



# DUST COLLECTORS DFPRO



# Powerful and efficient

Industrial companies produce contaminants such as dust, fume or oil mist. These contaminants can interfere with production, affect the health of workers and pollute the environment. A reliable collection for improving the air quality is therefore mandatory.

## Powerful Dust Collection Technology

The dust collectors of the DFPRO series set a higher standard in comparison to conventional dust removal systems in terms of filtration efficiency and are ideal for various applications, including plasma, autogenous and laser cutting.

Donaldson has improved the performance of the systems by rethinking the cartridge cross section from the conventional round to an oval shape. The oval-shaped filter cartridges provide a more efficient, compact and economical filtration.

The DFPRO dust and fume filters are available in various sizes with three to 16 filter cartridges and flow rates from 2,000 up to 16,000 m<sup>3</sup>/h.



DFPRO-16 dust-and fume filters



DFPRO dust and fume filters for laser cutting applications

## Easy Filter Changes

A tremendous advantage is the easy maintenance. With the new design of the DFPRO's quick-release access handles, filter removal and maintenance is extremely fast with one simple movement of the clamp.



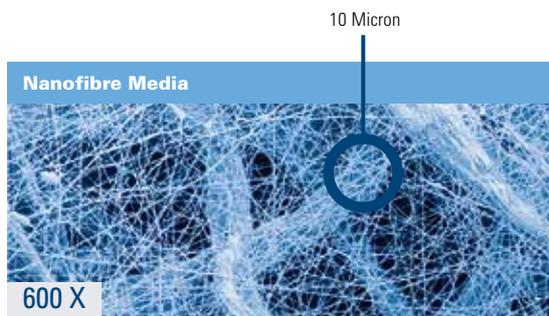
## The DFPRO Dust Collector offers:

- Closed coverage type (complete system)
- High performance oval cartridge filters
- Efficient filter media
- Improved cleaning efficiency
- Lower pressure drop spark trap
- Easy maintenance with quick-access filters
- Fast and easy installation
- Energy cost saving due to low energy requirements
- Quiet operation

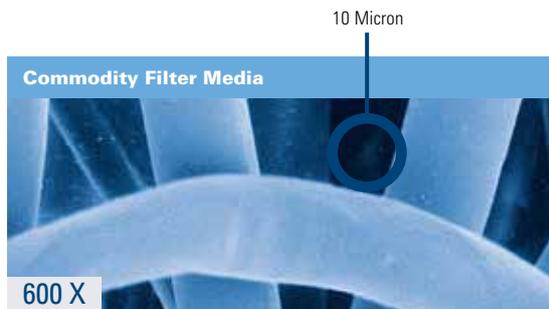
# High Performance Filters

## The remarkable Story began with the oval Cartridge Filter itself

Ultra-Web® Nanofiber Media. A dramatic departure from traditional circular-shaped cartridge filters, oval-shaped filters, in conjunction with our innovative nanofiber filter media, trap more dust on the surface of the filter than conventional commodity types of filter media such as depth-loading cellulose, polyester or cellulose/polyester blend.



Nanofiber technology is available in all Ultra-Web® and Fibra-Web cartridges



Conventional media has spaces of up to 60 microns between fibers, allowing dust to become deeply embedded

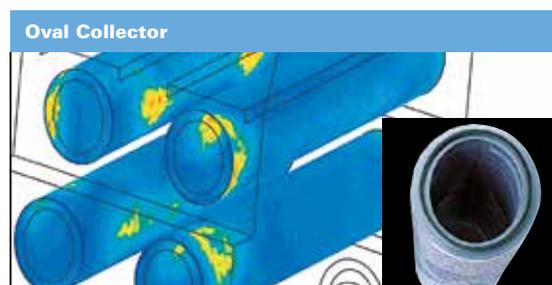
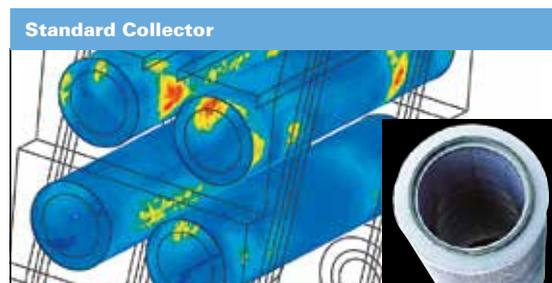
## The Innovation continues with shorter, stiffer Filter Media Pleats

Due to pleating, oval filter media are more compact than conventional filter media. Shorter and compact filter media pleats help minimise dust build up and simplify filter cleaning. By reducing the height of the filter pleats from the standard 50 mm to 38 mm, the pleat wall is stiffer and more compact, which improves the filter cleaning efficiency.



## Unique oval Shape contributes to higher Airflow Capacity

High Performance Filters. The Downflo Oval filter design is a reflection of Donaldson's commitment to technical research and development. Ovalshaped filters handle up to 25 percent more airflow without increasing velocities. Sophisticated Fluent®\* airflow modelling software revealed that oval-shaped cartridge dust collectors have fewer areas of high velocity, resulting in a lower potential for media abrasion and increased filter life.



