



Donaldson
FILTRATION SOLUTIONS

TECHNICAL DATASHEET

PowerCore® Filter Pack

VH



PowerCore®
A Donaldson Filtration Technology

POWERCORE VH FILTER PACK

- 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

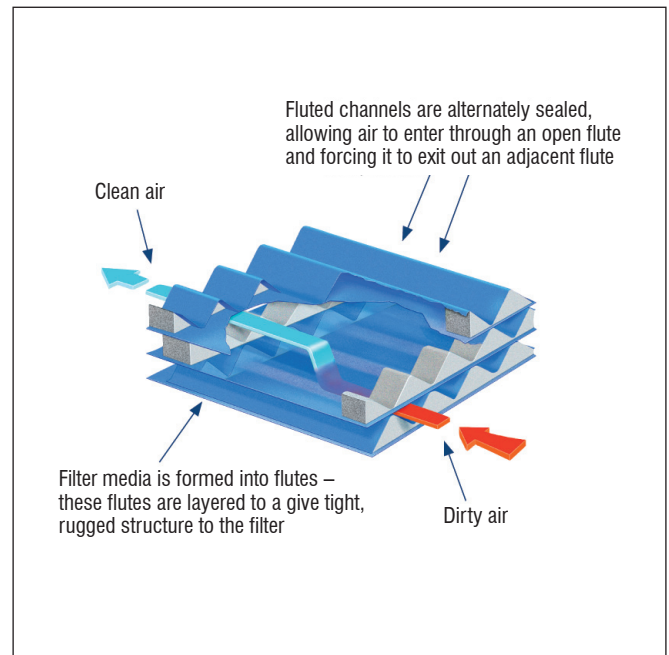
At the core is PowerCore® – the most innovative filtration technology from Donaldson. PowerCore® filter packs combine proprietary Ultra-Web® nanofibre technology with new media packaging expertise, creating a revolutionary filtration technology unlike anything else in the industrial filtration market.

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.

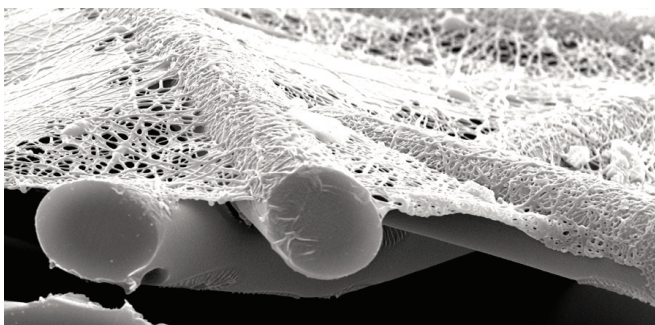
- Surface loading promotes efficient filter cleaning and longer life.
- Improved pulse cleaning lowers operational pressure drop and energy use.



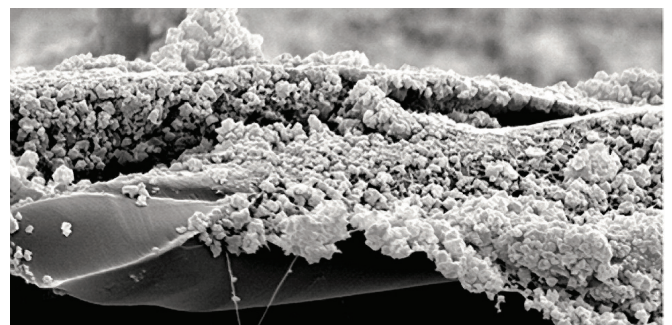
APPLICATIONS

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

SEM IMAGES

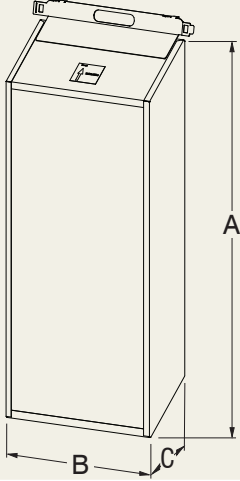


Clean Ultra-Web Media



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

MEDIA AND FILTER PACK SPECIFICATION

MEDIA COMPOSITION	
Nanofibre Surface Technology	Durable proprietary synthetic fibre Mean fibre diameter of 0.2 - 0.3 μm
Substrate	Proprietary blend of cellulose fibres Flame retardant per DIN 53438 Part 3
MEDIA COMPATIBILITY DATA	
Temperature Resistance	-40°C +65°C
Moisture Absorption	Max. 14% at 21°C and 65% RH
Chemical Tolerance	Acids → Poor Bases → Fair Oxidants → Poor Solvents → Fair
Abrasion Resistance	Excellent
MEDIA EFFICIENCY	
US Efficiency Rating	MERV 13 per ASHRAE 52.2-2007
FILTER PACK CONSTRUCTION	
Standard Construction	Rectangular design Metal casing Fluted media configuration Unique seal arrangement Integrated gliding handle
CURRENT AVAILABLE CONFIGURATION	
VH	 <p>A = 922 mm B = 424 mm C = 135 mm</p>

MOISTURE AND CHEMICAL TOLERANCE

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)

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.

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