Product Recovery (Pigging) Case Study:

WineWorks

New Zealand

How Multiple HPS Pigging Systems Are Increasing Yields and Reducing Water Consumption

HPS Product Recovery Solutions

www.HPS-Pigging.com

Summary

- **HPS designed and commissioned six mobile pig launchers on pump trolleys and a Rotomatrix for WineWorks.**
- **The systems conveniently enable wine transfer from 14 locations.**
- **They ensure flexible liquid transfer and processing between wineries and WineWorks, as well as quick and efficient path selection.**
- **By minimising manual intervention, the systems also enhance safety.**
- **The systems reduce product waste, minimise water usage in cleaning, speed up product changeovers, and minimise the chances of dissolved oxygen pick-up and cross-contamination.**

About WineWorks

New Zealand's Marlborough region, in the north-eastern corner of the South Island, produces around 77% of the country's wine. Its unique climate and soil, combined with the talents of its wine makers has made Marlborough one of the premium wine production areas of the world. In 2014, Marlborough had 168 wineries and nearly 23,000 hectares of vineyards.

Founded in 1995, WineWorks offers a wide range of high-quality bottling, storage, labelling and distribution services to New Zealand's wine makers. Its bottling plant in Blenheim bottles around 20% of wine manufactured in the country and processes about 25% of the country's total bottled volume.

Their world-class technology, equipment and facilities enable their customers to focus on growing and marketing great wine, while WineWorks look after bottling and distribution.

Project Background

WineWorks is strategically located close to several different wineries. The company needed an efficient and reliable hygienic product transfer system to take advantage of this proximity. The company also needed to overcome the quality and loss issues experienced with traditional gas or water follow-through over long fixed pipe distances (approximately 500 metres or 1640 feet).

Additionally, when bottling wine on the massive scale of WineWorks' Blenheim production facility, it's not practical to have a line to each tank.

Why WineWorks Chose HPS as their Pigging Systems Provider

As world-leading specialists in hygienic product recovery and transfer solutions, HPS experts quickly understood WineWorks requirements and provided an innovative, comprehensive, and cost-effective solution.

Peter Crowe, Operations Manager at WineWorks explained, "HPS were able to offer a portable pigging system that allowed pump trolleys to be taken to wineries and wine to be pumped directly from their tank farms to our facility. This reduced one transportation step in the process."

The Solution

Working closely with WineWorks, HPS designed and commissioned six mobile pig launders mounted on pump trolleys. These conveniently enable wine transfer from 14 locations (four internal cellar areas and ten different wineries).

The tailored product transfer solutions also included a piggable automatic wine distribution Rotomatrix system. The Rotomatrix provides highly flexible, quick, and efficient path selection.

Crowe continued, "The wine pumps are mounted on a portable trolley with connected pig launchers. These trolleys are connected to a bend panel at neighbouring wineries or in our cellar.

An HPS Rotomatrix System

"Services are plugged in to the pump trolley and the correct route is then made at the Rotomatrix. This is then confirmed at the HMI. Communication between the pump trolleys and filling lines is via fibre ethernet.

"Before wine transfer commences the line is flushed with water from the bend panel then pigged through to the filling line. When the pig is returned, the line is purged with N_2. This helps minimise dissolved oxygen (DO) pick-up when the wine transfer starts. Pump speed is controlled during the initial stages of the transfer then the filler controls the pump speed.

"All pump speeds are adjustable, allowing smooth wine transfer. When the filling run has been completed, the flexible line from the tank to the pump is walked out and then the pig is launched, chasing the wine down the line all the way to the filler."

The longest distance a pig travels to and from a winery is through a pipe length of approximately 500 metres or about 1640 feet. For each pigging cycle, the pig travels approximately 1 kilometre or 3280 feet.

The Results

"Feedback from our clients has been great," Crowe said. "Some of the benefits include minimal use of flexible hoses, a user-friendly interface, minimal wine loss and therefore increased yields for our clients, a much-reduced chance of DO pick-up, clean-in-place (CIP) cycles that clean lines and pigging housings, offering hygienic wine transfer."

Crowe added, "Mark and the team at HPS have been brilliant. They offered a solution that works incredibly well for our clients and ourselves. Their after-sales service has also been first rate."

The Future

WineWorks is a growing business, and the company is expanding their Blenheim bottling plant. They are currently adding a further bottling line to their site, and longer-term will add another. HPS is working with WineWorks to add more connection points to their Rotomatrix and further pipelines.

As more wineries develop in WineWorks' Marlborough catchment area, the product recovery and transfer systems will expand even further.

Contact HPS

To improve the efficiency and effectiveness of your liquid processing, contact your nearest HPS Office:

Australasia:

HPS Australasia
381 Cross Road
Edwardstown
SA, 5039
Australia
T: +61 (0) 8 8278 1009 E: australia@hps-pigging.com

United Kingdom (Head Office):

HPS Product Recovery Solutions

T: +44 (0) 115 925 4700 **E:** info@HPS-Pigging.com

USA and Canada:

HPS LLC

T: +1 908 858 5225 **E:** usa@hps-pigging.com

All other countries:

We have agents throughout the world.

Please contact the HPS head office and we will put you in touch with your local HPS representative:

You can also find us on: