

## **Thermo-Cutting Styrene-hard foam**

Our intension is to protect the working place from avoidable negative effects from cutting Styrene hard foam with hot wire.

When cutting, the wire only comes to the temperature which is necessary to smelt Styrofoam. Only Styrene, which rests after a cut upon the wire and is upon the not cutting upper part of the wire can evaporate, as wire comes to higher temperature when not cutting. In order to avoid this, the blower must blow away part of the higher temperature of not cutting part of the wire.

The fan must usually be turned on (connector socket on left side). Thus the fan is working as soon, as the cutting wire is heated (when using the pedal switch for power supply).

Only when the peace to be cut includes hollow space, the blower cannot reach it and some smoke can occur. Also sometimes it may be useful to blow with the mouth, just for better cutting edges (see instructions).

The reason why nevertheless more smoke may come out is mostly too hot cutting. But for a good result in cutted surface there are some rules written in the instructions, which should be well regarded:

- 1) use the pedal switch for only heating the wire when needed.
- 2) do reduce cutting height of the branch when not necessary.
- 3) use the blower and put it into a good position to be useful.

It is not possible to avoid any smoke when using a hot wire cutter. With using it in a bureau and especially together with other people not involved in model making a better general airing, so as ventilation or open windows, is necessary.

Any special air extraction- / filtration devices we do not advice. Our clients who did try this where not successfully. Avoidance is better than exhaustion.

If user like to cut with very hot wire, they may buy a blower like is used in computers or for indoor ventilation to improve air flow to the wire.

As personal irritation from Styrene smoke is very different, the measurements may be different, too. Separation of people, more fresh air in general, separation of working areas.

Safety instructions are available from the manufacturer of your foam material, for instance from [www.dow.com](http://www.dow.com) /HD300 (our blue foam). Our offered HD300 is pretty good smelling, but some materials, coming from Asia, may cause bad smell because of their contents.