# Donaldson.

## **ULTRA-WEB®**



High Efficiency Fine Fiber Filters Built to Last





# PROPRIETARY TECHNOLOGY THAT PERFORMS

Proven and proprietary Ultra-Web<sup>®</sup> technology delivers longer filter life, cleaner air and greater cost savings than other types of cartridge filter media. Made with an electrospinning process that produces a very fine, continuous, resilient fiber of 0.2-0.3 micron in diameter, Ultra-Web forms a permanent fine fiber web with very fine interfiber spaces that trap dust on the surface of the media.

- Superior media is more efficient in capturing submicron dust particles
- Longer filter life and better pulse cleaning due to surface loading technology
- Lower energy and less compressed air use with better pulse cleaning and lower operating pressure drop
- MERV 15 and 14 filtration efficiencies to meet specific application needs



1 micron = 1/25,400 of an inch (1/1,000 of a millimeter)



**CLEAN ULTRA-WEB FILTER** 

SURFACE-LOADED ULTRA-WEB FILTER (SUBSTRATE STILL CLEAN)



Ultra-Web fine fiber media is loaded with ISO fine dust. Dust particles collect on the surface of the media and clean off easily while the substrate stays clean. A depth-loading filter would allow dust particles to penetrate deeply into the substrate where they build up and restrict airflow.

# COUNT ON SIGNIFICANT SAVINGS

Savvy engineers with their eye on the bottom line know that Ultra-Web equals significant cost savings. Ultra-Web filters last longer, resulting in fewer filter changes, lower replacement and labor costs, and less production downtime. With lower pressure drop due to surface loading of dust, the energy and compressed air costs are also dramatically lower. For proven technology that delivers energy, maintenance and filter cost savings, there's only one solution – Ultra-Web.

LOWER PRESSURE DROP SAVES ENERGY							
	80/20 MEDIA BLEND	ULTRA-WEB FINE FIBER MEDIA					
CARTRIDGE FILTER	24	24					
AIRFLOW ACFM	18,000	18,000					
OPERATING DELTA P	4″	2″					
MOTOR HP	50	40					
BRAKE HP	42.1	35.2					
KILOWATT HOURS	51,400	25,700					
ANNUAL ENERGY USAGE (IN DOLLARS)	\$5,140	\$2,570					
ULTRA-WEB SAVINGS	NA	\$2,570					

This is one example of energy savings due to lower pressure drop. Energy savings can further increase with larger collectors. These energy savings are calculated based on the following assumptions: Cartridge collector running 4000 hours per year and energy costs are 10 cents per kilowatt hour.

# CUTS ENERGY COSTS<sup>®</sup>

# FEWER CHANGEOUTS SAVE ENERGY, MAINTENANCE & FILTER COSTS



	ANNUAL			
NUMBER OF ULTRA-WEB CARTRIDGES	MAINTENANCE & FILTER COST SAVINGS	ANNUAL COMPRESSED AIR SAVINGS	ANNUAL ENERGY SAVINGS	TOTAL ANNUAL SAVINGS
8	\$729	\$560	\$857	\$2,164
12	\$1,093	\$560	\$1,285	\$2,938
24	\$2,187	\$672	\$2,570	\$5,429
36	\$3,280	\$1,008 \$3,855 \$672 \$5,140		\$8,143
48	\$4,374			\$10,186
72	\$6,561	\$1,008	\$7,710	\$15,279
96	\$8,748	\$1,120	\$10,280	\$20,148
128	\$11,664	\$1,120	\$13,707	\$26,491

Maintenance and filter replacement calculations are based on a comparison of 80/20 media blend cartridges and Ultra-Web fine fiber cartridges. 80/20 media filters are replaced after six months. Ultra-Web filters provide twice the life of 80/20 media filters. 80/20 media filters are priced at \$85 each, Ultra-Web filters are \$132 each. Labor rate equals \$50 per hour, filters are replaced at a rate of 16 filters/hour and disposal costs are \$50/drum.

# **3 DECADES OF LONGER LIFE**

For more than three decades, Donaldson Torit has advanced our Ultra-Web technology to provide a complete line of cartridge filters that last up to twice as long as commodity cellulose and cellulose/synthetic (80/20) blend medias. Pressure drop starts high and rises quickly with depth-loading commodity filters, resulting in shorter filter life and greater energy use. Ultra-Web's surface loading technology is scientifically proven to provide lower operating pressure drop over a longer period of time, which allows the filter to last longer while requiring less energy.



