## DUST Control Guide

## SAFER AND Cleaner Jobsites

stcontrol



## TOUGH JOBS Made Easy

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## **ABOUT DUST AND YOUR HEALTH**

#### The biggest hazard is the hazard which you cannot see

A dusty work environment causes discomfort, poses a greater risk to safety and effects performance, compromising efficiency and quality. In many cases, the dust is also damaging to health to a greater or lesser degree.

- Those working in environments containing silica dust are more susceptible to silicosis and run a higher risk of developing cancer.
- During the 1970s, serious attention was given to the dangers associated with asbestos. Despite the fact that working with asbestos is prohibited, those engaged in demolition and renovation works are still exposed to asbestos dust.
- From the 1950s to the 1970s, PCBs were used as plasticizers in sealants used to seal and absorb movements in façades. They were also present in flooring compounds, insulating glass and condensers. PCBs affect the memory, reproductive capacity and the immune system – and they can eventually cause cancer.
- Welding fumes contain toxins such as chromium, manganese and ozone.
- In garage workshops, the dangers associated with petrol, isocyanates and exhaust fumes from vehicles have been recognised.
- There is an elevated rate of allergy, asthma and hay fever among joiners and carpenters due to high volumes of wood dust in the work environment. Woodworkers operating in the construction industry are twice as likely to develop cancer in the nose or sinuses compared with men generally.

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### DID YOU KNOW?

IT TAKES SOME TIME - OFTEN BETWEEN 10 AND 30 YEARS - BEFORE THE SYMPTOMS OF SILICOSIS, CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) AND CANCER BECOME APPARENT. TAKE THE TIME TO ENSURE THAT YOUR PROTECTION MEETS THE STANDARDS REQUIRED. YOUR LIFE AND HEALTH ARE AT STAKE.

#### The most hazardous dust is the dust you can't see

The smaller a particle is, the deeper into the pulmonary system it penetrates. Respirable dust, the dust we inhale, is made up of particles smaller than 18 thousands of a millimetre. Because the particles are so small, they can penetrate into the deepest parts of the pulmonary system where the air moves too slowly to be able to breathe them out again.

The lungs' way of protecting themselves is to wrap the foreign particles in nodules of connective tissue, which, in time, leads to pneumoconiosis or COPD (Chronic Obstructive Pulmonary Disease). Some types of particles, such as silica and asbestos dust, cannot be broken down by the body and are also sharp, which is why they continue to cause damage long after they have become lodged in the lungs.





## **DUST IN DETAIL**

Dust is defined as an accumulation of particles comprising one or more substances, at a particle size of between 0.1 and  $100\mu m$  ( $1\mu m = 0.001mm$ ). The particles are light enough to be able to be held suspended in air currents, and therefore occur in air that is inhaled (aerosol).

As a rule, dust that is visible to the naked eye is larger than  $10\mu m$ . In higher concentrations, even substantially smaller particles may be visible, in the form of smoke, fog, spray and cloud.

Aerosols occur in large quantities in all air. The number of particles larger than 0.3μm in ordinary atmospheric air is rarely lower than 40 million per m<sup>3</sup>.

A small particle will be more difficult to separate than a larger one. This also applies to the air purification system of the human body. Larger particles are separated in the windpipe, while smaller ones (smaller than around  $18\mu$ m) are capable of entering the lungs and causing damage.

The term, 'respirable dust', refers to those dust particles that are smaller enough to end up in the lungs. 'Inhalable dust' refers to the particles that can be breathed in through the nose and mouth.





Plaster

Asbestos Fibre

Ash

Large Asbestos

## THE RESPIRATORY PASSAGES

The most important function of the respiratory passage is to extract dust.

The function of the respiratory system is to supply the body with the oxygen that is required for cellular oxidation and to expel "the waste product', carbon dioxide. In the alveoli of the lungs, carbon dioxide from the blood and oxygen from the air are exchanged. In this way, the blood is oxygenated and carbon dioxide is expelled in the exhaled air. The nose contains a "coarse filter" consisting of hair. These hairs trap coarse particles, such as soot, pollen and small insects

Fine separation, on the other hand, takes places in the rest of the respiratory passages. Particles contained in inhaled air are thrown against the wall of the air passages, with the cilia in the mucus coating trapping them and then carrying up the mucusoid particles when it reaches the pharynx, it is often swallowed down into the stomach.

The exchange of oxygen and carbon dioxide takes place over a very large surface area (approx. 80m<sup>2</sup>). Due to this large surface, the flow velocity in the innermost parts of the lungs is virtually zero.



Respirable dust, which is approximately 18µm and smaller, is able to enter the lungs. As particles get smaller, the deeper into the lungs they penetrate and the more likely it is that they become trapped.

This is why the most hazardous dust is the dust you cannot see!









## CLASSIFICATIONS OF DUST EXTRACTORS

Dust extractors are utilised to improve the work environment and eliminate unhealthy particles in the air. This places considerable demands on the dust extractor's capacity to separate fine dust.

To ensure that the dust extractor meets the requirements outlined in the relevant work environment provisions, it is classified in line with a standardised test. In accordance with the IEC 60335.2.69 / AS/NZS 60335.2.69 standard for the testing of dust and water extraction units, there are three classifications for dust extractors: L for low, M for medium and H for high. In accordance with IEC 60335.2.69 / AS/NZS 60335.2.69, the test comprises two phases:

Testing of the filter system (fine filter and HEPA filter, where relevant).
 Testing of the fully assembled dust extractor.



