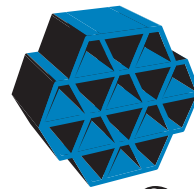


# Torit® PowerCore™ Dust Collectors

*Featuring Award Winning*



**PowerCore®**  
A DONALDSON FILTRATION TECHNOLOGY



# Torit® PowerCore™

## Changing the World of Dust Collection

The new Torit® PowerCore™ dust collection technology from Donaldson® Torit® outperforms every traditional baghouse collector and does so in less space. In one extremely small but powerful package, the Torit PowerCore dust collector handles high airflow, high grain loading, challenging particulate, and fits into the smallest places. The filter changeout process is easy, quick, and astoundingly clean compared to traditional filter bags.

Innovative Torit PowerCore dust collectors combine award-winning PowerCore Filter Pacs with a new and patented compact oblique pulse cleaning system, delivering high filtration efficiencies not usually found in baghouse filtration.

*Up to  
50% Smaller  
than traditional baghouses*

### Torit PowerCore:

- **Smaller**
- **Cleaner**
- **Easier**
- **Better**
- **Cost Effective**



Torit PowerCore CPC-12  
vs. Traditional (81) 8-foot filter Baghouse

## Outperforms All Other Baghouses

Today's streamlined and lean manufacturing facilities demand peak performance in the smallest spaces. Torit PowerCore space-saving dust collectors are available as stand-alone models that can be ducted to many different applications, and bin vent models used on silos, conveyor transfer points, conveyor discharges, blenders and mixers.

Compared to conventional baghouse collectors with similar airflow capacity, Torit PowerCore CPC dust collectors (as shown on previous page) are up to 50% shorter. The comparison to traditional bag bin vents is even more dramatic. CPV bin vent collectors are almost 70% shorter than any bag bin vent and solve minimal space requirements.

- **Smaller** footprints use less floor space and fit into the tightest spaces.
- **Cleaner** in two ways. Replacing PowerCore Filter Pacs is a remarkably clean process. PowerCore Filter Pacs with Ultra-Web® technology provide higher efficiency and cleaner air.
- **Easier** clean-side filter access makes filter changes easy without any tools.
- **Better** because no confined-space permits are needed. Torit PowerCore dust collectors come with a **10-year warranty**.
- **Cost Effective** innovative PowerCore filtration technology stands for reduced freight costs, lower installation costs, fewer filter changeouts, and lower maintenance costs.

*Up to*  
**70% Smaller**  
*than traditional bag bin vents*



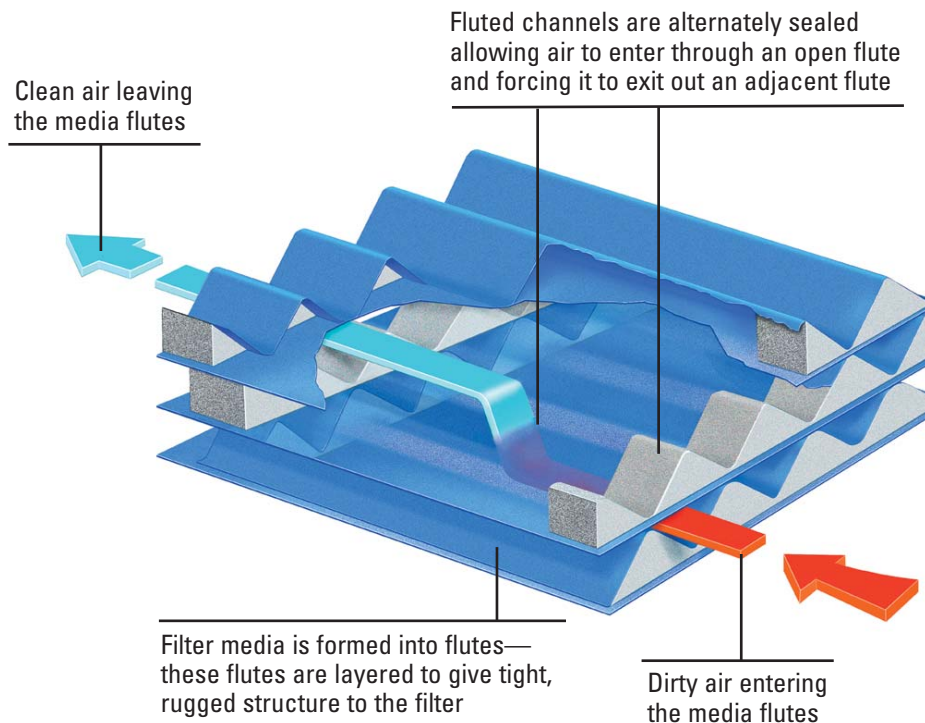
Torit PowerCore CPV-3  
vs. Traditional Bin Vent

