

## Winery Projects

### Hannah Nicole Vineyards

Builder: Villa

Location: Contra Costa County, CA

Winery Type: Reds, Small Lot

Capacity: 25,000 Cases

AXIOM ENGINEERS<sup>SM</sup> designed the site utilities, water, sanitary and process waste, fire protection, LPG, septic system for sanitary waste and process waste treatment system, crush pad and outdoor fermentation tank area engineering, winery cooling and heating, barrel rooms and fermentation tanks, space conditioning of office, lab, wine tasting and hospitality areas, boiler systems, refrigeration systems, compressed air, CO<sup>2</sup> and night cooling ventilation, barrel work area ventilation, wine piping and process piping, control systems engineering, plumbing and process waste, fire protection sprinkler including water storage and fire pump.

### O'Neill Winery

Location: Reedley, CA

Capacity: 80,000 Tons at build out

Winery Type: Production, Crush and Fermentation

AXIOM ENGINEERS<sup>SM</sup> provided winery process and mechanical engineering facility services for the 10,000 ton 2008 wine grape crush, including a new 1000 ton refrigeration system. For 2010, 38 new red fermentation tanks will be added.



### Galatea Winery

Capacity: 20,000 cases initial

Location: Arroyo Grande, CA

Winery Type: Red & White, Small Lot

Architect: Integrated Structures

A unique multi-level, straw bale, concrete panel roof system facility.

### Rhys Vineyards

Location: Los Gatos, CA.

Winery Type: Pinot Noir Small Lot

Architect: Peterson Architects

Capacity: 25,000 Cases

A new underground winery facility with barrel sections, fermentation room and bottling operations located in the foothills of Los Gatos, CA. AXIOM ENGINEERS<sup>SM</sup> provided design services for the winery refrigeration and heating, plumbing and control systems.



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### La Jota Vineyards

Location: Anquin, CA

Winery Type: Red Wine, Small Lots

Architect: Bohlin Cywinski Jackson

Capacity: ~10,000 Cases

AXIOM ENGINEERS<sup>SM</sup> designed winery refrigeration, fermentation pavilion tanks and residual existing cooling loads in existing Cave, HVAC in offices, hospitality and tasting functions in existing retrofitted “Barn”, boiler systems and winery heating, compressed air system, work areas ventilation, toilet ventilation, process utility piping, plumbing, process waste, fire protection engineering catwalk design, California State Title 24 Code Compliance for envelope and mechanical systems.



### Lange Twins Wine Estates

Location: Lodi, CA

Capacity: 40,000 Tons

Winery Type: Production, Crush & Fermentation

AXIOM ENGINEERS<sup>SM</sup> designed Lange Twins Phases 1 & 2 which are part of a twenty year, multi phase project. This ambitious winery is the vision of a pair of fourth-generation farmers who want to secure a place in agriculture for the next generation with a higher value product. The winery offers custom crush capabilities, as well as bottling their own brands. Going from wine grape growers to wine makers is a team effort, however. AXIOM ENGINEERS<sup>SM</sup> has considerable experience in building wineries, and for this reason was chosen to design the utility piping, catwalk system, refrigeration system, compressed air system, the electrical systems, and the wine and must piping systems.

Future demands were considered during each step of the design process. AXIOM ENGINEERS<sup>SM</sup> designed a 12 Kv electrical distribution system capable of meeting the energy requirements twenty-five years out; the modularity of the refrigeration and compressed air systems will facilitate each planned expansion in the ensuing years. This year Lange Twins hopes to process 8,000 tons of grapes. Over the next twenty years the winery will expand its processing capabilities to 40,000 tons of grapes per year. This first phase entailed construction of a 23,667 sq ft building for wine tanks and storage, two settling ponds, a 960 sq ft office, grape press, truck ramp and parking lot. At build-out in 2025, the winery will cover about 25 acres with nine buildings, including a tasting room, totaling 118,283 square feet of space.