

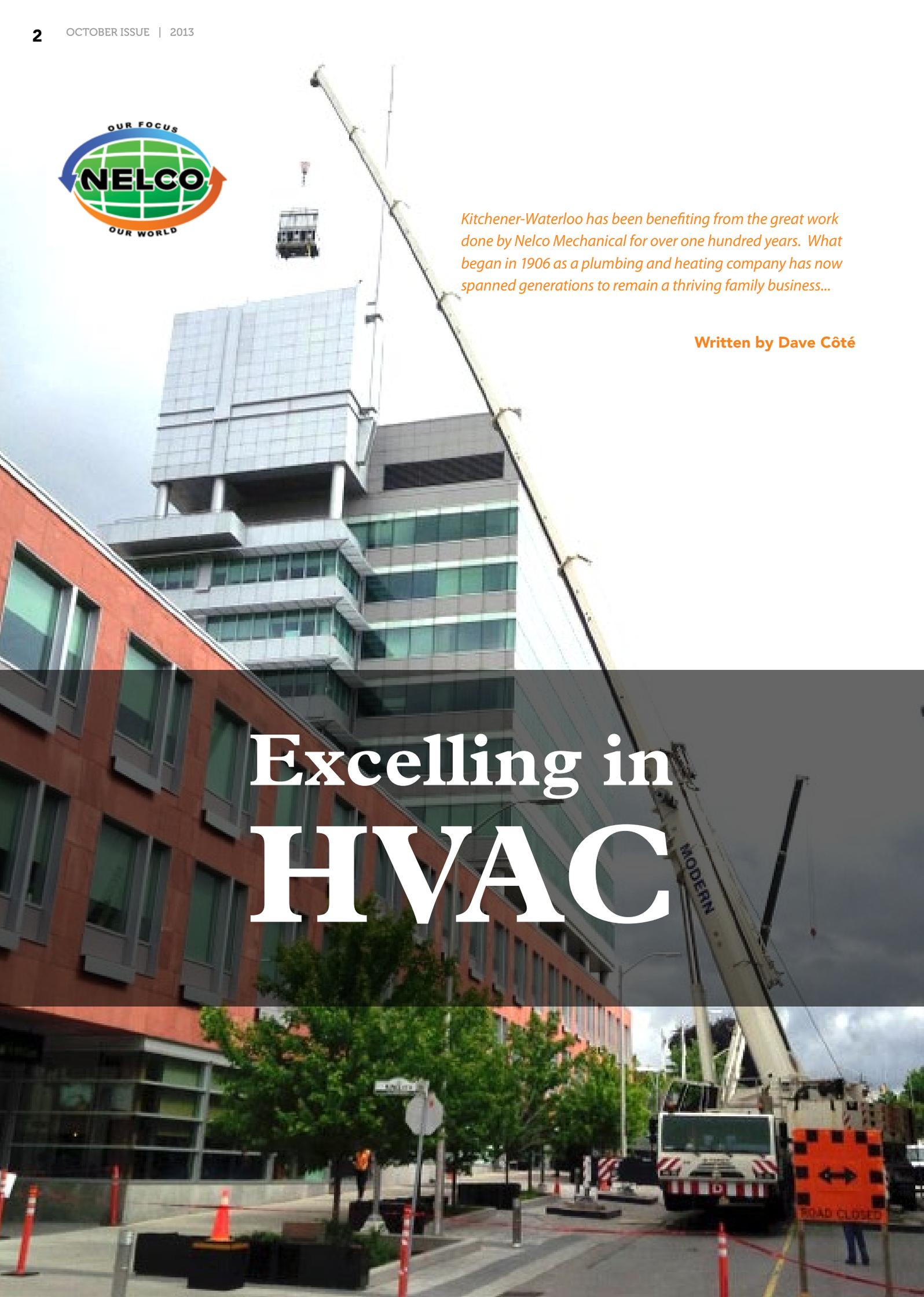




Kitchener-Waterloo has been benefiting from the great work done by Nelco Mechanical for over one hundred years. What began in 1906 as a plumbing and heating company has now spanned generations to remain a thriving family business...

Written by Dave Côté

Excelling in HVAC



When working with a system that is so integral to a building's operation, especially one as intricate as the heating and cooling systems, there is no substitute for the kind of experience that Nelco brings.

Nelco Mechanical can fit out an entire facility, no matter what its needs are, with services from electrical and heating to plumbing, cooling, ventilation and even custom stainless steel fabrication. All services are backed with options for future maintenance packages, to keep the systems' operation as smooth as they were on the day they were installed.

