

## Winery Projects

### Vineyard 29

Sitting on the picturesque slopes above the Napa Valley, Vineyard 29 in St. Helena, CA is a technologically sophisticated winery that still hews to traditional wine making methods.

AXIOM ENGINEERS<sup>SM</sup> mechanical engineering services on this project included a microturbine cogeneration system, a waste heat driven adsorption chiller, and web-enabled controls. AXIOM ENGINEERS<sup>SM</sup> integrated many unique equipment and system elements into one cohesive efficient and state-of-the-art mechanical system. Our responsibilities included plumbing, HVAC, process piping systems, refrigeration, cogeneration, process controls, HVAC controls, commissioning, and start-up.

A very prestigious new winery in the Napa Valley, Vineyard 29 relies on 120 kW of Capstone Microturbines normal and emergency power. The power produced by the MT's is supplemented by utility power as needed. Waste heat from the MT's heat process water and drive a unique adsorption chilling system. Except for peak usage during full crush the microturbines will provide the winery's power.



Fermentation Tanks



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### Cardinale Winery Napa (Kendall-Jackson)

AXIOM ENGINEERS<sup>SM</sup> was involved in the engineering design and implementation of the HVAC, plumbing, process piping equipment, and fire protection systems on this project.

We furnished a mitigation study and coordinated with the Napa County Fire Department for variance for the buried barrel building access and egress, and the use of the Early Suppression – Fast Response sprinkler system.



Connector Station and Fermentation Tanks



The fermentation building at this facility was a PRE-ENGINEERED METAL BUILDING with wood exterior.



This 150,000 case earthen berm facility features underground barrel storage and fermentation tanks for energy efficiency and MINIMUM VISUAL IMPACT from Highway 29 in Napa Valley.

AXIOM ENGINEERS<sup>SM</sup> has completed the design for the HVAC, plumbing, fire protection, hot water and compressed air system.

### Laird Family Estates, Napa

After playing a major role in the planning and design phases of the new winery, which included fire design, HVAC, plumbing, process piping/equipment, AXIOM ENGINEERS<sup>SM</sup> was an integral part of the construction management team.



Outdoor Tanks at Laird Family Estates, Napa