

FOOD

Salted Snacks



S O L U T I O N O V E R V I E W

Combination of Bulk Loading Systems

Three different types of bulk unloading systems were provided for complete flexibility to accommodate a variety of bulk delivery vehicles. A vacuum/pressure transfer system was engineered to unload hopper-bottom railcars and trucks, which were anticipated for receipt of whole kernel corn. Airslide railcars transfer either sugar or flour to silos utilizing a portable unloader and a combination of aeration and conveying pressure blowers. Any materials that are received in pressure differential railcars and trucks can be unloaded by the pressure blowers.

Dilute and Dense Pressure Conveying Systems

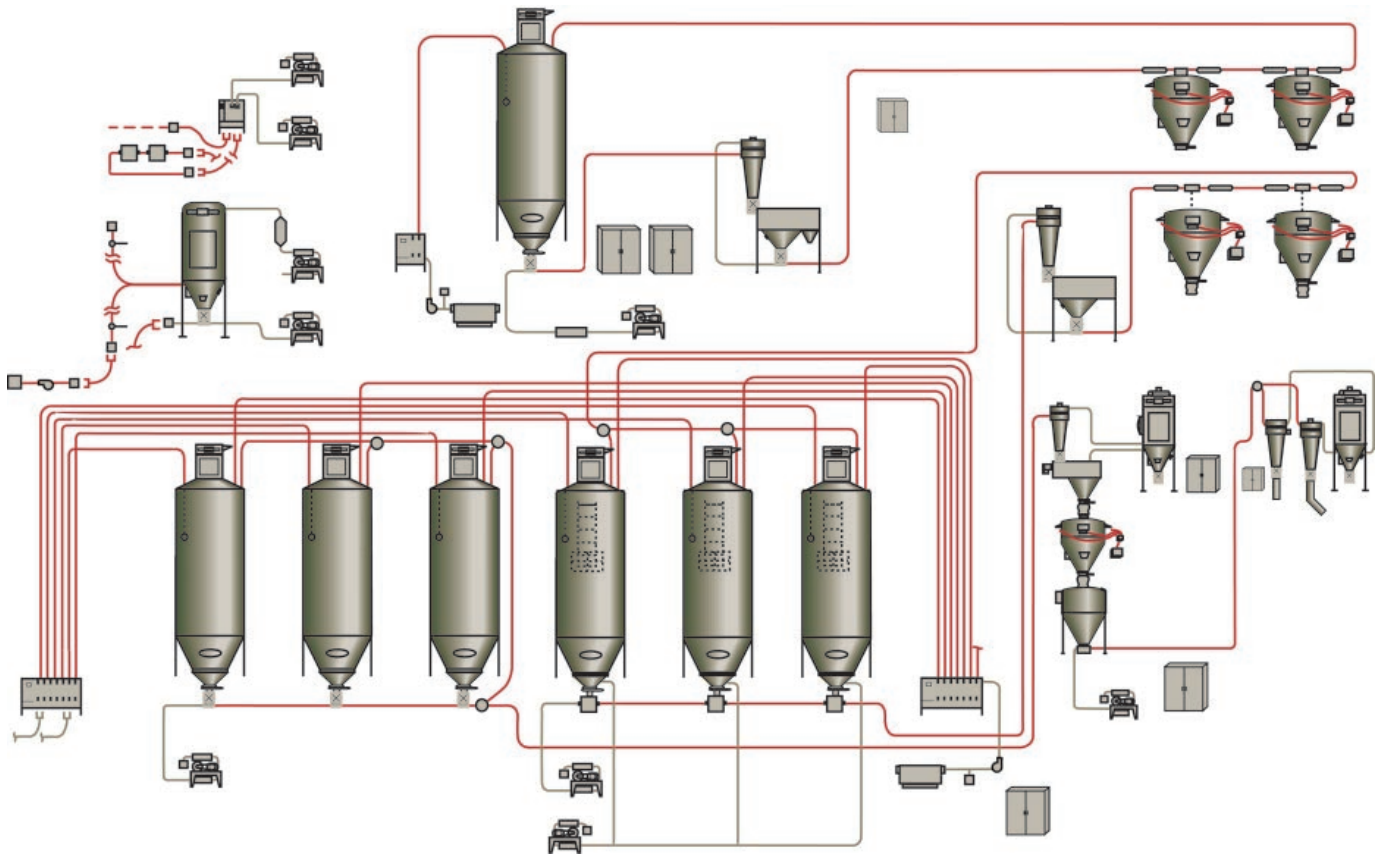
Dilute conveying systems, utilizing rotary airlocks and positive displacement blowers, were engineered to convey flour and

granulated sugar. These were also engineered to transfer whole kernel corn a short distance from unloading to silos and then from silos to scaling. In addition, Shick engineered a semi-dense pressure conveying system to transfer whole kernel corn approximately 300 feet from scaling to process. Even though Shick subcontracted for the supply of the dense phase pressure vessel, Shick engineered it into the process, integrated it into the control system and provided start-up and training. By taking complete system responsibility, we were able to deliver whole kernel corn to the customer's process with a minimum of material breakage.

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PROCESS DIAGRAM



Final Product: Variety of Snacks

Project Scope:

- Railcar Unloading
- Truck Unloading
- Bulk Storage (7) 3,000 Ft³ Silos
- Bulk Pneumatic Transfer Sifting and Scaling
- Local and Central Dust Collection
- Fines Removal from Whole Kernel Corn
- Conditioning of Silo Void Space and Conveying Air
- PLC Controlled System with Local Operator Interface

Materials Handled:

- Flour
- Whole Kernel Corn
- Granulated Sugar

Purchasing Rationale:

New Plant



WORLD HEADQUARTERS

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