



Dust Management

May
2015

Scott Simpson

Regional Sales Director
Scotland & Ireland

Agenda slide

Dust Management

- 01** Water Vapour Products
- 02** Dust Extraction Products
- 03** Innovation Products
- 04** Speedy Dust Toolbox Talk

Dust Management

Dust Monitor



- The CEL-712 Microdust Pro™ is a rugged, hand-held, data logging instrument for real-time detection of airborne dusts, fumes and aerosols. It has a large graphical color display, to instantly view current level and concentration over time to identify events and trends.
- Easy to use, with an intuitive icon driven interface, the CEL-712 provides qualitative data of aerosol and dust concentration which cannot be obtained through gravimetric air sampling methods alone
- Microdust Pro has the highest maximum measurement range of any hand-held real-time dust monitor available

Dust Management

Dust Atomiser



- The Vortex Rotary Atomiser operates with a simple on/off switch and produces 20m of finely atomised mist, delivering an effective mobile solution to dust and odour problems.



- The Pacific Mobile is trailer mounted and can be taken directly to the source of the problem. The integral trailer carries a 1125L capacity bowser, which is filled with water. A 100m nozzle line (50m either side) is then deployed on to pig tail stakes (included), around the problem area.



Dust Management

Dust Fighter – Water Vapour



- The Dust Fighter Smart uses nebulized water vapour to suppress airborne dust and odours. This prevents puddles whilst at the same time using significantly less water than hosing, minimising the risks of slips on site. Once engaged, the nebulized water 'grabs' on to the dust particles pulling them to the ground.
- The fine mist spreads over a larger area than that of existing methods of dust suppression and can cover up to 13m².
- The specially designed 12Kw turbine is almost whisper quiet when running only producing 60dBA at 20m. The turbine has the ability to run at 2 speeds 1500 rpm and 1000 rpm giving the turbine the flexibility to throw the atomised water from 10 meters to over 70 meters. This solution is ideal when working in the middle of towns or cities where a need to be quiet whilst working is paramount.



Dust Management

Dust Buster



- Self-sufficient package which includes a long running pump and large water tank to provide enough supplies to last your shift.
- Lockable storage cabinet for your saw, large wheels for easy manoeuvrability and long hose for increased working range.
- Revolutionary product providing the environmental solution for cutting concrete without dust pollution to the operator or surrounding environment.

Dust Management

Dust Extraction Unit



- The DC2900 is a Dust Extraction Unit is suitable for vacuum cleaning and source extraction from handheld power tools (with up to 5" suction casings) and small table saws.
- The DC 2900 has a sturdy steel chassis with big wheels, but is still lightweight and portable.
- Suitable for all industries, attach directly to cutting, drilling, sanding and grinders plus excellent for heavy duty 38mm vacuum cleaning. Also ideal for sensitive environments where effective dust containment is imperative.

Dust Management

Twin Dust Extraction Unit



- The DC 3900c Twin eco is a portable but very powerful dust extractor suitable for large quantities of dust due to its integrated pre-separator. It is particularly suitable for concrete grinding since 80–90% of the coarse materials are separated in the pre-separator. The remaining dust goes into the filter cyclone.
- The DC 3900c Twin eco is a popular machine since it is powerful enough for most applications yet it can be easily moved and transported. The air flow capacity is suitable for concrete floor grinding machines with diamond discs of up to 500 mm/20" diameter.



Dust Management

Hilti Hammer Drill Bit TE-CD/TE-YD & DRS System



- Drill and borehole cleaning in one step. Fast drilling, perfect cleaning and safe anchor installation.
- Drilling and borehole cleaning in one step



- Complete system for drilling, chiselling and coring with 99% dust free
- DRS-Y for Combi TE50 – TE80

Dust Management

Diamond Cutter DCH 300



- Cuts up to 12cm, twice as deep as conventional grinders
- Cutting reinforced concrete, granite kerbstones, slabs, brick and masonry
- Cutting metal beams, steel pipes and reinforcing bars



Dust Management

Large Aircube



- The DC AirCube 2000 is a robust air cleaner with ECO-fan and a capacity of 1800m³/h, equipped with variable speed transmission to save energy, e.g. at night.
- It has a 0,7m² pre-filter and a HEPA H13 microfilter of 10m² cleaning the air from hazardous particles very effectively (down to 0,3 micrometer). A filter indication lamp lights when it's time to change the filter.
- The air exhaust is directed upwards in order to prevent dust to whirl up from the floor. The AirCube 2000 can be positioned horizontally flat on the floor, with the exhaust then pointing to the side.



