



BUCKAU-WOLF INTELLIGENT PROCESSING

More transparency in the operation of batch-type centrifugals:
better quality of sugar • higher productivity
optimum operational safety



BWS Technologie

MORE EFFICIENCY THROUGH TRANSPARENCY

BWS's innovative concept for operating centrifugals can now display even more process parameters in real time, and therefore permits steering interventions during the decisive phases. Through intelligent process control, the production process is rendered safer and more efficient; constant high product quality throughout the entire sugar campaign is thus guaranteed even if the quality of the massecuite varies.

Buckau-Wolf Radar Sensor

The Buckau-Wolf Radar Sensor allows constant measurement and control of the massecuite layer in the basket of Buckau-Wolf batch centrifugals. Thanks to modern FMCW (Frequency Modulated Continuous Wave Radar) radar technology exact measurements can be carried out during a large dynamic range even under difficult conditions.

The measurements are made in real time throughout the entire process. In this way the thickness of the massecuite layers in following batches can be exactly reproduced. The measurement is done contact-free at a defined distance from the massecuite layer, thus guaranteeing the highest food hygiene at all times.

The Buckau-Wolf Radar Sensor can be easily installed on all BWS batch-type centrifugals operated by a Buckau-Wolf control system.

Important Advantages

- ▶ Broad measurement spectrum with high resolution (in the millimeter range)
- ▶ Easy installation through 2-wire connection technology
- ▶ Maintenance-free
- ▶ Easy exchange in case of service
- ▶ Remote-controlled automatic cleaning

Buckau-Wolf Color Change Detector

Buckau-Wolf's innovative Color Change Detector offers, in combination with the newest generation of Buckau-Wolf's control system, additional opportunities for optimization in the sugar production process. Up to now the placement of washing media has been made according to time, number of revolutions per minute of the centrifugal and data and experience from previous campaigns. Now the ideal point in time can be identified exactly during the process. The washing media can thus be placed at precisely the right moment in the optimal amount according to the layer thickness and quality of the massecuite.

The patented Color Change Detector developed by BWS identifies the exact moment of the color change, which is displayed in a process curve on the BWS monitor. Through the precise tuning of the following process steps, the highest possible degree of crystal recovery is attained and the yield is increased significantly.

Prerequisites for installing the BWS Color Change Detector are the BWS control system with a multi-panel as well as massecuite steering via an ultrasonic or radar sensor.

Important Advantages

- ▶ Real-time identification of color change and transparency in the production process
- ▶ Improved operational safety and maximum sugar yield



- ▶ Optimal steering of placement of washing media regarding time and amount
- ▶ Robust design and easy accessibility
- ▶ Optimum moment for set of green/ white runoff
- ▶ Also available as a retrofit package

Buckau-Wolf J-Control

Buckau-Wolf J-Control is a patented software component developed by Buckau-Wolf which, in connection with the Buckau-Wolf control system, monitors and visualizes the separation behavior of the massecuite in real time.

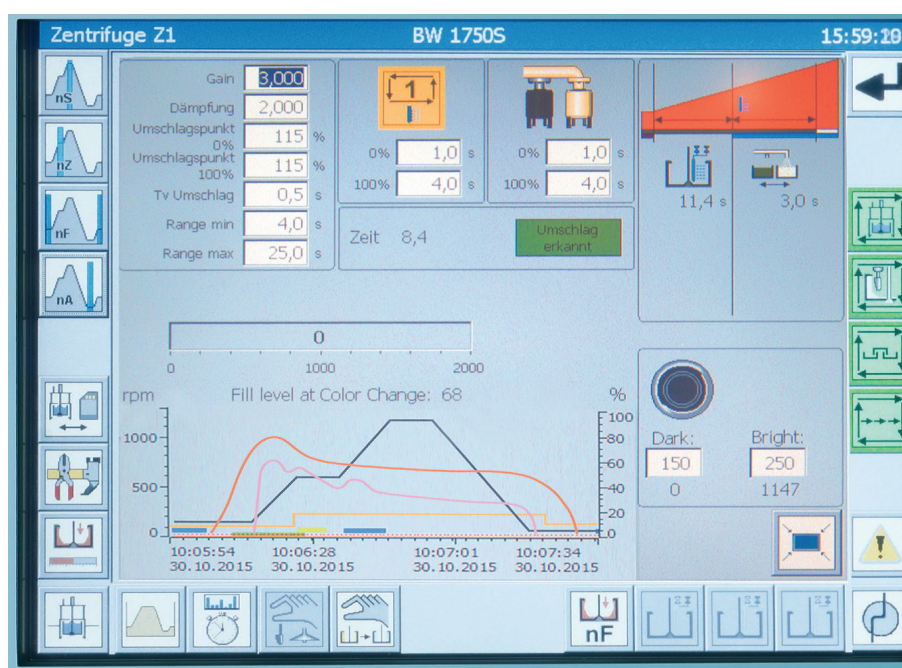
The system is designed for Buckau-Wolf batch centrifugals; it indicates at which spinning speed the separation starts, how long it lasts and how well the washing media penetrate the massecuite. Thereby the washing media can be placed at the right moment depending on the quality of the massecuite, which results in significantly improved crystal recovery, better color and less residual moisture.

With BWS J-Control the operator can use washing media in a more targeted and more economical

way and thus reduce energy consumption. In addition BWS J-Control increases operating safety by permitting the danger of an instability of the centrifugal basket to be detected early. Prerequisites for the use of BWS J-Control are inverter of the type S150 with firmware version 4.3 or higher and Panel version MP377/ TP1200 or higher.

Important Advantages

- ▶ Optimal adjustment of placement and amount of washing media to massecuite quality
- ▶ The penetration of washing media through the massecuite can be monitored
- ▶ The amount of washing media is reduced
- ▶ Higher degree of crystal recovery and better color
- ▶ Reduced residual moisture
- ▶ More operational safety and energy saving



SERVICE UNLIMITED

Buckau-Wolf machines and devices are used by our customers worldwide. And so is our service. Whenever you need us, we are there to help and give advice.

Our Services

- ▶ Process consultation for planning and operating machinery
- ▶ Assembly and startup/commissioning
- ▶ 24/7 spare parts service during sugar campaign
- ▶ Maintenance and repair
- ▶ Machine diagnosis
- ▶ Inspection with eddy-current technology

Our market is the world

BWS Technologie GmbH is a globally active, owner-managed company with a long tradition specializing in special machinery. We are experts in industrial mixing and separation processes for a variety of applications. We offer our customers the reliability of a supplier that has been established for decades, modern control technology, competent staff and flexible service.

Whether with spare parts, maintenance, inspection, security conversions or rental machines – **qualified, reliable and flexible**

BWS TECHNOLOGIE GMBH

Nordstraße 41
41515 Grevenbroich
Germany

Phone: +49 2181 6020
Fax: +49 2181 602342

www.bws-technologie.de

buckau@bws-technologie.de



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