# Donaldson.

### **CARTRIDGE FILTERS**



# HIGH EFFICIENCY FINE FIBER FILTERS BUILT TO LAST

Donaldson<sup>®</sup> Torit<sup>®</sup> filters keep dust collectors operating at peak performance. Offered for a full range of dust, fume and mist collection applications, Donaldson Torit filters—especially our proprietary Ultra-Web<sup>®</sup> filters — outperform and outlast other filters. When it comes to Ultra-Web filters, there is no equal in performance and value.

All filters are not alike. Equip a dust collector with a generic replacement filter and expect the performance of that collection system to decline. What's worse, generic replacement filters selected for their initial lower purchase price often waste manufacturers' time, productivity and money in the long run.

### DONALDSON TORIT CARTRIDGE FILTERS OFFER:

- Higher performance
- Increased efficiency
- Longer filter life
- Greater value





**DOWNFLO' WORKSTATION DUST COLLECTOR** 



**WSO MIST COLLECTOR** 



**DOWNFLO- OVAL DUST COLLECTOR** 

# THE VALUE OF ULTRA-WEB CARTRIDGE FILTERS

Don't be fooled by the initial lower purchase price of some cartridge filters. Using generic brand filters can be an expensive proposition. Conventional cartridge filters don't last as long and must be replaced more often than Donaldson Torit filters. And that means buying and replacing more filters, more often — which costs more money over time.

There is no comparison to Ultra-Web filters when it comes to quality and cost. Ultra-Web filters offer dramatic savings compared to generic cellulose and cellulose/synthetic fiber blend filters.

### **TRUE COST OF REPLACEMENT FILTERS**

Comparison Factors Over 30 Month Period	Generic Cellulose	Generic Cellulose/ Synthetic Fiber Blend	Ultra-Web∘
Purchase price per cartridge	\$85	\$99	\$132
Filter life	8 months	9 months	12 months
Number of filter changes	3	3	2
Total purchase cost for filters	\$4,080	\$4,752	\$4,224
Disposal cost = \$50 per drum Total disposal cost for 16 filters after 30 months	\$2,400	\$2,400	\$1,600
Changeout cost (do-it-yourself) Total changeout cost for filters	\$450	\$450	\$300
Total investment	\$6,930	\$7,602	\$6,124

### **TOTAL SAVINGS WITH ULTRA-WEB FILTERS**

Ultra-Web Filter Costs Compared With Generic Filter Costs	Ultra-Web <sup>∞</sup>
Generic cellulose total investment	\$6,930
Ultra-Web total investment	\$6,124
Ultra-Web Savings	\$806
Generic cellulose/synthetic fiber blend total investment	\$7,602
Ultra-Web total investment	\$6,124
Ultra-Web savings	\$1,478

This application example is based on a DFT 2-16 dust collection system and very fine, dry dust (submicron particles). Cartridge changeout takes 1 hour.

# **FINE FIBER FILTER OPTIONS**

**Ultra-Web®** 



**Ultra-Web® SB** 



Base Media	Cellulose with Fine Fiber	Spunbond polyester with Fine Fiber <sup>1</sup>
U.S. Efficiency Rating (MERV) <sup>3</sup>	15	15
Maximum Operating Temperature	180°F (82°C)	180°F (82°C)
Abrasion Resistance	Good	Excellent
Chemical Tolerance	Fair	Excellent
Optional Flame Retardant Media (FR)	Yes	No
Special Characteristics	Fine fiber media provides excellent surface loading and dust release capabilities.	Wide pleat spacing, abrasion resistive, moisture tolerant.
Markets	Metalizing, Pharmaceutical, General industrial, Paint pigments, Carbon black, Thermal spray, Welding	Chemical processing, General industrial, Surface blasting, Grinding, Polishing, Powder coating, Pharmaceutical, Food
Applications	Premium performance on ambient, extremely fine and non-fibrous dust and some abrasive dust. High filtration efficiency on very fine particulate of <1 micron	Chemical processing, General industrial, Surface blasting, Grinding, Polishing, Powder coating
Dust Types	Fumed silica, Metallic fume, Metallurgical powders, Oily weld fume, Pharmaceutical compounds	Ceramics, Cotton, Fiberglass, Tobacco, Metal grinding, Powder coating, Shot blast, Gypsum, Lime, Cement
Available for Collectors (see key below)	AAT; AER; AT; AT-3000; CF; CX; DB; DCS; DF; DFE; DF0; DFT; DWS; ECB; ET; MTD; PB; PT; SDF; STD; T-2000; TBV; TD; WB	AER; AT; CF; CX; DB; DCS; DF; DFE; DF0; DFT; DWS; ECB; MTD; PB; SDF; STD, TBV; TD

Note: Optional stainless steel construction available on all cartridges. 1 Fine fiber technology reduces initial penetration by as much as 90% versus conventional media by utilizing a unique layer of submicron fibers on the media's surface. 2 Tetratex® PTFE membrane is comprised of millions of small, randomly connected fibers that create extremely small pore sizes to repel water while allowing air and moisture vapor to pass.

