

# Whatever you have in mind.



## Unlimited creativity in one line.

With the convenience line from alco there are no limits to your ideas and the flexibility of your production. Food trends change fast nowadays, creativity is more in demand than ever. Make the flexibility offered by alco solutions your competitive edge!

A meat-free diet is considered particularly healthy. Convenience products on the other hand are often associated with low nutritional value. But the trend among convenience consumers is toward super foods and meatless alternatives. So how quickly can the food industry adapt to the changes in eating patterns and orient the industry toward a new direction, while at the same time remaining flexible?

Meat alternatives are growing – and your opportunities with them.

# Produce variety efficiently.

The human diet has always featured a wide range of foods – today more than ever. Particularly in view of convenience products, which today are increasingly compared with super foods and healthy meat alternatives. For some, the change is often difficult, but in terms of the practical switching of industrial processing from meat to plant-based products, it's very simple. This is because vegan chicken or burgers go through the same processing steps as conventional meat products, from forming the raw mass to cooling. So, the flexibility of the machines from also therefore allow a diverse product palette.

### The counterpart to meat products – plant-based products



Quinoa burger

Quinoa, the super food, can be used in many different ways, even as a burger or patty. In the process, the patty passes through various production methods – in this way, the order in which the forming machine, coating technology, frying equipment and spiral freezer are arranged determine the taste, texture and look of the product.



Vegan nuggets

The processing of nuggets is a prime example of variability in the food industry – whether classic or vegan. They can be coated with a wide range of wet or dry materials, where the coating aims for an appealing appearance, refined taste and the right degree of bite.

