

ON-TOOL EXTRACTION: A SHORT GUIDE



Controlling dust at the point it is made prevents it from getting into the air. This makes managing dust a lot easier. This sheet provides information on getting the right dust extraction kit, using it properly and keeping it well maintained.

What do I need?

Consider on-tool extraction as a system made up of parts. You need to have the right component parts to have an effective system. These are:

1. The tool and its consumables that do the job.
2. A capture hood by the tool head that the dust goes directly into.
3. An extraction unit. This is like an industrial vacuum cleaner. It removes the dust from the hood, filters it and then collects it for safe disposal.
4. Tubing that takes the dust from the hood to the extraction unit.

Manufacturers and suppliers do provide complete systems, but some parts, particularly extraction units, can be used with more than one tool.

Capture Hood:

This is the most important part. Quite often it will come as part of the power tool, but a capture hood can also be retro-fitted. Check that it:

- Is designed for the tool
- Sits as close as possible to the work surface when in use
- Is easy to use and does not interfere with the work unnecessarily - a capture hood that makes the job difficult is less likely to be used by your workers



Extraction Source:

This is the second most important part of the system:

- Choose an M (Medium) or H (High) class unit which provide effective and reliable extraction. These are marked with a special warning label (see below). An L (Low) class unit is only suitable for less harmful dusts like gypsum, found in plasterboard
- Do not just use a HEPA filter in a normal vacuum cleaner
- Make sure the unit can cope with the amount of dust the work will create. Lots of fine dust can quickly clog filters - it needs to be able to remove the dust as fast as you are creating it
- Think how regularly the unit will need emptying. Check that the waste capacity is big enough



Tubing:

Check that:

- It is long enough to reach the extraction unit and you have room to use the tool properly
- It is the right diameter and fits securely to both the capture hood and extraction unit

Using on-tool extraction:

The right equipment is only effective if it is used properly. Make sure that you:

- Use the tool in the right way – e.g. move a grinder in the direction of the blade's movement, not against it
- Keep the capture hood as close as possible to the work surface
- Have good connections between the hose and both the capture hood and extraction unit. Use an adaptor if needed, not tape
- Empty the extraction unit regularly. Use disposable waste bags. Seal and place in the right waste container. Do not empty these bags to recycle them
- Keep the collected dust dry. Some extraction units are designed for both dry materials and liquids. Using them in this way when they are part of an on-tool extraction system can reduce the airflow needed for on-tool to work



Daily checks and maintenance

Tools will last longer when they are not clogged with dust and are regularly maintained. Ensure the system works properly first time, every time you use it:

- Look for damage to parts of the system such as the hood or ducting. Repair or replace these straight away
- Maintain the extraction unit's flow of air. Follow the manufacturer's instructions; check that the airflow indicator and any built-in cleaning mechanism works properly
- Replace filters when needed
- Clean the equipment regularly (e.g. wipe it down). Do not let dust build up on working parts
- Replace worn parts of the tool, such as cutting discs etc.
- Ensure the extraction unit is thoroughly maintained once a year. Speak to the manufacturer or supplier.

Things to consider:

You should:

- Check that the tool you are using allows for effective removal of the dust
- Make sure you have adequate power supply to run your system on site
- Ensure those using the equipment know how to put it together and operate it properly. They also need to know what pre-use checks to do and how to keep it maintained

You should not:

- Try to use the extraction unit without a bag inside collecting the dust
- Return a hired unit full of dust – you are exposing other workers to the dust