# Donaldson. Torit

## PLEATED BAG FILTERS WITH ULTRA-WEB® SB



## TAKE A CLOSER LOOK AT OUR PLEATED BAG FILTERS

#### **OPENING**

Patent-pending, aerodynamic designed high flow opening generates 30% more cleaning energy.

### **ISEAL GASKET**

Soft, gray EPDM ensures easy and secure fit for top load collectors. (Patent pending)

## ONE-PIECE CONSTRUCTION

One plated bag replaces one filter and cage, making changeouts easier.

## **FILTER MEDIA**

Ultra-Web® SB outperforms the standard spunbond products with longer life, higher efficiency, and lower pressure drop. It also tolerates chemicals and moisture, and withstands temperatures up to 250°F/121°C.

**TOP LOAD** 

### **OVAL DESIGN**

Includes bolt-safe hardware kit.

## MOLDED URETHANE TOP CONSTRUCTION

Unique, one piece molded design for top load collectors eliminates potential leakage point at tubesheet. Soft polyurethane boot installs easily on bottom load applications.

#### BANDING

Superior urethane attachment method.

### PLEAT PACK

Pleated media increases effective area compared to felt bags.

Consistent pleat spacing to enhance cleaning.

**BOTTOM LOAD** 

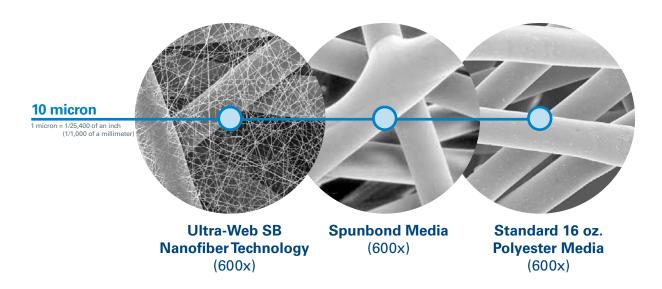


## THE PROVEN PERFORMANCE OF ULTRA-WEB® SB

#### PROPRIETARY TECHNOLOGY THAT PERFORMS

For more than two decades, Donaldson Torit has advanced the proven and proprietary Ultra-Web® technology. Made with an electrospinning process that produces a very fine, continuous fiber of 0.2-0.3 micron in diameter, Ultra-Web nanofibers form a permanent web-like net with very fine interfiber spaces that trap dust on the surface of the media. Combining superior Ultra-Web technology with a sturdy spunbond polyester substrate, the Ultra-Web SB pleated bag filters deliver longer filter life, higher efficiency, and greater cost savings for baghouse collectors.

- Advanced media is more efficient in capturing submicron dust particles (0.3 micron and larger)
- Longer filter life and better pulse cleaning due to surface loading technology
- Lower energy use with better pulse cleaning and lower operating pressure drop
- Cleaner air, longer filter life, and greater cost savings



Pleated Bag Filters	3-10 μm	1-3 µm	0.3-1 μm
Ultra-Web® SB Pleated Bag Filters MERV 15 Rating	Excellent	Excellent	Excellent
Spunbond Pleated Bag Filters	Excellent	Fair	Fair
16 oz. (453.6 g) Polyester Felt Bag Filters	Fair	Fair/Poor	Poor

Standard spunbond and 16 oz. (453.6 g) polyester felt are not efficient enough to rate on submicron dust particles. Standard spunbond filters capture particulate at the 1-3 micron level, while 16 oz. (453.6 g) polyester felt only effectively captures at the 3-10 micron level.

## **OUR ADVANTAGE IS YOUR SOLUTION**

Why pleated bags? Ultra-Web SB pleated bag filters are engineered to deliver solutions for most common baghouse problems.

PROBLEM	PLEATED BAG FILTER SOLUTION
Not Enough Filter Area	Pleated bag filters can provide almost twice as much filtration area in existing equipment due to the increased media in the pleat pack design.
High Pressure Drop	Increasing filter area causes the air to media ratio to decrease when the airflow stays the same. The pressure drop also decreases.
Abrasion	Pleated bag filters are shorter than the fabric bags they're replacing. This allows for a larger drop out area and less opportunity for bag abrasion.
Stack Discharge	Ultra-Web SB offers all the benefits of spunbond media, plus the superiority of nanofiber technology allowing for the capture of submicron particulate reducing stack emissions.
Short Life	Pleated bag filters offer up to 2-3 times the filter life over 16 oz. (453.6 g) polyester felt bags.

