



## LUCKY SEVENS: GML MECHANICAL COMMENCES 77TH PROJECT USING AQUATHERM

*The Moose Jaw Multiplex in Saskatchewan was one of the first projects in Canada to use Aquatherm Blue Pipe® in larger diameters, as 10-in. pipe was used for the chilled and heated water lines. Aquatherm Green Pipe® was used for domestic water. Completed in 2011, the project showed that large diameter butt fusion could be very cost-effective and provide a good total installed cost.*

### PROJECT:

BC Contractor Uses Aquatherm on More Than 75 Successful HVAC and Domestic Water Jobs

### PRODUCTS:

**aquatherm blue pipe®**  
**aquatherm green pipe®**

### LOCATION/DATE:

Western Canada  
2009-Present

### AQUATHERM ADVANTAGES:

- Predictable costs, light weight, lead-free composition, low thermal loss
- A service life of 60-plus years, a 10-year warranty, and a low likelihood of jobsite theft
- Off-site prefabrication services that can result in tremendous labor savings in the field

Contractors are a loyal group. When they find a product that works well, they stick with it. That has been the case at GML Mechanical Ltd., Delta, BC, which recently commenced its 77th project using Aquatherm.

GML Mechanical is a mid-size, full-service mechanical contractor that has been operating in British Columbia since 1989. The company began operations as GML Mechanical in 2002 after carrying on business for the preceding 13 years as Globe Mechanical Ltd.

GML Mechanical employs several dozen journeymen/apprentice plumbers and gas fitters, and several of its foremen have been on staff since the inception of the company. The company's completed projects include warehouses, office buildings, high-rise residential/retail complexes, laboratories, dormitories, sports complexes, automobile dealerships, process piping, and shopping centers. GML Mechanical attributes its success to quality workmanship, project management leadership and cooperation, and timely response.

Also key to the company's ongoing success is its willingness to take the lead with new technologies and better ways of doing things. That spirit led it to become one of the first adopters of Aquatherm pipe when the product entered the North American market. GML Mechanical has now been using Aquatherm for nearly a decade.



*Way back in 2011, a GML project manager on the Moose Jaw project said: "We were pleased to have met the challenging completion date, and the use of Aquatherm helped to keep the tight deadlines with the available manpower on hand. And the labor and material savings, combined with stable prices, didn't hurt either."*

### INNOVATION AND BENEFITS

Peter Simons has been a project estimator with GML Mechanical for 12 years and called Aquatherm "one of the most innovative products we've ever worked with."

Simons said he remembers when the company began using Aquatherm. Its first Aquatherm application was in 2009 at Vancouver's Boundary Bay Airport, a small aircraft airport located just south of Vancouver. GML Mechanical installed Aquatherm Green Pipe® SDR 7.4 and SDR 11 for all the domestic water piping, and Aquatherm Blue Pipe® SDR 11 for the fancoil piping.





The 77th is under way at Tsawwassen Springs phase 4, a 4-story, 63-unit residential building in Tsawwassen, BC, at which GML Mechanical is using Aquatherm pipe for the domestic water piping in the mechanical room and all the mains. Simons noted that the company used Aquatherm on phases 1, 2, and 3 of the project as well.

**“I think Aquatherm is a product of the future, where eventually, copper – even though it’s sometimes still specified – is going to be off the table as far as domestic water systems are concerned. Aquatherm will also be predominant in heating and chilled water systems as well.”**

— Peter Simons, project estimator, GML Mechanical, Delta, BC

According to Simons, among the main reasons GML Mechanical continually specifies Aquatherm pipe are its predictable cost, fast installation time, and lead-free composition.

Simons noted that brass fittings in domestic water systems must be lead-free and Aquatherm’s polypropylene-random (PP-R) material eliminates that issue. Using PP-R pipe also reduces the number of lead-free SKUs that suppliers must stock. He added that Aquatherm

is much less expensive than copper pipe and does not fluctuate in price the way commodities such as copper do.

