

## **DFPRE SERIES**

PRE-ASSEMBLED DUST COLLECTORS



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The DFPRE was designed as a turnkey system to answer the industry demand for a compact, convenient and reliable filtration system that can maximize production uptime. The result is a highly adaptable, modular and easy-to-install dust collector with unrivaled filtration performance – delivering operational confidence in today's advanced manufacturing environment.

Built on more than 20 years of successful performance of the DFPRO, our next generation DFPRE dust and fume collector series offer a more efficient, compact and economical solution that can effectively support continuous manufacturing processes. This new powerful filtration system is equipped with our unique trigonal cartridges that are specifically designed for improved pulse cleaning, which results in increased airflow per cartridge and superior performance. This means less production downtime, and reduced energy consumption, operating and maintenance costs for your business.

With its more efficient cartridge filters and advanced downward airflow, the DFPRE system has fewer cartridges for the same filtration power, reducing filter replacement costs, maintenance and floor space requirements. This compact unit is easier to transport, relocate and install: It comes pre-assembled and requires minimal set-up.

The DFPRE is a flexible and modular product designed for a wide variety of applications, allowing you to easily customize your solution and further customize it with a broad selection of Donaldson filter media options.

# FOR A WIDE VARIETY OF INDUSTRIES

(O) Metal & Machining

Industrial Processing

Waste & Recycling

Mining & Mineral Processing

Food & Agriculture

( 🗓 )— Chemical & Petroleum Products

— Pharmaceuticals

# QUALITY & EXPERTISE YOU CAN RELY ON

For over 100 years, Donaldson has helped solve some of the world's most complex filtration challenges.

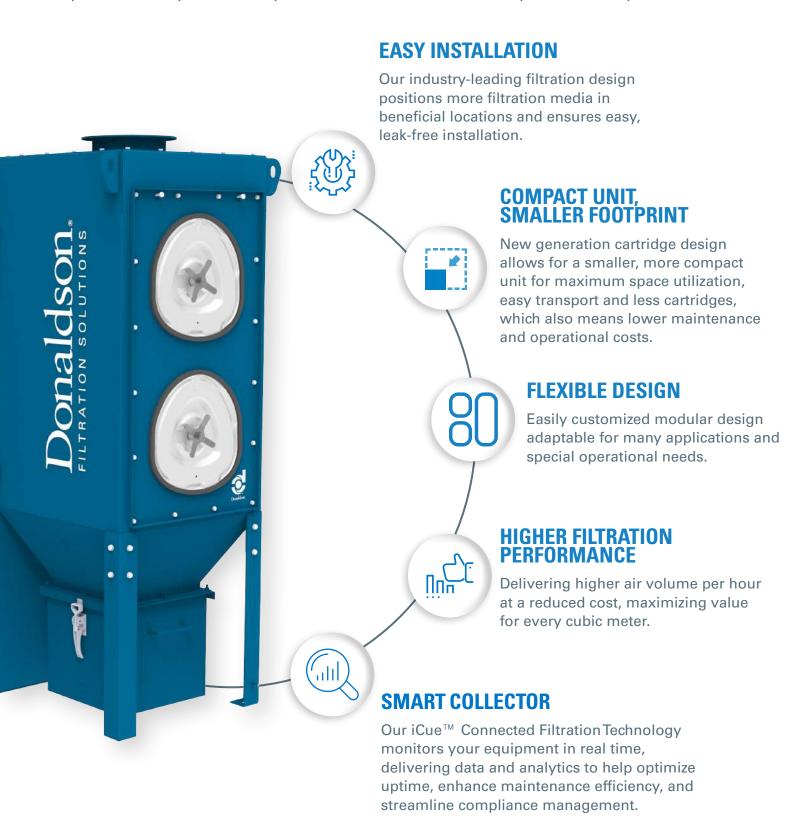
We pride ourselves in producing efficient, high quality and reliable products that will help support modern day manufacturing processes.

