



## Culligan® Application Brief Pharmaceutical/Healthcare

Pharmaceutical/Personal Care product manufacturer promotes quality standards

### CHALLENGE

Pharmaceutical manufacturers demand high quality water with the fewest dissolved solids possible, to promote product consistency. A Canadian manufacturer of pharmaceutical/personal care products was looking to maintain water quality specifications to promote product consistency and improve product shelf life.

First the source water for the manufacturing plant comes from a municipal water supply. The influent water has hardness (Calcium and Magnesium hardness) of approximately 6 to 8 grains per gallon. The municipal supply is also chlorinated. The company needed multi megaohm-cm quality water with a microbiological requirement for its production process.

After a thorough review Culligan® recommended a comprehensive solution including a pre-treatment carbon filter, a reverse osmosis system, a storage system, deionizers, a 0.2 micron filter and an ultraviolet (UV) unit.

### BENEFITS

The Culligan® Industrial Solutions help the facility maintain water quality standards promoting product consistency and improving product shelf life. Furthermore, the portable exchange deionizers deliver quality water, without a capital investment reducing costs. This system also reduces on-site labor and regenerant chemical handling. The Culligan® Industrial Solutions also provide single-source responsibility including equipment, service and technical know-how. Finally, the system can be upgraded as the production requirements of the facility change.



**END-TO-END** SOLUTIONS.

## We ask the right questions so you get the right solution.

Our consultative approach begins with a Culligan® professional working with you to identify your specific water quality needs. We understand energy and power plant water treatment needs and have several technologies that can save you money and help you increase your return on investment (ROI). Let Culligan® customize a water system solution that meets your power and energy requirements.

### **Solution:**

Working closely with the pharmaceutical/personal care product manufacturer, Culligan® proposed an innovative solution to promote the quality standards at the facility. The Culligan® Industrial Solutions allow the facility to use municipal water, treated with a combination of modular water treatment technologies. The solution includes a pre-treatment carbon filter, a reverse osmosis system, a storage system, deionizers, a 0.2 micron filter and an ultraviolet (UV) unit.

The first component of the Culligan® Industrial Solution is the carbon filter. The city water is chlorinated. Chlorine in the supply water can produce unpleasant odor, which can show up in final product formulations. The carbon filter reduces organics and chlorine in the water supply.

The second component includes the reverse osmosis system and the storage tank. The thin film composite (TFC) reverse osmosis membranes are used to reduce total dissolved solids (TDS) in the water supply. Product water from the reverse osmosis system is sent to the storage tank, so that an ample supply of water is available for peak demand conditions.

The third component of the system is a train of mixed bed deionizers. Deionizers reduce total dissolved solids (TDS) from water to achieve multi megaohm-cm quality water. Furthermore, the portable exchange systems are serviced by the Culligan® dealer, reducing onsite labor and chemical handling.

The fourth component includes the 0.2 micron filter and the ultraviolet (UV) unit. The 0.2 micron filter and UV reduce the growth of microorganisms and bacteria.

All in all, the water treatment solution promotes product quality at the facility.



# Culligan®

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For over 80 years, Culligan® has made better water. Our global network, comprised of 800+ dealers and international licensees in over 90 countries, is dedicated to addressing your water-related problems. As a worldwide leader in water treatment, our sales representatives and service technicians are familiar with the local water conditions in your area. Being global and local position us to deliver customized solutions to commercial and industrial water issues that affect your business and your bottom line.

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