



## FUME CUPBOARD EXHAUST DUCT SPECIFICATION

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Each fume cupboard shall have individual and dedicated ductwork between the fume cupboard and its exhaust fan located external to the building or in a dedicated plant room. Ductwork shall have a smooth, non-absorbent, obstruction free surface and shall be unreactive to any exhaust fumes passing through it. All penetrations or joints in the system shall be completely sealed by hot air welding to avoid leaks. Where hot air welding is not possible suitable sealants may be used.

The ductwork system shall be manufactured from uPVC with UV inhibitors and shall have a minimum wall thickness of 3mm and in all cases material and reinforcing shall comply with SMACNA “ Thermoplastic Duct (PVC) Construction Manual.”

Circular or rectangular duct is to be heat formed or heat folded and all joints and seams are to be hot air welded with a compatible filler rod. Joining sockets shall be either heat formed or a fully welded collar. If flanged joints are required they shall comply with SMACNA.

Where possible ductwork should follow the most direct route from the fume cupboard to the point of discharge, horizontal runs and bends should be kept to a minimum. All bends should have a minimum radius of 1.5 x diameter.

The discharge of the exhaust stack shall be fitted with an accelerator cone to achieve a minimum discharge velocity of 10m/s and a 316 grade stainless steel, bird-proof, mesh is to be fitted at the point of discharge. The minimum discharge height shall be 3m above the roof at the point of penetration or any access walkway.

NOTE: Various alternate duct materials may be found under “ Fume Exhaust Ducting” on this site.