

Thermal Processing Solutions for a Dynamic World.



The science of drying. **Our expertise.**

Revolutionizing thermal processing involves more than equipment. It relies on thorough comprehension of the science behind drying. How upstream and downstream processes affect color, moisture removal, and flavor. How automation and digital tools lead to better quality, energy efficiency, and productivity. How the right partner can create the right solution to increase profits while decreasing overall operating costs.

For more than seven decades, processors have turned to Bühler for the research, technology, and experience needed to gain a competitive edge. The world's largest manufacturer of conveyor dryers, roasters, toasters, and expanders, Bühler innovations in dryer design have changed the industry. With unrivaled processing knowledge and value-added services like training, energy audits, digital services, and both process and product development, Bühler helps its customers differentiate themselves in an ever-changing marketplace.



Engineering customer success. **A global market approach.**

A trusted resource for many of the world's leading processors and most recognized brands, Bühler has engineered and installed more than 2,500 drying systems worldwide. Backed by this global network, a multi-disciplinary team assures success from initial design meetings through equipment manufacturing, installation, and start up. Invaluable services like fast parts delivery and technical support, process evaluations, and refurbishments or expansions maximize uptime, capacity, and efficiency for a variety of products.



Food.

Balancing thermal proficiency with ingenuity, Bühler conveyor dryers give ready-to-eat cereals, fruits and vegetables, nuts, seeds, and snacks trademark quality and flavor profiles, while assuring safety and higher yields.



Feed.

A leading technology partner for companion food, aquafeed, and pet treat processors, Bühler offers exclusive hygienic design features that make cleaning faster and easier, improve productivity, and help prevent costly recalls.



Industrial Materials.

Robust equipment withstands high temperatures and harsh industrial environments, while providing the precise moisture control essential for high-quality synthetic rubber, fiber, polymers, minerals, and chemicals.

In the region for the region. **Global presence - local expertise.**

140 Countries
98 Service stations
28 Manufacturing sites
11,000 Employees

North America

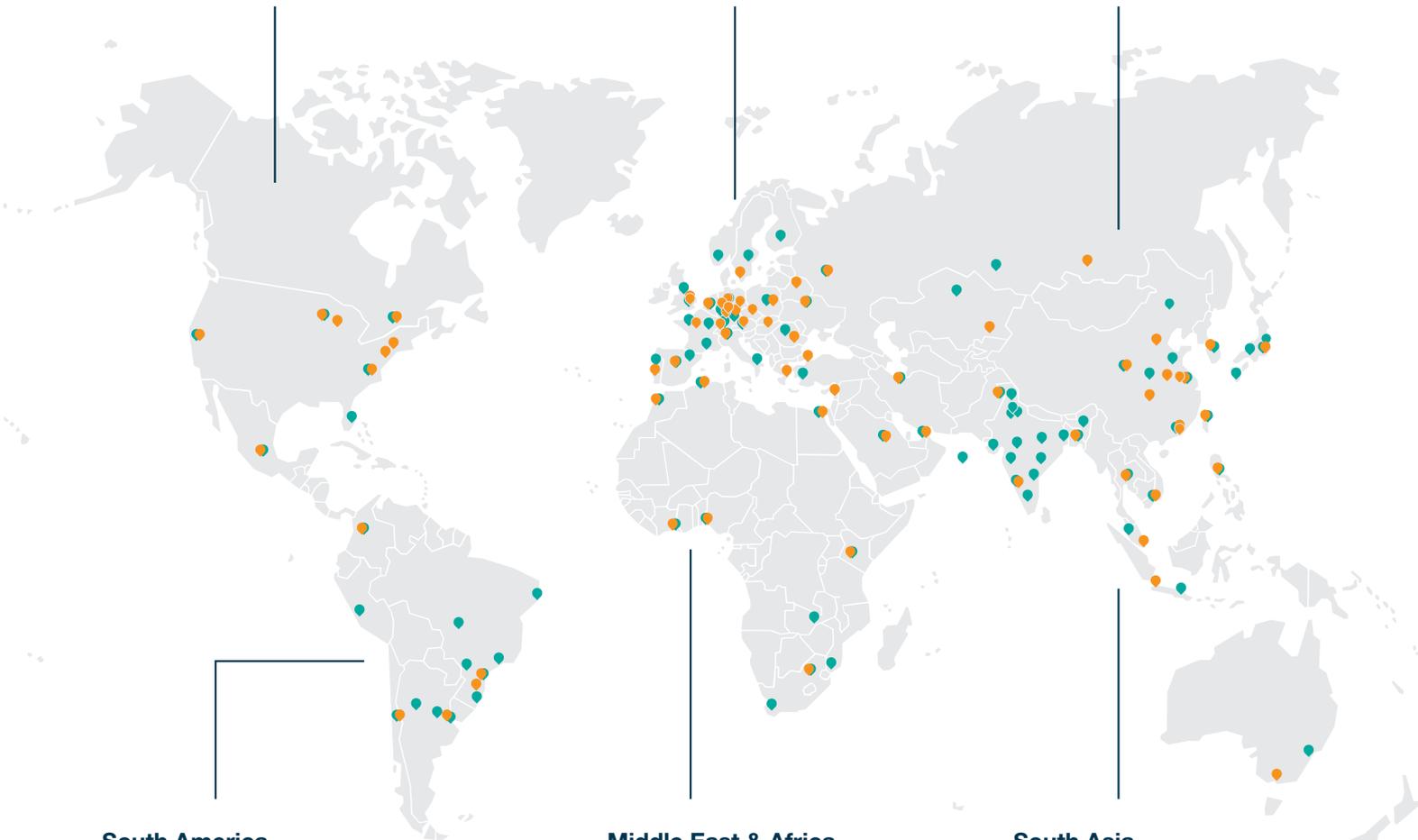
8 Sales Offices
8 Service Stations
3 Manufacturing Sites