# Torit® PowerCore™

## Breakthrough Technology Unfolds

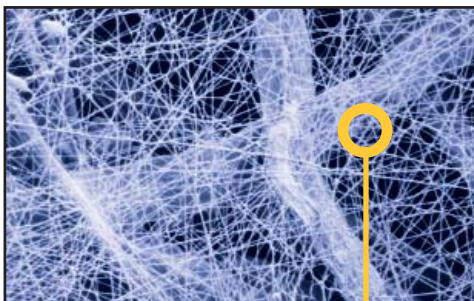
### *Leading the Way with PowerCore*

**At the core is PowerCore**—The most innovative filtration technology from Donaldson Torit. PowerCore Filter Pacs combine patented Ultra-Web® nanofiber technology with new media packaging expertise, creating a revolutionary filtration technology unlike anything else in the industrial filtration market.

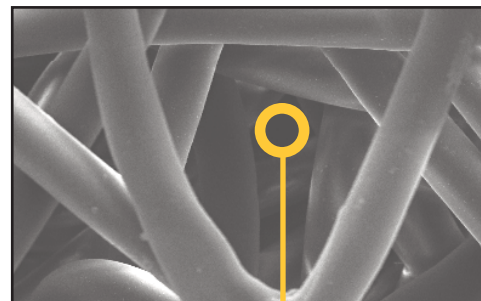


**High Performance Filter Pacs** A dramatic departure from traditional filter bags, PowerCore Filter Pac's obround shape, in conjunction with patented Ultra-Web media, trap more dust on the surface of the media flutes—down to submicron in size—than conventional filter bag materials such as depth-loading 16 oz. polyester. Surface loading greatly promotes filter cleaning. Better pulse cleaning lowers pressure drop and energy use.

