Silence is Gold SKA rated

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University of London library benefits from Mitsubishi Electric Jet Towels

The choice of a hand dryer can influence much more than the washroom environment. When The Institute of Advanced Legal Studies (IALS), University of London, needed to replace other recently installed hand dryers that did not meet their noise requirements, they instead opted for Mitsubishi Electric's Jet Towel Smart models. In addition to creating a pleasant working and studying space, the solution contributed to optimising the building's energy efficiency.

When selecting hand dryers for washrooms in public spaces it is important to consider a number of factors to identify the most suitable solution, including acoustic performance. For example, quiet hand drying methods should be used in places where quietness is paramount, such as offices or libraries.

Creating a pleasant ambience with the help of a suitable hand dryer was precisely what the team of a major renovation project focusing on building interiors at the University of London's Institute of Advanced Legal Studies (IALS) wanted to achieve. The institute occupies eight floors of Charles Clore House, London, and is part of the listed Grade II* Bedford Way building complex designed in the Brutalist style by Sir Denys Lasdun.

Washroom considerations

Over 40 years after the official inauguration ceremony of the IALS, the University of London decided to update three floors of the institute's library. This transformation

project would secure this iconic building's continued use, providing modern library and research facilities for future generations.

Some of the rooms that underwent substantial renovations were the washrooms, which hadn't been modified since the building was opened. While the facilities used to be equipped with paper towel dispensers, these were no longer suitable for the IALS library, as they did not support university's plan to create a sustainable learning environment. Even more, the costs and volume of waste generated can quickly escalate and get out of hand in a public toilet equipped with paper towels.

In particular, the team was keen to obtain a Gold SKA rating certificate. This is a rating system designed to assess the environmental performance of fit-out projects for non-domestic buildings in the UK.

At first, conventional energy-efficient hand dryers were selected. However, following their installation, the renovation team noticed that the noise of the selected hand dryers was particularly loud. This was in strong contrast to the low level of noise expected in study spaces within the library to foster an effective learning environment. Andrew Beach, Project Officer for the IALS Transformation Project 2018-2020 at the University of London, explains: "The toilet doors open straight to the library. As such, any loud noise from the washroom can be easily heard, disturbing the quietness of the place. The initial solution that was selected was simply too noisy. This is why we decided to look for an eco-friendly alternative with lower sound levels."

Engineered quietness

Mitsubishi Electric's Jet Towel Smart high-speed air-curtain style hand dryers, also known as jet air dryers, were identified as the most suitable solution. The drying

method that these products use has been recently reported to be as effective (1), if not more (2), as paper towels in the removal of bacteria from hands. Therefore, they would help maintain highly hygienic practices and environments at IALS.

Furthermore, with an average electricity consumption of 0.23-0.27 kWh per 100 uses, the product is listed for its energy efficiency on the UK Government's Energy Technology List, immediately qualifying the product for Gold SKA rated projects, and can deliver substantial savings in energy costs. Andrew Beach adds: "We relied on the Energy Technology List to find products that would help our energy credentials. Mitsubishi Electric's Jet Towel models are the only hand dryers that we could find on the list with a limited noise output."

Mitsubishi Electric's Jet Towel hand dryers are also some of the quietest on the market, with a noise output for the Smart version as low as 59 decibels in eco mode. This means that they produce a little less noise than conversations in restaurants or offices, background music or air conditioning units. As a result, the use of these products would ensure a quiet and pleasant ambience in the library.

This exceptional acoustic performance is half that of conventional electric hand dryers thanks to a number of key features in its design. Mitsubishi Electric's hand dryers are also equipped with smart sensors to stop blowing air as soon as the hands leave the drying area. So, by the time library visitors open the door to leave the bathroom, the noise has already stopped.

The sources of most of the noise in a hand dryer are the fan and motor. Mitsubishi Electric's high-speed air-curtain dryers have a motor compartment designed to absorb sound and deaden vibrations. Furthermore, the outer casing of the hand dryer is made of robust, strong and durable body panels that absorb sound rather than transmit it.

In addition, Jet Towels feature a long air duct that is shaped to create a twisting air passage. This has been designed to reduce the amount of noise escaping from the motor. Even more, the air flows through a dust filter. This not only traps dust, pollen and other particulates but is also able to absorb motor noise.

Additional benefits of using Jet Towel

In order to provide a compact solution that would fit in the limited space of the IALS Library washrooms, Mitsubishi Electric suggested the use of the Jet Towel Smart model, which measures only 16cm from the wall. Furthermore, the hand dryer is particularly easy to install, as it took the engineers less than 30 minutes per product.

Neil Butler, Business Development Manager – Automation Systems Division at Mitsubishi Electric, comments: “We are so confident in Jet Towel’s capabilities that we offer a demo to customers interested in this product. In this case, this demonstration easily convinced the staff at IALS that the hand dryers maintain the quiet learning environment needed in the library.”

Extremely satisfied with Jet Towel Smart and its capabilities, the University of London is discussing the installation of high-speed air-curtain style hand dryers in another building undergoing renovation with Mitsubishi Electric. Neil Butler concludes: “We are delighted to know that the customer is happy and to receive such positive feedback. We look forward to helping the University of London in the future to create more pleasant and hygienic washroom environments.”

(1) Reynolds, K. A., Sexton, J. D., Norman, A., & McClelland, D. J. (2020). Comparison of electric hand dryers and paper towels for hand hygiene: a critical review of the literature. Journal of applied microbiology.

(2) Suen, L. K., Lung, V. Y., Boost, M. V., Au-Yeung, C. H., & Siu, G. K. (2019). Microbiological evaluation of different hand drying methods for removing bacteria from washed hands. Scientific reports, 9(1), 1-7.

Image captions:

Image 1: Mitsubishi Electric's Jet Towel Smart hand dryers helped create a pleasant working and studying space whilst contributing to optimising the building's energy efficiency [Source: Mitsubishi Electric Europe B.V.]

Image 2: Mitsubishi Electric's Jet Towel hand dryers are some of the quietest on the market, with a noise output for the Smart version as low as 59 decibels in eco mode. [Source: Mitsubishi Electric Europe B.V.]

About Mitsubishi Electric Wave

Developing products driven by a philosophy of constant innovation and technical ingenuity, Mitsubishi Electric has been helping to improve people's lives since its founding in 1921. Our pioneering technologies make waves across industry – including in hygienic and washroom applications, where our hand dryers set the gold standard.

Wave Technology represents our most advanced, efficient and hygienic solution for hand drying to date. In comparison with paper towels, the use of which typically generates 17.1 kg CO2 per dry as well as unrecyclable waste, our hand dryers can cut emissions by 99.7%, with only 0.058 kg CO2 per dry while maintaining optimum hygiene performance and limiting noise levels.

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