

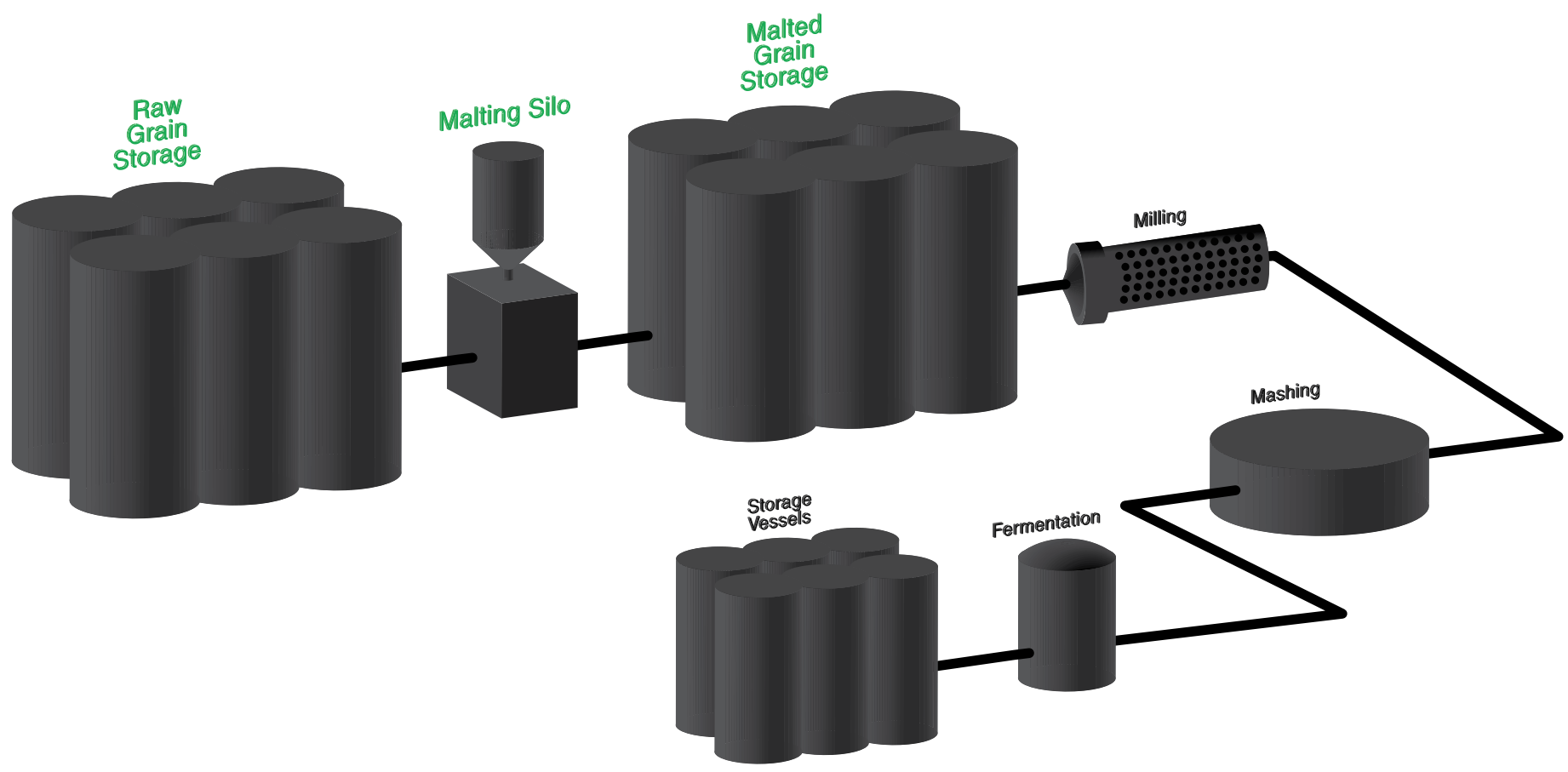
Beer Production

Industry Applications Series



*Changing the market
from level to volume*

Beer Production Diagram



Raw Grains Storage

Application: Prior to being processed the grains are delivered to the plant and stored in big silos to assure continuous production process.

Challenges: Silos can reach more than 15m in diameter and over 40m in height. Knowing the exact amount of raw material entering the malting process is the key to tracking and controlling production efficiency. Raw materials delivery times can vary considerably, therefore it is essential to assure the raw material is sufficient for the production plan. Only APM systems, using multiple point surface mapping technology, overcomes all of these problems delivering accurate, reliable and continuous non contact volume measurements. 3D visualization allows early detection of the build-ups in order to control them and allow timely maintenance.

Malted Grains Storage

Application: Malted grains (grist)/distiller's rice are stored in large silos prior to entering the beer brewing process.

Challenges: Malted grains / distiller's rice have a tendency to form build-ups and rat holes, and also create a great deal of dust during the filling process. Only the APM 3DLevelScanner system can generate accurate volume measurement for process management and inventory control requirements under such difficult conditions due to its unique dust-penetrating technology and 3D surface mapping capabilities. The 3DLevel Scanner's 3D visualization tool provides a real-time 3D display showing the actual distribution of the silo contents, allowing early detection of build build-ups and rat holes as they occur. This permits scheduling of timely maintenance inside the silos and avoids unexpected process stoppages and associated losses in time and money.

Malting Silo

Application: The seeds go through a chemical and malting process before being further processed.

Challenges: The humid condition of the cooked grains together with the time the grains remain stored inside the malting silo promotes the formation of build-ups on the silo walls. The additional dust generated during the process further complicates accurate measurement of the true volume of the inventory. The 3DLevelScanner reliably delivers accurate volume measurements regardless of the harsh storage environment, and its 3D visualization tool generates a real-time 3D display of the malted grains' distribution inside the silo, allowing early detection of material build-ups. This enables the end-user to schedule timely maintenance to avoid unexpected interruptions in the process and associated losses in time and money.



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