



Donaldson<sup>®</sup>  
FILTRATION SOLUTIONS



# Unimaster Dust Collectors

# High Capacity and Compact Design

## Compact and Versatile

► The Unimaster dust control unit is the most economical and effective solution for a diverse range of nuisance dust problems throughout the industry. The Unimaster's unrivalled quality and versatility mean that it is suitable for a multitude of applications. As a result, the Unimaster range is Donaldson's most universally accepted dust collector.



## Dust Capture at All Points

► The Unimaster is an ideal dust collector for intermittent operations in plant processes. Several small self contained Unimaster units can be placed at the points of dust generation. This approach results in total dust capture and flexibility of operation.

## Principle of Operation

### Air Flow

Contaminated air from the dust generation source is drawn through the inlet to the filter by the fan. Initially some pre-separation takes place as heavier dust particles lose momentum and fall into the collection bin or hopper. Finer dusts are carried up to the filter elements where they are retained on the outer surface of the filter fabric. The cleaned air is then passed through the filter fabric into the fan chamber and discharged.

### Cleaning

When the fan is switched off the filter fabric cleaning cycle is automatically activated. The collected dust is then dislodged from the filter elements and falls into the collection bin below.

### Features and Benefits:

- Lower operating and energy costs
- Simplified maintenance
- Lower capital cost
- Plant flexibility
- Minimisation of safety hazards

### Venting Unit

For venting systems and processes under positive pressure.



### Venting Unit with Dust Container

Used in conjunction with free standing fan.



### Sack Tipping Unit

Mounted above vessels which are manually charged.



### Hopper Unit

Suitable for location on dust container.



# A Complete Range of Accessories

## Acoustic Diffusers

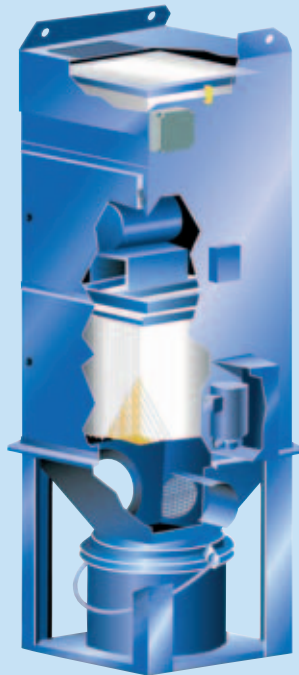
▶ Integrated as standard. Capable of reducing noise levels to typically below 80dB(A) measured at 1 metre from the unit.

## Filtration Media

▶ Variety of filtration media available to suit many applications. Polyester, Polyester Antistatic, Polyester Oleophobic, Polyester Oleophobic Antistatic, Tetratex, Tetratex Antistatic.

## Pressure Balance Pipe

▶ Ensures the stability of the dust collection bag allowing for the safe removal of collected material.



## Secondary Filter or Absolute Filter

▶ Can be fitted to Uni-masters handling hazardous dusts. It also acts as a fail safe device should the main filter element become damaged.

## Static Earthing

▶ Should the material being handled generate a static charge this can be safely dissipated to earth.  
▶ Circular inlet for easy connection to ducting.

## Explosion Relief

▶ Bursting panels consist of a membrane with internal supporting mesh located on the dirty side of the unit and is ATEX compliant.

**Also Available - a stainless steel version for most units**

## Universally Tried, Tested and Trusted

### Versatile range

Over 500 combinations and numerous ancillaries.

### Compact

With flat envelope shaped multipad filters to provide maximum fabric area for minimum floor space.

### Filter materials

A range of fabrics to suit any application.

### Advanced fan design

Reduced noise levels and enhanced efficiency and performance.

### Controller and Motor starter

Easy to install/connect. Ensures the filtration efficiency is properly maintained.

### Cost effective

No requirement for compressed air.

## Applications

- ▶ Chemical and Allied Industry
- ▶ Rubber and Plastic Industry
- ▶ Pharmaceutical Industry
- ▶ Lumber and Wood Products
- ▶ Agricultural Industry
- ▶ Iron Foundries
- ▶ Jewellery and Precious Metal Industry
- ▶ Paint Industry
- ▶ Stone, Clay and Glass Industry
- ▶ Metal Mining Industry
- ▶ Food and Related Industries
- ▶ Textile Industry
- ▶ Industrial Machines Industry
- ▶ Tobacco Industry

Technical alterations reserved (2/2008)

# Donaldson. *And everything just got better.*

## Total Filtration Management

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

**Compressed Air Filtration, Sterile Filtration, Process Filtration, Refrigerant Drying, Adsorption Drying, Condensate Drains, Condensate Purification Systems, Water Chillers, Air/Oil Separation, Dust and Fume Removal, Process Air and Gas Processing, Oil Mist Separation, Industrial Hydraulics**

## 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.

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