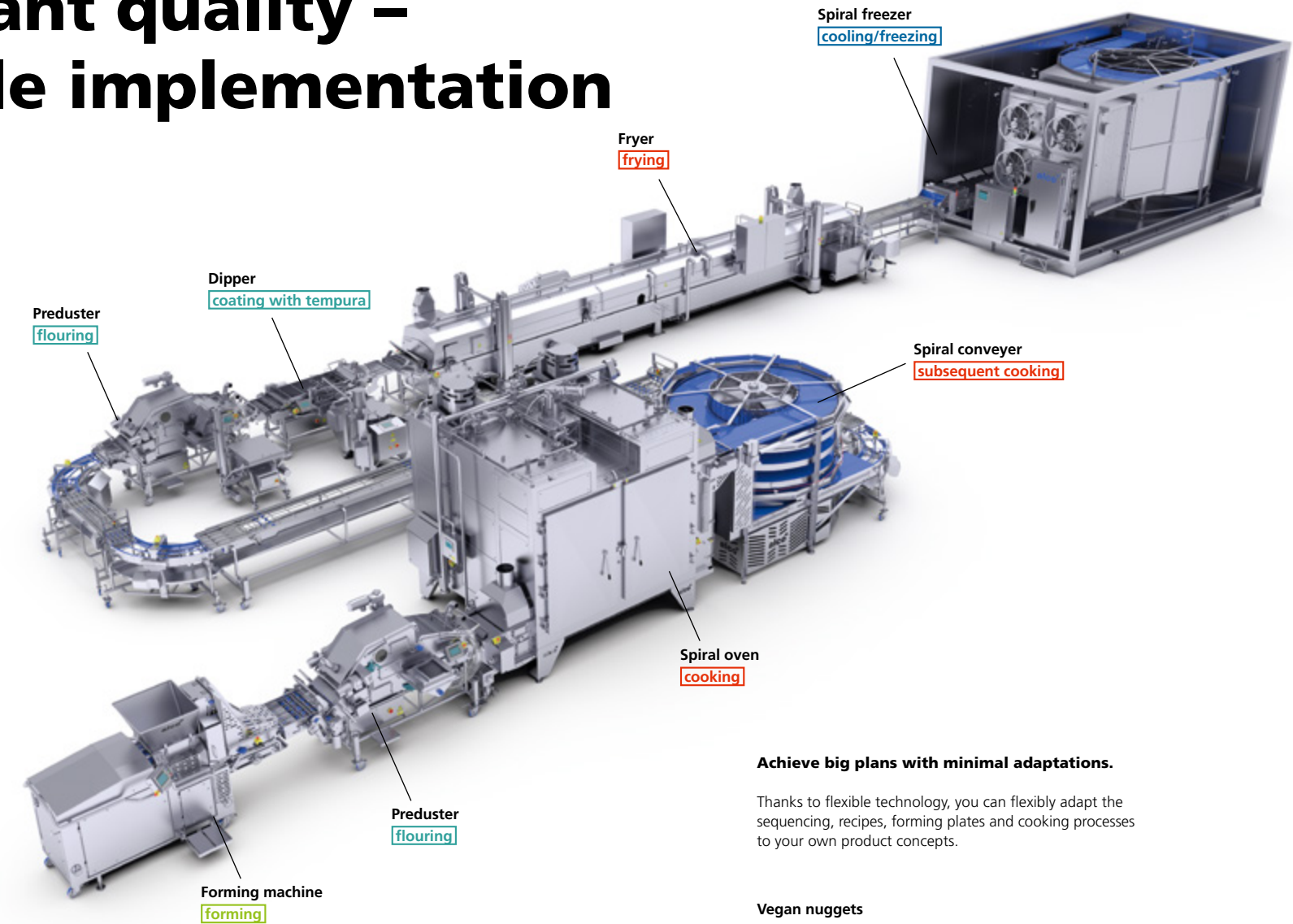


Natural products

Vegan fillet pieces from soy protein are cooked in the spiral oven to the desired core temperature, partly with steam injection to minimize weight loss. Thanks to the horizontal hot air circulation, a well-browned exterior and perfect taste is achieved.

Would you like to process your veggie product differently? No problem:  
**You can find many other processing options under**  
[alco-food.com/en/plant-based-meat](http://alco-food.com/en/plant-based-meat)

# Constant quality – flexible implementation



**Achieve big plans with minimal adaptations.**

Thanks to flexible technology, you can flexibly adapt the sequencing, recipes, forming plates and cooking processes to your own product concepts.

## Different machines – the same quality

With our convenience technology, every processing step required, from forming through to flattening, cutting and coating and on to frying, roasting, cooking, pasteurizing, fermenting and cooling are all handled automatically.

### Change recipes with ease

Different recipes can be changed, saved and used – all achieved by means of the integrated PLC controls via a touch panel on each individual piece of equipment and the central controls covering the complete line.

### Quick to arrange and rearrange

The also convenience line is easy and quick to arrange and rearrange in different locations. All our conveyors and the full conveyor technology can be installed and deployed in a variety of ways. The conventional line for cooked products provides for an initial coating, with subsequent deep frying, followed by complete cooking in forced air convection and then freezing. With tempura production, a different line assembly is frequently called for, in which the product is first floured and then cooked in steam. It is then dusted with flour once more and coated in tempura before being deep fried.

### Forming to individual design

Here there is the option of developing a wide range of forming plates suitable for various purposes – for Halloween nuggets, for example. The also forming plate, in contrast to the forming rolls used by some of our competitors, are quick, flexible and above all very economical to exchange.

### Adjusting cooking processes

Many products are cooked after forming and coating. In this, there is a distinction made between pre-cooking and complete cooking, before the product is then fried in a deep fryer. The subsequent cooking function is often used on the deep fryer. A combination of roasting equipment and subsequent cooking system ensures a short deep-frying time. The supplementary steam injection ensures a good product result as well as sufficient line capacity. In this, the machine installation can be changed in such a way that the multifunctional spiral oven can be used for complete cooking as well as pre-cooking.

#### Vegan nuggets

forming flouring cooking subsequent cooking flouring  
 coating with tempura frying cooling/freezing

#### Vegan fish sticks

forming battering breading  
 frying cooking cooling/freezing

#### Vegan gyros

flouring battering breading  
 cooking cooling/freezing

#### Vegan cutlets

forming flouring battering breading  
 frying subsequent cooking cooling/freezing

#### Burgers/patties coated with breadcrumbs

(e.g., chicken burgers or vegan burgers)

forming battering breading  
 frying cooling/freezing

#### Burgers/patties plain

forming frying cooling/freezing

#### Burgers/patties uncooked for the frozen section in the supermarket

forming cooling/freezing

#### Natural soy medallions

cooking cooling/freezing

“Consumer behavior is turning from classic convenience products toward plant-based convenience products. This process of change requires flexibility in the creation and use of convenience lines. With our machines, we fulfil these expectations – they are efficient and adaptable, particularly in terms of technical modifications.”

