



Catholic missionaries gain ten new condensing boilers for their multi-use facility.

CASE STUDY



CUSTOMER

Society of African Missions (SMA)

LOCATION

Tenaflly, NJ

INSTALLING CONTRACTOR

Bogush Plumbing, Heating & Cooling of Wallington, NJ
www.bogushinc.com

PRODUCT INSTALLED

Utica SSC Modulating Boiler (10 units)



Tucked away in a residential neighborhood of Tenaflly, New Jersey resides a group of South African missionaries in a multi-use facility that features living quarters, a small chapel, and a collection of authentic African art housed in a magnificent stained-glass museum.

The Society of African Missions (SMA) was having an issue with their current HB Smith 5,000,000 btuh boiler system that had been installed during the 1950s. When a leak developed in the Summer of 2014, it was decided that the boiler was no longer operating efficiently enough to meet the mission's needs. SMA contacted Mike Felenczak from *Bogush Plumbing, Heating & Cooling* of Wallington, New Jersey to come assess their needs.

Once it had been decided that the 60+ year-old boiler needed to be replaced, Felenczak recommended that a Utica Boilers product be installed in its place. Upon assessing the needs of the mission, he determined that it would require ten of Utica Boiler's SSC 299 Series to take care of the high demand for domestic hot water as well as the need to heat the eighteen





individual living quarters. Felenczak would even be able to utilize the existing flat plate heat exchanger and three, 119-gallon storage tanks, all of which had been connected to the previous installation. Not only are these boilers supplying heat through baseboard radiation, they are also being used to operate a fifty-ton air handler with a built-in hot water coil that is used to heat the chapel, as well as two, five-ton hot water reheat coils used to heat the museum.



With an individual turndown ratio of 5:1, the new Utica Boilers would be able to operate from 3,000,000 btu/h all the way down to 60,000 btu/h. That's an amazing 50:1 turndown, guaranteeing efficient operation under all conditions. Each boiler features a built-in Primary/Secondary manifold and pump which greatly simplifies the piping and significantly reduces the amount of time to install. In addition, each boiler features a built-in LWCO which further reduces installation time and materials needed.



Felenczak and his team from Bogush first had to disassemble the previous boiler piece-by-piece in order for it to be removed from the mission's basement. They recognized some venting challenges due to the inconvenient location of the mission's boiler room. A narrow, steep staircase on the building's exterior led down to the boiler room and left little access for materials to be easily brought in or removed for the installation. Felenczak's team, as a result, had to rent a crane for the specific purpose of dropping the vent piping down through the existing chimney chaseway and down into the boiler room.



Dave Tafaro of Bogush Plumbing, Heating & Cooling.

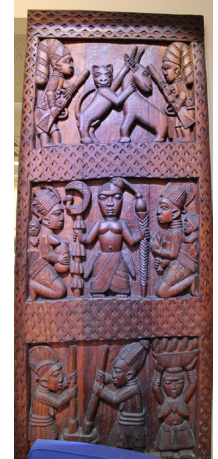
"Attending the Boot Camp helped me to learn all the little [nuances] of what to check ... it gave me a better understanding of the functions and service abilities of the SSC line."

-Mike Felenczak, Project Manager





Once the room had been cleared of the old boiler and its defective materials, the Bogush team brought in and installed the ten brand new Utica SSC-299 boilers on the existing concrete slab where the previous installation had been sitting. Utilizing ten of our optional floor stand kits in a side by side and back to back layout allowed for simplified piping and reconnection into the already existing mainlines, thus saving space and installation time.



“We, at SMA, strive to be a living witness to the Gospel of Jesus Christ among our brothers and sisters in that continent and among people of African heritage wherever they live.”

The building features a combination of baseboard radiation heat and convector units, with individual zone valves feeding each of the eighteen living quarters. The new boilers are piped in parallel with three main loop pumps feeding each area of the building: the living quarters, church, museum, and meeting room/dining area. Each Utica Boiler has a built-in control that allows them to communicate with each other. A loop sensor is located on the main supply line and the boilers are stage fired based on the building’s demand for heat, a benefit that will save the mission money in the long-term.



For more information on this and other case studies, visit www.utica boilers.com