You can always rely on Donaldson's advanced technology, extensive portfolio of filtration products, and unrivaled customer support to help you meet your unique operational needs.



# PERFORMANCE PACKAGED FOR CONVENIENCE

The DFPRE dust collectors are compact units with a small footprint that come pre-assembled and pre-wired. Shipment, transportation and installation of this product is truly effortless.



# DESIGNED FOR SUPERIOR PERFORMANCE

The DFPRE series features Donaldson's latest solutions that include enhanced downward airflow design, trigonal filter shape, and industry-leading filtration medias designed to maximize filtration performance. The DFPRE series have a nominal airflow capacity of between 1,500 to 15,000 m³/hr\*.

## STEP 1

#### **EFFICIENT CONTAMINANT EXTRACTION**

Contaminated air is drawn through the collector by the fan, where airflow is directed, causing heavier particulates to fall directly into the hopper.

## STEP 2

#### PRECISE FILTRATION PROCESS

Dust generated at the source is pulled into a preseparator to effectively mitigate the following issues: reducing dust load to acceptable levels, minimizing the abrasive effects of dust, and ensuring even distribution of airflow.

## STEP 3

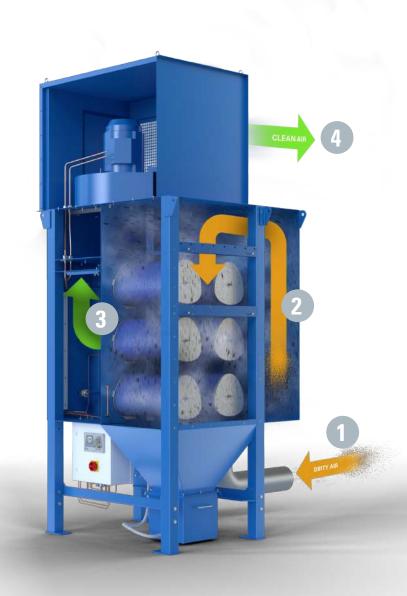
#### ADVANCED CLEANING SYSTEM

The cartridges effectively capture fine particulates, allowing only clean, filtered air to pass through into the clean air chamber. With efficient pulse cleaning, it helps increase the lifespan of a cartridge, allowing you to lower your operational costs due to less energy consumption, filter changes and maintenance.

## STEP 4

#### FINAL AIRTREATMENT AND DISCHARGE

Clean air is discharged through the air outlet for either recirculation indoors or evacuation outside, with the option for additional filtration, such as a secondary HEPA filter, to ensure optimal indoor air quality in certain scenarios.





## **SMARTER DUST COLLECTION**

Equipped with iCue™ Connected Filtration Technology, your Smart Collector monitors equipment and provides operational insights through automated alerts and a dashboard accessible from your computer and smart devices. Visit donaldson.com/ConnectedSolutions to learn more.

#### MONITORING

### DIFFERENTIAL PRESSURE

- Eliminate manual dP data collection
- Enable scheduled change-outs

#### DOWNWARD AIRFLOW

- Prevent dust from settling in ducts
- Minimize employee exposure risks

## COMPRESSED AIR PRESSURE

- Alert if there is a lack of compressed air
- Reduce premature filter changes



#### OPTIONAL MONITORING

#### DRUM LEVEL

- Eliminate manual filllevel checks
- Help prevent drum overflows

## HOPPER PLUG

- Identify dust bridging in hopper
- Designed for agglomerative dust applications

### PARTICULATE TREND

- Aid in environmental compliance reporting
- Early detection of filter leaks

#### **COMBUSTIBLE DUST MANAGEMENT**

We offer specific product offerings for fire and explosion protection to be integrated in your DFPRE Dust Collectors.

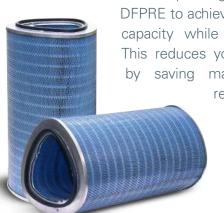
Contact us to discuss a mitigation solution that fits your needs.



