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# *Nederman*



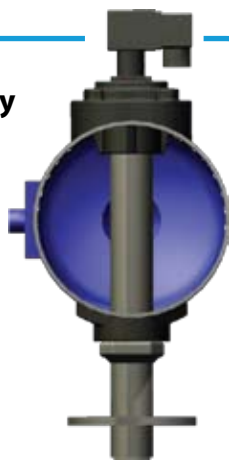
**FMC  
Cartridge Filter**

# The FMC200 (1,850-15,000 CFM)

The FMC200 Cartridge Filter is ideal for removal of fine dusts and fumes that can be irritating and harmful. It has a compact design and side removal of filter media for easy maintenance. The compact design can accommodate two sizes of filter elements (standard and long) to fit into spaces where height and or footprint constraints exist.

## Immersion Valve Technology (IVT)

Increases peak pressure and flow with lower air consumption compared to traditional valves.



## The UniClean Cartridge

The UniClean cartridge was designed with the purpose of increasing the effective cleaning pressure within the cartridge and equalizing its effect over the complete length of the cartridge.

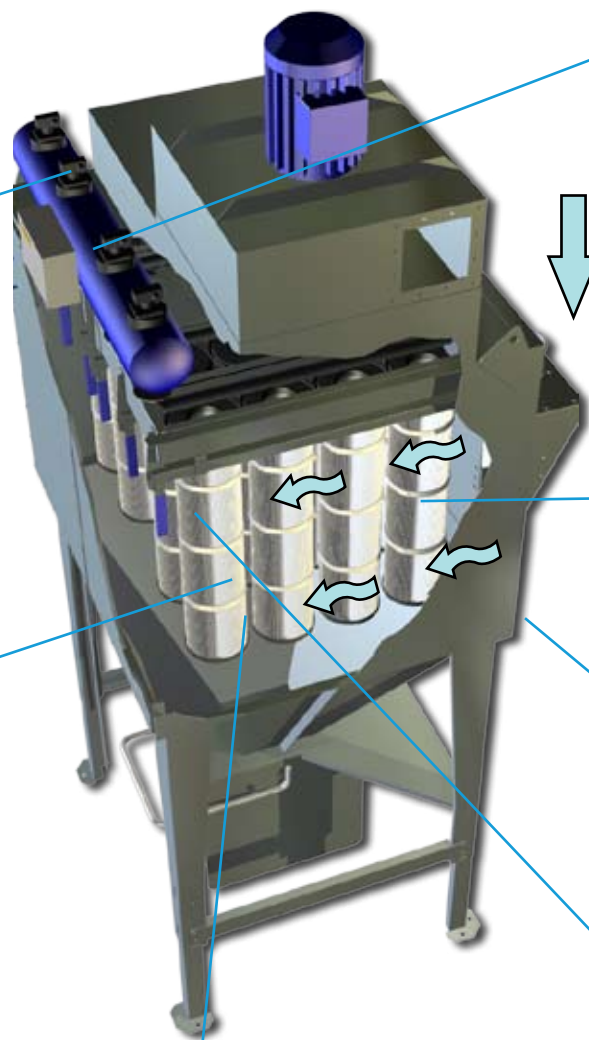
The UniClean device is a simple but very effective component integrated into the construction of the cartridge element.



**Lasts TWICE as long as competitor cartridges!**

### Benefits:

- Higher internal cleaning pressure reduces cleaning requirement and thus compressed air consumption, increasing cartridge life.
- Uniform cleaning of complete cartridge increases effective filter area and reduces differential pressure, saving fan power and energy costs.
- Lower compressed air pressure requirement; increased cartridge life.



**New Nano-Fiber (CA178) with MERV 15 Rating!**



Optimized Perimeter Velocity and wide pleat cartridge handle tough dust applications

**Patented UniClean Cartridges and Immersion Valve Technology Minimize Filter Replacement**

# The FMC200 (1,850-15,000 CFM)



NF-HD controller: Delta-P functionality minimizes operational costs.  
LED Screen: displays pressure drop and alarm messages.  
Programmable for four different stop down cleaning modes and time message for maintenance interval



