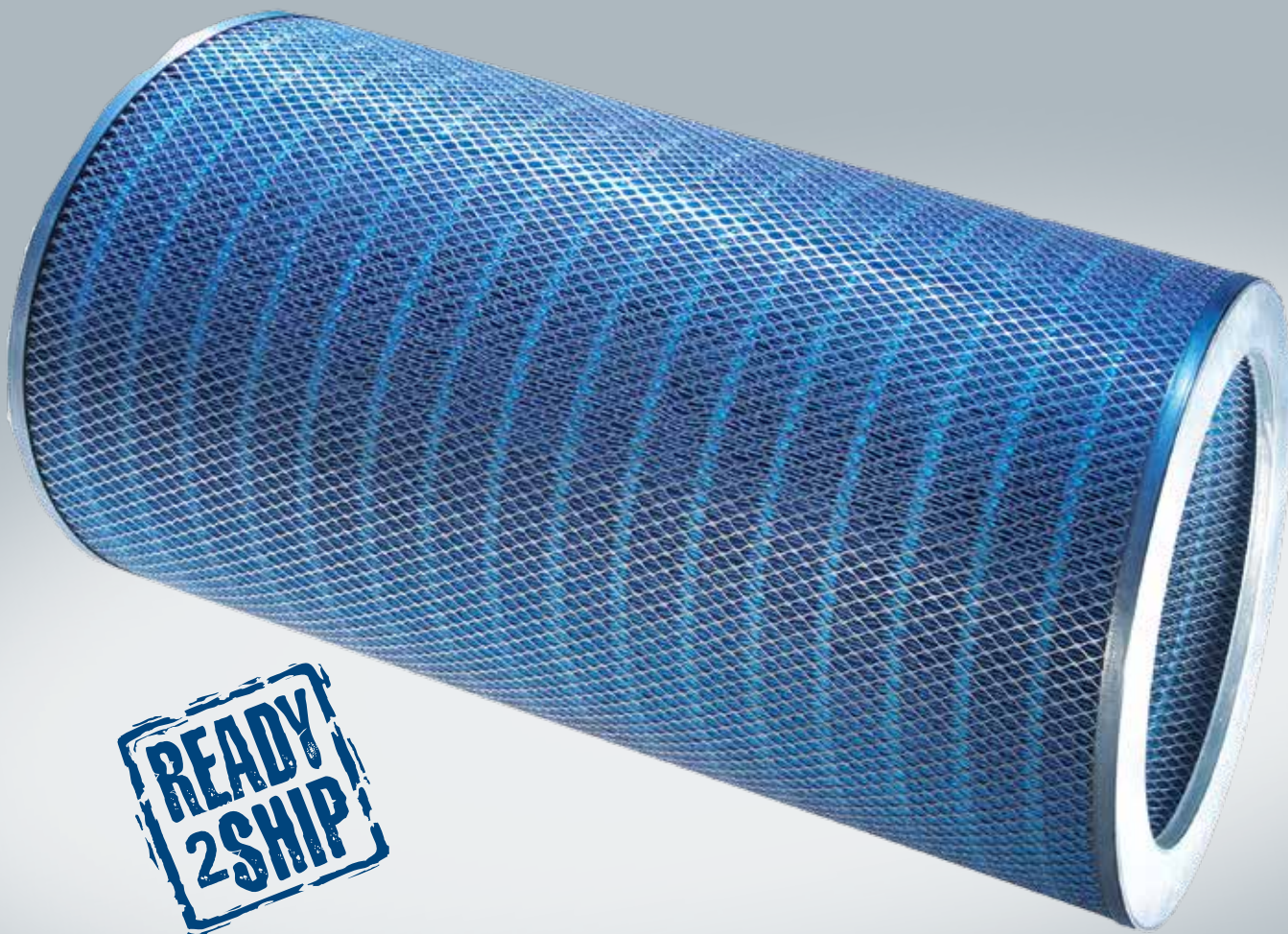# Donaldson. Torit®

ULTRA-WEB®

ULTRA-WEB®
High Efficiency **Nanofiber Filters** Built to Last

READY 2SHIP

# PROPRIETARY TECHNOLOGY THAT PERFORMS

Proven and proprietary Ultra-Web® 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 nanofiber 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

