

# Torit-Built® Filter Cartridges



# Torit-Built® Filter Cartridges

## Ultra-Web® Filters Have No Equal

Torit-Built® filters keep dust collectors operating at peak performance. Offered for a full range of dust, fume and mist collection applications, Torit-Built filters—especially our patented Ultra-Web® filters—outperform and outlast other filters. When it comes to Torit-Built 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.

### Torit-Built filters offer:

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



Environmental Control Booth™



Downflo® Oval Dust Collector



Dryflo® Mist Collector

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## The Value of Ultra-Web® Filters

Don't be fooled by the initial lower purchase price of 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 Torit-Built filters. And that means buying and replacing more filters, more often—which costs more 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	\$66	\$77	\$102
Filter life	8 months	9 months	12 months
Number of filter changes	3	3	2
Total purchase cost for filters	\$3,168	\$3,696	\$3,264
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
<b>Total investment</b>	<b>\$6,018</b>	<b>\$6,546</b>	<b>\$5,164</b>

## Total Savings With Ultra-Web Filters

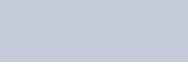
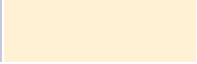
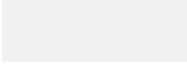
Ultra-Web Filter Costs Compared With Generic Filter Costs	Ultra-Web
Generic cellulose total investment	\$6,018
Ultra-Web total investment	(5,164)
<b>Ultra-Web savings</b>	<b>\$854</b>
Generic cellulose/synthetic fiber blend total investment	\$6,546
Ultra-Web total investment	(5,164)
<b>Ultra-Web savings</b>	<b>\$1,382</b>

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.

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## Filter Options

	Ultra-Web® 	Ultra-Web SB 	Fibra-Web® 
<b>Base Media</b>	Cellulose with Nanofiber <sup>1</sup>	Spunbond polyester with Nanofiber <sup>1</sup>	Synthetic with Nanofiber <sup>1</sup>
<b>U.S. Efficiency Rating (MERV)<sup>3</sup></b>	13	15	14
<b>European Efficiency Rating<sup>4</sup></b>	BIA L, M EN 779-F7	BIA L, M EN 779-F9	BIA L, M EN 779-F8
<b>Maximum Operating Temperature</b>	180°F / 82°C	200°F / 93°C	180°F / 82°C
<b>Abrasion Resistance</b>	Good	Excellent	Good
<b>Chemical Tolerance</b>	Fair	Excellent	Good
<b>Optional Flame Retardant Media (FR)</b>	Yes	No	Yes
<b>Special Characteristics</b>	Nanofiber media provides excellent surface loading and dust release capabilities.	Highest efficiency similar to membrane products at a much lower price	Wide pleat spacing provides thorough pulse cleaning of fibrous and agglomerative particles.
<b>Markets</b>	Metalizing, Pharmaceutical, General industrial, Paint pigments, Carbon black, Thermal spray, Welding	Chemical processing, General industrial, Surface blasting, Grinding, Polishing, Powder coating, Pharmaceutical, Food	Composite grinding, Food processing, Grain handling, Metal buffing, Pharmaceutical, Textiles, Woodworking
<b>Applications</b>	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	Excellent performance on combination fibrous and non-fibrous dust, and/or agglomerative dust.
<b>Dust Types</b>	Fumed silica, Metallic fume, Metallurgical powders, Oily weld fume, Pharmaceutical compounds	Ceramics, Cotton, Fiberglass, Tobacco, Metal grinding, Powder coating, Shot blast, Gypsum, Lime, Cement	Ceramics, Cotton, Fiberglass, Tobacco
<b>Available for Collectors (see key at far right)</b>	AAT; AER; AT; AT-3000; CF; CX; DB; DCS; DFO; DF; DFT; ECB; ET; MTD; PB; PT; SDF; T-2000; TBV; TD; WB	AER; AT; CF; CX; DB; DF; DFT; ECB; MTD; PB; SDF; TBV; TD; TBV	AER; AT; CF; CX; DB; DCS; DF; DFO; DFT; DWS; ECB; MTD; PB; SDF; TBV; TD
<b>Available for Competitors Collectors</b>	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann

