DUST EXTRACTION

"Whether you have a small or large bodyshop there's a dust extraction system to suit "

Health Risks from dusty workshop atmosphere

There are many airborne particles (dust) and gases generated by bodyshop activities which, when inhaled, become lodged in the lungs and can cause respiratory diseases such as occupational asthma and pneumoconiosis of the lungs. Employees need to take adequate precautions when sanding because once you have the disease, you have it for life.

Extraction at source is the best way for employers to protect their workforce and meet health and safety (COSHH) legal requirements.

Inside the workshop there are different types of systems available to extract dust at source. These range from portable units to centralised systems. For a small bodyshop a portable unit may be practical, it can be moved around the shop to where it's needed.

In larger bodyshops, one centralised vacuum unit provides extraction for numerous areas. A centralised system provides greater power than portables, its' size can vary, depending on the number of workstations needed.

Workstations

Extract points can be located at each bay. .

Minden Systems can provide a variety of options for extraction points from dust heads to energy modules with electrics and compressed air incorporated into each workstation.

Boom arms are a possibility with some systems but there are disadvantages.
They are an expensive option. Dustheads or workstations at each bay are much cheaper.
The arm needs to be carefully designed as the weight of the head can make the arm swing, thus making their use difficult.
Boom arms need to be robust and are therefore heavy. The weight will need to be well anchored to a strong point – boom arms have been known to bring the wall down!

Developments in market to improve efficiency and reduce costs

Minden has introduced a smaller and simpler entry level 'EL' version for smaller bodyshops 'We have reduced the cost of the unit by 17.5% thus making it more economic for the smaller shop,' said Les Brooker, Minden Systems. 'The unit will have a manual clean system operated by the manager/owner at regular periods which is acceptable due to the lighter use and throughput of this type of bodyshop.'

At the top of the Minden range is a new super electronic 'SE' dust extraction system which will be built to order utilising programmable controls, touch screen technology, vacuum performance and monitoring, data logging and voltage monitoring of the motor.

All models in the new range will have an ATEX option available.

It is important to have a vacuum system that is not cross-contaminated by another system. Separate dust extraction is required for aluminium particles and steel. Mild steel reacts with aluminium. If it finds its way onto a panel, corrosion can occur. In addition to providing a cleaner, safer working environment dust and fume extraction can help reduce costly reworks caused by contaminants. A build-up of aluminium particles can cause an explosion so special filters are required to reduce static.

All models are now built so the ATEX filter can be added at a later date if required.

Regular Servicing essential

Presently, it is a legal requirement to test extraction units at least once every 14 months. In practice, however, it is not uncommon to undertake more frequent testing to make sure the vacuum is functioning at an adequate level. As equipment gets older, it can easily get clogged up decrease in efficiency eventually causing the motor to fail. To protect your workforce and equipment, regular servicing not only makes sense but also avoids the risk of being fined.