

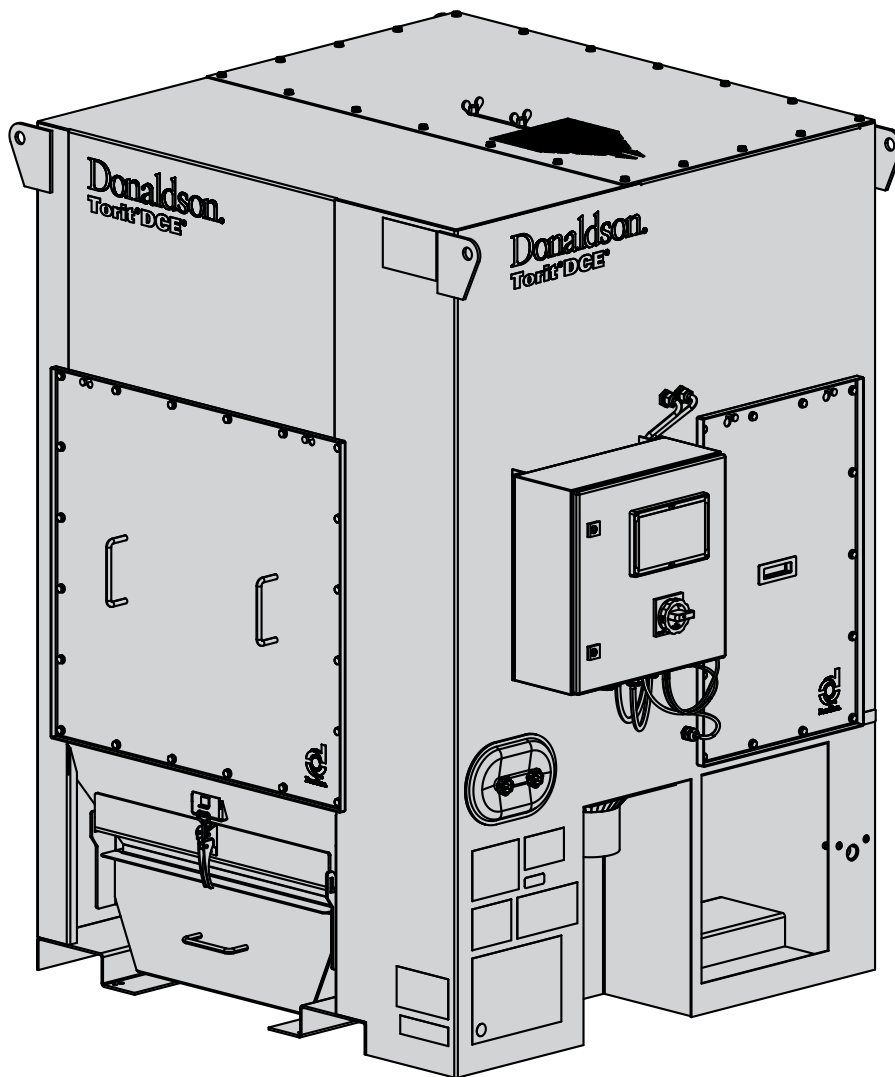


Donaldson  
FILTRATION SOLUTIONS

# TECHNICAL DATASHEET

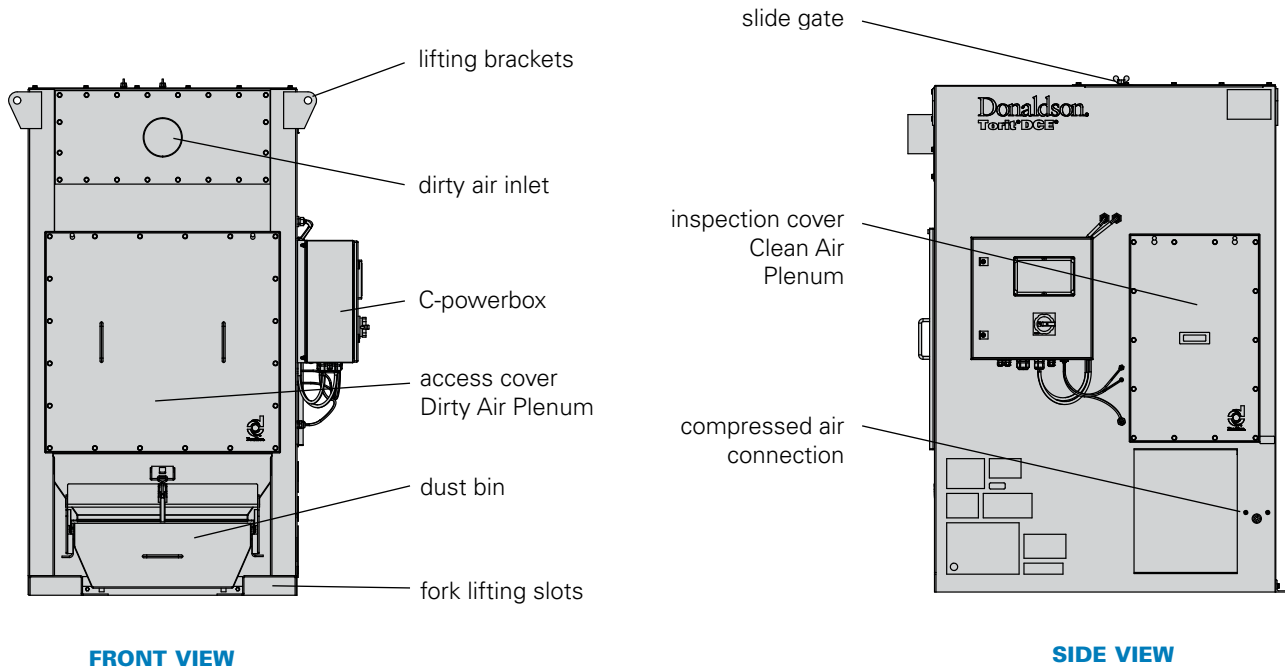
## DFPRE Dust Collectors

Serie DFPRE 4

