# **DUST CONTROL**

Dust control - it sucks - but you need it.



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## THE BASICS OF DUST EXTRACTION



#### The Importance of Dust Extraction

Professional workshops have known for decades that one of the most important pieces of machinery in the workshop is an adequate extractor. It's only us serious DIYers that seem to question their wisdom. A clean, dust-free workplace is not only safer, but far less work in the long run. There is less cleanup and less airborne dust, which is very important when it comes to the finishing stage. Another important fact is that it is far better for your machinery to have this dust and shavings removed. Other then being forced back around the cutting area and affecting the quality of the work, fine dust particles can be sucked into electrical components, build up on moving parts or pile up in areas underneath your machinery (becoming a fire hazard in the process). Worst of all, these particles can find their way into your lungs. Dust extraction is NOT a replacement for PPE (Personal Protective Equipment,) but if it reduces the dust in your immediate work area, it means your PPE is going to work much more efficiently too. The sad fact is that running machinery without dust extraction may affect your warranty if something does go wrong. Why didn't I read the manual?

#### **Extractor vs. Vacuum Cleaner**

Most workshops have access to a vacuum cleaner, either a dedicated unit or the better half's household unit (only if you don't get caught)! They're great for cleaning the car and even getting the dust off the floor of the workshop. Isn't it annoying when a little offcut or long splinter gets stuck in the hose? You hear the motor start to struggle and whine and you proceed to wave the end of the hose around in some strange ritual that will hopefully dislodge the offending piece. So what makes us think that by hooking this same vacuum to a heavy-waste producing machine that the results are going to be any different? It really comes down to a simple rule vacuums are made to vacuum and extractors are made to extract. Vacuum cleaners work on the principal of a low volume of air traveling at high velocity, while extractors work on high volume air, traveling at low velocity. Vacuums are great for lifting small quantities of fine dust from the bottom of your carpet through a small diameter hose. Dust extractors, on the other hand, are designed to cope with the quantity of waste constantly being produced, and the large diameter hose means no blockages (provided you have ENOUGH air volume). Air volume is measured in cubic feet per minute (CFM), and even a small, basic 1HP extractor is going to give you 600+ CFM of air flow. Most cutting/drilling machinery will require at least 600CFM of extraction. Edge planers or jointers need slightly more (depending on size), but large milling machines such as thicknessers will require at least 800-900CFM at the extraction point on the machine. This is an important consideration before taking the plunge.

#### Flexible Hose

Most woodworking machinery will be provided with a large diameter extraction connection. This will usually be a 4" or 5" (100mm or 125mm) connection. This should marry nicely to your dust extractor, either directly or with some form of adaptor. An important factor in the operational efficiency of your dust collection system is the positioning of the dust collector, in relation to the machine. Many people have designed elaborate systems, utilising Y-pieces to increase the quantity of machines connected, blast gates (switches to close off the air flow to one of more points), and running many meters of flexible hose up the wall, and across the ceiling, back to the extractor.

When they switch the system on, they wonder why the suction at the far end is barely enough to be audible, never mind suck several kilos of timber waste. For every meter of flexible hose you run, you are going to lose approximately 10-20% of your volume (CFM), and for every bend and fitting, you are going to lose a even more CFM. Do the math - just three meters of flexible hose, and a third of your suction is gone... but where? Have a look at the diagram below.

Have a close look at the flexible hose - every single ridge of the hose that the air has to run across is disrupting the efficient flow of the air, and in turn, the waste. If you want to run a larger system, make sure you have enough suction volume at the start, to ensure you don't run out at the business end. Professionally designed and installed workshop systems use rigid metal pipes, with a smooth finish and engineered bends to increase efficiency, and they run very high capacity dust extractors which will allow all machines to be run at the same time. Suction loss on these systems is usually only about 1-2% per meter, but the purchase and setup cost is very high. The straighter and simpler (and shorter) you can keep your home extraction system, the better. Remember that bigger CFM is always better.

#### **Dust Extractor Safety**

One hazard that is often overlooked in dust extraction equipment is the danger of the buildup of static electricity. The dry timber particles rubbing the inside of the flexible hose are constantly building a static charge, in the same way rubbing a plastic comb through your hair (if you have any) will build up a static charge. Static, when it discharges as a spark, is just one of three parts required to create an explosion. The other two parts are a fuel (in the form of fine dust particles), and air (which is being forced through the system). Explosions in dust extraction systems are rare, but they do happen. More often it's the large painful 'Crack' of the static finding its way to our finger tips that reminds us of this potential danger. A simple solution to avoid this situation is to ground your system. Fitting a grounding kit to the inside of the flexible hose and connecting the wire to both the machine and the dust extractor will minimise or eliminate static from the system.

#### **Selecting Your Dust Extractor**

Determining which extractor is right for you will depend heavily on what you want to do with it. If you only want to hook it up to your table saw, a very basic unit will do the job. However, if you want to connect it to your thicknesser or jointer, you need to start at a 2hp unit with a higher CFM rating and a larger waste holding capacity. It's important to think ahead about what your future requirements will be. If you're planning to add more machinery later and you don't want to move your extractor between machinery, invest in a

larger unit that will allow you to add extra points without sacrificing too much performance. Be honest with yourself and it won't end up costing you more in the long run.

TONY FORBES is the Product
Development Manager at Carbatec.



#### Carbatec Room Air Filters





Carbatec Single Bag Dust Extractor - 1 HP



ITEM NO.	DETAILS	PRICE
AF-1000C	125W Room Air Filter	\$429.00
AF-2000C	250W Room Air Filter	\$999.00

SPECIFICATIONS	
Motor	125W (1/6 HP) Induction, 10A (AF-1000C) 250W (1/3 HP) Induction, 10A (AF-2000C)
Air Speeds	450, 550 & 650 CFM (AF-1000C) 800, 1200, 1700 CFM (AF-2000C)
Speed Adjustment	Remote Control or Push Button
Filtration Filters	2 x (Primary & Secondary)
Filtration Rate	1100m3/hr (AF-1000C) 2750m3/hr (AF-2000C)
Workshop Footprint (WxDxH)	770mm x 610mm x 310mm (AF-1000C) 1120mm x 620mm x 510mm (AF-2000C)
Warranty Period	3 Years

This machine further enhances the safety of your workshop, by drawing air into the machine and filtering the dust then returning filtered air back into the room or shed. They can be left running quietly in the background, filtering out even the finest dust particles. Suitable for hanging from your ceiling, mounting on a wall or on a stand or bench. In order to specify the correct size filter for your workshop, calculate your workshop's volume in cubic feet and aim to circulate the air in it more than 12 times per hour. Our AFC-1000C 1/6hp room air filter features remote control and variable extraction capacities of 450, 550 and 650 CFM (cubic feet per minute), based on an area of approximately 6m x 6m x 2.4m. It filters almost 100% of particles 5 microns or larger and around 85% of particles up to 1 micron.

