

# Domaplasma® air purification

## Tips for maximum deodorisation efficiency

### Prevent smoke development

'Blue' smoke comes from the frying process. This smoke is caused by burnt oil and/or fat particles, usually caused by (too) hot cooking oil/fat or searing the meat. If these products become too hot, or are fried too much/too long, blue smoke or soot particles are produced. These smoke and soot particles are so small that they fly through all filters and systems. The formation of blue smoke depends in particular on the cooking process: cooking with gas is hotter and exhibits this phenomenon faster than, for instance, cooking on induction. type of recirculation hood you choose, cheap or expensive, the phenomenon of smoke generation, as described above, will still exist.

Circulate means nothing more than sucking in air and then blowing it out in the same room.

The solution should be sought in not allowing the aforementioned products to burn and, if present, in additional mechanical (balance) ventilation through which any smoke and soot particles are removed 24/7.

### Odours linger longer

- 1) To achieve maximum deodorisation efficiency (> 90%), it is necessary that all baking and cooking vapours enter the hood and proper extraction is not disturbed by other (turbulent) air flows under the hood; according to our many years of experience, turbulence is often caused by outflowing circulating air from the extractor hood's vents directed at nearby cabinets, doors or walls or perhaps by an open window.
- 2) If cooking vapours do not reach the extractor hood or only partially, the associated Domaplasma air purification technology cannot contribute to achieving high deodorisation efficiency. Cooking vapours partly remain in the kitchen or adjacent rooms until they reach the hood again and/or possibly are eventually vented out via (mechanical) ventilation. If cooking vapours reach the hood even at a lower or medium setting, do not set the hood to a higher setting. The longer the cooking vapour remains in the plasma environment, the better the deodorisation. If the grease filters i.c.w. the Hyabsorb fine filters supplied are not or are washed infrequently, the Domaplasma air purification technology will pollute at an accelerated rate and increasingly lose its effectiveness in the long run. Replacing/exchanging the Domaplasma air purification catalyst is then the only solution. Service contracts and or individual agreements can be concluded for this purpose. We can send you a quotation based on your installation. If you wish to be considered for this, please send an e-mail to; [service@domaplasma](mailto:service@domaplasma).
- 3) If it turns out that you are more for quite some time and therefore cooking relatively less with sufficient moisture development, it is wise to let pan of water boil along several times during cooking, or immediately after. This allows the system to 'clean up' itself internally again. The higher the humidity during cooking, the higher the cleaning and deodorising effect.
- 4) After cooking, ALWAYS switch the hood to follow-on ventilation (in a lower position). Most newer cooker hoods will automatically switch off after-run ventilation. If not, let it run for about 20 minutes and then switch the hood off. Longer is not necessary. In combination with any mechanical ventilation, which ensures 24-hour removal of moisture and residual odours, you will achieve the highest efficiency.
- 5) If the hood is switched on again prior to the next cooking session, you may initially notice some residual odours; as soon as you start cooking again and the Domaplasma purification process resumes, these will disappear on their own.

### **Condensation / Humidity / Cooking fumes**

- 1) It does not matter what type of recirculation hood you choose, whether it is a cheap or an expensive one; it simply boils down to cooking fumes being sucked in and then blown out again in the same room. However, this problem requires more than just a hood. It is essential to consider additional mechanical ventilation, along with natural ventilation, to continuously exhaust excess cooking fumes. This will improve air quality and minimise moisture and odour problems.
- 2) Condensation occurs when water vapour comes into contact with a surface that has a lower temperature than the surrounding air. This phenomenon results in the formation of small water droplets on the cold surface. Condensation may be visible on windows, walls, other surfaces. By regulating humidity and providing adequate ventilation, condensation can be reduced.
- 3) To prevent the formation of excess fumes, use lids on pans while cooking. This simple trick not only helps vapours in the pan and speed up the cooking process, but it also helps reduce energy consumption. By using lids, the heat is retained better, allowing the power under the pan to be reduced while still achieving your cooking goals. As an added benefit, this leads to a long-term reduction in energy costs, while also saving the environment.

### **Use and maintenance of an extractor hood or cooktop extractor in recirculation mode**

- 1) Switch on the extractor hood or extractor fan in the hob with extractor fan before you start cooking, to create an airflow that draws cooking vapour to the extractor surface.
- 2) Experiment with the various speeds, lower speeds are desirable when using Domaplasma Air Purification or (Long life) activated carbon filters. The lower the speed, the better the air purification or filtration, due to the longer residence time in the filter.
- 3) At lower speeds, cooking vapour saturated with odours stays longer in the deodoriser before out. This achieves higher deodorisation efficiency.
- 4) Let the cooker hood run for some time after the preparation is over, until all fumes and odours have been properly extracted (approx. 20 min.)

Apply the above points as much as possible. If the above points do not contribute to deodorisation after , you should have the Domaplasma unit replaced by the Domaplasma service department.