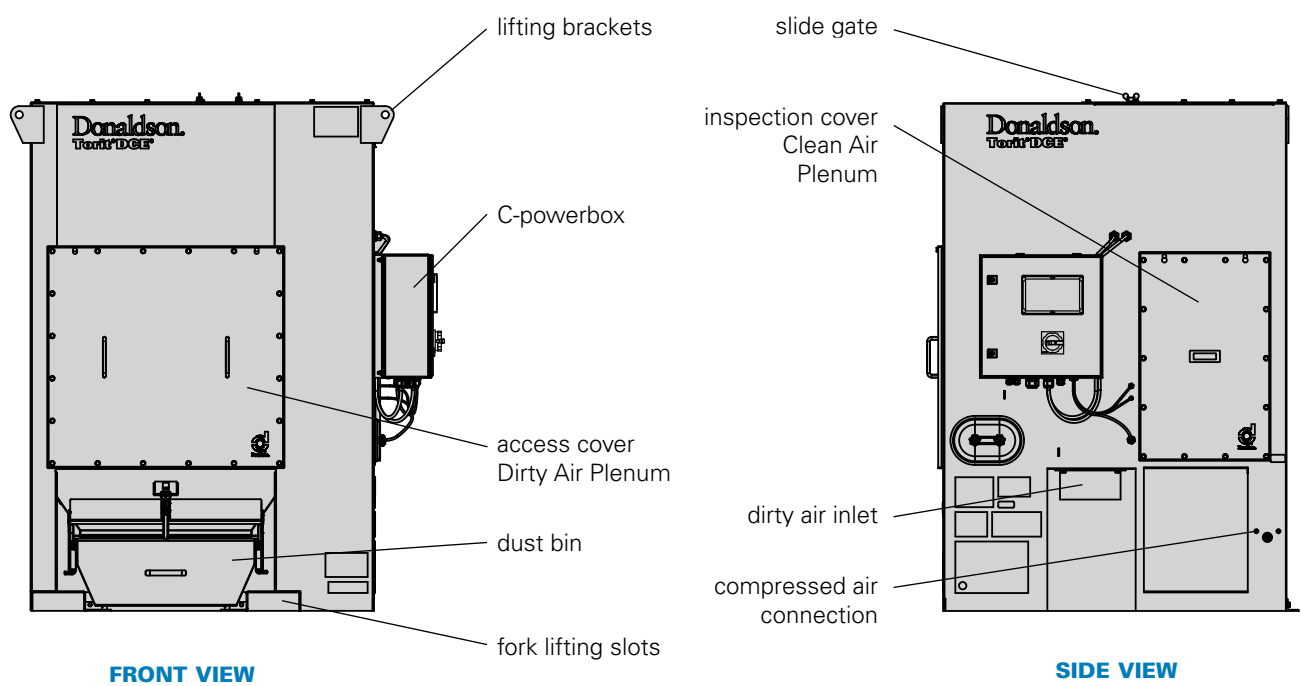


## DESIGN SPECIFICATIONS

### DFPRE 4 STANDARD



### DFPRE 4 SPARKTRAP

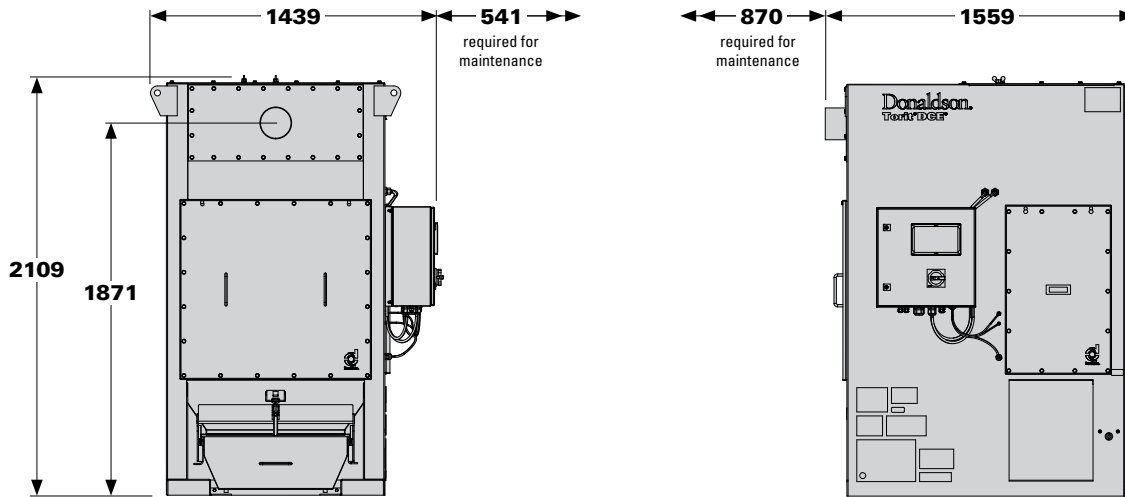


#### DESIGN LIMITS

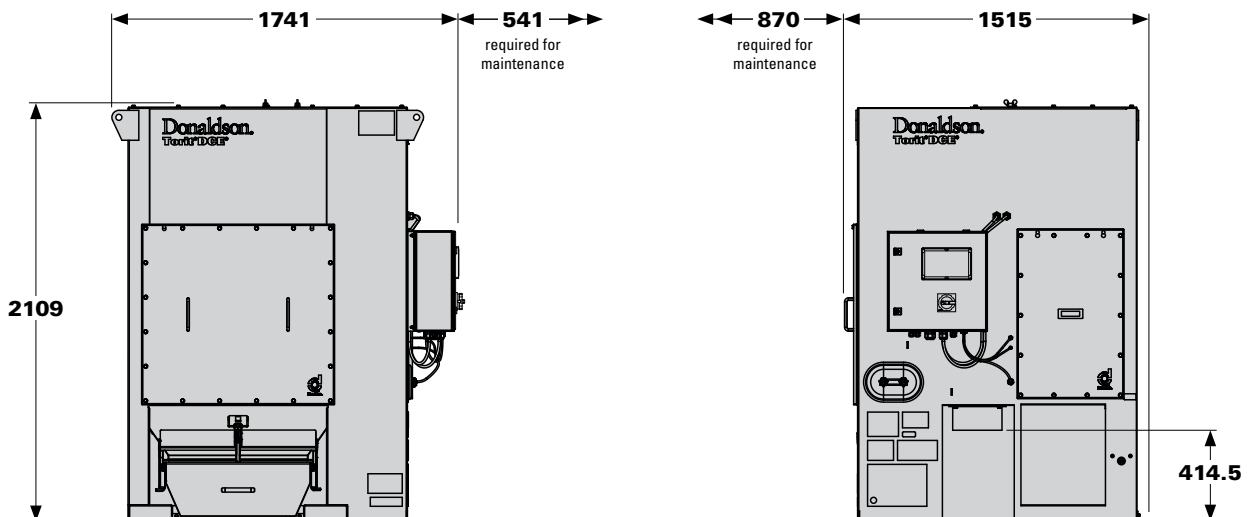
- Operating temperature:** -10° to +40°C
- Maximum operating pressure:** ±5 kPa (500 mm WG)
- Wind load rating:** 160 km/h
- Finishing:** Acrylated alkyd paint colour RAL 5019 (blue) - semi gloss

