

# Nutrition bar production line: an efficient way to create deliciousness and health

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**Nutrition bars** are usually made of a variety of high-quality raw materials carefully proportioned in protein, dietary fiber, vitamins, minerals and other nutrients. Take the common nut protein bar as an example. Nuts such as almonds and cashews provide healthy unsaturated fatty acids and high-quality plant protein; and the added whey protein is a high-quality source of animal protein. A combination of the two can provide the human body with a more comprehensive amino acid profile. The dietary fiber part may come from oats, whole wheat flour, etc., which helps intestinal peristalsis and maintains the health of the digestive system. At the same time, various vitamins and minerals are added, such as vitamin C and vitamin E antioxidants, calcium, iron, etc. to meet the daily needs of the human body. A small bar contains full energy.



## The benefits of nutrition bars

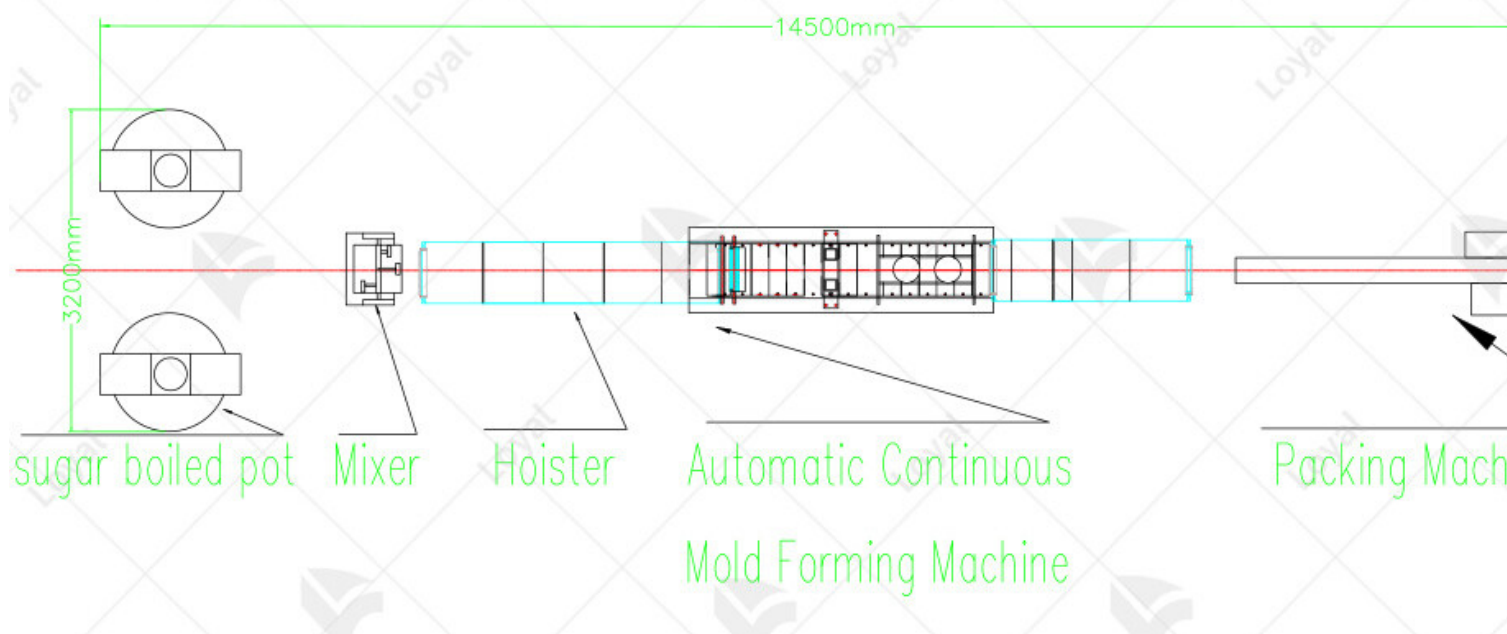
1. Provide energy: Nutrition bars usually contain macronutrients such as carbohydrates, proteins, which can quickly provide energy to the body. 2. Eating them when you feel hungry meals or before physical activity can prevent excessive hunger and maintain normal body function. 3. Supplement nutrition: It adds a variety of vitamins and minerals, such as vitamins A, vitamins, calcium, iron, zinc, etc., which can make up for the nutritional deficiencies that may be in the daily diet. It is especially suitable for people with unbalanced diets or special nutritional needs. 4. Convenient and fast: Nutrition bars are small and easy to carry. They can quickly replenish energy and save time in busy mornings, work breaks, outdoor activities or travel.

