

## ПРЕДПРИЯТИЕ МАКСАЭРО

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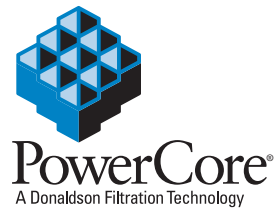
# Фильтрующий элемент PowerCore Ultra-Web



# TECHNICAL DATASHEET

## PowerCore® Filter Pack

CP



## POWERCORE CP FILTER PACK

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- Ultra-Web® Nanofiber filter media ensures longer filter life at reduced pressure drop.
- Surface filtration offers superior particle release during pulse cleaning.
- Fluted Construction packages more effective filter area in a smaller space.
- Smaller and lightweight filter pack design with built-in handles.
- Easy filter changeout for quick maintenance – no tools required.
- High filtration efficiency, BIA class M.

## BREAKTHROUGH TECHNOLOGY UNFOLDS

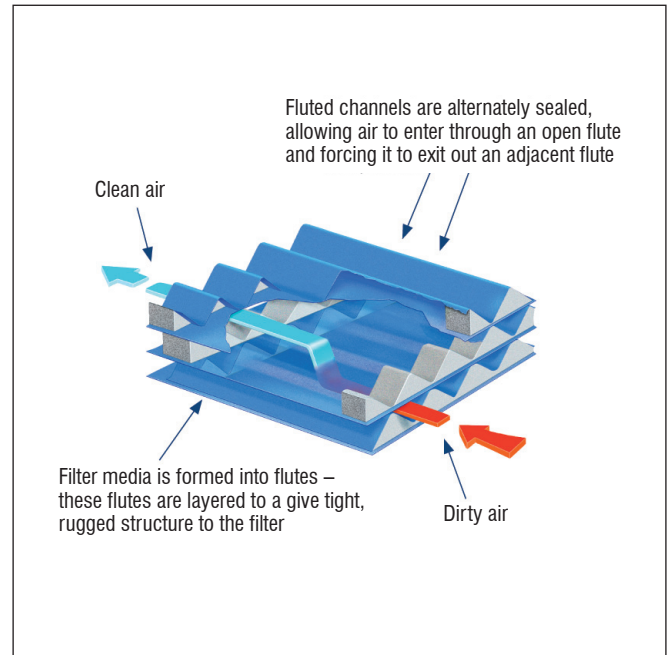
At the core is PowerCore® – the most innovative filtration technology from Donaldson. PowerCore® filter packs combine proprietary Ultra-Web® nanofiber technology with new media packaging expertise, creating a revolutionary filtration technology unlike anything else in the industrial filtration market.

## ULTRA-WEB® NANOFIBER TECHNOLOGY

Proven and proprietary Ultra-Web® filter media delivers longer filter life, cleaner air and greater cost savings than other traditional filter media. It is made with an electrospinning process that produces a very fine, continuous, resilient fiber layer of 0.2 - 0.3 microns in diameter.

PowerCore® CP filter packs with Ultra-Web® media keep dust on the surface of the fluted channels where it is easily cleaned off unlike conventional depth loaded filter media.

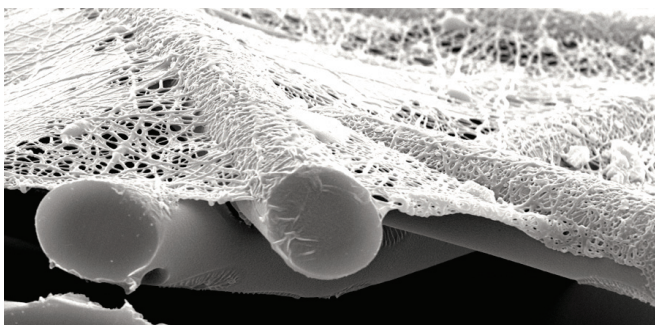
- Surface loading promotes efficient filter cleaning and longer life
- Improved pulse cleaning lowers operational pressure drop and energy use



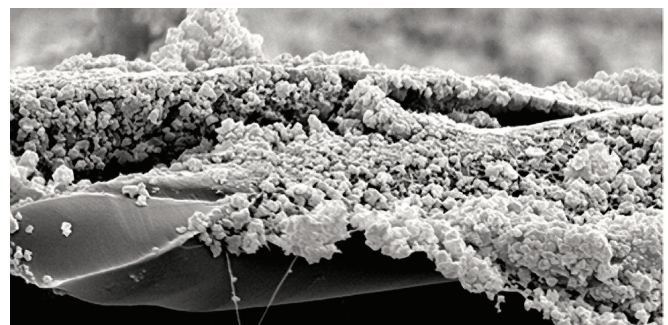
## APPLICATIONS

- Fibrous dust
- Fluffy dust
- Agglomerative dust
- Spunbond version has excellent moisture and chemical resistance