ITEM NO. DETAILS		PRICE
DC-F500H		\$229.00
SPECIFICATIONS		
Motor Power	750W (1HP) 10A	
CFM (Nominal)	500CFM	
Collection Bag Type	Plastic	
Filter Bag Type	Needlefelt	
Pleated Filter Available	Yes	
Drum Diameter "/mm	375mm	
Dust Ports	4"/100mm	
WorkshopFootprint(WxDxH)(mm)	420x650x1550mm	
Warranty	1 Year	
Weight (Shipping)(Kg)	26kg	
Weight (Nett)(Kg)	20kg	

An ideal small extraction unit - can be set under a workbench where floor space is limited or hung from the wall using the hooks provided. 1hp / 240v motor, 500cfm with single 4" inlet.



#### Carbatec Dust Extractor - 1 HP



An excellent value for money machine. Suited for the hobbyist or weekend woodworker's workshop. Effective for removal of chips and shavings from one machine at a time. Fitted to a castor base for ease of mobility around your workshop. The 5 micron needle felt top filter bag helps you to breathe easier.

ITEM NO.	DETAILS		PRICE
DC-500H			\$229.00
SPECIFICATION	NS		
Motor Power		750W (1HP) 10A	
CFM (Nominal)		500CFM	
Collection Bag T	ype	Cloth	
Filter Bag Type		Cloth	
Pleated Filter Ava	ailable	Yes	
Drum Diameter "	'/mm	N/A	
Dust Ports		4"/100mm	
WorkshopFootpr	rint(WxDxH)(mm)	450x1200x390mm	
Warranty		1 Year	
Weight (Shipping	g)(Kg)	24kg	
Weight (Nett)(Kg)	)	18kg	

#### Carbatec Dust Extractor - 2HP



Our DC-1200P dust extractor is an ideal choice for the larger home workshop or small business. It's powerful 2HP motor and twin outlet allows you to connect two machines simultaneously, while the additional bag capacity reduces the frequency of bag changes. The increased airflow of 1200CFM is recommended for machines that produce larger quantities of shavings such as jointers and thicknessers. Sturdy build, with built in castors, allows you to move the machine around as required. Excellent value for money unit. Includes: Twin inlet, 5 micron filter bag, plastic collection bag, dust extraction unit.

ITEM NO.	DETAILS		PRICE
DC-1200P			\$399.00
SPECIFICATION	ONS		
Motor Power		1.5kW(2HP) 10A	
CFM (Nominal)		1200CFM	
Collection Bag	Туре	Plastic	
Filter Bag Type		Needlefelt	
Pleated Filter A	vailable	Yes	
Drum Diameter	"/mm	480mm	
Dust Ports		2x 100mm	
WorkshopFootp	orint(WxDxH)(mm)	560x850x1950mm	
Warranty		2 Years	
Weight (Shippin	ng)(Kg)	51kg	
Weight (Nett)(K	g)	45kg	

#### Carbatec Industrial Twin Bag Dust Collector - 2.8HP



Carbatec's Industrial Twin Bag Dust Extractor is the ideal unit for the professional workshop. Supplied with a 10amp plug, and mounted on casters, it can be easily moved whether to be positioned close to the source, or just for cleaning at the end of the week. A good choice for planers, thicknessers and wood lathes

DC-2300P	\$549.00
SPECIFICATIONS	
Motor Power	2.1kW(2.8HP) 10A
CFM (Nominal)	1800CFM
Collection Bag Type	Plastic
Filter Bag Type	Needlefelt
Pleated Filter Available	Yes
Drum Diameter "/mm	480mm
Dust Ports	3x 100mm
WorkshopFootprint(WxDxH)(mm)	
Warranty	2 Years
Weight (Shipping)(Kg)	59kg
Weight (Nett)(Kg)	52kg

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**PRICE** 

which all produce vast amounts of chips very quickly and in varying sizes.

ITEM NO.

Fitted with dual 5 micron filter bags and collection bags, this unit will cater to the cabinetmaker cutting particle board and MDF, or the furniture maker using solid timber. When used with a network of hoses or fixed ducting fitted with blast gates, the optimal amount of air flow is maintained from the machines in

**DETAILS** 



#### JET Dust Collector DC-1200 Vortex - Single Phase



The JET DC-1200VX features the exclusive Vortex Cone trade, which improves chip separation to prevent clogging of the filter, and increases packing efficiency of the collector bag. The high air velocity (CFM) stands up to any competitive specifications, and the industrial controls are designed for years of durable use. Collection bags have a snap ring for fast installation and removal. Castors offer manoeuvrability within the shop.

ITEM NO. DETAILS		PRICE
JET-DC1200VX- 1PH		\$749.00
SPECIFICATIONS		
Motor Power	1.1kW(1.5HP) 10A	
CFM (Nominal)	1200CFM	
Collection Bag Type	Plastic	
Filter Bag Type	Needlefelt	
Pleated Filter Available	Yes	
Drum Diameter "/mm	480mm	
Dust Ports	2x 100mm	
WorkshopFootprint(WxDxH)(mm)	686x834x1981mm	
Warranty	3 Years	
Weight (Shipping)(Kg)	70kg	
Weight (Nett)(Kg)	65kg	

#### Powermatic 3HP Dust Collector



The PM-1900TX Dust Collector features the exclusive TurboCone&trade, which improves chip separation to prevent clogging of the filter, and increases packing efficiency of the collector bag. The canister filter offers superior filtering surface area over standard bags, and captures 98% of 2-micron particles. The all-metal duct improves

ITEM NO.	DETAILS		PRICE
PM-PM1900TX			\$2199.00
SPECIFICATIO	NS		
Motor Power		2.2kW(3.0HP) 15A	
CFM (Nominal)		1900CFM	
Collection Bag	Туре	Plastic	
Filter Bag Type		Pleated Filter	
Pleated Filter Av	vailable	Standard	
Drum Diameter "/mm		508mm	
Dust Ports		2x 100mm	
WorkshopFootp	print(WxDxH)(mm)		
Warranty		3 Years	
Weight (Shipping)(Kg)		122kg	
Weight (Nett)(Kg	g)	112kg	

rigidity and air flow. The clear collector bags are large capacity, which means less down-time changing them. Four swivel casters and conveniently located handles allow for easy mobility. REQUIRES 15Amp POWER POINT.

