

# DELTA MAXX™

## PRIME

PATENT 11,857,905





**To improve the health,  
safety, and quality of  
peoples live by building  
the best dust and fume  
collectors on Earth**

**IMPERIAL SYSTEMS, INC.**

**B R E A T H E   B E T T E R ,   W O R K   S A F E R**

# DELTA MAXX<sup>TM</sup>

## PRIME

MOST ADVANCED CARTRIDGE FILTER

### SURE STOP SYSTEM

Ensures filters are installed properly

### UNIQUE PAN SHAPE

Prevents filter ramping for safety

### DOUBLE GASKET

Double layer of protection to ensure a good seal

### COMPLETELY GROUNDED

Filters are grounded to the dust collector

### 400sq. ft. OF MEDIA

More media than leading filter competitors

### OVAL DESIGN

Oval design maximizes surface area

The DeltaMAXX Prime cartridge filter is available exclusively for Imperial Systems dust collection units. This patented design offers a new level of safety and performance. Our Nanofiber material already sets the standard for high efficiency filtration and long filter life.

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# FIRE RETARDANT FILTERS

## WHAT MAKES A FILTER FIRE RETARDANT?

To make our FR filters, the filter media runs through a bath of a special coating. After its dipped in this solution, the media dries and then gets pleated and made into filters. This process makes sure that the fire retardant coating completely covers all of the filter media.

As you can see in our test photos below, our FR filters resist fire even when a flame is applied directly to it. If they can stand up to this treatment, you can be confident that they will resist sparks and fire in your application.

## FIRE-RETARDANT OR REGULAR NANOFIBER?

Not all applications require an FR filter.

Some applications where FR is recommended:

- Any type of metal dust or fume
- Any process that generates sparks
- Any dust that is highly combustible

As you can see below, a filter without the FR coating won't hold up very well when exposed to flame:



## DUST COLLECTOR FIRES

Dust collector fires happen all the time. Our service team has been on-site in the aftermath of these fires, and what they pull out of the collector is this: burned-up filters that fueled the fire instead of controlling it. Burning filters inside your collector doesn't just waste a set of filters; you can have serious (and expensive) damage to your collector. As you can see in our test, a spark or flame that gets into a collector has less of a chance with FR filters getting them to burn. FR filters help stop a collector fire instead of acting as fuel.



# UP TO TWICE THE FILTER LIFE

## Most Advanced Nanofiber Technology

The Nanofiber surface stops sub-micron particles from entering and becoming embedded into the media beneath the Nanofiber

## Reduced Dust Collector Operational Costs

## Lower Operational Mass Emissions

## Less Pulse Cleaning

Dust is easily pulsed off of the Nanofiber media because it remains on the surface

## Industry's Best Surface Loading Technology

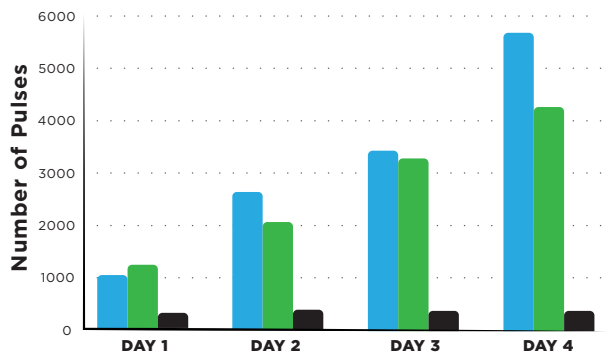
Enhances dust cake release, leading to longer filter life

Nanofiber  
2000x  
Zoom

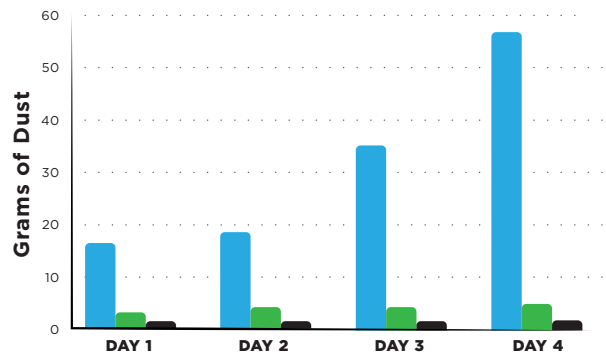


# FILTER EFFICIENCY

THE LESS PLUSES THE BETTER



THE LESS EMISSIONS THE BETTER



● Cellulose Blend ● Meltblown ● Nanofiber

## SUMMARY OF RESULTS

Emissions	Cellulose Blend	Melt Blown	Nanofiber	
Total Emissions	126,735	11,825	2,560	mg
Average Emissions/Hour	1,320	123	27	mg/hour
Emissions Before 1 <sup>st</sup> Pulse	185	10	10	mg
Average Emission/Pulse	9.84	1.09	1.65	mg/pulse
<b>Pulse Cleaning</b>				
Time to First Pulse	1:40	1:07	1:01	hours
Total Number of Pulses	12,861	10,874	1,545	pulses
Average Pulses/Hour	134	113	16	pulses

# CARTRIDGE MEDIA MATERIAL

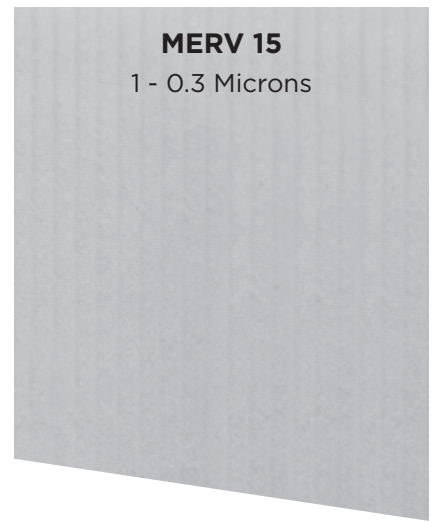
80/20 CELLULOSE/  
POLYESTER



8 oz SPUNBOND  
POLYESTER



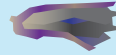
NANOFIBER



Human Hair Thickness  
= 80-100 Microns



Pollen  
= 30 Microns



Household Dust  
= 10 Microns



Pet Dander  
= 5 Microns



Weld Fume Particle  
= 1 Micron

40 Microns

Invisible to the human eye

0.3 Microns



## FILTER SERVICE & TROUBLESHOOTING

- System Inspection
- Cartridge Filter Change-out
- Baghouse Filter Change-out
- Preventative Maintenance
- System Balance
- Dye Testing

## INSPECTION

There's a major advantage to having professionals do your filter changes for you. Our ServiceMAXX team doesn't just change filters. They also inspect them, check for leaks or other problems, conduct dye testing, and make sure your system is working properly. Having the ServiceMAXX team change your filters means that if there is a problem, you've already got exactly the right people there to identify it and fix it.



Our goal has always been not just to settle for what works, but to strive for constant improvement and innovation. Imperial Filtration was born out of the necessity for a better quality filter. For years, Imperial Systems has put time and care into making the best dust & fume collector on earth, and now that same quality is seen in Imperial Filtration cartridge filters.

Imperial Filtration replacement dust collector filter cartridges are made for all brands of dust collectors, including but not limited to:

**Donaldson Torit**

**Farr APC**

**Robovent**

**Lincoln Electric**

**Messer**

**AAF**

**UAS**

**Airflow Systems**

**Flex-Kleen**

**MAC**

**Micro Air**

**Pneumafil**

**Sly**

**Steelcraft**

**Trion**

**Avani**

**Plymovent**

**& more...**



**BREATHE BETTER, WORK SAFER**

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