



Wine Industry

The global market for wine is expanding dramatically as wine production increases so does the infrastructure that supports it. Sanitation is a critical consideration in winemaking and of primary concern in the wine industry is the cross-contamination of batches and the management of *Brettanomyces* (natural yeast), which spoils the flavor of the wine. For many years wineries have used chlorine and heat for sanitation, but high costs and harmful byproducts make these methods problematic. In fact many winemakers have eliminated the use of chlorine and other halogenated compounds altogether, using ozone for their sanitation needs instead.

The use of ozone as a sanitation solution was presented in the late 1990's and was quickly adopted by the wine industry. Ozone has several characteristics that make it excellent for winery sanitation. Ozone is produced as needed, on site; minimizing the purchase, storage, mixing and disposal of chemicals. It is a cold sanitizer that kills a much broader spectrum of contaminants (bacteria, fungus and molds, yeasts and spores) up to 5000 times faster than previously used chemicals and reverts to molecular oxygen, leaving no by-products or residual contaminants. It destroys objectionable taste and odor-causing compounds, which extends barrel flavors, and minimizes bottling line maintenance costs.

Ozone was approved by the FDA as Generally Recognized As Safe (GRAS) for use as a sanitizer in 1997 and was approved for use with fruits, vegetables, meat, poultry, etc. in June of 2001. Ozone has become a single source organic sanitizer in the winery because it allows winemakers to produce a superior product through the control of spoilage organisms, mold and mildew throughout the wine making process. As a result, most ozone installations yield a very high return on investment and short break-even period.

Winery applications include the following:

- Direct Contact on Grapes
- Barrel Washing & Storage
- Tank & Press Sanitation
- Surface & Equipment Sanitation
- CIP (Clean In Place) Sanitation
- Bottling Line Sanitation
- Air Sanitation & Vector Control

OWS OFFERS:

- Service
- Rental Equipment
- Monitor Calibrations
- Uniform Fire Code Compliance
- Parts Support
- Sales
- Pilot Systems
- Refurbished Equipment
- In-house Repairs
- Custom System Design
- Years of Experience

OZONE FACT

Ozone washing of wine barrels saves wineries considerable money on the high costs of replacing contaminated wine barrels.

Typical Ozone Skid