3 Minimum Efficiency Reporting Value of this cartridge has been determined through independent laboratory testing using ASHRAE 52.2 test standards.

4 Kevlar & Nomex are registered trademarks of E.I. DuPont de Nemours & Co., Inc.

AAT	Ambient Air Tubesheet
ADMC	Advanced Dryflo® Mist Collector
AER	AerBooth™
AT	AerTable™
AT-3000	Ambient System
CF	CF Series
CX	CX Series
DB	Downdraft Bench
DCS	Downflo® Containment System
DFE	Downflo Evolution

#### **COLLECTOR NAME GUIDE**

DF0	Downflo Oval
DFT	Downflo II
DMC; C; D1-D10	Dryflo® Mist Collector
DMC-MMA; MMBD	ryflo Machine-Mountable
DWS	Downflo WorkStation
ECB Env	vironmental Control Booth
ET	Easy-Trunk®
MTD	MTD
PB	ProBooth™
РТ	Porta-Trunk®

Fibra-Web®	Thermo-Web™	Ultra-Web <sup>®</sup> Conductive FR
Synthetic with Fine Fiber'	Synthetic with Fine Fiber	Carbon impregnated Cellulose with Fine Fiber
14	14	15
180°F (82°C)	275°F (135°C)	180°F (82°C)
Good	Good	Good
Good	Good	Fair
Yes	No	Yes
Wide pleat spacing provides thorough pulse cleaning of fibrous and agglomerative particles.	Excellent efficiency and surface loading capabilities at higher temperatures.	Anti-static media, 10 <sup>®</sup> OHM resistance
Composite Grinding, Food processing, Grain handling, Metal buffing, Pharmaceutical, Textiles, Woodworking	Cement processing, Chemical processing, Metallurgical, Pharmaceutical	Chemical processing, General industrial, Pharmaceutical, Pulp and paper
Excellent performance on combination fibrous and non-fibrous dust, and/or agglomerative dust	Metallurgical, Chemical and Industrial applications. Higher temperature applications.	Applications where electrostatic charges can accumulate
Ceramics, Cotton, Fiberglass, Tobacco	Carbon, Cement, Foundry shakeout, Metal powders, Shot blast, Silica gel drying, Thermal spray	Coal, Plastics, Powdered materials, Carbon Black/Toner
AER; AT; CF; CX; DB; DCS; DF; DFE; DFO; DFT; DWS; ECB; MTD; PB; SDF; STD; TBV; TD	DCS; DF; DFE; DFO; DFT; DWS; ECB; STD; TBV; TD	DCS; DF; DFE; DF0; DFT; DWS; ECB; SDF; TBV; TD





### **ALWAYS BY YOUR SIDE.**

Donaldson is 100% committed to meeting your replacement filter and part needs. Our knowledgeable support staff is just a phone call away.



**Need advice?** Donaldson offers expert engineering and design support for your application.

**Need filters?** We have more than 90,000 filters and parts in stock and ready to ship within 24 hours.

**Need support?** Donaldson's comprehensive warranty and dedicated customer service staff have you covered.

With 14 distribution centers and facilities in 37 countries, Donaldson has the global reach and local knowledge to deliver unparalleled service around the globe. You can count on Donaldson to be there for you now, through the life of your product and beyond.