#### **LOWER PRESSURE DROP = LONGER FILTER LIFE**

Results were derived testing Atomite test dust in an 8-cartridge collector @1.0 gr./cu.ft, Goyen Millennium valves, 90 psi cleaning pressure, 100ms on time 10 second off time. Airflow goal = 4064 scfm.

# **ENGINEERED TO PERFECTION**

A filter must be rated at least a MERV 13 on the ASHRAE 20-point scale to effectively filter submicron dust particles. Donaldson<sup>®</sup> Torit<sup>®</sup> has perfected our standard pre-HEPA MERV 15-rated Ultra-Web cartridge filters to optimize filtration without sacrificing filter life or increasing pressure drop.



### **HIGHER EFFICIENCY = CLEANER AIR**

Ultra-Web MERV 14 and 15 efficiency has been certified by independent lab tests and tested per the ASHRAE Standard 52.2-2007.

CARTRIDGE FILTER	MERV	3-10 μm	1-3 µm	0.3-1 µm
Ultra-Web	15	x	x	x
Ultra-Web SB	15	x	x	x
Ultra-Web Conductive FR	15	x	x	x
Fibra-Web	14	x	x	x
Thermo-Web	14	x	x	X
Typical Spunbond	11	Х	х	X*
Typical Cellulose	10	Х	х	X*
Typical 80/20 Blend	10	Х	Х	X*

Ultra-Web efficiently captures submicron dust particulate. Cellulose and 80/20 blend media are not efficient enough to rate on submicron dust particulate. Typical cellulose and 80/20 blend media are rated to capture 1-3 micron dust particles and some competitive 80/20 blend media is only rated to capture 3-10 micron particulate. \* Not efficient enough to rate



# HIGH EFFICIENCY FINE FIBER FILTERS BUILT TO LAST

Ultra-Web filters ship in 24 hours and are available for all popular collectors.



- AAF<sup>®</sup>
- Aercology<sup>®</sup>
- Airflow<sup>®</sup> Systems
- Clemco<sup>®</sup>
- Environmental Systems Designs
- Farr
- Geoff
- MAC
- Micro Air®
- Nordson
- Pneumafil
- Robovent<sup>®</sup>
- Steelcraft®
- Trion®
- UAS<sup>®</sup>
- Wheelabrator
- + Many others

#### Industry-Leading Technology

- Advanced filtration technology for optimal performance
- Reduced energy consumption and cost of ownership
- Advanced design and testing capabilities

#### The Most Filters and Parts

- For every brand and style of collector
- Wide range of filtration media for any application
- 90,000 filters and parts in stock and ready to ship

#### **Unparalleled Support**

- Live technical specialists
- Comprehensive pre- and post-sale support
- 40 manufacturing plants and 14 distribution centers worldwide

Significantly improve the performance of your collector with genuine Donaldson Torit replacement filters and parts. Call Donaldson Torit at 800-365-1331.

#### portant 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. Minneapolis, MN

donaldsontorit.com • shop.donaldson.com

North America Email: donaldsontorit@donaldson.com Phone: (USA): +1-800-365-1331 • (MX): +1-800-343-36-39 Australasia

Email: marketing.australia@donaldson.com Phone: +61-2-4350-2000

Toll Free: (AU) +1800-345-837 • (NZ) +0800-743-387

China Email: info.cn@donaldson.com Phone: +86-400-820-1038

Donaldson Europe B.V.B.A. Email: IAF-europe@donaldson.com Phone: +32-16-38-3811

India Email: info.difs@donaldson.com Phone: +91-124-4807-400 • +18001035018

Japar Email: jp-ndl.ifsweb@donaldson.com Phone: +81-42-540-4112

Korea Email: iaf-kr@donaldson.com Phone: +82-2-517-3333

Latinoamerica Email: IndustrialAir@donaldson.com Phone: +52-449-300-2442

South Africa Email: SAMarketing@donaldson.com Phone: +27-11-997-6000

Southeast Asia Email: IAF.SEA@donaldson.com Phone: +65-6311-7373

F118043 ENG (02/20) Ultra-Web ©2016-2020 Donaldson Company, Inc. Donaldson, Torit, Ultra-Web, and the color blue are marks of Donaldson Company, Inc. All other marks belong to their respective owners