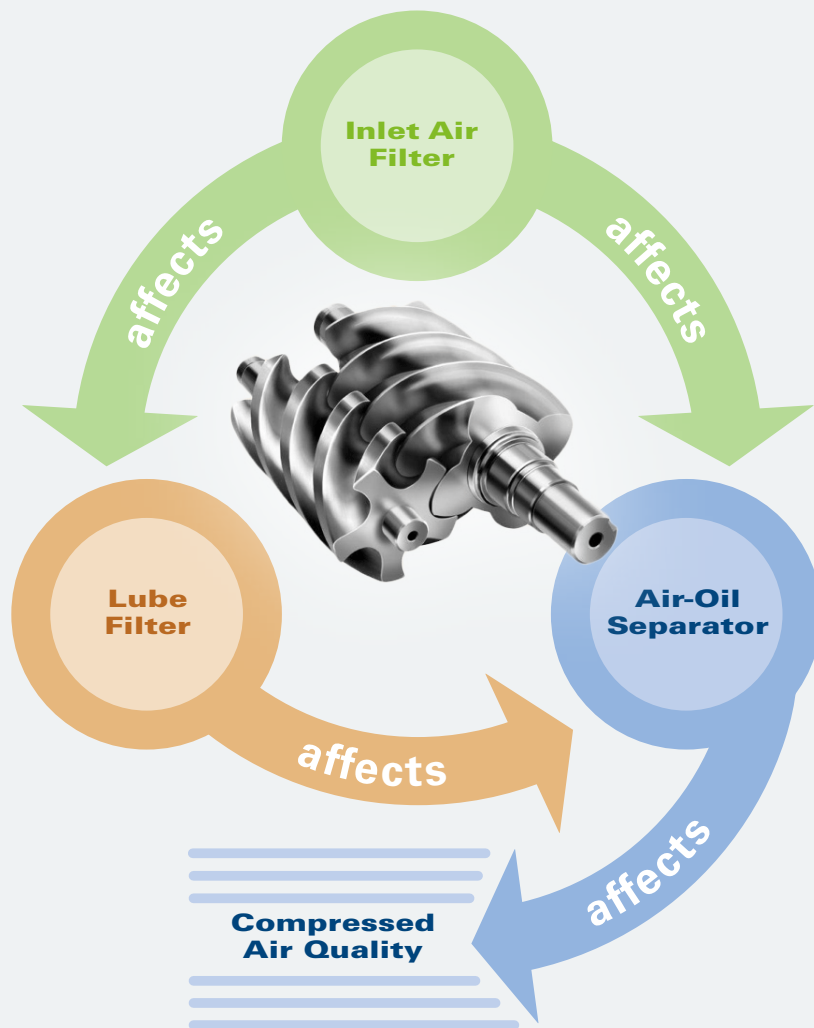
A SMARTER COMPRESSOR SYSTEM FOR OPTIMUM PERFORMANCE

The importance of maintaining a clean compressor ecosystem cannot be overstated. It affects everything from air pressure and performance to energy efficiency and compressor life.

Donaldson® provides industry-leading, end-to-end technology at the inlet air filter, lube filter and air-oil separator. Our engineers can work with you to develop custom filtration solutions that work together for peak efficiency and performance, and lower operating costs. Plus, these custom solutions create a built-in, aftermarket revenue stream for you. Let us help you build a compressor system that outperforms and outlasts the competition.

Compressor Ecosystem

A Donaldson filter at any stage in this process makes your compressor more efficient and reliable. With Donaldson defending your entire compressor ecosystem, your compressor will be optimized to perform at its best.



Inlet Air Filter

Clean air out begins with clean air in. The inlet air filter prevents dirt and dust particles from entering the compressor. This minimizes wear and tear on the airend, extends air-oil separator and lube filter life, and ensures cleaner compressed air to the plant or your mobile power tools and applications.

Lube Filter

Every speck of dust entering the compressor will mix with the oil. The lube filter captures dirt and contaminants in the oil to protect the airend. Clean oil is essential to maintaining ideal performance of the compressor and reducing downtime.

