

Compact mixing plant

with integrated, highly efficient container system

A leading producer of bakery ingredients contracted Daxner with the engineering, delivery and installation of a compact mixing plant with a decoupled mixing and bagging process. The state-of-the-art production facility offers maximized flexibility, productivity, as well as a cost-efficient production process.



Complete view of the mixing line: controll screening machine, VIB&PRESS, big bag product intake station, mixer, IBC docking station sowie IBC container

PRESS RELEASE | PROJECT Compact mixing plant for bakery & pastry ingredients

PRESS RELEASE | PROJECT COMPACT MIXING PLANT

The comprehensive plant concept involves the entire production process and mainly consists of a mixing and bagging line including an aspiration for both production lines. This made-to-measure solution from Daxner represents an investment into an innovative future and enables our customer to further expand the supply of baking ingredients for bread and pastries in the Americas.

MIXING LINE

Product intake

This system offers all benefits of a gravimetric mixing line as well as a decoupled bagging process via containers. The entire mixing process takes place on 3 cubic meters with a batch weight of 1,500kg and a density of 0.5. The raw materials arrive in bags or Big bags, a pallet lift transports them to the top level of the mixing line.

The precommissioned components are supplied through a bag and Big bag intake station combined with a control screening machine Vib&Press. This configuration of the intake station offers maximized flexibility and safety, since both stations are equipped with screening machines. An aspiration system keeps the air clean of dust.



big bag product intake station



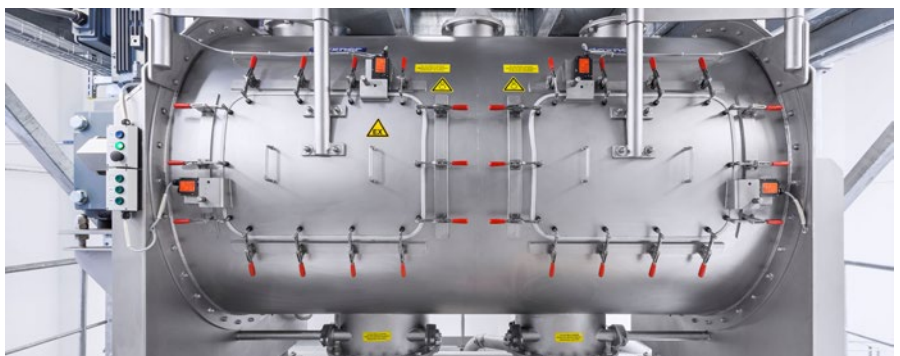
Mixer

The right mixer choice plays an essential role during the planning process of a mixing line. Therefore, Daxner took various aspects, such as the product properties and the mixing tasks at hand into consideration and decided on a ploughshare mixer. This solution guarantees a high mixing accuracy and homogeneity of the end product whilst providing a gentle production process with short mixing times.

An integrated fluid bed further optimizes the mixing result. Its hygienic design with large doors and easy accessibility is up to date with the latest EHEDG guidelines; the longest mixing time is 5 min.

Intermediate containers

The precommissioned ingredients are temporarily stored in so-called mixing pre-containers.



plough share mixer

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These containers provide flexibility in the production process with a performance almost twice as efficient as conventional mixers without pre-containers. The components are stored there while the previous batch is still being mixed. Once the mixer is finished and emptied, the pre-weighed batch is filled directly into the mixer. Therefore, this process offers a higher batch number and throughput due to the faster emptying and the buffer volume.



container filling

range of the equipment offers easy accessibility and simple maintenance.

The mixing line fulfills all HACCP and ATEX guidelines.

Container filling

After the mixing process, the batch is emptied into one or several containers. This concept benefits of the short changeover times between batches. The containers are transported to the bagging stations by a forklift.

pneumatic two-way flap into a waste bagging spout. The 20kg bags are attached to a bagging spout with a diameter of 300mm with an inflatable sleeve. A speed-controlled rotary valve and a pneumatic hose valve in the bagging station dose the finished product.

BAGGING STATION

The bagging stations are also gravimetric. After opening the manual flap, the containers are emptied. The dosed blend passes a horizontal screening machine and an all-metal-separator before reaching the bag filling and weighing system daxPVS. Contaminated product is disposed of via a

The compact and easy clean bagging system combine a simple, semi-automated operation with a high throughput. At the same time, this system offers a high-standard quality control of the product. The low-height bagging station only consists of vertical surfaces for easier cleaning. The dosing unit is equipped with an extension device. Moreover, the ar-