Efficient Cross Flow Design and Vertical Cartridges reduce pressure drop



Robust Galvanized Finish



Camlock side access removal provides easy service and maintenance

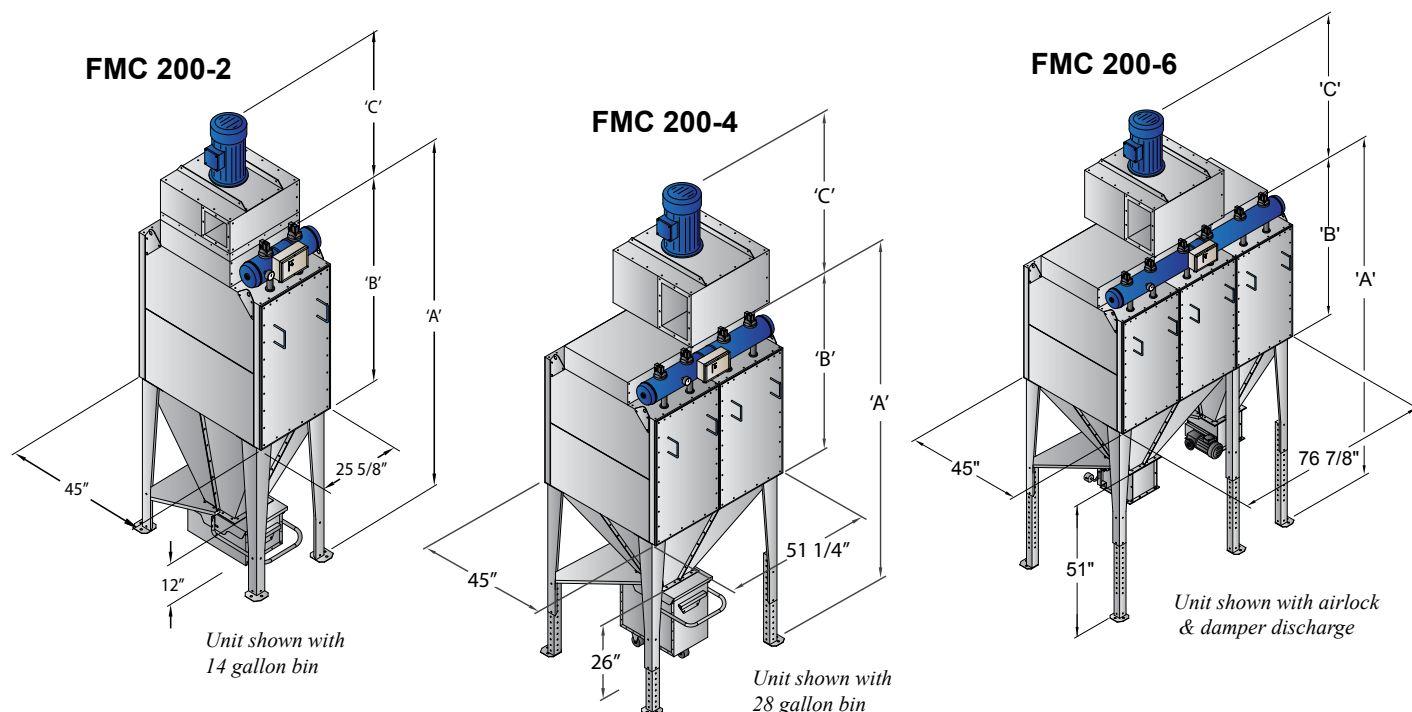
## Technical Parameters:

- **Standard cartridge in polyester**  
CA100:5g/m3 max. of fine or coarse dusts
- **Construction: Galvanized (Powder Coat Optional)**
- **Maximum working temp 167°F**
- **Max Dust Load: Polyester Spun**  
Bond – 5 g/m2, Cellulose – 1 g/m2
- **Standard Door Type: Bolted (Hinged Optional)**
- **Controller: NFHD Delta-P**
- **Inlet: Cross Flow with Solid Deflector Plate**
- **Air inlet part fitted with a deflector plate**
- **Compressed Air Cleaning System: 1" Dia. NPT, (Max. 6 bar)**
- **Explosion Vent Kits: ST1, ST2, and ST3 (contact us for ST3)**
- **Max. negative pressure: 16" wg**
- **Max. normal over pressure: 6" wg**
- **Optional Inlet and Outlet Adapters: 6", 10", 12", 16", 20", 22" Diameters**
- **Inlet and Outlet Adapter Connection Type: Raw, QF, and Flanged**

## Typical Applications:

Shot Blasting  
Sand Blasting  
Meal Grinding  
Welding Smoke / Fumes  
Plasma / Laser Cutting  
Thermal Spray  
Nuisance Dust Ventilation  
Paper Scrap Systems  
Recycling Operations  
Grain / Agriculture  
Powder and Bulk Materials  
Pharmaceutical  
Chemical Processing  
Powder Painting and Pigment