Air-Oil Separator

Before the compressed air is released to the system, it passes through an air-oil separator to remove any remaining oil mist. Donaldson air-oil separators employ our unique coalescing media technology, developed to efficiently remove oil mist from the air with the lowest possible added restriction.

Custom Filtration Solutions

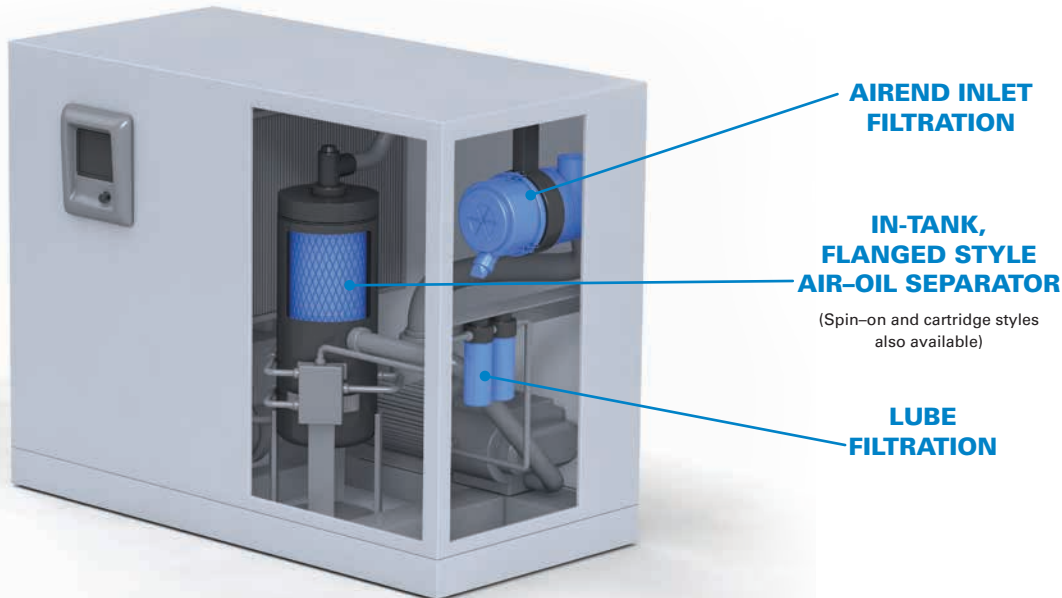
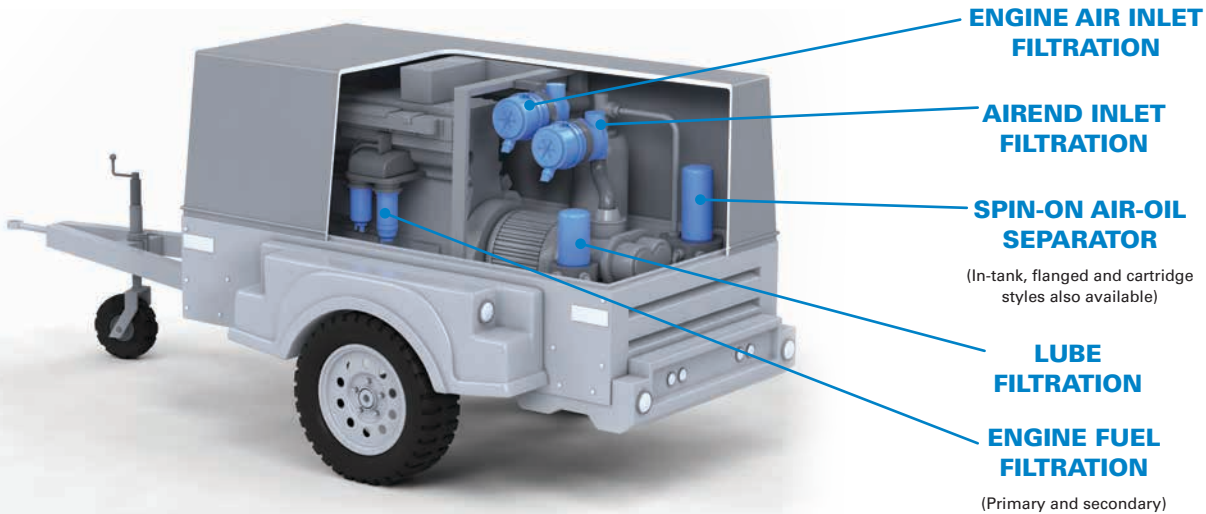
Custom-engineered filters and air-oil separators may be the solution you're looking for to maximize the performance and efficiency of your compressed air system.