## SEM IMAGES



**Clean Ultra-Web Media**



**Surface-Loaded Ultra-Web Media**  
(substrate still clean)

## MEDIA AND FILTER PACK SPECIFICATION

### MEDIA COMPOSITION

|                              |   |
|------------------------------|---|
| Nanofiber Surface Technology | Durable proprietary synthetic fiber<br>Mean fiber diameter of 0.2 - 0.3 $\mu\text{m}$   |
| Substrate                    | <ul style="list-style-type: none"> <li>■ Proprietary blend of cellulose fibers</li> <li>■ Spunbond Polyester</li> <li>■ Antistatic version per DIN 54345<br/>Resistance less than <math>10^8</math> Ohms</li> </ul> |

### MEDIA COMPATIBILITY DATA

|   |  |                        |
|---|--|------------------------|
| Temperature Resistance  | -40°C<br>+65°C   |                        |
| Moisture Absorption<br>for cellulose fibers<br>for spunbond polyester | Max. 14% at 21°C and 65% RH<br>0.2 - 0.5% at 21°C and 65% RH |                        |
| Chemical Tolerance  | for cellulose fibers   | for spunbond polyester |
| Acids   | Poor   | Good                   |
| Bases   | Fair   | Good                   |
| Oxidants  | Poor   | Good                   |
| Solvents  | Fair   | Good                   |
| Abrasion Resistance   | Excellent  |                        |

### MEDIA EFFICIENCY

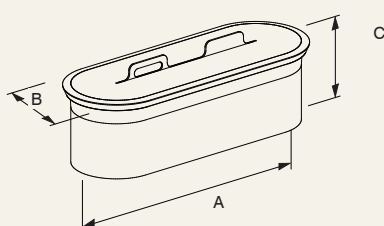
|                            |  |
|----------------------------|--|
| European Efficiency Rating | BIA class 'M' DIN 60335-2-69<br>Max. penetration <0.01%, 0.2 - 2.0 $\mu\text{m}$ |
| US Efficiency Rating       | MERV 13 per ASHRAE 52.2-2007   |

### FILTER PACK CONSTRUCTION

|                       |  |
|-----------------------|--|
| Standard Construction | Obround design<br>Fluted media configuration<br>Urethane gasket<br>Built-in handle |
|-----------------------|--|

### CURRENT AVAILABLE CONFIGURATION

CP



A = 568 mm  
B = 192 mm  
C = 178 mm

## MOISTURE AND CHEMICAL TOLERANCE

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Environmental conditions involving combinations of high temperature, chemicals and moisture can alter fiber resistance, resulting in a reduction of media strength which may compromise filter integrity and performance.

## BIA RATING

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BIA class M classification of the filter media has been determined by an independent laboratory according to DIN 60335-2-6:2008.

Fine quartz dust, with approximately 90% of particles in the range 0.2 - 2.0  $\mu\text{m}$ , is fed onto the filter media at a specified airflow and concentration. The degree of penetration measured determines the classification of the media.

In the case of dust class M, the maximum allowable penetration is  $< 0.10\%$ .

## MINIMUM EFFICIENCY REPORTING VALUE (MERV)

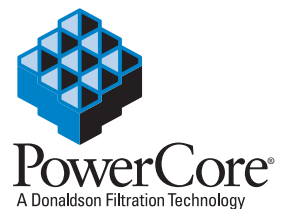
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The Minimum Efficiency Reporting Value (MERV) of this filter has been determined through independent laboratory testing using ASHREA 52.2 (2007) test standards. The MERV rating was determined at a face velocity of 118 feet per minute and loading up to four inches water gauge. Actual efficiency of any filter will vary according to the specific application parameters. Dust concentration, airflow, particle characteristics and pulse cleaning methods all affect filtration efficiency.

## TECHNICAL DATASHEET

### PowerCore® Filter Pack

VH



## POWERCORE VH FILTER PACK

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- Ultra-Web® Nanofibre filter media ensures longer filter life at reduced pressure drop.
- Surface filtration offers superior particle release during pulse cleaning.
- Fluted Construction packages more effective filter area in a smaller space.
- Easy filter changeout for quick maintenance – glide action support rail, no tools required.
- High filtration efficiency.

## BREAKTHROUGH TECHNOLOGY UNFOLDS

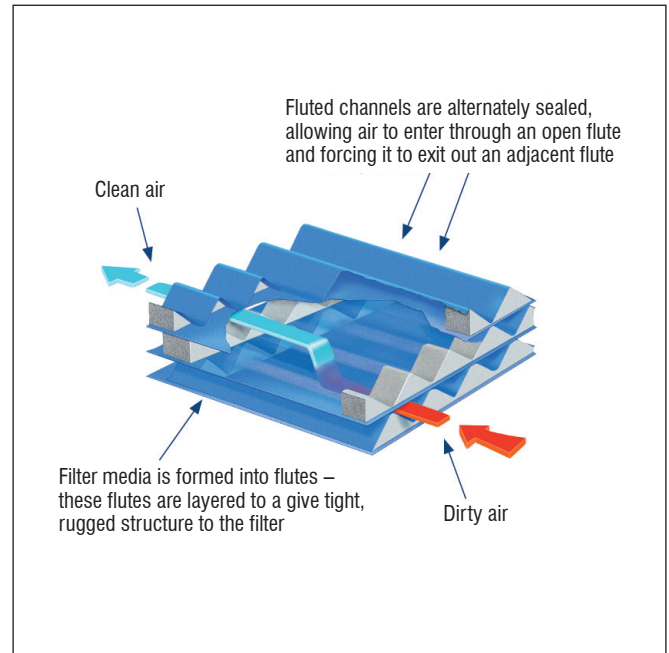
At the core is PowerCore® – the most innovative filtration technology from Donaldson. PowerCore® filter packs combine proprietary Ultra-Web® nanofibre technology with new media packaging expertise, creating a revolutionary filtration technology unlike anything else in the industrial filtration market.