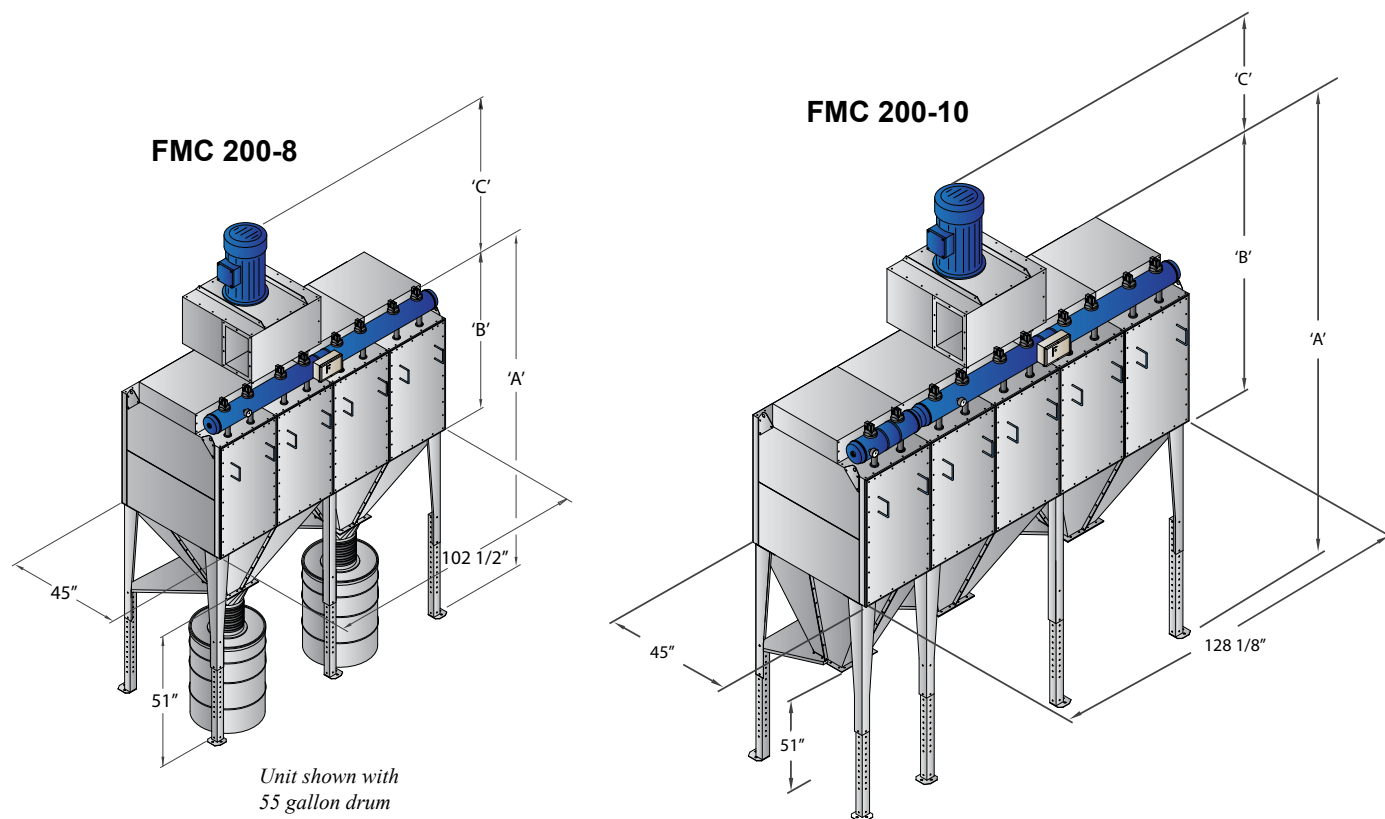
# Unit Specifications



MODEL NUMBER	NO. OF CATRIDGES AND TYPE	FILTER MEDIA (ft <sup>2</sup> )	MAX AIR VOLUME (cfm)	'A1' With small bin (14gal.)	'A2' With large bin (28gal.)	'A3' With large drum (55gal.) or air-lock	'B'	'C'	STANDARD FAN ARRGT.	WEIGHT FILTER & FAN (lbs)
<b>FMC200-2L</b>	8 POLYESTER	344	1850	96.375"	110.5"	135.5"	51.5"	27"	FM 620 5 HP	800
	8 CELLULOSE	775								
<b>FMC200-2A</b>	8 POLYESTER	570	3100	117.75"	131.5"	157"	73"	27"	FM 625 7.5 HP	1,000
	8 CELLULOSE	1249								
<b>FMC200-4L</b>	16 POLYESTER	689	3700	96.375"	110.5"	135.5"	51.5"	38"	FM 825 10 HP	1,300
	16 CELLULOSE	1550								
<b>FMC200-4A</b>	16 POLYESTER	1140	6200	117.75"	131.5"	157"	73"	43"	FM 831 20 HP	1,500
	16 CELLULOSE	2497								
<b>FMC200-6L</b>	24 POLYESTER	1,033	5,500	96.375"	110.5"	135.5"	51.5"	43"	FM 828 15 HP	2,000
	24 CELLULOSE	2,325								
<b>FMC200-6A</b>	24 POLYESTER	1,711	9,200	117.75"	131.5"	157"	73"	43"	2 x FM 828 2 x 15 HP	2,400
	24 CELLULOSE	3,745								