COLLECTOR BAG FILTERS			
	Conventional Polyester	Ultra-Web SB Pleated	Benefits
Airflow	55,000 cfm (93,426 m³/h)	90,000 cfm (152,879 m³/h)	Collectors are now using less energy to operate and are able to operate at the designed flow rate
Pressure Drop after 6 months	10 inches of H <sub>2</sub> O (254 mm of H <sub>2</sub> O)	2 inches of H <sub>2</sub> O (51 mm of H <sub>2</sub> O)	Filters last longer with fewer filter changeouts

## **MAKE A CHANGE TO THE BETTER**

Can't think of a good reason to change your brand of pleated bags? DonaldsonTorit just provided the answer — pleated bag filters with Ultra-Web® SB nanofiber technology available for all popular brands of baghouse collectors.

## **NOW AVAILABLE** FOR THE RF COLLECTOR







RF - Quarry

## **AVAILABLE FOR ALL** POPULAR BAGHOUSE COLLECTORS



MB - Glass



FS - Wood

## **ULTRA-WEB® SB PLEATED BAG FILTERS**

#### PROVIDE SUPERIOR PERFORMANCE ON FIBROUS WOOL DUST

**INDUSTRY**: Rug Making

PROBLEM: Fibrous dust from wool rugs

clogged up the pleated bag causing high pressure drop (10 in of H<sub>2</sub>O /254 mm of H<sub>2</sub>O) and only 6 months

filter life

**SOLUTION:** Donaldson Torit Ultra-Web SB

pleated bag filters. The combination of Ultra-Web nanofibers and wider pleat spacing allows effective pulse cleaning, achieves stable pressure drop (2.25 in of H<sub>2</sub>O/57.2 mm of H<sub>2</sub>O), & attains at least twice the filter life.

Not only did they need a baghouse that could handle the fibrous wool dust from spool loading for making rugs, but the plant engineer at this carpet weaving facility wanted filter life longer than six months. Was that too much to ask?

The plant engineer at Karastan and his crew operate and maintain eight MAC baghouse dust collectors

Ultra-Web SB pleated bag filters maintain lower pressure drop across the baghouse in the Karastan rug factory, helping to save energy and keep production running smoothly.

designed for 90,000 cfm on a 24/5 basis. The pleated bag filters they were using worked for 6 months, then plugged up—as evidenced by the 10" of H<sub>2</sub>O (254 mm of H<sub>2</sub>O) pressure drop and the deficient 55,000 cfm (93,426 m<sup>3</sup>/h) through the baghouse system.

An inspection by Donaldson® Torit® found wool fibers packed in the pleats of the bag that couldn't be pulsed out. The system had a variable frequency controller on the fan for greater fan efficiency, but it was not being used.

#### **Donaldson Torit suggested four steps to full remedy:**

- 1. Switch to Donaldson Torit Ultra-Web® SB pleated bag filters. The nanofiber layer over the polyester spunbond substrate, combined with the wider pleat spacing, would enable the pulse-clean systems to clean off the collected dust and fibers effectively.
- 2. Use a filter that is 48" (1,219 mm) long instead of 40" (1,016 mm) to provide more media area.
- 3. Use the variable frequency controller to save operating energy.
- 4. Implement a down-time cleaning cycle during weekend shutdown, without the fan running, to keep the filter surface cleaned off as much as possible.

### **Significant Results**

Karastan implemented all of the recommendations and after ten months (5000 operational hours), the pressure drop of the baghouses is stable — between 2 and 2.5 inches of H<sub>2</sub>O (50.8 and 63.5 mm of H<sub>2</sub>O).

Karastan plant engineer says, "I am thrilled with the performance of the Ultra-Web SB pleated bags! They kept us from having to buy a new collector. So far, we are getting twice the life compared to the old bags, and I suspect we will get even more."



Ultra-Web SB pleated bag filters are available for all popular collectors.

- AAF®
- Griffin
- Aeropulse
- IAC
- BHA
- Kice
- Buhler Miag
- MAC
- Camcorp

- MikroPul
- CP

• Carborundum

- Pneumafil
- **Environmental**
- Seneca Ultra
- C & W
- Flex-Kleen
- Wheelabrator
- Fuller
- + 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
- 1,000,000+ dust, fume and mist collectors installed

Call Donaldson®Torit® to get cleaner air today:

800-365-1331

DonaldsonTorit.com



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#### **EXACTLY WHAT YOU NEED.™**

Pleated Bag Brochure (06/12)
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