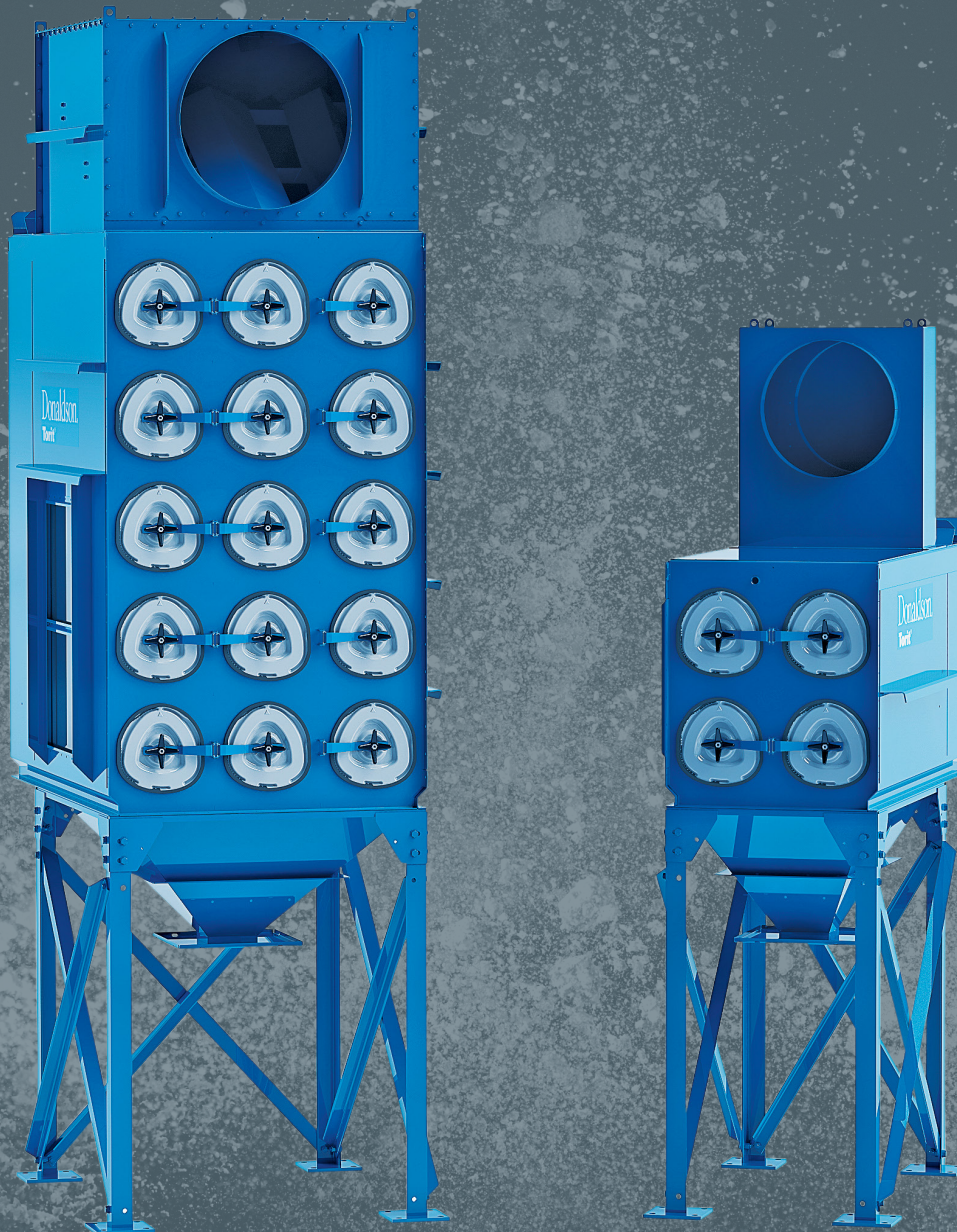


EFFICIENT, RELIABLE, VERSATILE

DOWNFLO[®] EVOLUTION CARTRIDGE DUST COLLECTOR



Donaldson
FILTRATION SOLUTIONS



Smart Collector
Powered by iCue[™] Technology



DUST COLLECTION SOLUTIONS FOR MODERN MANUFACTURING

Many of today's industrial facilities operate around the clock. The intersection of demand and productivity is consistently pushing critical systems to their limits with no signs of slowing down.