Ultra-Web Nanofiber Technology



16 oz. Polyester

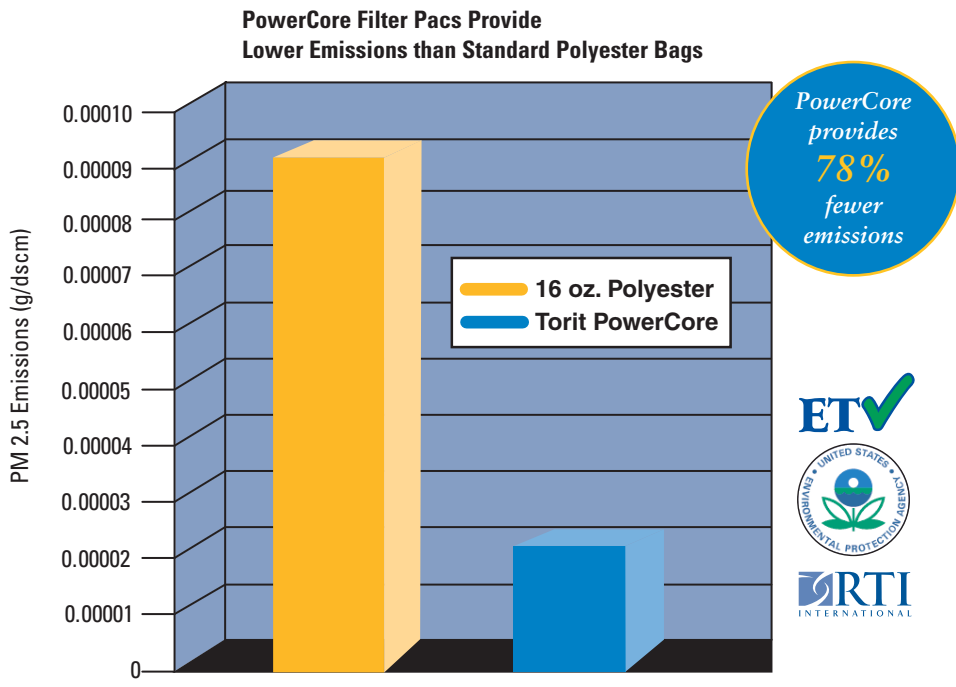


10 Micron  
Particulate  
At 600X

## PowerCore Filter Pacs

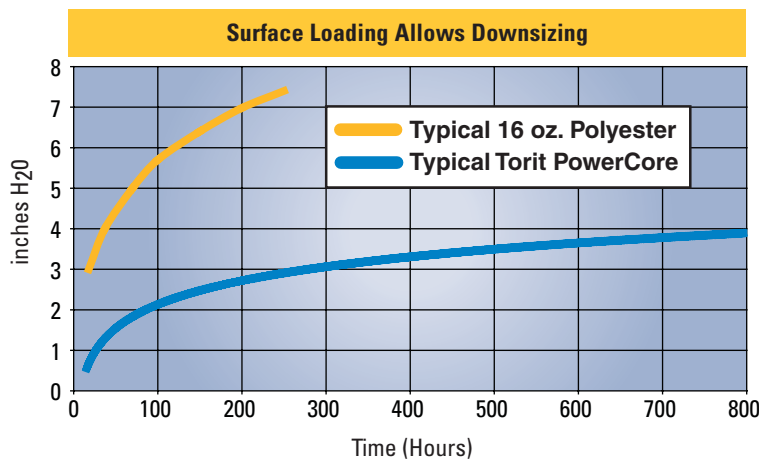
*Engineered to Perfection*

**Patented Technology That Performs** For more than two decades, Donaldson Torit has advanced Ultra-Web technology to deliver high efficiency filter media that lasts. PowerCore Filter Pacs with Ultra-Web are engineered to perfection, balancing high efficiencies with long filter life.



These flat sheet results are based on independent lab tests using ASTM D 6830-02 per EPA PM 2.5 performance verification from the Environmental Technology Verification (ETV) Program comparing PowerCore media from standard 16 oz. polyester.

**Easy on the Budget** Pressure drop starts high and rises quickly with traditional depth-loading filter bags, resulting most often in excessive energy use. The surface loading technology of Ultra-Web is scientifically proven to provide lower operating pressure drop over a longer period of time, and energy costs can be dramatically lower.



The results from accelerated lab and field tests show that Torit PowerCore can provide lower pressure drop in baghouse applications.

For space-saving proven technology that delivers energy, maintenance and filter cost savings, there's only one solution—Torit PowerCore.

# Torit® PowerCore™

## Changing Expectations

*Smaller, Better, Easier*

**Count on Significant Savings** Now you can significantly lower your cost of dust collection. An application requiring (81) 8-foot filter bags in the past now only need (12) 7-inch-tall PowerCore Filter Pacs. Fewer filters mean lower filter changeout costs and faster changeouts. And the smaller footprint can save costly factory floor space or bin space.

	Number of Filters in Collector	Time to Replace*	Labor Cost	Time Savings*	Labor Savings*
<b>PowerCore Filter Pacs</b>	12	<i>Only 24 minutes</i>	\$18	<i>13.1 hours</i>	<i>\$590 Saved</i>
<b>Traditional Filter Bags</b>	81	13.5 hours	\$608	0	0

\* Savings are based on one changeout. Calculations assume bags and PowerCore Filter Pacs show equal life span; one person replacing one traditional filter bag in 10 minutes; one person changing PowerCore in 2 minutes; labor rates equal \$45/hr.

