

GUIDE TO FOGGING FOR DISINFECTION

Companies are facing a whole new raft of safety protocols to ensure that workplaces are as safe as possible for their employees in the new Covid-19 landscape. Businesses whose work involves treating or dealing with customers or clients face-to-face (e.g beauty salons, clinics, therapists, gyms and shops not to mention large establishments such as schools) also need customers to be confident their safety is a priority. Cleaning and disinfecting business premises will be high up the list of these new protocols and there are many discussions around how best to do it. Disinfecting with fogging, previously the domain of facilities such as hospitals, clinics and labs, is coming increasingly to the fore. But what exactly is it?

Disinfectant fogging and how it works

Disinfectant fogging is creating a fog or mist (basically a very, very fine spray) that can treat an area against pathogens e.g. viruses and bacteria or, say, vector-borne diseases.

As Covid-19 is a new virus there are still many unknown factors. Research indicates that its main transmission mode - its means of spreading - is by direct human-to-human contact. Secondary transmission modes would seem to be through contact with contaminated surfaces and possibly, and to a lesser degree although still not enough is known at this current time, through contaminated air space.

As such the ideal scenario is to treat the air AND surfaces but particularly the latter. The advantage of a fog is that it can be carried around in the air to give very good coverage of a room or area, reaching even inaccessible and small spaces where pathogens could be lurking. Whether the fog is treating the air and surfaces, however, depends on droplet size and how fine and light the fog is. Fogging delivers droplets below 40 microns (a micron is a unit of measurement equivalent to one millionth of a metre; human hair is between 10-100 microns) but there are different types. The talk at the moment is mostly around wet and dry fogging.

The difference between wet and dry fogging

Wet foggers deliver droplet sizes between 10-40 microns. The mists produced can hang in the air, treating airborne viruses, and can also settle on surfaces, killing viruses which may be there. As such, they represent a good balancing act. The fog dries quickly on surfaces.

Dry foggers produce even finer droplets, sub 10 microns, that are designed to hang in the air. As such, they may not have the secondary function of treating surfaces. While they may reach every nook and cranny in the air, they require more stringent PPE and it will be longer before the area can be entered safely as breathing in these tiny droplets can be extremely dangerous to health.

What about electrostatic spraying machines?

These create a strong positively charged spray. This electrically charged spray has the benefit of adhering better to any negatively or neutrally charged surface it comes into contact with. It provides a very good coating and coverage of disinfectant on surfaces. However, many sprayers deployed for disinfection produce quite large droplets and so electrostatic charges will be ineffective. To combat this, air assisted or high pressure electrostatic sprayers may be used but these are often very expensive and bulky pieces of kit meaning they are impractical for most businesses and research hasn't yet proven they do a better job than other methods.

Fogging Glossary

ULV - Ultra Low Volume. ULV Foggers use large volumes of air at low pressures to transform liquid into droplets between around 5-40 microns. Can be wet or dry foggers.

Cold Foggers - ULV foggers which are usually powered by electricity or battery not heat.

Wet Foggers - ULV cold foggers which deliver droplets between 10-40 microns to treat airborne AND surface pathogens.

Dry Foggers - ULV cold foggers which deliver droplets smaller than 10 microns to treat airborne pathogens

Thermal Foggers - dry foggers which use heat to vaporise liquid to deliver tiny droplets less than 1 micron.

Electrostatic Sprayers - use an electrically charged spray to thoroughly coat surfaces.

!! IMPORTANT !!

- 1) Wear adequate PPE - different types of fogging require different levels of PPE. Check before use with fogger manufacturer and disinfectant manufacturer.
 - 2) Do NOT spray electronic items. Consider putting a wipeable cover on electronic items.
 - 3) Check manufacturers instructions for use of detergents and disinfectants. Our sprayers can be used with applications of commercial chemicals (ready to use) with permitted concentrations as follows: Sodium Hypochlorite 0.5%, Hydrogen Peroxide 0.5%, quaternary ammonium compounds 0.05% and disinfectants for general use with viricidal action.
- Please contact PSP for advice if unsure about equipment or chemical usage.

To find out more about fogging and whether it is suitable for your business, contact PSP on 01273 400092 or email info@prosprayers.co.uk.