Dust Management

Standard Aircube



- The AirCube 500 has been developed for ease of use and high durability. It is built from stainless steel sheet metal to be extra damage resistant.
- The fan unit is a radial blower with a specially designed scroll to build up high pressure across its complete flow range. Intended for cleaning air in the working environment.
- An exhaust hose can be used to create negative pressure in a sealed room
- The fan has two speed settings that allows for economical operation, for example during the night



Dust Management

Back Pack Vacuum



- The BV5/1 is an effective back pack vacuum used in hard to reach, fast turnaround areas such as public transport, aeroplanes, cinema's and stairwells.
- Ergonomic design keeps controls and accessories easy to reach at all times
- Permanent, washable main filter basket allows machine to operate with or without filter bag

Dust – The Invisible Killer



Safety from the ground up | A journey to competence





Dust is a BIG problem

Every year:

30,000

suffer from work-related
breathing or lung problems

8,000

die from dust-related illness

40,000

new cases of skin disease

1,700

estimated new cases of asthma



But first a word on competence

- Construction is a dangerous industry
- Improving competence is key to reducing accidents
- It's people that often cause accidents
- Competence is skills, knowledge and behaviour
- Competence is thinking about:
 - Self-awareness: get to know yourself
 - Situational awareness: expect the unexpected
 - Risk awareness: think outside the box.

Self-awareness

get to know yourself

- Think about YOURSELF and your role
- Consider your frame of mind
- Late nights and hang-overs can affect judgement
- Domestic disputes and emotional upsets affect concentration
- All these can affect performance and safety.





Situational awareness

expect the unexpected

- Don't assume today will be the same as yesterday. Things change
- Take note of the broader context in which you work
- Stop and think about what's going on around you
- Things change so expect the unexpected risk.

Risk awareness

think outside the box

- Risk awareness is more than risk assessment
- It recognises the additional risks of:
 - Age
 - Inexperience
 - Poor eyesight
 - Fading light
 - Language
- Consider out-of-context risk due to new jobs and unfamiliar surroundings.





What is

dust?

- Asbestos fibres
- Wood dust
- Silica fibres
- Cement dust
- Mould spores
- Paint fumes
- Chemicals
- Welding fumes.



The invisible killer

It's the tiny particles,
invisible to the naked
eye, that are the
most dangerous.