Europe

26 Sales Offices
26 Service Stations
13 Manufacturing Sites

Asia

19 Sales Offices
22 Service Stations
7 Manufacturing Sites



South America

5 Sales Offices
12 Service Stations
2 Manufacturing Sites

Middle East & Africa

14 Sales Offices
15 Service Stations
2 Manufacturing Sites

South Asia

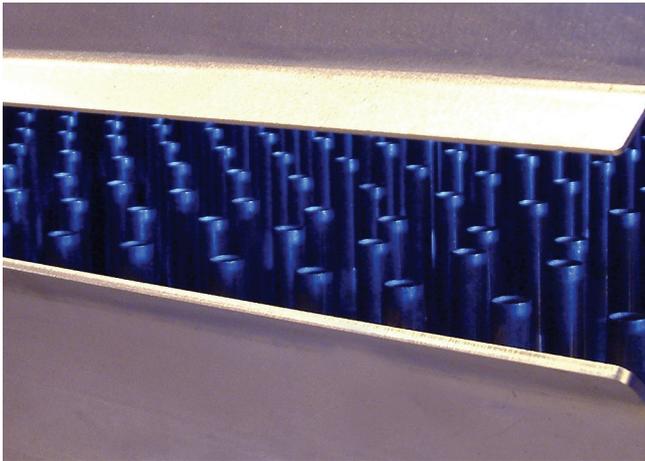
5 Sales Offices
15 Service Stations
1 Manufacturing Site

Innovating the thermal process. **Adding value through design.**



Bühler's modular equipment designs make shipping and installation more cost-effective.

A market leader, Bühler is recognized globally for craftsmanship, industry-changing research, and development, plus expert engineering to tailor systems to strict process specifications. Thanks to world-class testing and manufacturing facilities, Bühler sets the standard for safety, reliability, and innovations that build value for processors. This pioneering approach and can-do attitude has led to products that consistently exceed expectations.



AeroDry Impingement Oven



AeroToast Fluid Bed Processor

Drying

Efficient and purpose-built, Bühler conveyor dryers combine the flexibility of single-pass, multi-pass, and multi-stage configurations with hygienic design that minimizes cross-contamination. AeroDry proves ideal for cereals, fruits, vegetables, snacks, and industrial materials, while Ceres Plus significantly reduces the cleaning time and maintenance required for RTE coated cereals. For companion products, Solis affords high performance and lower product contamination risks for processors.