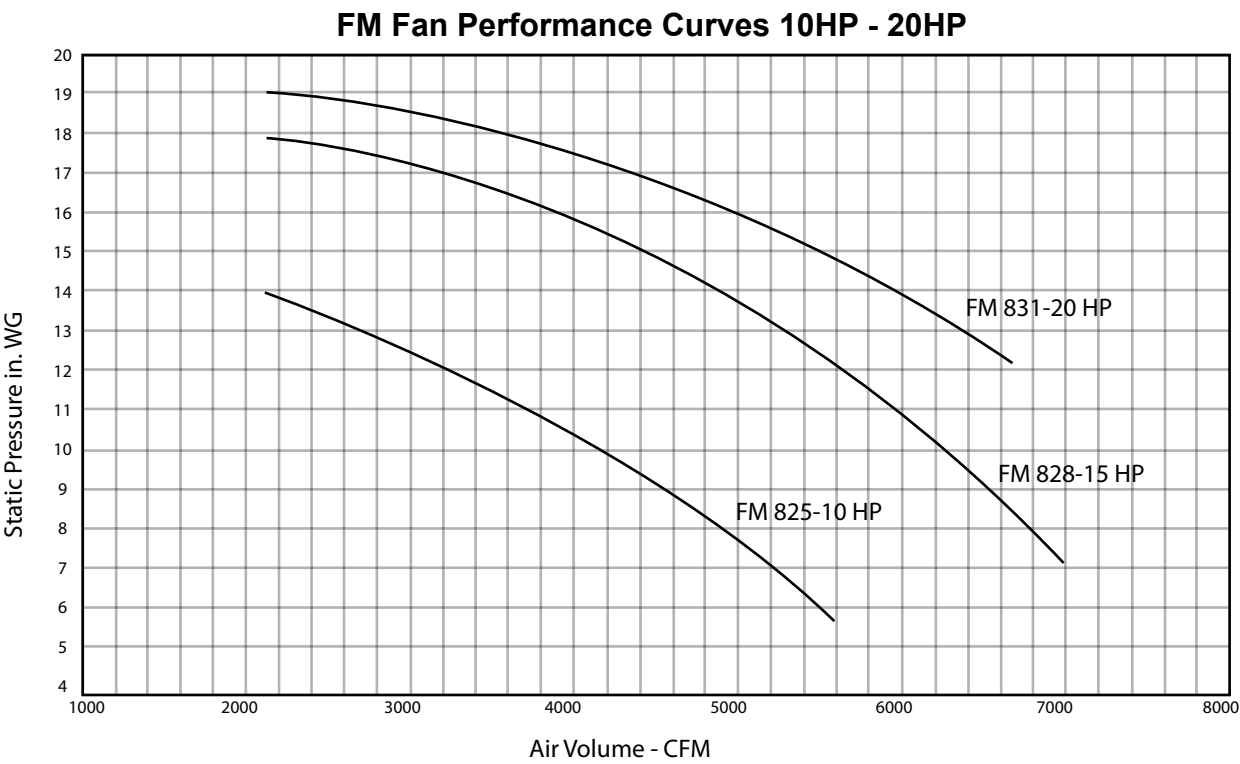
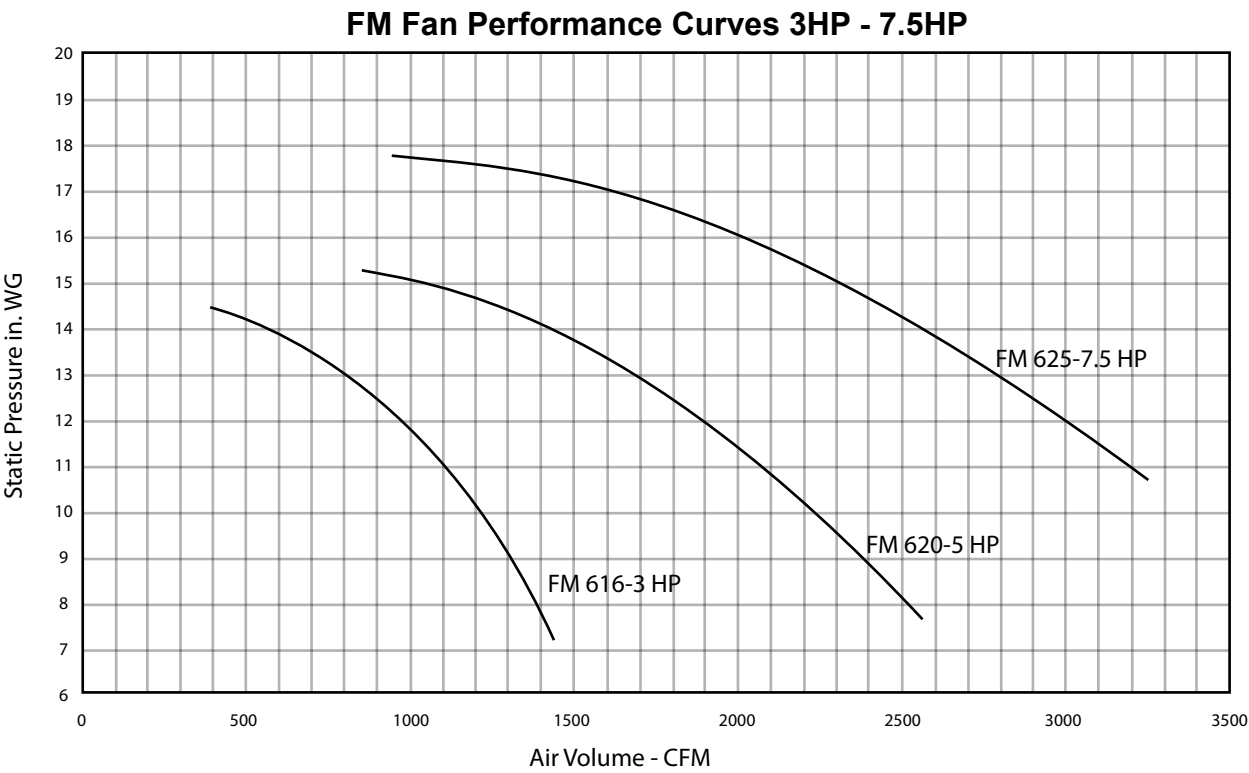


# Unit Specifications



MODEL NUMBER	NO. OF CARTRIDGES AND TYPE	FILTER MEDIA (ft²)	MAX AIR VOLUME (cfm)	'A1' With small bin (14gal.)	'A2' With large bin (28gal.)	'A3' With large drum (55gal.) or air-lock	'B'	'C'	STANDARD FAN ARRGT.	WEIGHT FILTER & FAN (lbs)
<b>FMC200-8L</b>	32 POLYESTER	1,378	7,400	96.375"	110.5"	135.5"	51.5"	38"	2 x FM 825 2 x 10 HP	2,500
	32 CELLULOSE	3,100								
<b>FMC200-8A</b>	32 POLYESTER	2,282	12,300	117.75"	131.5"	157"	73"	43"	2 x FM 831 2 x 20 HP	3,200
	32 CELLULOSE	4,994								
<b>FMC200-10L</b>	40 POLYESTER	1,723	9,250	96.375"	110.5"	135.5"	51.5"	43"	2 x FM 828 2 x 15 HP	3,400
	40 CELLULOSE	3,875								
<b>FMC200-10A</b>	40 POLYESTER	2,853	15,350	117.75"	131.5"	157"	73"	43"	2 x FM 831 2 x 20 HP	4,200
	40 CELLULOSE	6,243								

