The technological charm and excellent technology modern nutritional powder production line

Introducción detallada :

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Nutritional powder is a powdered nutritional supplement made from natural ingredien as grains, beans, fruits and vegetables) or scientific formulas through modern techno is rich in protein, dietary fiber, vitamins and minerals, and is portable, easy to absorb, has flexible formulas. It is widely used in meal replacement, sports nutrition, maternal child health care, and special medical food. It is an ideal health solution for modern fa paced life.

Application of Nutritional powder

1.Comprehensive and balanced nutrition:Suitable for people with unbalanced diets people or those with poor digestion and absorption (such as the elderly), providing ba nutrients such as protein, carbohydrates, vitamins, and minerals.

2.Meal replacement use: Some nutritional powders (such as meal replacement shak replace regular meals, control calorie intake, and help weight management.

3.Infants/children:Formula milk powder or growth nutritional powder, supplement DH calcium, iron and other nutrients that promote development.

4.Pregnant/lactating women:Rich in folic acid, iron, calcium, etc., to support fetal an maternal health.

5.Postoperative/disease recovery:High-protein, high-energy nutritional powder helps tissues and improve malnutrition (such as cancer patients, postoperative recovery).

6.Athletes/fitness people: Muscle-building powder (high protein + carbon water) or w protein powder to promote muscle synthesis and recovery.

7.Enteral nutrition support:Provide nutrition through nasogastric or oral feeding for with dysphagia and intestinal dysfunction (such as homogenized meal, complete nutr

formula powder).

8.Disease management: Such as special nutrition powder for diabetes (low GI), low-
formula for kidney disease, etc.

9.Protein supplement:Whey protein, soy protein, etc., suitable for vegetarians or pe
with insufficient protein intake.

10.Dietary fiber powder:Improve intestinal health (such as inulin, oligofructose).

11.Vitamin/mineral powder:For deficiency (such as iron, vitamin D powder).

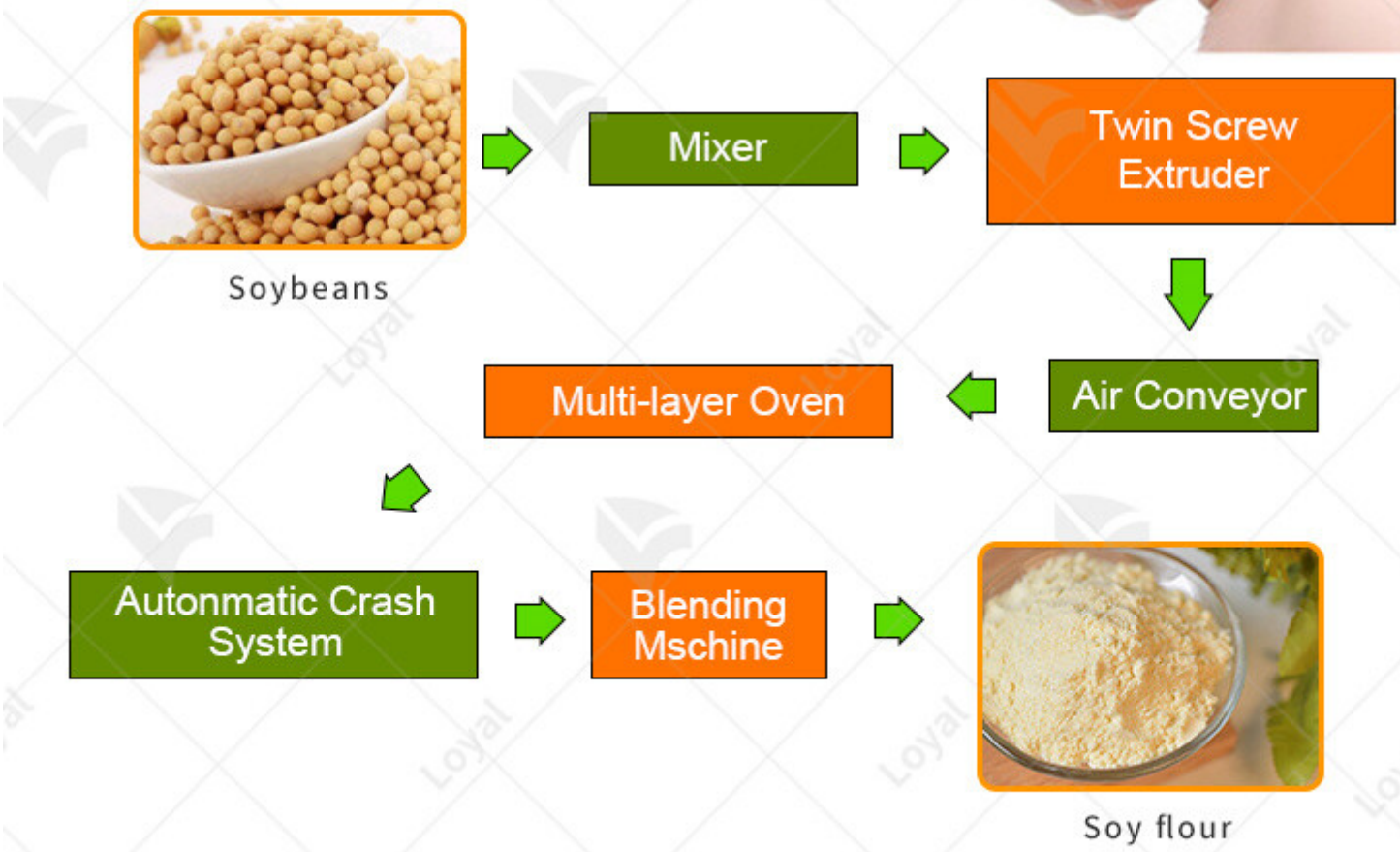
12.Cannot replace normal diet:Nutritional powder is a supplementary means, and n
should be obtained through natural food first.