Since the electrical and mechanical system in a building is essentially its lifeblood, and the control system the brains of the operation, there are a few key things that must be considered before construction. Not only can Nelco offer the best service for the end user of an installed system, but the team can help its clients make the tough choices that are involved when making a purchase.

"Nelco Mechanical can fit out an entire facility, no matter what its needs are."

In 2012, Nelco Mechanical was able to secure and complete twelve different medium to large projects without flaw. Among these, the Grand River Transit facility project was worth \$9 million and the Dunfield Retirement Home project was valued at \$3.5 million. One of the most notable projects for the year, though, would be the \$9 million project for a warehouse owned by Ferrero Canada in Brantford.

The Ferrero Canada warehouse is a 500,000 square foot facility that houses Ferrero chocolates, Hershey Chocolates and Kinder Surprise Eggs. "It's a joint venture between Ferrero, Kinder and Hershey," explains Harry Vogt, President of Nelco Mechanical. The project was set on an eleven month schedule, and the building had a very strict temperature and humidity requirement that had to be evenly maintained throughout the warehouse to keep the chocolate in its proper state. The warehouse has fifteen York/Johnson custom built air handling units and two CDI desiccant dehumidification units. Nelco supplied the complete mechanical heating and cooling system as well as the ductwork and plumbing systems for the entire warehouse and the attached office.

The Grand River Transit facility was another huge project that has to be completed in two phases. Phase one involved ▶▶

"These are very complex buildings..."



“The system allows the inhabitant to control the temperature of each zone independently.”

- ▶ fitting out a new building that had been built next door to the existing facility and, once operations had moved into the new facility, Nelco was also in charge of renovating the mechanical systems in the old building. As of today, the project is half complete, with the new facility fitted and the old one in the works. The whole project was planned for three years, and is on its way to being completed on time.

The giant silver building had a total of four Mafna and four Trane custom-built makeup air units, two Trane chillers, DeDietrich boilers for heat and a Rehau / Klimatrol in-floor heating system.

“The challenging component for this project was the floor in the service bay. It has a floor that uses in-floor heating throughout and the in-floor heating lines had to be routed around the inspection pits, bus hoists, 500 feet of trench drain, and the expansion joints,” says Mike Hobson, VP of Mechanical. The facility required 80,000 feet of tubing for the job, all routed in a specific pattern to allow for maximum efficiency. “So the floor has a lot of components in it which made

it a challenge to get the concrete poured.”

Due to the nature of how the building is used, the in floor heating is a very important part of the entire heating system. There’s not a mechanic in the world that would want to deal with having to work on a freezing cold floor all day while wearing the mandatory steel shank safety boots that can transfer and hold the floor temperature for a long period of time.

“Also, we had to route the whole system so that each area or zone had its own temperature control. The system allows the inhabitants of various zones to individually control their own temperature,” says Mr. Hobson.

The company recently completed work on a nine story student residence building located in Waterloo, Ontario which met its occupancy date. “It seems like a lot of the work that we have been doing lately involves building vertically instead of covering a large footprint,” shares Mr. Hobson. “High rises and hotels are all a part of normal construction in our region now and they offer new and unique challenges for us. We