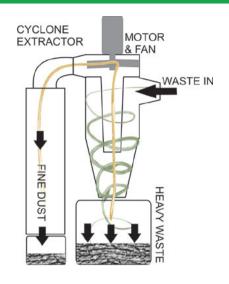
#### **Types of Dust Extractors**

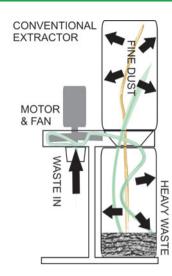
Technically speaking, the commonly used dust collectors in our market are broken down into two main categories: baffle chamber and cyclonic separation. There are many variations on a theme, but usually these two are what you will find.

The more common and less expensive **Baffle Chamber** (or standard bag type) dust extractor uses a motor to spin a centrifugal impeller that - through its clever blade design - sucks air in through the centre of the fan and pushes it out toward the sides of the fan. Manufacturers design extractors so that the inbound waste follows this air path, through the impeller and into a collection chamber. The change in air direction once we get to this chamber (and gravity helps here), causes the heavier waste to fall down, and the lighter dust particles to rise up. These are caught in a filter on the top. This filter can be either a cloth or felt bag or a more elaborate pleated filter cartridge.

**Cyclonic Separation** is not a new concept. It has been available for industrial use for many years but has only become accessible and affordable to the general public within the past decade. Cyclones differ from standard bag extractors in many ways. Their design and build is far superior and the technology involved is far more efficient. Again, a motor is used to spin a centrifugal impeller, but whereas the impeller on the standard bag extractor was in line with the waste flow, the cyclone has two different paths.

The airflow path pulls the waste into the collection chamber, but from there it uses directional baffles to divert waste material. Basic theories of thermodynamics and some high end aspects of quantum physics come into play, and effectively the waste flow path sees the material spun rapidly around the outside cone and it's then forced down to the bottom of the collection chamber, leaving the airflow path free of heavy waste. The remaining fine dust particles are then sucked through the impeller, and pushed out into a small collection bag.





## Carbatec Two Stage Dust Cyclone









#### The Carbatec Cyclone Dust Extractor is the ideal addition to any workshop!

The cyclone removes a majority of the dust particles into the drum well before they have a chance of reaching the filter, where dust down to 1 micron in size is captured making for a safer work place for everyone. By removing most of the dust particles before they have a chance to clog up the filter, means the efficiency of the extractor is maintained. The pleated filter has a far greater surface area so while cleaning is still required, it is not required as much as a filter bag. Cleaning is done via a double paddle that removes the built up dust by friction and vibration.

Both the whole unit and collection drum are mounted on casters making it easy to move and position where it is needed, and emptying the drum quick and efficient.

ITEM NO.	DETAILS	PRICE
CDC-1090P	Cyclone Dust Collector 1.1KW - 1090CFM	\$1699.00
CDC-1450P	Cyclone Dust Collector 1.5KW - 1450CFM	\$2299.00
CDC-1600C	Cyclone Dust Collector 1.5KW - 1600CFM with Auto Clean Filter	\$2799.00
CDC-2200C	Cyclone Dust Collector 2.2KW - 2200CFM with Auto Clean Filter	\$3499.00

SPECIFICATIONS				
Model No.	CDC-1090P	CDC-1450P	CDC-1600C	CDC-2200C
Motor Power	1.1kW(1.5HP) 10A	1.5Kw(2.0HP) 10A	1.5Kw(2.0HP) 10A	2.2kW(3.0HP) 10A
CFM (Nominal)	1090CFM	1450CFM	1600CFM	2200CFM
Collection Bag Type	Drum	Drum	Drum	Drum
Filter Bag Type	Pleated Filter	Pleated Filter	Pleated Filter (Auto clean)	Pleated Filter (Auto clean)
Pleated Filter Available	Standard	Standard	Standard	Standard
Drum Diameter "/mm	421mm	500mm	500mm	623mm
Dust Ports	2x 100mm	2x 100mm	2x 100mm	2x 100mm & 1x 125mm
Workshop Footprint (WxDxH)(mm)			11300x640x1730mm	1200x880x2150mm
Warranty	2 Years	2 Years	3 Years	3 Years
Weight (Shipping)(Kg)	71kg	93kg	145kg	205kg
Weight (Nett)(Kg)	61kg	80kg	119kg	171kg

## **DUST COLLECTION KITS**



### Carbatec Dust Collection Kit with Clear Ducting

With this kit you'll have everything you need to start a centralised dust extraction system in your workshop. We strongly recommend that you purchase a grounding kit to minimise the risk of static build-up that can result in fire.

Includes:  $8\times100$ mm  $\times$  914mm lengths,  $2\times100$ mm  $\times$  90° bends,  $2\times100$ mm  $\times$  45° Y-junctions,  $2\times100$ mm  $\times$  60° bends,  $3\times100$ mm blast gates,  $16\times10$ 0 joiners and mounting hardware.

ITEM NO.	DETAILS	PRICE
YW-2000B	Full Kit	\$279.00
YW-2000B-PIPE	Additional Pipe, 100mm x 914mm	\$29.00
GK-50	Grounding Kit	\$35.00



#### Carbatec Dust Collection Kit with SuperFlex Hose

This kit is the ideal place to start for a new workshop, or addition to an existing dust extraction system. Buying in kit form saves you money.

Featuring a generous amount of hose and blast gates, you'll be able to

connect up to four machines depending on your setup. The included floor sweep makes clean up easy.

Includes:  $2 \times 3m$  lengths of 4" (100mm) super flex hose,  $4 \times 8m$  blast gates,  $10 \times 8m$  stainless steel hose clamps,  $1 \times 9m$  y-junction,  $1 \times 8m$  floor sweep,  $1 \times 8m$  table dust hood,  $1 \times 8m$  universal dust hood and  $1 \times 8m$  jointer dust hood.