13.Must follow doctor's advice or instructions: Special medical purpose nutritional
must be used under the guidance of a doctor.

14.Allergen test:Pay attention to whether the ingredients contain allergens such as la
and gluten.

Equipment List of Nutritional powder Making Machine

Mixer? Screw conveyor?Twin screw extruder ?Air conveyor? Multi-layer oven?C
machine with dust pelletizing system?Mixer



Working principle of each machine

Powder mixer:

Mix various raw materials, such as grain powder, protein powder, vitamins, minerals, according to a specific formula ratio to ensure that the ingredients in the nutrient pow evenly distributed and the product quality is stable and consistent.

During the mixing process, some liquid auxiliary materials, such as oil, syrup, flavorin can be easily added so that these auxiliary materials can be evenly coated on the su the powder raw materials to improve the taste and flavor of the nutrient powder.

crew conveyor:

The rotation of the spiral blades can be used to stably convey the raw materials mixe the mixer from one location to another, such as conveying the raw materials from the to the feed port of the twin-screw extruder to ensure the continuity of the production p Screw conveyors usually have good sealing properties, which can prevent raw mater leakage and external impurities from mixing during the conveying process, maintain t purity of the raw materials, and also reduce dust flying and improve the production environment.

Twin-screw extruder:

Material maturation: During the extrusion process, the rotation of the screw and the h of the barrel allow the material to be rapidly matured under high temperature and high pressure, starch and other ingredients undergo gelatinization, protein undergoes denaturation, and the digestion and absorption rate of the nutrient powder is improve According to different molds and process requirements, the material is extruded into a specific shape and particle size, such as flakes, granules, etc., to prepare for subseq crushing and packaging processes, and also improve the appearance and taste of th nutritional powder.

The structure of the twin-screw extruder allows the material to be subjected to strong and shearing during the extrusion process, further mixing the various raw materials e and also enables some added functional ingredients to be better combined with other materials, improving the quality and stability of the product.

