Bubble Tube



Features

- An ideal solution for liquid sulphur.
- Contactless transmitter– not in direct contact with the sulphur
- Instrumentation can be installed in an easyaccess location.
- Low-cost and reliable level measurement technology used for a long time.

The Bubble Tube Level Measurement is a self-contained instrument for a precise level indication in a liquid sulphur melting tank. It is a low-cost system that measures the liquid level by density and pressure.

It is particularly applicable in sulphur melting tanks, where we meet:

- A sulphur flour-polluted head space that can crystallize in/on a transmitter.
- Foaming environment that can blind a transmitter.
- High process temperatures.
- No side connections available for a flangemounted transmitter.
- A corrosive environment that should not have direct contact with the transmitter.

Bubble tube systems have been utilized for decades - their simplistic operation, coupled with the latest technology in electronic instruments, makes these systems the preferred method of level measurement in the sulphur melting tank.

How does it work?

All Bubble Level systems consist of 2 parts:

- · A dip pipe immersed in the liquid sulphur.
- A control cabinet holding a pressure regulator, a flow meter, and a pressure indicator.

The Bubble Tube works by measuring the amount of pressure needed in order to release a constant airflow through the dip pipe submerged in the liquid sulphur. Thus, the system requires air supply at all times. The air enters the control cabinet, goes through the dip pipe, and leaves it from the bottom, producing air bubbles. Changes in the measured level cause the air pressure in the bubble tube to build up or drop. An integral pressure indicator measures the backpressure and transfers the signal to the DCS, which translates the pressure signal received into the level in the tank. This method allows for a clean level measurement as liquid sulphur will not enter and block piping or other parts of the instrument.



