

## **Cold-Filtered Solutions**



Beer manufacturers use cold filtering to eliminate sediment, bacteria, and yeast from beer.

Manufacturers claim that this process, unlike heat pasteurization, preserves the true taste of beer.

Pressure sensors are used in beer and other beverage manufacturing to hydrostatically monitor tank level and to measure build-up across filters. Sanitary fittings and equipment are required so that the process fluid will not become contaminated.

A brewery in Upstate, NY, measured the pressure drop across a 6 ft. diameter yeast filter to signal necessary cleaning or replacement of the filter.

The brewer was using a differential pressure transmitter with two oil-filled remote seals to measure the pressure drop. To facilitate Clean in Place (CIP), sanitary

pressure connections on both sides of the filter are required. These specific remote seals had very thin diaphragms that, depending on the corrosiveness and consistency of the media, can be eroded and punctured. This caused oil leaks and, in turn, erroneous readings.

Viatran's Model 351 sanitary pressure transmitter solved the brewer's problem. The Model 351 uses a pressure diaphragm 10 - 20 times thicker than the previous remote seals, greatly reducing the risk of corrosion and purification.

The Model 351 also has no oil fill. By replacing the differential transmitter system with two gage transmitters, failure or contamination due to oil leaks was eliminated. The 4-20 mA output from the two gage pressure transmitters (0-100 PSIS) feeds into a standard subtractor module.

The output signal, representing the output difference of the two transmitters, is connected to a circular chart recorder that indicates rising pressure as the filter gets dirty. Viatran's Model 351 pressure transmitters proved to be the solution to a persistent and expensive problem for this manufacturer. Downtime was significantly reduced; and more accurate and reliable pressure measurements resulted. Viatran manufactures a complete line of products for your processing and sanitary applications.



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