Manufacturing processes can generate fine dusts, hazardous fumes, and respirable particulates that must be contained and controlled before they settle on equipment, get recirculated through your HVAC system and impact your operation.

Through innovative engineering and construction, the **Donaldson Downflo Evolution** (DFE) dust collector is designed to provide effective dust and fume collection across multiple industries, while high efficiency filters help support clean operations and productive work environments.

Meeting your needs in multiple industries:

- Agriculture
- Automotive
- Chemicals
- EV Battery
- Electronics
- Metal Fabrication
- Pharmaceuticals
- Plastics & Rubber
- Material recycling operations



**Supports Efficient
Operations**



**Engineered for
your Application**



**Support your EHS
programs**



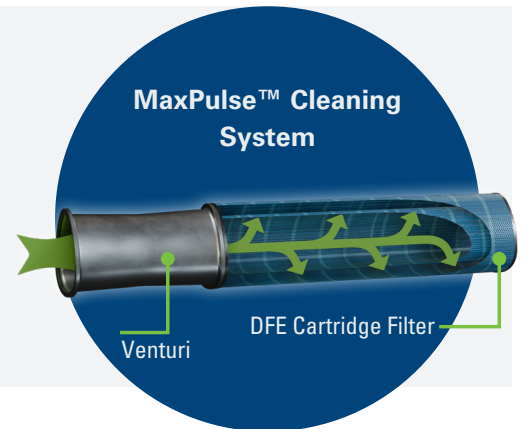
**Support
Production Uptime**

DESIGNED FOR PERFORMANCE

Based on decades of filtration expertise and industry experience, the DFE dust collector was built to deliver exceptional dust collection capabilities with a small number of filters in a compact footprint. The collector features a number of innovations developed with the goal of providing process owners with the most effective and convenient dust control solution for their applications:

Superior Cleaning Performance

The advanced MaxPulse™ Cleaning System helps deliver consistent filtration capacity by regularly cleaning the unit's filters with pulsed air. The system minimizes compressed air usage by eliminating energy-wasting restrictions and volume changes in the air path. This can support long filter life, less maintenance cycles, and a low total cost of ownership.



Simple Filter Maintenance

Filter changeouts on a DFE collector is easy. The unit's access doors and compact 26" Ultra-Web® filters allow changeouts to be done by one person even when fully loaded with dust. The asymmetrical support yoke helps provide installation, alignment, and sealing without having to enter a confined space or dirty air plenum.



Harness the Power of Operational Data

The DFE collector features the Contura Pulse Controller powered by iCue™ Connected Technology. The system provides cloud-based collector performance monitoring and tracking for real-time access to critical operational data. The Contura easily integrates with facility systems to help maintain peak efficiency, reduce downtime, and optimize maintenance intervals.



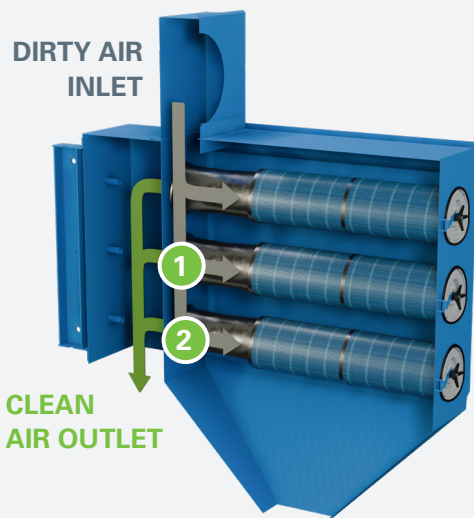
Discover how a Donaldson Smart Collector with the Contura Pulse Controller can simplify your operations and performance.

