Environmental Control Booth Dust Collector

**DESIGN SPECIFICATIONS** (standard equipment)

- **Operating temperature:** -10° to +65°C
- **Maximum operating pressure range:** ±5 kPa (500 mm WG)
- **Wind load rating:** 160 km/h
- **Finishing:** Colour RAL 5019 (blue) – textured paint 480 line

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Number of fan sets</th>
<th>Number of filter cartridges</th>
<th>Filtration area Ultra Web®</th>
<th>Filtration area Fibra Web®</th>
<th>DIMENSIONS in mm A</th>
<th>DIMENSIONS in mm B</th>
<th>Net weight (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECB FM</td>
<td>0</td>
<td>6</td>
<td>126 m²</td>
<td>61.8 m²</td>
<td>1613</td>
<td>1143</td>
<td>300 kg</td>
</tr>
<tr>
<td>ECB PM</td>
<td>1</td>
<td>6</td>
<td>126 m²</td>
<td>61.8 m²</td>
<td>2286</td>
<td>1143</td>
<td>560 kg</td>
</tr>
<tr>
<td>ECB-2</td>
<td>2</td>
<td>12</td>
<td>252 m²</td>
<td>124.0 m²</td>
<td>2228</td>
<td>2286</td>
<td>1120 kg</td>
</tr>
<tr>
<td>ECB-3</td>
<td>3</td>
<td>18</td>
<td>378 m²</td>
<td>185.4 m²</td>
<td>2286</td>
<td>3429</td>
<td>1680 kg</td>
</tr>
<tr>
<td>ECB-4</td>
<td>4</td>
<td>24</td>
<td>504 m²</td>
<td>248.0 m²</td>
<td>2228</td>
<td>4572</td>
<td>2240 kg</td>
</tr>
</tbody>
</table>

**EcB DUST COLLECTOR**

(ECB-2 illustrated)

**DIMENSIONS in mm**

- A: 300 minimum clearance
- B: 876

**Lifting lugs**

- **Compressed air connection** (1” BSP female)
- **Fan set**
- **Filter cartridges**
- **Clean air chamber door**
- **Standard open louvre inlet**
- **Dust drawer**

**No:** 421-0865-GB • **Rev:** 01 • **Date:** 04/13

Donaldson reserve the right to alter design without notice. Freedom from patent restrictions must not be assumed.
DIRTY AIR INLET OPTIONS

OPEN LOUVRE

SELF-CLOSING LOUVRE

SPARKTRAP

CLEAN AIR OUTLET OPTIONS

STANDARD ROOF PACK

SILENCER PACK

STANDARD HEPA AFTERFILTER

HEPA AFTERFILTER – VERTICAL FLOW
(For ECB Power Module only)
COMPRESSED AIR REQUIREMENTS

Max. 7 bar
Pressure range 6-7 bar
Clean air (max. particle size 50 µm)
Free of condensate at working temperature
Max. oil content: 3 mg/m³
Approx. compressed air usage*: ±50 Nlitres per pulse
(...18 Nm³/h for 10 s pulse interval at 7 bar)

* The indicated value is the consumption per valve

PULSE NOISE LEVEL *

LpAeq: ≤ 75 dB (A-weighted equivalent continuous sound pressure level)
ΔL: ≤ 10 dB (impulsive noise content)

* Measurement according to DIN 45635/1 at 1m distance, with 6 bar compressed air pressure, pulse interval of 15s, semi-free field conditions and usual tolerance ±2 dB.

BOOTH PACK SPECIFICATIONS

<table>
<thead>
<tr>
<th>Booth Pack</th>
<th>Width (A) of booth</th>
<th>Approx. net weight (booth only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECB-2</td>
<td>2286 mm</td>
<td>300 kg</td>
</tr>
<tr>
<td>ECB-3</td>
<td>3429 mm</td>
<td>450 kg</td>
</tr>
<tr>
<td>ECB-4</td>
<td>4572 mm</td>
<td>600 kg</td>
</tr>
</tbody>
</table>

For information on larger configurations, please contact your local Donaldson representative.
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 $m^3/h$, 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.

ELECTRICAL SPECIFICATIONS

Controls

- Full automatic cleaning mechanism: Torit Control Board or IPC / IPC (AP) Controller
- Pulse time: 100 ms
- Interval time: 10 s
- Voltage input: 400V AC; 3 ph; 50 Hz;
- Control box protection class: IP65
- Solenoid voltage: 24V DC

OPTIONS

- Full range of filter cartridges
- Pulse noise attenuation down to $L_pA_{eq} \leq 70$ dB
- Compressed air – oil/water separator and accessories
- Earthing connection
- Joining pack for connecting two modules
- Downdraft bench
- ATEX certified unit on request

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