Xylem keeps the wine flowing at popular California winery

Laguna Canyon Winery uses the Jabsco flexible impeller pump cart system to produce its award-winning wines

Nestled in a canyon between suburbia and picturesque beaches sits family-run Laguna Canyon Winery. This award-winning boutique winery searches out grape varietals from some of the top regions of the United States. Only ultra-premium grapes from low-yield vineyards, mostly in Napa and Sonoma counties, are selected and transported to the winery for processing, from crushing to bottling. With years of wine-making experience and degrees in enology, the family prides itself on being in complete control of the entire wine-making process.

Laguna Canyon Winery knows that it is extremely important to protect the transferred grape product throughout all facets of wine-making in order to impart the character of the grape into their wines. The secret is to minimize damage to the grapes by eliminating excessive or violent pumping. A technology known as the flexible impeller pump (FIP) has been found to provide the solution. The minimal meshing action and low-speed capability inherent in the design of the FIP allow both viscous fluids and solid particles to pass through without damage, which is extremely important in wine-making. “We put a lot of care into making our wines,” said Marlowe Huber, Operations Director at Laguna Canyon Winery. “The gentleness of the FIP was very appealing because it allows us to control the wine-making process and minimizes any impact from the pumping operation.”

For a winery, the ideal pump must be capable of moving the berries from the destemmer to the press without macerating them or their seeds. Also, pumping over for red fermentations requires a pump that can lift juice at a high enough volume of flow to puncture the cap in the fermenter. However, that high throughput must be accomplished with the gentle handling of the juice. The Jabsco flexible impeller pump provides the necessary self-priming pumping, while minimizing impact on the finished product. Large wineries frequently dedicate flexible impeller pumps to handle the pump-over process to save money over higher-cost pump alternatives.

The FIP design is also well suited for moving wine around the winery for other transfer applications. This includes simple tank-to-tank transfers or for filling and emptying barrels, all of which requires a pump that has enough suction to lift and push fluids over distances to get the wine to the barrel.

Filtration requires a pump that delivers a predictable flow, which is a winery operation that requires a pump that can generate significant back pressure. Fortunately, these are intrinsic attributes of all positive-displacement pumps like the flexible impeller pumps. This back pressure is especially important for the bottling process to transfer the wine at a controllable rate. “Also, with the variable frequency drive (VFD), we are not only able to change the speed of the flow, but we can change the direction in order to avoid leaving any wine in our hoses,” added Huber.

“The portability feature of the cart system means it’s easy to move the pump between tanks, over to the barrels, or to the bottling station,” said Huber. “The remote control is especially convenient because I can shut off the pump from the top of the tank when I see it is completely full. This beats climbing down the ladder and guessing when I need to stop the pump or using a second person to monitor the tank level.” Also, because the cart system is compact, including a collapsible handle, storage of the pump requires minimal space.

Wineries sometimes have purpose-specific pumps for each phase of the wine-making process. However, smaller wineries like Laguna Canyon Winery require one pump to satisfy several applications — a good all-around pump. The flexible impeller pump provides the most versatility for the least cost — and that includes not only the purchase price, but also maintenance and repairs. The impeller is softer than the pump cavity, and repairs are quicker, cheaper and easier. A chunk of metal, like a vineyard staple, would destroy a progressing cavity or rotary lobe pump, whereas it is a simple and quick repair job for a flexible impeller pump — the flexible impeller is behind a sealing plate held with only 4 bolts.

“We couldn’t be happier with the Jabsco FIP Cart System. Its simplicity, versatility and the ability to transfer without any damage enables us to produce the finest quality wines,” said Huber.

« Return to Case Studies

Related Case Studies

Xylem helps solve water recyling in Australia

Located on the Adelaide Plains of southern Australia, the Piscioneri Brothers’ vegetable-washing plant is modernizing how commercial washing companies use water

Xylem keeps the wine flowing at popular California winery

Laguna Canyon Winery uses the Jabsco flexible impeller pump cart system to produce its award-winning wines

View More Case Studies

Follow Xylem Online

Twitter | YouTube | Facebook | LinkedIn

Site Map | Terms & Conditions | Privacy Policy | Contact Us | Request Information