Color Chart		
		
<b>Nanofiber Filters</b>	<b>Specialty Filters</b>	<b>Standard Filters</b>

# Torit-Built® Filter Cartridges

## Filter Options

Torit-Tex™	Torit-Tex CD™	Torit-Tex HCD™	High Temp	Thermo-Tek®	Dryflo®
					
Calendered, Spunbond polyester with Tetratex® PTFE membrane <sup>2</sup>	Carbon impregnated, Calendered, Spunbond polyester with Tetratex® PTFE membrane <sup>2</sup>	Carbon impregnated, Calendered, Spunbond polyester with Tetratex® PTFE membrane <sup>2</sup>	Synthetic	Synthetic	Synthetic
16	16	16	13	12	N/A
BIA L, M EN 779-F9	BIA L, M EN 779-F9	BIA L, M EN 779-F9	N/A	BIA L EN 779-F6	N/A
200°F / 93°C	200°F / 93°C	275°F / 135°C	350°F / 177°C	275°F / 135°C	150°F / 65°C
Excellent	Excellent	Excellent	Excellent	Good	N/A
Excellent	Excellent	Excellent	Good	Good	Fair
No	No	No	No	No	No
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.	Conductive media with certified resistivity level of 10 <sup>4</sup> OHM.	Special gaskets and adhesives assure structural integrity and airtight sealing characteristics.	Excellent chemical tolerance—stainless steel option only.	Prefilter coalesces smaller droplets into larger droplets.
Chemical processing Food processing, General industrial	Chemical processing, General industrial Pharmaceutical, Pulp and paper	Chemical processing, General industrial, Pharmaceutical, Pulp and paper	Chemical processing, General industrial	Cement processing, Chemical processing, Metallurgical Pharmaceutical	Metalworking
Highly recommended for chemical, food, and industrial processing when product contamination must be minimized. Excellent performance on moist, hygroscopic, or agglomerative dust.	Higher temperature applications where electrostatic charges can be dangerous.	Applications where electrostatic charges can be dangerous and with higher temperatures up to 275°F / 135°C.	Metallurgical, Chemical, and Industrial processes. Higher temperature applications up to 350°F / 177°C.	Metallurgical, Chemical, and Industrial applications. Higher temperature applications.	Wet machining
Dextrose, Flour, Starch, Sugar, Whey	Coal, Plastics, Powdered materials, Prepared food	Coal, Plastics, Powdered materials, Prepared food	Cement, Coal/Coke, Ink, Paint pigment	Carbon, Cement, Foundry shakeout, Metal powders, Shot blast, Silica gel drying, Thermal spray	Water soluble, straight oils
AER; AT; CF; CX; DB; DCS; DF; DFO; DFT; DWS; ECB; MTD; PB; SDF; TBV; TD	DF; DFT	AER; DF; DFT; MTD; PB	AER, DCS; DF; DFT; DWS; ECB; MTD; PB; TBV; TD	DFO; DFT; ECB; TBV; TD	ADMC; DMC-MMA; MMB; DMC; C; D1-D10
AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	AAF, Airflow® Systems, Clemco, CP Environmental, Environmental Systems Design, Farr, MAC, Micro Air®, Nordson, Pneumafil, Polaris, Robovent, Steelcraft, Steelcraft / Filtrex, Trion, UAS, Wheelabrator, Wiedenmann	

Note: Optional stainless steel construction available on all cartridges.

1. Nanofiber technology provides an initial filtration efficiency of up to 10 times greater than 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. BIA certificate available upon request. BIA certifies initial efficiency.