Donaldson is a leader in proprietary design and engineering with best-in-class prototyping, testing and manufacturing capabilities.

Don't just build your compressor with stock parts that fit. Instead, design your compressor for peak performance and efficiency by working with Donaldson to meet your project goals. We can help engineer a customized solution to minimize pressure drop, reduce energy consumption, limit oil carryover or simply fit a certain space requirement.

End-to-End Filtration Coverage

Donaldson has you covered – for every filter and air-oil separator your compressor requires.



Aftermarket Revenue Stream

By employing our proprietary design and engineering services, we can help develop unique filtration and separation solutions for your compressor, ensuring you receive a consistent aftermarket revenue stream for the life of the machine.

The cost of designing a proprietary component could be less than you think and provide a strong ROI as your customers maintain their compressors with OEM parts.

AIR-OIL SEPARATORS

As the last step before air leaves the compressor, the air-oil separator is often the first consideration in an optimized compressor ecosystem. Donaldson uses state-of-the-art materials in its air-oil separators, combined with proprietary media types that offer lower pressure drop and longer life than traditional media while performing at the highest level.



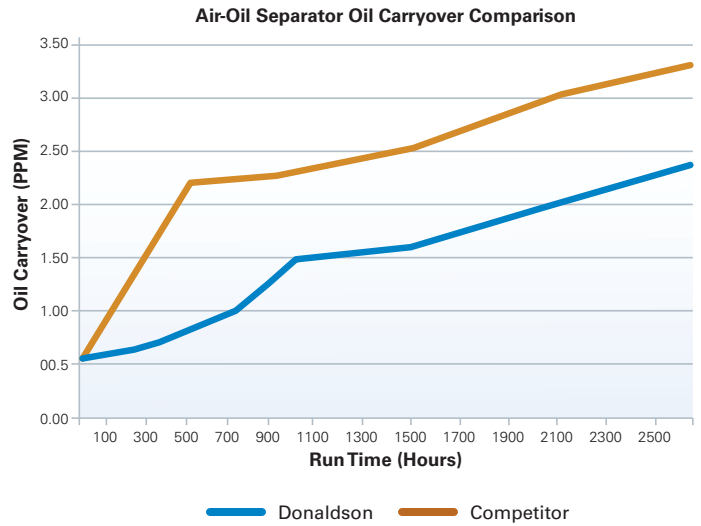
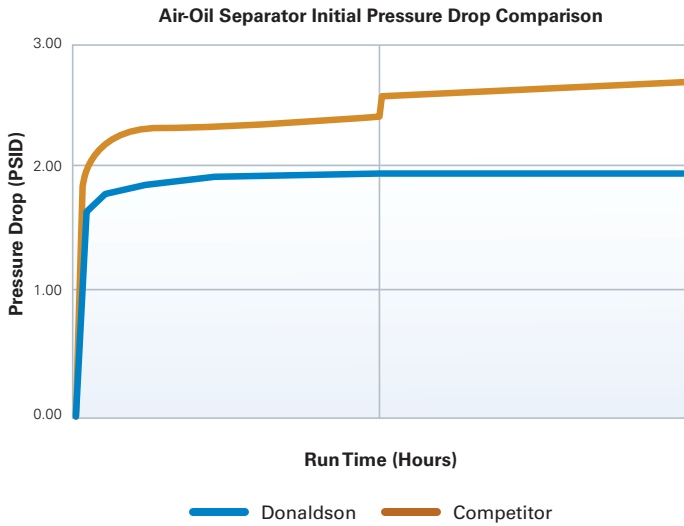
Product Selection Guide

