



Uponor

PLUMBING SYSTEMS
COMMERCIAL HIGH-RISE

CASE STUDY

Uponor PEX Saves Time and Money for Commercial High-Rise

Time is money — especially in the building industry. John Jacobsen of Phoenix Mechanical in Vancouver, B.C., reaffirmed this belief when he began using Uponor’s crosslinked polyethylene (PEX) tubing for his plumbing systems.

Jacobsen switched to Uponor AquaPEX® after learning about its benefits over copper — flexibility, durability, reliable fittings, faster installations and a 30-year history of dependable service. The tubing is also extremely resistant to corrosive water and soil that can eat away at copper pipe, and it comes with a 25-year limited warranty when installed by an Uponor-trained plumber.

John Jacobsen of Phoenix Mechanical is so impressed with Uponor AquaPEX, he won’t use anything else.

Since installing Uponor AquaPEX in all his projects, Jacobsen has realized great time savings, money savings and a more reliable plumbing system.

“The flexibility of Uponor AquaPEX allows us to eliminate many of the fittings that were required with copper,” Jacobsen says. “This means

our systems are installed faster and at a lower cost.”

Phoenix Mechanical works with one of Vancouver’s largest developers, Concord Pacific, which has built 41 residential high- and low-rise buildings in the past few years. Three of their buildings, which contain over 300 units each, are plumbed with over 120,000 feet of Uponor AquaPEX tubing.

In these buildings, the tubing is tied to structural rebar in the concrete slab. Using flexible PEX tubing eliminates joints within the slab and cuts installation time by approximately 50% when compared with copper.

“I have used Uponor AquaPEX since the day it was approved in Vancouver, and I think it is an absolutely wonderful product,” Jacobsen says. “With Uponor AquaPEX, the installation is fast and easy, and the tubing can be buried directly in concrete — something the codes won’t allow us to do with copper. We put the tubing in a sleeve so it can easily be removed in case of construction damage.”

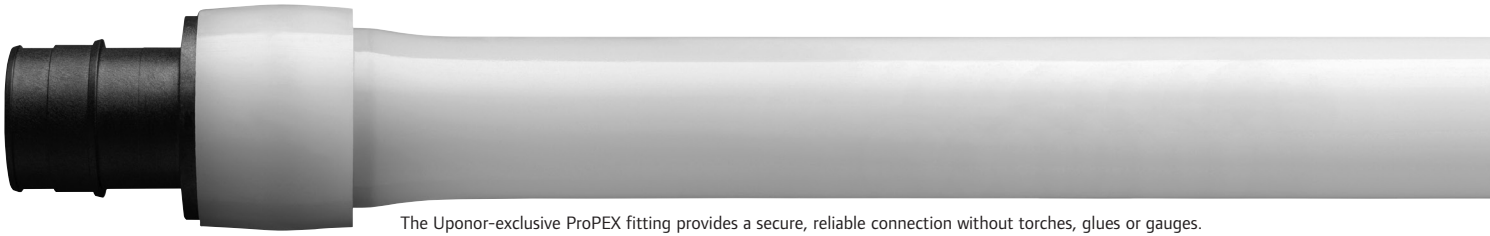
Energy bylaws in Vancouver also require added insulation around copper tubing for hot-water distribution. Because Uponor

AquaPEX is a good insulator on its own, it is not subject to the insulation requirement, saving plumbers valuable time and money.

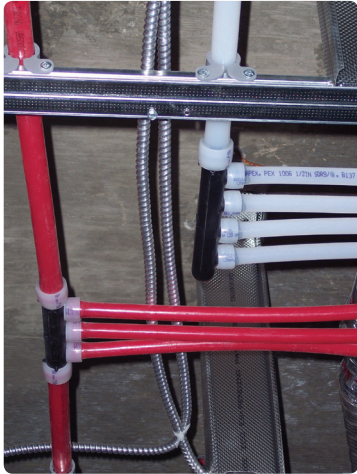
“The cost of Uponor AquaPEX is similar to the cost of the insulation that would have been required for copper,” Jacobsen says. “You can’t beat savings like that.”

Another benefit of the Uponor plumbing system is the unique ProPEX® fitting system. The ProPEX fitting capitalizes on the shape memory of Uponor AquaPEX tubing. An expander tool expands the tubing enough for the fitting to be inserted, and the tubing then shrinks around the fitting as it returns to its original shape. The result is a permanent connection that is consistent every time without the use of torches, glues or gauges.

“Uponor AquaPEX offers us a complete system that is reliable and ideal for both the plumber and the homeowner,” Jacobsen says. “Since I started using it, I won’t use anything else.”



The Uponor-exclusive ProPEX fitting provides a secure, reliable connection without torches, glues or gauges.



Summary of Benefits

Fast Installation

Flexible Uponor AquaPEX tubing requires fewer joints than rigid plumbing systems, saving money and time and reducing the risk of leaks. With the Uponor System, two installers were able to plumb five units per day. With copper, two installers could only plumb two units per day.

Quiet

The residents of these luxurious high rises do not want noisy plumbing. Uponor AquaPEX has excellent sound-dampening characteristics, eliminating the problem of water hammer and pinging pipes.

Reliable Fittings

Uponor's exclusive ProPEX fittings use the shape memory of Uponor PEX tubing. This makes them unlike any other fitting system on the market because they are quick and

simple to install and do not require glues, torches or gauges. Best of all, ProPEX fittings allow for visual inspection, ensuring a proper connection with no guesswork.

Proven

Uponor PEX tubing has been used in plumbing systems around the world for more than 35 years — longer than any other flexible tubing product available. In fact, the tubing has endured continuous high temperatures and pressures in independent lab tests for over three decades, proving its strength and durability.

Corrosion Resistant

Vancouver has very acidic water that can eat away at copper pipe over time. Uponor AquaPEX resists corrosion, pitting and scaling, making it much more durable in Vancouver's plumbing systems.

Project Data

Size of Structure:	300,000 square feet
Type of Construction:	Steel stud
Floor Construction:	Concrete
Tubing Type:	½" and ¾" Uponor AquaPEX
Fitting Style:	ProPEX fittings
Number of Manifolds:	2 per suite, 8 suites per floor
Feet of Tubing:	68,000 feet of ½" tubing 10,000 feet of ¾" tubing

The design information in this case study is provided for illustrative purposes only. The actual requirements of similar projects will depend on varying factors. Please contact your Uponor representative for assistance in designing your specific projects.

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