BearWaters Brewery

CREATES BEER PERFECTION
USING TANKLESS WATER HEATER.

Now is a good time for beer, especially if you're a craft brewer. According to the 2015 Brewers Association (BA) statistics, there are now more than 4,200 breweries in the United States. The BA also reported that 98 percent of the current total are craft breweries, a faction that continues to grow rapidly thanks in part to an increased American focus on supporting local businesses and a growing taste for more diverse, richly flavored new beers. These days, brewers with the precise blend of skill, creative vision and the right equipment can turn it into a huge success.

One such brewer is Kevin Sandefur, who opened BearWaters Brewing Co., along with two co-owners, in Waynesville, N.C. The brewery keeps five of its craft brews constantly on tap, supplemented by nine different rotating taps.

Cooking grain at the right temperature—usually within 2° F of the set point—is essential for creating the perfect beer, and the required temperature tends to fluctuate several times during the brewing process. Therefore, BearWaters needed to meet the exact temperature demands, in addition to the massive amount of hot water required to perfect the brewing process.

"The brewing process is very intricate, and the need for heating water to a precise temperature for an extended period of time is integral to creating the perfect brew," said Sandefur. "When looking for a product to help us meet this need, we turned to tankless [water heating] technology."

BearWaters' research led them to a 199,000-BTU Rinnai® Tankless Water Heater. The brewery heats the kettle with a three-burner direct-fire system, which can be fueled by natural gas or propane. BearWaters opted to fuel the system with propane, after local propane gas and appliance dealer Blossman Gas installed a high-pressure regulator that increased the burner's efficiency.

ADVANTAGES FOR BREWERIES:

- Offers precise temperature control, a requirement for achieving the perfect brew

- Compact, suitcase size allows for more floor-brewing space

- Wall-mounted to help save valuable floor space

- Can be installed on the exterior of a building in warmer climates, which requires no vent components and saves on installation costs

- Longer life span than traditional tank-style water heaters

- For larger breweries, units can be banked together as a single hot-water source to ensure peak-demand needs are always met; built-in redundancy of multiple units ensures the brewery can maintain its calculated brewing process

- Minimal risk of property damage due to leaking water, unlike a traditional tank

Rinnai®

The Rinnai Tankless Water Heater was selected for its ability to meet the precise demands for brewing beer by producing a more consistent flow of much hotter water than a traditional tank water heater. For BearWaters' needs, the Rinnai unit was set to deliver 185° F water. While a traditional tank water heater can run out of hot water, causing a delay of 30 minutes or more while the tank recovers, tankless units can produce a fast, unlimited supply of hot water for as long as necessary.

"With the system we have, we're able to incrementally increase the temperature of the hot water to appropriate levels. The Rinnai Tankless Water Heater allows us to raise the temperature of the liquid quickly and more efficiently than with a traditional tank," Sandefur said.

Rinnai Tankless Water Heaters come with a thermistor, or temperature sensor, that constantly monitors temperature, making it ideal for the brewing process. Whether the flow rate is one gallon per minute (GPM) or five GPM, the unit will consistently maintain the combustion process and ensure the exact temperature regardless of water volume. This means less work for brewers, allowing for a more efficient use of time.

Rinnai Tankless Water Heaters are ENERGY STAR® qualified and have an Energy Factor (EF) between .82 and .96 to offer excellent heating efficiency.

Before BearWaters had the Rinnai Tankless Water Heater, its supply of hot water was limited and required a separate water tank for hot liquor to successfully complete the brewing process. Since this additional tank had to be heated and maintained until it was needed, higher utility costs ensued. The tankless unit eliminates the need for the additional tank, allowing the brewery to save time and reduce energy costs.

The brewery noticed another benefit with the tankless water heater—space savings. The Rinnai Tankless Water Heater is about the size of a carry-on suitcase—much smaller than its traditional tank counterpart—and can be wall-mounted to save additional floor space.

Rinnai also offers a multi-unit system for facilities with larger demands. The system connects two or more units together as a single water source to ensure peak-demand needs are always met. The redundancy of multiple units allows for maintenance of one or more if necessary, without affecting the system's seamless operation or calculated brewing process. So, BearWaters can grow its operations without worrying that the hot water performance will affect the quality of the beer.

"In the future when we are ready to expand, we will bank multiple Rinnai Tankless Water Heaters together, which will effectively take the place of a large boiler tank, or kettle tank, traditionally used in the brewing process to heat the water and introduce it into the grain," said Sandefur.

The Rinnai Advantage

- Endless Supply of Hot Water Delivered up to 9.8 GPM
- Digital Control for Consistent Temperature
- Energy Factor of up to .96
- Wall-Mount Compact Design for Increased Space Savings
- External or Internal Installations with Discrete Vent Terminal

No matter what your hot water requirements are, the Rinnai tankless water heater can be configured to handle the job. Contact us with your requirements.

Rinnai®

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