
Bühler MultiSens
Your digital eye on
product quality
Innovations for a **better world.**
BÜHLER

Online quality monitoring **MultiSens**
Make every ton of wheat count



From grain intake to flour bagging, every minute of production affects your quality, yield, and profitability. Yet many mills still rely on offline lab checks and delayed results to guide critical process decisions.

40+
years of experience with online quality monitoring

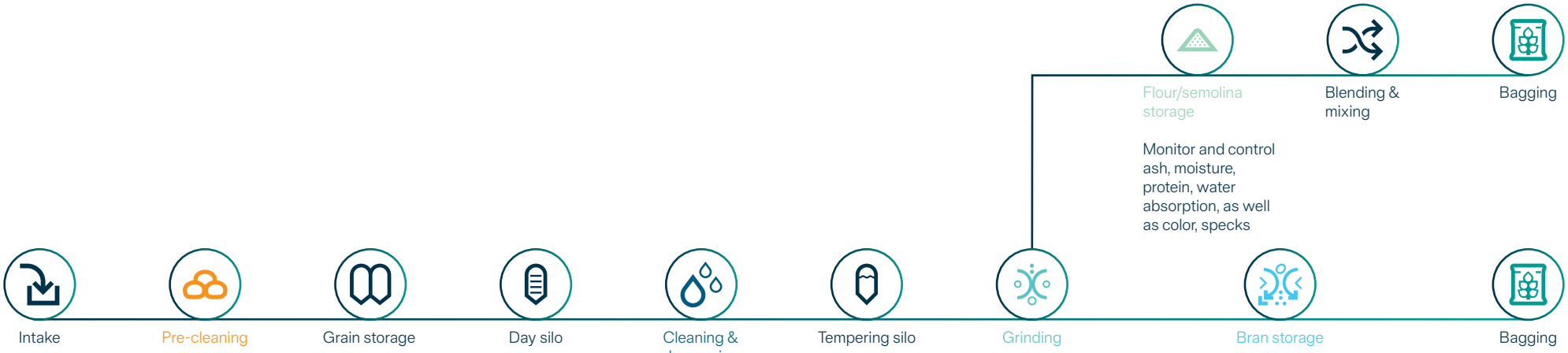
Increase profitability
Reduce off-spec flour and stabilize yield

Improve competitiveness
Deliver reliably consistent quality that meets customer specs every day, every shift

De-risk operations
Fewer surprises, better traceability, and more robust quality compliance

Online quality monitoring **MultiSens**
Unlock full value from grain intake to flour bagging

Manage and control critical quality points in grain mills to keep stable product quality, increase yield and profitability.



Online quality monitoring **MultiSens**
Real-time quality insight in grain mills

1000+
Bühler online sensors implemented globally

With Online Quality Monitoring MultiSens:

- Avoid unnecessary wheat and flour losses by receiving **decision support** – clear dashboards and alerts allow operators to react immediately
- Reduce over-spec production and unnecessary safety buffers by using continuous NIR and camera measurements together with **automatic process control loops**
- Ensure **consistent quality** between shifts and raw material lots by smartly blending incoming grain and controlling final flour characteristics
- **Gain ability** to answer tough customer and auditor questions quickly



What's in it for you?

- More **stable flour quality,** less blending and rework
- Higher **process efficiency** and better use of raw materials
- A concrete step toward a data-driven, **autonomous mill**
- **Investment pays back** usually in less than a year

