

A DURABLE PUMP ON A PORTABLE CART PROVIDES A FLEXIBLE WINERY SOLUTION

PUMP CASE STUDY

Franzia / The Wine Group

McFarland, California

Pump Replacement

CUSTOMER APPLICATION AND KEY CHALLENGES

Franzia is a brand recognized producer of boxed wines, and a favorite among consumers in retail outlets around the globe.

Long before the finished product can be boxed and purchased in stores, the crushed grapes, twigs and seeds, are fermented in 20,000 gallon tanks housed at the Franzia winery in MacFarland, California. After fermentation, the juice is transferred to a tank and the remaining liquid is separated from any unwanted solids, such as skins and seeds, through a filtration system with positive displacement pumps.

Pumping such large quantities of liquid containing abrasive debris causes considerable wear and tear to the packing seals on the pump, and requires frequent pump and pump part replacements. In this case, the age of the equipment was making it increasingly difficult to order replacement parts for the rapidly deteriorating pumps.



Franzia produces the popular line of boxed wines

THE R.F. MACDONALD CO. ANALYSIS & SOLUTION

R.F. MacDonald Co. recommended that the winery replace their existing pumps with Börger FL518 Rotary Lobe pumps, which are capable of pumping over 500 gallons per minute. Even though Franzia's operations only necessitate about 400 gpm, R.F. MacDonald Co. informed them that running their pumps below capacity extends their usable life, especially when the product contains abrasive debris like stems and seeds.

R.F. MacDonald Co. also suggested a solution to minimize the number of required pumps for Franzia's tank system — rather than installing one pump at each tank, they mounted a Börger FL518 to a custom portable cart with a variable frequency drive, a start-stop box, and an e-stop. This allows the pump to be safely transported from tank to tank as needed. Although the pump and motor weigh over 1,200 lbs., R.F. MacDonald Co. precisely balanced the setup on the cart so it can be pushed by hand and leveraged over obstacles throughout the facility.



The Börger FL518 Rotary Lobe Pump on the portable cart

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PROJECT RESULTS

Operators at Franzia have found the Börger pump cart is so easy to transport, they're using it at sites all over the plant for applications beyond what they initially thought possible. In fact, next year Franzia is anticipating a plant expansion that will include the addition of another Börger pump to the operation.

In addition to easy transport, the replaceable lobe tips and liners on the Börger are extremely cost effective in regards to maintenance costs. The mechanical seal design is highly resistant to abrasion, enabling longer operation before seal changeouts.

The Börger pump is the only rotary lobe pump with replaceable radial liners, lobe tips, and a front protection plate. The simple mechanical seal design allows for changes in the field, without having to re-time the power frame. There's truly no other rotary lobe pump like the Börger for heavy duty industrial use.



The quick-release cover enables easy access to the inner components of the pump. All wetted parts can be quickly maintained and replaced when necessary – without removal of the pipe or drive system from the application