# FMC Fan Curves



# FMC Options



14 gallon quick release bin



28 gallon quick release bin with wheels



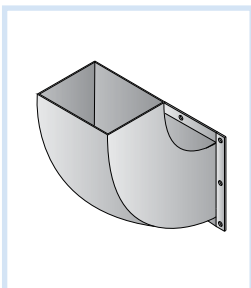
NRS3 rotory air-lock



NFSU3 counter balanced dump valve



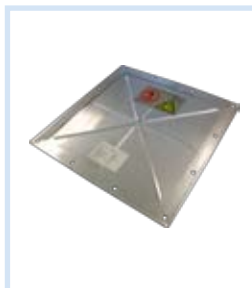
Fan outlet transition



Fan outlet elbow



Silencer



Explosion panel



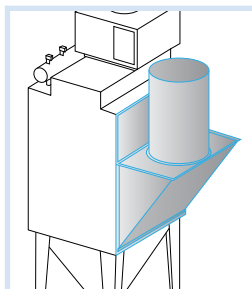
Fan outlet damper



55 gallon drum assembly



CARZ Explosion Isolation Flap



Backpack



Hoerbiger Flameless Vent



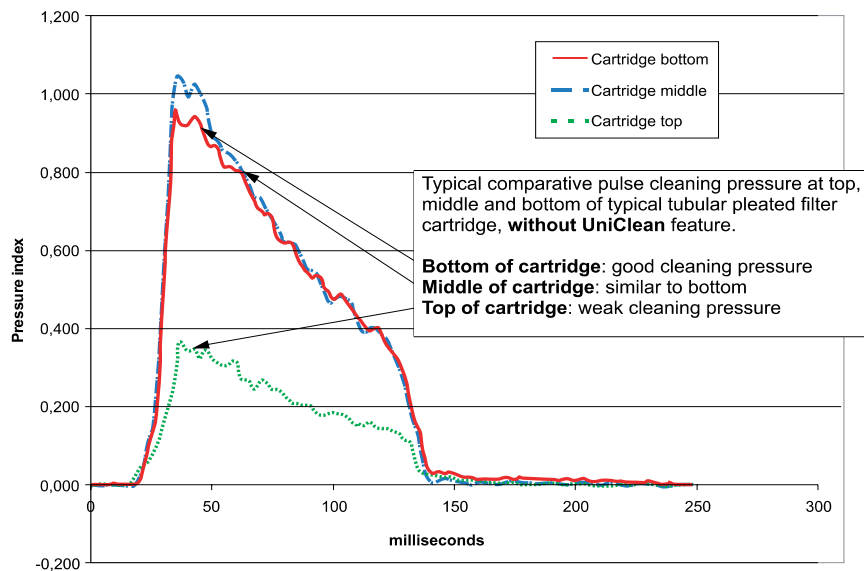
Smartflow System



Firetrace

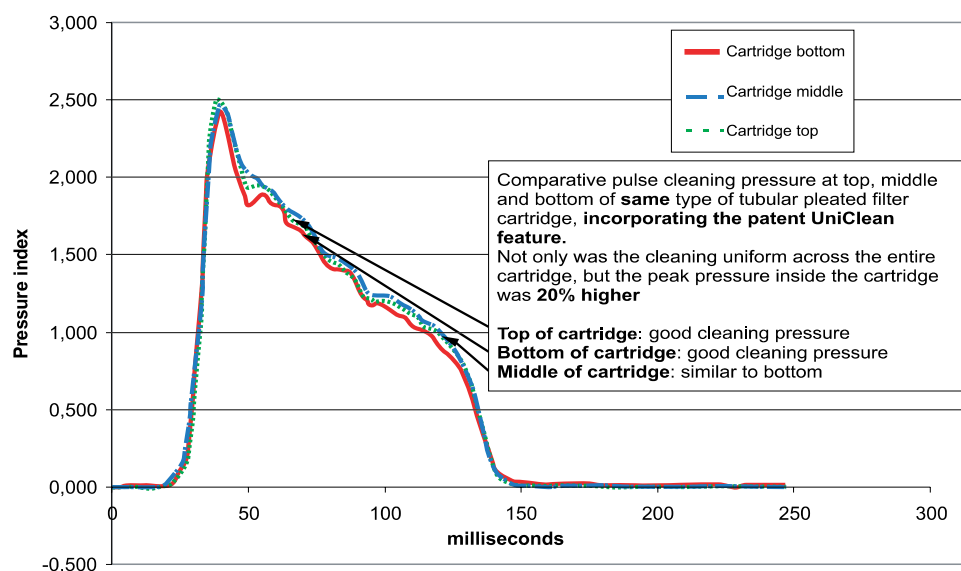
# UniClean Cartridge Benefits

The **UniClean** cartridge was the result of an exhaustive design project with the purpose of increasing the effective cleaning pressure within the cartridge and equalizing its effect over the complete length of the cartridge. The **UniClean** device is a simple but very effective component integrated into the construction of the cartridge element.