**Easy Maintenance** Replacing PowerCore Filter Pacs is as easy as 1-2-3. Contrary to traditional baghouse collectors, PowerCore Filter Pacs are accessed from the clean side of the collector. Easy. Fast. Clean. **No tools required!**

### PowerCore Filter Pac Replacement — Easy Fast Clean!



- Lift up filter access door.



- Remove the filter retention bracket.



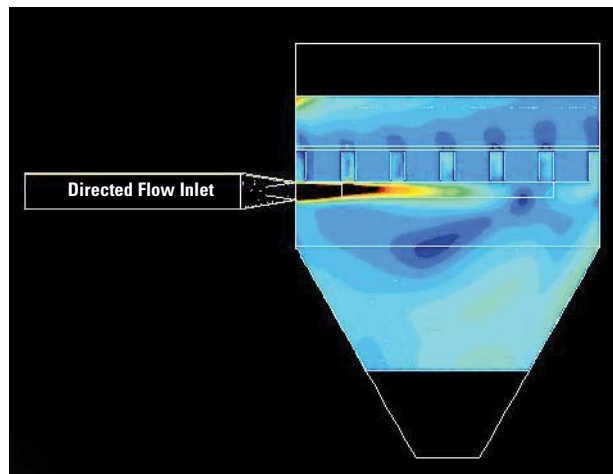
- Lift out the filter pac for easy replacement.

## It's All About Know-How

### *The Right Airflow Management*

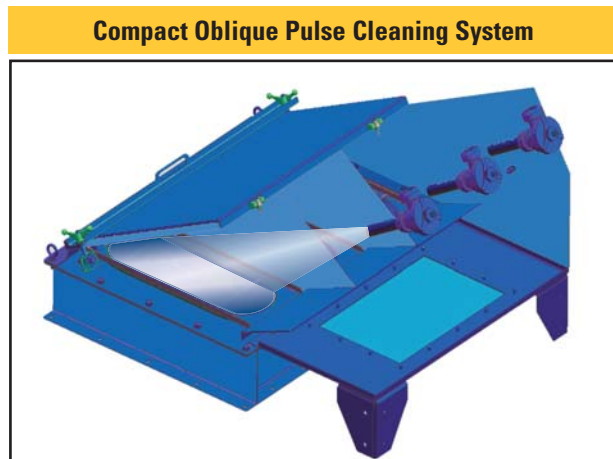
**Sophisticated Modeling** Torit PowerCore is a reflection of the Donaldson Torit commitment to technical research and development. Computer modeling for fluid dynamics puts Torit PowerCore technology in a technical class all its own.

Utilizing a Directed Flow Inlet, Torit PowerCore dust collectors manage airflow and velocities below the filters. The optimized air management technique effectively keeps the bottom of the filter pacs clean, causes most dust particles to drop out, and prevents filter abrasion. No hopper sweeping. No dust re-entrainment.



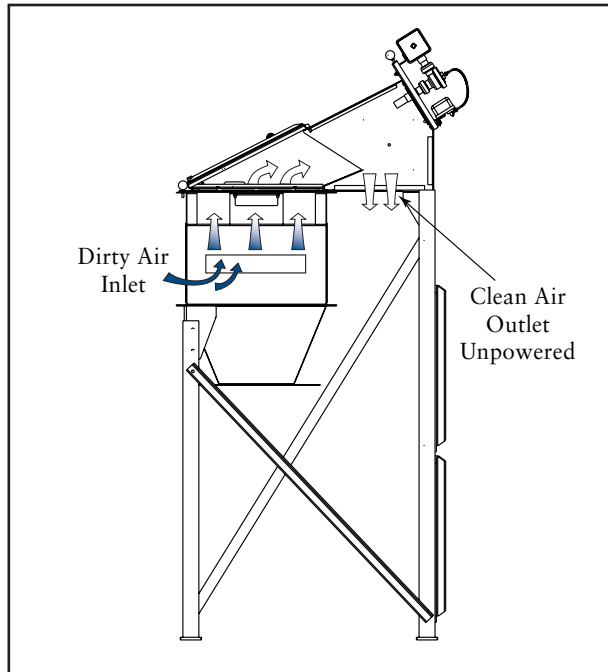
FLUENT\* Flow Modeling Software enhances the uniform air velocity distribution through a CPC-12 dust collector.