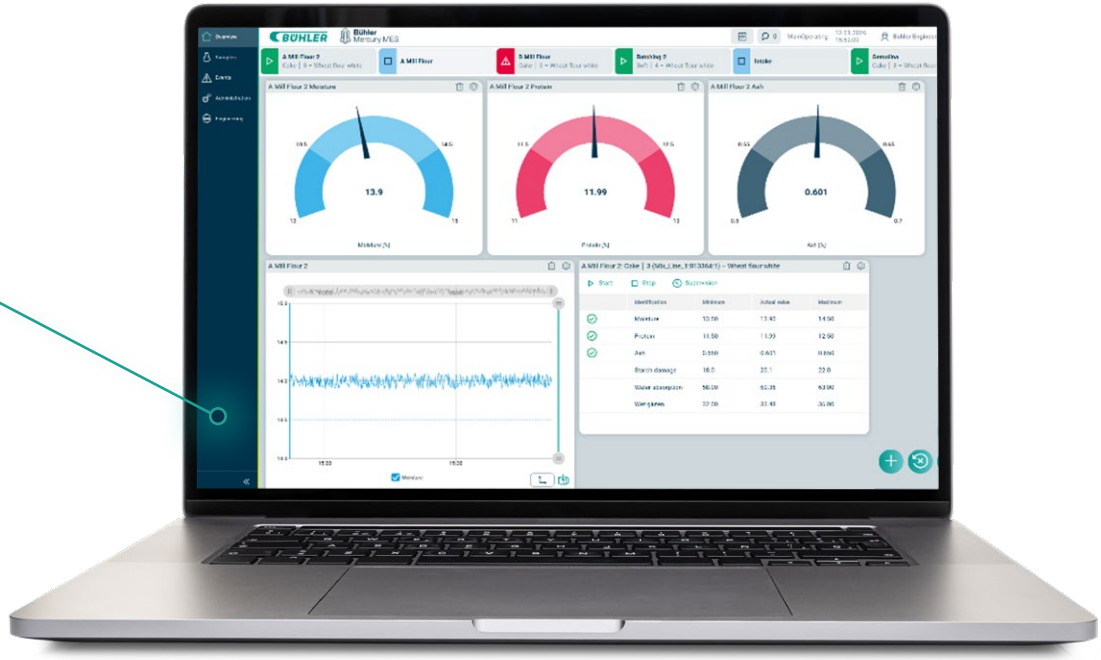
Online quality monitoring **MultiSens**
What is MultiSens?

MultiSens gives you continuous, visibility on product quality.

This modular and scalable solution is designed specifically for wheat mills and combines a dedicated software platform with reliable sensor units into one integrated package engineered to work seamlessly.

MultiSens software platform PASA

Sensor data processing & visualization



NIR sensor unit MYRH

For Near-Infrared data acquisition



Camera unit MYHB

For visual image acquisition



Online quality monitoring **MultiSens**
Reliable and accurate process monitoring

Bühler MultiSens connects all online quality sensors in a plant through one software-based platform.

MultiSens provides a complete solution that adds value from day one. It enables a highly convenient usage of online quality data.

Key advantages

- Continuous monitoring and quality recording ensuring **24/7 traceability**
- Super fast predictions within milliseconds allow real-time **process control**
- Easy to integrate to existing PLC/SCADA systems, Mercury MES, and Bühler Insights
- **Web-based user interface** enabling multiple users and customizable dashboards
- Built-in error analytics
- Recipe, job, sample management
- Convenient **offset wizard** for comparison with mill laboratory

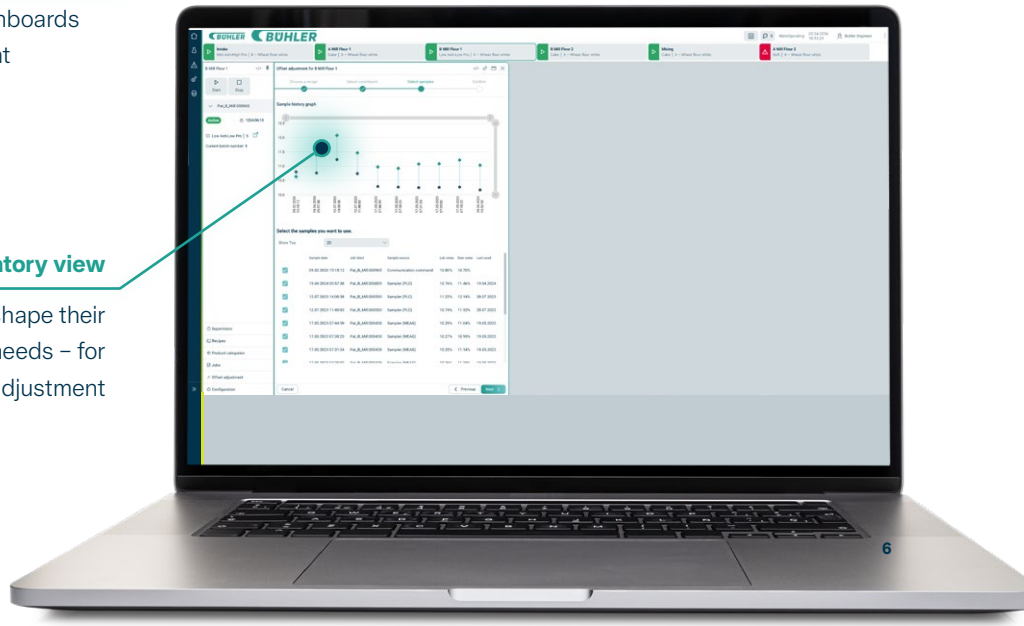


Operators view

Millers can adjust their dashboards for each critical control point

Laboratory view

Quality personnel can shape their dashboards for their specific needs – for example optimized for offset adjustment