H - High is the class with the most stringent criteria, stipulating a filtration efficiency of 99.995% for particles measuring from 0.1 to  $5.0 \mu m$ . The machine is approved for separation of carcinogenic substances such as Silica and Asbestos.



M - Medium has an efficiency of 99.95%.



L - Low has an efficiency of 99%.



## **CHOOSE THE RIGHT MACHINE**

#### **MINI RANGE**

#### Single phase, single motor dust extractors

Reliable, compact vacuums combining ease of use with strong suction capacity and a high level of filtration.

#### **Task Or Tool**

- Onsite clean-up –
  'Ban the Broom'
- Hand held floor grinders and power tools
- Abrasive discs up to Ø230mm
- Cutting discs up to Ø230mm
- Mitre saw
- Drilling
- Personal decontamination



When large quantities of dust are produced, a pre-separator is recommended

#### **MIDI RANGE**

Robust and efficient vacuums with strong, powerful suction to handle tough jobs.

#### **Task Or Tool**

- Onsite clean-up 'Ban the Broom'
- Stand-up floor grinders up to Ø650mm
- Abrasive discs
- Cutting discs
- Core drilling
- Circular saw
- Jack hammers
- Scarifier

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• Filler sanding



When large quantities of dust are produced, a preseparator is recommended



#### **MAXI RANGE**

#### **Three phase dust extractors**

Featuring a direct-driven, three-phase turbo pump suitable for continuous operation, heavy material transport, source extraction and cleaning.

#### Task Or Tool

- Onsite clean-up –
  'Ban the Broom'
- Stand-up floor grinders up to Ø1000mm
- Suction lance Ø76mm
- Scarifier
- Semi mobile system
- Material transport /
- ConveyancingBrick saw Ø400mm



When large quantities of dust are produced, a preseparator is recommended



#### **AIR CLEANERS**

Designed to capture airborne dust particles and continually clean air onsite. Best used as a complement to source extraction to reduce the risk of dust exposure.

#### **Task Or Tool**

Jackhammering, wall sanding, concrete grinding, demolition work, kitchen and bathroom renovation and other construction work.

#### WET-VAC

Safe and easy collection of slurry on the site. Equipped with a submersible pump for continuous evacuation of water.

#### **Task Or Tool**

- Drilling
- Demolition
- Water Damage

#### Equipped with the highest filtration!

All our Dustcontrol vacuums are equipped with a fine filter and a HEPA filter (H13) that clean the exhaust air to 99.995%. These high-efficiency filters also have a long service life, which not only results in cleaner air, but also on low filter costs. Every single HEPA filter is individually tested and certified.

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## **MINI RANGE**

## COMBINING EASE OF USE WITH STRONG SUCTION AND A HIGH LEVEL OF FILTRATION





The Dustcontrol DC1800 is lightweight and ideal for contractors needing a highly portable vacuum with enough power for source extraction to capture dust from hand tools.

Weighing only 14kg it is easy to carry on to the job site and can be easily stored or rolled under a workbench.

The sturdy frame and castors are perfect for the demands of the construction industry but also for anyone that needs a light yet powerful dust extractor. For safe and easy disposal of dust, the DC1800 uses a plastic bag inside the drum.

This vacuum is also available in an auto-start version which will allow you to run your tools off the vacuum – the vacuum will automatically start when the tool is switched on.





ECO 1-PHASE

#### **Supplied with**

- Antistatic hose kit Ø38mm x 5m (Part No 2115 + 2108 + 2111)
- Aluminium floor tool B 370, Ø38mm (Part No 7235)
- Chrome steel suction pipe Ø38mm (Part No 7257)
- Plastic sacks (Part No 42291)
- Basket for plastic sack (Part No 42369)
- Fine filter, cellulose (Part No 42029)
- HEPA H13 filter (Part No 42027)

74 x 38 x 38cm
14kg
20L
205m³/h
24kPa
1285W
68dB(A)
VAC-DC-101800



### DC 2900C

The Dustcontrol DC2900 is by far the most popular single-phase H Class vacuum.

Weighing only 16kg, the Dustcontrol DC2900c Vacuum is a lightweight and portable option for lifting upstairs and transporting to and around sites. The DC 2900 has a sturdy steel chassis and nonmarking wheels, built to withstand the demands of the construction industry.

While it's the ideal vacuum for capturing dust from hand held grinding, cutting, chasing and carpentry tools, the DC2900 can also be run with a preseparator to capture dust with stand up floor grinders up to 280mm in diameter. It is also an ideal vacuum for site clean up, helping contractors 'ban the broom' on job sites and ensure safe and efficient cleaning.

The Intellibag dust bag collection with the DC2900c model provides safe and easy dust disposal for the most inexperienced operators.