Compressor Performance				AOS Products*		
Power		Airflow		PurFlo™ Spin-On	Synteq™ XP Wrapped	Donaldson Pleated
kW	HP	CFM	m³/min			
3.7	5	20	0.6			
5.6	7.5	30	0.8			
7.5	10	40	1.1			
11	15	60	1.7			
15	20	90	2.5			
19	25	113	3.2			
22	30	135	3.8			
30	40	180	5			
37	50	250	7			
45	60	300	8			
56	75	375	11			
75	100	500	14			
93	125	625	18			
112	150	750	21			
149	200	1000	28			
187	250	1325	38			
224	300	1600	45			
261	350	1850	52			
298	400	2100	59			
336	450	2400	68			
373	500	2650	75			
448	600	3150	89			
522	700	3700	105			

* Based on 3 PSID (20.7 kPa) initial restriction.

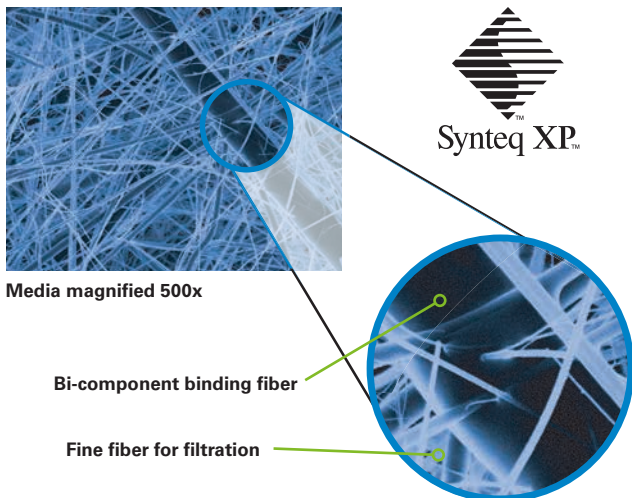
Peak Performance with Lower Pressure Drop

Donaldson air-oil separators deliver the engineered level of oil carryover for your system with lower pressure drop and maximum airflow.



Precision Engineering

Donaldson's full range of custom-engineered wrapped and pleated air-oil separators will meet your oil carryover specification while maintaining the lowest possible pressure drop. Donaldson wrapped air-oil separators are ideal for most compressor types and come standard with our proprietary Synteq™ media. Pleated air-oil separators offer greater design flexibility through increased surface area allowing more airflow and providing longer life.



Proprietary Media Technology

Donaldson developed variations of Synteq XP media exclusively for use in premium air-oil separators. Its patented coalescing design outperforms and outlasts most off-the-shelf media.

- Resin-free for lower air restriction
- Designed for superior draining
- Longer life than traditional resin-bonded media
- Proprietary bi-component fibers for a stronger bond

INLET AIR FILTRATION

Donaldson invented the engine air cleaning system and continues to lead the way with innovative filter media and custom inlet air filter designs. Air compressors come in all shapes and sizes, and we've built thousands of housings for a wide variety of systems. From pleated media designs to our industry-leading PowerCore® fluted media configuration, we're constantly developing new ways to filter more air in less space and lower your customer's operating costs. A Donaldson inlet air filter can be customized for most flow ranges and environments.



Product Selection Guide

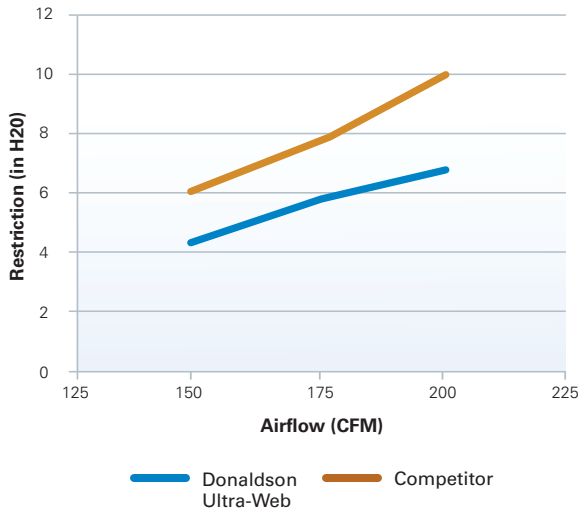
Compressor Performance				Inlet Air Filtration Products*						
Power		Airflow		Light Dust		Medium Dust			High Dust	
kW	HP	CFM	m ³ /min	Duralite™	EPG	FPG	FRG	PowerPleat™	PSD PowerCore®	SSG
3.7	5	20	0.6	■						
5.6	7.5	30	0.8	■						
7.5	10	40	1.1	■						
11	15	60	1.7	■						
15	20	90	2.5	■						
19	25	113	3.2	■						
22	30	135	3.8	■						
30	40	180	5	■						
37	50	250	7	■						
45	60	300	8	■						
56	75	375	11	■	■					
75	100	500	14	■	■					
93	125	625	18	■	■					
112	150	750	21	■	■				■	
149	200	1000	28	■	■				■	
187	250	1325	38	■	■				■	
224	300	1600	45	■	■				■	
261	350	1850	52	■	■				■	
298	400	2100	59	■	■				■	
336	450	2400	68	■	■				■	
373	500	2650	75	■	■				■	
448	600	3150	89	■	■				■	
522	700	3700	105	■	■				■	■