**Thomas Husmann** has worked for alco since 1997 as a Diplom-Ingenieur in machine engineering. At the start, Husmann was involved in constructing the machines himself; today he is head of the convenience line department and therefore responsible for customer consultation and project management.



# BUG & BELL

## A healthy cooperation for healthy dog food.

Every second pet food fails with the rating “poor” (Stiftung Warentest consumer safety group). Every third dog today suffers from obesity, intolerances and allergies. Why is this? Many manufacturers work for cost reasons, for example, with cereals and sugar, as well as with fillers that do not have to be declared. “The great confusion of technical terms, the intransparency of the feed declaration and the hiding of ingredients makes it very difficult for dog owners to judge whether the dog food is really healthy,” explains company founder Jamina Zaugg.



Company founder Jamina Zaugg has one goal: sustainable, healthy pet food. She sees the animal feed industry as sharing responsibility for protecting resources and is promoting insects as a source of protein.

### The Collaboration

The start-up uses insects as the sole mono-protein source. This is because they are equally well tolerated, hypoallergenic and very resource-friendly. In order to assess the scalability of the prototype, from production by hand to industrial, automated series production, the forming machine AFM and the spiral oven ASH were tested live on site at the alco application technology center. The „BugKeks“ were to be given their shape first in the forming machine and then achieve their ideal final consistency in the spiral oven.

### The Result

In close cooperation, both sides gained productive and profitable insights. After various test series with several dough temperatures, very good formability of the dough was achieved at processing temperatures from -3 °C to +2 °C. In the spiral oven, the form-stable dog snacks with a maximum diameter of 20 mm could finally be dried evenly from the outside and inside. Jamina Zaugg is more than satisfied: “We felt extremely welcome, even though we were just the ‚small company next door‘.”

**appetizer**  
Issue 05/2021

We are  
looking forward to  
meeting you at:

**Anuga FoodTec**

26.–29.04.2022

in Cologne, Germany

Hall 6.1

Booth B30/C49

**IFFA**

14.–19.05.2022

in Frankfurt / Main,

Germany

Hall 8.0

Booth B92

**Alco-food-machines  
GmbH & Co. KG**

Kreienbrink 3 + 5

49186 Bad Iburg

Germany

+49 (0) 5403 79 33-0

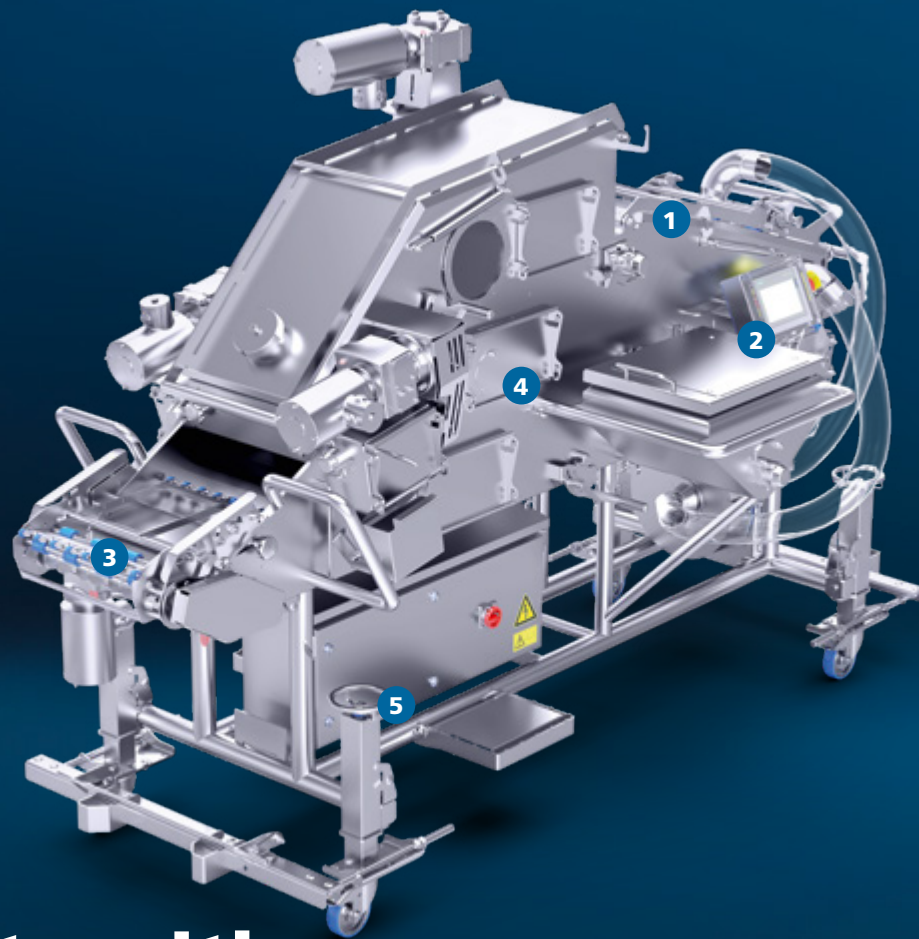
info@alco-food.com

www.alco-food.com

**Follow us**

linkedin.com/company/alco-food

facebook.com/alcofood



Preduster ABM from alco

# Optimal results with every required product.

Whether it's pea-based vegan cutlets, fish fillets or sweet wine gums – we can coat your product with flour, powder, fine-grained seasonings or sugar. With results that are a feast for the eyes. Two belt systems ensure a perfect, even coating at production speeds that are infinitely variable. In this way, the lower belt passes the product through a bed of coating material while at the same time the upper belt ensures the necessary sprinkling from above. Through adjustable vibration and pressing fixtures, optimal coating results are guaranteed. Four heavy-load steering rollers, rotatable through 360 degrees, and optional line-locking enable flexible conversion of the ABM in the line. For even more flexible products.

## 1 Air knife

The air knife removes excess material from the top of the product via a controllable blower system with an additional integrated material return system.

## 2 PLC control

The PLC control provides system-control in a smart and user-friendly manner via a touch panel with intelligent functions such as recipe management.

## 3 High-speed product belt

The high-speed product belt allows for belt speeds of up to 29 m/min with a top-performance stainless steel drive.

## 4 Vibrating plate

The vibrating plate allows the coating medium to be pressed firmly onto the product and then rubbed in.

## 5 Spindle height adjustment

The spindle height adjustment sets the height of the machine by means of a handwheel.

Appropriate accessories are available for the preduster ABM to optimize the process and keep additional functions to hand:

## Dustfree ADF Pro

For higher efficiency and quality in food processing, there is the alco Dustfree air filter system to accompany the preduster. During the production processes, the explosion-proof flour evacuator removes any dust and sends it to a separate system container. It thereby ensures a virtually dust-free working environment.



## Flour feeder APZ M

Smart work processes: The flour feeder APZ M fills the preduster with the appropriate coating material. In this way handling is minimized and devolved to an automated process.