ITEM NO.	DETAILS	PRICE
DCK-4	Full Kit	\$129.00



## Carbatec 4" Hold-Tite Hose Kit with Fittings

This highly flexible expanding hose is easy to move into position, and then "Holds-Tite" where you leave it, making it ideal for a customised dust collection solution.

Includes: 1 x Length of 4" x 300-900mm Expanding Hose, 2 x Couplers, 1 x Narrow Nozzle and 1 x Wide Dust Chute.

ITEM NO.	DETAILS	PRICE
HTH-1000	Full Kit	\$35.00



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## Carbatec 2-1/2" Hold-Tite Hose Kit with Fittings

This highly flexible expanding hose is easy to move into position, and then "Holds-Tite" where you leave it, making it ideal for a customised dust collection solution.

Kit includes: 1 x length of 2-1/2" x 260-1000mm expanding hose, 2 x couplers, 1 x narrow nozzle and 1 x wide dust chute.

ITEM NO.	DETAILS	PRICE
HTH-970	Full Kit	\$25.00
HTH-990	Additional Hose	\$16.00



#### Rockler Dust Right® Universal Small Port Hose Kit

This kit from Rockler includes two sizes of flexible rubber dust ports—1" and 1-1/2" ID —that flex to fit on almost any power tool, plus a 2-1/4"

port that connects to most shop vacuums or dust separators. All ports reverse thread into the included hose for a secure, leak free connection. This hose is kink and crush resistant, has no memory and expands from approximately 900mm to 2750mm long. Super flexible, it provides almost zero resistance as you move about your workspace.

ITEM NO.	DETAILS	PRICE
RK-48212	Kit	\$75.00



#### Carbatec Dust Collection Wand Kit

This ingenious kit hooks onto the end of your dust extraction hose allowing you to walk around your workshop picking up shavings and dust. Fitted with a quick connect blast gate, you're able to cut the airflow off at any time.

Includes: Adjustable Dust Wand Handle, Clear Length of Tubing, Quick Connect Blast Gate, Floor Sweep Intake and Additional Dust Wand Handle with Bristles.

ITEM NO.	DETAILS	PRICE
YW-1106	Kit	\$69.00



## Carbatec Dust Extraction Grounding Kit

Non-metallic ductwork can create a static charge which poses a significant fire risk. Remember, each piece of equipment connected to a dust collection system (including the dust collector itself) should be grounded. Includes: 15 meters of wire, 5 wire nuts and two grounding mounts.

ITEM NO.	DETAILS	PRICE
GK-50	Kit	\$35.00

### **DUST COLLECTION HOSE**



### Carbatec Clear PVC SuperFlex Hose

This hose is super flexible and capable of compressing to almost 1/3 of its fully extended length, meaning shipping and storage dimensions are a fraction of regular hose. Hose is also clear for those wanting better visibility. Note that this product will contract under suction in use and to some extent with varying temperatures. Sold in pre-cut lengths only. We recommend our Grounding

Kit to be used in conjunction with this hose, sold separately.

ITEM NO.	SIZE	PRICE
HOSE23B	2" x 3m	\$29.00
HOSE33B	3" x 3m	\$35.00
HOSE2123B	2.5" x 3m	\$32.00
HOSE42B	4" x 2m	\$30.00
HOSE43B	4" x 3m	\$40.00



#### Carbatec Flexible Plastic Hose

Flexible plastic ducting hose for use with dust extractors. This style of hose is an opaque grey, ribbed with a PVC material and though flexible, is more stiff overall than our SuperFlex hose. Sold and priced per meter, with sizes

referring to internal hose dimensions. We recommend our Grounding Kit to be used in conjunction with this hose, sold separately.

ITEM NO.	DIAMETER	PRICE
HOSE2	2"	\$10.00
HOSE2.5	2.5"	\$11.00
HOSE3	3"	\$12.00
HOSE4	4"	\$13.00
HOSE5	5"	\$17.00
HOSE6	6"	\$28.00



## Carbatec Clear Dust **Extraction Ducting**

Make your own dust extraction network rather than having hoses crisscross the floor and being a trip hazard. This Clear Rigid Dust Extraction ducting can be used to replace or extend existing Carbatec ducting or build a custom mounted dust system. The straight ducting reduces drag allowing better airflow, and being clear means you can see any blockages. We

recommend our Grounding Kit to be used in conjunction with this hose,

sold separately. Inside Diameter: 95mm Outside Diameter: 100mm Length: 914mm

ITEM NO.	SIZE	PRICE
YW-2000B-PIPE	914mm Length Clear Pipe	\$29.00



### Rockler Dust Right® **Auxiliary Hose Ports**

These auxiliary ports compliment those in the Rockler Universal Small Port Hose Kit. This kit provides a wider variety of smaller diameters not previously available, with the same highly flexible rubber fittings to fit those awkwardly shaped dust ports. Includes a 3/4" ID port and 1-1/4" ID port.

ITEM NO.	DETAILS	PRICE
RK-56613		\$29.00

## **DUST HOSE MOUNTING HOOKS**



### Rockler Dust Right Cord and Hose Hook

Rockler's Dust Right Cord and Hose Hooks keeps your hoses and cords up off the floor, making for a neater workshop floor and preventing the chance of any potential trip hazards, while keeping them in good condition at the same time. Designed to take a 100mm hose, air lines and two electrical leads. Screw mounts to workshop wall.

ITEM NO.	DETAILS	PRICE
RK-58303		\$21.00



#### Carbatec Dust Hose J-Hooks

Commonly known as J-hooks, these simple but effective items allow you to get your dust extraction hose, ropes and coils of wire up off the workshop floor, minimising trip hazards. Sold in pairs. Supplied with wall plugs and screws. Hooks are 390mm overall length, 140mm overall depth, 20mm wide, 19mm deep, Internal diameter of hook is 110mm to suit 4" dust hose.

