



Industry – Dairy Processing

Application – Product Loss

Get control of Product Loss / Control your Efficiencies / Control your Risk / Save Money

Product – Quadbeam Technologies S20 Immersion Suspended Solids Sensor.

With international milk solids prices forecast to hit record highs and a drive for a more sustainable industry, getting control of product loss in the Dairy Industry has never been so important.

Using Quadbeam Technologies Ltd suspended solids sensors provides accurate, reliable and repeatable online monitoring. Monitoring that is used by plant managers as part of their performance improvement programs by reducing process waste. Monitoring that can alert operators to a minor flange, joint or hatch leaks or a leaking valve or pump gland. Monitoring that can alert to a major spill and therefore averting significant costs in waste processing or worse, significant excess municipal sewer charges.

Gaining greater control in any or all of these areas can result in savings of many thousands of dollars.

Using continuous monitoring of waste streams, Dairy Processing Plants can overlay solids levels data with that of flow and time. From these graphs loss can be equated to events in the plant and systems developed to minimize solids loss. The graphical information will alert to loss when a planned event is not happening with the loss coming from a leak or spill. Alarms at predetermined levels can alert operators of significant spills or leaks, saving large amounts of product which means large sums of money.

While competitive models stop working or drift as a result of leaking or fouling Quadbeam Technologies Sensors do not. Designed to cope with the rigours of the highly efficient New Zealand Dairy Industry, Quadbeam's Sensors have a "one piece" construction, there are no lenses to leak as a result of changing temperature providing a very reliable instrument. Four beams of attenuating light is used ratio metrically to ensure the sensor self compensates as it becomes fouled or ages ensuring an accurate and repeatable signal.

Installation

A simple calibration process will ensure the system is calibrated to the product it is monitoring. Then install the [Quadbeam S20 Immersion Sensor](#) into the plant drain, preferably where flow is monitored also. The Sensor's transmitter will provide a 4-20mA output to connect to a PLC or DCS.

Alarms can be set on Transmitter relays or within the plant system.

Because of the Quadbeam's ratio-metric four beam method of measurement the instrument effectively self compensates for variation in temperature and fouling of the fingers, and the longer term ageing of electronics, providing an accurate and repeatable signal.

Returns

This type of monitoring is now standard in many advanced Dairy processing plants. Large savings have been made by catching small leaking valves or pumps long before maintenance checks, right through to early warning of large comprehensive product spills. Savings can be as high as tens of thousands of dollars in one event.