**Effective Filter Cleaning** is the key to long filter life. Torit PowerCore collectors include a new Compact Oblique Pulse Cleaning System, a patented, computer-modeled pulse cleaning technology designed to match the obround shape of the PowerCore Filter Pac. The resulting pulse flow effectively covers the entire media pack, easily pulses the dust out of the fluted channels, improving filtration efficiency, keeping the pressure drop low, and prolonging filter life.

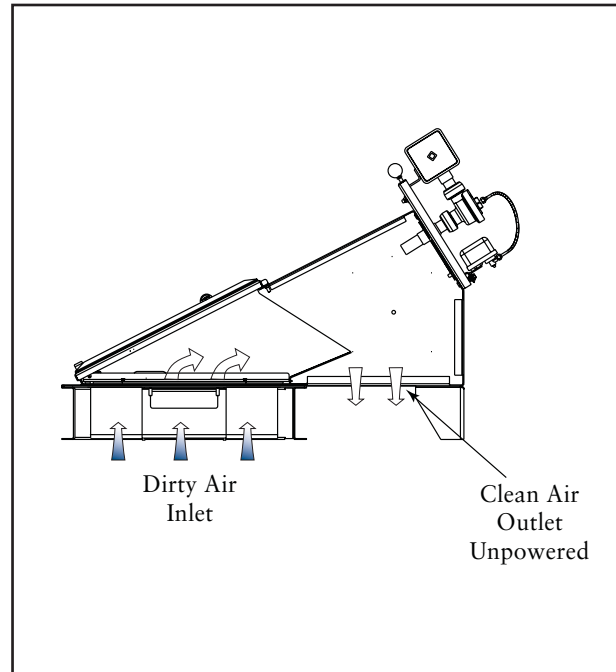


## Sizes and Operation

### Normal Operation for Models CPC



### Normal Operation for Models CPV



### CPC Models 3, 4, 6, 8, 12

- Exceptionally compact design
- 5 standard model sizes
- Many options and accessories

### CPV Models 2, 3, 4, 6, 8, 12

- Exceptionally compact design
- 6 standard model sizes
- Many options and accessories