Roasting

With its unique dual-plenum technology, AeroRoast precisely and efficiently dry roasts and cools peanuts, tree nuts, seeds, vegetables, and ingredients, which rely on incomparable quality, texture, color, and taste.

Toasting

AeroToast harnesses impingement fluidization technology to toast cereals, snack foods, bread crumbs, and tobacco. Pairing high heat and high velocity air, the AeroToast imparts uniform color, texture, and size with less energy consumption.

Expanding

By expanding products with hot air instead of oil, AeroExpander produces healthier, reduced-fat snacks as it decreases operating costs, cleaning time, and product shipping fees since snack pellets can be delivered and shipped unexpanded, and then expanded locally.

Improving

To optimize the thermal process, all Bühler dryers can incorporate a range of ancillary technologies including feeders, hoppers, spreading devices, and custom breakers or picker-and-rake assemblies for proper feeding, mixing, and size reduction.



Pelleted snack products before and after hot air expansion on the AeroExpander.

Diversifying products for every need. The right solution for the right application.



By taking time to know a business and how it operates, Bühler not only provides the best solution for every processing need, but assures that solution works exactly as expected.

Optimal conveyor dryer technologies.

Market	AeroDry	Ceres Plus	Solis	AeroRoast	AeroToast	AeroExpander
RTE Cereal	•	•		•	•	
Snacks	•				•	•
Nuts and seeds	•			•		
Fruits	•					
Vegetables	•			•		
Food ingredients	•			•	•	
Aquafeed	•		•			
Pet food	•		•			
Synthetic fiber	•					
Polymers and rubber	•					
Chemicals and catalysts	•				•	
Industrial materials	•					

Digitizing for transparency and sustainability. Enabling data-driven decision making.

Today's challenge to balance lower operating costs with greater food safety makes digital processing solutions imperative. Bühler combines cutting-edge automation with a suite of digital services to seamlessly connect IIoT (Industrial Internet of Things) devices for real-time system control and remote management from any web-connected device.

- Real-time production data capture and secure storage for transparency throughout processing, as well as supply chain tracking
- More sustainable operation with astute environmental practices and higher profitability
- Autonomous control for cost savings and efficiency gains that operators cannot match
- Sensor-based technology to constantly monitor each process for assured food safety
- Continuous moisture control and immediate adjustments for higher yields
- Recipe management to achieve target product specs and uniformity without wasting energy
- Remote system checks and troubleshooting to minimize downtime or product loss



Revolutionizing equipment design. **Advancing food safety and quality.**

Driven by a company-wide food safety culture, a full-time food safety staff, and international testing labs, Bühler constantly improves dryer design to not only meet current requirements, but anticipate future regulations. In fact, no other dryer manufacturer has committed more resources to food safety, research, and the implementation of hygienic design.



Hygienic design.

Continuously welded stainless steel, open interiors, and large doors make cleaning, inspections, product changes, and debris removal easier to discourage contaminant growth. Automatic rinse-in-place and clean-in-place devices keep surfaces cleaner and simplify routine maintenance. These features are matched by expertise that benefits the thermal processing industry as a whole.



Validation support.

Working with academic institutions and government agencies, Bühler pioneered research on the reduction of salmonella surrogate in peanuts. Extensive laboratory testing combined with temperature mapping of a roaster, resulted in the first published guidelines for using an industrial conveyor roaster as a kill step in peanut production.



CCP Monitoring.

As the development of meaningful IIoT technologies and digital tools continues to grow, and food safety concerns occupy an ever larger portion of public and corporate mindshare, Bühler has introduced new sensor-based technologies to assist processors in Critical Control Point monitoring (CCP). These technologies constantly monitor and record each process for assured food safety.

Leadership through action.