## DIMENSIONS & SPECIFICATIONS

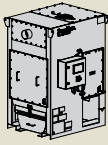
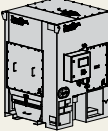
### DFPRE 4 STANDARD



### DFPRE 4 SPARKTRAP



## COLLECTOR WEIGHTS

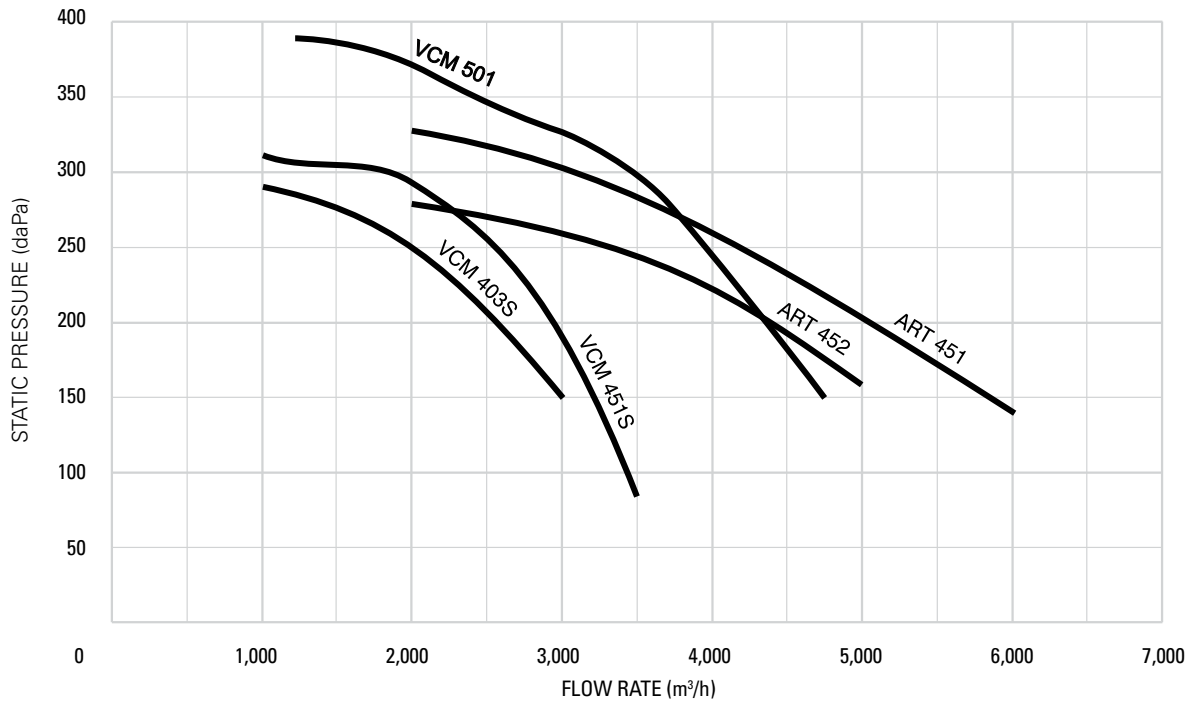
Model		Weight (in kg)
<b>DFPRE 4 Standard</b>		650
<b>DFPRE 4 Sparktrap</b>		750

Weights include filter cartridges and are for collectors prior to first use, i.e. with no dust collected.  
Excludes fan set weight and dust disposal system.