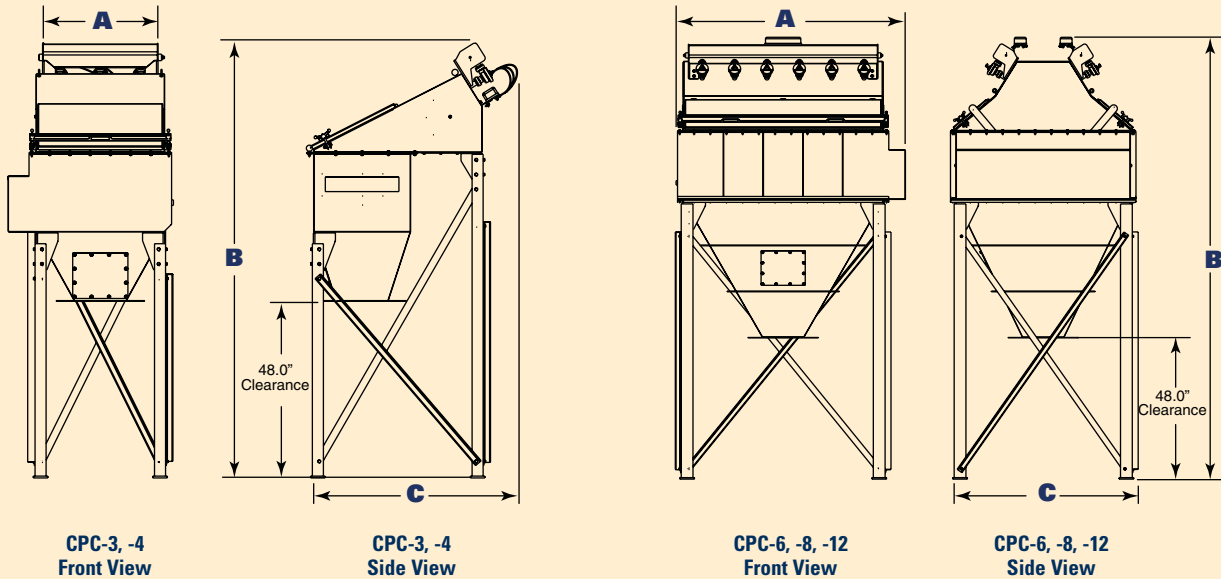
### Operating Conditions

Seismic Spectral Acceleration	$S_S +1.5$ & $S1= 0.6$	Compressed Air Required (psig)	90-100
Wind Load Rating (mph)	90	Operating Temperature	180°F
Housing Rated ("wg)	$\pm 20$		

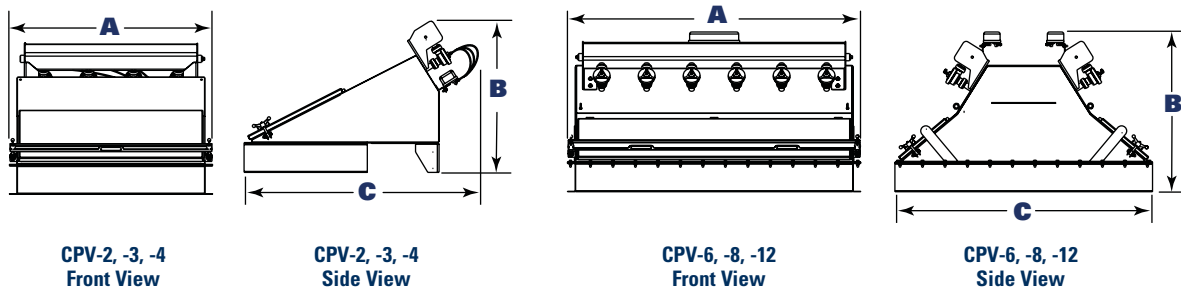
# Donaldson®

## Dimensions & Specifications

### MODELS CPC-3 through CPC-12 SHOWN



### MODELS CPV-2 through CPV-12 SHOWN



Model	Nominal Airflow Range* (cfm)	No. of Filter Pacs	PowerCore Filter Area (ft <sup>2</sup> )	No. of Valves	Shipping Weight (lbs)	Dimensions (inches)		
						A	B	C
CPC-3	800 - 2,010	3	201	3	900	45.0	118.1	57.4
CPC-4	1,070 - 2,680	4	268	4	1100	56.0	127.1	58.1
CPC-6	1,600 - 4,020	6	402	6	1300	44.4	141.6	65.2
CPC-8	2,140 - 5,360	8	536	8	1685	55.4	140.3	65.2
CPC-12	3,220 - 8,040	12	804	12	2100	77.4	149.3	65.2
CPV-2	540 - 1,340	2	134	2	320	27.8	36.9	56.4
CPV-3	800 - 2,010	3	201	3	400	38.8	36.9	57.3
CPV-4	1,070 - 2,680	4	268	4	500	49.8	36.9	58.0
CPV-6	1,600 - 4,020	6	402	6	655	38.8	38.1	63.0
CPV-8	2,140 - 5,360	8	536	8	800	49.8	38.1	63.0
CPV-12	3,220 - 8,040	12	804	12	1130	71.8	38.1	63.0

\* Based on clean filters.

# Torit® PowerCore™

## Proven Performance on Hundreds of Applications

**PowerCore Filter Pacs** are new to the industrial filtration market, but have long been proven in other related filtration industries. Donaldson makes them in many shapes and sizes for high performance vehicles, construction, agricultural and medium/heavy duty transportaion applications. Among them, the Corvette, Hummer and F-150 truck, as well as gas turbine air intakes protecting multi-million dollar turbine engines for power plants across the globe.

Millions of Filters Sold!