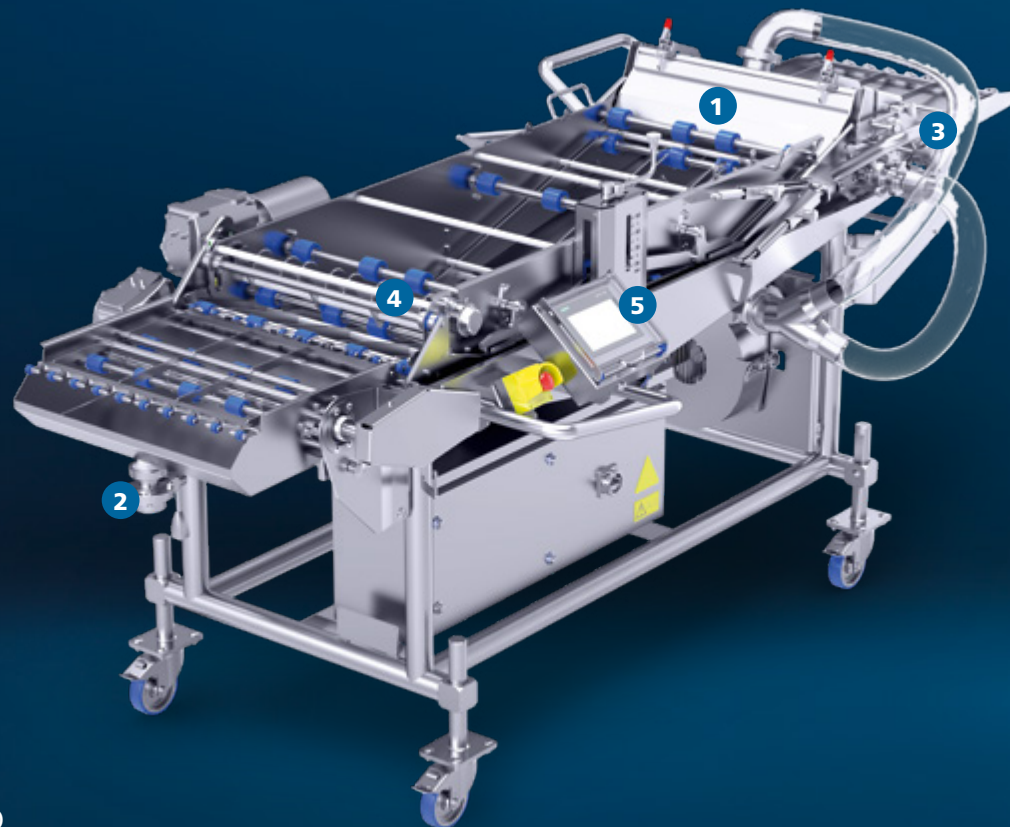
Suitable for



You can find comprehensive information on our website.

**Preduster:** [alco-food.com/en/machines/preduster](http://alco-food.com/en/machines/preduster)

**Additional machines:** [alco-food.com/en/accessories](http://alco-food.com/en/accessories)



Dipper ADT from alco

# Gently and evenly coated – whether vegetable nuggets or poultry.

Whether vegetable nuggets, marinated vegan tofu steaks or marinated poultry for grilling or frying – the Dipper ADT passes them all gently through an individually customizable coating bath and so ensures the desired taste with an appetizing consistency. In particular, the Dipper can apply viscous, non-pumpable materials like liquid batter, tempura, and marinades expertly to your product. In addition, the products are run carefully through the coating bath on an upper and lower belt. Excess coating material is removed by means of a controllable blower system.

## 1 Air knife

The air knife removes excess medium from the top of the product via a controllable blower system with supplementary integrated material return system.

## 2 Outlet openings

The outlet openings allow convenient emptying and cleaning of the trays.

## 3 Pivotal outlet belt

The pivotal outlet belt optimally transfers the product to the downstream equipment.

## 4 Double-wall design

The double-wall design enables injection of a coolant to cool the coating material through a double-wall construction.

## 5 PLC control

The PLC control provides system-control in a smart and user-friendly manner via a touch panel with intelligent functions such as recipe management.

Appropriate accessories have been developed for the Dipper ADT, to facilitate processing and provide ongoing savings in operating costs:

## Batter mixer APM Pro

The batter mixer executes the mixing of the batter mixture and then fills the system automatically with the ready-mixed version. This saves time, on the one hand, and also ensures a perfectly blended batter mix for a particularly fine taste.



## Batter filter APF

Smart and sustainable – the APF for filtering out the coarse particles in the batter mix. Solids in the order of  $\geq 0.6$  mm can be efficiently filtered out. Through this, the shelf life of the coating is significantly increased, enabling cost-efficient production of higher quantities and consistent quality.



Suitable for



You can find comprehensive information on our website.

**Dipper:** [alco-food.com/en/machines/dipper](http://alco-food.com/en/machines/dipper)

**Additional machines:** [alco-food.com/en/accessories](http://alco-food.com/en/accessories)