# **SPECIALIZED FILTER OPTIONS**

**Torit-Tex**<sup>™</sup>

Torit-Tex CD<sup>™</sup> Torit-Tex HCD<sup>™</sup>



Base Media	Spunbond polyester with Tetratex <sup>®</sup> PTFE membrane <sup>2</sup>	Carbon impregnated, Spunbond polyester with Tetratex <sup>®</sup> PTFE membrane <sup>2</sup>
U.S. Efficiency Rating (MERV) <sup>3</sup>	16	16
Maximum Operating Temperature	200°F (93°C)	CD: 200°F (93°C) HCD: 275°F (135°C)
Abrasion Resistance	Excellent	Excellent
Chemical Tolerance	Excellent	Excellent
Optional Flame Retardant Media (FR)	No	No
Special Characteristics	Wide pleat spacing and smooth, hydrophobic, state-of-the-art PTFE membrane provides excellent particle release.	Conductive media with certified resistivity level of 10 <sup>4</sup> OHM.
Markets	Chemical processing, Food processing, General industrial	Chemical processing, General industrial, Pharmaceutical, Pulp and paper
Applications	Highly recommended for chemical, food, and industrial processing when product contamination must be minimized. Excellent performance on moist, hygroscopic, or agglomerative dust.	<b>CD</b> : Higher temperature applications where electrostatic charges can be dangerous <b>HCD</b> : Applications where electrostatic charges can dangerous and with higher temperatures up to 275°F (135°C)
Dust Types	Dextrose, Flour, Starch, Sugar, Whey	Coal, Plastics, Powdered materials, Prepared food
Available for Collectors (see key below)	AER; AT; CF; CX; DB; DCS; DF; DFE; DFO; DFT; DWS; ECB; MTD; PB; SD; SDF; STD; TBV; TD	DCS; DF; DF0; DFT; DWS; STD

Note: Optional stainless steel construction available on all cartridges.

1 Fine fiber technology reduces initial penetration by as much as 90% versus conventional media by utilizing a unique layer of submicron fibers on the media's surface.

2 Tetratex® PTFE membrane is comprised of millions of small, randomly connected fibers that create extremely small pore sizes to repel water while allowing air and moisture vapor to pass.

3 Minimum Efficiency Reporting Value of this cartridge has been determined through independent laboratory testing using ASHRAE 52.2 test standards.

4 Kevlar & Nomex are registered trademarks of E.I. DuPont de Nemours & Co., Inc.

AAT	Ambient Air Tubesheet
ADMC	Advanced Dryflo® Mist Collector
AER	AerBooth™
AT	AerTable™
AT-3000	Ambient System
CF	CF Series
CX	CX Series
DB	Downdraft Bench
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DFE	Downflo Evolution

#### **COLLECTOR NAME GUIDE**

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DWS	Downflo WorkStation
ЕСВЕ	Environmental Control Booth
ET	Easy-Trunk®
MTD	MTD
РВ	ProBooth™
PT	Porta-Trunk®

Round Vibra Shake
Downflo SDF
ShopPro™
Small TD
Trunk 2000®
Torit® Bin Vent
Large TD
Vibra Shake™
Weld Bench

High Temp	Dryflo <sup>®</sup>	wso
Synthetic Kevlar <sup>4</sup> /Nomex <sup>4</sup> formulation	Synthetic	Polyester and Glass
13	NA	NA
350°F (177°C)	150°F (66 °C)	150°F (66°C)
Excellent	NA	NA
Good	Fair	Good
No	No	No
Special gaskets and adhesives assure structural integrity and airtight sealing characteristics.	Prefilter coalesces smaller droplets into larger droplets.	Proprietary bonding system stabilizes pore structure foroptimum performance.
Chemical processing, General industrial	Metalworking	Metalworking
Metallurgical, Chemical and Industrial processes. Higher temperature applications up to 350°F (177°C)	Wet machining	Metal Cutting, Grinding, Forming
Cement, Coal/Coke, Ink, Paint pigment	Water soluble, straight oils	Water soluble, straight oils and Oily smoke
AER, DCS; DF; DFE; DF0; DFT; DWS; ECB; MTD; PB; STD; TBV; TD	ADMC; C; D1-D10; DMC; DMC-MMA; MMB	WS0-10; WS0-15; WS0-20; WS0-25

# CARTRIDGE FILTER BREAKTHROUGHS UNPARALLELED TECHNOLOGY

As the world leader in air filtration for nearly 100 years, Donaldson Company continually strives to engineer filters that outperform all others. Donaldson Company set the standard in cartridge filter technology with innovations like our proprietary fine fiber filter media.

Fine fiber media is the most efficient and cost-effective choice available for most dust, fume and mist collection processes. Donaldson Torit offers a full range of high performance cartridges for almost any application.