**4m<sup>2</sup> ø200 dust loaded Conventional Cartridge**

## Benefits achieved by this patented invention.



**4m<sup>2</sup> ø200 dust loaded UniClean Cartridge**

- Higher internal cleaning pressure reduces cleaning requirement and thus compressed air consumption, increasing cartridge life.
- Uniform cleaning of complete cartridge increases effective filter area and reduces differential pressure, saving fan power and energy costs.
- Lower compressed air pressure requirement; increased cartridge life



# The Nederman Advantage

All Dantherm Filtration cartridge collectors utilize the patented **UniClean** design to offer customers one of the longest life and most efficient cartridges on the market today.

This brochure provides datasheets for the wide array of media offerings to meet the most demanding dust applications along with technical discussions about the important features of each of the cartridge offerings.

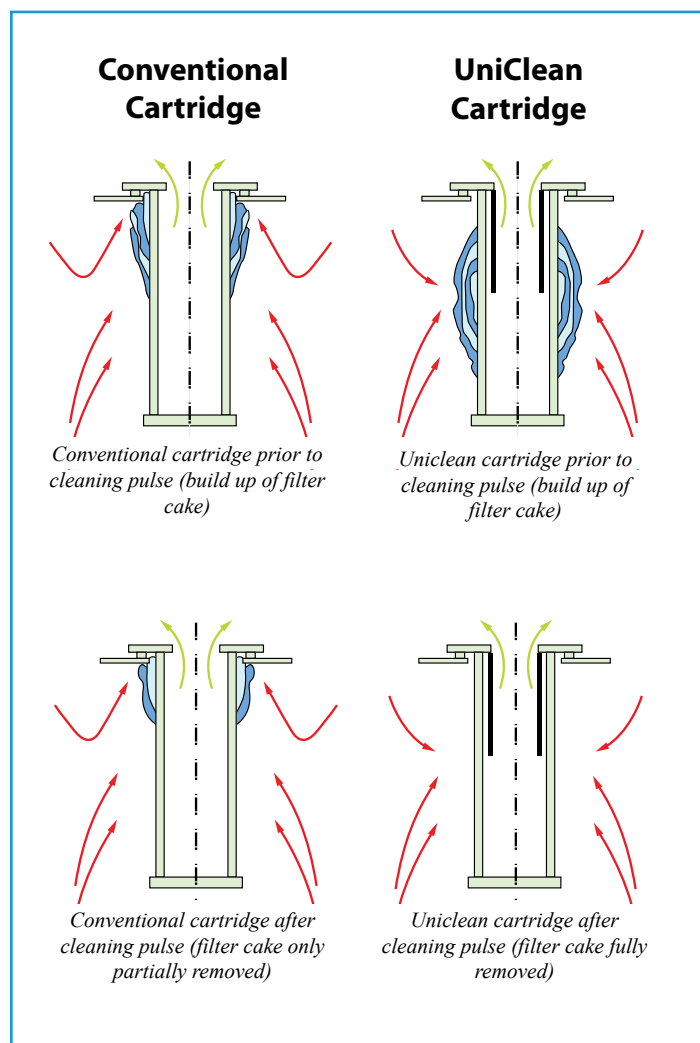
These cartridges are offered in our:

FM (modular style side entry collector),

MJ (welded outdoor top entry collector), and

SILOSAFE (silo vent top entry bin collector).

Please refer to the respective product brochure to see how the UNICLEAN cartridge is utilized.



## Cartridges

### CA100

Spun bonded polyester

### CA105

Spun bonded polyester with moisture treatment

### CA140

Spun bonded polyester with anti-static treatment

### CA190

Spun bonded polyester with PTFE coating

### CA198

PTFE membrane media

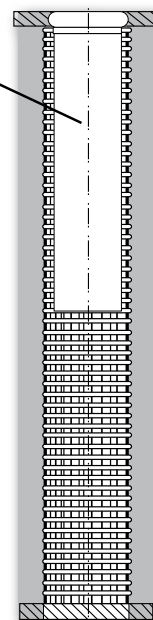
### CA175

80/20 Cellulose with flame retardant

### CA178

80/20 Cellulose with melt blown NANO fiber and flame retardant

Patented  
UniClean  
insert



## The UniClean Cartridge

The UniClean cartridge was the result of an exhaustive design project with the purpose of increasing the effective cleaning pressure within the cartridge and equalizing its effect over the complete length of the cartridge. The UniClean device is a simple but very effective component integrated into the construction of the cartridge element.

## UniClean Benefits:

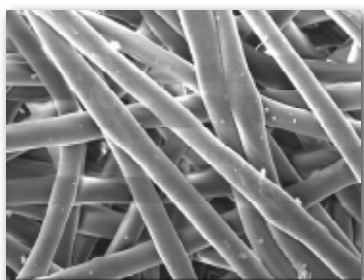
- Higher internal cleaning pressure reduces cleaning requirement and thus compressed air consumption, increasing cartridge life.
- Uniform cleaning of complete cartridge increases effective filter area and reduces differential pressure, saving fan power and energy costs.
- Lower compressed air pressure requirement; increased cartridge life.

