



## GOAL! AQUATHERM SCORES AT NEW WHL ARENA

### PROJECT:

Mosaic Place Arena, HVAC and Domestic Water Distribution

### PRODUCTS:

aquatherm green pipe®

aquatherm blue pipe®

### LOCATION/DATE:

Moose Jaw, SK  
Spring 2011

### AQUATHERM ADVANTAGES:

- Polypropylene pipe weighs up to 80% less than comparably sized metal pipes, offering easier installation
- The improved flow rate results in energy savings
- The simple heat fusion process saved time on labor and helped meet the completion date

The recently opened Mosaic Place is a multi-purpose arena in Moose Jaw, SK, and home to the Moose Jaw Warriors of the Western Hockey League. Also known as the Moose Jaw Multiplex, the 3-story, 19,509 m<sup>2</sup>, multi-use facility features a 4,500-seat sports bowl, a large curling facility, and other amenities.

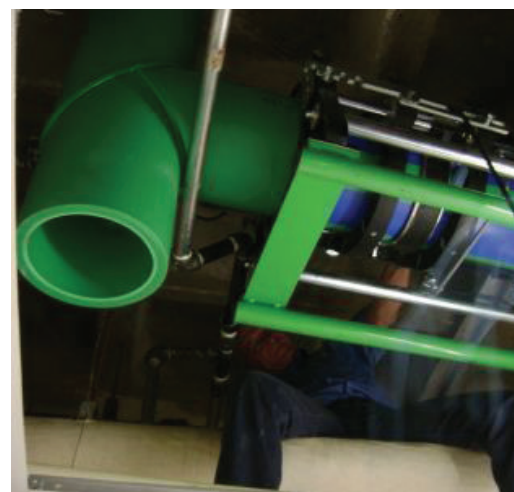
Projects of this scale always pose a challenge, especially when built to rigorous standards. Operated by the Mosaic Company and designed with LEED silver certification in mind, the arena was built to represent Moose Jaw with a world-class facility.

**“The benefits of the Aquatherm system were superior. It was easier to work with since it is lighter than steel or ductile iron.”**

— Hermann Koechl, GML Mechanical Ltd., Delta, BC

The entire project required special attention to detail, and many options were considered for the piping. It was determined that Aquatherm's polypropylene-random (PP-R) pressure pipe would be the material of choice for the domestic water and HVAC distribution throughout the arena.

GML Mechanical Ltd., a mid-size, full-service contractor located in Delta, BC, partnered with Ventana Construction



Corp. as the design build plumbing and mechanical contractor on the job, while Sterling Cooper & Associates served as the mechanical engineer.

“We’ve worked with Aquatherm for the last four years, and have done several projects in Vancouver, so when this project came up and involved 8- and 10-inch pipe for the condenser water/glycol loop, we decided to use Aquatherm,” said GML Project Manager Hermann Koechl.

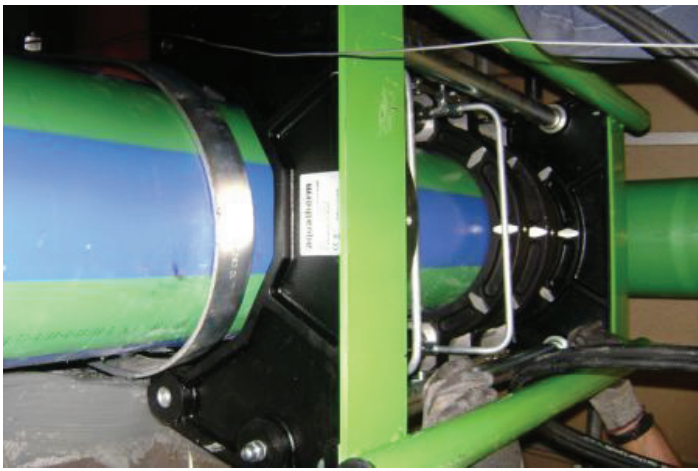
### IMMEDIATE ADVANTAGES

Immediately, the advantages over using traditional materials were noticed. While steel and copper were considered, “The benefits of the Aquatherm system were superior. It was easier to work with since it is lighter than steel or ductile iron,” Koechl added.

In fact, PP-R piping weighs up to five times less than similarly sized metal materials,







joint into a single, homogenous material without the use of flames, chemicals, or mechanical connections. Simply putting a piece of pipe and a fitting on opposite ends of an Aquatherm welding device for the specified amount of time (about 10 seconds for the 4" pipe), and then joining them together creates an incredibly strong connection. Pipes larger than 4" require a butt fusion method that uses the same principle with very similar equipment.



In addition to the relative lightness of polypropylene, Aquatherm offers many other advantages over traditional piping materials including 100 percent recyclability down to the joints, non-leaching properties that will not release debris or affect the taste of water, and a 10-year multimillion dollar warranty to back up the product.

R.N.G. Marketing Inc. in Regina provided local assistance for GML and worked extensively with the City of Moose Jaw, provincial and local inspectors, and labour relations to ensure that everyone was onboard. GML, with the assistance of Doug Johnson, Account Manager for EMCO Corporation's Richmond, BC office, was able to purchase and ship directly from Germany to the site, a container full of pipe and fittings, which reduced handling and provided a convenient site storage container for the large pipe order. The Regina Branch provided the remainder of the product for the project.

which can lead to savings in time and energy used during installation as well as less stress on the system supports.

Large diameter metal pipes also require a variety of tools to install properly. Aquatherm's products are installed through a simple heat fusion process which bonds both sides of a



## MEETING THE DEADLINE WHILE SAVING

Approximately 6,000m of Aquatherm Climatherm and Greenpipe® ranging from 20mm to 250mm was used for the facility's domestic hot and cold water as well as for the heating/cooling loops. "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," Koechl concluded. And the labor and material savings, combined with stable prices didn't hurt either. ☺

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 faser-composite layer in the pipe reduces linear expansion of the pipe by up to 75% compared to plastic piping



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