Bühler has taken an active role in developing hygienic design standards such as the One Voice Guideline for low-moisture foods, and is a leading force in the International Association for Food Protection (IAFP) Sanitary Equipment and Facility Design PDG. We also continue to work with organizations like the 3-A Sanitary Standards, Inc. (SSI) Education and Communications committee, the European Hygienic Engineering Design Group (EHEDG), the Institute of Food Technologists (IFT), and Campden BRI. Through our participation in these organizations, and others focusing on equipment sanitation and hygienic design, Bühler shares its safety culture and data with colleagues worldwide.

A large industrial machine, likely a popcorn popper, is shown from a low angle. The machine is filled with a thick layer of bright yellow popcorn. The machine's interior is made of stainless steel, and a metal nozzle is visible on the left side. A teal callout box is overlaid on the right side of the image, containing text.

Hygienically
designed equipment
can reduce cleaning
time by **as much
as 75%.**

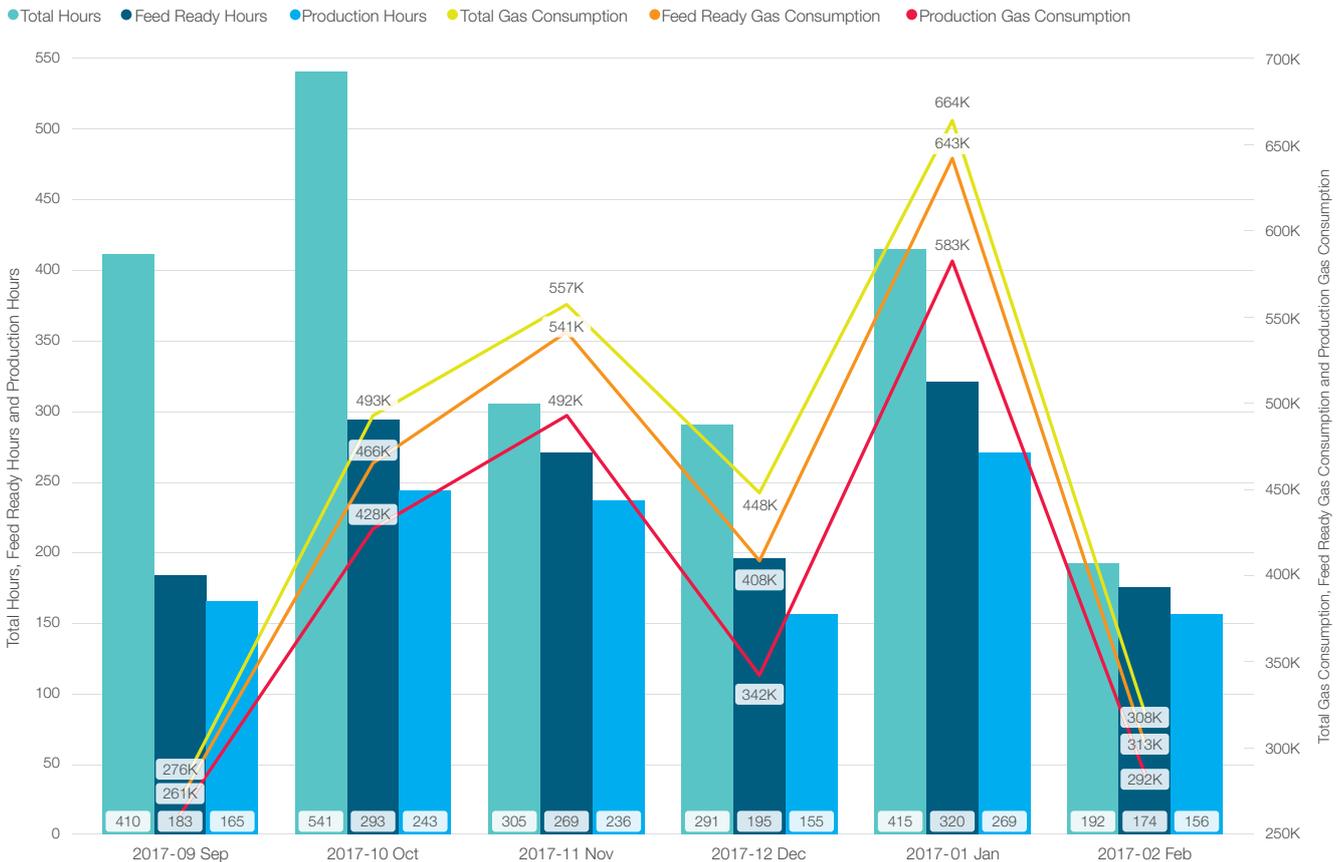


Rewarding ROI.

