

Improved hygiene and less carbon emissions

A revolutionary workwear laundry system has been developed to improve hygiene standards, cut costs and reduce carbon footprints in the food industry.

The OTEX validated ozone disinfection system has been launched to reduce the mounting concern about the risk of cross contamination in both commercial laundries and on-premise laundry facilities.

Until now, potentially infected laundry such as food processing workwear has been laundered using high temperature thermal disinfection wash cycles.

But rigorous scientific tests have shown that certain bacteria and viruses can survive thermal disinfection. In other words, laundry may look clean but could well be harbouring potentially dangerous bugs.

The new system has been developed by JLA, taking advantage of more than 30 years experience and now the UK's leading distributor of commercial laundry equipment and suppliers of machines to a wide range of markets including the food industry, with customers including the Grampian Country Food Group, the Faccenda Group and Cumbrian Seafoods.

The development of OTEX is expected to result in a heightened presence in the sector because the system has been scientifically proven to destroy bugs such as salmonella, E. coli 0157, Clostridium perfringens and spoilage organisms like yeasts, moulds and coliforms.

The healthcare sector is another major market for the company and the company already supplies numerous NHS hospitals, four out of five of the country's top care groups and more than 8,000 independent nursing homes.

This wide experience in hygiene sensitive markets was a driving force in the company's focus on the disinfection processes in laundries. It conducted exhaustive research into the system's effectiveness including one study which highlighted the disturbing fact that even if a laundry has machines which are capable staff cannot always be relied on to use the thermal disinfection cycle when necessary.

"We developed a remote laundry management system and installed it in a wide variety of users," says JLA business development director Dick Cardis. "Quite frankly, the data it provided was frightening.

"It showed bad practice in laundry rooms was rife and thermal disinfection cycles were frequently not used when they should have been, even in circumstances with high levels of gross contamination."

JLA's research went still further and scrutinised items which had been laundered in hospitals. In one test, a mop which had been used on a ward was thermally disinfected for three minutes at a temperature of 71°C as per official NHS guidelines. The mop was then examined by independent microbiologists – who found it was still highly contaminated with Clostridium difficile.

These alarming findings led to the development of the OTEX system. Two years ago, a small number of American washing machine manufacturers were using ozone to process laundry. They regarded the main benefit of ozone as a financial one because it could be used to wash at low temperatures and thereby reduce energy costs.

But JLA was quick to recognise ozone's remarkable cleansing properties. It is a powerful natural disinfectant which is 3,200 more effective than chlorine bleach. The company's technical division developed a system featuring an oxygen concentrator, an ozone generator and a unique infusion device.

The concentrator converted air to 90% oxygen and the generator separated oxygen atoms with electrical arcs to create ozone. The infusion device then made the ozone soluble by defusing it into water in a washing machine drum.

The system underwent extensive trials during which microbiologists carried out tests similar to those they had carried out on the thermally disinfected items. The tests showed that after the OTEX process there was 'no viable trace' of bacteria including

Clostridium difficile and MRSA and viruses.

"Crucially, the micro-organisms were killed on all wash cycles," Dick added. "This means that the system eliminates the risk of user error and, therefore, provides complete peace of mind."

OTEX subsequently underwent a six month trial processing microfibre mops and cloths at the QE II Hospital in Welwyn Garden City, UK at the request of East and North Hertfordshire NHS Trust. Again, the system proved impressively effective.

Microbiologists reported that without question, the OTEX system had proved to be a more effective method of laundering microfibre mops and cloths than thermal disinfection processes and its effectiveness against specific types of bacteria, in particular spore forming bacteria was found to be superior.

The Commission for Social Care Inspection, which registers, inspects and reports on social care in England, also gave OTEX the green light. After studying scientific evidence, the agency confirmed the system fully complied with the Department of Health's National Minimum Standards care homes regulations.

For the food industry in particular, the system's additional benefit of saving energy is enormous. Typical average savings in on-premise laundries, based on using correct wash programmes and detergent dosage, are as follows:

- 1 Electricity 60%.
- 1 Gas 35%.
- 1 Hot water 80%.
- 1 Total water 45%.
- 1 Labour 30%.
- 1 Detergent 35%.
- 1 Linen 20%.

The savings in energy also reduce carbon emissions, of course, and JLA has calculated that each system saves over three and a half tonnes of carbon dioxide per year.

With well over 1,200 OTEX systems already in use throughout the UK, that amounts to an annual total of 4,445 tonnes – the equivalent of 6,923 trees.

FaxNOW +44 1422 824390

✉ info@jla.com