* Airflow based on a single air cleaner, 3 in. H2O (7.5 mbar) restriction, primary element only.

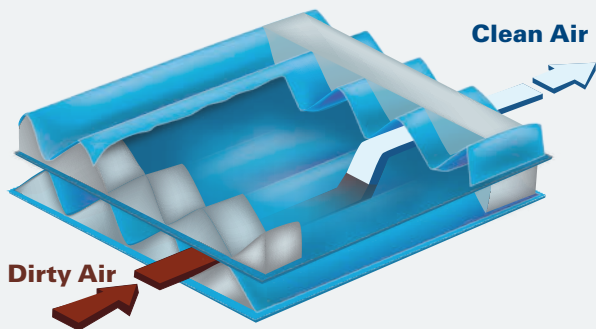
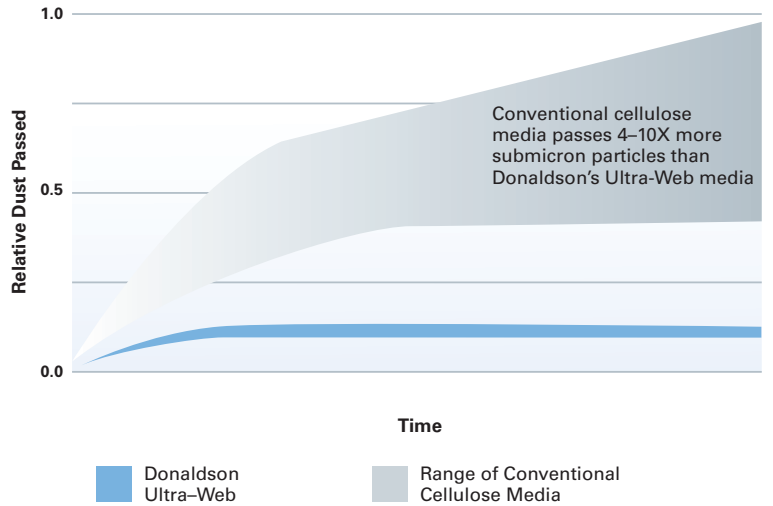
Peak Performance with Lower Pressure Drop

Donaldson air filters operate at the highest efficiency levels with low pressure drop to maintain a clean environment for your compressor ecosystem.

Donaldson Ultra-Web® vs. Competitor



Higher Efficiency = Better Compressor Life
Efficiency tested with submicron particles.



Precision Engineering

Donaldson's proprietary PowerCore filtration technology offers improved filtration in a significantly smaller footprint than traditional media configurations. Its fluted design is available in a broad range of configurations and maintains a consistent level of performance throughout its life.

Donaldson Air Filter Media
Ultra-Web Standard

Will-Fit Air Filters
Standard Media



up to 99.99%
0.1 gram dust



up to 99.9%
1 gram dust

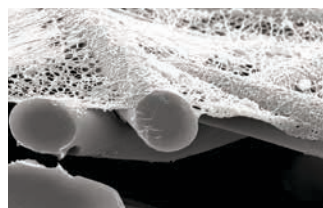


99%
10 grams dust

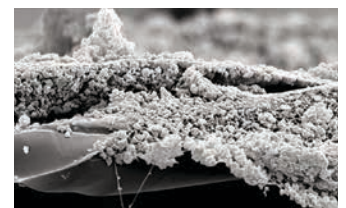
Dust passing through filter during 100 hours of operation.

