



Bühler Conveyor
Dryer Hygienic
Construction.

**Engineered for
optimal food
safety.**



Food Safety. A Global Challenge.

In today's connected world, food safety concerns can cross borders in an instant, with outbreaks and recalls impacting people and brands worldwide. As global guidelines grow ever more rigorous, food processors face mounting pressure to prove every step of their process is safe and reliable. Learn how Bühler meets these challenges head-on, setting new benchmarks in hygienic design and supporting you in exceeding the highest international safety standards.

Why food safety matters.

Food safety is the foundation of trust between processors and consumers. As global concerns around foodborne illnesses and stricter regulations increase, the need for proven, science-backed food safety measures has never been greater. At Bühler, we place consumer health at the forefront, ensuring that every process is designed to prevent contamination, eliminate pathogens, and ultimately deliver safe, high-quality food. Protecting people and brands from future food safety risks is not just a priority, it's our responsibility.

How we address it.

Hygienic design is a pillar of our strategy to ensure food and feed safety across our value chains. Our conveyor dryers are developed with advanced hygienic construction principles that make cleaning and maintenance straightforward, reducing the risk of microbial growth and cross-contamination.

These hygienic principles were developed in collaboration with several leading food producers and are outlined in a report titled "One Voice for Hygienic Equipment Design in Low-Moisture Foods," published by PMMI (The Association for Packaging and Processing Technologies).

The value of food safety in key figures

- 420,000 deaths globally from contaminated food each year
- 40% of the recalls originated by bacteria are from salmonella
- 25% of the raw materials are contaminated by mycotoxins from mold
- 100% increase of food product recalls in US since 2002
- >\$10 million cost of 1/3 of recalls
- 30 % losses and waste in the food chain

As the only conveyor dryer manufacturer involved in this initiative, Bühler is uniquely qualified in best practices and processes to reduce risk and enhance compliance with various international regulations, standards, and guidelines.

By prioritizing hygienic design in every detail, Bühler helps food processors not only achieve the highest standards of safety and compliance, but also protect the health of their consumers, every step of the way.

Hygienic Constructions and Food Safety Features.

Ease of Cleaning and Maintenance.



Cleaning access

Access to the entire dryer is at floor level, without the need for a perimeter platform, easing routine cleaning or inspection. Full height doors are also included in the turnover section.



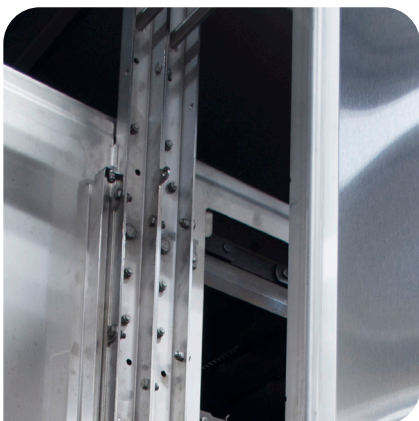
Stand-off mounting points

Surface to surface contact is minimized with standoff spacers in key locations such as latches, motors mounts, air seals, product contact curtains. These gaps allow ease of brush or blow down for faster cleaning and eliminate buildup points.



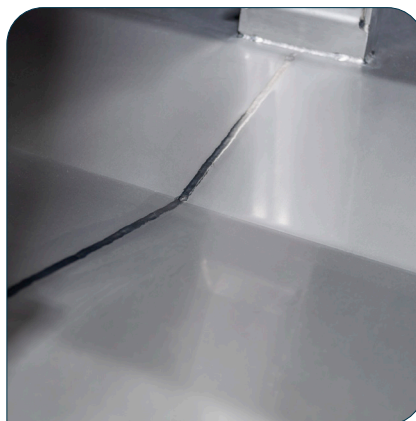
External hygienic features

Food safety and hygiene extend to dryer exterior, including standoff handles, open frame drive train mounts. Hygienic design extended to sloped roof, and angled leg plates for ease of sweeping.



