Pet Food Production Line

Our research focuses on developing pet food production processes and equipment to improve palatability, nutritional value, quality, and safety. In terms of processes, our pet food production technology reflects customer formulas in the product's shape, size, palatability, expansibility, and moisture content. We can also customize coloring, oiling, slurrying, powdering, and automatic color mixing of finished products according to customer requirements. Technically, our pet food production line features an automatic batching, mixing, and pulverizing system, a twin-screw extruder, a circulating belt dryer, and a vacuum spraying machine. It is equipped with an automatic control center. The entire system operates automatically, reducing labor costs and achieving high throughput.

Shandong Loyal Industrial Co., Ltd. adheres to the philosophy of continuously creating value for customers, helping you produce higher-quality pet food, minimizing production costs, and maximizing value.

Applications: Suitable for the production and processing of cat and dog food, and can also be used to produce floating fish feed.

Extruder Product Features:

1. High-life gearbox; wear-resistant alloy screw bushing: screw service life > 20,000 tons, bushing service life > 40,000 tons

2. High-precision forged double-layer jacketed extrusion chamber,

allowing for heating or cooling;

3. Imported bearings and oil seals; gearbox design and processing technology utilize leading domestic technologies;

4. Self-cleaning twin-screw mechanism, effectively reducing material residue inside the barrel and screw, facilitating barrel cleaning;

5. Replaceable wear-resistant bushings made of special materials, reducing operating costs;

6. Effective shear force control ensures consistent maturation time and particle expansion coefficient for all materials within the extrusion chamber;

7. All-wear-resistant alloy screw and bimetallic extrusion chamber inner sleeve reduce wear and ensure long-term stable operation;

8. Modular screw design with optimized configuration effectively increases output for different formulations;

9. Specially designed Venturi turbulent discharge device ensures uniform and stable extruded material shape;

10. Automatic control system simplifies operation, records all data, and minimizes operator interference with product quality.

Dryer Product Features:

1. Customizable mesh structure based on material characteristics, facilitating the drying of materials of various particle sizes;

2. The material spreading system utilizes a variable frequency motor with zoned speed control, scientifically setting the material layer thickness and ensuring uniform material distribution to guarantee product moisture uniformity;

3. Rational zoning, reasonable allocation of hot air temperature and volume, and well-designed zoning and sealing structures;

4. Independent drying airflow and temperature in each temperature zone; each zone functions as an independent mini-dryer; different moisture levels in each zone ensure both efficiency and preservation of product nutrients;

Pulverizer Equipment Features: Integrated base design, aesthetically pleasing, and high structural strength. Direct drive, scientifically designed hammer arrangement and hammer-screen gap ensure uniform finished product fineness. Secondary impact technology in the pulverizing chamber. Uses imported high-quality bearings for low operating temperature rise. Multiple screen specifications are available, with a quick-opening door mechanism and elastic screen pressing mechanism for fast screen replacement and convenient operation and maintenance. NSK bearings, SKF bearing housings, bearing temperature display instruments, tungsten carbide alloy spray-welded hammer blades

Mixer Equipment Features:

Fast mixing speed, short mixing cycle (30-120 seconds/batch); High mixing uniformity (CV ?5%), with no segregation; Gentle mixing process, wide variable filling range; Full-bottom electric or pneumatic large-opening unloading door for fast discharge and low material residue; Equipped with a return air duct to prevent dust leakage and fully meet environmental protection requirements; Can be equipped with

a compressed air cleaning system to reduce residue to a minimum; Customizable atomized spraying system; Adding molasses, grease, etc., results in more uniform mixing.

Reference

The following are five authoritative foreign literature websites in the field of Industrial food machinery:

1. Food Engineering Magazine

Website: https://www.foodengineeringmag.com/

2.Food Processing Magazine

Website: https://www.foodprocessing.com/

3.Journal of Food Engineering

Website:https://www.journals.elsevier.com/journal-of-food-engineering

4. Food Manufacturing Magazine

Website:https://www.foodmanufacturing.com/

5. International Journal of Food Science & Technology

Website:https://onlinelibrary.wiley.com/