Proprietary Media Technology

Donaldson Ultra-Web® technology is the industry-leading media for its impressive surface-loading capabilities that extend filter life, air-oil separator life, and airdend life. Ultra-Web technology delivers greater than 99.99% efficiency in ISO 5011 testing without adding excessive levels of restriction. No other filter media comes close.



CLEAN
ULTRA-WEB FILTER



SURFACE-LOADED
ULTRA-WEB FILTER
(substrate still clean)

LUBE FILTRATION

Clean oil maintains the efficiency of your compressor and lengthens the life of your compressor airend and other components. Donaldson offers over 35 different grades of filtration media to tailor our lube filter designs to your specific compressor application. These can be custom-built to filter specific contaminants and meet selected element-life requirements. Donaldson lube filters provide high efficiency and capacity for a longer service life and can be engineered with a proprietary fit to capture aftermarket service revenue.

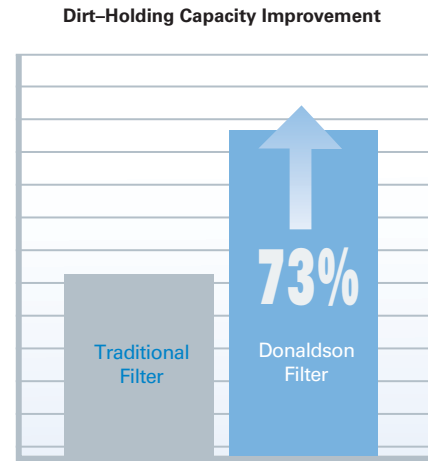
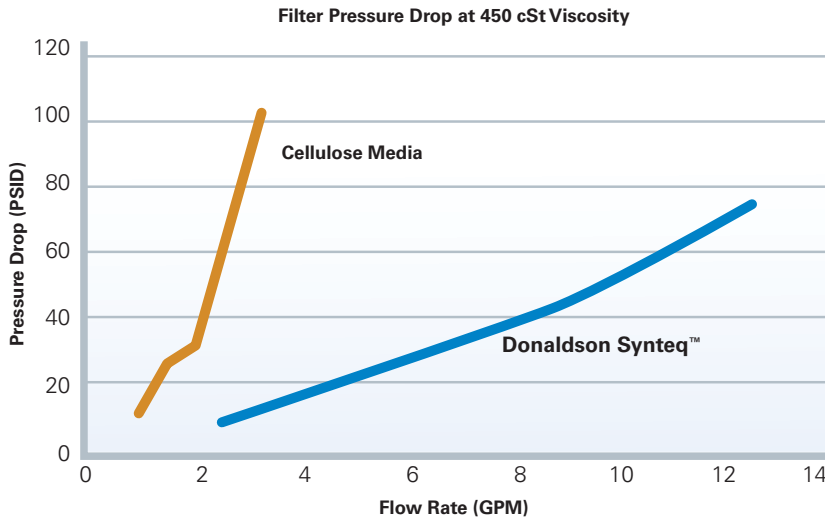


Product Selection Guide

Compressor Performance						Lube Filtration Products						
Power		Airflow @ 7 bar		Oil Flow		Low Pressure Spin-On to 150 psi /10.3 bar			Medium Pressure Spin-On to 500 psi / 34.5 bar		Medium Pressure Bowl/ Cartridge to 350 psi / 24.1 bar	
kW	HP	CFM	m ³ /min	GPM	LPM	SP	HBK	W022	HMK	HNK	FLK	HNK
3.7	5	20	0.6	1.2	5	■						
5.6	7.5	30	0.8	1.8	7	■						
7.5	10	40	1.1	2.4	9	■						
11	15	60	1.7	3.6	14	■						
15	20	90	2.5	4.8	18	■						
19	25	113	3.2	6	23	■						
22	30	135	3.8	7.2	27	■						
30	40	180	5	9.6	36	■			■			
37	50	250	7	12	45	■			■			
45	60	300	8	14.4	55	■			■			
56	75	375	11	18	68	■	■		■			
75	100	500	14	24	91	■	■	■	■			
93	125	625	18	30	114	■	■	■	■			
112	150	750	21	36	136	■	■	■	■			
149	200	1000	28	48	182	■	■	■	■			
187	250	1325	38	60	227	■	■	■	■			
224	300	1600	45	72	273	■	■	■	■			
261	350	1850	52	84	318	■	■	■	■			
298	400	2100	59	96	363	■	■	■	■			
336	450	2400	68	108	409	■	■	■	■			
373	500	2650	75	120	454	■	■	■	■			
448	600	3150	89	144	545	■	■	■	■			
522	700	3700	105	168	636	■	■	■	■			