## FAN SET DETAILS

Fan type	Power (in kW)	Frequency	Weight (in kg)
VCM 403S	2.2	50	41
VCM 451S	3	50	70
ART 452	4	50	98
ART 451	5.5	50	110
VCM 501	7,5	50	82

## FAN PERFORMANCE CURVES



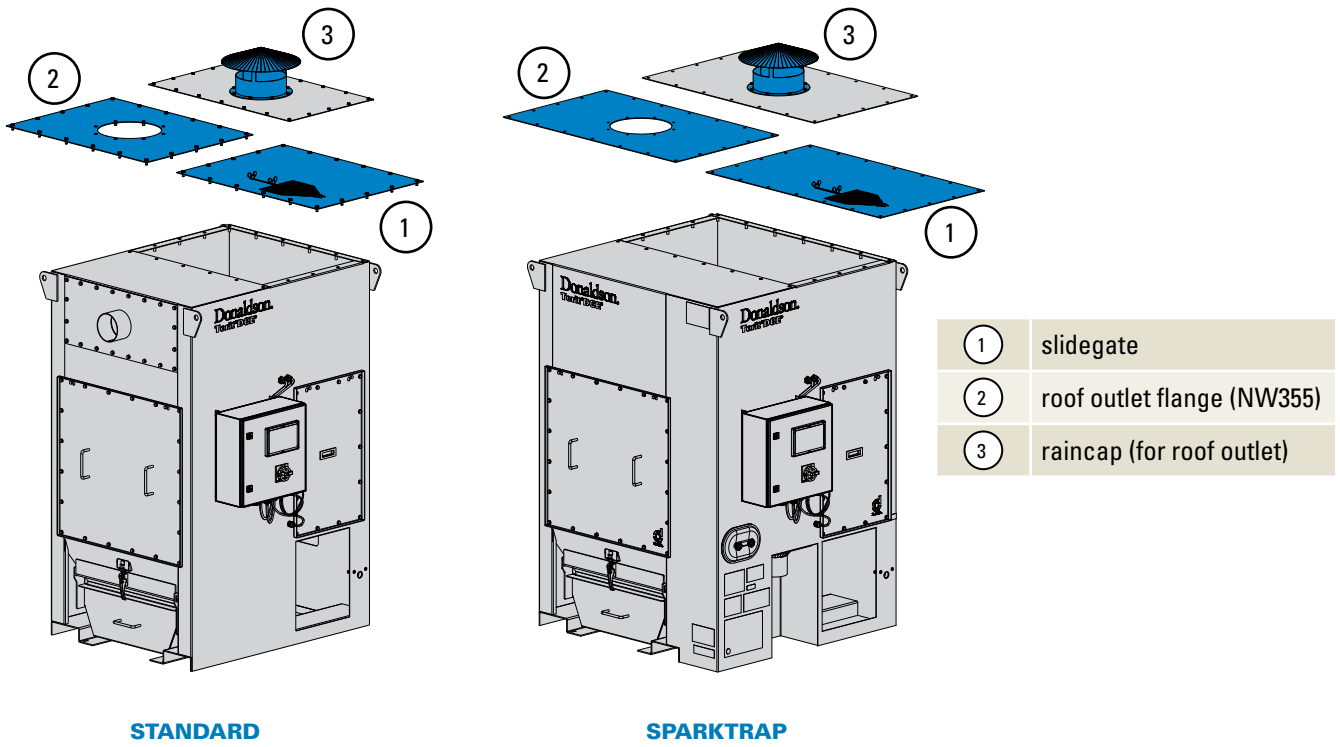
### FAN SELECTION

These curves indicate static pressure available at fan inlet for a given application, when fitted into a collector.