Open channel structure

Formed rigid open channel structure replaces older common square tube designs that provide unseen hollow spaces that defy cleaning and harbor bacteria.



Advanced TIG welding

Entire dryer structure is finished with fully passivated precision TIG welding. This makes a smooth and clean joint and suppresses corrosion or buildup.



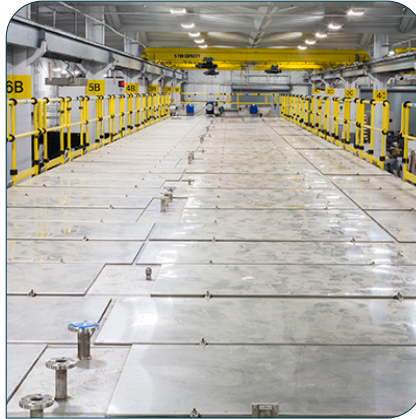
Food safe machine guards

Machine guards are all hygienic round rod open grids for maximum hygiene and safety, eliminating solid flats, screens, or expanded metal systems which prevent cleaning or trap fines.



Sloped design

Interior surfaces are sloped to eliminate buildup points in key dryer areas, including above the product, turnover zones, and the lower floor of the heat chamber. Risk areas where frame members meet the floor feature additional sloped weldments to prevent buildup pockets.



Fully welded enclosure

100% continuous welded enclosure means doors and panels prevent any moisture or bacteria from entering insulated spaces.



Continuous fines removal

Fines generated during the process are continuously removed from not just the dryer floor, but the plenums and turnover as well.



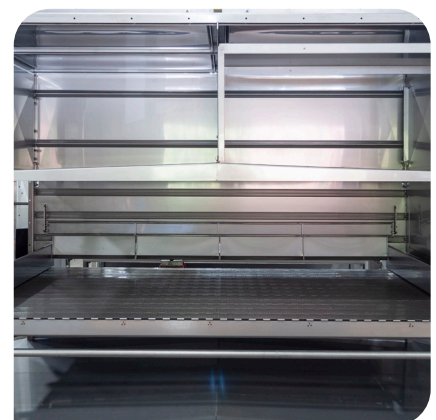
Food safe seals

Older fiber-based seals and product guard wear strips are replaced with food grade silicone, eliminating buildup on porous materials. Seals are blue to aid in detection.



Food safe metal finish

All sheet metal is 32 Ra finished, eliminating need for swirling or other finishing whose surface scratches.



Condensation prevention

Fully insulated floors and turnover sections are provided to prevent condensation from chilled surfaces. Interior roofs are sloped to the side to prevent dripping on products during process disruptions.



“Fit-for-purpose design is not about over-engineering the equipment, it is about implementing specific features that are absolutely necessary to produce safe food and which enable efficient cleaning.”

Edyta Margas,
Food and Feed Safety Leader,
Bühler Group

Hygienic Construction for every application. **Suitable for your product and process.**



Ceres.

The Ceres RTE breakfast cereals dryer uses a continuous belt-wash system. This allows for belt cleaning during production instead of manual wet cleaning, increasing both efficiency and cleaning effectiveness.



Solis.

Cleanable, hygienic conveyor dryers lower the risk of pathogen contamination, like Salmonella, in petfood. They also improve efficiency by making cleaning and maintenance simpler, supporting product safety.



AeroRoast.

Hygienic, easy-to-clean conveyor dryers help prevent mold and allergen cross-contamination in nuts. This ensures product safety and consistent quality by minimizing residue buildup and meeting food safety regulations.



AeroDry.

Microbial contamination such as bacterial pathogens, mold, and mycotoxins present high risk when processing organic matter such as fruits and vegetables. AeroDry conveyor dryer is constructed with smooth, easy-to-clean surfaces and crevice-free construction, minimizing microbial and foreign matter risks.

Bühler

100 Aeroglide Drive
Cary, NC 27511 USA

T +1 919 851 2000
F +1 919 851 6029

info.dryingsolutions@buhlergroup.com
buhlergroup.com/drying