

Woodward Avenue Water Treatment Facility

Hamilton, Ontario

Field Assembled FRP Tanks

As part of a facilities upgrade project at the Woodward Avenue Water Treatment Facility, The City of Hamilton required two new 30,000 litre tanks for the storage of aqua ammonia, a chemical used in conjunction with chlorine in the water purification process. The tanks were to be located in an existing building where space was limited and access to the area could only be achieved through two small door openings and over a containment wall. The consulting engineer on the project had planned to specify costly woodstave tanks, which are traditionally the only option where access is limited and field assembly is required.

Inscan Contractors' Specialty Contracting Division, with its extensive experience in FRP (fiberglass reinforced plastic) fabrication, tank modification, and lining systems, suggested an alternative that would result in more durable tanks at a much lower cost.

Inscan, working closely with an FRP tank fabricator, had each tank manufactured in six pieces - top and bottom each in two pieces and the shell in two pieces - to allow the tanks to be brought into the room. The shell

sections were specially fabricated to allow for the distortion required to get them through the doors. Each tank was assembled from the "top down", with the pieces for the domed top being laminated first and suspended in place. Next, the top and bottom shell sections were brought in and laminated. Finally, the bottom sections were joined and laminated to the shell to complete the assembly process. The



Shell section moved into building

manways and nozzles were also installed on site to prevent damage during shipping. Once the assembly process was complete, the tanks were post-cured, steam cleaned, pressure-tested, and inspected for leaks.

In addition to offering substantial cost savings over woodstave tanks, FRP tanks provide better chemical resistance right through the vinyl ester resin/glass fiber system, without the need for a separate PVC liner. Field assembled FRP tanks are a proven solution to limited-access chemical containment applications.



Finished tanks



Domed tops assembled

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