

This case study is one in a series co-sponsored by Washington Department of Ecology, the Oregon Sustainability Board, and the Oregon Department of Environmental Quality to help companies in the Pacific Northwest understand the challenges and benefits of product environmental footprinting.

EXCEL DRYER

gaining competitive advantage through product life cycle assessment

Excel Dryer, the first hand dryer manufacturer to commission a comparative product life cycle assessment of high-speed energy-efficient hand dryers, now evaluates the performance of its XLERATOR® Hand Dryer following the new Product Category Rules published by UL Environment.

THE ISSUE

For over 50 years, Excel Dryer, Inc. has been manufacturing American made hand dryers and invented the original, patented XLERATOR® Hand Dryer. XLERATOR created the high-speed, energy-efficient hand dryer category, redefining the public perception of hand dryers and setting a new standard for performance, reliability and sustainability.

The hand dryer market, like so many others, has seen the environmental performance of products become a key point of market competition, and as a result has seen a variety of “green” claims being made over the past decade. While the XLERATOR Hand Dryer was determined to be a leader in energy-efficiency among electric hand dryers, based on the results of a peer reviewed life cycle assessment (LCA), neither the environmental benefits nor its scale over the full life cycle of the product were apparent. Additionally, it was not clear how the XLERATOR compared to hand drying alternatives such as virgin or 100 percent recycled paper towels.





THE SOLUTION

To quantify benefits of the XLERATOR, Excel Dryer became the first hand dryer company to commission an independent LCA of high speed hand dryers, which was peer reviewed to ISO 14040 standards. The end goal was to share credible, third-party testing results with consumers and the specifying community to substantiate environmental claims of their XLERATOR Hand Dryer.

The LCA compared the high-speed, energy-efficient XLERATOR Hand Dryer to a conventional electric hand dryer and paper towels containing between zero and 100 percent recycled content. The LCA examined a broad range of environmental impacts at all stages of the product life cycle including all material, energy inputs and pollutant outputs.

Each system was evaluated to determine the environmental impact of providing 10 years of service (drying 260,000 pairs of hands). This was understandably a lengthy process and significant commitment of time, money and staff resources.

The LCA confirmed the XLERATOR Hand Dryer reduces the carbon footprint of hand drying substantially versus even 100 percent recycled paper towels.

“People generally believe that recycled anything is the greenest solution, which often isn’t true,” said Penny Bonda, LEED fellow with the U.S. Green Building Council, a partner with Ecoimpact Consulting and past president of the American Society of Interior Designers. “Product and material specification becomes easier, almost intuitive, once the design professional understands the LCA process and the vital role it plays in green design.”

THE CHALLENGES



AVOIDING 'GREENWASHING'

With so much information being disseminated, it became increasingly important for buyers and specifiers to understand and gain access to reporting tools and benchmarks to authenticate claims relative to environmental impacts and product performance. A champion for innovation and change, Excel Dryer recognized that in order to provide clarity and prevent 'greenwashing' in the sustainable product sector, the method to test for environmental impact of hand dryers needed to be standardized.



NEED FOR STANDARDIZATION

To that end, Excel Dryer again reached out to a credible internationally recognized third party, UL Environment (a business division of Underwriters' Laboratories), to create Product Category Rules (PCR) for the hand dryer industry globally. Excel Dryer was selected to chair the PCR committee and work with other industry leaders to create industry consensus per ISO standards.



TRANSPARENCY

The newly published PCR was the first global PCR published by any industry. It included industry consensus guidelines that specify how a hand dryer's performance is to be tested for energy use and dry times, both key components to properly reporting their environmental impacts. Third-party testing to these guidelines levels the playing field and creates an apples-to-apples comparison of hand dryers allowing consumers and specifiers to make more informed decisions. This new PCR ushers the hand dryer industry into a new 'age of transparency.'

"I'm proud to be an American manufacturer of quality products people enjoy using and can depend on," said Excel Dryer President, Denis Gagnon. "If we make a claim about environmental sustainability, we back it up with credible, third-party testing results."

What's a PCR?

Product Category Rules (PCR), is a set of specific rules that are peer-reviewed, and offer scientifically supported guidance specifying the way a product LCA ought to be carried out given the nuances of that product category. A PCR is a prerequisite for a product Environmental Product Declaration (EPD), which is a concise, highly readable format for easily communicating the environmental performance of a product. EPDs are increasingly used in purchasing decisions.



RESULTS

Just as they did in 2009, Excel Dryer again called upon the help of a third-party consultancy to refresh the LCA of their XLERATOR Hand Dryer, as well as new models that have been released since 2009 — this time to apply the product-specific guidance put forth in the hand dryer PCR. This effort is expected to be completed in 2017.

Excel Dryer understands that a coordinated approach to green restroom design is one that uses the most up-to-date high-efficiency products to reduce energy usage, conserve water, save money and contribute to a better environment overall.

BENEFITS

With this holistic and environmentally focused approach, Excel Dryer will continue to be an innovator and champion for change, leading the industry by example.

