TankNet iPad controls

TankNET

Acrolon Technologies, based in Sonoma, California, produces TankNET control components and systems with a range of hardware and software options based on winery size, budget, process functions and technology. TankNET has an extensive U.S. winery customer list, with systems ranging from four tanks to 400 tanks, including ultra-premium Napa Valley wineries and the industry's largest companies, with products used at many E&J Gallo facilities.

Control hardware offers choices with the ability to mix and match components in any system. The TankNET PL-1 is an economical, user-friendly, wireless tank thermostat that offers standalone temperature control, networking for mobile access, fermentation tracking and alarm notifications. Bokisch Vineyards in Lodi installed PL-1 thermostats on each of its 16 stainless steel tanks that range in size from 600 to 5,100 gallons. The PL-1s are wired to a router located in the tank room that can be accessed wirelessly from any device. Winemaker Elyse Perry said, "We're using the controls on a very basic level, but it's really convenient for me to be able to check tank temperatures remotely."

The TankNET TC-1 controller provides temperature control with additional features and expansion options that include scheduling automatic pump-overs, tank volume level monitoring and stuck valve detection. Both controllers accept two temperature probes and Brix sensors.

TankNET offers two software options. TankNET Lite is a simple and affordable solution for small wineries that provides remote tank control, trending and alarm notifications. TankNET Professional is used for additional functions, such as scheduling pump-overs, to integrate with other winery control systems and with winemaking software databases, and provides more detailed information and reports on fermentation curves and data histories.

Silver Oak Cellars in Oakville installed 42 new tanks fabricated by Santa Rosa Stainless Steel in 2014 and 2015, ranging in size from 2,000 to 6,000 gallons. Each tank has its own pump and pump-over system fabricated by Burgstahler Machine Works. Each tank has a TC-1 controller, and the system is operated by TankNET Professional software, with monitoring and control options via desktop computer or mobile devices. Silver Oak cellarmaster Joe Ramirez said the system allows him to go online and access control systems at each of the company's four facilities in Napa and Sonoma counties.

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TankNET's basic controller/thermostat Model PL-1 on a tank at Bokisch Vineyards in Lodi

TankNet engineer and company president Paul Egidio said the company offers more custom-tailored panels with its PM-Series touchscreen controllers for projects where aesthetics are important or where control requirements may be more complex. These can serve multiple tanks per control panel (the PM-7000 panel can serve up to 100 tanks) and are used at Napa Valley wineries, including Rudd Oakville Estate, Promontory Winery, Palmaz Vineyards and Ashes and Diamonds Winery.

Rudd Estate uses a single TankNET PM-7000 controller to serve 12 concrete tanks, each with 819 gallons capacity. For aesthetic requirements, piping, pumps, electrical and control infrastructure are hidden underneath tank pads. The PM-7000 is inconspicuously mounted nearby on the wall of an arched walkway. Each tank has vertical dual-point temperature probes to monitor stratification, and pump-overs are scheduled with options for Venturi injection of oxygen and variable pump speed for preset spray coverage of the cap. Each tank is served by a single Belimo six-way characterized control valve with heating and cooling circuits hydraulically decoupled to provide automatic cooling and heating changeover.

For its 24 stainless steel tanks, with capacities of 819 gallons and 1,057 gallons, Rudd uses a PM-4000 controller mounted at the top of the catwalk for each set of six tanks on a tank pad. The PM-4000 performs the same functions for these tanks as the PM-7000 for the concrete tanks. All PM controllers connect via ethernet to an on-premise TankNET web server. All TankNet controllers operate standalone; thus, if remote access becomes unavailable, the winemaker can still fully manage the control system at the tank or at the panel.

TankNET offers the BP-7826 density sensor for continuous Brix measurement during fermentation and to detect deviations and provide alarms to prevent stuck fermentations. Palmaz Vineyards uses 32 of these probes and is the only commercial winery using them to date.

Select Tank Control Suppliers

Logix	Kirkland, WA	425-828-4149	www.logix-controls.com
Moon Valley Circuits	Glen Ellen, CA	707-996-4157	www.moonvalleycircuits.com
Placer Process Systems	Rocklin, CA	916-782-5212	www.placerprocesssystems.com
Refrigeration Technology Inc.	Middletown, CA	707-987-0500	www.rti2000.com
TankNET by Acrolon Technologies	Sonoma, CA	707-938-1300	www.acrolon.com