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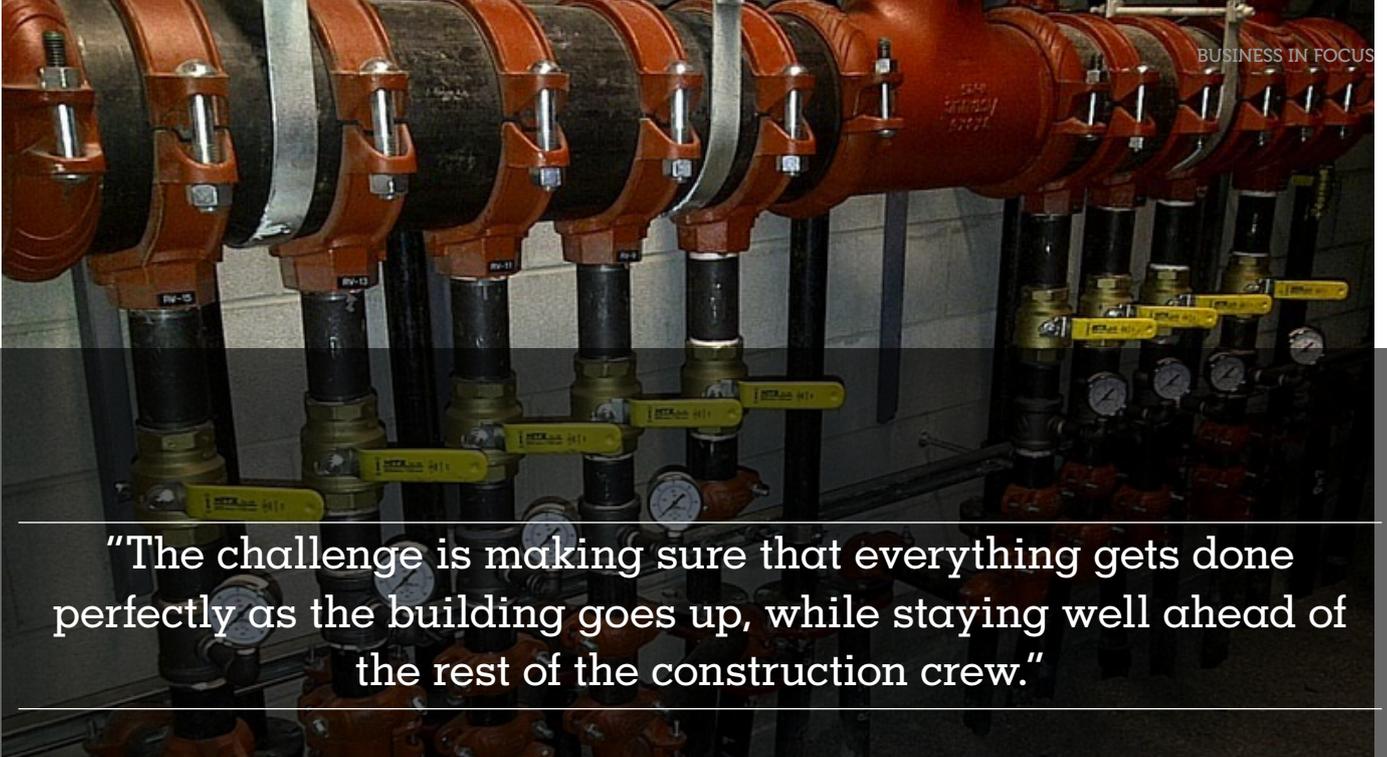
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“The challenge is making sure that everything gets done perfectly as the building goes up, while staying well ahead of the rest of the construction crew.”

have adapted to these challenges and continue to improve our construction methods to suit.”

A building like this new student residence is constructed out of precast concrete. This method allows for an accelerated schedule. “You really have to keep up the pace; you have an eleven month schedule. If they start building in September, then you have to be done at the end of July so the students can move in by August. There is no wiggle room; you must keep up the pace,” says Mr. Hobson.

“I’d like to rephrase that and tell you that we set the pace for the other crews,” adds Mr. Vogt with a chuckle.

The Waterloo Regional Police Services North Division building is another recently completed project by Nelco Mechanical. The building was actually a partial renovation, where the existing basement of an older building was used and a brand new facility was built on top. “We actually have a pretty good history with police buildings. We did the Waterloo Regional Police South building; we did their firearms training facility; and now we’re doing this police station as well,” says Mr. Rich Snider, VP of HVAC. Police buildings, of course, are somewhat specialized due to the security of the building.

Heading out of the Kitchener and Waterloo area, the brand new OnRoute service station and rest stops can be found along the 400 series highways. Nelco was responsible for the two in Cambridge and one in Barrie. These buildings are all very high use buildings, with a lot of people moving through every minute. Systems have to be operating at their best at all times to ensure a comfortable environment for the weary trav-

eller. “These are very complex buildings; they are not simple gas stations,” says Mr. Snider.

The OnRoute buildings feature fast food, souvenirs, drive-throughs and gas, as well as a dining area for many people. Most have a full glass wall on one side so that people can stare out at the passing traffic as they enjoy their meals. One challenge within these facilities is making sure that the combination of the airflow pattern within the building and the moisture control system can keep the glass clear and fog free during the wet season and freezing winter months.

As the company moved into 2013, it started targeting the retirement residence and education building sectors of the market for business. No matter where it is working however, the company president would like to stress that it’s not just about the work that is being done. It’s about building relationships, developing them further and nurturing them so that a first-time customer can feel comfortable being a repeat customer.

“We build relationships with consultants, designers, engineers, developers, and property owners. Kitchener isn’t like the city of Toronto; people here still want to see your face; they want to shake your hand and it’s all about feeling good when the job is done. It’s not just about numbers,” says Mr. Vogt. ■

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