#### **Supplied with**

- Antistatic hose kit set Ø38mm x 5m (Part No 2115 + 2108 + 2111)
- Aluminium floor tool B370 mm (Part No 7235)
- Chrome steel suction pipe Ø38mm (Part No 7257)
- Plastic bag (Part No 42702)
- Fine filter, cellulose (Part No 42029)
- HEPA H13 filter (Part No 42027)

H x W x L	111 x 44 x 55cm
Weight	16kg
Collection	20L
Airflow, max	215m³/h
Negative pressure, max	24kPa
Power consumption 230V	1285W
Sound level	68dB(A)
Product code	VAC-DC-120000



All of the features of the Dustcontrol DC2900c Vacuum and more!

The Dustcontrol DC2900L the same vacuum as the DC2900c, except it is supplied with the Longopac continuous bag collection system for dust-free bag replacement. This system takes no more than 30 seconds to replace a bag and is a safer way to dispose of dust.







ECO 1-PHASE

#### Supplied with

- Antistatic hose kit Ø38mm x 5m (Part No 2115 + 2108 + 2111)
- Aluminium floor tool 370mm, Ø38mm (Part No 7235)
- Chrome steel suction pipe Ø38 mm (Part No 7257)
- Longopac 12m (Part No 44763)
- Fine filter, cellulose (Part No 42029)
- HEPA filter (Part No 42027)
- Compact storage for zip ties

H x W x L	111 x 44 x 55cm
Weight	19kg
Collection	Longopac
Airflow, max	215m³/h
Negative pressure, max	24kPa
Power consumption 230V	1285W
Sound level	68dB(A)
Product code	VAC-DC-122000





## MIDI RANGE

ROBUST AND EFFICIENT VACUUMS WITH STRONG, POWERFUL SUCTION TO HANDLE TOUGH JOBS



## DC TROMB 400L

The Dustcontrol Tromb 400 is designed to cope with the demands for a clean and healthy working environment.

Being a powerful, robust and effective vacuum, the Tromb 400 will handle all kinds of dust created on a construction site from cutting concrete, sanding, grinding and drilling, as well as dust from many other industrial factory processes.

The Tromb filter cleaning is semi-automatic with a diaphragm that opens to allow air to be sucked backwards from inside the filter out – this effectively cleans the dust off the filters and means there is no downtime having to stop working and unblock the filters.

With a sturdy steel chassis the Tromb 400 is built to withstand the demands of the construction industry and be used onsite for years to come. The wheels are puncture proof and lockable which will allow you to work on uneven ground. Thanks to its compact design, the Tromb 400 will effortlessly fit into tight spaces alongside other equipment in your truck or van, making it easy to transport to and around the job site.

The Tromb 400 is supplied with the Longopac continuous bag collection system for dust-free bag replacement. This system takes no more than 30 seconds to replace a bag and is a safer way to dispose of dust.

# Safe and easy disposal of dust with Longopac!





#### Supplied with:

- Antistatic hose kit Ø50 mm x 7.5m (Part No 2013 + 2129 + 2008)
- Aluminium floor tool 500mm, Ø50 (Part No 7238)
- Chrome steel suction pipe Ø50 mm (Part No 7265)
- Longopac 25m (Part No 432177)
- Fine filter; polyester (Part No 44017)
- HEPA filter (Part No 44016)
- Compact storage for zip ties

#### **Technical data**

H x W x L	136 x 60 x 78cm
Weight	51kg
Collection	Longopac
Airflow, max	420m³/h
Negative pressure, max	22kPa
Power consumption 230V	3000W
Sound level	70dB(A)
Product code	VAC-DC-171530

SECONDS!

## **DCF TROMB TWIN**

The DCF Tromb Twin combines the Tromb 400 Vacuum and DCF Tromb Pre-Separator into an integrated unit that can easily be detached if required.

The Tromb Twin is ideal for controlling dust with floor grinders and tools that generate a substantial volume of dust since the pre-separator captures 80-90% of particles. Having the pre-separator connected reduces the strain on filters and wearing parts of the vacuum. The remaining dust goes through the filter cyclone, with fine particles caught in the filters and heavier particles collected in the bag.

Using the Tromb Twin with the integrated pre-separator means less hassle connecting and carrying excess hoses to run between the two units, making it easier for the operator to transport to or around your job site.

- Easy to transport.
- Handles large quantities of dust.
- Dust-free bag replacement.









## \* HOGE IN SWEDEN

#### Supplied with:

- Antistatic hose kit Ø50 mm x 7.5m (Part No 2013 + 2129 + 2008)
- Aluminium floor tool 500mm, Ø50 (Part No 7238)
- Chrome steel suction pipe Ø50mm (Part No 7265)
- Longopac 25m (Part No 432177)
- Fine filter; polyester (Part No 44017)
- HEPA filter (Part No 44016)
- Compact storage for zip ties

H x W x L	136 x 60 x 128cm
Weight	80kg
Collection	Longopac
Airflow, max	420m³/h
Negative pressure, max	20kPa
Power consumption 230V	3000W
Sound level	70dB(A)
Product code	VAC-DC-172530





## **MAXI RANGE**

## A FORCE TO BE RECKONED WITH



## DC STORM 500 / DC STORM 700

#### Features

- Effective reverse pulse cleaning on the main filter to extend filter life and maximises suction.
- High efficiency, true cyclonic primary dust separation. Relieves filter loading, minimizes down-time and maximizes up-time.
- Powerful inbuilt turbine is much quieter than traditional system.
- H13 HEPA filtration. Filters even the most dangerous respirable particles and keeps your workers safe.
- Large pneumatic wheels, locking casters with a brake and an ergonomic handle. Easily moved and manoeuvred.
- Lifting hooks for crane connection and ease of loading into your vehicle or up multiple stories
- 32amp socket on vacuum allows power connection for running a floor grinder or tool direct from the vacuum.

