

## Novelty Hill Wines - Januik Winery great wines... sustainably produced



### Customer Need

When Novelty Hill Wines and Januik Winery drew up plans for a shared wine production and tasting-room facility, the sister wineries were determined to create a state-of-the-art operation that would meet a set of stringent product quality, energy management and safety objectives.

### Logix Solution

Novelty Hill-Januik installed a comprehensive Logix controls system to manage and monitor everything from the temperature of the 30 refrigerated wine tanks in its 50,000-case-per-year production facility to the ventilation systems in its three barrel rooms and its fermentation cellar.

### Business Value Delivered

The Logix system ensures fermentation temperatures are maintained within the narrow range required to produce its award-winning wines. The system also automatically ventilates the ambient air in the barrel rooms to reduce the quality risk posed by mold spores, and also purges dangerous CO<sub>2</sub> when sensors detect it is approaching unacceptable levels. The Logix system accomplishes these and other tasks while reducing the wineries' energy consumption by more than 40%.

### Measurable Results

The Logix system's actual energy reduction measured at 42% versus conventional control.

## The Story Behind the Logix Solution

In his 30 years in the winemaking business, Mike Januik has proven he knows what it takes to produce award-winning wines. Most important is the quality of the grapes, which Januik sources from several acclaimed eastern Washington vineyards. To fully realize the potential of the grapes, however, requires the talents of a skilled winemaker, paired with a production facility that can support the winemaker's precise demands.

All of these ingredients have blended together perfectly for Novelty Hill Wines and Januik Winery, which share Januik as their winemaker. He launched his self-named Januik Winery in 1999 after serving for 10 years as head winemaker at Chateau Ste. Michelle, one of Washington state's premier wineries. After a few years working in a makeshift production facility, Januik drew up plans to create a state-of-the-art facility and tasting room in the burgeoning town of Woodinville, Washington. The production plant, which would be shared by both Januik Winery and Novelty Hill Wines, would have to permit the winemaker to maintain the superb quality of his wines (many ranked on the Wine Spectator's "Top 100" list), while also ensuring worker safety and reducing energy consumption. The last objective was of considerable importance to Januik, who says one of his core philosophies "is to have as small of an environmental impact as possible."

## Focus on Sustainability, "Green" Objectives

Januik's focus on sustainability and "green" objectives is embodied in almost every aspect of the Novelty

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**Mike Januik, winemaker**  
Novelty Hill Wines - Januik Winery

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## Starting with a Solid Foundation

Januik used Logix TC-2000 tank thermostats in his initial production facility. When he mapped out plans for the new Novelty Hill-Januik production facility, he included a comprehensive Logix control system as a core element of the new winery's design.

Hill-Januik facility, which opened its doors in June 2007. The building is set into a hillside to help its 55-degree barrel rooms to reduce heating costs in winter, and cooling costs in summer. The facility's southfacing orientation and skylights take maximum advantage of natural lighting. The designers used microclimatic analyses of data, humidity and wind patterns to create the most efficient ventilation system possible. And, to manage and orchestrate the plant's many energy-consuming operations, winemaker Januik chose the most effective controls solution he could find – Logix.

Januik had first gained experience with Logix and its products during his days at Chateau Ste. Michelle, a long-time Logix customer. When Januik launched his own winery, he used Logix's TC-2000 tank thermostats in his initial production warehouse. And when he mapped out plans for the new Novelty Hill-Januik production facility, he included a comprehensive Logix control system as a core element of the design.

## Realized Benefits – from the Start

The winery started realizing benefits from the Logix system even before it was up and running – Puget Sound Energy helped subsidize the cost of the system based on the energy savings projections Logix would save compared to conventional control methods. After the new facility opened in June 2007, the benefits derived from the Logix system continued to accumulate with actual energy reduction measured at 42% versus conventional control.

*"For a majority of the year we're more concerned with the temperature control in our barrel rooms than in the tanks... we use the Logix system to ventilate the air in the barrel rooms on a regular schedule to reduce the quantity of mold spores that would otherwise build up."*

**Mike Januik**  
Winemaker, Novelty Hill  
Wines and Januik Winery



### CO<sub>2</sub> Buildup Prevention

To prevent the build-up of toxic CO<sub>2</sub>, Novelty Hill-Januik has two CO<sub>2</sub> sensors in its barrel rooms and in its fermentation cellar to ensure ambient air circulation and keep gas levels within OSHA standards.

The 30-tank Novelty Hill-Januik facility relies on Logix controllers and management software to perform a wide range of functions. Among its tasks, the system maintains tight temperature ranges in the fermentation tanks, it ventilates the ambient air in the facility's three barrel rooms and fermentation cellar, and it sends out alarms if anything exceeds pre-set tolerances.

The alarm capability is helpful in ensuring both the final product's quality as well as the winemaker's sleep, should problems occur in off hours. For instance, Januik sets the winery's fermentation temperatures to peak at 88 degrees Fahrenheit. Should a fermenter fail overnight, the temperature could rise above the optimal temperature, before any workers arrive the next morning, damaging the wine. "If there's a problem, the Logix system calls two of us on our cell phones," Januik explains. "We can remotely log in and can usually fix the problem [using Logix's Clarity management software for PCs], instead of coming back in at three in the morning." Onsite or off, the Clarity software's graphical user interface clearly depicts the plant's end-to-end control configuration, and highlights any problem areas.

Reliably maintaining fermentation and boiler temperatures is an obvious requirement of the winemaking process. Not so apparent is the need to manage and monitor the ambient air in the production facility's various rooms. "For a majority of the year, we're more concerned with the temperature control in our barrel rooms more than in the tanks,"

Januik explains. Novelty Hill-Januik uses the Logix system to ventilate the air in its barrel rooms on a regular schedule to reduce the quantity of mold spores that would otherwise build up. If not controlled, mold will grow on the winery's barrels, and could potentially ruin the wine they contain.

In wineries, there is another, potentially more serious reason to ensure ambient air circulation – the build-up of toxic CO<sub>2</sub>. Novelty Hill-Januik has two CO<sub>2</sub> sensors in all of its barrel rooms and in its fermentation cellar to ensure that levels of the gas don't exceed OSHA standards. "We set our Logix system so that if we hit a certain parts-per-million level of CO<sub>2</sub>, the ventilation system comes on and eliminates it, Januik explains. "Most wineries – even newer ones – don't have that automated capability; people just come in at the start of the day and open up big doors to try to eliminate the CO<sub>2</sub>."

By nature and by occupation, winemakers like Januik are hands-on perfectionists when it comes to pursuing their craft. "Most winemakers are control freaks," he admits on the Januik Winery web site. In saying this, Januik is primarily talking about his need to obtain the best-quality grapes available. But we like to think it also reflects well upon his choice of the Logix control system for his widely applauded production facility. At Logix, we're control freaks as well, and we're honored to be playing an important role in the production of some of the world's finest wines.