

# 5 Things To Consider Before Purchasing A Ducted Fume Cupboard

## Key Benefits

The Standard BS EN 14175 stipulates that the exhaust point from a ducted fume cupboard must vent vertically and extend to 1.25 times the overall height of the building or 3 metres above the highest point (whichever is greatest).

## Planning Permission

The above requirement means that in some cases planning permission may have to be sought. This can be an issue in some locations.

## Cost of Duct/Fan/Installation

This is a semi-hidden but significant cost which may come as a surprise as it can often cost more to run ductwork, supply fan, connect services etc than the cost of the Fume Cupboard itself! Especially if the location of the cupboard is a long way from the Fan and exhaust point. The other thing to consider is where the ductwork will run. If external then Planning Permission may be required. If internal then large holes (250mmØ for cupboards of up to around 1800mm width\* and 315mm for larger units\*\*) will have to be cut through floors/walls etc.

## Fire Dampers

This is another "hidden" cost. If the ductwork (which would generally be PVC or Polypropylene) passes through a fire-rated partition/wall then Fire (smoke) dampers will need to be installed. These fit around the duct and in the event of a fire will crush the duct, effectively sealing it. The cost for a small installation (say 10 cupboards) can be several thousands of pounds.

## Cost of Make-Up Air (If You Do Not Have A Variable Air Volume [VAV] System)

This is a very real consideration - especially if you have not had fume cupboards before. The cost of the make-up air (which is heated or cooled depending upon the season) is significant as a 1500mm cupboard can extract an average of 1076M<sup>3</sup> per hour! You should expect to see your energy bills increase by at least £1,000 per cupboard per year.

A typical Fan/Duct installation is shown below.