









CASE STUDY

HYGENIKX

Verified Infection Control. HyGenikx Proven to Deplete Harmful Listeria & Improve Food Service Cleanliness

Utilising a combination of the most effective and refined air and surface germicidal technology available, **HyGenikx** air and surface sanitisation system eradicates bacteria and viruses throughout the food service and hospitality environments—validated in both field and lab trials!

Mechline's revolutionary air and surface sanitisation system, **HyGenikx**, is proven to eradicate bacteria and viruses throughout the food service and hospitality environment—providing 24/7 hygiene and safety protection. The compact, wall-mounted unit utilises a combination of the most effective and refined air and surface germicidal technology available to help prevent the spread of harmful viruses and bacteria to customers and staff, as well as neutralising all odours.

Infection control and food safety are some of—if not the biggest—concerns within food service operations and operators are under pressure to control and implement the highest of hygiene standards. Microorganisms spread infections, compromise hygiene standards, cause food to spoil, create

offensive odours, and can multiply very quickly. So, it is very difficult for traditional cleaning methods to keep pace.

In just 8 hours, a single bacterial cell can multiply to over 8 million, meaning that health risks and odours remain a





major problem, with standard room cleaning and disinfecting procedures only offering a temporary solution. Many food service establishments still only use fragrances which attempt to mask odours and do not target the source: the contamination both in the air and on surfaces.

Designed specifically for food service environments, **HyGenikx**, works safely all day and every day, eliminating bacteria and viruses found in the air and on exposed surfaces in a given space, even in those hardest to reach places.

Independent Validation

HyGenikx targets and kills biological hazards in the kitchen, including Salmonella, Escherichia coli (E. coli), Norovirus, and other primary sources of infections, and has been proven to eliminate harmful Listeria in an independent validation study carried out by ALS Laboratories—the UK's leading provider of food and drink testing services.

The objective of the study was to assess the effect of HyGenikx technology on harmful Listeria species, one of which—listeria monocytogenes—is a bacterial pathogen and widely associated with foodborne outbreaks. In this trial, sterile surfaces were inoculated with Listeria monocytogenes and Listeria innocua, left to dry, and stored in a cold room at

1±1°C for four days, where bacteria were measured daily. This was performed in the presence and absence of **HyGenikx** technology.

The Results

The findings showed that in the absence of <code>HyGenikx</code> technology, there was steady surface contamination with moderate bacterial growth, but in the presence of <code>HyGenikx</code> technology there was a depletion of the bacterial contamination beyond detectable levels. This study ultimately validates the ability of <code>HyGenikx</code> to eliminate harmful Listeria from the environment, protecting both staff and customers.

Field Testing

HyGenikx has been put through its paces in real working kitchens too. In one undisclosed gastropub, swabs were taken before and after the installation of **HyGenikx** to establish its impact on cleanliness. Specifically, testing focused on "unseen" dirt, i.e. not in the most obvious locations. **HyGenikx** is not designed to replace standard cleaning best practice, but to





support it. The kitchen studied was clean prior to testing, as per their normal procedure.

The equipment used was an ATP (adenosine triphosphate) meter, an accepted measure of cleanliness. ATP is an energy molecule found in all plant, animal and microbial cells. Its detection shows the presence of biological material that is not visible to the naked eye. So, an increase in biological residues (or dirt!) increases the amount of ATP present on that surface, making ATP an effective marker for the assessment of the hygienic status of an environmental surface.

At the gastropub, swabs were taken from various locations, ranging from the edge of the fridge door and underside of shelving, to the rear of the hand basin and double plug socket – many of which are considered hard to reach or challenging areas. The areas swabbed measured 10cm x 10cm where possible.

The results showed that readings were generally very low, even before the installation of **HyGenikx**, as the gastropub had a very clean kitchen to begin with! The readings from a week after installation however, showed that there was reduction in ATP at nearly every point tested, ranging from 12 to 100% reductions.

The Results

In summary, despite the kitchen already being very clean, HyGenikx was successful in improving its cleanliness even further, to levels impossible to achieve with standard cleaning methods. Principally, through its revolutionary technology HyGenikx creates a safer and more hygienic food service environment – for customer and staff protection and operator peace of mind!

The **HyGenikx** range has models to suit every application, from food preparation areas, cold rooms and front of house, to washrooms, refuse areas and beyond. **HyGenikx** has also proven to prolong the life of fresh perishable foods. To find out more and read other case studies, please visit:

www.mechline.com/hgx