KAESER COMPRESSORS®

KAESER report

A magazine for the production industry

Compressed air for wine lovers

A winery down under

Award winning winemaker Teusner Wines recently invested in two Kaeser SK 25 rotary screw compressors, which are responsible for delivering a reliable and energy efficient supply of compressed air to the pneumatic - grape crushing - presses at their new purpose built winery in the Barossa Valley, South Australia.

Based in one of Australia's most well-known wine producing regions, Teusner Wines has been making a variety of wines in the Barossa Valley for over 15 years. The heritage of their wines however far exceeds this, sourcing fruit from vineyards in the region that are up to 130 years old!

Everything is crushed one small picking bin at a time so that Teusner can keep a close eye on color, flavor, aroma and structure, ensuring that the eminent flavors found in old Barossa vineyards take center stage in the wines. Compressed air plays an important role in this process, powering up the pneumatics presses which are responsible in modern wine making for pressing the grapes. The pneumatic press is filled with grapes and once the door has been closed, compressed air is used to inflate a sealed bag within the press which effectively pushes the grapes against a large sieve that softly squeezes the remaining juice out.

To keep up with growing demand, Teusner recently developed a much larger purpose built winery. This included sourcing two higher capacity pneumatic presses, which of course created a requirement for a larger capacity compressed air system.

With a typical harvest lasting only three months, the window to process the grapes is fairly short. It was therefore important to Teusner that they invested in a compressed air system that would be reliable and efficient, allowing them to maximize the harvest period.

Having received a recommendation on the Kaeser compressor for this application, owner Kym Teusner, contacted the local authorized Kaeser partner - Mobile Compressed Air (MCA) for a solution.

After reviewing Teusner's requirements, MCA recommended and subsequently installed two Kaeser SK 25 rotary screw compressors along with a 5,000 liter capacity air receiver.

Filling the presses with the grapes is a labor intensive process, so when a two-press system is in operation - as is the case at Teusner - they tend to run in separate sequences. This results in flatter air demand cycles. MCA was therefore able to recommend the installation of two 15 kW rotary screw compressors to meet the compressed air requirements rather than one larger unit, as the time in between presses gives the two compressors time to refresh the air receiver, bringing it back up to pressure between the crushing cycles. For Teusner this meant cost savings, not only in terms of the initial capital investment cost, but also the longer term associated lifecycle costs of running the compressed air system.

The SK series from Kaeser Compressors, would also provide the reliability and efficiency that Teusner required, not only delivering more compressed air for less power consumption, but also combining ease of use and maintenance with exceptional versatility in an environmentally responsible design.

At the heart of every SK series rotary screw compressor lies a premium quality screw compressor block featuring the Kaeser Sigma profile rotors. Superior

Teusner's new compressed air station: two KAESER SK 25 rotary screw compressors and an air receiver with 1300 gallons of storage capacity.

efficiency is assured with these flow-optimized rotors that are able to achieve power savings of up to 15 percent compared with conventional screw compressor block rotor profiles.

motors, that comply with, and exceed prevailing Australian GEMS regulations for 3 phase electric motors.

In addition the SK series features Kaeser's innovative cooling system which uses a high efficiency dual flow fan and separate air flow channels for cooling of the motor, the fluid/compressed air cooler and the control cabinet. This not only achieves optimum cooling performance, low compressed air discharge temperatures and minimal sound levels, but also promotes efficient air compression.

The KAESER compressed air system has been in operation since the last harvest and it has worked perfectly.

Needless to say, all Kaeser SK series rotary screw compressors feature energy-saving, premium efficiency IE3 drive

Finally, the internal Sigma Control 2 controller ensures efficient control and system monitoring, helping to push the boundaries of efficiency even further.

The compressed air system at Teusner Wines has now been up and running for over a year, as owner Kym Teusner said; 'We have now had the Kaeser compressed air system in play for one harvest and it worked perfectly. We have been really happy with the quality of the machines and the level of support we received from Mobile Compressed Air.'

Images left: Compressed air plays an important role in the crushing of grapes in pneumatic presses

Photos: Teusner Wines

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