









CASE STUDY

HYGENIKX•

HyGenikx Proves Its Power at Two Quick-Service Restaurants in South East Asia

Two quick-service restaurant chains have assessed the power of **HyGenikx**, by measuring microbial levels before and after installation. The tests found that **HyGenikx** dramatically reduced microbial counts in all areas sampled, and as a result, improved the restaurants hygiene and reduced possible risks.

It is well known that regular and thorough cleaning is key for ensuring hygiene and food safety standards are kept high. But no matter how well staff perform their day-to-day cleaning duties, these can only offer a temporary solution. It is therefore crucial that restaurants look at investing in supporting systems that help maintain good hygiene control—to compliment staff best practices—and to minimise the risks of viruses and bacteria spreading.

Two popular quick-service restaurants (QSR) chains in South East Asia had heard about the benefits of **HyGenikx** air and surface sanitisers, but wanted to trial it in their own restaurants. ATP testing was therefore carried out at both sites, before and after installation.

ATP Test Method

ATP, or Adenosine Triphosphate, is an energy molecule found in all living things, including microorganisms, plants and animals. Its presence on kitchen surfaces can be used as an indicator of organic debris and bacteria, and therefore contamination.

ATP testing is widely used in the food industry to monitor the cleanliness within HACCP systems—and alert those responsible to high-risk areas and where preventative action is needed. Portable ATP tests are easy-to-use swab kits that produce quick, quantitative results. The higher the ATP number, the more microbial activity present. At both QSR sites, swabs were taken before and after the installation of **HyGenikx**, to see the impact it had. All other factors, such as the standard cleaning regime and kitchen operations were unchanged.

Test Site A

Test Site A is a QSR specialising in sandwiches and wraps, prepared onsite, with lots of options of fillings. The **HyGenikx** unit (HGX-W-30F)



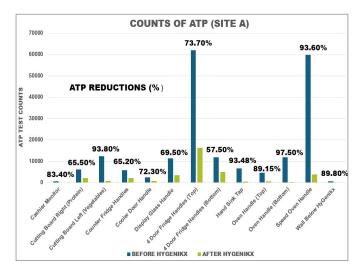
was installed in the main service and food assembly area.

ATP swabs were taken from 13 test points, before **HyGenikx** was installed, and again one week after. The 13 test points were the cashier monitor, cutting board (protein), cutting board (vegetables), counter fridge handles, cooler door handles, display glass handle, 4 door fridge handles (top & bottom), hand sink tap, oven handle (top & bottom), speed oven handle, and wall below **HyGenikx**. All swabs were taken during normal operational hours using a Kikkoman Lumitester Smart – Portable ATP luminometer.

The Results were impressive, with very high reductions in microbial counts demonstrated after **HyGenikx** was installed (e.g. 94%, 84%, 73%, 94%, 89%, 97%, 94%, 90%), even during normal operational hours.

The results also highlighted potential cross-contamination hotspots—namely the cutting board and various fridge handles. It is thought that the fridge door handles could have been maintaining a high score due

| Test Points | BEFORE HYGENIKX ATP Test Counts | AFTER HYGENIKX ATP Test Counts | REDUCTIONS % |
|---------------------------------|---------------------------------------|--------------------------------------|-----------------|
| Cashier Monitor | 566 | 94 | 83.40% |
| Cutting Board Right (Protein) | 6151 | 2122 | 65.5% |
| Cutting Board Left (Vegetables) | 12311 | 757 | 93.80% |
| Counter Fridge Handles | 5832 | 2029 | 65.20% |
| Cooler Door Handle | 2462 | 681 | 72.30% |
| Display Glass Handle | 11340 | 3459 | 69.50% |
| 4 Door Fridge Handles (Top) | 61945 | 16278 | 73.70% |
| 4 Door Fridge Handles (Bottom) | 11817 | 5020 | 57.5% |
| Hand Sink Tap | 6692 | 436 | 93.48% |
| Oven Handle (Top) | 4690 | 509 | 89.15% |
| Oven Handle (Bottom) | 11926 | 301 | 97.50% |
| Speed Oven Handle | 59713 | 3799 | 93.60% |
| Wall Below HyGenikx | 629 | 64 | 89.8% |



to the amount of traffic being directed to these touch points, although still notably improved with **HyGenikx** installed!

