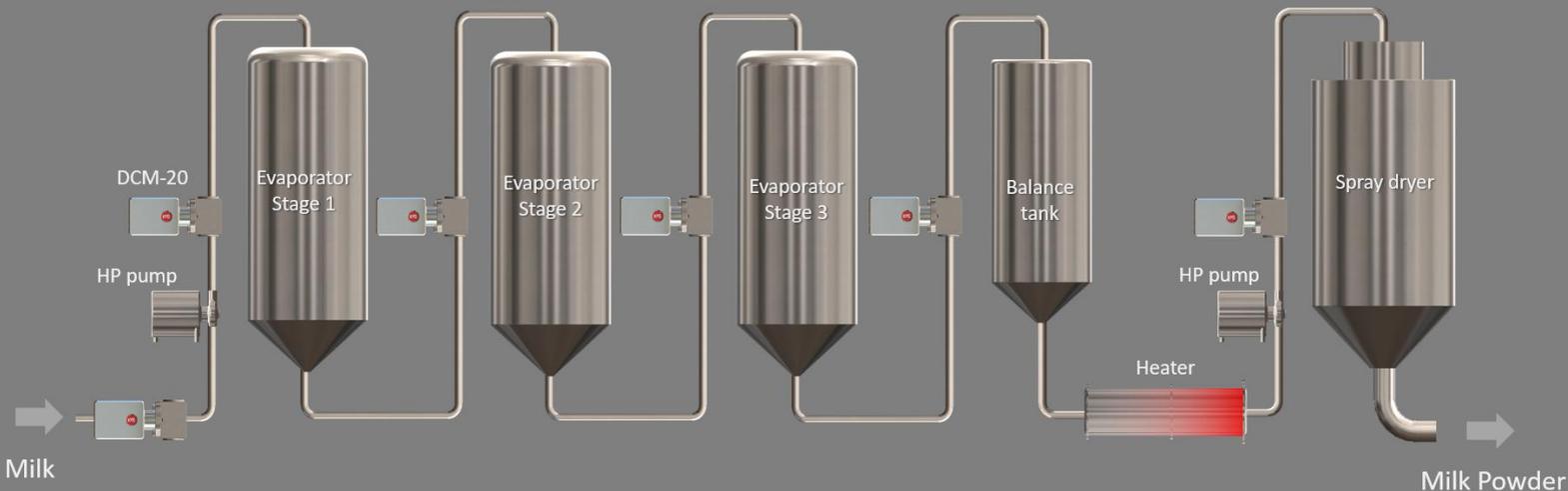


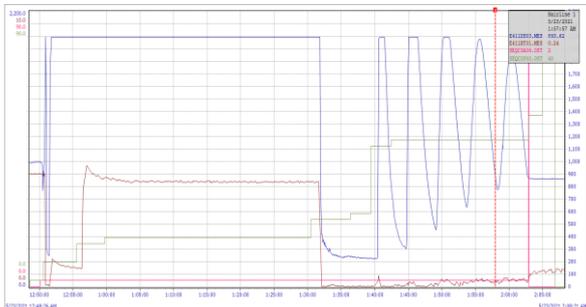
Inline optical Brix monitors drive Dairy evaporators and Spray dryers



Applications

Food: milk powder, coffee, tea, eggs, cereal, spices, flavorings, blood, starch and starch derivatives, vitamins, enzymes, stevia, nutraceutical, colorings, animal feed, etc.

Pharmaceutical: antibiotics, pharma grade ingredients, additives



Process

For high volume plants process control and downtime reduction whilst increasing efficiency are paramount. Therefore, KxS inline optical Brix monitor is designed to provide a reliable and robust instrumentation performance.

DCM-20 provides monitoring of the milk concentrate feed from the evaporator to the Spray Dryer to allow accurate feed flow and temperature adjustments to ensure optimum moisture content in the finished milk powders.

In order to achieve a consistent spray dryer feed, real-time Brix measurements are utilized in the evaporation outlet. Continuous measurements at each evaporator stage give valuable information of respective calandria performance.

A measurement at the first inlet defines incoming milk/skim/whey/blend total dissolved solids (TDS including fat). A two stage homogenise before drying ensures that globules do not re-agglomerate in reconstituted whole milk powder.

Installation notes

DCM-20 inline Brix monitor, and more importantly in combination with its proprietary flow cell housing, stands out with test reports presenting proof of cleanability of the entire integration mechanics after CIP.

The Brix monitor meets 3-A design standards, is uniquely EHEDG certified, and pressure rated for 55 bar, 800 psi processes while also CIP clean compatible in RO and UF concentrate solids measurement. The distinct design offers scalable integration complying with EHEDG certification for a wide range of process pipe sizes.

Compared to a u-tube densitometer, the compact optical Brix monitor is easily mounted without restrictions by pipe orientation. The Brix monitor is mounted in either vertical or horizontal pipe sections. The recommended flow velocity is 1 m/s to maintain a clean measurement window.

In the event of high liquid concentration, low process flow or long CIP intervals, a steam wash system is considered to keep the measurement window clean.

Product recommendation

The entire combination of the compact Inline Brix monitor DCM-20-H15 and single-piece flow cell housing SFC-H15-HPF is EHEDG certified and meets 3-A design standards with 3-A symbol authorization for scalable 1"..."4" pipe size integration. The Brix monitor is mounted in vertical or horizontal pipe sections. Retrofits in existing pipe bend connections are also accommodated for.

Measurement range: 0-100 Brix
Accuracy: +/-0.10 Brix
CIP compatible

Optional Modular Connection Unit MCU with relays for automatic steam wash system