## ULTRA-WEB® NANOFIBRE TECHNOLOGY

Proven and proprietary Ultra-Web® filter media delivers longer filter life, cleaner air and greater cost savings than other traditional filter media. It is made with an electrospinning process that produces a very fine, continuous, resilient fibre layer of 0.2 - 0.3 microns in diameter.

PowerCore® VH filter packs with Ultra-Web® media keep dust on the surface of the fluted channels where it is easily cleaned off unlike conventional depth loaded filter media.

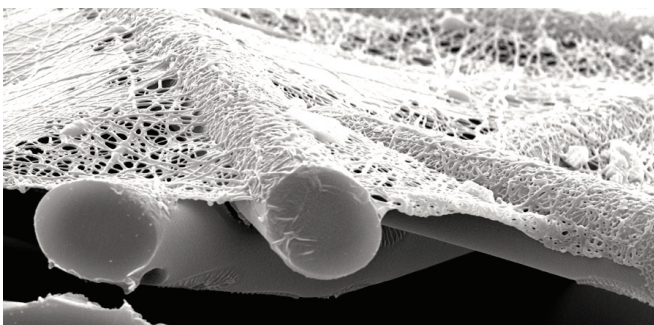
- Surface loading promotes efficient filter cleaning and longer life.
- Improved pulse cleaning lowers operational pressure drop and energy use.



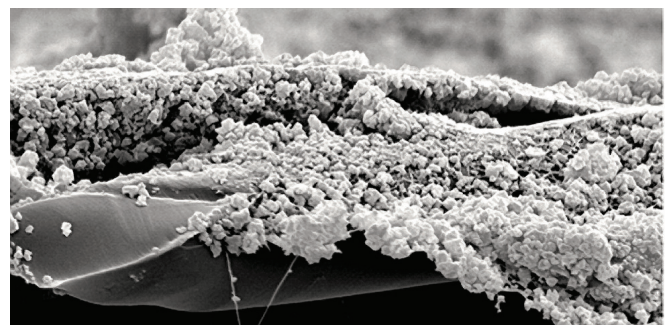
## APPLICATIONS

- Abrasive dust from metalworking and mining.
- Bulk handling.

## SEM IMAGES



Clean Ultra-Web Media



Surface-Loaded Ultra-Web Media  
(substrate still clean)

## MEDIA AND FILTER PACK SPECIFICATION

### MEDIA COMPOSITION

|                              |   |
|------------------------------|---|
| Nanofibre Surface Technology | Durable proprietary synthetic fibre<br>Mean fibre diameter of 0.2 - 0.3 $\mu\text{m}$ |
| Substrate                    | Proprietary blend of cellulose fibres<br>Flame retardant per DIN 53438 Part 3         |

### MEDIA COMPATIBILITY DATA

|                        |  |
|------------------------|--|
| Temperature Resistance | -40°C<br>+65°C   |
| Moisture Absorption    | Max. 14% at 21°C and 65% RH  |
| Chemical Tolerance     | Acids → Poor<br>Bases → Fair<br>Oxidants → Poor<br>Solvents → Fair |
| Abrasion Resistance    | Excellent  |


### MEDIA EFFICIENCY

|                      |                              |
|----------------------|------------------------------|
| US Efficiency Rating | MERV 13 per ASHRAE 52.2-2007 |
|----------------------|------------------------------|

### FILTER PACK CONSTRUCTION

|                       |  |
|-----------------------|--|
| Standard Construction | Rectangular design<br>Metal casing<br>Fluted media configuration<br>Unique seal arrangement<br>Integrated gliding handle |
|-----------------------|--|

### CURRENT AVAILABLE CONFIGURATION

|    |   |
|----|---|
| VH |  <p>A = 922 mm<br/>B = 424 mm<br/>C = 135 mm</p> |
|----|---|

## MOISTURE AND CHEMICAL TOLERANCE

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Environmental conditions involving combinations of high temperature, chemicals and moisture can alter fibre resistance, resulting in a reduction of media strength which may compromise filter integrity and performance.

## MINIMUM EFFICIENCY REPORTING VALUE (MERV)

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The Minimum Efficiency Reporting Value (MERV) of this filter has been determined through independent laboratory testing using ASHREA 52.2 (2007) test standards. The MERV rating was determined at a face velocity of 118 feet per minute and loading up to four inches water gauge. Actual efficiency of any filter will vary according to the specific application parameters. Dust concentration, airflow, particle characteristics and pulse cleaning methods all affect filtration efficiency.