- ATEX compliance and certification
- Covering ST1 to ST3 dusts
- Mitigation options:
  - Bursting disc
  - · Flameless venting
  - Suppression system
  - Non-return valve
  - Blow-off channel (top or side)
  - Deflector plate
  - Sprinklers
  - Containment

# INDUSTRY-LEADING FILTRATION DESIGN

LONGER-LASTING FILTERS, LOWER ENERGY USE



The unique trigonal design allows the DFPRE to achieve a higher dust collection capacity while using fewer cartridges. This reduces your operational expenses by saving manufacturing space and

reducing the number of filters to maintain.

DFPRE filters are highly efficient while having a smaller size, making filter maintenance quick and easy.

#### **ENGINEERED TO EXCEL**

With more efficient filters, pulse cleaning, and advanced downward airflow, the DFPRE Series requires fewer filters for the same filtration power. This helps extend cartridge lifespan and helps reduce your operational costs through less:

- Footprint
- Energy consumption
- Filter changes
- Maintenance
- Downtime

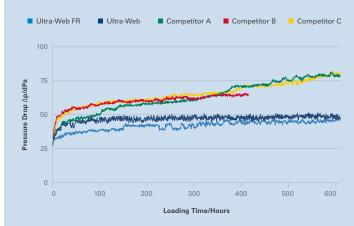
## THE ULTRA-WEB® DIFFERENCE

Long-term tests (5,200 m³/h, 70 g/m³) show that Donaldson Ultra-Web filters maintain a lower pressure drop compared to major competitors. This results in higher airflow, reduced energy use, and longer filter life.

The Dust Rejection Test, conducted over 600 hours using calcium carbonate dust, compared Donaldson filters (Cellulose and Ultra-Web) to competitors' 80/20 Fine Fiber media. The tests, performed in-house with a sample size of eight filters per manufacturer, used a 7,100 m³/h airflow and 70 g/m³ dust concentration.

#### **Donaldson Dust Rejection Test**

600 Hours at 254g/min (70g/m³)



## **CASE STUDY**

ULTRA-WEB®
CARTRIDGE FILTERS CUT
MAINTENANCE COSTS
WHILE CUTTING STEEL.

#### **INDUSTRY & APPLICATION**

Metalworking | Plasma Cutter

#### **PROBLEM**

Short lifespan of Farr GoldCone filters (3 - 6 weeks).

#### SOLUTION

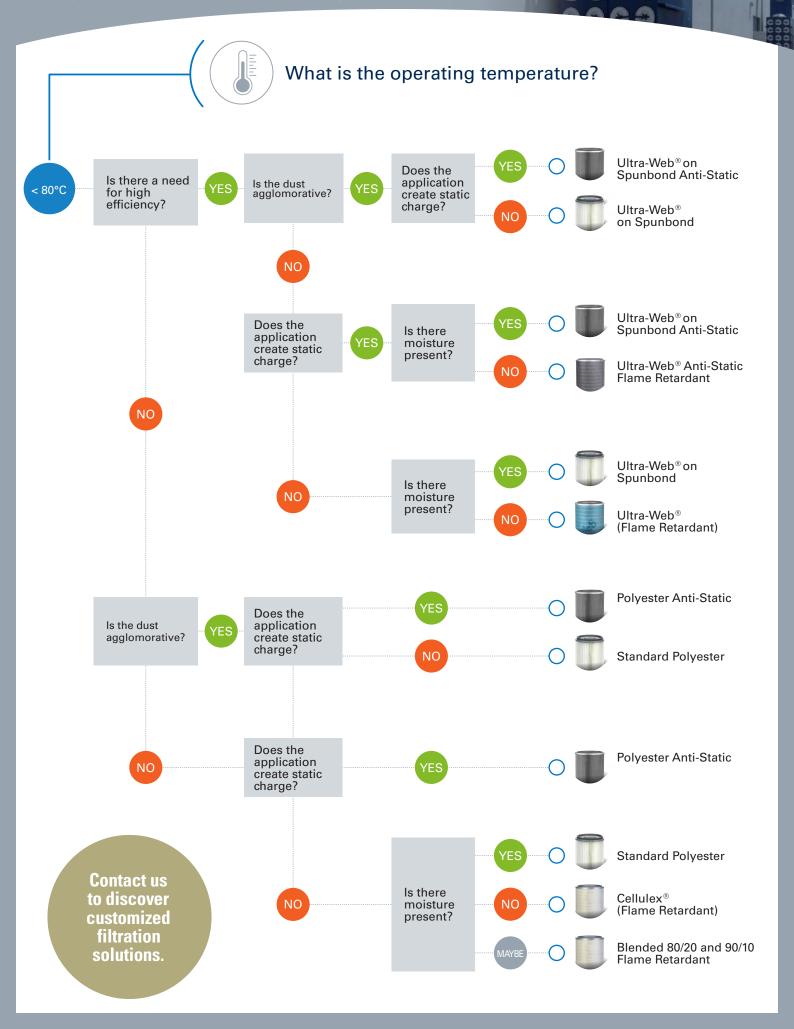
The company upgraded to Donaldson Ultra-Web filters, offering a longer lifespan and better dust collection efficiency.