Online NIR measurement unit
Fast and precise quality data acquisition in real-time

Bühler uses best-on-market solution for real-time NIR data acquisition to provide best value to wheat mills.

Online NIR measurement unit MYRH C-17 is specifically designed for demanding industrial process environment being compact, practical, and highly sensor unit.



High precision industrial NIR spectrometer

Mountable up to 5 m away from the measurement position

Robust and compact NIR contact measuring head

Designed for harsh industrial environments and field-proven



Convenient remote control

Supported by status information, sampling has never been easier

Online color and specks measurement unit
High resolution camera for real-time visual inspection

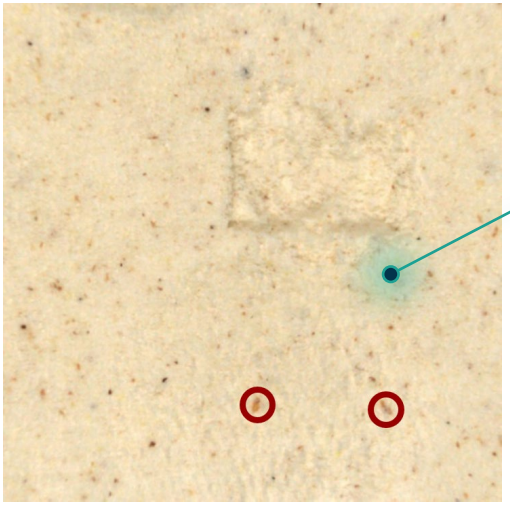
Bühler online color and specks measurement unit MYHB is dedicated to visual characteristics of grain powders in demanding industrial process environment.

The sensor unit is effortless to integrate into existing process line and provides highly precise color data pixel by pixel.



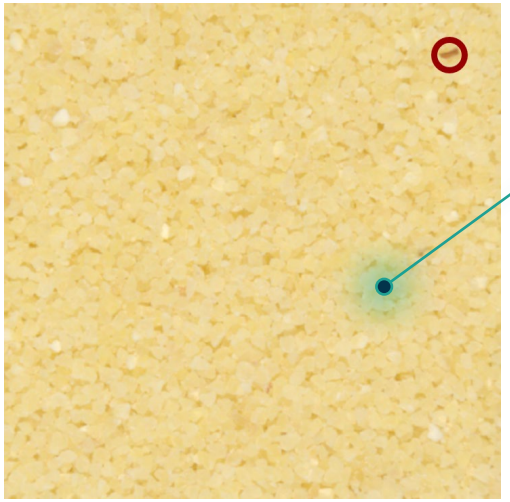
Industrial vision camera

Designed for 24/7 operation with image capture every 2 seconds



High resolution images

With resolution of 35 µm per pixel, specks counted down to < = 80 µm



Precise color evaluation

RGB values translated into CIE L*a*b* with an accuracy of ΔL = 0.2 being much better than a trained human eye



All our services

Smart plant operations

Mercury MES connects grain mill data for traceability and control, while MultiSens helps stabilize quality and automate operations.

Digital services on Bühler Insights

Bühler's **Smart Mill** ecosystem integrates digital services like **QMS** and **OEE** to improve quality management, enable data-driven decisions, and support continuous mill optimization.



around Sensor Systems

Hardware upgrade & retrofit packages

Full compatibility with existing sensor systems enables seamless upgrades and retrofits, helping modernize lines step by step, improve measurement performance, and protect existing investments.

Installation & commissioning

Bühler's global service network supports installation, commissioning, training, and maintenance to ensure your MultiSens system performs reliably from day one.

Software & calibration packages

Bühler's software and calibration packages keep MultiSens measurements precise, processes stable, and quality decisions based on trusted data.

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