

Laundry Water Recovery in Mexico City

Case Studies and Field Trials



Challenge

In Mexico City, few residents have tap water or washing machines and most visit laundromats to clean their clothes. To keep up with demand, most of the city's laundromats take delivery of fresh water three or four times per day at great expense to facility owners. Virtually none of this water is reused or recycled. This not only creates a financial burden for laundry operators, it also adds significantly to one of Mexico City's most pressing environmental problems: a massive water shortage.



Solution

InnoH2O Solutions, a Pennsylvania-based water solutions provider, developed a proprietary laundry water recovery system (LWRS) that offers an affordable, energy-efficient and user-friendly solution for laundromat owners. Each LWRS is equipped with a battery of spiral-wound microfilters containing PPG's exclusive polymeric filtration membrane. The PPG filtration membrane enables the InnoH2O LWRS to deliver ultrafiltration (UF) performance using microfilter (MF) technology. As a result, the LWRS is both effective and highly economical.



“Enhancing the sustainability of Mexico is a core focus for our company. Our partnership with InnoH2O Solutions has afforded us the unique opportunity to deliver unrivaled water reuse solutions to laundromats throughout the Greater Mexico City Area. We view the InnoH2O Laundry Water Reuse System (LWRS) using PPG filtration technology as an essential first step towards a country-wide sustainability transformation. The LWRS is unmatched in terms of reuse production and because it uses very little electricity, our clients don't have to sacrifice one resource for the conservation of another.”

DANIEL SARABIA
Sustainability Manager and
Limited Partner





Results

InnoH2O has initiated a water-savings pilot program with a large chain of laundromats throughout Mexico City. Using one facility for trial testing, the system generated laundry water recovery rates of more than 70 percent. Freshwater use at the facility was reduced by over 50 percent, which helped produce significant cost savings for the operator.

Due to the trial program's success, the laundry chain owner is now working with InnoH2O to install the LWRS at nearly 100 laundromats throughout Mexico City. Units will be installed at five facilities in 2020, 11 in 2021, 17 in 2022 and so on until every store is fully equipped.



Daniel Sarabia and his team standing near InnoH2O LWRS using PPG filtration technology.

InnoH2O selected PPG's polymeric membrane for the LWRS because it delivers a combination of performance benefits not available from competing filter membrane technologies. In addition to being extremely durable, the PPG membrane filters high volumes of water and self-cleans via mechanical backwashing, enabling the system to operate with minimal maintenance and energy use. The packing density of the filters also shrinks the footprint for the LWRS to a size that most laundromats can readily accommodate. To learn more about InnoH2O Solutions, visit www.innoh2osolutions.com.

For more information about the unique benefits of PPG polymeric filtration membranes, visit www.ppgfiltration.com.

Conclusion and Summary: Why It Works

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