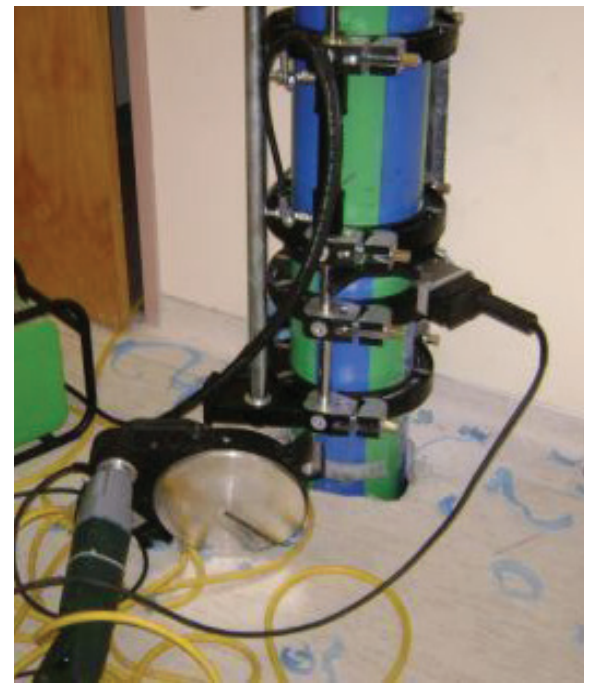
“Copper and steel are up and down depending on the world market,” Simons said. “Aquatherm brings a steady price range, which is beneficial to a contractor because it allows us to know exactly what our price will be. We can bid a job in copper today at \$1 per ft, but by the time we go to buy the copper it could be \$3 per ft. With Aquatherm we don’t have that problem.”

Reduced installation time is another benefit of Aquatherm cited by GML Mechanical.

“Aquatherm’s fusion process is much less labor-intensive than soldering copper, especially when you get into larger sizes such as two-and-a-half inches and up,” Simons said. “In addition, the chance of leaks with copper is much higher than it is with Aquatherm. And we all know the importance of being leak-tight: If you’re working on a high-rise, one leak could cost thousands of dollars to drain the system and repair.”

Delivering heated water where it’s supposed to go without thermal loss is another benefit of Aquatherm. Unlike copper pipe Aquatherm does not absorb heat, so there is virtually no heat loss as water flows through the pipe.

Finally, another advantage of Aquatherm’s PP-R piping over copper or steel is that it has no value to thieves. Simons said over the years GML Mechanical has had a few work sites broken into, but the thieves were left empty-handed when they discovered only Aquatherm polypropylene pipe.



*With 8- and 10-in. Aquatherm Blue Pipe® used for the condenser water/glycol loop at the Moose Jaw Multiplex, the GML team was among the early adopters in North America. Here, a vertical riser is installed using the butt fusion technology of the day.*

## LOVE AT FIRST PIPE

Doug Johnson, a sales consultant at the Surrey, BC branch of HVAC wholesaler EMCO Corp., played a role in GML Mechanical’s discovery of Aquatherm. Johnson said he has seen many new products come along in his 47 years in the plumbing industry, but when he first saw Aquatherm PP-R pipe in 2006 he immediately became a believer and began to seek out opportunities to try the product in the field.

“I’m an old tradesman and when I first saw the Aquatherm product, I thought, ‘Man, this is great. We’ve got to try this.’ So I took it upon myself as a business development person to look for projects to which we could apply Aquatherm,” Johnson said.

This desire led Johnson to Marcel Zastre, president of GML Mechanical.

“My first impulse was to go to Marcel because I trust him wholly,” Johnson said. “I trust his business and how he does his business. I told him, ‘Marcel, I believe in this product. Give me a shot at something so we can get it going.’”

Zastre gave Johnson his chance with the project at the Boundary Bay Airport, which was completed with no issues. This was nine years ago and the rest, as they say, is history.

## STRAIGHTENING THE LEARNING CURVE

Johnson noted there was initially a learning curve for Aquatherm products. Early on, a few issues arose from engineers who didn’t



*GML has installed Aquatherm on several high-rise projects including this one, which was built in the Vancouver area in 2012. The company’s estimators appreciate that it’s much less expensive than copper pipe and doesn’t fluctuate in price the way commodities such as copper do.*





understand the expansion ratios or the flow rates of Aquatherm piping. The engineers tended to think of the way copper or metallic pipe performed, and Johnson had to familiarize them with the Aquatherm product catalog and demonstrate to them how Aquatherm's performance opened a whole new way of doing things.