4.Air conveyor

Efficient transportation: Using wind as a power source, the material processed by the screw extruder is quickly transported to the designated location, such as transporting extruded particles to the oven or the next processing step. The transportation efficien high and can meet the needs of large-scale production.

Cooling materials: For materials that have been extruded at high temperatures, the a flowing during the air delivery process can play a certain cooling role on the materials preventing the materials from deteriorating or other quality problems due to excessive temperature during subsequent processing.

5.Oven

Drying and dehydration: By setting the appropriate temperature and baking time, the moisture in the materials is removed so that the nutritional powder reaches a certain moisture content standard, which is convenient for long-term storage and maintaining stability of the product, preventing the growth of microorganisms and the degradation nutrients.

Crushing machine with dust pelletizing system

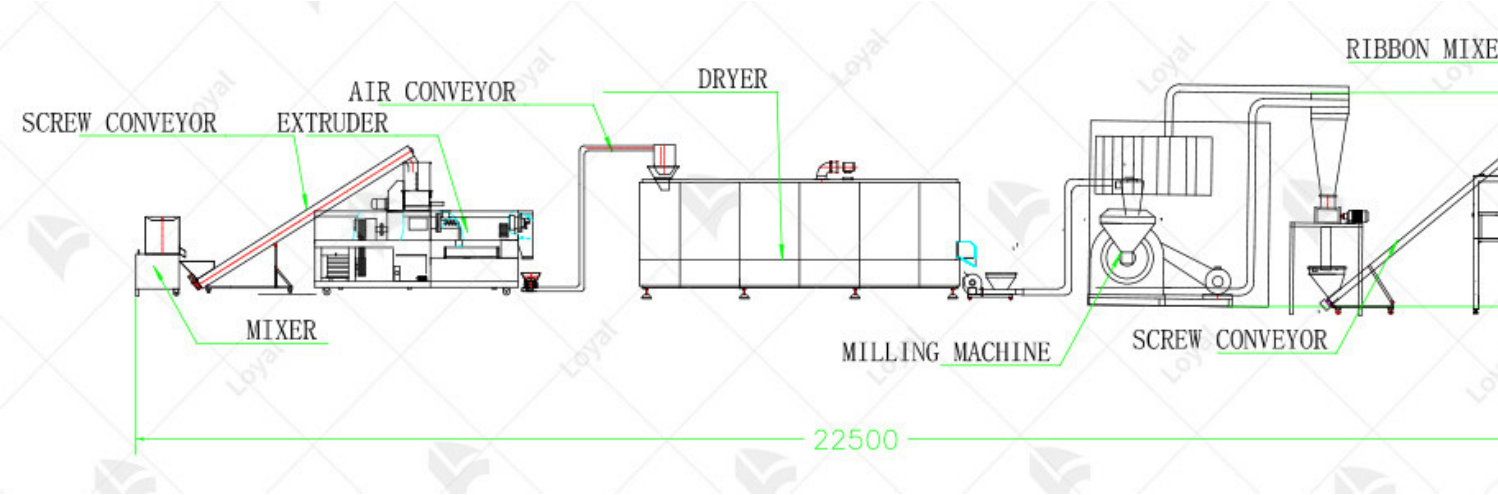
Crushing and refining: The materials dried in the oven are further crushed into finer p to meet the particle size requirements of the nutritional powder products, so that the nutritional powder has better solubility and dissolution properties, which is convenien consumers to eat.

Particle size classification: Some crushing dust collectors have a particle size classifi function, which can classify and screen the crushed powder according to different pa sizes, remove oversized or undersized particles, ensure the uniformity of product par size, and improve product quality.

Technical Parameters of Nutritional Powder Making Machine

Model	Installed power	Power consumption	Output	Size(L*W*H)
LY65	81.57kw	53kw	100-150kg/h	16500x1150x2350mm
LY70	84.16kw	55kw	200-250kg/h	17500x1150x2350mm
LY85	147kw	110kw	400-500kg/h	31000x1500x3650mm

Flow chart of Nutritional powder Processing Machine



The Core Advantages of Nutritional Powder Making Machine

1.High degree of automation?PLC control system realizes full automation from feedin packaging, reducing manual intervention.