If you're looking for consistently powerful suction to handle massive amounts of dust, the DC Storm dust extractors are the answer.

The DC Storm dust extractors can be used in various ways depending on your application, whether you are connecting to a floor grinder to handle a large volume of dust or conveying heavy material away in your production area or job site.

With a direct driven, three-phase turbo pump, the DC Storm is suitable for continuous operation which reduces any non-productive time onsite.

The DC Storm provides sufficient airflow for several users at the same time, and it can also be used as a semi-mobile central unit with multiple hoses running off it.

With a robust and sturdy steel chassis for maximum durability the DC Storm dust extractors will not let you down onsite. They are suitable for continuous operation, thanks to the direct driven, three-phase turbo pump, which reduces any non-productive time onsite.

The Storm 500 has the capacity to control dust with floor grinders up to 700mm in diameter. The Storm 700 has the capacity to control dust with floor grinders up to 1000mm in diameter.

Technical Data	3-PHASE	3-PHASE
Vacuum	DC Storm 500	DC Storm 700
H x W x L	179 x 78 x 116cm	179 x 78 x 116cm
Weight	178kg	210kg
Collection	Longopac	Longopac
Airflow, max	500m³/h	700m³/h
Negative pressure, max	24kPa	22kPa
Sound level	75dB(A)	75dB(A)
Product code	VAC-DC-119432	VAC-DC-119419



#### DC Storm 500 supplied with

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- Antistatic hose kit Ø50mm x 7.5m (Part No 2013 + 2107 + 2008)
- Aluminium floor tool 500mm, Ø50 (Part No 7238)
- Chrome steel suction pipe Ø50mm (Part No 7256)
- Longopac 25m (Part No 44077)
- Fine Filter; polyester (Part No 44212)
- HEPA H13 filter (Part No 42869)
- Compact storage for zip ties

#### DC Storm 700 supplied with

- Antistatic hose kit Ø50mm x 7.5m (Part No 2401 + 2107 + 2008)
- 7.5m (Part No 2013)

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- Aluminium floor tool 500mm, Ø50 (Part No 7238)
- Chrome steel suction pipe Ø50mm (Part No 7265)
- Longopac 25m (Part No 44077)
- Fine Filter; polyester (Part No 44081)
- HEPA H13 filter (Part No 42807)
- Compact storage for zip ties



## **DC STORM LPG**

#### **Powered by Propane**

Clean burning propane and the reliability of Dustcontrol powered by a 21 hp engine. Designed for the user with class leading capacity and minimal maintenance requirements, the unit will operate approximately 8 hours on a full tank and the machine is equipped with an external self-discharging cyclonic air filter with visual filter monitor.

#### **Packed with Features**

- Effective reverse pulse cleaning on the main filter. Extends filter life.
- High efficiency, true cyclonic primary dust separation. Relieves filter loading, minimizes down-time and maximizes up-time.
- H13 HEPA filtration. Filters even the most dangerous respirable particles and keeps your workers safe.
- Large pneumatic wheels, locking casters and an ergonomic handle. Easily moved and manoeuvred.
- Integral chassis fork pockets for ease of loading and movement from place to place.
- Reliable belt drive and automatic mechanical clutch.
- Low maintenance 21hp motor with standard oil cooler and low oil pressure shut down.
- Three way catalytic muffler, O2 sensor, auto shut-down and alarm indication.
- Key start and all operator controls in one place.
- Remote battery charger hook up point and LED battery monitor.
- 2 x 18W LED Work Lamps for when you get into those out of the way places.
- 2 x USB outlets to keep your mobile devices charged.

#### H

#### Supplied with

- C) Intellibag (Part No 46145)
- L) Longopac 25m (Part No 44077)
- HEPA H13 Filter (Part No 42807)
- Fine Filter, PTFE (Part No 44081)
- Compact storage for zip ties

H x W x L	130 x 79 x 178cm
Weight	265kg
Collection	Longopac
Airflow, max	800m³/h
Engine power (Vanguard)	21hp
Final filtration	HEPA H13 Filter
Sound level	79dB(A)

## **PRE-SEPARATORS**

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### SUPA DUST SEPARATOR

Improve the suction from your vacuum, reduce the wear and tear on your filters and minimise costs long term with the Supa Dust Separator. Running a Pre-Separator with your vacuum ensures approx 90% of dust or slurry is collected before it reaches your vacuum, therefore extending filter cleaning intervals and the life of your vacuum.

- Reduce filter blockages
- Reduce replacement and repair vacuum costs
- No moving or wearing parts
- Extend the life of your vacuum

#### **Supplied with**

- 1.2m x 50mm connection hoses.
- Precision bearing castors.
  - Tough cover catches.
- Clear labels for air in and air out.
- Cable management device to save your lead from getting in the way.