### **EXPERIENCE THE FINE FIBER ADVANTAGE**

- Increased surface loading
- Captures submicron contaminants
- Enhances dust cake release
- Better cleaning efficiency
- Lower cost per cubic foot of air per minute
- Lower energy cost

# **STANDARD FILTER OPTIONS**

	Vibra-Shake <sup>**</sup>	Ultra-Tek®
Base Media	Cellulose	Synthetic
U.S. Efficiency Rating (MERV) <sup>3</sup>	10	12
Maximum Operating Temperature	150°F (66°C)	180°F (82°C)
Abrasion Resistance	Good	Good
Chemical Tolerance	Fair	Good
Optional Flame Retardant Media (FR)	No	Yes
Special Characteristics	Prefilter wrap sieves larger particulate.	Proprietary blend of fibers and wide pleat spacing reduce pressure drop and increase airflow.
Markets	Grinding and polishing, Bag dumping	Composite grinding, Grain handling, Textiles, Woodworking
Applications	Higher efficiency and easier maintenance for applications where envelope filters are typically used. Intermittent duty applications and machining	Applications with fibrous dusts of >10 micron particulate
Dust Types	Metal grinding, Carbon dust, Graphite dust	Ceramics, Composites, Fiberglass, Wood dust
Available for Collectors (see key below)	RVS; SP; VS	AER; AT; CX; DB; DCS; DF; DF0; DFT; DWS; ECB; MTD; PB; SDF; TBV; TD

Note: Optional stainless steel construction available on all cartridges.

1 Fine fiber technology reduces initial penetration by as much as 90% versus conventional media by utilizing a unique layer of submicron fibers on the media's surface.

2 Tetratex® PTFE membrane is comprised of millions of small, randomly connected fibers that create extremely small pore sizes to repel water while allowing air and moisture vapor to pass.

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#### COLLECTOR NAME GUIDE

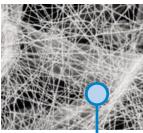
DF0	Downflo Oval
DFT	Downflo II
DMC; C; D1-D10	Dryflo® Mist Collector
DMC-MMA; MMB[	Oryflo Machine-Mountable
DWS	Downflo WorkStation
ECBEn	vironmental Control Booth
ET	Easy-Trunk®
MTD	MTD
РВ	ProBooth™
РТ	Porta-Trunk®

RVS	Round Vibra Shake
SDF	Downflo SDF
SP	ShopPro™
STD	Small TD
T-2000	Trunk 2000®
TBV	Torit® Bin Vent
TD	Large TD
VS	Vibra Shake™
WB	Weld Bench

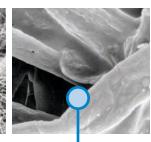
Endura-Tek <sup>™</sup>	Cellulex <sup>™</sup>
Cellulose and Synthetic fibers	Cellulose
10	10
180°F (82°C)	180°F (82°C)
Good	Good
Fair	Fair
Yes	Yes
Delivers extended filter life over traditional untreated cellulose media.	Enhanced performance due to a unique combination of fiber sizes and a more uniform fiber distribution
Humid climates	Superior to felts, fabrics, cotton cloths, and similar media
Ambient, non-fibrous dust applications under humid conditions. Economical choice for operations with forced or cyclical filter replacement (independent of pressure drop)	Applications with dry, coarse particulate. Economical choice for operations with forced or cyclical filter replacement (independent of pressure drop)
Gypsum, Lime, Shot blast	Various
AER; AT; CF; CX; DB; DCS; DF; DFO; DFT; DWS; ECB; MTD; PB; STD; TD	AER; AT; CX; DB; DCS; DF; DFO; DFT; DWS; ECB; MTD; PB; SDF; STD; TBV; TD

# **FINE FIBER FILTER MEDIA**

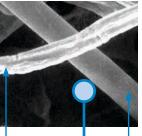
The distinguishing factor in our Ultra-Web<sup>®</sup>, Ultra-Web<sup>®</sup> SB, Fibra-Web<sup>®</sup>, Thermo-Web<sup>®</sup>, and Ultra-Web<sup>®</sup> Conductive FR filters is fine fiber filtration technology. It uses a layer of fibers 0.2 to 0.3 microns in diameter to capture contaminants less than one micron in size. With fine fiber filters, dust particles rapidly accumulate on the filter surface to build a thin, permeable dust-stopping cake. As a result, Ultra-Web, Ultra-Web SB, Fibra-Web, Thermo-Web, and Ultra-Web Conductive FR filters offer the highest filtration efficiency by eliminating premature filter plugging and allowing the dust cake's release during the collector's cleaning cycle.



