Brewery Eliminates Rework on New Malt Beverage Lines, Improves Productivity

RESULTS

- Eliminated 25% rework on new malt beverage line
- More consistant fermentation curve on all products
- Production goals achieved

"After the first test run we were able to maintain temperature control within ½ degree... We definitely saw a more consistent fermentation curve."

Michael Baker
Maintenance Manager
High Falls Brewing

APPLICATION

Temperature control for brewing

CUSTOMER

Genesee Brewing Company, of Rochester, New York, is one of the largest brewers in America producing highly recognized brands such as JW Dundee's Honey Brown, Pale Ale, and Amber Lager in addition to the Genesee family of brands.

CHALLENGE

Essential in the fermentation process, temperature control of each brand of beer produced requires careful temperature regulation to give each beer their distinctive flavor. This is especially important for new malts being produced, which are the base for some alternative beverages such as hard lemonade. Any temperature variance would make the yeast stop working.

Since fermentation is an exothermic reaction, temperature control is accomplished by metering a glycol-water combination to cool down the yeast in the tanks. The Genesee Brewing Company plant was relying on manual valves where the accuracy of their temperature control was based on how long it took a person to go to the tank and open or close the valves. This was the procedure on 3 floors for 21 tanks; which was considered laborious and inconsistent. The impact of inconsistent temperature control became even more critical when a law was passed requiring 49% of the alcohol content in malts to come from a brewed beverage. The brewery needed to get the highest alcohol content possible from their process.

SOLUTION

Genesee Brewing Company turned to Baumann™ valves to help solve their process variation issues. "Since we had Baumann™ valves in other

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applications in the plant that worked well, we thought it would be worth a try to modulate this application," advised Michael Baker, maintenance manager. He installed the Baumann Little Scotty™ 24000 series bronze globe valve on one of the vats used for the new malts and ran some tests. After the first test run they were able to maintain temperature control within ½ of a degree.

"We definitely saw a more consistent fermentation curve. Word of this went right up the plant management chain of command and the order for 7 and then 21 more valves was placed shortly after." Before the control valves were installed, the plant was experiencing 25% rework due to poor temperature control for the new malt base they were bringing online. "There's no way we could achieve our production goals with the level of quality we require by manually controlling temperature of the fermentation tanks," said Baker.

The plant changed out the inlet valve on the glycol coil for each tank to a Little Scotty valve. As a result, High Falls Brewing has been able to eliminate the rework they were experiencing from poor temperature control while improving the quality of even their most temperature-sensitive malts. They have also realized a great deal of labor savings by eliminating manual control on 28 valves spanning three floors. According to Baker, "Our operators are now more productive and can focus on improving how the process runs. Our fermentation cellar is more flexible than ever and product changes can be made with the touch of a button."

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Michael Baker
Maintenance Manager
High Falls Brewing

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