ITEM NO.	DETAILS	PRICE
JH-2PCE		\$8.50

### DUST HOSE CLAMPS



### Carbatec Hose Clamp with Thumb Screw Adjust

Hose clamps are used to securely attach your dust hose to your equipment. Carbatec's Band style hose clamp with thumb screw adjustment

allows quick "tool-free" fitting and removal of dust hose, so hoses can be moved from one machine to another with ease. Only available in one size and sold individually.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
YW-110T	4"	\$7.00



#### Carbatec Hose Clamp

Hose clamps are the final fitting you need to secure your dust collection system and keep it in place. These wire style clamps mount over the bumpy profile of your dust hose, to clamp down tightly. Available in various sizes determined by the hose size it suits and adjusted by screwdriver. Sold

ITEM NO.	SUITS HOSE DIAMETER	PRICE
M-052	2"	\$3.00
M-052.5	2.5"	\$4.00
M-053	3"	\$3.00
M-054	4"	\$3.00
M-055	5"	\$4.00
M-056	6"	\$4.00

### **DUST COLLECTION FITTINGS**



## Rockler Dust Right Quick Change Handle

The Rockler Dust Right 4" Quick-Fit Handle allows the user to quickly move their hose from one machine to another. Useful in workshops that have a small dust extractor with one inlet, or for machines that do not have a permanent setup. Featuring an angled design that creates less stress on the hose, a large ergonomic handle for easy use and a sliding adjustable air flow valve.

ITEM NO.	DETAILS	PRICE
RK-55027		\$29.00

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## **DUST COLLECTION FITTINGS**



#### Rockler Dust Right Swivel

Rockler's 4" Dust Right Swivel allows free movement of a dust hose when it is connected to a vertically mounted connection. The 360° action allows the hose to move freely without placing any stress on the fittings or hose.

ITEM NO.	DETAILS	PRICE
RK-21476	Includes: 1 x Fitting & 2 x Hose Clamps	\$32.00



#### Carbatec Dust Hose Connectors

Primarily used for joining lengths of hose and available to suit two hose sizes.

ITEM NO.	DETAILS	PRICE
M-017	3" OD to 3" OD Outlet	\$7.00
M-018	4" OD to 4" OD Outlet	\$8.00



## Carbatec Dust Fitting Connector

Easy way to join two male fittings without hose.

ITEM NO.	DETAILS	PRICE
YW-1070	100mm ID. 107mm OD	\$8.00



## Carbatec Y-Junction Dust Fitting

This 45 degree Y-junctions allow you to split one extraction line into two. Y-junctions create less friction and are therefore more efficient than T-junction fittings.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
YW-1050	2-1/2"	\$10.00
M-001	3"	\$9.00
M-002	4"	\$9.00
YW-1049	5"	\$15.00



## Rockler 3-Way Dust Collection Junction

Do you use multiple machines? With this 3-way junction and blast gates, make your dust extraction unit efficient by closing off the lines not used. Set up your machines permanently rather than moving hoses constantly. Add

more tools to your dust collection system by branching off your main line with this 3-way Dust Collection Junction. All ends have a 100mm(4") O.D. and a 95.25mm(3-3/4") I.D. Works well with blast gates, keeping suction to a maximum.

ITEM NO.	DETAILS	PRICE
RK-42289		\$35.00



## Carbatec Elbow Dust Fitting

This 90 degree fitting allows you to change the direction of your extraction line.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
M-004	4" OD to 4" OD Outlet	\$9.00



## Carbatec External Threaded Connectors

These threaded fittings screw straight into standard ducting hose, while the other end is tapered to allow a secure press fit onto machine dust ports or other fittings.

ITEM NO.	OUTLET	SUITS HOSE	PRICE
M-10141	3" Outlet	3" Hose	\$8.80
M-10136	4" Outlet	4" Hose	\$10.00
M-10145	5" Outlet	5" Hose	\$10.00
M-10146	4" Outlet	2-1/4" Hose	\$9.00



## Carbatec Internal Threaded Connectors

These flexible rubber fittings are threaded on one side to form a better seal around your extraction hose and then allow for quick connection to machinery and other rigid fittings on the opposite smooth side. Durable and available in various sizes to suit flexible

ITEM NO.	SUIT HOSE DIAMETER	PRICE
HM-1112	2"	\$10.00
HM-1113	3"	\$13.00
HM-1114	4"	\$15.00

### **DUST HOSE REDUCERS**



#### Carbatec Dust Hose Reducers

Rigid single step reducers in various sizes.

ITEM NO.	SIZE	PRICE
W-1022	2.5" to 1.5"	\$8.10
M-030	4" to 2"	\$6.00
M-039	4" to 2.25"	\$7.00
M-038	4" to 2.5"	\$7.00
M-009	4" to 3"	\$7.00
M-035	5" to 4"	\$8.00
M-037	6" to 4"	\$37.00
M-036	6" to 5"	\$39.00



#### Carbatec Tapered Dust Hose Reducers

For best efficiency, use larger diameter hose as the main pipeline from your machine, then reduce to a smaller hose diameter at the point required.

ITEM NO.	SIZE	PRICE
YW-1095	4" to 2"	\$6.00
YW-1094	4" to 2.25"	\$8.00



### Carbatec Small Universal Stepped Reducer

Softer rubber fitting with 2-1/2" inlet that reduces to external 2" (50mm), 1-1/2" (38mm), 1-1/4" (32mm) and 1" (25mm). This fitting is perfect for power tools or other stationary machines that may have an odd sized dust outlet.

The fitting can be cut easily and permanently attached to your machine. Secure with hose clamps for a final tight fit.

ITEM NO.	DETAILS	PRICE
M-031		\$11.00



### Carbatec Large Universal Stepped Reducer

Hard ABS plastic fitting with 6" inlet that reduces to an external 5" (125mm), 4" (100mm), 3" (75mm), 2" (50mm) and 1" (25mm) respectively. The fitting can be cut easily and permanently attached to your machine.

ITEM NO.	DETAILS	PRICE
YW-1039		\$12.00

### **BLAST GATES**



## Carbatec Wall Mounted Self-Cleaning Blast Gates

These plastic blast gates feature integral wall mounting brackets to make installation easy, and a self-cleaning design that keeps dust and debris out of the gate mechanism.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
YW-1129	4" OD Straight Outlets	\$9.50



## Carbatec Wall Mounted Self-Cleaning Blast Gates with Thread Adapter

This gate differs from others by the addition of hose threads on one side of the gate. Threads allow the for a more secure and leak resistant connection.