Torit PowerCore CPC-3 on clay and cement blending at a concrete block plant.



**Product of the Year  
PowerCore**

# Torit® PowerCore™

## Standard Features & Equipment Options

### Torit PowerCore (CPC)

	Standard	Optional
<b>Collector Design</b>		
Mild Steel Construction	X	
Clean-Side Filter Pac Removal	X	
Tool-Free Filter Removal	X	
Hopper Access Panel	X	
Sprinkler Taps	X	
Mountable Fan Package		X
Outlet Weatherhood		X
Inlet Transitions		X
<b>Filter Pacs</b>		
PowerCore™ with Ultra-Web®	X	
<b>Paint System</b>		
Polyester Textured Finish	X	
Hostile Environment Finish		X
Custom Colors		X
Custom Materials and Finishes		X
<b>Hopper Design</b>		
Pyramid Hopper	X	
<b>Hopper Discharge</b>		
Slide Gate Pack		X
55-Gallon Drum Covers		X
Transitions for Rotary Valves		X
<b>Support Structure</b>		
48" Clearance Beneath Hopper	X	
Leg Extensions		X
<b>Electrical Controls, Gauges and Enclosures</b>		
Control Box NEMA Type 4 with Timer	X	
Solenoid Enclosure NEMA Type 4	X	
Magnehelic® Gauge	X	
Delta P Control NEMA Type 4 with Timer		X
Delta P Plus Control NEMA Type 4 with Timer		X
Delta P Control (no timer)		X
Solenoid Enclosure NEMA Type 9		X
Heated Solenoid Pack		X
Heavy Duty Cold Climate Kit		X
Photohelic® Gauge		X
Custom Control Panels		X
<b>Safety Features</b>		
Explosion Vents		X
Sprinkler Pack		X
<b>Warranty</b>		
10-Year Warranty	X	

### Torit PowerCore (CPV)

	Standard	Optional
<b>Collector Design</b>		
Mild Steel Construction	X	
Clean-Side Filter Pac Removal	X	
Tool-Free Filter Removal	X	
Mountable Fan Package		X
Outlet Weatherhood		X
<b>Filter Pacs</b>		
PowerCore™ with Ultra-Web®	X	
<b>Paint System</b>		
Polyester Textured Finish	X	
Hostile Environment Finish		X
Custom Colors		X
Custom Materials and Finishes		X
<b>Electrical Controls, Gauges and Enclosures</b>		
Control Box NEMA Type 4 with Timer	X	
Solenoid Enclosure NEMA Type 4	X	
Magnehelic® Gauge	X	
Delta P Control NEMA Type 4 with Timer		X
Delta P Plus Control NEMA Type 4 with Timer		X
Delta P Control (no timer)		X
Solenoid Enclosure NEMA Type 9		X
Heated Solenoid Pack		X
Heavy Duty Cold Climate Kit		X
Photohelic® Gauge		X
Custom Control Panels		X
<b>Warranty</b>		
10-Year Warranty	X	

\* Magnehelic and Photohelic are registered trademarks of Dwyer Instruments, Inc.

U.S. Patent US Pat. 7338544, 6235195, 6673136, 6974490, 7090712, 7270692, 6743273, 6924028, 7270693, 7070640 & 7179317; for use in US Pat. 7338544; AU Pat. Nos. 1284771 & 776588; GB Pat. Nos. 1317317 & 1169109; SG Pats. 95161 & 83229; RSA 2001/6729; PRC 18151655; KS 0603425; EP Pats. 1317317 & 1169109; RU Pats. 2300543 & 2281146; Others Pending

Information contained in this document is subject to change without notice.

# Cleaner Air Worldwide

## Better Technology



- 550 engineers worldwide
- More than 500 patents
- Broad range of innovative collectors and filters
- 100's of media formulations

## Experience & Service



- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours
- 1,000,000+ dust, fume, & mist collectors installed

## Global Support



- Facilities in 35 countries
- 37 manufacturing plants and 11 distribution centers
- Sales offices worldwide

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800-365-1331**



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