Temperature Regulation Case Study



Background

Aged to perfection, Asahi/America's Series 83 Electromni® electric actuator on an Omni® ball valve continue to uphold performance after initial installation in a Washington winery installed in 2004.



Problem

Recognizing the importance of proper temperature throughout the wine production process, a Washington winery sought ways to maximize control over temperature regulation of their system. The winery consists of approximately 24-40 tanks, ranging from 1,000-5,000 galls of wine per tank. Space and budget constraints did not warrant the use of the large, bulky actuators. Therefore, the compact Electromni® units provided an economical solution for the winery to easily automate their heating and cooling distribution loop system.

Solution

The winery ferments a variety of their wines in a jacketed stainless steel tanks. Each tank contains temperature regulating coils on the tanks' exterior. To maintain and regulate temperature, a medium is run through the distribution system to the coils, connected to the steel tanks. The conductive nature of the metal reacts to the medium and the temperature within the tank responds by increasing or decreasing as needed. America's Electromni® electrically actuated ball valves fit perfectly within the system and allowed operators to efficiently control the distribution of the medium.

The Electromni®'s were introduced to the winery in 2004 during an equipment upgrade. Since installation, additional Electromni®'s have been added through the processing system, due to the success of the initial install.

Asahi Advantage

- Low-cost maintenance and installation
- Leak-free and maintenance-free performance
- · Corrosion resistance
- Start-to-finish project assistance

Other Asahi Offerings

Asahi/America is a supplier of a wide range of valves, actuators, pipe, fittings, and welding equipment for high purity, commercial, industrial and environmental applications. Discover more at www.asahi-america.com

Applied Products



Series 83 Electromni® on Omni® Type-27 Valve

Standard Features

- PVC or CPVC Omni® Type-27 ball valve
- Standard models are 115 VAC thermally protected with single limit switch cam/coupling activated
- · Sealed weatherproof enclosure includes:
 - Flanged cover and based Type 4X rated enclosure with Nitrile flat gasket seal
 - Nitrile O-ring or gasket valve to actuator base seal
 - Nitrile motor mounting bolt seals
 - NPT threaded to base 90° elbow provides 1/2" NPT conduit entry with 6" color-coded wire leads

Motor Type

Unidirectional, single phase

Size

A83 3/8"-2" valves

Torque

120 in/lbs

Voltage

115 VAC

Series 83 Electromni® with PVC Omni® Type-27 Ball Valve







PVC and CPVC Omni® Type-27 Ball Valves

AMP Draw

2.1 amps

Temperature

Ambient temperatures up to 150°F

Switches

One single pole, double throw (15 amp rating)

Enclosures

Corrosion/weather proof - Type 4X

Series 83 Electromni® Electric Actuator

The Series 83 has been the actuator of choice for small quarter-turn ball valves since 1983. The Series 83 Electromni® remains compact and reliable with a signature blue cover and gray base. It boasts a Nema 4X type enclosure to meet today's industry standards. The flanged cover and baseplate design with a full gasket Nitrile seal enhances sealing performance to keep external water out of the actuator enclosure.

