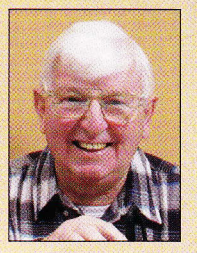
Dust extraction for routing



Ron Fox tackles the necessity of effective extraction, whatever budget you're on

PHOTOGRAPHS BY RON FOX

Dust collection is one of the major preoccupations in the routing workshop, not only for the increased comfort in working in a clean atmosphere but also because of the growing awareness of the health hazards posed by dust especially with the wider use of materials such as MDF. This article therefore looks at the extraction options available to router users. They also apply to other dust-producing power tool so the investment in dust control equipment can at least be spread over a range of power tools.

DUST EXTRACTION

A wide range of extractors is available ranging from the little domestic type cleaners, to the expensive models with three-stage filtration and a power-tool socket into which the router can be plugged; the extractor comes on when the router is switched on and runs on for a short time after the it is switched off. Auto-sockets have maximum power ratings so it is important to check which router you propose to use it with.

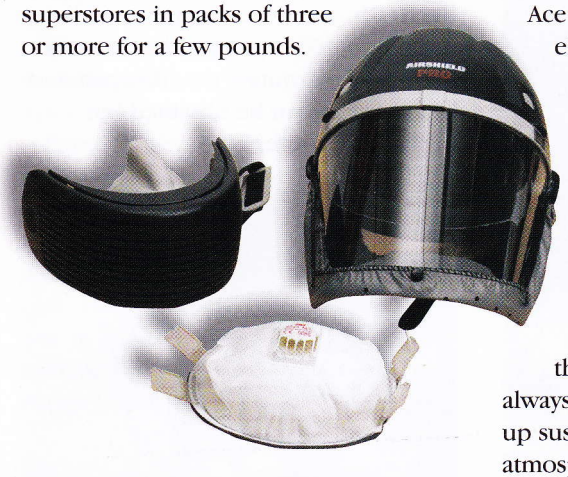
I now use a Trend T30AF system – the auto-socket is rated at 2000W so I can connect to most modern routers.

The Trend T30AF extractor system

A less expensive make is Earlex, two models of note are the Combivac WD1000 and the Powervac WD1200P. The Earlex models have capacities of 13.5 and 20 litres respectively, against the 34 litres of the Trend.

Face masks

An alternative approach is to rely on a facemask to protect you from the dust but you still have to work in a cloud of dust and then sweep or vacuum it up at the end of the day. These also come in degrees of sophistication and expense. Simple masks can be bought from DIY superstores in packs of three or more for a few pounds.



Three types of face mask: a simple disposable one, a Trend Airshield Pro, and a Trend Air Ace

At the top end are battery-operated full-face respirators, where a fan draws air in through filters and down past the face. They give complete protection for eyes, as well as nose and lungs, and can be fitted with clip-on ear defenders. They are particularly good for spectacle wearers because they prevent misting. Obviously, though, this commands an elevated price.

In between are facemasks made with moulded plastic bodies and replaceable filters for filtering out different materials. The Trend Air Ace carries a replaceable electrostatic filter, which protects against particles down to 0.3 microns, enabling it to be used with MDF. It inevitably is referred to at home as my 'Darth Vader' mask.

Ambient air cleaners

An efficient extractor connected to an efficient router will pick up the bulk of the dust, but there will always be some that escapes and ends up suspended in the workshop atmosphere.

Ambient dust filters like the Microclene MC 1000 are sheet-metal cylindrical drums in which a rotary fan sucks in air through a nylon mesh filter, removing particles of dust down to 1 micron or less. It always amazes me to see how much dust comes out of the filters when I renew mine. (What you do is remove the filter, put it in a large polythene bag to avoid blotting out half the street, and bang it as if you were playing a tambourine).

The Microclene ambient air filter hanging from the workshop ceiling

The MC 1000 is bigger than I need for my little workshop; the smallest model in the range, the MC 100, can be bench- or wall-mounted and costs just under £100 inc. VAT.

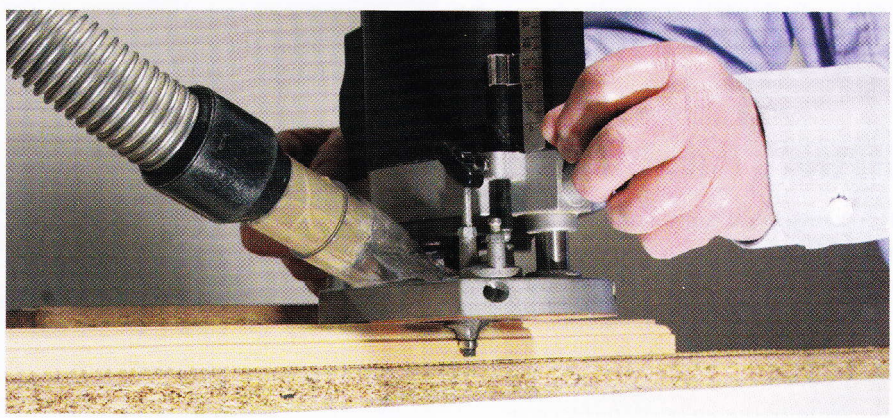
HAND-HELD ROUTING

It has to be said that dust extraction with hand-held routing falls short of 100% efficiency with most routers. The only routers with really good hand-held extraction are the three or four models where it has been designed into them. Good hand-held extraction, then, requires three things:

- An efficient extractor
- An efficient dust take-off
- A job that lends itself to dust extraction.

The third point is important. If you are cutting an internal aperture using a guide bush and template, the router sits on the template and 'boxes in' the dust. There is nowhere for it to go except up the dust spout and into the extractor. Any half decent extractor will do the job.

By contrast, if you are moulding the edge of a table top, the router base is half on and half off the workpiece. The drop in vacuum and the rotation of the cutter combine to spray the dust down and away from the router base: only those few models that extend dust extraction to the side fence will cope. In between we have jobs like grooving and trenching where the router straddles the cut and picks up a lot of the dust.



Moulding the edge of a small table top. Dust extraction poor with most routers

Routers with side-fence dust extraction. DW621, Festool 1400, Bosch 2000