5Control weight: Some nutrition bars use ingredients such as high-quality protein and dietary fiber, which can increase satiety and reduce the intake of other high-calorie foods. At the same time, they can help control appetite and reduce the intake of snacks, which helps maintain a healthy weight.

Promote muscle repair and growth: For sports enthusiasts and fitness people, protein and other active ingredients in nutrition bars can help repair and grow muscles after exercise and help them recover.

## Nutrition Bar Production Line Introduction

Protein bar extrusion line is our new designed machine for making protein bar, date bar, energy bar, nutrition bar, fruit bar, etc. The multi row protein bar extrusion machine is PLC control with touch screen, speed adjustable. Nutrition bar making machine is consist of batch roller with 6 wheels, mixing machine, cooling conveyer cabinet, forming machine and cooling slifer.



## Equipment List of Nutrition Bar Making Machine

sugar boiled pot?mixing machine?hoist?automaticcereals bar cutting machine?packing machine

In the production line of nutrition bars (such as energy bars, protein bars, etc.), the functions of the equipment are as follows:

### 1. Sugar boiled pot (syrup melting pot)

Function: Heat and melt sugar raw materials (such as glucose syrup, honey, sucrose, etc.) to form a uniform syrup.

Key functions:

Control the temperature to prevent the syrup from caramelizing.

Ensure that the syrup is fully mixed with other raw materials (such as oil, protein powder).

Application: Provide adhesive effect to prevent the nutrition bar from loosening after forming.

### 2. Mixer

Function: Mix the syrup in the sugar dissolving pot with other dry and wet raw materials (such as protein powder, chopped nuts, oats, vitamins, etc.) evenly.

Key functions:



(1) Avoid caking and ensure uniform distribution of ingredients.

(2) Some mixers have cooling function to prevent high temperature from destroying heat-sensitive ingredients (such as probiotics).

Type: Common ones include planetary mixers, spiral mixers, etc.

### 3. Hoist(conveying equipment)

Function: Convey the mixed materials to the next process (such as molding machine or packaging section).

Key functions:

(1) Reduce manual handling and improve efficiency.

(2) Maintain hygiene (enclosed design to avoid contamination).

Type? Belt elevator, spiral elevator or pneumatic conveying system.

### 4. Block forming machine

Function: Press the mixed materials into a fixed shape (such as long strips, squares) and cut to standard sizes.

Key functions:

(1) Forming: Shaped by mold or roller pressing system.

(2) Cut: Rotate the blade or hydraulic cutting to ensure that each piece has the same weight/size.

Additional functions: Some equipment can add fillings or coatings at the same time.

### 5. Packaging machine

Function: Seal and package the finished nutrition bars to extend the shelf life and facilitate transportation.

Key functions:

(1) Packaging form: Common ones are flow wrap, pillow packaging or box packaging.

(2) Automation: Automatic weighing, labeling, coding (production date/batch).

(3) Protection: Nitrogen-filled packaging (anti-oxidation) or aluminum foil lining (moisture-proof).



Features of nutrition bar production line

Our nutrition bar processing line is like a sophisticated healthy energy manufacturing factory that transforms high-quality raw materials into delicious and nutritious products, and continuously delivers them to consumers, satisfying people's dual pursuit of health and deliciousness.

1. Efficient automation: The entire production line is highly automated. From raw material mixing and stirring to molding, baking and packaging, most of the processes are automatically completed by mechanical equipment, reducing manual operation links, which not only improves production efficiency, but also reduces product quality differences caused by human factors, ensuring that each nutrition bar meets high standards.

2. Precision control: With the help of advanced sensors and automatic control systems, temperature, time, weight and other parameters in the production process are precisely controlled. In the baking process, the temperature fluctuation can be controlled within  $\pm 2$  degrees Celsius to ensure that the baking degree of each nutrition bar is consistent; in the raw material weighing and mixing stage, it can be accurate to grams to ensure that the nutrients are strictly mixed according to the formula ratio to ensure stable product quality.