ITEM NO.	SUITS HOSE	SUITS HOSE	PRICE
YW-1130	4" OD Straight Outlet	4" OD Threaded Outlet	\$11.00



## Carbatec Plastic Blast

The original style of simple plastic blast gate's, available in various sizes.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
M-025	2.5" OD to 2" OD Straight Outlets	\$8.00
M-005	3" OD Straight Outlets	\$8.00
M-006	4" OD Straight Outlets	\$8.00
YW-1008	5" OD Straight Outlets	\$12.00



#### Carbatec Quick Connect **Plastic Blast Gate**

This plastic gate has one tapered side for fitting to hose and an over-sized outlet on the opposite side to quickly connect straight onto 4" OD ports such as those found on your machinery, or other 4" fittings or outlets.

ITEM NO.	MACHINE SIDE	SUITS HOSE	PRICE
YW-1057	4" Oversize Straight Outlet	4" Tapered for Hose	\$16.00



### Carbatec Blast Gate **Mounting Bracket**

Mount your blast gates in a convenient location to make them easy to access and operate. Holes allow screw mounting to wall.

ITEM NO.	SUITS	PRICE
YW-1114	To suit M-005, M-006, YW-1008 and YW-1057	\$9.00



#### Carbatec Metal Blast Gate

This blast gate features metal construction for additional durability and is available in just one size in this style.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
M-011	4" OD Straight Outlets	\$27.00



#### Carbatec Metal Blast Gate

These blast gates feature cast metal construction for additional durability and a small knob to lock them open or closed. Remember it is best practice to position the blast gate so it slides sideways, rather than up and down. This will assist in the prevention of any vibrations closing it during use. Available is one size in this style.

ITEM NO.	SUITS HOSE DIAMETER	PRICE
YW-1084	5" OD Straight Outlets	\$17.00

## **DUST HOODS & CHUTES**



#### Carbatec Big Gulp Dust Chute

Large 330 x 406mm throat on this hood makes it ideal for collecting dust from machines and other tools that create larges volumes of dust, but lack enclosed dust shrouds. Made from ABS plastic with a 4" (100mm) port to connect to any dust extraction system.

ITEM NO.	DETAILS	PRICE
DBGULP		\$22.00



## **DUST HOODS & CHUTES**



## Carbatec Big Gulp with Adjustable Stand

The large (330 x 406mm) throat on this easy to place hood makes it ideal for collecting dust from problem machines like mitre saws, radial arm saws, planers or with motorised carving or sanding operations. It's light, portable and easy to position. Made from ABS plastic with a 4" port that connects to any dust collection system.

ITEM NO.	DETAILS	PRICE
BGS-1		\$149.00



#### Carbatec Plastic Dust Chute

Hard ABS plastic this 10" (254mm) x 4" (100mm) fitting allows you to create dust collection opportunities all around your workshop. Pair it with 4" collection hose to create an efficient dust capture system where needed.

ITEM NO.	DETAILS	PRICE
M-134		\$17.00



### Rockler Lathe Dust Collection System

Dust control in the workshop is one of the most important things in woodworking. Rockler's Dust Right Lathe Dust Collection System is the ideal dust collection system for those turning pens or spindles etc. With the ability to fit both large and small lathes, this is the ideal way to capture the dust as it is created at the source. The "C" shape scoop wraps around the spindle

catching a lot of the chips and dust efficiently, and can be positioned as high as 381mm above the bed so can be used on even the largest of lathes. The long scoop means you needn't move it regularly. Mounts directly to your lathe bed. A must-have for anyone doing woodturning. Includes: 1 x 228mm Dust Scoop; 1 x Port Boom Arm; 1 x 381mm Vertical Mounting Post; 1 x 381mm Adjustable Connection Plate; 1 x 495mm Section of Flex-Form Hose; 1 x Hose Clamp and 1 x Hardware Pack (includes all necessary hardware for connection and adjustment).

ITEM NO.	DETAILS	PRICE
RK-52981		\$95.00



### Carbatec Big Gulp Lathe Hood with Articulated Arm

Collecting dust from your lathe can be a challenge. This handy piece of kit mounts to your lathe using a t-slot fitting on the bed. Suitable for most midi to full size lathes, its articulated arm allows you to swing the hood away or adjust to accommodate larger work. The deep recess in the hood allows you to place it closer to your work

when sanding on your lathe maximising your chances of collecting dust and chips created while turning your latest creation. Dust port outlet diameter is 100mm and fits a standard 4" dust extraction hose (not included).

ITEM NO.	DETAILS	PRICE
BGL-1		\$119.00



#### Carbatec Floor Sweep

Make your workshop cleanup a breeze! Just sweep the dust on your floor into the opening, no bending or using a dustpan! The hard plastic fitting has a 4" outlet with base dimensions of: 22" x 7" (559 x 178mm).

ITEM NO.	DETAILS	PRICE
M-015		\$9.00



#### Carbatec Dust Hood

At 215mm X 260mm, this dust hood can be mounted to an opening such as that often found beneath open stand tablesaws. Can be mounted to a board first, according to your size requirements.

ITEM NO.	DETAILS	PRICE
M-014		\$11.00



## Rockler Dust Port Suits RK-43550

Attach to the Rockler Trim Router Table for efficient dust extraction, or build your own fence using this conveniently shaped extraction port, with standard

size connections. The 2-1/2" OD (2-1/4" ID) port connects to your shop vac or dust collection system.

ITEM NO.	DETAILS	PRICE
RK-21528		\$21.00



#### Rockler Dust Right® Bench Sweep

The Bench Sweep from Rockler mounts to the end of your workbench making it easy to keep your workspace clean. It can be used with or without the grate fitted, so will prevent larger or valuable pieces from projects from being sucked away into the dust net-

work. Can also be closed and acts as a blast gate. Hooks are fitted at the ends and back to hold the grate and brushes so they are close at hand.

ITEM NO.	DETAILS	PRICE
RK-50608		\$39.00



### Carbatec Dust Bin Separator

Converts your single stage dust extractor into a more efficient two-stage system. Installs between your extractor and your woodworking machinery. Reduces the frequency of emptying and cleaning your dust extraction bags. It also protects your dust extractor from

large and potentially damaging chips. Suits drums or bins with a 490 to 530mm diameter (commonly found with 115 to 125 litre drums).  $2 \times 4$ " extraction ports fitted, one for the infeed and the other for the outfeed of the airflow.

