

New dust collectors have higher capacity on same footprint

The Downflo Oval 1 Series (DFO) of patented dust collectors utilises oval shaped cartridges to allow large amounts of air flow through the collector without increasing the footprint size or damaging filters.

Sold in Australia by Donaldson-Torit DCE, the DFO Series means a smaller collector to minimise initial purchase price, reduce filter replacement costs and use less manufacturing floor space across most industries including general engineering, food, quarrying and mining and construction.

DFO Models 1-1, 2-2, 3-3 are completely self-contained 'plug and play' type units supplied with a power pack, controls, silencer, damper and dust container. Quiet when operating, the compact units are easy to move through standard aisles and doorways.

DFO Models 2-4 to 4-128 are also compact and supplied in 23 standard models sizes – customised where requested – and have many options and accessories.

All models include quick release handles to facilitate easy cover removal and faster filter access.

Compared with standard industry performance, DFO collectors provide about 25% more capacity than other same sized dust collectors on the market. A patented ExtraLife Filter Cleaning System averages up to 30% increase in pulse cleaning efficiency for excellent cleaning ability.

To further lower operating cost, unique oval shaped Ultra-Web cartridge filters provide a long filter life and high filtration efficiency.

In conjunction with Donaldson-Torit DCE's nanofibre filter media, this type of filter traps high amounts of dust on its surface – more than would be expected of other filter media such as depth-loading cellulose, polyester or cellulose/polyester blend.

Shorter and stiffer filter pleats help minimise dust entrapment and enhance filter cleaning. By reducing the height of the filter pleats from the standard 51mm to 38mm, the pleat wall is less likely to collapse or bend, which can encapsulate dust and prevent its expulsion.

Oval shaped filters handle up to 25% more air flow without increasing velocities that can cause filter abrasion. Sophisticated Fluent® airflow modelling software revealed that oval shaped cartridge filters have fewer areas of high velocity, thus resulting in lower potential for media abrasion and increased filter life.

Fluent Flow Modelling Software – Donaldson-Torit DCE's computer modelling for fluid dynamics, structural mechanics and acoustics – enhanced uniform air velocity distribution and demonstrated lowest

stress levels under typical operating pressures across the various models in the range.

To provide more space between filters, lower cabinet velocities and reduce potential for media abrasion, a new cabinet design with convex side walls streamlined the airflow path and increased the cabinet's cross sectional area.