2. Nutrient retention technology?Low temperature processing technology (such as va drying) retains heat-sensitive ingredients to the maximum extent.

3. Flexible and adaptable?Modular design can quickly switch formulas to meet the production needs of different products (such as protein powder, grain powder).

4. Strict quality control system?Online detector monitors powder particle size and mo content in real time to ensure quality consistency.

5. Energy saving and environmental protection? Dust recovery system reduces waste energy consumption by more than 20%.

FAQ About the Baby Porridge Machine

When foreign customers consult about nutritional powder production lines, their focus often on equipment performance, product quality, production efficiency, after-sales

guarantee, etc. Here are some common questions and answers:

1. What is the capacity of the equipment? Can it meet our production scale?

Our nutritional powder production line has a variety of specifications to choose from. smallest model can produce100kg/h, and the large model can produce 1000kg/h. Be confirming the specific order, we will accurately match the most suitable equipment fo based on the expected output and production plan you provide to ensure that it fully m your production scale needs.

2. What is the degree of automation of the equipment? Is it difficult to operate?

The production line has a high degree of automation. From raw material pretreatmen mixing and stirring, drying and granulation to packaging, most links can be completed automatically, greatly reducing manual intervention and improving production efficien operation interface is simple and intuitive, with detailed operation guides. Even if the operator does not have a deep professional background, he can become proficient a days of professional training from us.

3. What advanced technologies does the equipment use to ensure the stable qua nutritional powder?

The equipment uses an advanced precision batching system, with errors controlled w very small range to ensure the precise proportion of each nutrient; the mixing process three-dimensional efficient mixing technology to evenly distribute the nutrients; the dr and granulation uses low-temperature vacuum technology to retain the activity of nut the greatest extent, avoid high temperature damage to nutrients, and thus stabilize pr quality.

4. Can the hygiene standards of the production line meet international requirem

Absolutely. All parts of the production line that come into contact with the material are of 304 or 316L stainless steel that meets food-grade standards. The surface is smoot it is not easy to leave residual materials, which is easy to clean; the production proce fully enclosed to reduce the risk of external contamination.

5. Is the maintenance cost of the equipment high? Is maintenance convenient?

The equipment maintenance cost is low. Most of the parts we use are general models are easy to purchase on the market and reasonably priced. The equipment structure designed, and each part is easy to disassemble, which saves time and effort in daily maintenance and inspection. We also provide you with detailed maintenance manual remote guidance, and arrange on-site service when necessary to ensure stable opera

the equipment and reduce maintenance costs.

6. How long does it take to deliver?

Under normal circumstances, after receiving your advance payment, the equipment production can be completed and the delivery can be arranged within 30 weeks. How there are special circumstances such as tight supply of raw materials and peak order we will communicate and negotiate with you in advance to shorten the delivery cycle much as possible to ensure the smooth progress of your project.

7. What after-sales services do you provide after purchasing the equipment?

We provide comprehensive after-sales services. The equipment warranty period is 1 During the warranty period, if the fault is not caused by human factors, we will repair replace parts free of charge; arrange professional technicians to come to guide instal and commissioning to ensure the normal operation of the equipment; provide a 7×24 after-sales hotline to answer your questions encountered during use at any time; mak regular return visits to understand the use of the equipment and provide technical sup a timely manner.

Why Choose Us

We are a professional manufacturer of food machinery and we have been manuf nutrition cereal bar processing line for nearly 20 years. In addition to the Nutrition Bar snack processing line, we also manufacture lines for deep-fried food, pet feed, r starch and many more. Each of our lines has basically a variety of moulds, which adapted to produce a wide range of food products. We are not satisfied with the sta but are constantly upgrading and innovating our products, adapting our production pl

designs to the changing needs of the times and keeping up with the pace of progress
satisfied with the pursuit of excellence!