# CA-100 Filter Cartridge

**Heavy-Duty Polyester Spunbonded nonwoven filter media at 260 g/m<sup>2</sup>**

## Common Applications

- Chemical Processes
- Pharmaceutical
- Pigment
- Powder Coating
- Plastics and Catalysts
- Food Processes
- Mineral Processes
- Metal Processes



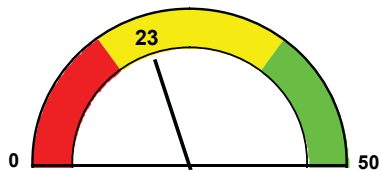
Basis Weight 160 lbs/300 ft<sup>2</sup>

*CA-100 is a high-strength, 100% synthetic spunbonded media with excellent durability, particulate release and moisture resistance. Continuous operating temp 275°F*



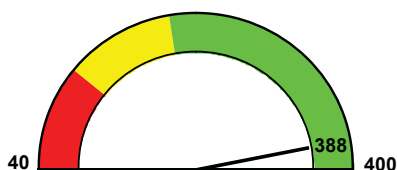
## CA-100 Media Performance

### Frazier Permeability - CFM



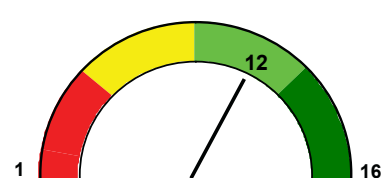
Permeability of 23 is moderate. The higher the permeability, the greater the airflow and throughput. Higher airflow leads to decreased energy costs.

### Strength - Mullen Burst (Dry) PSI



Dry Mullen of 388 PSI is extremely high for dust filtration applications. The higher the mullen burst, the stronger the media. Strength in media leads to longer filter life.

### Ashrae 52.2 "MERV"



Test results on a common cartridge configuration. Initial efficiency is moderate for below 3 microns, but should be only one of many factors to be considered when choosing the optimum media for your application.

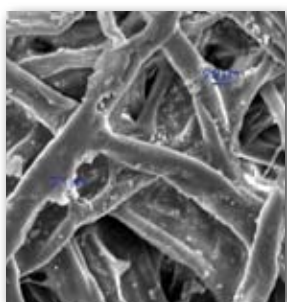
# CA-175 Filter Cartridge

**Blended cellulose/synthetic fiber paper, non-phenolic resin system with fire retardant material applied**

## Common Applications

- Laser Cutting
- Metal Spray
- Metal Grinding
- Polishing
- Textiles
- Tobacco
- Wood Working
- Welding

*CA175 is an excellent grade of paper which is suitable for most applications. It is moisture resistant and has fire retardant properties **compliant with NFPA701 and TAPPI T-461.** Continuous operating temperature 200°F*

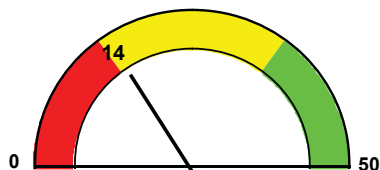


Basis Weight 87 lbs/300 ft²



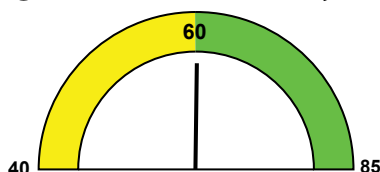
## CA-175 Media Performance

### Frazier Permeability - CFM



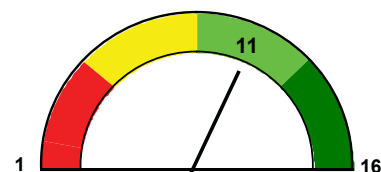
Permeability of 14 is moderate. The higher the permeability, the greater the airflow and throughput. Higher airflow leads to decreased energy costs.

### Strength - Mullen Burst (Dry) PSI



Dry Mullen of 60 PSI is moderate/high for dust filtration applications. The higher the mullen burst, the stronger the media. Strength in media leads to longer filter life.

### Ashrae 52.2 "MERV"



Test results on a pleated/panel configuration. Initial efficiency is moderate for below 3 microns, but should be only one of many factors to be considered when choosing the optimum media for your application.

# CA-140 Filter Cartridge

**Static dissipating heavy-duty polyester spunbonded nonwoven filter media at 260 g/m<sup>2</sup>**

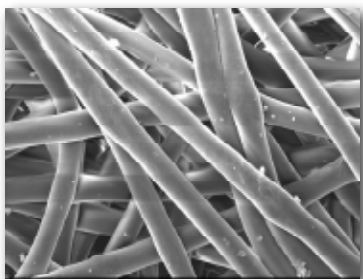
## Common Applications

- Chemical Processes
- Pharmaceutical
- Pigment
- Plastics and Catalysts
- Mineral Processes
- Finish Mill

*CA-140 is a high-strength, 100% synthetic spunbonded media with excellent durability, particulate release and moisture resistance. Contains an aluminized anti-static surface.*

*Continuous operating temperature is 275°F.*

*Meets NFPA 77 regulations.*

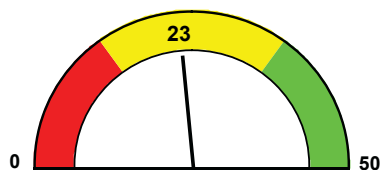


*Basis Weight 160 lbs/300 ft<sup>2</sup>*



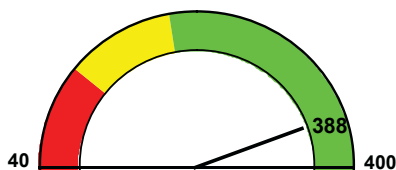
## CA-140 Media Performance

### Frazier Permeability - CFM



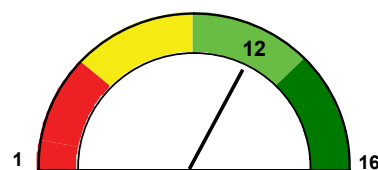
Permeability of 23 is moderate. The higher the permeability, the greater the airflow and throughput. Higher airflow leads to decreased energy costs.

