DustCollectors

From showrooms to workshops, from studio to warehouses, from sports halls to classrooms, and from new constructions to renovation constructions, dust is created everywhere through work and/or activities that are carried out. In a warehouse that is ridden with forklifts, we will generally find a heavier type of dust, mainly caused by the wear of tyres. In work places, where there is a lot of chipping work and machines are being used, a totally different type of dust is produced, which is lighter by nature and easier to move. Loose dust can be moved by little air turbulence, causing this dust to settle on the goods that are stored or displayed in that respective space.

In all situations, the dust can be removed by e.g. vacuuming, sweeping etc., but some places are not very easily accessible, causing the dust accumulation to increase over time. The DustCollectors are a true revolution in the field of dust removal in all areas, especially in spaces where regular systems are no longer sufficient. Due to its powerful fan developed especially for this purpose, the DustCollector brings the air in motion. This air is sucked through a set of filters, whereby the dust remains behind in the filter and clean air is blown back into the room. This powerful airflow reaches everywhere, even in difficult and inaccessible places. This method of dust removal is usually done at night, it is not labour intensive, it is highly effective, easy to implement and very cost effective. An additional advantage is that all air is circulated. This way, the warm air that is accumulated on the ceiling is utilised far more effectively, and this saves on heating costs.
All models in the ProDuster series are equipped with a G4 filter and an F9 height filter. All 220 volt models are equipped with the same control panel, which increases ease of use when multiple models are used. Depending on the work to be carried out, another main filter can be placed. The airflow is important to determine the right ProDuster model.

ProDusters are available in a range from 1.000 - 28.800 m³/hrs airflow.

If the correct ProDuster is used, it is possible to achieve a dust reduction of at least 50% in the respective area within the first 30 minutes at least 70% after one hour. To maintain a constant dust load of 30%, the ProDuster has to run at least 12 hours per day.

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Power</th>
<th>dB(A)</th>
<th>Dimensions</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 25330 Blauw 230V (F9/G4)</td>
<td>230 V</td>
<td>400 W</td>
<td>67</td>
<td>65x93x49 cm</td>
<td>2700 m³/hr</td>
</tr>
<tr>
<td>CS 30340 Blauw 230 V (F9/G4)</td>
<td>230 V</td>
<td>600 W</td>
<td>69</td>
<td>75x107x59 cm</td>
<td>3900 m³/hr</td>
</tr>
<tr>
<td>CS 40350 Blauw 230 V (F9/G4)</td>
<td>230 V</td>
<td>1100 W</td>
<td>69</td>
<td>85x69x121 cm</td>
<td>6300 m³/hr</td>
</tr>
<tr>
<td>CS 50360 Blauw 230 V (F9/G4)</td>
<td>230 V</td>
<td>1400 W</td>
<td>73</td>
<td>95x79x135 cm</td>
<td>7800 m³/hr</td>
</tr>
<tr>
<td>CS 60370 Blauw 230V (F9/G4)</td>
<td>230 V</td>
<td>1400 W</td>
<td>79</td>
<td>105x92x164 cm</td>
<td>14400 m³/hr</td>
</tr>
<tr>
<td>CS 80490 Blauw 400 V 3F (F9/G4)</td>
<td>400 V (3F)</td>
<td>3000 W</td>
<td>82</td>
<td>120x127x194 cm</td>
<td>28800 m³/hr</td>
</tr>
</tbody>
</table>

Heavy duty aluminium profile
Warm air rises and remains useless in the upper part of the warehouse. A DustCollector blows this accumulated warm air back into the workplace. According to the supplier, this set up can save up to 30 percent on heating costs.

**Thermostat**

In large open industrial buildings and freight forwarding halls, it is virtually impossible to control or reduce energy costs. This is caused by the simple physical phenomenon that warm air rises upwards. So in order to obtain a comfortable temperature at floor level, the heating is almost constantly switched on. And still, it is often virtually impossible to heat up the workplace although the temperature below the roof is very high. Basically the ceiling gets heated instead of the shop floor. This results in high energy consumption and high heating costs, because the thermostat almost continuously switches on. According to the supplier, practical measurements over a period of two years, have indicated that savings between 18% and 40% can be achieved. On average, the return on investment (ROI) has proven to be between 12 and 36 months.

**Rule of thumb**

As a rule of thumb, it is considered that at each meter altitude above the thermostat the temperature is 1-2 degrees higher. So in a hall of 10 metres height, below the ceiling it can be 30 degrees on average while the work floor is only 19 degrees. This is a waste of energy and money. The heat from the heater only partially reaches the shop floor so that the thermostat is continually switched on during the colder periods. In the hot summer months, a ceiling fan cools through a constant flow of stationary warm air.

**An example**

The heating costs of an average distribution hall or industrial hall are hefty. A hall of 12,000 m² that is 10 metres high and has 44 dock doors, will have 65,000 euros heating costs annually. If these annual costs can drop by 35 percent by placing DustCollectors, enormous savings are realised while simultaneously dust problems are reduced drastically.

**Healthy Lungs Are Vital**

The risk of lung diseases caused by particulate matter, is around 40% in case of exposure over a period of more than 20 years. Lung damage caused by exposure to particulate matter is usually not curable. The damage may continue for 2-5 years after one has stopped working (in an environment with fine dust). In that case we speak of black lung.

**What is black lung disease?**

A black lung is a collective term for a lung disease caused by inhaling fine particles. Fine particles are not filtered by the nose, and with each breath they arrive in the lungs and in the alveoli. Scar tissue is formed. In areas with scar tissue, the lungs can no longer absorb oxygen in the blood. The lungs become less elastic and breathing requires more effort. Symptoms like coughing, difficulty and/or wheezing, tightness of the chest, sneezing and watery eyes are typical for people suffering from black lung.

**What can you do to keep healthy lungs?**

By working carefully, you breathe in 10x up to 100x less particulates. Every breath counts! Every day, day in and day out, you have to be committed and focused on working carefully. This will cost you time now, but the profits will only become clear in about 10, 20 or 30 years.