

NEW MUST PUMPS ADD SUBSTANTIAL EFFICIENCY TO SHORT HARVEST SEASON

PUMP CASE STUDY

E&J Gallo Winery

Fresno, California

Crush Pad MUST Pumps

CUSTOMER APPLICATION AND KEY CHALLENGES

For over 75 years, E&J Gallo has crafted world-class wines using the best regions and techniques available to grow grapes. Their unwavering commitment to the production of quality wine has made E&J Gallo the largest wine exporter in California, with their location in Fresno being one of the largest grape crushing facilities in the world.

E&J Gallo was using four rubber lobe pumps for processing MUST at their Fresno facility. MUST is a mixture of crushed grapes, stems, and other debris brought in from the vineyard during harvest. At 1,200 gallons per minute and pressures up to 80 psi, the debris in MUST can cause substantial damage to the pumps. Replacing broken and worn pump parts is not only expensive, but requires lengthy downtime that impacts production. E&J Gallo came to R.F. MacDonald Co. for a solution to improve maintenance turnaround times and lower repair costs.



The E&J Gallo underground oak cellar houses 650 of these giant casks

THE R.F. MACDONALD CO. ANALYSIS & SOLUTION

When E&J Gallo came to R.F. MacDonald Co. for a solution to improve maintenance turnaround times and lower repair costs on their MUST pumps, R.F. MacDonald Co. recommended upgrading to Börger EL-1550 rotary lobe pumps. Because Börger offers a wide selection of casing sizes, larger lobes than in the existing pumps became available options. Using a larger lobe reduces shaft deflection and extends the life of the mechanical seals and power bearings.

"Each grape harvesting season is only 3 months long, so every second of downtime is costly. With the Börger rotary lobe pumps, downtime was virtually eliminated and maintenance is quick and easy."



One section of the largest grape crushing facility in the world located in Fresno, CA

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Even though the internal components will inevitably wear out, Börger pumps have replaceable lobe tips and liners, which are conveniently accessible through the front panel without disturbing the timing gears.

After E&J Gallo saw a demonstration of the Börger, they immediately recognized the more efficient design and ordered one to test during the upcoming harvest season. Before the Börger could be installed, R.F. MacDonald Co. had to re-pipe the inlet and outlet valves because the existing pumps were set at a different height. Because of the larger casing size on the Börger, the discharge could be matched to the 12" inlet for better suction capabilities, an improvement that was not possible on the smaller existing pumps. By improving the suction capability, wear and tear was reduced even further.

PROJECT RESULTS

The installation of the Börger EL-1550 rotary lobe pump at E&J Gallo was a success. After their second full season using Börger, E&J Gallo upgraded all four of their pumps to Börger.

At E&J Gallo, the Börger pump has greatly simplified maintenance and decreased downtime. In addition, they have found the other features of the Börger efficient and easy to operate.

"In MUST processing applications, wear and tear on the pump is inevitable. The key factor then becomes how quickly and cost effectively the pump can be repaired. Börger is one of the best choices available on the market for rough fluid management applications."



One of the Börger EL-1550 rotary lobe pumps in the MUST processing facility