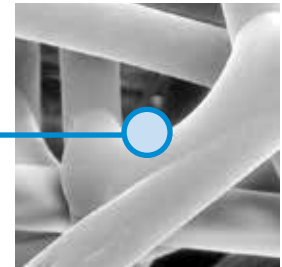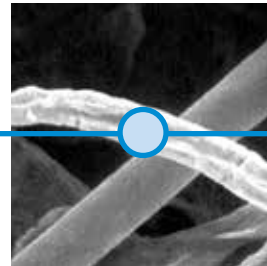- MERV 15, 14 and 13 filtration efficiencies to meet specific application needs
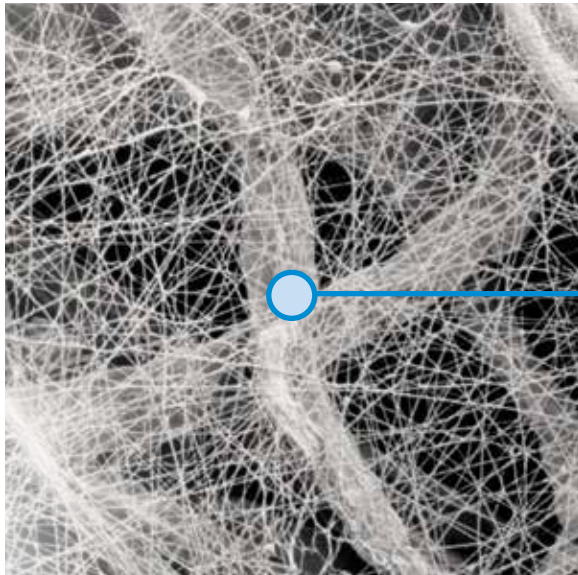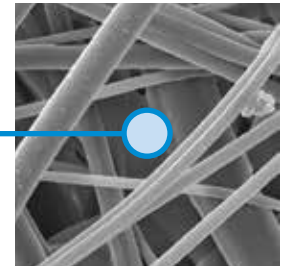

10 MICRON PARTICULATE AT 600X

ULTRA-WEB TECHNOLOGY
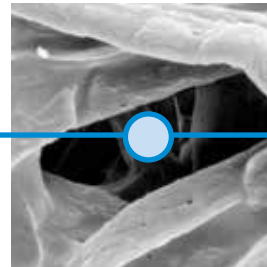
CELLULOSE

SPUNBOND

CELLULOSE/SYNTHETIC

MELTBLOWN

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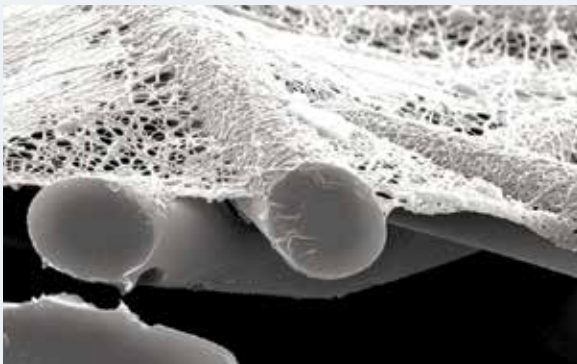
Ultra-Web nanofiber media is loaded with ISO fine dust. Dust particles collect on the surface of the media and clean off easily while the substrate stays clean. A depth-loading filter would allow dust particles to penetrate deeply into the substrate where they build up and restrict airflow.
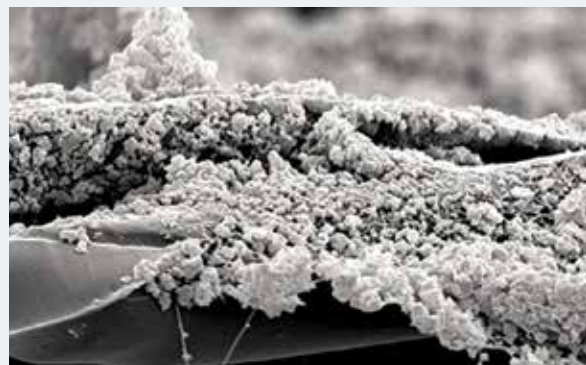
COUNT ON SIGNIFICANT SAVINGS

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 Nanofiber 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.