#### **Technical data**

H x W x D	42 x 42 x 78cm
Weight	12.5kg
Inlet	Ø50mm
Collection	65L
Product code	VAC-SEP65



Easily contain and dispose of dust with the 65L dust bags.



What are

**Pre-Separators?** 

Pre-Separators can be used in all applications where the extracted

material is coarse or voluminous.

These can be placed in the actual

workplace for separate handling or

recovery of the extracted material, or centrally to relieve filter loading.

Pre-Separators separate material from the air flow using the action of

The Cyclone Principle is very

down to 1/100 mm.

effective in separating particles

Inertial separators are generally

configured as containers with the inlet and outlet in the same wall of the container. When the airflow changes direction abruptly, separation occurs for the particles

with higher relative mass.

a cyclone or with inertial separation.

### DCF 2800 PRE SEPARATOR

The DCF 2800 pre-separator is often used in combination with the DC 2900 dust extractor to relieve the loading on the filter and prolong the lifetime of the vacuum.

#### **Supplied with**

• Plastic Bags (Part No 42702).

H x W x D	100 x 54 x 45cm
Weight	10kg
Inlet	Ø50mm
Collection	40L

## DCF TROMB

The DCF Tromb is a robust pre-separator is ideal for floor grinding and semi-mobile systems where large quantities of dust are handled. The pre-separator reduces the strain on the extraction source and is equipped with Longopac collection for dust-free bag replacement, therefore allowing the user to avoid unnecessary and time-consuming shutdowns.

#### **Supplied with**

- Longopac 22m (Part No 432177)
- Compact storage for zip ties

#### **Technical Data**

H x W x L	129 x 60 x 78cm
Weight	27kg
Inlet	Ø76mm
Collection	Longopac
Product code	VAC-DC-707000

## **DCF STORM**

The DCF Storm is ideal for floor grinding and semi-mobile systems and could be set apart to handle large and heavy quantities of dust. The preseparator relieves the loading on the filter in the vacuum source and is equipped with a Longopac solution for dust-free bag changing, so that the user can minimise unnecessary and time-consuming stoppages. Also available as a standard "c" model with an Intellibag.

#### **Supplied with**

 DCFStorm L, Longopac 25m (Part No 44077) or DCFStorm C, plastic bags (Part No 46165)

#### **Technical data**

H x W x D	187 x 70 x 108cm
Weight	46kg
Inlet	Ø108 mm
Collection	Intellibag/Longopac
Product code	VAC-DC-70700



#### When a Pre-Separator is to be used the following should be considered:

- 1. Type of dust to be handled.
- 2. How the unit should be placed and how emptying will be performed.
- 3. Expected airflow.

#### Pre-Separator should be used:

- for material recovery.
- for material transportation.
- to reduce the loading on the ducting system.
- to relieve loading on the central filter.
- to reduce the risk of filter clogging.
- when fluids are to be separated.



**Inertial Principle** meaning that the air stream flows into the container and abruptly changes course.





## **CHOOSE THE RIGHT FILTER**

#### **Dust Separation in 5 Steps**

Pleated design increases the filtering surface. For filtering to be effective without affecting user performance, the air velocity through the filter must be maintained but without overloading the volume capacity of the filter media. Suitable filter loadings vary with the material being extracted. Suitable filter loading, measured in m<sup>3</sup>/hr per m<sup>2</sup> of filter area, for concrete dust is for example, a maximum of 120m<sup>3</sup>/hr per m<sup>2</sup>, while welding fume is only 60m<sup>3</sup>/hr per m<sup>2</sup> as it exerts a higher filter loading or simply put, it will block the filters more quickly.



The coarse particles that accumulate at the bottom of the cyclone are discharged when the filter cleaning process is conducted, and the unit is switched off. Depending on the vacuum, the particles fall into the collection area to be disposed of, e.g. a plastic sack, metal container (4), or Longopac continuous bag.



## **FINE FILTERS**



### M

#### **Cellulose Fine Filter**

A high-quality, standard filter with high filtration efficiency. Epoxy-treated for improved resistance to humidity and other elements. It is pleated around a support cylinder. This filter is designed to capture the small particles that are not captured in the pre-separator or cyclone.



#### **Polyester Fine Filter**

A high-quality filter resistant to most substances. Perfect for use in wet environments such as mechanical workshops in which cutting fluids etc. are used. Slightly smoother surface than the cellulose filter, enabling more efficient cleaning and a longer service life. The filter is washable.



### M

#### **PTFE Fine Filter**

The polyester filter is treated with PTFE, meaning that the filter coating can easily be separated from the surface. This type of filter is suitable for use in applications such as floor grinding. The filter is washable.



#### **Pre-Filter**

A Pre-Filter is a basic filter used with air cleaners to capture large particles and relieve the loading on the HEPA filter. The pre-filter is designed as a pleated filter in cassette or textile form. It is disposable. Each Pre-Filter filter is individually tested for level G4 compliance.



## MICROFILTER, HEPA, ABSOLUTE FILTER

## H

HEPA filters have a filtration efficiency of 99.995%. On many dust extractors, a separate HEPA filter is installed after the fine filter. HEPA filters also have a pleated design, in order to increase the filter area in relation to volume. The HEPA filter is assembled from a very fine-meshed fibreglass fabric with extremely deep-acting properties. This ensures very good separation of very small particles. One or two layers of e.g. cellulose may be added to improve rigidity. A HEPA filter should never be cleaned, either mechanically or with reverse pulse, because of the risk of damaging the filter material. The HEPA filter should be replaced when it becomes saturated.