REVOLUTIONARY AIRFLOW MANAGEMENT

The Downflo Evolution dust collector uses natural downward airflow for effective filtration performance. Dirty air enters the collector from above the horizontally mounted filters where gravity forces heavier particulates from the airstream into the hopper below the unit. The pre-separation occurs in the collector's dropout zone to tackle filter loading and element abrasion, helping extend filter life and reduce replacement costs.†

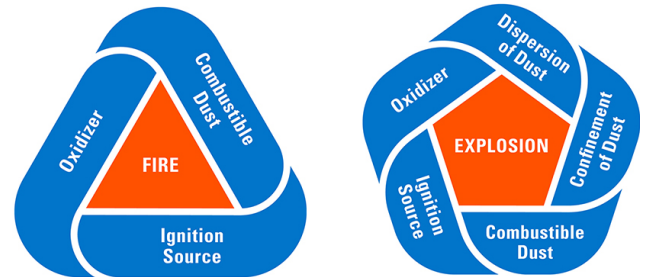
Intelligent Drop Out Zone

- 1 **Metal venturis**
- 2 **Dropout zone supports:**
 - Pre-separation of heavy dust particles
 - Limited pressure loss
 - Filter element abrasion management



Combustible Dust Management

The DFE dust collector is designed with features that help support effective combustible dust management. The collector was tested to determine if it could isolate a deflagration and stop flames or sparks from passing into the clean air plenum. When applied in conjunction with effective explosion protection strategies including inlet isolation and explosion venting, the performance results support conformance to Chapter 5 Performance-Based Design Option requirements of both NFPA 654 - to prevent the "extension of the flame front outside the compartment or equipment of origin except where intentionally vented to a safe location." [5.2.5 (2)] and NFPA 69 - to "limit the risk of flame spread from vessel to vessel via interconnecting ducts." [5.2.3.4]



TEST RESULTS¹

- In all tests, the filters successfully isolated the deflagration and allowed no flame or sparks to pass into the clean air plenum.
- The filter media and support frames were found to be free from any plastic deformation due to deflagration loads at dirty air plenum pressures up to and including 8.3 psig.



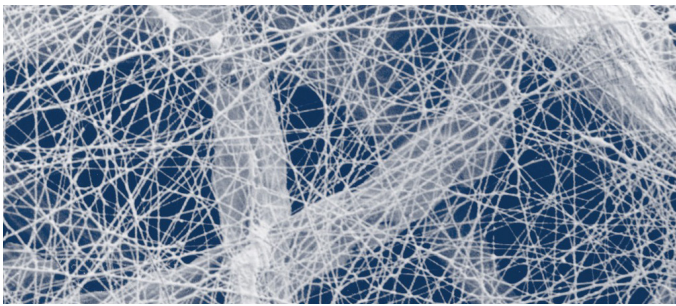
¹ Tests conducted on a Downflo Evolution (DFE) cartridge collector with standard FR Cartridge filter elements, top-mounted explosion vents, and without secondary filtration. Tests performed with airflow through the collector at typical air volumes. Tests repeated with no airflow through the unit. Tests used clean filters and were repeated with 'dirty' filters loaded with enough dust (cornstarch) to generate a 4-inch differential pressure across the filters and tubesheet. (Cornstarch dried to less than 2% moisture by weight was used as the dust / fuel for all tests.) Optical detectors sensitive in the IR band were mounted in multiple locations within the clean air plenum to determine flame transmission through the filter media.

† Performance based design to be reviewed as part of the dust hazard analysis as required by NFPA.

