



Application

Rogers Communications, Inc.
Toronto, Ont.

RBI Products

(6) Futera XLF
(2) Infinite Energy₂

Manufacturer's Representative

HPG Sales
www.hydronicpartsgroup.com

Design Engineer

The Hidi Group
www.hidi.com

HVAC Contractor

Mutual Mechanical
www.mutualmechanical.ca

Rogers Communications, Toronto, Ont.

In Canada, Rogers Communications, Inc. is a mass media king, and the Rogers Campus is its palace.

Encompassing nearly a block in downtown Toronto, Ont., the interconnected buildings crowned with a high-rise at One Mount Pleasant have been growing since its purchase by Rogers in 1993. Today, it includes office and studio space for broadcast and publishing operations, structures on both sides of a busy thoroughfare connected by a walking bridge, and a network of underground tunnels.



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Most recently, two stories were added to the high-rise for a total of 12. With this added square footage came an increased heating load upwards of 30 million BTU and two million for domestic hot water heating, plus a spate of design concerns ranging from retrofitting with existing hardware and accommodating work environments with specific temperature needs.

Long prior to the project's start, Rogers Communications committed to using sustainable products and practices that would generate energy savings and a small carbon footprint for its flagship campus. But comfort and air quality were also key concerns, as was budget, making for a complicated project that required seamless communication between various systems, automated building technologies, innovative hydronic solutions, and venting to efficiently handle the demand of its massive 360,000+ square foot edifice.

It's at this point in the specifying of the project that RBI's versatile products entered the conversation, with key features that addressed specific concerns of the building's owners, architects, and engineers alike.

Brett Conway, director of Inside Sales with Hydronic Parts Group Ltd., said RBI's application flexibility, wide array of options and ability to work well with diverse and existing HVAC and building control systems made the manufacturer his first suggestion of products for the project.

"It would prove a tall task to meet all of these requirements in a timely, efficient manner," said Conway, noting, however, that the Rogers campus is already home to several RBI boilers. "RBI offers today's engineers packaged solutions to fit virtually every specification, with models available to fit any commercial application from non-condensing to full condensing, in an exceedingly wide range of sizes from 100,000 to 6,000,000 BTU."



Working closely with international consulting engineers The Hidi Group, HPG offered an array of solutions, including a network of six fully modulating, near condensing, gas-fired Futera XLF premium heating boiler units with operating efficiencies of up to 88%. In addition to the Futera XLF boilers there are also two Infinite Energy₂ water heaters installed. The Futera XLF units are networked together through HeatNet 3.0, RBI's integrated control platform which allows the boilers to reach maximum efficiencies while giving state-of-the-art boiler control with overall system communication.

HeatNet 3.0 has become an integral part of the Rogers Campus' overall HVAC efficiency. Featuring a touchscreen interface, HeatNet 3.0 provides real-time remote monitoring of boiler temperatures, limit circuit inputs, and overall system demands. The system is capable of controlling up to 16 boilers and can easily integrate with most building management systems. HeatNet 3.0 also works in tandem with the RBI's Whirlwind Fuel/Air Coupling combustion system allowing for safe, efficient operation at all firing levels including situations where external resources potentially negatively affect the air to fuel ratio. Whirlwind technology also allows for reduced vent sizes with increased vent lengths.

"That translates into lower installation costs and application flexibility for the end-user," said Conway, adding that HeatNet's ability to communicate with the system's existing BACnet created a coordinated, modulating system able to match input to heating load without over-firing. "Essentially, the system is maximizing the use of fuel and its transmission throughout the building."

The units were installed by Mutual Mechanical contractors, led by partner and principal Jim Metrow, who concurred that the units' past battle testing plus their immediate availability to market without any job-site boiler modifications suggested early on that an RBI system would be up to the task of efficiently controlling the quality of the commercial environment.

"All RBI boiler units are prepackaged for simple installation, peak mechanical system performance, and ease of service," said Metrow. "These copper fin units distribute steady flows throughout the sprawling Rogers offices, and to date, the boilers are consistently providing a comfortable work environment in all types of weather."

The campus is also earning high marks for energy efficiency and sustainability; it received an Energy Star score of 98 in 2013 and building-performance awards every year since from the Greater Toronto Civic Action Alliance.

As the accolades pile up, energy costs continue to drop from the top of the Rogers' spire to the depths of its subterranean space, proving that advanced performance can be applied to both older boiler systems and as part of new construction projects. As technology evolves, this modular configuration is expected to keep its pace offering outputs unmatched by today's market, and appropriate for even the largest of commercial buildings – castles or otherwise