Flexible production: The production line has a certain degree of flexibility and can quickly adapt to different production formula and product specifications according to market demand. Nutrition bars of different shapes can be produced by replacing the mold, and new flavors and new functions can be launched by adjusting the raw material ratio, such as high-calcium nutrition bars for children, beauty nutrition bars for women, etc., to quickly respond to market changes.



## FAQ

1: Can the equipment adapt to different formulas (such as high protein, sugar-free)?

Mixer: Requires variable frequency speed regulation and anti-stick coating to prevent powder/syrup from sticking to the wall.

Forming machine: The mold can be replaced to adjust the thickness and shape (such as hard soft bars).

Packaging machine: Need to be compatible with different sizes (such as 20g mini bars standard bars).

2: How much is the budget for the entire production line? Which links are the most expensive?

Budget share:

Mixing and molding equipment (40%)

Packaging machine (30%, especially high-speed pillow packaging machine)

Auxiliary equipment (cooling tunnel, conveyor belt, etc., 20%)

Saving suggestions: Used equipment or purchase in stages (core first, then automation).

3: What are the energy consumption and labor costs?

Energy consumption: Sugar dissolving pot and cooling tunnel are the main power consumers. Heating or heat recovery design can be selected.

Labor: Semi-automatic line requires 3-5 people/shift, and fully automatic line only requires 1-2 people to monitor.

4: How to ensure product hygiene (such as cross-contamination of allergens)?

Design: The equipment should have no dead corners and be easy to disassemble and clean (cleaning system is better).

Management: The production line needs to be divided (such as nuts and non-nut production lines separated).

5: Does the supplier provide installation training and process guidance?

Formal suppliers should include:

Free on-site installation and commissioning.

Operator training (such as syrup temperature control, packaging parameter setting).

Provide basic formula process packages (such as protein bar bonding ratio).

6: Does the equipment meet food grade standards (such as FDA, CE)?

Material: The food contact part must be 304/316 stainless steel, and material certification must be provided.

Certification: Suppliers are required to provide CE (EU), FDA (USA) or GB (China) certification documents.

7: How to ensure product hygiene (such as cross-contamination of allergens)?

Design: The equipment should have no dead corners and be easy to disassemble and clean (cleaning system is better).

Management: The production line needs to be divided into zones (such as nuts and non-nut production lines).

8: Is the equipment failure rate high? How long is the maintenance cycle?

Common failure points: Blockage of molding machine mold, loose heat sealing of pillow packaging machine.

Maintenance: Daily lubrication of chain, monthly sensor inspection, annual overhaul.

Suggestion: Choose a supplier that provides 24-hour technical support.

9: When switching product formulas, how long does it take to clean and debug?

Simple switching (same type of formula): 1-2 hours of flushing.

Complex switching (such as nuts ? no nuts): more than 4 hours, including disassembly and disinfection.

## About Us

We are a professional manufacturer of food machinery and we have been manufacturing cereal bar processing line for nearly 20 years. In addition to the Nutrition Cereal Bar snack production line, we also manufacture lines for deep-fried food, pet feed, modified starch and many more. Our lines have basically a variety of moulds, which can be adapted to produce a wide range of products. We are not satisfied with the status quo but are constantly upgrading and innovating products, adapting our production plans and designs to the changing needs of the times and keeping up with the pace of progress. Never satisfied with the pursuit of excellence!





## Production Equipment

We have perfect production machinery and testing instruments after years of development. We have a complete set of the Hydraulic Plate Cutting Machine, Hydraulic Plate Bending Machine, Rolling Machine, Milling Machine, Welding Machine and Planing Machine.

## Production Market



We have exported our products to all over the world, especially in Europe, USA, Asia and East, after our exchanges and cooperations with foreign well-known high tech companies from Germany and Italy, we now have more and more customers from both North America and America.

## Our Services

1. Recipe: The company's after-sales service department can provide free basic recipes or introduce more marketable recipe experts.
2. Training: after the installation and commissioning of the equipment can be on-site training relevant operators, equipment easy to operate.
3. Return visit: regular after-sales telephone call back to customers, to help you solve the relevant problems encountered in the use of equipment.
4. Maintenance: our company provides quality and inexpensive spare parts to the demand side around, and provides equipment upgrades and new product development support, really let you have no worries.
5. Out of warranty maintenance: the company provides free maintenance for equipment damage caused by non-human factors during the warranty period. If the equipment is damaged due to human factors and force majeure, the company will provide maintenance services but charge the relevant fees.

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