

# Fluke 810 Vibration Tester keeps the good stuff flowing

## Application Note

### Testing Functions Case Study



At Alpenrose Dairy in Portland, Oregon, operators process raw milk into a dozen varieties of milk, six cultured products (cottage cheese and sour cream) and 31 flavors of ice cream. It's a challenge to keep the complex Alpenrose production facility, with its hundreds of motors, pumps and gearboxes, running butter-smooth. But thanks to the new Fluke 810 Vibration Tester, it's easier today to maintain Alpenrose as the cream of the crop.

This isn't your average dairy. Family owned and operated since 1916, Alpenrose Dairy, Inc. has evolved over time into a community entertainment center that includes Alpenrose Stadium, Dairyville (a replica of a western frontier town), a 600-seat opera house, a Quarter Midget racing arena and an Olympic-style bicycle track.

The hub of this high-profile enterprise is the production plant, churning out dairy products that get to market the day they leave the farm. Maintenance manager Eric Trummel and maintenance technician and electric motor expert Todd Toburen keep their fingers on the pulse of the plant.

In the US Navy, Toburen learned vibration analysis to find and diagnose electric motor problems. "We would take our

readings and send the data to Annapolis. Annapolis would compile tons of data bouncing off of different frequencies and give us a call back to tell us whether it was good or bad," Toburen said. "We would rewind and rebuild the motor and retest it, just to make sure what we sent out to the fleet was a good piece of equipment."

### Pumps, motors, gearboxes and more

In his five years at Alpenrose, Toburen has taken charge of the hundreds of pumps, motors, gearboxes, compressors and other equipment required to operate a midsize dairy plant.

"We've got equipment here that if it goes down, processing stops," he said. "If the bad part is a high-dollar item we don't have

**Tools:** 810 Vibration Tester

**Operator:** Alpenrose Dairy, Portland Oregon

**Measurements:** Vibration diagnostics on specific motor components

### When is vibration a problem?

Vibration in industrial equipment can be both a sign and a source of trouble. Other times, vibration just "goes with the territory" as a normal part of machine operation, and should not cause undue concern. But how can the plant maintenance professional tell the difference between acceptable, normal vibration, and the kind of vibration

that requires immediate attention to service or replacement of trouble equipment?

Machines that should not vibrate as part of normal operation are electric motors, rotary pumps and compressors, and fans and blowers. In these devices smoother operation is generally better, and a machine running with zero vibration is the ideal.

