

Crushing & Pressing

Press technologies that are making a real difference

The better than expected performance of the 480hl Della Toffola central membrane press units supplied into Australia to Casella Wines and Yalumba has raised the bar as to the quality demanded from membrane press systems across the board.

Detailed observation at Yalumba conducted during vintage reported the performance benefits that central membrane press systems provide compared to side membrane press systems. The commercial reality of the Della Toffola technology performed to pre-purchase expectations with far better free run juice volumes, better quality press juice yields and most definitely speed of pressing. With a soft membrane press capable of pressing over 110 tones of fruit within 90-100 minutes and the quality being such that fractioning may not be a requirement with certain varieties. The technology has caught the eye of all looking to adopt the best technology for their future winery development.

Cellar manager James Vardanega of Casella Wines said "Casella Wines has and continues to experience amazing growth, and five years ago had to look at finding new technologies and methods to achieve throughput and quality given wine sales projected to customers internationally."

"The central membrane design was a radical approach that we saw could deliver throughput twice the volume to the side membrane press," said Vardanega.

"Our unique processing systems demanded very high volumes of 'free run' juice and needed to be extremely low in suspended solids, and the Della Toffola press consistently provided us with this."

Modern Australian wineries are providing ever faster intake of fruit and the better destemmer/crushers on the market today are capable of processing in excess of 100 tonne per hour of a very broad range of grape varieties.

Increasingly winery process flow is being compromised by inappropriate press choice. Bottlenecks in current Australian winery process flow can be caused by side membrane bag tank presses. By the very nature of their design, side membrane tank presses have a lesser allowance for drainage and separation. With half the press tank surface area being covered by the pressing membrane bag, the other surface area must accommodate for drain screen area and discharge doors. Almost all side membrane presses can only provide 20-25% maximum press tank surface area as separation capacity. For large wineries, this has serious implications.

"Australian Winemakers, agents for Della Toffola, worked closely with us to ensure that the central membrane press suited our specific needs," said Alan Hoey of Yalumba.

"With an existing central membrane press, we were confident of the bag pressing potential that allows full 360° streams and a large pre-draining system where previously the process was done with a predrainer and a press. With the new design we are now doing this in one process".

Vardanega also highlighted the quality aspect. "Already utilising Della Toffola equipment in the cross flow filter, RDVs, destemmer



Presses at Casella Wines

crusher and earth filters we have confidence in the consistent attention to quality. After observing the capabilities of the central membrane bag press we were impressed with the ability to consistently infeed at 100 tonne per hour. Further we were able to eliminate pre-draining and pre-screening prior to pressing.

"Time is money, as the saying goes, and for modern wineries the pressing extraction cycle needs to be ever faster. Wineries using the Della Toffola presses indicated that Della Toffola's greater screen surface area enabled a faster and more efficient extraction process.

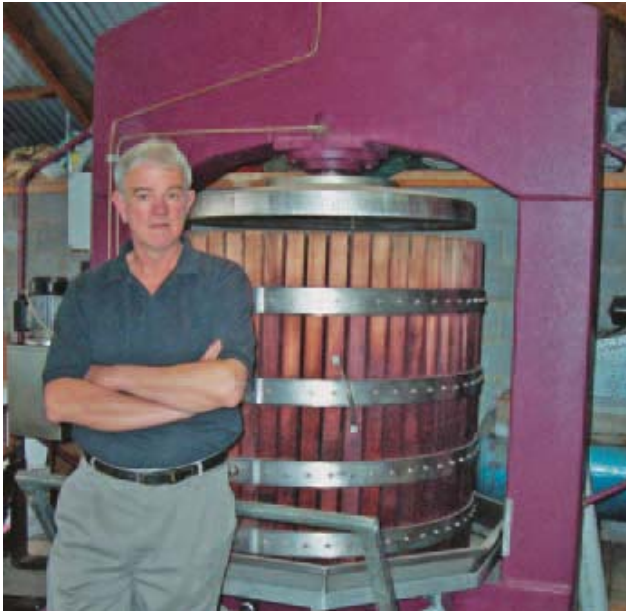
"The unique membrane design enables the membrane bag to be extended and retracted in half the process time it would take a side membrane bag press," said Vardanega. "Clearly Australian Winemakers and Della Toffola have provided us a solution with higher yield volumes, reduced costs and increased production benefits and efficiencies."

Another important dimension to consider in regards to throughput and cycle time calculation is pressed marc discharge times.

"The central membrane press design enables two side hatch doors at either end of the tank axis to open and discharge pressed marc. Wineries using the central membrane presses achieved 15 minute discharge. Compare this with the side membrane alternative and discharge times which can be anywhere in excess of one hour," said Vardanega.

"The Della Toffola central membrane press is different to a standard press and the performance of the technology is evident and aligned to improved wine quality," said Hoey. "The main economic benefit is that you are able to produce more as a result of the speed of operation whilst providing tangible benefits over many years".

It is clear each winery has its particular challenges and in our current wine environment challenges are plenty for the boutique and craft wine producers. Australian Winemakers has long been a specialised supplier servicing some of Australia's well known and



Rick Kinsbrunner

prestigious producers. The Electric Hydraulic SIRIO 130 basket press offers great benefit to the boutique winery. When Rick Kinsbrunner of Giaconda made the decision to upgrade to a larger press his first choice was the Sirio 130 basket press. "Previously pressing with a Sirio 100, we upgraded to the 130 as we saw the benefits associated with the change, some of which were the ease of use, the ability to do one press load when previously we carried out 2-3 press loads, the forklift operated drain tray for easy cake

removal and the automatic feature that allows you to set a press program," he said.

Other associated benefits of the Sirio 130 hydraulic press is that it has two motors (1.5hp and 3hp), stainless steel column support, two pumps for reverse acceleration, stainless steel pressing plate, PLC with computer control with eight pressing programs, basket dimensions 130cm x 110cm - five tonne capacity and complete stainless steel one piece basket with hydraulic lift.

"The efficiency the Sirio 130 Hydraulic Press has offered is evident in the time saved during processing whilst also benefiting the end product," said Kinzbrunner.

"Many wine industry traditionalists lament that things may have changed yet what is evident to industry leaders big or small is that quality remains squarely the focus," said Australian Winemakers product development manager Paul Baggio.

"Words such as 'throughput', 'production bottlenecks' or 'efficiency' may drive the modern winemaking discourse, yet at the heart of winemakers' focus it is interesting to note that whether you want to be a Giaconda, a Yalumba or have a Yellow Tail, creating the best quality product for your customer still remains the primary goal. The big surprise however is that what remains the beating heart of the modern day winery whether big or small is still the wine press," said Baggio.

"What is clear is that as industry competition increases no longer can wineries afford to not understand the implications of choosing the wrong press for their winery. Many new winemaking technologies are available today and working with a specialist supplier such as 'Australian Winemakers P/L' could ensure the best pressing investment decision is made by the winery," Baggio said.

For further information contact Australian Winemakers + 61 3 8405 9000.

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