## **DUST BAGS**

Fitting the correct bag to your dust extractor or pre-separator is essential to ensure safe and easy collection and disposal of dust.

MACHINE	PRODUCT CODE	PRODUCT DESCRIPTION
Metabo 35L (VAC-MET35)	VAC-DB3	Synthetic Ducted Vacuum Bag (Pack of 3)
Metabo 35L (VET-MET50L)	VAC-ST416021	Starmix Dust Bag to suit ISARD Series (Pack of 5)
DC1800 (VAC-DC-101800)	VAC-DC-42291	Plastic Vacuum Bag (Pack of 10 continuous roll)
DC2900a (VAC-DC-120000)	VAC-TB50	Tru Blue Dust Bag 150um (Pack of 26)
DC2900a (VAC-DC-121000)	VAC-DC-42702	Intellibag Vacuum Bags (Pack of 10 continuous roll)
DC2900L (VAC-DC-122100)	VAC-DC-44763	Longopac Continuous Vacuums Bags (12m length)
DC3900L (VAC-DC131530)	VAC-DC-432177	Longopac Continuous Vacuums Bags (Box of 4x 22 Metre bags)
DC3900 Twin (VAC-DC133200)	VAC-DC-43619	Intellibags Vacuum Bags (Pack of 10 continuous roll)
Tromb 400L (VAC-DC-161530)	VAC-DC-432177	Longopac Continuous Vacuums Bags (Box of 4x 22 Metre bags)
Schwamborn STS260E (VAC-STS260E)	VAC-DC-432177	Longopac Continuous Vacuums Bags (Box of 4x 22 Metre bags)
DC Storm 500 (VAC-DC-119432)	VAC-DC-44077	Longopac MIDI Vacuum Bags (Box of 1x 25m bag)
DC Storm 700 (VAC-DC-1194919)	VAC-DC-44077	Longopac MIDI Vacuum Bags (Box of 1x 25m bag)
APE 65L Supa Separator (VAC-SEP65)	VAC-T065	Tru Blue Dust Bag 150um (Pack of 26)
DCF 2800 Pre-Separator (VAC-DC-7372)	VAC-DC-42702	Intellibag Vacuum Bags (Pack of 10 continuous roll)
DCF 3900 Pre-Separator (VAC-DC-119432)	VAC-DC-432177	Longopac Continuous Vacuums Bags (Box of 4x 22 Metre bags)
DCF Storm Pre-Separator (VAC-DC-70700)	VAC-DC-46145	Intellibags Separator Bags (Pack of 10 continuous roll)













Metabo Dust Bags

Orange Dust Bag

Tru Blue Bags

Longopac Mini

Intellibags

Longopac Midi





## ELIMINATE AIRBORNE DUST ONSITE

The most hazardous dust is the dust you can not see. High-efficiency air cleaners from All Preparation Equipment are designed to separate dust and particles even smaller than 0.3 micrometres. These particles are so small that they are not visible with the naked eye, yet they cause major damage when they find their way far down into the lungs. One example is Silica dust, which is spread when working with concrete, brick, plaster and mortar.

Using an AirCube onsite further reduces the level of respirable dust in the air, providing additional protection for all workers in the surrounding area.



## AIRCUBE 500

The Dustcontrol AirCube 500 is ideal for stonemasons, tilers, and commercial construction companies to control dust when cutting, drilling, and grinding in enclosed tile cutting rooms, bathrooms, or hallways.

Multiple units can be used in one area on larger projects or open-plan areas to control airborne dust effectively.

- Lightweight and highly portable
- 150mm Flexible Ducting can connect to redirect clean air from the exhaust.
- The fan has two speed settings, which means that the unit can be run economically, for example during the night.
- Integrated light indicates when the filters need replacing for fuss-free maintenance.

#### ECO 1-PHASE



**Supplied with** 

HEPA H13 filter	(Part No 42692)
Pre-filter G4	(Part No 42690)
Product code	VAC-AC112500







The AirCube 1200 is our most popular unit for bathroom renovators, defit / fit-out specialists, and construction companies controlling dust when jackhammering up tiles, cutting, drilling and grinding.

- Built on a robust, stainless-steel chassis.
- Heavy-duty transport wheels allow you to transport and manoeuvre the unit around site effortlessly.
- Encapsulated fan housing contains a radial blower type fan that builds up high pressure across its entire flow range, which provides effective air cleaning for the entire lifetime of the filter.
- Integrated light indicates when the filters need replacing for fuss-free maintenance.
- Variable speed setting to save energy when less dust is being generated.
- Connection for Flexible Ducting at the inlet and exhaust allows users to redirect clean air or create negative pressure.

#### **Supplied with**

HEPA H13 filter	(Part No 42940)
Pre-filter G4	(Part No 42918)
Product code	VAC-AC111000






### AIRCUBE 2000

The AirCube 2000 is Dustcontrol's most powerful air cleaner available in single-phase, allowing you to control dust and airborne contaminants in large areas.

- Built on a robust, stainless-steel chassis.
- Heavy-duty transport wheels allow you to transport and manoeuvre the unit around site effortlessly.
- Encapsulated fan housing contains a radial blower type fan that builds up high pressure across its entire flow range, which provides effective air cleaning for the entire lifetime of the filter.
- Integrated light indicates when the filters need replacing for fuss-free maintenance.
- Variable speed setting to save energy when less dust is being generated.
- Connection for Flexible Ducting at the inlet and exhaust allows users to redirect clean air or create negative pressure.

### Supplied with

HEPA H13 filter	(Part No 42940)
Pre-filter G4	(Part No 42918)
Product code	VAC-AC102000









### **AIRCUBES FOR ALL PROJECTS**

Your choice of air cleaner will depend on the environment in which you work and how large the room is. Regardless of which one you choose, you can be sure of having a reliable machine with a HEPA filter, that won't let you down on site.







Technical Data	DC AirCube 500	DC AirCube 1200	DC AirCube 2000
H x W x L	38 x 35 x 50cm	86 x 43 x 55cm	102 x 56 x 70cm
Weight	13kgs	23kgs	30kgs
Inlet size	38 x 34cm	25cm	31.5cm
Outlet size	12.5cm	31.5cm	31.5cm
Power Consumption 230V	210W	385W	585W
Flow at open inlet, max*	500m³/h	1060m³/h	1850m³/h
Prefilter area **	0.18m3	0.5m3	0.5m <sup>3</sup>
HEPA Filter Area	4.56m <sup>2</sup>	5m <sup>2</sup>	10m <sup>2</sup>
Filter Class	H13	H13	H13
Sound Level	45-65db(A)	60-68db(A)	60-68db(A)

\* Without Carriers

\*\* Cartridge pre - filter with G4 degree of separation G4.



Filtration class IEC/EN 60335 -2- 69 Dust Class H (degree of permeability ≥ 0.0005% for particles as small as 0.1mg/m<sup>3</sup> and carcinogenic particles. According to IEC/EU 60335-2-69.



### **MEASURING EFFICIENCY**

Renovating a bathroom produces airborne dust that is hazardous to health. The following graph shows the effect of reducing the concentration of the dust  $(mg/m^3)$  with a AirCube 500 air cleaner. The example pertains to a bathroom measuring 2 x 3 x 2.5m (15m<sup>3</sup>) to which 1000 mg/h of airborne dust is added over a period A (60mins). No pollutants are added during period B (60mins).





### **AIR CUBES, CONSIDER THE CAPACITY**

When looking at the right sized AirCube for your project it's important to calculate its capacity.

If you have a room of a certain size say  $7.5 \times 5.0 \times 2.4 \text{m}$  (L x W x H) =  $90 \text{m}^3$  and you need to do 10 air changes / hour, then calculate volume of room and multiply by 10. You require a flow of  $900 \text{m}^3/\text{h}$ . This is where the ideal size unit is the DC1200 AirCube.

If you are refurbishing a smaller room say a bathroom size  $5.5 \times 3.0 \times 2.4 \text{m}$  (L x W x H) =  $40 \text{m}^3$ multiplied by  $10 = 400 \text{m}^3/\text{h}$ . The ideal sized unit in this application is the DC500 AirCube.



Dustcontrol AirCube air cleaners limit the value of hazardous particles in the air where you are working, cleaning the air, and creating negative air pressure in the room when needed.







Plastic Sheet / Wall



Work Room

Clean Side

Ask us about our range of Zipwall Temporary Dust Barrier Systems



### WANT TO KNOW MORE ABOUT AIRCUBES?

#### Why is an air cleaner necessary?

Various studies by the building industry, for example, show that the threshold values for hazardous particles in the air are constantly being exceeded, resulting in an unhealthy working environment. A fear of hazardous dust also means that many customers avoid carrying out necessary renovation work. An air cleaner separates the dust effectively and protects both employees and customers.

#### Is a good dust extractor not enough?

Hand held grinding, cutting and milling tools are some of the major reasons for the spread of dust. A dust extractor with source extraction should always be used during such operations. However, the dust extractor is not able to capture all the particles, in particular those that originate from other diffuse dust sources. The best approach is therefore to use both dust extractors and air cleaners.

#### Why a HEPA H13 Filter?

Hazardous airborne particles, such as silica dust on a construction site, moulds and also flour dust in a bakery, can be encountered in the course of daily working practices. To protect against such particles, you should use a HEPA H13 filter with a degree of separation of not less than 99.995%.

#### Which areas of work?

Building environments - in particular decontamination, demolition work, chiselling operations, clearance of fire and water damage, bathroom and renovation, replacement of old soundproofing and insulation material, sanding plaster and concrete, mixing concrete and filler, removing old adhesive and joint compound etc.

While AirCubes are designed to handle dust commonly found on construction sites they will also eliminate hazards in many industrial factory applications including:

- Manufacturing plants.
- Screen-printing areas.
- Bakeries.
- Public buildings e.g. museums.

#### How hazardous is the dust?

The various airborne and breathable types of dust, for example silica dust, can cause serious health damage which can lead to silicosis and cancer. Breathable dust denotes dust particles that have a size smaller than 5 $\mu$ m. They end up in the lungs, where they can cause damage. These are the most hazardous particles, and they are also more difficult to separate than larger particles.