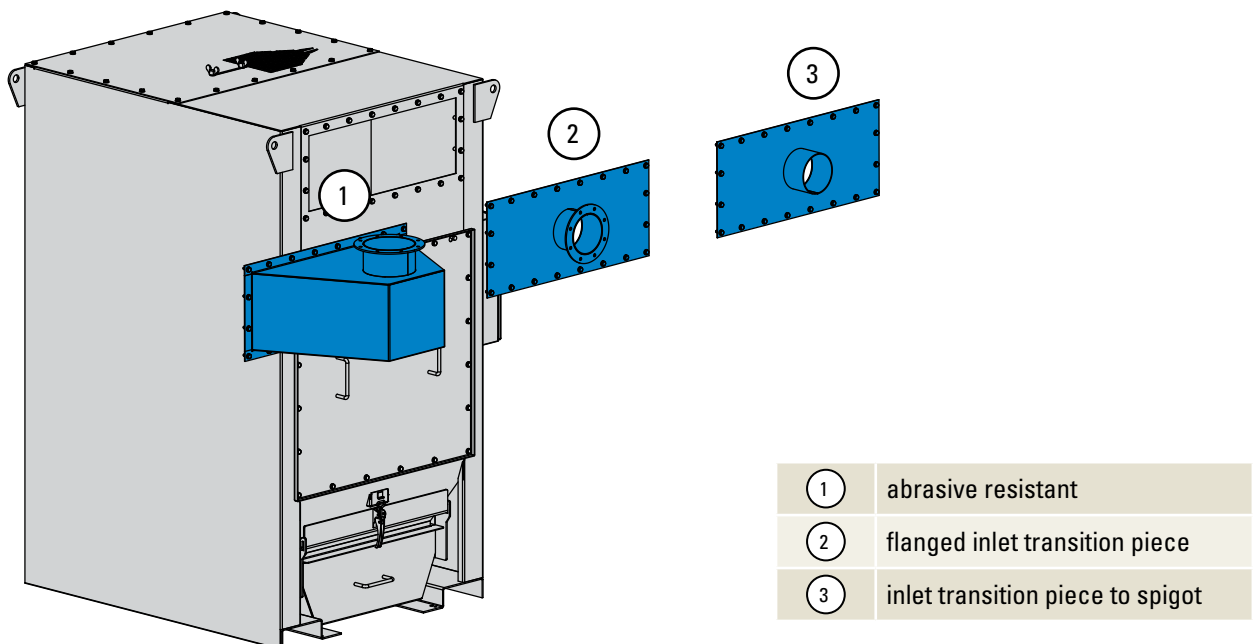
To select the most suitable fan for a given application:

- 1 Determine the air volume, in m<sup>3</sup>/h, needed to entrain the dust.
- 2 Estimate pressure drop through connected system – i.e. between point of entrainment and collector inlet.
- 3 Assess pressure drop over dust collector, prior to replacing filter cartridges, usually 100 daPa.
- 4 The sum of **2** and **3** = static pressure at inlet.
- 5 Consult graph for fan performance available.

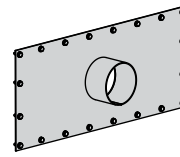
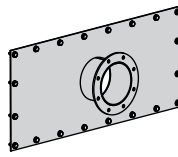
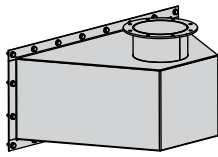
## ROOF PANEL OPTIONS - STANDARD / SPARKTRAP