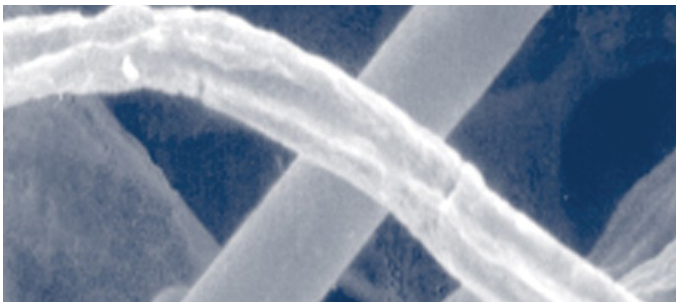
INDUSTRY LEADING FILTRATION DESIGN

Our horizontally mounted triangular filters, made with industry-leading Ultra-Web® fine fiber technology, have more filter media at the bottom of the cartridge. This design helps direct pulse-cleaning energy so that the ejected dust moves toward its intended destination: the containment vessel.

Ultra-Web filtration technology features a layer of fine fibers (0.2 – 0.3 microns in diameter) on the surface of the media to capture sub-micron contaminants. This supports easy release of the dust cake during automated cleaning cycles for reliable system operation.



Fine Fiber Media (600px) — Fine fiber surface loading technology is available in all Ultra-Web and Fibra-Web® filter cartridges.



Commodity Filter Media (600px) — Conventional media has spaces of up to 60 µm between fibers, allowing dust to become deeply embedded.

With its efficient cartridge filters and downward airflow, the DFE dust collector is engineered to deliver consistent filtration performance and reliable system operation, which can help:

- + Minimize dust buildup
- + Extend filter service intervals
- + Simplify maintenance

Triagonal filters are engineered to enhance pulse cleaning and support consistent airflow for reliable performance.

