Trojan Technologies

Trojan Technologies is engaged in the design, manufacturing and sale of ultraviolet disinfection systems for municipal wastewater, drinking water systems for residential, municipal and commercial use, and industrial systems for food and beverage, pharmaceutical, and semiconductor applications.

Headquarters	3020 Gore Rd, London, Ontario, N5V 4T7
Year Established	1976
NAICS	335990 - All other electrical equipment and component manufacturing
Employees	750
Major Expansions	2003, 2005, 2008, 2010, 2011, 2012
Exports	US, EU, Australia, Asia-Pacific, Central America, South America
Parent Company	Danaher Corporation
Other Locations	Guelph, UK, US, Spain, Netherlands, Germany

A glistening stream of water discharges continually into the Thames River from a London pollution control plant that sits on a bank of the river. The water has passed through many stages of the waste water treatment plant, becoming cleaner with each step, until it finally reaches the UV disinfection system built by Trojan Technologies, a UV water treatment design and manufacturing leader headquartered in London, Ontario.

“People must have confidence in their water and water treatment processes. That is what we are all about”, explains Chief Technology Officer, Linda Gowman. “We bring expertise to treating all sorts of water. We have been shining ultraviolet light into water for almost four decades. Using this experience, Trojan has become an expert in disinfecting microbes in all sorts of water- from very dirty to very clean. In addition, we have engineered very large international installations to destroy micropollutants in water, directly with UV and with the addition of an oxidant like hydrogen peroxide. This lets us destroy chemicals like pesticides in water sources, which is very important with contaminated surface water sources.”

> “Try to imagine,” says President Marv DeVries, “a water treatment system that, put together, spans four or five football fields.”

This is the reality that Trojan has created to serve the drinking water treatment needs of New York City.

Trojan treats drinking and waste water on different scales, from residential systems, to villages, to cities like NYC, to industries such as beer brewing.

DeVries, is a water engineer. He studied wastewater treatment at Western University and water resources engineering at the University of Guelph. He has been at Trojan for twenty-five years and counting, starting his career as a salesperson before becoming involved with other operations in the company.

Gowman, is a mechanical engineer (BASc and PhD) with a master's in biophysics. For the past sixteen years, she has held various engineering and research management roles in Trojan. And, as a resident of Dorchester, Ontario, every day she drinks Trojan-treated water herself.

For a company positioned on the leading edge of an already high-tech and research driven industry, there is no hesitation about Canadian manufacturing competitiveness. Direct labour represents only a very small percentage of manufacturing costs, and locating manufacturing close to the innovation team is critically important. In fact, Trojan manufactures products in Canada that they ship to China and to the more than 100 other countries that they continue to serve.

Gowman and DeVries attribute Trojan's success to their dedicated team of highly skilled individuals. Their global employees number 750, with approximately half in London and roughly 100 in Guelph. A key to their success, reveals Gowman, is creating opportunities for people from different fields to problem-solve together.

38 years ago in London, Trojan began with the vision that one could take ultraviolet light and eliminate the use of chlorine as a disinfectant in waste water treatment. The driving idea was to eliminate the discharge of chlorinated waste water into the environment. It was an environmentally sensitive idea decades ahead of its time, but it caught on. Although the initial idea to treat drinking water with UV light originated in France in 1911, the necessary technology wasn't available at that time for it to be practical. Some of the first research confirming the effectiveness of treating waste water with UV light was done by Environment Canada scientists in Burlington, Ontario, more than 40 years ago. Soon thereafter, Trojan's first full-scale municipal UV facility for the treatment of waste water was installed in Tillsonburg, Ontario, under the watchful eye of the provincial Ministry of the Environment. Since then, Trojan has installed UV at over 9,000 municipal sites globally.

Most of Trojan's engineering and research is undertaken at the London headquarters. The London manufacturing facility focuses on the municipal (TrojanUV) and marine ballast water treatment (Marinex) divisions. Viqua, their Guelph branch, focuses on household and consumer products, while Aquafine, in California, serves industrial clients. More recently Trojan has been adding other technologies to its repertoire, and offers a unique filtration product through Salsnes Filter, from its Norway office, and full-service chemical programs for wastewater odour and corrosion control from USP Technologies.

Being a global leader is not without its challenges, but Trojan makes a point of viewing them as opportunities instead. When a city council is faced with the challenge of decreased funding, for example, Trojan has the opportunity to aggressively innovate and design a more efficient system. "Added to global financial challenges, is increasing global water scarcity. We believe that these challenges provide us with opportunities to develop and implement new technologies," explains Gowman.

Increasingly, the global community is investing in tackling the global problem of aquatic invasive species. These are organisms carried from one ecozone to another in the ballast water tanks of transport vessels.

New regulations requiring treatment of the ballast water are causing headaches for ship owners, who now are challenged with implementing a treatment solution that will consume more of the ship's energy, space and expenditures.

Yet, for Trojan, the ship owners' challenges become the design criteria for the innovation team. They have recently invented a water treatment system that can be installed on anything and everything, from small ferries to super tankers. It's small, energy efficient and cost effective, not to mention robust and user-friendly.

> "Big challenges are nothing but opportunities, when framed correctly," says DeVries. "If you get it right, you're creating an opportunity that could be worth hundreds of millions of dollars."

There's no other word for it – what Trojan Technologies does is really cool. "Whatever your role at Trojan, you know that you're part of an organization that's making a positive difference," says Gowman. "The idea of making the world's water supply better and safer- this idea is our reality. It certainly makes you want to get up in the morning!"