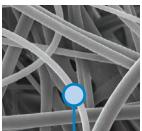
10 Micron \_\_\_\_\_ Fine Fiber Technology (600x)



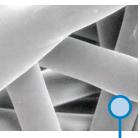
10 Micron – Cellulose Media (600x)



10 Micron – Cellulose / Synthetic – Media Blend (600x)



10 Micron —— Meltblown Media (600x)

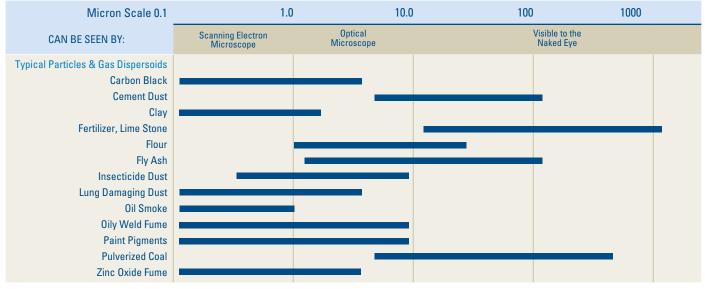


10 Micron \_\_\_\_\_ Spunbond Media (600x) 1 micron = 1/25,400 of an inch (1/1,000 of a millimeter)

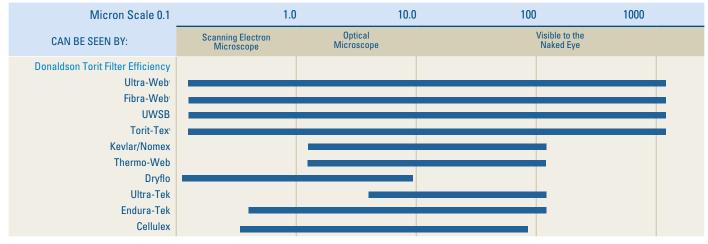
## **OPERATING ADVANTAGES** DONALDSON TORIT FILTERS PERFORM

We are the world leader in filtration solution science and technology. We cover a wide range of industrial air filtration applications with a variety of cartridge filter models that provide the highest levels of performance on all types of dust, fume and mist.

### PARTICLE SIZE RANGE OF COMMON CONTAMINANTS



### **CARTRIDGE FILTERS OPTIMUM PERFORMANCE SCALE**



'Ultra-Web and Fibra-Web cartridge filters use fine fiber technology to provide an initial filtration efficiency of up to 10 times greater than conventional media.

<sup>2</sup> Torit-Tex cartridge filters use Tetratex<sup>®</sup> PTFE membrane, which repels water while allowing air and moisture vapor to pass through the membrane's extremely small pores.

# UNPARALLELED SERVICE AND SUPPORT

### **HERE TO SERVE YOU**

Providing technically advanced filters with the longest filtration life is just one of Donaldson Torit's distinctions. When it comes to customer support, no other filter manufacturer can match Donaldson Torit's technical expertise and commitment. Rely on Donaldson Torit to help you choose the best filters for your applications.

### **FULL-LINE CARTRIDGE FILTER OFFERING**

With hundreds of varieties to choose from, Donaldson Torit offers the broadest selection of cartridge filters for all popular makes and models of cartridge collectors.

### **KNOWLEDGEABLE SUPPORT**

Donaldson Torit aftermarket sales representatives and parts specialists help customers select the best filters for their application needs.

### **QUICK DELIVERY**

All in-stock Donaldson Torit made filters are shipped within 24 hours of order placement.

### **PRODUCT SUPPORT**

Donaldson Torit filters are stocked and distributed quickly through two strategically located Product Distribution Centers. With more than 612,000 square feet of warehouse space, our distribution centers ensure that our filters arrive promptly at their destinations.

### EASY ACCESS

Call Donaldson Torit customer service at 800-365-1331 or visit us at donaldsontorit.com.

### **ULTRA-WEB**<sup>®</sup> for cartridge collectors

• AAF®

NordsonPneumafil

Robovent<sup>®</sup>

Steelcraft<sup>®</sup>

Wheelabrator

+ Many others

- Aercology<sup>®</sup>
- Airflow<sup>®</sup> Systems
- Clemco<sup>®</sup>
- Environmental Systems Designs
- Trion<sup>®</sup>
  UAS<sup>®</sup>
- Farr
- Geoff
- MAC
- Micro Air<sup>®</sup>

<image>

### CALL 800-365-1331 FOR LIVE SUPPORT

### **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.



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F118002 ENG (06/18) Cartridge Filters ©2013-2018 Donaldson Company, Inc. Donaldson, Torit, Cellulex, Downflo, Dryflo, Easy-Trunk, Endura-Tek, Fibra-Web, Porta-Trunk, Tetratex, Thermo-Web, Torit-Tex, Trunk 2000, Ultra-Tek, Ultra-Web, Vibra-Shake and the color blue are marks of Donaldson Company, Inc. All other marks belong to their respective owners