Contact us to discuss your requirements for controlling dust and airborne hazards.

# **DUST SHROUDS**

CAPTURE DUST FROM YOUR TOOLS IN CONJUNCTION WITH A SUFFICIENT DUST EXTRACTOR



### **CUTTING SHROUDS**

### 125mm (5") Dust Shrouds

 Code	Description	Applications
DS-AD125	AirDUSTER 125mm Dust Shroud	Removal of dust from 125mm angle grinders when cutting.
		Universal fastening, suitable for major brands.
		Open design allows for good visual control of cutting zone.
DS-AC125	AirCHASER 125mm Dust Shroud	Adjustable cutting depth with a full view of the cutting zone. Wheels allow you to glide along the surface for wall chasing.
DS-AS45	AirSLIDER45 Tile Cutter	Made for cutting of ceramic tile, granite, marble with angle 45'. Is set to 125 angle grinder. Universal fastening, suitable for ALL angle grinders. Adjustable miter cutting size. Fluoroplastic guides do not scratch the surface. Cutting area overview.

### 175mm/230mm (7"/9") Dust Shrouds



Code	Description	Applications
DS-AD230	AirDUSTER Dust Shroud cover	Removal of dust from 175mm and 230mm angle grinders when cutting.
		Universal fastening, suitable for major brands.
		Open design allows for good visual control of cutting zone.

### **GRINDING SHROUDS**

### 100mm (4") Dust Shrouds



#### 125mm (5") Dust Shrouds

	Code	Description	Applications
á	DS-125APE	125mm (5'') Corner Dust Shroud Composite	Unique flip-top front allows edge grinding right up to the edge.
			Suction release value allows the grinder to across the floor without seal friction or sucking down to provide the ultimate control and perfect finish every time.
			Suits: 125mm (5") Grinders.
	DS-125CS	125mm (5'') Corner Dust Shroud	Metal shroud for ultimate durability. The corner shape allows you to grind up along the edges and corners successfully. Supplied complete with multiple neck inserts to connect to most brands of grinders. Suits: 125mm (5") Grinders with
			a neck size of between 44-54mm.
$\langle \bigcirc$	DS-SKT125- GENUINE	125mm (5'') Corner GENUINE Shroud replacement skirt	Genuine White 125mm replacement skirt suits: 125mm Corner Dust Shroud



#### 175mm/230mm (7"/9") Dust Shrouds

CORE OF THE OWNER	Code	Description	Applications
	DS-180APE	Holer 180mm (7'') Professional Composite Dust Shroud	<ul> <li>Unique flip-top front allows edge grinding right up to the edge.</li> <li>Suction release value allows the grinder to across the floor without seal friction or sucking down to provide the ultimate control and perfect finish every time.</li> </ul>
and the second s	DS-180PREM	Holer 180mm (7'') Premium Aluminium Dust Shroud	Same features as the DS-180APE Shroud above but even more durable being made from aluminium.
	DS-175SN	175mm/230mm (7/9'') Snub Nose Dust Shroud	Metal shroud for ultimate durability. The straight edge allows you to grind right to the edge pf the wall successfully. Supplied complete with multiple neck inserts to connect to most brands of grinders. Suits: 175mm and 230mm Grinders with a neck size of between 59-74mm.
	DS-SKT175- GENUINE	175mm/230mm (7/9") Corner GENUINE shroud replacement skirt	Genuine White 175mm/230mm replacement skirt suits 175mm/230mm Corner Dust Shroud.

# MIXING SHROUDS

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	Code	Description	Applications
H	VAC-DC-WTDCS	WaleTale dust containment attachment	Eliminate dust when mixing mortars, adhesives, and grout in buckets.

# DRILLING SHROUDS

	Code	Description	Applications
	DS-HD20	HomeDUSTER 20mm Dust Shroud	<ul> <li>90' Mirror Guide / Right Angle.</li> <li>Drilling diameter up to 20mm.</li> <li>Reliable vacuum fixation to hold it to the surface you are working on.</li> </ul>
	DS-DD82	DrillDUSTER 82mm Dust Shroud	<ul> <li>Drill diameter up to 82mm.</li> <li>Controls fine and larger dust particles.</li> <li>Can be used on wall and floor surfaces for efficient dust or water/ slurry control in drilling applications.</li> </ul>
Ô	DS-AD162	AquaDUSTER 162mm for wet or dry applications	<ul> <li>Firm Vacuum fixaction to wall and floor surfaces.</li> <li>Water and sludge control and removal.</li> <li>Max Drilling diameter is 162mm.</li> </ul>
	DS-DF68	DrillFIX 68 Dust Shroud	<ul> <li>Designed for drill bits between 6-70mm.</li> <li>Ensures maximum precision and template if fixed on the machined surface creating a powerful suction.</li> <li>Fast effective, control of dust while drilling.</li> </ul>

# JACK HAMMER SHROUDS



Code	Description	Applications
FSE- DC-6078/6130	Dustcontrol Suction Casing B 38/61 and Bellow	<ul> <li>Captures dust when jack hammering.</li> <li>35/38mm hose thread to connect to vacuum.</li> <li>Made with quality wear-resistant rubber.</li> </ul>