## INLET BOX OPTIONS - STANDARD



## INLET BOX OPTIONS - STANDARD - AVAILABLE SIZES

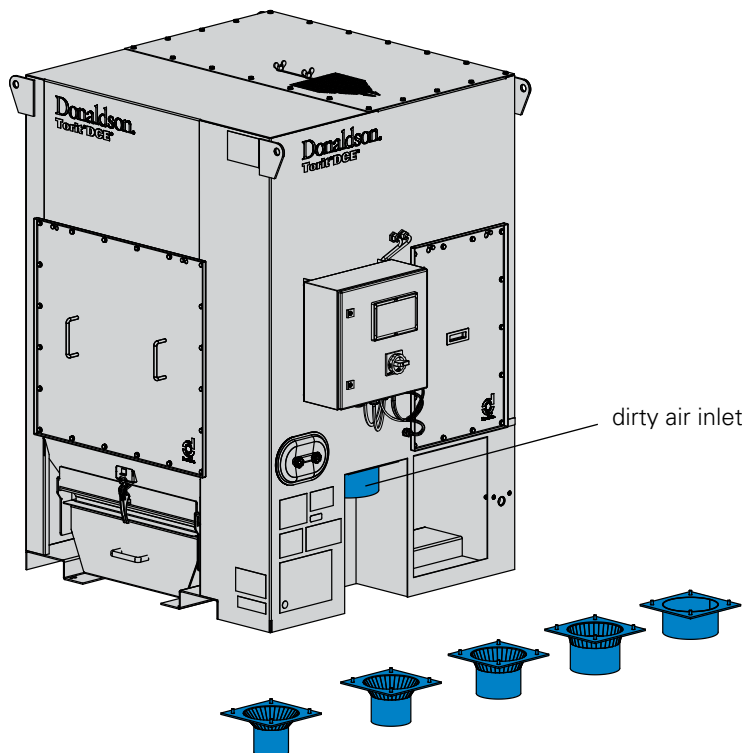


Abrasive resistant inlet box
NW200
NW250
NW315
NW400

Flanged inlet transition piece
NW160
NW200
NW250
NW280
NW315
NW355
NW400
NW450
NW500

Inlet transition piece to spigot
ID154
ID195
ID245
ID275

## INLET OPTIONS - SPARKTRAP



Available sizes
NW140
NW160
NW180
NW200
NW224

## ELECTRICAL REQUIREMENTS

<b>Fully automatic cleaning mechanism:</b>	C-Powerbox
<b>Pulse interval time:</b>	12 s
<b>Valve opening time</b>	100 msec
<b>Control box protection class:</b>	IP65
<b>Input voltage:</b>	400 V / 50 Hz

## NOISE EMISSION

Noise emission declaration of the DFPRE 4, measured according to EN-ISO 11201: 2010, running at maximum fan speed and 5 pulses per minute at 6 Bar with insulation foam:

The A-weighted emission sound pressure level re. 20 µPa	71 dB
associated total uncertainty $K_{pA}$	2.5 dB

The declaration is in conformance with ISO 4871.

## MANIFOLD DESIGN DETAILS

<b>Design pressure:</b>	8 bar
<b>Maximum operating pressure, PS:</b>	7 bar (101.5 psig)
<b>Test pressure:</b>	11.5 bar
<b>Design temperature:</b>	-20° to +70°C
<b>Manifold volume:</b>	7 litres
<b>Product of pressure and capacity:</b>	49 bar litres
<b>Material used for manifold construction:</b>	Structural hollow section according to EN13445

## COMPRESSED AIR REQUIREMENTS

<b>Max. 8 bar</b>	
<b>Pressure range 6-7 bar</b>	
<b>Clean air (max. particle size 50 µm)</b>	
<b>Free of condensate at working temperature</b>	
<b>Max. oil content:</b>	3 mg/m <sup>3</sup>
<b>Approximate compressed air usage*:</b>	±45 litres per pulse (± 13.5 Nm <sup>3</sup> /h for 12 s pulse interval at 7 bar)

\* The indicated value is the consumption per valve



## STANDARD FEATURES & AVAILABLE OPTIONS

### Unit options

Execution for outside installation
Compressed air – oil/water separator and accessories
Full range of fan sets
CAP insulation foam
Full range of filter cartridges
Bin balance pipe kit
DFS Feeder for the absorption of oily substances

### Cartridge options

Filter assembly DFE 660mm Ultra-Web®
Filter assembly DFE 660mm Ultra-Web® Earthed
Filter assembly DFE 660mm Ultra-Web® Flame Retardant
Filter assembly DFE 660mm Ultra-Web® Flame Retardant Earthed
Filter assembly DFE 660mm Ultra-Web® on SpunBond
Filter assembly DFE 660mm Ultra-Web® on SpunBond Earthed
Filter assembly DFE 660mm Ultra-Web® on SpunBond Anti-Static
Filter assembly DFE 660mm Ultra-Web® Anti-Static
Filter assembly DFE 660mm Torit-TEX®
Filter assembly DFE 660mm Torit-TEX® Earthed
Filter assembly DFE 660mm Torit-TEX® Anti-Static
Filter assembly DFE 660mm Ultra-Web® No Liner
Filter assembly DFE 660mm Ultra-Web® Flame Retardant No Liner
Filter assembly DFE 660mm Ultra-Web® Stainless Steel
Filter assembly DFE 660mm Fibra-Web®
Filter assembly DFE 660mm Fibra-Web® Earthed
Filter assembly DFE 660mm Fibra-Web® Flame Retardant
Filter assembly DFE 660mm Thermo-Web®
Filter assembly DFE 660mm Thermo-Web® Earthed
Filter assembly DFE 660mm Kevlar Nomex (high temp)

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