



Steam & Condensate System and Processing at Virginia Distillery

Construction and connection of integral parts of the distillery



Project Description

The Virginia Distillery is a multi-year project that will not only be the largest malt whisky distillery in the United States, but also one of the most energy efficient distilleries in the world. To craft high quality malt whisky, Virginia Distillery has imported two giant copper pot stills from the Highlands of Scotland in which to distill their product.

The overall distillation process has been kept quite simple, and in addition to the copper pot stills, utilizes a high quality water source and hands-on guidance from beginning to end. Although the process remains simple, the distillery has been built to be as energy efficient as possible. That means capturing and reusing heat where possible, repurposing byproducts from the distillation process to supply local farmers and more.

Steam & Condensate System and Processing at Virginia Distillery Waco was brought in initially to build the steam system around a boiler that the distillery had already purchased. Because of the success with the steam and condensate system, Waco was kept on-site to continue work on the process portion of the distillery, welding sanitary stainless steel piping and adding other mechanical elements required to ensure the system functioned correctly.

This project included the following:

- Establishing the best way to build the steam and condensate system around the distillery's boiler, using their P&IDs and schematics.
- Running piping through all of the tanks and all of the heat exchangers.
- Running piping for cooling water, potable water and all other aspects of piping.
- Installing valves where necessary to maintain optimal pressure throughout system
- Adding structural elements to securely connect equipment and piping
- Standing by to work out issues after the distillation process has started



Unique Project Challenges

The distillery started off with the understanding that there would be no firm drawings to go from and that changes would be made along the way. Rather than submitting an estimated project cost for the job, Waco provided estimated time & materials costs, knowing that adjustments would be made as the project progressed. The Virginia Distillery brewmaster and project managers worked alongside Waco to figure out the best ways to get the job done. When the process side of the distillery was awarded to Waco, the two parties continued to work together in the same fashion to find the best solutions. Even after the buildout was complete, Waco stood by to make sure all elements of the distillery were functioning properly and to full capacity, to ensure that the final product was beyond satisfactory.

Summary of Results

With Lee Waldeck as Project Manager and Tommy Ady as Superintendent, Waco was able to take several steel and piping applications and bring them together to complete this project. The project was unique, starting with only a rough estimate of costs and resource usage and with the understanding that changes would be made throughout the process to ensure optimal implementation.

Despite the dynamic nature of the project, it was completed on time. Even after the build, Waco continues to provide support for Virginia Distillery as they work through the initial stages of production.

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