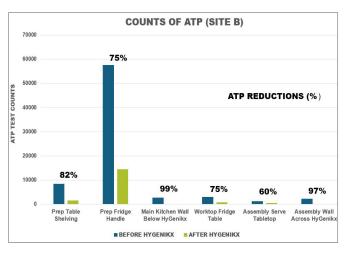
Test Site B

Test Site B is a QSR barbecue full-service operation with a full range of hot food on offer. The product is prepared from raw on site. Two **HyGenikx** units (HGX-W-30F) were installed, one in the grill room, and one in the main service and assembly area.

ATP swabs were taken from 6 test points in total, 2 from the grill prep room and 4 from the main service assembly kitchen. The test points from the grill prep room were the prep table shelving and the prep fridge handle. The test points from the main service assembly kitchen were the main kitchen wall below <code>HyGenikx</code>, worktop fridge table, assembly serve tabletop, and assembly wall across <code>HyGenikx</code>. All swabs were taken during normal operational hours using a Kikkoman Lumitester Smart – Portable ATP luminometer.

The results were again very good. There were very high reductions in microbial counts demonstrated after **HyGenikx** units were installed

| Test Points | BEFORE HYGENIKX ATP Test Counts | AFTER HYGENIKX ATP Test Counts | REDUCTIONS % |
|----------------------------------|---------------------------------------|--------------------------------------|-----------------|
| Prep Table Shelving | 8500 | 1515 | 82% |
| Prep Fridge Handle | 57580 | 14463 | 75% |
| Main Kitchen Wall Below HyGenikx | 2779 | 20 | 99% |
| Worktop Fridge Table | 3074 | 758 | 75% |
| Assembly Serve Tabletop | 1306 | 527 | 60% |
| Assembly Wall Across HyGenikx | 2334 | 69 | 97% |



Introduction to HyGenikx

HyGenikx Air & Surface Sanitisers are designed to improve hygiene and safety, reduce the risk of cross-contamination (infection control), extend the shelf-life of fresh food (reduce waste) and control odours.

HyGenikx works by using a combination of the most effective air & surface sanitisation technologies available. Germicidal dual waveband UVC and Photocatalytic PCO output, is also enhanced through the production of Superoxide Ions and Hydroxyl radicals, together forming Plasma Quatro, which is proven to eradicate harmful bacteria, viruses, VOCs (volatile organic compounds), moulds and fungi, as well as neutralising odours.

HyGenikx targets and eradicates biological hazards including Salmonella, Escherichia coli (E. coli), Norovirus and other primary sources of infections, and has been proven to eliminate harmful Listeria.

HyGenikx is a low cost, easy to install and low maintenance innovative air and surface sanitiser that is proven effective.





(e.g. 99%, 82%, 75%, 97%). This was again impressive as this was the case even during normal operational hours.

The tests had also highlighted two potential cross-contamination hotspots: the assembly table top and preparation fridge handles. It is reasoned that the preparation fridge door handles could have been maintaining a high score due to the amount traffic directed to this touch point, in combination with the potential of raw produce being handled.

Conclusions

It is clear from the results that the addition of **HyGenikx** into both QSR operations had significantly reduced microbial activity at all test points, even during normal working conditions. The units have helped to improve the hygiene levels in both sites, beyond what was previously achieved with standard cleaning alone, and reduced potential risks.

The ATP testing also helped the QSR sites identify hotspots of microbial activity in the kitchen, which may have been overlooked during standard cleaning routines. It is important to note here that <code>HyGenikx</code> is not a replacement for standard cleaning. <code>HyGenikx</code> is a support system that helps improve hygiene—and complements staff best practices—to minimise the risks of viruses and bacteria spreading in the air and on surfaces.

Visit www.mechline.com/hgx to learn more about HyGenikx