# Torit-Built® Filter Cartridges

## Filter Options

WSO					
Polyester and Glass	Cellulose	Synthetic	Cellulose and Synthetic fibers	Cellulose	Cellulose
N/A	10	12	10	10	10
N/A	BIA L EN 779-F5	BIA L, M EN 779-F6	BIA L, M EN 779-F5	BIA L EN 779-F5	BIA L EN 779-F5
110°F / 43°C	150°F / 65°C	150°F / 65°C	180°F / 82°C	150°F / 65°C	150°F / 65°C
N/A	Good	Good	Good	Good	Good
Good	Fair	Good	Fair	Fair	Fair
No	No	Yes	Yes	Yes	Yes
Proprietary bonding system stabilizes pore structure for optimum performance.	Prefilter wrap sieves larger particulate.	Proprietary blend of fibers and wide pleat spacing reduce pressure drop and increase airflow.	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.	Enhanced performance due to a unique combination of fiber sizes and a more uniform fiber distribution.
Metalworking	Grinding and polishing, Bag dumping	Composite grinding, Grain handling, Textiles, Woodworking	Humid climates	Superior to felts, fabrics, cotton cloths, and similar media	Superior to felts, fabrics, cotton cloths, and similar media
Metal cutting, grinding, forming	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.	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).	Applications with dry, coarse particulate. Economical choice for operations with forced or cyclical filter replacement (independent of pressure drop).
Water soluble, straight oils and oily smoke	Metal grinding, Carbon dust, Graphite dust.	Ceramics, Composites, Fiberglass, Wood dust	Gypsum, Lime, Shot blast	Various	Various
WSO-10; WSO-15; WSO-20; WSO-25	RVS; SP; VS	AER; AT; CX; DB; DCS; DF; DFO; DFT; DWS; ECB; MTD; PB; SDF; TBV; TD	AER; AT; CF; CX; DB; DF; DFT; ECB; MTD; PB; TD	AER; AT; CX; DB; DF; DFT; ECB; MTD; PB; TBV; TD	AER; AT; CX; DB; DF; DFT; ECB; MTD; PB; TBV; TD
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Collector Acronym	Collector Name	Collector Acronym	Collector Name	Collector Acronym	Collector Name	Collector Acronym	Collector Name
AAT	Ambient Air Tubesheet	DB	Downdraft Bench	ECB	Environmental Control Booth	SDF	Downflo SDF
ADMC	Advanced Dryflo® Mist Collector	DCS	Downflo® Containment System	ET	Easy-Trunk®	SP	ShopPro™
AER	AerBooth™	DFO	Downflo Oval	MTD	MTD	TBV	Torit® Bin Vent
AT	AerTable™	DFT	Downflo II	PB	ProBooth™	T-2000	Trunk 2000®
AT-3000	Ambient System	DWS	Downflo WorkStation	PT	Porta-Trunk®	VS	Vibra Shake™
CF	CF Series	DMC; C; D1-D10	Dryflo® Mist Collector	RVS	Round Vibra Shake	WB	Weld Bench
CX	CX Series	DMC-MMA; MMB	Dryflo Machine-Mountable				

## Cartridge Filter Breakthroughs

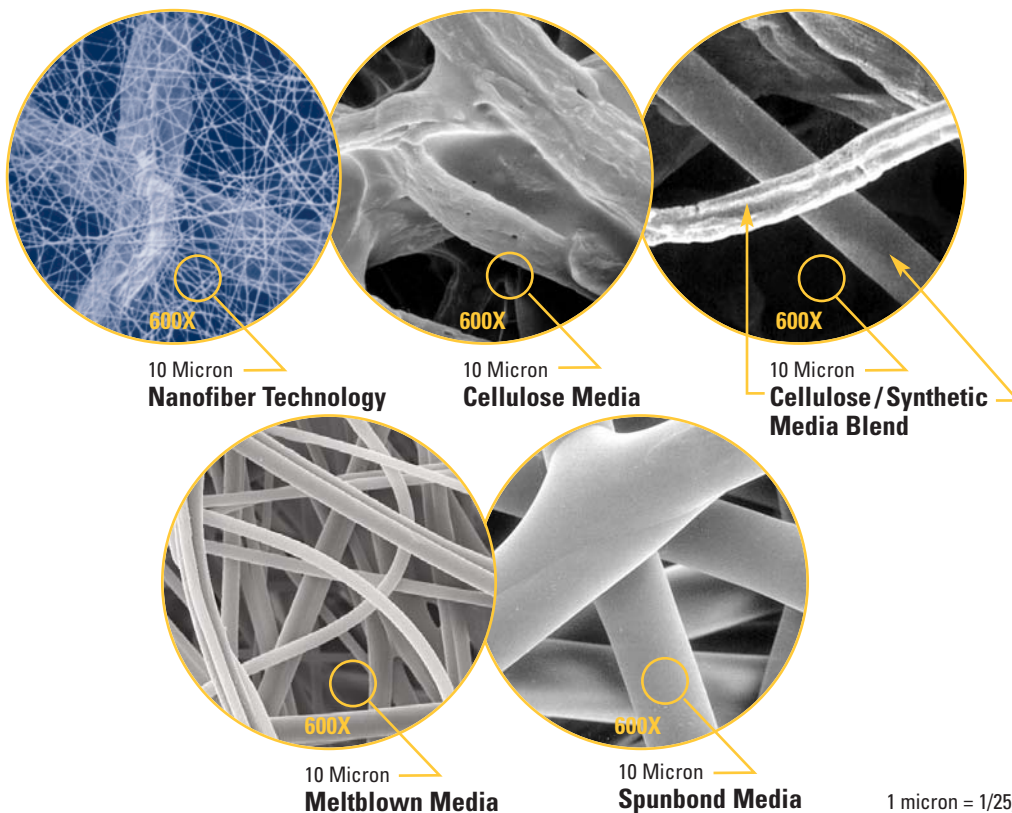
**Unparalleled Technology** As the world leader in air filtration for over 90 years, Donaldson Company continually strives to engineer filters that outperform all others. Donaldson Company set the standard in cartridge filter technology with innovations like our proprietary nanofiber filter media.

