

IPEX Industrial Case Study

Water & Wastewater Treatment Applications

IPEX ❤️ New York City



Photo Credit:
architecturalrecord.com

The Croton Water Filtration Plant is a \$3.2 billion state-of-the-art water treatment facility with the capacity to filter about a third of New York City's drinking water (290 million GPD) from 12 upstate reservoirs. It is the largest infrastructure project ever tackled by the City of New York. The building covers an area of 9 acres and sinks 12 stories into the earth —deep enough to hold Yankee Stadium. The surface of the structure in Van Cortland Park in the Bronx is covered by a golf driving range, making it the largest continuous living roof in North America. IPEX was proud to be a part of this once-in-a-lifetime project.

More typically, the plant will supply about 100 million gallons of water a day by gravity flow to the western edges of Manhattan and low-lying areas of the Bronx.

IPEX supplied over 17 miles of PVC and CPVC Double Containment Piping Systems: Guardian™ and CustomGuard®. The general rule in the project was that if the fluid wasn't potable it needed to be double contained. Almost all of the distribution piping conveying coagulants was double contained.

“IPEX was accommodating and always there to answer questions even when things changed.”

Kevin Hanley,
Mechanical Project Manager
Skanska/Durr Mechanical

The project was a challenging one with installation time compressed from four years to two. Kevin Hanley, Mechanical Project Manager at Skanska/Durr Mechanical, stated that he enjoyed working with IPEX. **“IPEX was accommodating and always there to answer questions even when things changed.”**

Examining all opportunities to streamline the process and compress the installation schedule, Hanley identified that **“we needed 10m bell-end lengths of CPVC double containment pipe, and IPEX made it happen.”** Craig Szachta (Plant Manager of the IPEX double containment facility in Chesterfield, Michigan), recalls this situation. **“These custom lengths of double containment pipe also incorporated a coupling at one end.**



Photo Credit:
Ángel Franco,
The New York Times

Our normal length of pipe would have required a lot of field cut joints. These custom lengths allowed the contractor to transition from one area to another using one unbroken length of pipe."

When Hanley was asked what the wow factor was, he stated, "There was no double containment expansion joint out there. Being able to give Craig the design specs and having him solve a multi-million-dollar problem for me was a factor that instilled credibility for me with IPEX. They were always there and took care of stuff." Craig Szachta adds, "Providing a customized double contained piston style expansion joint was just another opportunity for us to solve a customer's problem".

The NYDEP (New York Department of Environmental Protection) required their 3" valves to be double-contained and also completely removable from the system. To satisfy this requirement, IPEX utilized 12" containment tees with flanges and stem extensions for the valves."

IPEX's history with the New York City Department of Environmental Protection goes back a long way. Dave Kitchen, Northeastern Regional Sales Manager IPEX, explains, "Over the last 20 years, IPEX has been involved in approximately 50 different projects. We work closely with all the stakeholders: the NYCDEP, the design engineering firms, and the contractors. IPEX and its Guardian and CustomGuard Double Containment Systems are very highly regarded.

More importantly, the stakeholders know that they can count on IPEX personnel who are knowledgeable and ready to help identify problems or issues and then find a solution. Devising expansion and contraction joints, manufacturing non-spec lengths of pipe, these kinds of things are the value-added that come along with the product. We're a manufacturer, but more importantly, we provide solutions."

To meet the challenges of complex systems, CustomGuard includes a variety of different system choices ranging from vinyls, fluoropolymers, carbon and stainless steel to hybrid combinations. IPEX offers assistance with material selection, design and specification support and fabrication of preassembled spooled pieces to minimize installation time and field joints.

When leaks are not an option, whether it be an off-the-shelf system or a customized solution, IPEX double containment piping systems will keep you dry.



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