TRIAGONAL FILTER



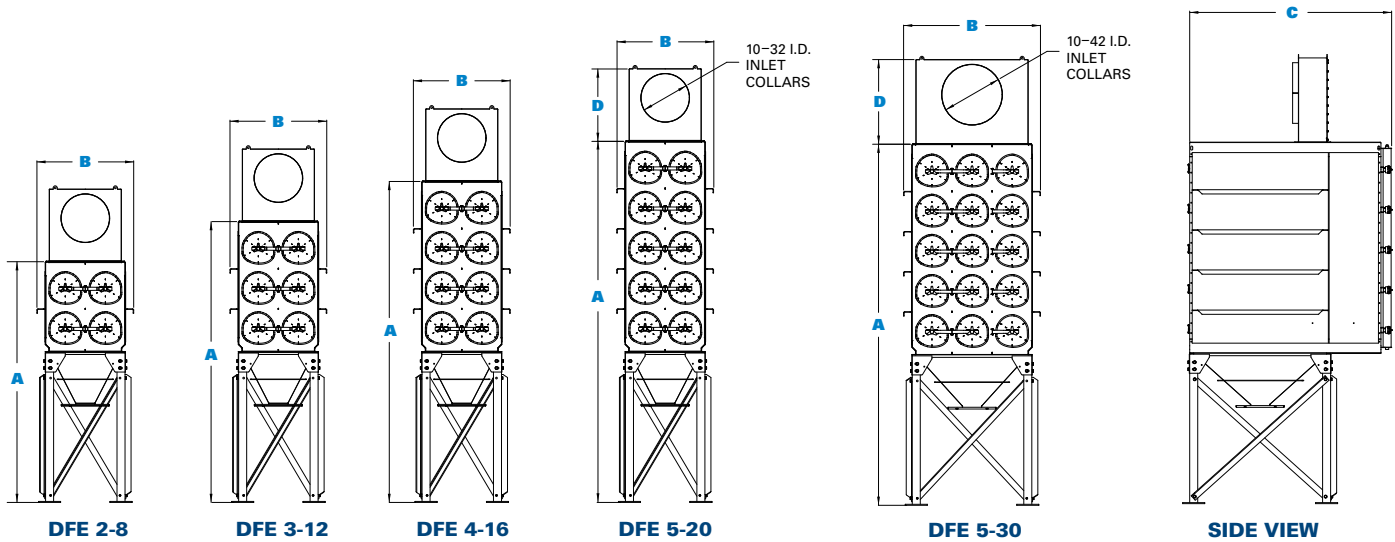
27% of Total Filter Media

ROUND FILTER



25% of Total Filter Media

DIMENSIONS & SPECIFICATIONS



DFE Model ¹	No. of Filters	Ultra-Web Filter Area		No. of Valves	Approx. Shipping Weight ²		Dimensions					
							A		B		C	
		ft ²	m ²		lb	kg	in	mm	in	mm	in	mm
DFE 2-4	4	1,016	94.4	4	1,890	857	110	2,794	48	1,219	75	1,905
DFE 3-6	6	1,524	141.6	6	2,300	1,043	130	3,302	48	1,219	75	1,905
DFE 2-8	8	2,032	188.8	4	2,300	1,043	120	3,048	48	1,219	101	2,565
DFE 2-12	12	3,048	283.2	6	2,900	1,316	120	3,048	68	1,727	101	2,565
DFE 3-12	12	3,048	283.2	6	2,800	1,270	140	3,556	48	1,219	101	2,565
DFE 4-16	16	4,064	377.6	8	3,300	1,497	160	4,064	48	1,219	101	2,565
DFE 3-18	18	4,572	424.8	9	3,500	1,588	140	3,556	68	1,727	101	2,565
DFE 5-20	20	5,080	471.9	10	3,850	1,746	180	4,572	48	1,219	101	2,565
DFE 3-24	24	6,096	566.3	12	4,500	2,041	140	3,556	88	2,235	101	2,565
DFE 4-24	24	6,096	566.3	12	4,090	1,855	160	4,064	68	1,727	101	2,565
DFE 5-30	30	7,620	707.9	15	4,800	2,177	180	4,572	68	1,727	101	2,565
DFE 4-32	32	8,128	755.1	16	5,200	2,359	160	4,064	88	2,235	101	2,565
DFE 3-36	36	9,144	849.5	18	5,700	2,585	140	3,556	128	3,251	101	2,565
DFE 5-40	40	10,160	943.9	20	6,200	2,812	180	4,572	88	2,235	101	2,565
DFE 3-48	48	12,192	1,132.7	24	8,200	3,719	140	3,556	168	4,267	101	2,565
DFE 4-48	48	12,192	1,132.7	24	6,700	3,039	160	4,064	128	3,251	101	2,565
DFE 3-60	60	15,240	1,415.8	30	9,900	4,490	140	3,556	208	5,283	101	2,565
DFE 5-60	60	15,240	1,415.8	30	7,700	3,493	180	4,572	128	3,251	101	2,565
DFE 4-64	64	16,256	1,510.2	32	9,500	4,309	160	4,064	168	4,267	101	2,565
DFE 3-72	72	18,288	1,699.0	36	11,600	5,262	140	3,556	248	6,299	101	2,565
DFE 4-80	80	20,320	1,887.8	40	11,500	5,216	160	4,064	208	5,283	101	2,565
DFE 5-80	80	20,320	1,887.8	40	11,000	4,990	180	4,572	168	4,267	101	2,565

Inlet Size	D	
	in	mm
10 – 16	24.0	610
17 – 24	36.0	915
26, 28, 30, 32	42.0	1,067
34, 36, 38, 40, 42	48.0	1,219