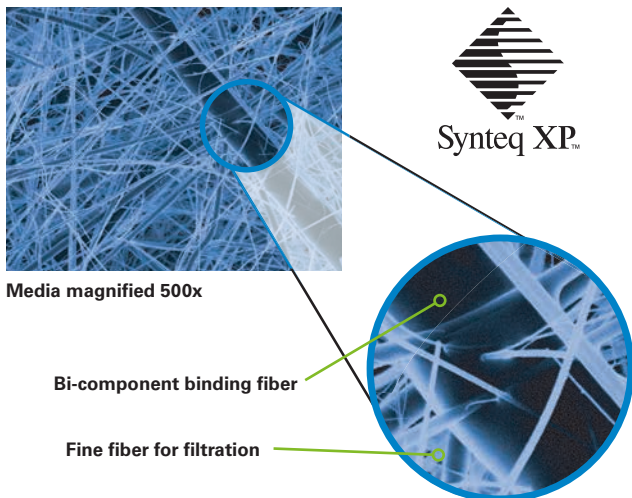
Peak Performance with Lower Pressure Drop

Donaldson lube filters operate at the highest efficiency levels with low pressure drop to maintain a clean environment for your compressor ecosystem.



Precision Engineering

Donaldson lube filters use proven, long-lasting components to deliver the desired filtration with minimal pressure drop. From the heavy-duty can to the louvered center tube with spiral-lock seam design, you can count on Donaldson filters to fit perfectly, maintain their seals, and outlast generic products.

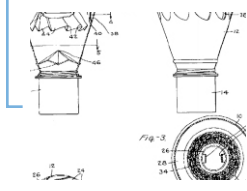







Proprietary Media Technology

Donaldson Synteq XP media is offered in multiple formulations. Its patented design outperforms and outlasts most off-the-shelf media.

- Resin-free media for lower restriction
- Proprietary bi-component fibers for a stronger bond
- Longer life than traditional resin-bonded media
- Maximizes dirt loading capacity and retention

DONALDSON COMPANY: A HISTORICAL PERSPECTIVE

1915	1922	1920S	1939	1940s	1960s
	 <p>Our Duplex combines centrifugal separation of dust particles with a Spanish moss filter medium with twice the protection.</p>		 <p>Two hundred employees manufacture more than 300,000 air cleaners a year, exported to England, Sweden, New Zealand, and Australia.</p>		 <p>By the end of the decade, we have subsidiaries in Germany, Belgium, and South Africa; joint ventures in Japan, France, and Australia; and licensees in England and Brazil.</p>
	 <p>Frank Donaldson, Sr., invents the world's first effective air filter for a tractor and the Donaldson Company is born.</p>	 <p>John Deere is one of our long-term customers. By the late 1920s, they are purchasing nearly 70,000 air cleaners annually.</p>		 <p>Clouds of North African sand chew up the Army's tank engines during WWII. Mr. Donaldson convinces the Army to begin using our air cleaners.</p>	

Global Testing, Design and Lab Validation

Donaldson operates some of the most advanced testing and prototype labs in the industry, allowing us to develop, test, and produce proprietary filters and housings for almost any application. We built our company and our reputation by tackling the toughest filtration challenges and it all starts with our investment in the testing and design lab, which includes:

- Advanced CAD
- Computational Fluid Dynamics software analysis
- Finite Element Analysis
- Over 45 unique testing protocols from temperature and vibration extremes to molecular chemical analysis

You can always count on Donaldson to perform under pressure to meet your exacting design requirements.



