



QUINTEX CASE STUDY

WATER & ENERGY SOLUTIONS

redefining efficiency since 1969

Company Overview

Since 1911, Quintex Services has provided high-quality uniforms, mats, linens, toweling and facility service products to businesses across Southern Manitoba. For more than 100 years now, Quintex has remained committed to improving community environments across Winnipeg and its surrounding areas while delivering superior products and services.

This dedication to excellence has earned Quintex several international industry awards, as well as four consecutive Consumer Choice Awards for being the top uniform, mat and linen provider in the region. Quintex is the only Canadian-owned, full-service rental laundry provider in Manitoba, serving more than 2,500 customers each year.



Recent Concerns

Sustainable solutions are at the core of Quintex. Driven by its mission to serve customers with sustainability at the forefront, Quintex ensures its business decisions support the continued improvement of local communities and the environment. This is why Quintex partnered with Kemco Systems to drastically reduce operating costs while improving its environmental footprint. Kemco installed its patented KLEENWATER™ system to minimize operational pollution and ensure Quintex's facility was not discharging harmful byproducts into the surrounding environment.



Solution

Kemco's KLEENWATER™ system presents a cost-effective means of combating rising water, sewer and energy costs by removing emulsified, suspended and dissolved contaminants including PFAS and microplastics from wastewater without utilizing high volumes of chemicals. Kemco's patented process combines Kemco's Ceramic Membrane Filtration system and specialized Reverse Osmosis technology in a manner that conserves water and maintains thermal energy.

The KLEENWATER™ system recycles water and significantly reduces greenhouse gas emissions by lowering a facility's heating load. This well-established process has demonstrated consistent reuse rates of 75%-85% of plants' water and thermal energy, without any additional consumption of wash aisle chemistry. The KLEENWATER™ system not only delivers solid returns, but it also allows companies and plant operators to demonstrate their commitment to environmental stewardship.

System Economics

At the time of its installation, water was priced at \$14.14 per thousand gallons. With the KLEENWATER™ system recycling 13,991,328 gallons of water annually, this meant the facility could anticipate a combined \$197,837 in savings on water and sewage costs per year.

The KLEENWATER™ system would also yield an additional \$18,996 in annual savings on heating costs compared to conventional gas-fired boilers operating at 65% efficiency. The cost reduction is based on operating 60 hours per week, 52 weeks per year heating 93 GPM of water using recycled water at an elevated temperature of 115°F with a natural gas cost of \$7.06 per 1,000 cubic feet.

Annual Water Savings:

\$197,837

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Annual Heat Energy Savings:

\$18,996

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Annual CMF Operating Cost:

\$27,983

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Annual Cost Savings:

\$188,850

To maximize its longevity and ensure the KLEENWATER™ system continues to operate at peak efficiency, Quintex is dedicated to equipment upkeep of its system. Every week operators set aside 4-6 hours to conduct high and low pH cleaning of the CMF; the RO also undergoes low pH cleaning and a sanitation process. This maintenance will allow the KLEENWATER™ system to yield returns for years to come. Operation and maintenance costs account for \$27,983 annually. Despite these costs, the facility saves a net total of \$188,850.00 on water, sewage and heating combined. Quintex's dedication to system maintenance appears to be paying off; to date, Quintex has proudly recycled more than 75,500,000 gallons of water with its KLEENWATER™ system since initial installation.