Nutrition Powder Production Line

Nutritional powder production line, also known as powdered nutritional supplement production line, is a set of mechanical equipment used to produce powdered nutritional supplements or food additives. A production line typically consists of several stages, each designed to perform specific tasks such as mixing, blending, heating and drying. The key components of the nutritional powder production line include mixers, twin-screw extruders, dryers and packaging machines. In the first stage, a blender is used to mix the ingredients, ensuring consistent quality and texture of the final product. In the second stage, the blended mixture is fed into a twinscrew extruder where it is subjected to high pressure and temperature to form a homogeneous dough-like mass. The extruder can also add water, steam or other liquids to the mixture as needed. In the third stage, the extruded mass is transferred to a dryer where it is subjected to low temperature or vacuum to remove moisture and form a solid powder. Depending on the application, the dryer can use different types of drying techniques such as spray drying, fluid bed drying or freeze drying. Finally, a packaging machine is used to fill the powdered product into sachets, jars or other types of packaging, ensuring hygienic and accurate filling. The nutritional powder production line can be customized according to the specific requirements of the final product, and process parameters such as temperature, pressure, and residence time can be adjusted to achieve the required product quality.



Nutrition Powder Process Line Flowchart

1. Screw Conveyor --- 2. Ribbon Mixer --- 3. Screw Conveyor --- 4. Double Screw Extruder With Cooling System --- 5. Air Conveyor --- 6. Drying Oven --- 7. Air Conveyor ---

8. Crushing Machine With Dust Pelletizing System --- 9. Air Conveyor --- 10. Blending Mixer --- 11. Packaging



The Function Of Nutrition Powder Process Line

Nutritional powder production line, also known as powdered nutritional supplement production line, is a set of mechanical equipment used to produce powdered nutritional supplements or food additives. A production line typically consists of several stages, each designed to perform specific tasks such as mixing, blending, heating and drying.

The key components of the nutritional powder production line include mixers, twin-screw extruders, dryers and packaging machines.

In the first stage, a blender is used to mix the ingredients, ensuring consistent quality and texture of the final product.

In the second stage, the blended mixture is fed into a twin-screw extruder where it is subjected to high pressure and temperature to form a homogeneous dough-like mass. The extruder can also add water, steam or other liquids to the mixture as needed.

In the third stage, the extruded mass is transferred to a dryer where it is subjected to low temperature or vacuum to remove moisture and form a solid powder. Depending on the application, the dryer can use different types of drying techniques such as spray drying, fluid bed drying or freeze drying.

Finally, a packaging machine is used to fill the powdered product into sachets, jars or other types of packaging, ensuring hygienic and accurate filling.

The nutritional powder production line can be customized according to the specific requirements of the final product, and process parameters such as temperature, pressure, and residence time can be adjusted to achieve the required product quality.



The Parameter Of Nutrition Powder Process Line

Model	Installed Powder	Powder Consumption	Output	Size
			(Kg/h)	(L*W*H)
	(Kw)	(Kw)		
LY65	88kw	62kw	120-150kg/h	19000*1200*2000mm
LY70	142kw	99kw	200-250kg/h	24000*1200*2000mm
LY85	160kw	130kw	300-500kg/h	28000*1500*2000mm
LY90	220kw	154kw	800-1000kg/h	29000*2500*2200mm
LY95	220kw	154kw	1000-1500kg/h	30000*2500*3500mm



The Advantage Of Nutrition Powder Process Line

Consistent	Thanks to the tight control of mixing, blending and drying		
Quality	parameters, the line ensures consistent quality and texture		
	of the final product.		
Higher	Compared with manual or semi-automatic processes, this		
Productivity	production line can produce large quantities of powdered		
	nutritional supplements or food additives in a short time.		
Reduce Labor	The automation process reduces the need for labor,		
Costs	thereby saving labor costs.		
Customizable	The production line can be customized according to the		
	specific requirements of the final product, such as the type		
	and quantity of raw materials, as well as the required		
	particle size and shape.		
Sanitation	The production line adopts automated processes and		
	closed systems to reduce the risk of contamination and		
	ensure product safety.		
Cost-	This line reduces the total cost of production by optimizing		
Effectiveness	production efficiency, reducing waste and improving		
	product quality.		
Wide Range Of	The nutritional powder production line can be used to		
Uses	produce powdered nutritional supplements or food		
	additives with various ingredients and formulas.		

Overall, the nutritional powder production line is an efficient, economical and versatile system that offers many advantages to producers of powdered nutritional supplements or food additives.