1979

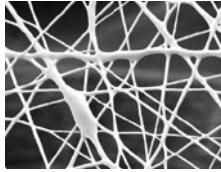
1981

1997

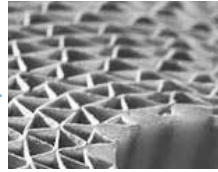
1999

2010

2015



Experimentation in electro-spinning of nanofibers results in the introduction of Ultra-Web , a breakthrough nanofiber filter media.



Groundbreaking PowerCore Filtration Technology is introduced and offers improved performance and filter life in a significantly smaller size.



We celebrate our first century of solving customers' filtration needs, leveraging the combination of our technology leadership, operational excellence, and global presence.



We become the 33rd Minnesota firm listed on the NYSE.



The first of four manufacturing plants opens on our Wuxi, China, campus.

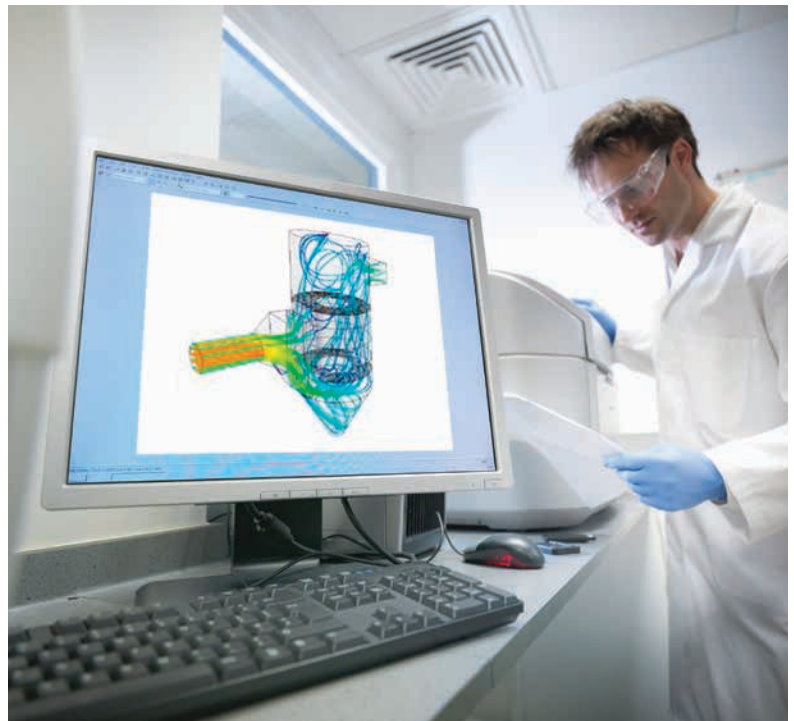


New R&D facilities in Leuven, Belgium, enhance our European product development capabilities and customer support.

Technology Leadership

From compressor systems to complex filtration and contamination control challenges, Donaldson is always innovating next-generation products to stay ahead of equipment and technological advancements. We hold more than 1,600 active and international patents across multiple industries, and invest heavily in our people and facilities to maintain our leadership position in all filtration categories.

- Air Intake
- Bulk Fluids
- Cabin Air
- Clean Diesel
- Coalescing
- Compressed Air
- Coolant
- Emission
- Exhaust
- Fuel
- Hydraulics
- Lube
- Transmission
- Venting



DONALDSON. COMPRESSOR FILTRATION

Comprehensive Technical Capabilities

- Extensive product portfolio
- Advanced filter media technology for optimal performance
- Engineering and design support
- Customization capabilities

Unrivalled Support

- Filter testing and reporting
- Comprehensive warranty
- Wide breadth of aftermarket filters, parts, and accessories

Extensive Global Reach

- 140 sales, manufacturing, and distribution locations globally
- Localized support for faster service and delivery
- Logistical and regulatory expertise

Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.

Donaldson Company, Inc.
Compressor Group
P.O. Box 1299
Minneapolis, MN 55440-1299 U.S.A.
donaldson.com

866-933-4648

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ISO 9001
FM 61768

