

Sonic-Pro S3 Ultrasonic Flowmeter serves multiple applications

Application

At the Del Monte tomato processing plant in central California, project engineer Richard Koch needed to obtain flow measurements at various locations around the facility to ensure the proper function of critical system components. The numerous applications included the effluent, KOH caustic feed and discharge pipelines, various types of water from domestic to cooling tower water, and tomato sauces and juice. A non-invasive flow meter, capable of measuring without cutting into the plumbing, was important for the application.

Problem

One of the Del Monte applications required the flowmeter to measure a 50% Potassium Hydroxide solution on a 2 inch, 304 Stainless Steel tube mounted outdoors. To properly install and calibrate a transit time ultrasonic meter, the sound speed of the fluid must be known. However, most fluid sound speeds are unknown, especially custom chemical blends and concentrations. Since the 50% Potassium Hydroxide solution was not a standard fluid listed in the meter's menu, the meter was initially configured for a "custom" fluid, with an estimated sound speed, and installed on the pipe. After the transducers were installed on the pipe, the fluid's actual speed of sound was measured directly by the meter and displayed on the display screen. Then the meter was re-configured for the correct sound speed and the transducers were re-positioned for high accuracy measurements.

The Sonic-Pro's ability to accurately test and continuously display the fluid's speed of sound eliminated the need to send fluid samples to the lab and await speed-of-sound test results.

Solution

The portable Sonic-Pro clamp-on hybrid flowmeter. The ability to measure multiple pipe applications, various fluids, and pre-save multiple configurations for fast and easy installations made the Sonic-Pro a clear choice.

