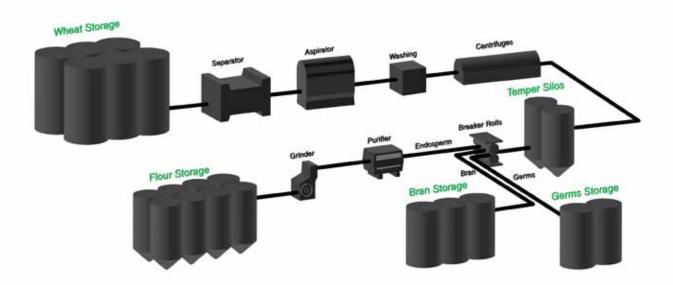


# Food

## Flour production





#### Wheat storage

Application: Wheat is classified by grade and each grade is stored separately in different silos.

Challenges: Wheat is stored in large silos, generating a great deal of dust during the filling operation. Because different grades of wheat should not be mixed together in the flour production process, the end user needs to continuously monitor the volume of each grade of wheat remaining in the silos. The large silo size, normally with multiple emptying points, promotes the creation of irregular formations and buildup. This makes it nearly impossible to accurately measure the volume of inventory remaining in the silo. The BinMaster 3DLevelScanner's unique dust-penetrating technology delivers accurate and reliable real-time measurements of the volume of stored wheat, even in harsh environments. It also provides a real-time 3D image of the distribution of grains inside the silo. This permits early detection of buildup and rat holes, facilitating the scheduling of timely maintenance and cleaning to avoid unexpected interruptions of the flour production process and associated losses in time and money.

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## **Bran Grain Storage**

**Application:** Bran, like wheat germ, is a by-product of the wheat milling process and is used to enrich breads (notably muffins) and breakfast cereals and to produce whole wheat flour. Following milling, the bran is stored in silos before being shipped to bakeries and other entities for further processing.

**Challenges:** Because bran is an essential ingredient for the production of whole wheat flour as well as for various processes in bakeries and for consumers, flour manufacturers need to accurately monitor the bran inventory in order to avoid unexpected interruptions to the flour production process or delivery schedules and their associated losses in time and money.



### **Wheat Germ Storage**

**Application:** Wheat germ, like bran, is a by-product of wheat milling and serves as an additive for baked goods and foods. Following the milling process, it is stored in silos prior to being shipped to bakeries or locations for further processing.

**Challenges:** Wheat germ is sold and shipped in bulk. Flour manufacturers need to accurately monitor the volume of inventory remaining in the silo to assure that packaging and delivery schedules can be met without unexpected interruptions, thereby avoiding losses in time and money.



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#### Flour Storage

Application: Flour is stored in silos both for bulk shipping and bagging.

Challenges: Accurate volume tracking of the flour levels in silos is crucial to ensure efficient production. Since the flour generates a great deal of dust during both the filling and emptying processes, and since it tends to form buildup on the silo walls, true estimates of the volume are hard to achieve. The BinMaster 3DLevelScanner's unique dust-penetrating technology delivers accurate and reliable real-time measurements of the volume of flour even under these challenging conditions. BinMaster's 3D visualization tool allows the end user to see the allocation of material inside the silos, including that of buildup. These features improve the end users' inventory management and control capabilities and permit the timely scheduling of maintenance and cleaning in order to avoid unexpected interruptions of delivery schedules.



#### **Tempered Wheat Silos**

Application: Tempered wheat is stored in bins for a specific time, depending on the type of wheat.

**Challenges:** The humid condition of the material, along with the time it lingers inside the vessel, creates buildup. The additional dust generated during process makes measuring content difficult.



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