Dust is deadly

Wood dust

Nasal cancer and asthma

Welding fumes & sprays

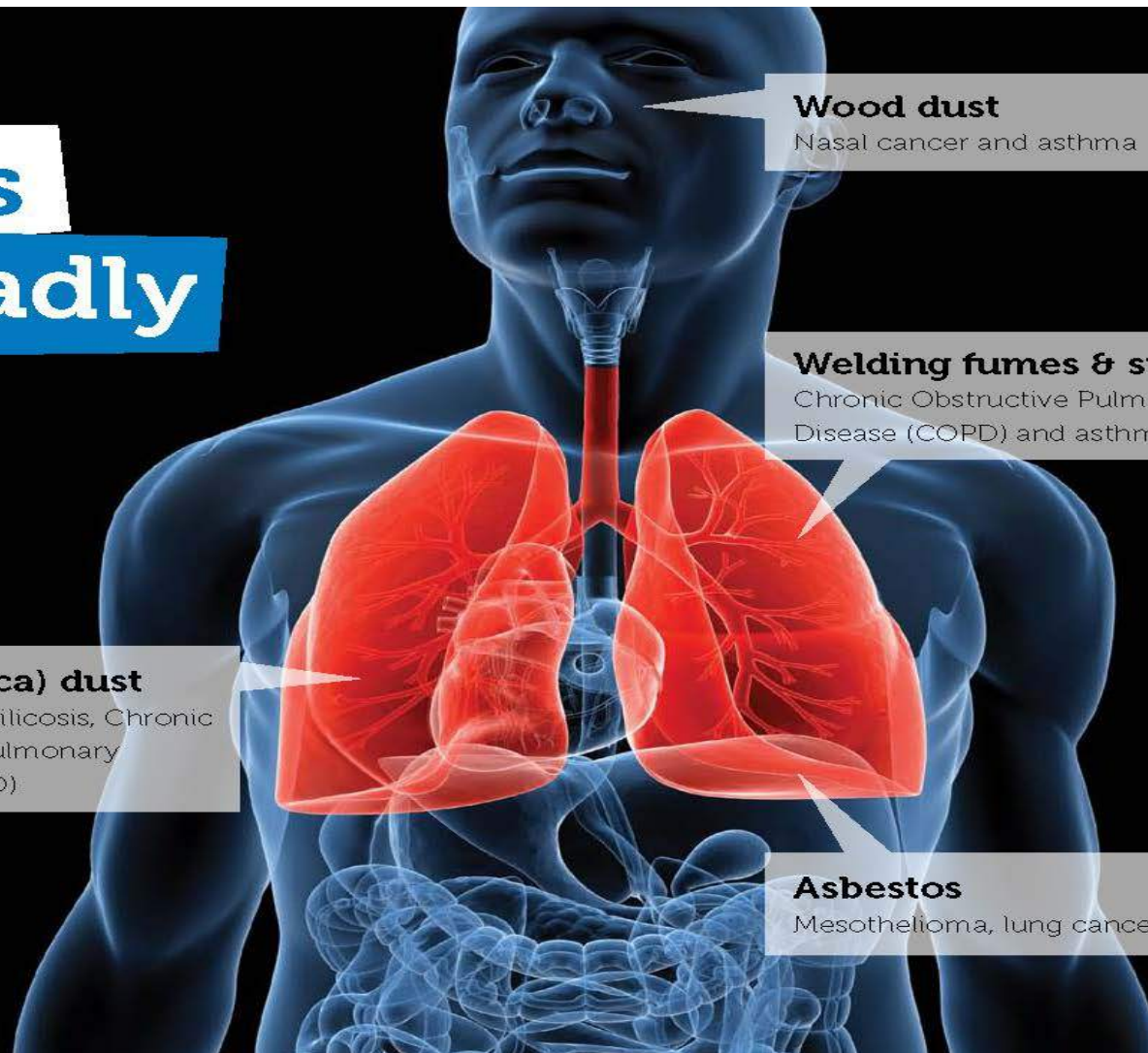
Chronic Obstructive Pulmonary Disease (COPD) and asthma

Stone (silica) dust

Lung cancer, silicosis, Chronic Obstructive Pulmonary Disease (COPD)

Asbestos

Mesothelioma, lung cancer, asbestosis





Who is

affected?

Almost EVERYONE including:

- Maintenance
- Bricklayers
- Electricians
- Demolition
- Plumbers
- Joiners
- Painters
- Engineers
- Carpenters

What can we do about it?

Step 1

Avoid

Creating dust
in the first
place

Step 2

Prevent

The release of
dust into the air

Step 3

Minimise

The exposure
to dust



How to control exposure

Avoid

Can you complete the task without creating dust?

Block splitter



Cordless nail gun



Magnum shears



Remember always consider dust free alternatives first

How to control exposure

Prevent

Use dust extraction or water suppression equipment

Dust extractor unit



Wallchasing machine



Diamond drilling rig



Floor saw



Welding fumes extractor



Diamond grinder



Heavy-duty masonry saw



Wheeled poly trolley



How to control exposure

Minimise

If creating dust is unavoidable you must do everything possible to minimise exposure

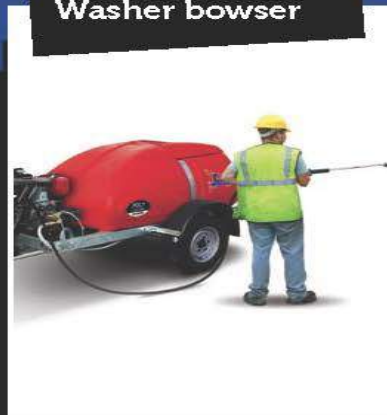
Zip wall



Air cube



Washer bowser



PPE



Summary

- Competence is key – it's skills, knowledge and behaviour
- Dust is deadly and must be prevented and controlled
- The smallest dust particles are the most dangerous
- Don't let dust get airborne
- There is a full range of equipment available
- PPE is your last resort
- If in doubt, ask your supervisor
- Always think AVOID, PREVENT, MINIMISE.



Any Questions?

scott.simpson@
speedyservices.com

07730 804348