



The Challenge

A QuikWater MegaHeater 8.3 was selected to meet the intense hot water demands of the facility. This direct-contact water heating system is the only system of its kind engineered to produce pure, potable hot water up to 200°F.

The configuration of the QuikWater MegaHeater requires special attention be paid to the venting since the process water is susceptible to anything in the vent system. Specifically, the venting system needs to:

- have smooth interior surfaces to eliminate the opportunity for bacterial growth,
- be built in a manner that facilitates access to the MegaHeater, and
- allow for cleaning of the vent system as necessary.

The O'Dell Solution

The Mallot Creek design called for a fully welded 28-inch diameter vent stack. Initially, we had proposed a standard Ampco Model N series vent solution. The N series is installed with a sealant and ring clamp system. This solution facilitates installation, with the largest section only being 48 inches long. The concern, however, was that the large number of joints presented possible areas for bacterial growth.

Working with Conestoga Mechanical and Ampco, we proposed a compromise where the complete vent stack would be built in three welded sections. This would reduce the number of joints down to two while also addressing both access and cleaning requirements. Final drawings were generated after we verified site measurements. O'Dell also calculated and submitted the vent stack pressure drop to ensure compatibility with QuikWater requirements.

This solution delivered on all accounts and was endorsed by both the engineer and the owner.

The Conestoga Meat Packers (CMP) plant in Breslau, Ontario, provides premium pork products. Their main processing plant has undergone a very large expansion throughout 2017 and 2018. Mallot Creek provided engineering services while Conestoga Mechanical completed the mechanical installation.



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