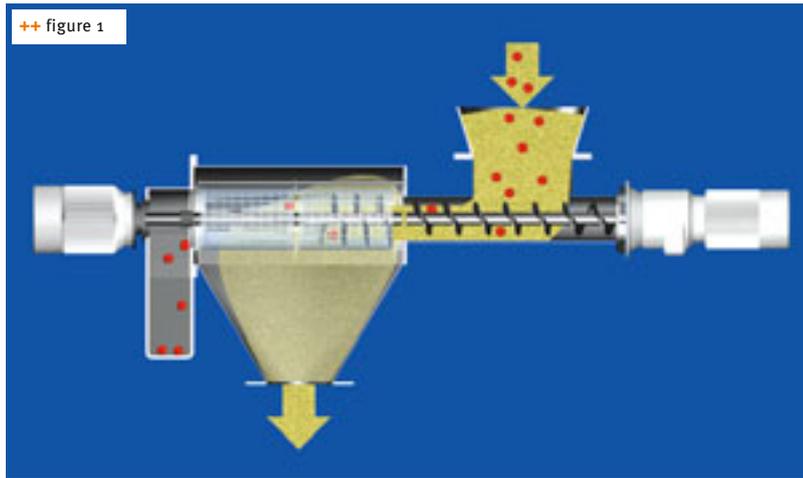


Cyclone screening technology ensures the quality of baked goods

SUPERIOR RAW MATERIALS WITHOUT ANY CONTAMINANTS ARE A PREREQUISITE FOR HYGIENIC PRODUCTION. THEREFORE, MODERN SCREENERS MONITOR THE COMPONENTS BEFORE, DURING AND AFTER PROCESSING. THEY ALSO ENSURE THAT HACCP IS ADHERED TO AND REQUIREMENTS ARE SATISFIED WITH REGARD TO THE IFS STANDARD AND EU178 DIRECTIVE



++ figure 1
3-D graphic of a cyclone screener type DA

++ figure 2
Control screening directly upon delivery with silo vehicles

++ figure 3
Loading sacks using a double feeding hopper with control screening

++ figure 4
Inline screening



++ figure 2
Control screening directly upon delivery with silo vehicles

+ These screening systems ensure the quality of the end products in the fresh-baked and non-perishable baked goods sectors, where bulk solids or liquids are processed. They protect them from foreign materials and contaminants before, during and after production. As an important component in material handling systems, screening systems make a substantial contribution towards ensuring quality.

Examples of interesting applications:

- +** control screening
- +** segregating foreign particles
- +** breaking up clumps
- +** separation
- +** aeration
- +** recovery
- +** fractionation

Cyclone screening – a milestone in screening technology

The invention of cyclone screening by AZO has opened up new dimensions in screening. After six decades of consistent, ongoing development, augmented by a constant flow of new

ideas, cyclone screening technology is today, in widespread use throughout the world. Thousands of users apply it to safeguard quality standards in manufacturing (see figure 1).

TW 650 for control screening upon delivery with silo vehicles

The TW screener monitors all free-flowing, bulk solids in powder form in closed, pneumatic conveying lines. It operates first and foremost as a preliminary screen on the conveying line between the silo vehicle and storage silo. The screener effectively prevents contaminants or lumps from getting into the silos. This additional check at entry improves both safety and quality (see figure 2).

Vibrating screen and vibrating grits with breaking device for feeding products from sacks

When feeding individual components to the automatic process, there must be safeguards to prevent any contaminants from getting into the process. Preliminary screens in feeding hoppers, big bags or container discharge stations already keep out residues from packaging materials and

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foreign particles when products are being charged. Vibrating screens assist the flow of non-free-flowing bulk solids. Vibrating grits with breaking device break up clumps carefully. Vibrating screens are also available with automatic segregation of foreign particles (see figure 3).

Control screening with the original type E

With their compact design, it is easy to integrate cyclone screeners into production processes. This also means fixed

installation is possible since the machine itself runs without vibration. Cyclone screeners operate in closed systems without generating dust. The free-floating screen fabric is self-cleaning and reduces the need for maintenance considerably. Even products with a high moisture and fat content can be screened without difficulty.

Products are frequently screened immediately upon discharge from the silo and then fed directly into a vacuum weighing system (see figure 4). ▶

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++ figure 5
Control screening and aeration prior to kneading

Various-sized models with screen cartridges made of nylon or antistatic carbon screen fabric for fine mesh sizes or of wire mesh or chromium-nickel steel for coarse mesh sizes open up a wealth of potential applications for cyclone screeners. The screeners are available in mild steel with an epoxy resin coating and a chromium-nickel steel line with a variety of surface finishes.



++ figure 7
Compact installation in pneumatic vacuum conveying systems



++ figure 6
Cyclone screener with self-dosing, easy to inspect and clean

In certain situations, the raw materials can be screened with a cyclone screener immediately prior to the kneading process. This cuts the costs involved in complying with hygiene regulations. When charging kneading machines, the screeners also ensure that the flour is aerated (see figure 5).

The worldwide patented type DA cyclone screening technology with self-dosing

Crucial advantages of the DA screener with self-dosing are the simple handling and the low overall height. No additional dosing unit is needed with the result that these screeners can also be easily integrated into existing feeding systems, even when there is little space. Another highlight is that this system is easy to clean and maintain. Both the screw conveyor and the entire screen basket can be removed in next to no time without the need for tools.

This means: replacing screen baskets during maintenance or when changing products is faster (see figure 6).

Type FA cyclone screeners in closed conveying lines

The type FA cyclone screener is used directly for control screening, protective screening, fractionating, segregating foreign particles, breaking up clumps and aerating products in pneumatic vacuum conveying systems. These screeners can be used throughout the entire production process – regardless of whether used before or during processing (see figure 7).

Control screening and dosing

There are now a whole range of cyclone screeners that cover almost all potential applications in the baking industry. +++

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