STANDARD FEATURES & AVAILABLE OPTIONS

DFE 2-4 TO 5-80

Collector Design [†]	Std	Opt
Mild Steel Construction	X	
MaxPulse™ Filter Cleaning System	X	
Quick-Removal Access Covers	X	
Inlets	X	
Ledge-Free Hopper	X	
Sprinkler Taps	X	
Stainless Steel Construction		X
High Temperature Construction		X
Explosion Protected Models		X
Direct Drive Fans		X
Chamber and Exhaust Silencers		X
High-Flow Inlet		X
Air Management Modules		X
Extended Dirty Air Plenum		X
Steep-Sided Hopper		X
2-Mod Hopper		X
Sprinkler Heads		X
Service Platform (OSHA-aligned design)		X
Damper Pack		X
Drum Sentry™ Drum-Full Indicator		X
Lined Clean Air Plenum		X
Bag-Out Kit (Filter & Discharge)		X
Bag-In/Bag-Out Kit (Filter & Discharge)		X
Cartridge Filters		
Ultra-Web® (MERV* 15)	X	
Ultra-Web® FR (MERV* 15); Ultra-Web® SB (MERV* 15); Ultra-Web® AS (MERV* 15); Fibra-Web® (MERV 14); Thermo-Web™ (MERV 14); Torit-Tex™ (MERV 16); High Temp (MERV 13)		X
HEPA and ASHRAE-rated efficiency filters		X

Paint System	Std	Opt
Prime Coated Interior	X	
Textured Multi-Coat Paint Finish with 2,000-Hour Salt Spray Performance	X	
Custom Color		X
Premium Duty Finish		X
Epoxy Coating		X
Hopper Discharge		
Drum Cover and Hose		X
Slide Gates		X
Rotary Valves and Transitions		X
Screw Conveyors		X
Electrical Controls, Gauges & Enclosures		
Control Box with Timer in NEMA 4 Enclosure	X	
Magnehelic Gauge Controls	X	
Contura Pulse		X
Delta P Control, Delta P Plus Control		X
Custom Control Panels		X
Photohelic Gauge Standard and Weatherproof		X
Basic Cold Climate Kit		X
Heavy-Duty Cold Climate Kit		X
Solenoid Enclosure (NEMA 7 & 9)		X
iCue™ Connected Technology Service		X
Warranty		
10-Year Warranty	X	

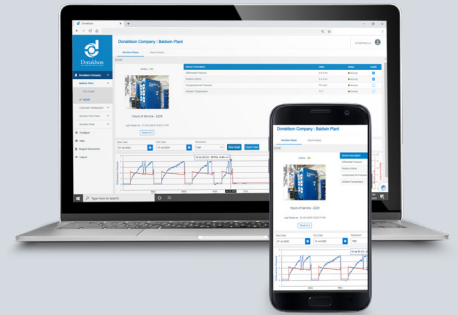
[†] Donaldson equipment is designed to IBC guidelines for specific wind speed exposure and seismic spectral acceleration at grade level. Contact your Donaldson representative for detailed information available on the equipment's Spec Control drawings. Equipment may be customized to meet unique, customer-specified site requirements.

* The Minimum Efficiency Reporting Value (MERV) of this filter cartridge has been determined through independent laboratory testing using ASHRAE 52.2 (2007) test standards. The MERV rating was determined at a face velocity of 118 feet (36.0 m) per minute and loading up to four inches (101.6 mm) water gauge. Actual efficiency of any filter cartridge will vary according to the specific application parameters. Dust concentration, airflow, particle characteristics, and pulse cleaning methods all affect filtration efficiency.

SMART COLLECTOR. SMART CHOICE.

Choosing a Donaldson Smart Collector means choosing an industry-leading dust, fume, and mist collection solution for your operation and employees.

Smart Collectors come equipped with Donaldson's iCue Connected Technology. The system tracks your equipment, providing real-time data and analytics to help maximize uptime, increase maintenance efficiency, and manage your operation's critical compliance data. Our industry professionals, extensive product portfolio, and outstanding service and support make your Smart Collector a Smart Choice.



**UNPARALLELED
PERFORMANCE**



**INNOVATIVE FILTER
MEDIA TECHNOLOGY**



**INTELLIGENT
ENGINEERING**



Smart Collector
Powered by iCue™ Technology



Donaldson
FILTRATION SOLUTIONS

Donaldson.com

Donaldson Company, Inc.
Minneapolis, MN, USA



Brochure No. F118005 ENG (7/2026) Downflo Evolution Dust Collector Brochure.

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