

The Municipal Pipeline

IPEX Municipal Piping Systems Newsletter

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Time Flies When You're Having Fun...

It seems it was only yesterday that Canada celebrated its 100th anniversary as a country and was host to the World's Fair in Montréal, Quebec. It wasn't yesterday though. The year was 1967, and more than a quarter century has since passed.



450 mm (18") PVC Pressure Pipe
in service for 27 years in Varennes, PQ

Coincident with Expo 67 was the first 450 mm (18") installation of PVC pipe. The Shawinigan Petrochemicals Plant (today known as Petromont) in Varennes, Quebec was the first in North America to use 450 mm (18") diameter PVC to supply water from the St. Lawrence River.

900m (2950 ft) of 450 mm (18") PVC Series 160 pipe. The pipe was installed in 6.1 m or 20 ft. lengths each weighing about 225 kg (495 lb.) – one quarter the weight of conventional pipe material at the time.

Less expensive construction equipment was used because of PVC's lighter weight. Although more expensive than alternative pipe materials, bids showed total installed cost was 15% less using PVC.

Hydraulically, the 450 mm (18") PVC pressure pipe had an equivalent flow to the 500 mm (20") cast iron pipe it was replacing.

In 1967, the PVC pipe supplied came in "unbellied" lengths. the spigot by spigot pipe was joined by using standard Dresser mechanical couplings made from cast iron.

How has the pipe performed over the last quarter century? "Remarkably well", according to Mike Southey, chief inspector for the plant in 1967. "I recall three instances in the 1970's when a mechanical metal coupling had to be replaced, but the pipe itself performed extremely well."

Replacing the metal coupling gave them the opportunity to inspect the inside of the PVC pipe. There was no unusual build up common to other water lines — no scaling, tuberculation or slime.

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Mike Southey
Chief Inspector for the Plant in the 1970's

Since that installation in 1967, PVC pipe has become the pipe material of choice for potable water use in Canada. Technological advances over the last quarter century have made diameters up to 1200 mm (48") available, with larger sizes on the horizon.

Do you know of an older PVC installation? We'd like to hear about it. Phone us at 1-800-268-4664 or 1-800-463-9572. Because the cliche is so true – time does fly when you're having fun.