#### **RESULTS**

Ultra-Web filters lasted up to eight times longer, reducing filter replacements, energy consumption, and maintenance time. The manufacturer experienced lower operational costs and less production downtime.



# SELECT THE PERFECT MEDIA FOR CARTRIDGE FILTERS



## **TECHNICAL SPECIFICATIONS**

Full product range and detailed technical specifications are available on donaldson.com/dfpre



#### **Key Features & Benefits**

- Easy installation and operation.
- Flexible and modular design available in different sizes and configurations.
- Compact unit, smaller footprint for maximum space utilization, easy transport and less cartridges.
- Higher filtration performance thanks to enhanced downward airfow design triagonal filter shape.

			Dimensions (mm)*			
Model	No. of filter elements	No. of valves	Width A	Height B	Depth F	Weight (kg)**
DFPRE 2	2	2	829	1963	1705	424
DFPRE 2 Sparktrap Top				2188	2112	460
DFPRE 3	3	3	829	2470	1705	536
DFPRE 3 Sparktrap Top				2630	2112	585
DFPRE 4	4	4	1,439	2109	1559	650
DFPRE 4 Sparktrap			1,741			750
DFPRE 4L	4	4	1291	2632 - 4538	1730 - 2080	1025
DFPRE 4L Sparktrap			1741			1143
DFPRE 4L Cyclopeel			2143			1306
DFPRE 6L	6	6	1291	3082 - 4987	1730 - 2079	1143
DFPRE 6L Sparktrap			1771			1337
DFPRE 6L Cyclopeel			2351			1465
DFPRE 9L	9	9	1789	3106 - 4991	1730 - 2079	1375
DFPRE 9L Sparktrap			2227			1621
DFPRE 9L Cyclopeel			3067			1833
DFPRE 12L	12	12	2299	3106 - 4991	1730 - 2079	1582
DFPRE 12L Sparktrap			2832			1860
DFPRE 12L Cyclopeel			3827			2095



## DISCOVER SUPERIOR DUST, FUME AND MIST FILTRATION SOLUTIONS WITH DONALDSON. VISIT DONALDSON.COM TO LEARN MORE TODAY!



Discover our range on www.donaldson.com
Shop for filters the easier way at shop.donaldson.com
Contact us at iaf-europe@donaldson.com

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<sup>\*</sup> Dimensions & weights depend on the options chosen.

<sup>\*\*</sup> Weights include filter cartridges and are for collectors prior to first use, i.e. with no dust collected. Excludes shipped loose items like fan set, fan box, legs, and dust disposal system.