### Strength - Mullen Burst (Dry) PSI



Dry Mullen of 388 PSI is extremely high for dust filtration applications. The higher the mullen burst, the stronger the media. Strength in media leads to longer filter life.

### Ashrae 52.2 "MERV"



Test results on a common cartridge configuration. Initial efficiency is moderate for below 3 microns, but should be only one of many factors to be considered when choosing the optimum media for your application.

# CA-178 Filter Cartridge

**Blended paper with melt-blown nano-fiber and micro-fiber efficiency layer with fire retardant material applied**

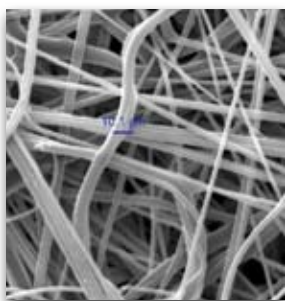
## Common Applications

- Gas Turbine Inlet Filter
- Mineral Processes
- Dry Chemical Processes
- Fiberglass
- Paper Dust
- Weld Smoke Fume
- Powder Coating
- Shot Blast

*CA-178 is a high efficiency, fire-retardant paper grade.*

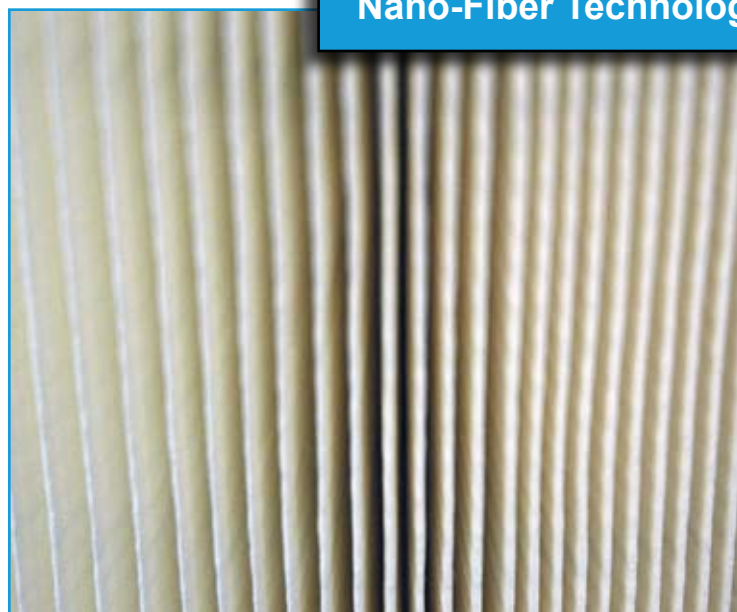
*Certified to meet NFPA701 and TAPPI T-461*

*Fire Retardant Requirements*



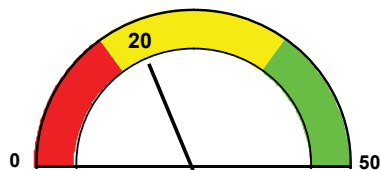
*Basis Weight 108 lbs/300 ft²*

**Nano-Fiber Technology!**



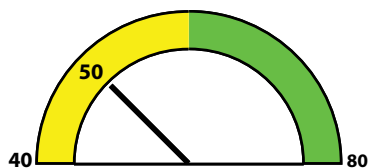
## CA-178 Media Performance

### Frazier Permeability - CFM



Permeability of 20 is excellent for paper media. The higher the permeability, the greater the airflow and throughput. Higher airflow leads to decreased energy costs.

### Strength - Mullen Burst (Dry) PSI



Dry Mullen of 50 PSI is moderate for dust filtration applications. The higher the mullen burst, the stronger the media. Strength in media leads to longer filter life.

### Ashrae 52.2 "MERV"



Test results on a common cartridge configuration. Initial efficiency is excellent for below 1 micron. Once the cartridge achieves a proper dust cake, the efficiency will increase. MERV should only be one of many factors in choosing the optimum media for your application.



# Installations



**Metal Fabricating Welding Fumes**



**Plastic Composites Dust**



**Metal Fabricating Welding Fumes**



**Polishing/Grinding Brass Castings Dust**



**Flour, Starch, and Garlic Dust from Mixers**



**Rubber Refacing Process Dust**



## Installations



**Fugitive Dust from Paper Shredding**



**Fume Extraction from Laser Cutting**



**Shot Blasting Steel Casting Dust**



**Fume Extraction from Plasma Cutting**



**Steel Grinding Process Dust**



**Composite Grinding Dust**

# Bringing superior conditions to the workplace and the environment

For more than 60 years Nederman has developed, manufactured and marketed products and system solutions to reduce the strain on the environment and improve working conditions in numerous industries.

Our products and systems have been ground-breaking in industries such as Machining, Metal Fabrication, Automotive, Composite Manufacturing, Food, Paper, Chemical, Pharmaceutical and many others.

Today companies all over the world are using equipment from Nederman.



**Nederman LLC**  
102 Transit Ave  
Thomasville NC, 27360  
800-533-5286

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**ISO**  
9001:2008  
14001:2004

# Nederman

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