

# WINE BUSINESS MONTHLY

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## Glass Survey REPORT

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**Industry Roundtable:** Working with Designers  
to Create a Winning Brand Identity

A New Spin for Wine Tap

**Vineyard Survey Report:**  
More Growers Monitoring Water Use

U.S. Wineries Lead in Charitable Giving

Wine Industry Performance Reviews Evolve

**Winemaker Trial:**  
Natural and Inoculated Fermentation  
Effects on Aroma, Flavor

Products that are smart, make your tasks easier and provide cost or labor savings

Bill Pregler

Bill Pregler has worked in the winery equipment industry for many years and is a staff writer for *Wine Business Monthly*.

## Peregrine Mobile Bottling Adds Cross-flow Service

Expanding the value chain

PHOTOS COURTESY PEREGRINE MOBILE BOTTLING

**IT HAS BEEN REALLY** cool to watch mobile cross-flow services gain national traction; and even though more trailers are hitting the road every year, in many regions you need to make appointments early to get your desired days. This has become an issue with mobile bottling as well.

In Sonoma and Napa, it is not unusual for *all* mobile bottlers to be booked solid with repeat customers from May through September. Now that the popularity of mobile cross-flow filtration lines has grown, the problem for wineries doubled—many have had to try to schedule two separate mobile service providers, one just before the other. Fortunately, this is changing.

**Thomas Jordan**, CEO of **Peregrine Mobile Bottling, LLC** of Napa, now offers pre-bottling filtration. “We simply extended the value chain,” he said. With one appointment he will take your unfiltered wine and quickly turn it into a “sellable product,” with zero delays from cross-flow to the finished case. At many levels of process technology this is called “just-in-time production,” and in my mind the mobile services industry has definitely been kicked up a notch.

What is totally cool, according to Jordan, is that the decision to add mobile cross-flow services was predominantly customer-driven—more wineries are asking for one-stop shopping. These are winemakers, who already made the commitment to mobile cross-flow and bottling, but want to get the wine to the bottle in an uninterrupted flow.

I recently met with Jordan and winemaker **Bruce Regalia** of **Materra/Cunat Family Vineyards**, just north of Napa. A long time Pinot veteran, Regalia is now running a new winery where many smaller lots need filtration at similar times. In-house production is ultimately permitted for 85,000 gallons, but currently the house label is only 5,000 cases, so they also offer custom crush for a dozen clients. This is a perfect application for cross-flow.

I drove to the winery and found Peregrine filtering 21 different lots, ranging from 60 gallons (one barrel) to 2,000 gallons. Immediately, I took

notice because that is a lot of activity in a very short period of time before bottling. This is where cross-flow really shines and has a huge advantage over conventional filtration, such as “dead end” plate and frame. Regalia said he has used every form of filtration but, as of five years ago, is sold on mobile cross-flow. In time, Regalia will invest in his own filter, but for now the price per gallon for mobile services is a reasonable overhead.

I have written many times about how cross-flow affords the winemaker quick change versatility, consistency and sanitation within a totally enclosed, low-pressure, low-temperature, continuous 0.2 micron nominal filtration. The Materra/Cunat project with plate and frame would have been laborious. In addition to constantly replacing filter pads for changeovers, there is wine loss and O<sub>2</sub> pickup, not to mention waste of water. Finally, the workers need to be trained, and clogged pads with diatomaceous earth need to be disposed.

### Designing the Cross-flow Trailer

Thomas Jordan is a very smart fellow with a mechanical/industrial engineering degree from the **University of Hanover** in Germany. I first met him many years ago when he was vice president of western division sales for **Krones, Inc.** and I was with **GAI**. We were both designing and selling bottling lines. Along the way I got involved with many mobile trailer projects, and he eventually built his own.

Today I fully understand why he finally decided to package all that knowledge into his personal business, featuring his favored Krones filler technology and a **Kosme** electronically orientated rotary labeller. Naturally, thanks to his engineering background, everything else on the trailer is also state-of-the-art: from steam sanitation to nitrogen generation, on-board power generation, label printing and application, and more.

“Consistency with cross-flow filtration results in reliability and quality, which is how we are paid. Full automation eliminates mistakes.”

Thomas Jordan



The most important thing for Jordan, as is true of all mobile bottlers, is that even though the bottling line visits a new winery every week, each with a different winemaker and specific issues, the bottling must be flawless.

Jordan's choice for a cross-flow unit was contingent on several design considerations, like filtration quality and reliability, but obviously flexibility was paramount. He must quickly switch to accommodate various bottle sizes and shapes. With filtration he needs to filter different lots of wine perfectly, of any size, with the flip of a switch. He visited winemakers already using cross-flow and met with the different manufacturers before choosing the **Pall** Oenoflow XL-6S.

What is totally cool is that after ordering a machine, he then flew to Brazil to visit Pall Corporation's western hemisphere engineering and manufacturing facility. He met with engineers at the factory to make sure everything was as he specified. For example, he wanted **Allen Bradley** electrical components (made in the USA) for the fully automated, programmable cycles. This attention to detail only comes after years of experience working for and with original equipment manufacturers and inspecting the equipment before it leaves the plant.

Other electrical considerations required 230/460 volt, three-phase power but with an absolute maximum of 30 amps for the equipment. This will ensure he can plug into almost any winery in the United States. Especially cool, he had variable frequency drive controls installed on the three system pumps: the in-feed, circulation and discharge. Automatically, this prevents any on-off surging, either in the winery's electrical panel or within the pumps. By controlling rpm he can slowly ramp up for a soft start. This is

certainly easier on the wine but also allows him to monitor and control pump temperatures.

A lightweight, 18-foot, all-aluminum box trailer (no wood) transports the six-module Pall unit. The entire design, from manifolds and pumps to tanks and electricals, is mounted on a singular, vibration-proof, 304 stainless steel-welded skid. On board, the trailer has a transformer, air compressor and LED lighting. The Oenoflow filter is fully automated from filtration cycles to back flush and cleaning.

In Jordan's words, "Consistency with cross-flow filtration results in reliability and quality, which is how we are paid. Full automation eliminates mistakes."

#### WHAT'S COOL:

There are any number of reasons why any winery might consider cross-flow filtration, and today I believe we are now far beyond worrying about quality issues. Unfortunately for many wineries, a CFO might not look beyond the ROI of the equipment purchase.

For winemakers, the ROI is more about the quality of their wine. Similar to mobile bottling, lack of funds and technological knowledge have given rise to the mobile filter expert, who buys the best equipment available and provides the service.

I fully expect this concept of extending the value chain to really take off. Ease of scheduling and peace of mind are good places to start. Also encouraging is that this concept shows our services sector is maturing. Adding "continuous process mobile technology" to our wine industry is totally cool. [WBM](#)