ITEM NO.	DETAILS	PRICE
DBS-1		\$32.00

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## **CYCLONE SEPERATORS**

## **HOW DO CYCLONE SEPARATORS WORK?**

Standard wet/dry vacuums rely entirely on their small cartridge filters to clean the incoming air before recirculating it into the room. These filters can quickly become clogged with dust and debris, significantly reducing the vacuum's air suction performance. This is especially true for applications that create a large amount of fine dust such as wood sanding and drywall sanding.

Oneida's patented design uses centrifugal force to literally spin dust and debris out of the air-stream, trapping it in a container below: NOT in your vacuum! The Dust Deputy will separate out over 99.7% of nearly any type of dust and debris, with less than 1% making it into the vacuum - significantly extending the life of your vacuum and saving you countless time and money on expensive replacement filters and dust bags!





## Oneida Dust Deputy DIY

Our Dust Deputy: DIY (Do-It-Yourself) cyclone let's you build the dust control system that works best for you. You supply the waste container, the hardware, the hose, etc. while we provide the award-winning cyclone separator! With the DIY cyclone you're limited only by your imagination! Injection moulded from a translucent anti-static resin, the patented design of Oneida Air's Dust Deputy cyclone uses centrifugal force to capture and remove 99% of

dust and debris from the air-stream before it reaches your vacuum's filter, eliminating clogged filters and suction loss! The Dust Deputy will save you countless time and money on expensive replacement vacuum filters and dust bags, allowing you to keep working, longer, and safer than ever! This simple and efficient design can be adapted for use with any make, size, or model wet/dry vacuum and features tapered 2.0" ports for secure fittings using a variety of hoses sizes.

Note: Bucket, hardware and hoses required, but not included.

ITEM NO.	DETAILS	PRICE
DD-DIY		\$109.00



#### **Oneida Dust Deputy Deluxe**

Oneida Air's patented, internationally renowned Dust Deputy system will transform your vacuum and the way you work! Standard wet/dry vacuums rely completely on their filter to capture and filter dust particles, resulting in rapidly clogging filters and dramatically reduced suction after short use.

The award-winning design of

the Dust Deputy cyclone uses centrifugal force to cyclonically separate and remove over 99% of dust and debris from the air-stream before it ever reaches your vacuum's filter, eliminating clogged filters and suction loss! The Dust Deputy will save you countless time and money on expensive replacement filters and dust bags, allowing you to keep working, longer, and safer than ever!

This simple and efficient design can be adapted for use with any make, size, or model wet/dry vacuum and features tapered 2" inlet and outlet ports, allowing for easy and secure fitting with a variety of hose styles and diameters.

Includes: Anti-Static Dust Deputy, Cyclone Separator Two 18 Litre, Sidecar Bucket (for mounting to shop vacuum) and Dust Bucket (with pre-cut lid with bolt and centre holes) 914mm (3') x 63mm (2.5") Static Dissipative Black Hose Two 90°, Static Conductive Hose Elbow Adapters 38mm (1.5") - 63mm (2.5") Quick-Release Hose/Band Clamp Three 38mm Non-Marking Casters Wheels Neoprene Foam Gasket and Mounting Hardware

ITEM NO.	DETAILS	PRICE
DD-DELUXE		\$219.00



### **Oneida Dust Deputy Box** Separator suit Festool **Extractor Systems**

The Dust Deputy integrates perfectly with Festool, CT 26/36/48 Vacuums, using the same style clips that hold Festool systainers, giving a positive and sturdy connection. Dust extractors owners, particularly tradesmen and contractors, are well aware of the cost of replacement vacuum parts. No matter if you're woodworking, dry walling, or renovating, a clogged filter can cost you valuable time and money,

both on the job-site and in the store. With Oneida Air Systems' Ultimate Dust Deputy, (UDD) cyclone, you can convert your wet/dry vacuum into a seamless three-stage dust extraction system. Our patented cyclone design captures over 99% of airborne dust and debris, containing it in a large 9 gallon Systainer, compatible bin, before it ever reaches the filter! By pre-separating both the larger debris and the finer dust particles, the UDD virtually eliminates filter clogging and suction loss, allowing your vacuum to operate at maximum efficiency at all times and saving you money on expensive replacements! Kit Includes: Patented Dust Deputy, cyclone separator19L Systainers style collection bin3 dust bags plastic bag hold-down system elbow adaptor and 51mm (2") x 1524mm (5') of static dissipating hose. Does not fit MIDI or MINI Dust Extractors.

ITEM NO.	DETAILS	PRICE
DD-FESTOOL		\$529.00

Dust Extractors? If you're looking to upgrade the dust control efficiency in your workshop, these are a fantastic option. See pages 102 to 105 for details.





## **DUST COLLECTION BAGS & FILTERS**



## Carbatec Plastic Collection Bag

Made from heavy duty material to withstand the force created inside the dust extractor. You will enjoy the convenience and productivity these bags will bring to your workshop as it reduces workshop down time. Able to be emptied and reused many times if desired, or tied off and disposed. Sold in packs.

ITEM NO.	DIA.	LEN.	QTY.	SUITS	PRICE
PCB-800XL	510mm	1250mm	10	DC-1200P, FM- 300, JET-DC1200, CT-2042, DC- 2300P, PM1900	\$34.00
FM-230-PCB	375mm	750mm	10	FM-230, DC-500H	\$15.00
CT-002V-PCB	420mm	1150mm	10	CT-002V	\$38.00
CT-003V-PCB	500mm	1300mm	10	CT-003V	\$59.00
CT-005V-PCB	605mm	1250mm	10	CT-005V	\$69.00
UB-2100ECK-PCB-D	495mm	830mm	5	UB-2100ECK, CDC-1650C	\$29.00
UB-3100ECK-PCB-D	615mm	1200mm	5	UB-3100ECK, CDC-2200C	\$39.00



### Carbatec Needlefelt Filter Bags

Needlefelt filter bags collect over 95% of particles, five micron or bigger, improving efficiency and safety in your workshop. While modern extractors such as our DC-500H or DC-1200P models often come with needlefelt bags, many older dust extractors only came with basic cloth bags. This represents a substantial improvement to

filtration on those, at a reasonable cost. These bags are designed as the "top" filtration bag for your machine, not a collection bag on the bottom. Use in conjunction with our Carbatec Plastic Collection Bags, or Cloth Collection Bags.

