

Keeping it Hot: An engineered solution to heat pump hot water

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ABSTRACT

After having designed several central heat pump domestic hot water plants, design engineer Brendan Mangino will provide a “Lessons Learned” session where he will reflect on his previous system designs and share how he has streamlined air-to-water heat pump design for domestic hot water generation. The session will include a Measurement and Verification data from a site in full operation and take a deep dive into one of Taitem’s most recent central domestic hot water plants at Ironworks Ithaca, a new 113,300SF, mixed-use, five-story building with 129 apartments. Taitem provided integrated system design services for this urban infill project, with our design and energy engineers collaborating on the design of all systems. The session will offer a close look at the design of the all-electric DHW system and how the team came to the final system based on lessons learned from previous projects. The session will highlight product and system improvements, system design challenges and how they were overcome, and strategies for even further streamlined implementation of air to water heat pump technology for domestic hot water generation.

BIOGRAPHY

Brendan Mangino is a mechanical engineer in Taitem’s Design Department, where he designs HVAC and plumbing systems for new and existing buildings. Since joining Taitem he has pushed for better Domestic Hot Water design in all of our projects. Before joining Taitem, Brendan was employed at Intertek Group, where he was an Engineering Team Lead, testing HVAC equipment for safety.