Process evaluations can provide a 25-75% increase in operational improvement.

Sustaining Efficiency. Measurable Savings.

Hours and Gas Consumption in kWh



In the face of dynamic and demanding production environments, improving dryer performance can generate measurable savings while maintaining or even improving product quality. Bühler excels in dryer designs that optimize air flow, retain heat, and prevent over-drying. Digital services and dryer automation helps speed production while reducing product waste and energy consumption. Easy access and maintenance contribute to system longevity, less downtime, and decades of low-cost operation.

To keep efficiency at its peak, Bühler specialists can evaluate processes and equipment onsite (including competitor brands). Based on feedback, the team can recommend and implement changes for a turnkey, energy-saving solution. These mechanical and energy audits, which can be conducted during normal operation or routine shutdowns, enable customers to get the most from an investment and meet long-term sustainability goals.

Customizing. The competitive edge.

An ability to envision technology ahead of demand sets Bühler apart. Staffed by the world's largest team of engineers devoted to conveyor dryer design, Bühler provides solutions that encourage processors to think outside the traditional box. In addition, the team collaborates directly with processing companies to customize systems as needed and develop new products for the marketplace.

Mindful of each customer's bottom line, Bühler specialists meticulously analyze requirements and operations before recommending capital investments. This includes new equipment as well as retrofits, refurbishments or expansions designed to specific needs. Customers can confidentially test products and recipes at Bühler's innovative laboratory sites located around the world that are dedicated to product and process development, as well as the advancement of thermal processing.





**More than 40
global customers**
visit the Bühler Drying
Technical Center
annually.

Every year, Bühler trains more than 300 customers on the basics of the science behind drying, how to optimize their drying process, and how to properly maintain their dryers to maximize uptime. These training seminars are held in various locations around the world, as well as at our Technical Center in Cary, NC USA.



Service and education. **Adding value by sharing expertise.**



With a global footprint that spans more than 140 countries, Bühler keeps customers productive with local access to 24/7 technical assistance and service at a moment's notice. This peace of mind extends to reliable installations, maintenance, and global delivery of replacement parts and accessories for Bühler products, as well as competitor equipment.

To foster better operating and purchasing decisions, Bühler also conducts worldwide training seminars and onsite courses throughout the year. Topics ranging from the theory behind drying to machine maintenance help customers put best principles into practice. Designed for plant engineers, operators, maintenance personnel, or anyone seeking a better understand of thermal processing, these classes present practical information with hands-on interaction. In the past decade alone, Bühler has customized in-house training programs for more than 200 food, feed, and industrial sites around the world.

Long-Term Partnerships. **Value through commitment.**

Making the world a safer place and making customers successful at every phase of production. Engineers who remain on the cusp of new thermal technologies to find the most efficient, effective ways to dry products. Project management teams that deliver smooth transitions. Uncompromising integrity, professionalism, and support that eliminates stress. This mission, vision, and pledge has earned Bühler consistently high satisfaction rates and made it a trusted manufacturing partner for more than 75 years.

Of course, a company's success can only be measured by the success of its customers. By tracking and documenting processing performance and savings against real benchmarks, Bühler reveals its true ROI and value. This honesty, combined with commitment and the power of science, will continue to forge game-changing solutions that help processors meet the boundless potential of tomorrow.