Nanofiber 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 Nanofiber Advantage

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

**Nanofiber Filter Media** The distinguishing factor in our Ultra-Web®, Ultra-Web SB, and Fibra-Web® filters is nanofiber 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 nanofiber 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, and Fibra-Web filters offer the highest filtration efficiency by eliminating premature filter plugging and allowing the dust cake's release during the collector's cleaning cycle.



1 micron = 1/25,400 of an inch

# Torit-Built® Filter Cartridges

## Operating Advantages

**Donaldson Torit Filters Perform** The world of air filtration revolves around Donaldson Torit. 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 filter cartridge models that provide the highest levels of performance on all types of dust, fume and mist.

Particle Size Range of Common Contaminants

Micron Scale		0.1	1.0	10.0	100	1000
CAN BE SEEN BY:		SCANNING ELECTRON MICROSCOPE	OPTICAL MICROSCOPE		VISIBLE TO THE NAKED EYE	
Typical Particles & Gas Dispersoids	Carbon Black	[Bar from 0.1 to 1.0]				
	Cement Dust		[Bar from 1.0 to 10.0]			
	Clay	[Bar from 0.1 to 1.0]				
	Fertilizer, Lime Stone		[Bar from 1.0 to 10.0]			
	Flour		[Bar from 1.0 to 10.0]			
	Fly Ash		[Bar from 1.0 to 10.0]			
	Insecticide Dust	[Bar from 0.1 to 1.0]				
	Lung Damaging Dust	[Bar from 0.1 to 1.0]				
	Oil Smoke	[Bar from 0.1 to 1.0]				
	Oily Weld Fume	[Bar from 0.1 to 1.0]				
	Paint Pigments	[Bar from 0.1 to 1.0]				
	Pulverized Coal		[Bar from 1.0 to 10.0]			
	Zinc Oxide Fume	[Bar from 0.1 to 1.0]				

Filter Cartridge Optimum Performance Scale

Micron Scale		0.1	1.0	10.0	100	1000
CAN BE SEEN BY:		SCANNING ELECTRON MICROSCOPE	OPTICAL MICROSCOPE		VISIBLE TO THE NAKED EYE	
Torit-Built Filter Efficiency	Ultra-Web <sup>1</sup>	[Bar from 0.1 to 1000]				
	Fibra-Web <sup>1</sup>	[Bar from 0.1 to 1000]				
	Torit-Tex <sup>2</sup>	[Bar from 0.1 to 1000]				
	Kevlar/Nomex		[Bar from 1.0 to 10.0]			
	Thermo-Tek		[Bar from 1.0 to 10.0]			
	Dryflo	[Bar from 0.1 to 1.0]				
	Ultra-Tek		[Bar from 1.0 to 10.0]			
	BonDura		[Bar from 1.0 to 10.0]			
	Endura-Tek	[Bar from 0.1 to 1.0]				
	Cellulex	[Bar from 0.1 to 1.0]				

1. Ultra-Web and Fibra-Web filter cartridges use nanofiber technology to provide an initial filtration efficiency of up to 10 times greater than conventional media.
2. Torit-Tex filter cartridges use Tetratex® PTFE membrane, which repels water while allowing air and moisture vapor to pass through the membrane's extremely small pores.

# Torit-Built® Filter Cartridges

## Service & 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.

- **Filter Selection** With hundreds of varieties to choose from, Donaldson Torit offers the broadest selection of filters, each designed for specific applications.
- **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 [www.donaldson.com](http://www.donaldson.com) and click on "Search Our Catalog."



Browse Catalog



# Cleaner Air Worldwide

## Better Technology



- 550 engineers worldwide
- More than 500 patents
- Broad range of innovative collectors and filters
- 100's of media formulations

## Experience & Service



- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours
- 1,000,000+ dust, fume, & mist collectors installed

## Global Support



- Facilities in 35 countries
- 37 manufacturing plants and 11 distribution centers
- Sales offices worldwide



# Donaldson®

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**Call Donaldson Torit  
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800-365-1331**



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