Interested in Trending Foam?

Drexelbrook offers an accurate and reliable Foam Level Measurement Solution for the Beer and Wine Industry

A time proven industry standard for Interface Level measurement solves another difficult Foam Measurement problem where other level technologies failed.

Technology advancements in the past 10 – 15 years have widened the breath of level product offerings. Customers who carefully evaluate the different level technologies and how they apply to their particular application are often rewarded with improved accuracies and much lower cost of ownership.

Foam measurement has been an industry challenge for many decades. Some need to measure foam while other wish to ignore foam. Foam itself has many measurement challenges, is the foam light or dense, does the foam change it’s characteristics during the process, is the foam generated from conductive or insulating based process liquids?

AMETEK Drexelbrook’s RF Admittance technology based systems have proven to successfully allow a measurement that provides foam blanket thickness to a globally recognized brewery. By using two sanitary, 3A Approved, sensing element designs; one to measure the liquid and ignore the foam, a second system to measure the total level of liquid and foam together, this dual system has successfully provided a reliable foam blanket thickness measurement in Fermentor vessels by subtracting liquid level from total level.

Other Technologies:

- **Pressure and Differential Pressure:**
  The accepted industry standard for level measurement in this application has been the age-old and age-worn Pressure and Differential Pressure technology. But since the foam only represents a very small portion of head pressure, it is impossible to derive any sense of accuracy or reliability from this technology. Foam density changes obviously would cause inaccuracies in this measurement category.


- **Radar and Ultrasonic:**
  Non-contact technologies, which are most popular today, such as Radar and Ultrasonic, do not produce predictable or reliable measurements with foam – regardless of what many believe. Light foams may be completely ignored; dense foam may completely reflect both radar signals and Ultrasonic signals. Or, in some cases the foam will completely absorb the through air transmissions. Technologies that may produce completely acceptable results on one run may fail on the next.

- **Wire-guided radar:**
  More properly known as Time Domain Reflectometry (TDR) systems, claims the ability to provide both total level and interface level from one device will report the foam level, but will not see a significant (and measurable) difference between the highly reflective foam and the highly reflective liquid below.

- **Floats:**
  Float type technologies are good for sinking through the foam, but try to find a float that will float on foam of varying densities!

RF Admittance is the only technology that has proven to solve all of these problems in Fermentor vessels. A dual RF system; one to measure the liquid/foam interface and a second RF system to measure the total level of liquid and foam provides two signal outputs that can be taken to a controller such as a DCS, or PLC to provide a differential output that represents the foam trend.

An RF Admittance dual system measurement is easy to install and commission. Users of this system are amazed at the measurement quality, and the reliability of the system. And there is no periodic maintenance, or moving parts to wear out or break. Calibration results are easily validated. Best of all, sanitary RF sensors are easily Cleaned-In-Place.

RF Admittance Foam Trending systems are available with either dual analog 4-20mA outputs; with HART or Honeywell protocol options for continuous level output, or high-level foam alarm/control with a discrete output with an RF Point Level control system.

Contact your local AMETEK Drexelbrook representative for more information about this unique measurement for Fermentor vessels.