Bühler, Shaping an Industry for 75 Years

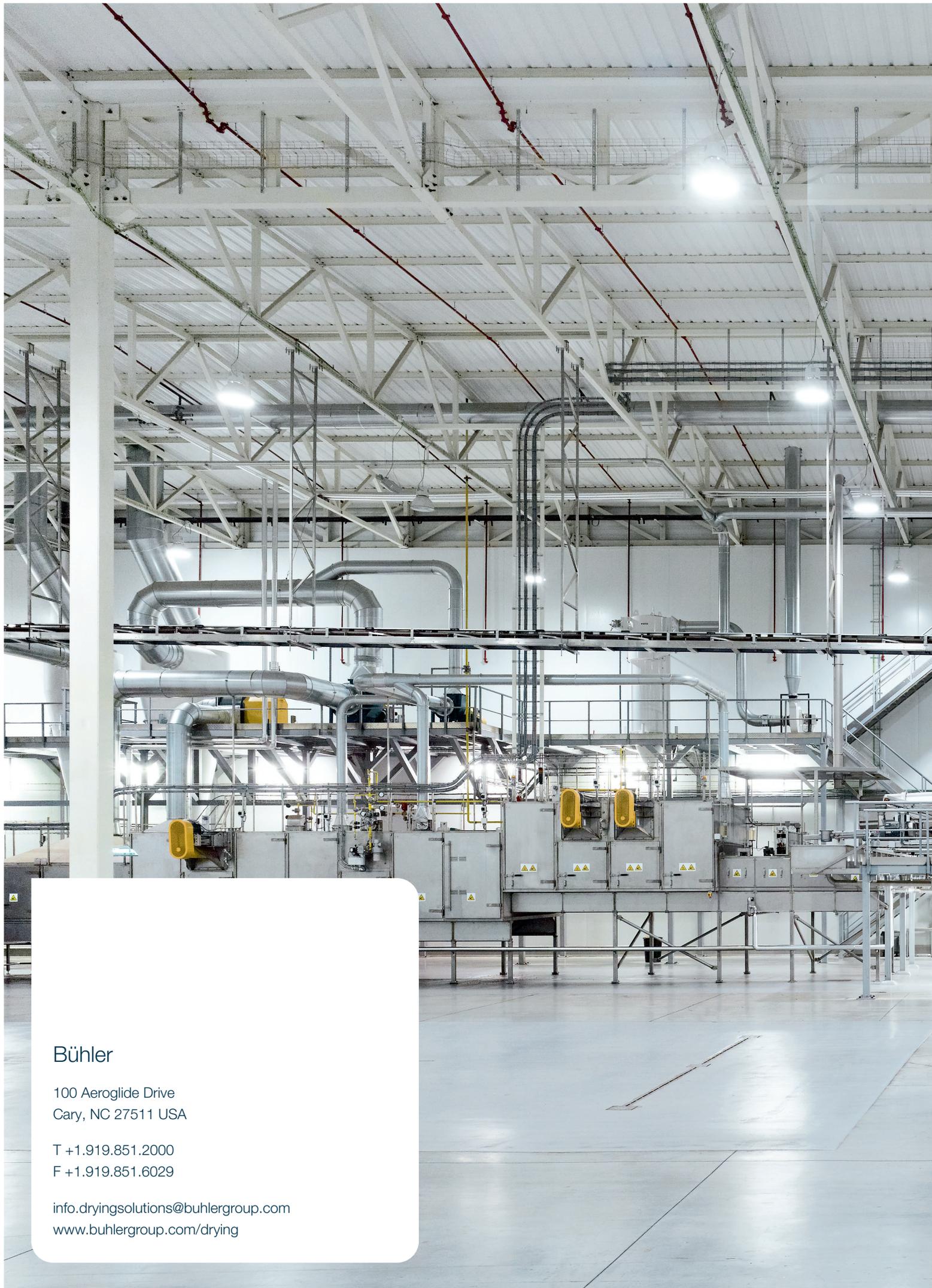
- Introduced world's first potato dryer
- Introduced grain drying technology still in use today
- Installed world's largest charcoal briquette plant
- Introduced world's first dryer for petfood.
- Developed first ready-to-eat cereal dryer
- Installed world's first synthetic polymer dryer
- Introduced the world's first aquafeed dryer
- Introduced Ceres, the world's most hygienic cereal dryer
- Introduced Solis, the world's most hygienic pet food dryer
- Introduced the first IIoT service for conveyor dryers





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