



## Puffing Application Center Research & training Center Factsheet

-  **Location:** Uzwil, Switzerland
-  **Plant configuration:** Industrial scale single puffing plant
-  **Operational since:** May 20th, 2025

### Puffing Application Center

The Bühler Puffing Application Center is an innovation hub designed to support food and feed manufacturers to test, develop, optimize, and innovate puffed products.

At the Puffing Application Center, manufacturers can test a wide range of grains—at throughputs of approximately 350 to 500 kilograms per hour, depending on the raw material characteristics. This flexibility enables comprehensive testing of both traditional and locally sourced innovative ingredients.

Puffing is a hydrothermal process that uses heat and pressure to significantly expand the volume of raw materials. The technology is versatile and applicable to a broad range of intermediate and final products – snacks, ready-to-eat breakfast cereals, confectionery, bakery items, and dairy applications.

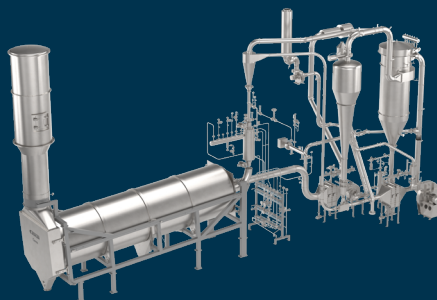
A key advantage of the Bühler Puffing Application Center is the dedicated support offered by Bühler's experienced processing engineers and technologists, who guide customers through every step of the process to deliver solutions precisely tailored to their needs.

#### What is unique about it?

The Puffing Application Center is fully integrated into Bühler's research and training network in Uzwil, Switzerland. This unique configuration enables customers to develop complete product concepts from puffed snack pellets to cereal bars, chocolate applications and more.

#### Plant configuration of the Puffing Application Center:

- A single puffing system is installed for testing a broad range of raw materials.
- Throughput capacity: **350–500 kg/h.\***



\*Bühler Cerex puffing technology is available in 3 configurations: Single, Double and Quattro.

## Raw materials

Customers can bring their own raw materials or work with locally sourced ingredients. The Puffing Application Center offers testing capabilities for a wide variety of grains including hard wheat, oats, rice, corn, spelt, barley, rye, millet, quinoa, amaranth, and more as well as chickpeas and snack extruded pellets.

## Finished product categories

Through the puffing process, selected grains and pulses can expand up to 12 times their original size, creating light, airy products with increased volume. This transformation results in ideal textures for snacks, cereals, bars, and toppings. Puffing also improves digestibility by breaking down starches, extends shelf life by reducing moisture content, and helps preserve the nutritional value of the raw materials.

## Services

### Product & process development

- Access to an industrial-scale puffing plant for testing a wide variety of raw materials.
- The Puffing Application Center conducts feasibility trials, product development, and scale-up process development.
- Collaboration with Bühler experts to create innovative puffed product solutions tailored to market needs.

### Process optimization & technical support

- Expert application engineers provide support throughout the process to fine-tune production parameters.
- Tailored process solutions for transforming puffed grains into functional ingredients.
- Seamless collaboration with Bühler's research and training network in Uzwil for a fully integrated product development experience.

### Tailored training & courses (on-site)

- Hands-on training for operators in a real-world production environment.
- Custom training programs tailored to specific processes and equipment.
- Best practices for ensuring quality, efficiency, and consistency in puffed grain production.

## Close collaboration with all related Application & Training Centers

### Food Creation Center

Combine the expertise of the Puffing Application Center and the Food Creation Center to create innovative salty or sweet snacks, such as protein bars enriched with cereals. Customers can leverage combined knowledge for unique product development.

### Extrusion Application Center

Our Extrusion Application Center in Switzerland is a multi-purpose lab where you can conduct tests on food and animal feed. Check new recipes, product shapes, and textures.

### Flavor Creation Center

Develop new cocoa recipes and learn more about the process from cocoa beans to cocoa mass, butter or powder at our Flavor Creation Center Cocoa in Uzwil, Switzerland.

### Grain Innovation Center

Test and develop your cleaning, sorting, sifting, or grinding processes with exclusive access to 2,000 m<sup>2</sup> of state-of-the-art infrastructure and cutting-edge equipment from Bühler and its partners.