ULTRA-WEB®
CUTS ENERGY COSTS
IN HALF

## FEWER CHANGEOUTS SAVE ENERGY, MAINTENANCE & FILTER COSTS

Number of Ultra-Web Cartridges	Annual 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	$8,143
48	$4,374	$672	$5,140	$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 nanofiber 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
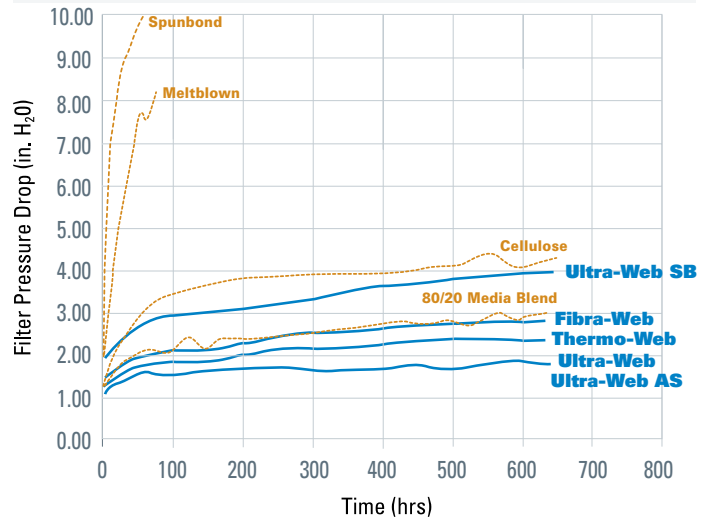
Results were derived testing Atomite test dust in an 8-cartridge collector @ 1.0 gr./cu.ft, Goyen Millennium valves, 90 psi cleaning pressure, 100ms on time 10 second off time. Airflow goal = 4064 scfm.

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® Torit® has perfected our standard pre-HEPA MERV 13-rated Ultra-Web cartridge filters to optimize filtration without sacrificing filter life or increasing pressure drop.

HIGHER EFFICIENCY = CLEANER AIR
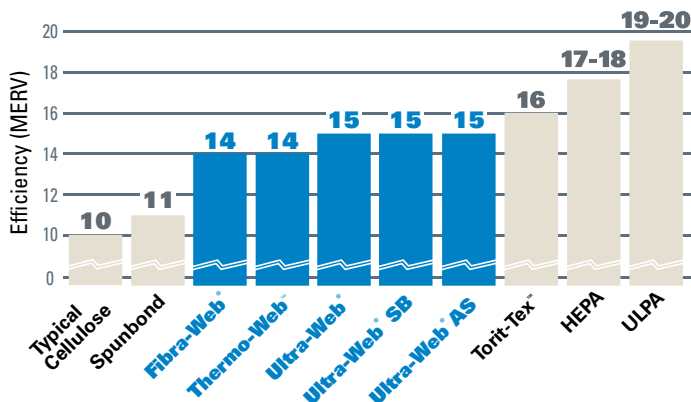
Ultra-Web MERV 13, 14 and 15 efficiency has been certified by independent lab tests and tested per the ASHRAE Standard 52.2-2007.

CARTRIDGE FILTER	MERV	3-10 µm	1-3 µm	0.3-1 µm
Ultra-Web	15	✓	✓	✓
Ultra-Web SB	15	✓	✓	✓
Ultra-Web AS	15	✓	✓	✓
Fibra-Web	14	✓	✓	✓
Thermo-Web	14	✓	✓	✓
Typical Spunbond	11	✓	✓	✗*
Typical Cellulose	10	✓	✓	✗*
Typical 80/20 Blend	10	✓	✓	✗*

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 larger 3-10 micron particulate.

* Not efficient enough to rate

ULTRA-WEB®

READY 2SHIP

HIGH EFFICIENCY NANOFIBER FILTERS BUILT TO LAST

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

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

Global Support

- Facilities in 37 countries
- 40 manufacturing plants and 14 distribution centers

Leading Technology

- Over 1,000 engineers and scientists worldwide
- Broad range of innovative collectors and filters
- 100s of filter media formulations

Experience and Service

- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours

Call Donaldson® Torit® to get cleaner air today:

800-365-1331
DonaldsonTorit.com

Donaldson®
FILTRATION SOLUTIONS

EXACTLY WHAT YOU NEED.™