"In time, the engineers saw the light, and now they totally respect the product," Johnson said. "Now when it's time to sell another Aquatherm project, it's easy because they understand it and accept it."

After starting out with smaller scale projects, Johnson had an opportunity to undertake his first large-diameter Aquatherm project at the Moose Jaw Multiplex in Saskatchewan. That project, under Project Manager Hermann Koechl, was completed in 2012. It used up to 10-in. Blue Pipe and Green Pipe for the chilled and heated water lines, and provided verification that Aquatherm could be used for larger projects.

"The engineers saw that Aquatherm could handle large projects; we didn't have to limit it to 4-in. and under," Johnson said.

According to Johnson, Aquatherm's butt fusion process is a key component of what makes the product so valuable and versatile.

"Large-diameter butt fusion product is where it's at with Aquatherm," Johnson said. "I'm working with some contractors now on some major high rises of 30- to 40-stories, and they're all going with the butt fusion. It's much like what we did at Moose Jaw six or seven years ago, but now we're not going flat, we're going up – which is a pretty big deal. And we have complete confidence in the product."

Johnson also praised the labor-savings available through Aquatherm's prefabrication services.

"Once you provide the prefab team in Utah with a diagram or a schematic, you can have everything just the way you want it," he said. "That leads to a tremendous labor- and cost-savings in the field."

## CLEAN AND EASY

Tyler Carmichael, a superintendent who has been with GML Mechanical for 14 years, said he appreciates the versatility and simplicity of Aquatherm.

"I was one of the first people in our company to use Aquatherm," he said. "I found it was simple to work with, nice and clean, and pretty forgiving. In addition to all that, it looks great when it's installed."

Carmichael said he appreciates how light Aquatherm is compared to steel pipe.

"One person can carry a piece of Aquatherm pipe that would be way too heavy if it were steel," he said. "It's easy to install and in many cases you can have one person doing the installation. In addition, the heat fusion process means you don't have to carry a torch around and have flames in finished buildings."

Aquatherm's longevity and warranty are the cherry on top of all the other features, Carmichael concluded.

"Typically, when you use copper you don't get much of a warranty, if any," he said. "So you're on your own if you get holes or leaks. Owners and engineers feel more comfortable with Aquatherm because it has a 60-year anticipated lifespan and a 10-year warranty."




## THE FUTURE IS NOW

With all these successful projects under its belt, GML Mechanical is not planning to slow down in its use of Aquatherm. In fact, the company and its partners are eager to provide other building owners with the benefits that Aquatherm offers.

"I think Aquatherm is a product of the future, where eventually, copper—even though it's sometimes still specified—is going to be off the table as far as domestic water systems are concerned. Aquatherm will also be predominant in heating and chilled water systems as well," said Simons.

Added Johnson: "Any engineer today has to look at new products. Everything is changing and you can't keep doing things the old way. One example of that is understanding all the long-term savings you and your customers gain with Aquatherm products. I tell engineers that in the case of Aquatherm, change is good."

Congratulations to GML Mechanical for its years of success and customer satisfaction. Aquatherm is proud to have played a role in 77 projects and looks forward to being a part of many more innovative, high-quality projects in the years to come. 



GML's 77th Aquatherm project is under way at Tsawwassen Springs phase 4, a 4-story, 63-unit residential building in Tsawwassen, BC. GML Mechanical is using Aquatherm pipe for the domestic water piping in the mechanical room and all the mains. Aquatherm PP-R piping also was used on phases 1, 2, and 3 of the project.

The German-manufactured pipe has been one of the world's most durable and greenest piping systems for four decades and proven successful in 70-plus countries. Aquatherm piping systems offer many performance and environmental benefits, such as:

- Eliminating toxic materials, glues and resins, and open flames from the piping installation equation
- An R-value of 1 or more per inch or greater depending on pipe size and SDR
- The fusion welding process, which creates seamless connections that last a lifetime without leaking or failing
- An optional fiber-composite layer in the pipe reduces linear expansion of the pipe by up to 75% compared to plastic piping



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www.aquatherm.com we've got a pipe for that