\*FLUENT® is a registered trademark of Fluent, Inc.

# DFPRO Cartridge Filters

Donaldson's oval-shaped filter cartridges were developed by using the latest computer modelling technology and offer high filtration efficiency. Choose the right cartridge filters for your application from our range of quality media:

## Ultra-Web®

Featuring proprietary nanofiber technology, Ultra-Web® cartridges provide unequalled filtration efficiency. This advanced surface filtration technology ensures longest filter life and lowest operating pressure drop.

- Premium performance on ambient, extremely fine and non-fibrous dust and some abrasive dust.
- High filtration efficiency on very fine particulate of < 1 micron.



## Ultra-Web® on Spunbond

Featuring proprietary nanofiber technology, Ultra-Web® on Spunbond cartridges provide unequalled filtration efficiency.

- Wide pleat spacing provides excellent particle release.
- Highly recommended for chemical, food and industrial processing when product contamination must be minimized.
- Excellent performance on moist, hygroscopic or agglomerative dust.
- High filtration efficiency on very fine particulate < 1 micron.



## Torit-Tex

With a high tolerance for moisture, Torit-Tex cartridges provide exceptional filtration efficiency.

- Wide pleat spacing and smooth, hydrophobic, state-of-the-art ePTFE membrane provides excellent particle release.
- Highly recommended for chemical, food and industrial processing when product contamination must be minimized.
- Excellent performance on moist, hygroscopic or agglomerative dust.



## Fibra-Web

Fibra-Web filters feature an open washable design for easy cleaning in both fibrous and non-fibrous (agglomerative) applications a proprietary blend of synthetic fibres provide filtration efficiency.

- Wide pleat spacing provides thorough pulse cleaning of fibrous and agglomerative particles .
- Excellent performance on combination fibrous and non-fibrous dust, and/or agglomerative dust.
- High filtration efficiency on very fine particulate of < 1 micron.



## Thermo-Tek

Designed for high-temperature applications, Thermo-Tek cartridges have a proprietary media that offers exceptional filtration efficiency. Special heat-resistant construction and gaskets maintain seal strength and integrity at temperatures up to 135 °C (275 °F).



# Features, Benefits and Options

## Features and Advantages

- Fully integrated system with damper valve, range of fan motors, factory prewiring, cleaning mechanism and Torit control board
- "Plug and Go" unit
- No extra duct work between unit and fan
- Cleaning mechanism protected from external elements
- Self-centering with a handle for easy changes
- Corner installation possible
- Quick-release dust disposal system
- Removable side profiles to allow fork lift transport
- Flat side walls
- Outside installation possible

## Options

- Service platform with gratings, handrail, and ladder
- Front inlet adaptation pieces
- Full range of dust disposal system
- Blow off channels (vent pipe) on reinforced version for indoor installation (1 m, 2 m, or 3 m lengths)
- Pulse noise attenuation down to  $L_{pAeq} < 70$  dB(A)
- Earthing connection
- Compressed air air-oil/water separator and accessories
- Equipment suitable for use in a potentially explosive atmosphere (Directive 94/9/EC) satisfying the requirements for group II category 2D 125 °C is available.
- Integrated Cyclone

## Application Fields

Laser Cutting Applications



Paint Applications and Surface Treatment



Welding and Cutting Applications



Foundries and Kilns



# Total Filtration Service

## Service with the highest Standards

Our service is always nearby. With our technical service and support network throughout Europe, we can routinely service your production systems as well as provide on-site support whenever needed.

With one of Donaldson's service centers you receive quick and cost-effective competent services for all filtration applications from one source.



## Consulting

Total Filtration Service offers a range of services to help you determine current production efficiencies, identify areas for improvement and tailor a service program to your needs.

## Inspection & Maintenance

Our service experts identify cost-effective measures for process optimisation, quality improvement and energy savings. They conduct emission measurements, leakage detection and comprehensive quality checks and not only carry out the replacement of your filter elements, but also determine the right point in time – we therefore contribute to the efficiency of your production.

Donaldson  
Torit® DCE®



Donaldson  
FILTRATION SOLUTIONS

Dust and Fume Removal · Oil Mist Separation

## Total Filtration Management

Donaldson offers a wide variety of solutions to reduce your energy costs, improve your productivity, guarantee production quality and help protect the environment.

## Total Filtration Service

A comprehensive range of services especially designed to keep your production at peak performance and at the lowest total cost of ownership.

Please contact us:

Donaldson Europe B.V.B.A.

Research Park Building No. 1303 · Interleuvenlaan 1

B-3001 Leuven · Belgium

Phone +32(0)16 38 38 11 · Fax +32(0)16 40 00 77

IAF-europe@donaldson.com · [www.DonaldsonToritDCE.com](http://www.DonaldsonToritDCE.com)