ITEM NO.	DIA.	LEN.	QTY.	SUITS	PRICE
FM-300-FB-5	510mm		1	DC-1200P, FM- 300, JET-DC1200, CT-2042, DC- 2300P	\$44.00



## Carbatec Cloth Collection Bag

An alternative to the Plastic Collection Bags, these cloth bags are designed to be emptied when full and re-used, as opposed to disposed. Designed as collection bags for the bottom of your extractor, these are not filtering top bags. A more environmentally sound choice.

ITEM NO.	DETAILS	PRICE
FM-300-CB	DC-1200P, FM-300, JET-DC1200, CT-2042, DC-2300P	\$25.00



## Carbatec Charcoal Filters to suit Room Air Filters

To maximise your filtration capability, you can use an optional third stage charcoal odour filter. Charcoal filters are used to further filter dust but also vapours that may exist in your workshop from spraying or using chemicals. Use of the filter does not negate the use of PPE such as a personal respirator and all precautions should be taken in addition to using this filter.

ITEM NO.	DETAILS	PRICE
CTF-1000-CF	Suits AF-1000C, CTF-1000	\$79.00
CTF-2000-CF	Suits AF-2000C, CTF-2000	\$89.00



## Carbatec Pleated Filter Cartridges

Pleated cartridges not only provide vastly enhanced 1 micron filtration, the pleating increases the surface area by up to 700% (compared to a single filter bag), which in turn, maximises airflow. This combination of features makes pleated cartridge filters the best of both worlds, ultra fine filtration with high airflow.

ITEM NO.	SUITS	PRICE
FM-300CF	DC-1200P, FM-300, JET-DC1200, CT-2042, DC-2300P, PM-1900TX	\$229.00
FM-230CF	DC-500H, FM-230	\$239.00



## JET 2 Micron Cartridge Filter

This highly efficient filter is an excellent upgrade to your existing JET-DC1200VX dust extractor. Pleated cartridge filters are far more efficient than even needlefelt filter bags. This one is manufacturer rated at 2 microns. It will also suit many other brands of 2 HP dust extractors.

The unit is cleaned by rotating the handles located on the top of the filter several times. Doing so rotates a rubber beater inside that removes settled dust from the pleats, helping them to fall into the collection bag. The filter unit needs to be used in conjunction with plastic collection bags in place of cloth bags. Collection bags are available in packs of ten in the relevant sizes for each machine.

Pleated cartridges not only provide vastly enhanced micron filtration, the pleating increases the surface area by over 700% (compared to a single filter bag). This increased surface area in turn also increases the CFM rate creating more suction from the impeller unit.

ITEM NO.	DETAILS	PRICE
JET-DC1200VX-CF	JET-DC1200VX	\$379.00

lungs and create other adverse health conditions. Don't ruin your woodworking experience by not protecting your lungs. Carbatec has an extensive range of dust control equipment to assist in keeping your workshop and lungs, clean!

## THE BASICS OF DUST EXTRACTION: PART 2



#### **Designing Small Workshop Extraction Systems**

First, we need to look at requirements, specifically considering which machines you have and which machines you plan to add (the latter being the thing most people forget to take into account). Each type of machine has a certain airflow requirement for effective dust extraction. We touched on this last time with our graph that illustrated the loss in suction through flexible hose (click here to refer back to this article).

A very basic list of machines and their minimum requirements would be as follows:

Bandsaw: 300cfm

Tablesaw: 400cfm (cabinet connection only)

Router Table: 500cfm

Jointer or Small Thicknesser: 600cfm

Spindle Moulder: 700cfm

Tablesaw 800cfm (cabinet and overhead guard)

Lathes 800cfm

Large Thicknesser: 1000cfm

These requirements are approximate and are of course heavily dependent on your usage and the type of material being used. But what about an existing system you want to refine? Go back to basics, strip out some of the fittings, straighten the lines and simplify the whole design. A couple of percent here and there will help.

Note also that these specs refer to the extraction requirements at the machine (where the hose meets the machine's dust port), not the listed capacity of the dust extractor. To work this out you need to take into account the distance between the extractor and the machine, the machine type and the type of ducting used (flexible or rigid), as well as fittings, bends, etc. This way we can calculate an approximate line loss value across the entire system. Now is a good time for you to get out your crayons and paper. I will wait...

#### **Planning**

You need to do a good scale drawing of you workshop layout, position your machines in their 'in-use' location, figure out how you want to connect them, and decide where your dust extractor will reside. Try to keep the heavy producers of waste (like thicknesser, lathes etc) closer to the extractor. Draw out your desired plan, keeping the main line as straight as possible. List your 'Y' Junctions, 'T' pieces, connections, bends and blast gates, and total your hose requirements. To calculate you approximate line loss across your system, use the following rules of thumb:

Every meter of 4" (100mm) flexible hose will reduce your CFM by around 7 - 10% per meter. Keep it short.

- 90deg bends will restrict airflow by 3-4% each.
- 'Y' Junctions will divide the airflow in half if both sides are left open (use blast gates to switch off the unused side). A gated "Y" Junction will reduce airflow by around 1-2% each.
- "T" pieces are fairly inefficient compared to "Y" junctions.
   They will reduce the airflow by 3-4% each.

Stepping down to a smaller diameter, will increase the velocity but will lower the CFM airflow considerably. A good example would be trying to suck a lung full of air through a straw (one that's not currently dipped into your favourite drink). It works, but it's hard work and you wouldn't want to do it all day. Your future or current dust extractor agrees. Use minimal reducers, and try to keep them near the end of the line, near the machines that product smaller amounts of dust (scroll saws, mitre saws etc).



#### Keep It Simple!

Armed with these guidelines, crayon in hand... develop a plan to reduce your dust.

#### So What is my Best Option?

There is no right answer, but there is always a wrong answer. The best option for both collection networks and dust collections is always going to be dependent on you own collection of machinery, how big your workshop is and where you see yourself in a years time. The wrong option is deliberately designing a system that's 'just enough', or not quite enough to do the job. The money you save now will soon be forgotten when it comes time to fix the problems.

For all your extraction requirements, Carbatec stores stock a large range of dust extractors, cyclone extractors, flexible PVC, rigid ducting, PVC and metal fittings. Maybe the best option would be to talk to one of our professional staff and ask for some advice. If you have a large workshop or you're a club with a complicated setup and you're looking for some advise, please call.