

INTELLIGENT FEEDING/CONVEYING/ BATCHING/MIXING SOLUTION



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INTELLIGENT PRODUCTION LINE FOR THE ENTIRE POWDER FACTORY
PLANNING, DESIGN, AND IMPLEMENTATION

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COMPANY PROFILE

公司简介

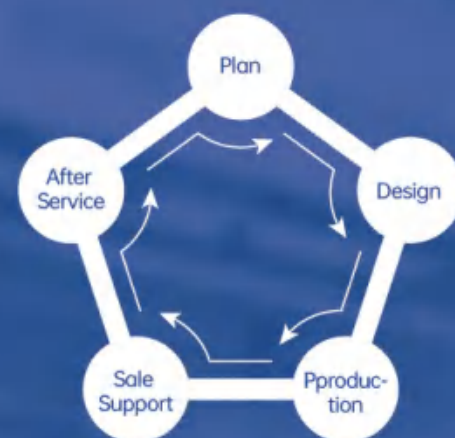
Driven by technology and seeking survival through quality

Shijiazhuang Rongxin Science and Technology Co., Ltd. was established in 2007, headquartered in the central city of Shijiazhuang in the Beijing Tianjin Hebei region. It is a high-tech enterprise with independent intellectual property rights, specializing in scheme planning, design and development, production and manufacturing, sales support, and after-sales service of feeding, conveying, mixing, and packaging equipment.

The company has multiple patented technologies and a complete product system, mainly involving raw material formula metering and conveying systems, mixing systems, industrial automation PLC, DCS industrial control systems, barcode error prevention and traceability systems, etc. Rongxin Technology focuses on intelligent ingredient systems, and its mature material automation processing technology has been widely applied in the new energy industry, metal materials industry, chemical industry, food and pharmaceutical industry, high-temperature materials industry, and other fields.



Founded	Staff	Material types	Turnkey Project
2007	100+	2000+	1000+



5

PRODUCT SERIES

Formula measurement and transportation

Mixing and batching system

Industrial Automation PLC

DCS industrial control system

Barcode error prevention and traceability system



HONORARY QUALIFICATIONS 荣誉资质

Rongxin Technology focuses on technological innovation and has been awarded multiple honors such as "High tech Enterprise", "Innovative Enterprise", and "Gazelle Enterprise". We currently have over a hundred patented technologies and multiple certification certificates



CORPORATE CULTURE 企业文化

企业宗旨 Corporate Purpose

Putting people first, uniting for common prosperity, exploring innovation, and establishing a business with integrity

经营宗旨 Business Purpose

Integrating persistence with inheritance, innovation with development

质量宗旨 Quality Purpose

Driven by technology, striving for survival through quality, continuously improving core technologies, and creating value for

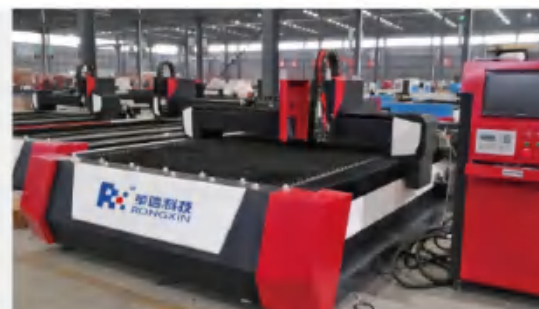
企业理念 Philosophy

Employees grow together with the company

ENTERPRISE STRENGTH

企业实力

Having advanced equipment, excellent management, and efficient production can meet a large number of production needs. We have a comprehensive quality control system and technical literacy to ensure high-quality production of every product. Strict management is implemented in every process from raw material procurement to production and delivery, effectively improving product quality and production capacity



• Integrated laser cutting of plates and tubes



• Hydraulic rounding machine



• CNC center



• Machining lathe

Technology

The company has a strong technical team with rich experience and can provide efficient production solutions.

Technical team proportion 50%

Including graduate students from universities, senior engineers in the industry, and undergraduate students from universities, responsible for mechanical, electrical, programming and other work, with over 5 years of work experience.

Production personnel account for 25%

The workshop adopts 5S lean management to ensure product quality.

Other Parts 15%

Including the finance department, comprehensive management department, procurement department, etc., providing strong logistical support for the company's products and project progress.

Technology sales account for 10%

The sales team has rich design and on-site experience, and can provide customers with a complete set of optimized solutions.

A top-notch sales team

The sales team has rich professional knowledge and has been continuously engaged in sales work in the industry for more than 5 years.

Construction of automated production lines

The company is preparing to build an automated production line, and once the entire system is mature, it can achieve segmented products or complete technology output for different customers, enabling rapid product promotion and replication, and winning with efficiency

Rich R&D experience

Since the establishment of the company, innovation has been the driving force for enterprise development, accumulating rich research and development experience and customer base. Currently, over 50% of customers have purchased new products for the second time.

APPLICATION

Powder automatic conveying and feeding products

After more than ten years of experience accumulation and the practice of over 2000 types of materials, we have carefully crafted automated batching systems and supporting equipment for multiple industries and categories.



Chemical



Pharmacy



Alloy



Powder metallurgy



Food



Lithium battery



High temperature materials



Friction material

PRODUCTS PRESENTATION

Tube Chain Conveyor

Fully enclosed conveying, dust-free;
Protective gas can be filled inside the pipeline, achieving safe transportation;
Multiple entry and exit points can be achieved during the conveying process;
capable of conveying powder, granules, unaffected by material moisture content.



Ton Bag Discharging Station

Dust Management: Minimizing environmental impact by controlling dust during bag opening.
Worker Ease: Making operations easier for workers by reducing physical strain.
Moisture Control: Managing moisture to prevent clumping and improve bag



Small Bag Dust-free Feeding Station

During feeding, dust generated by materials is drawn into the filtration system through negative pressure created by centrifugal fans or exhaust pipes. This separates materials from the air, preventing dust dispersion and protecting both the environment and operator health.



Weighing System

Quantitative feeding device;
High-precision weighing sensor;
Accurate control process.



Positive and Negative Pressure Pneumatic Conveying

Fully enclosed pipeline transportation,
leak-proof, clean and hygienic, occupying minimal space, long-distance transportation, and large throughput.



Ton Bag Packaging Machine

The packaging machine adopts a gravity-controlled dual-speed feeding device, with adjustable packaging speed and accuracy.

PLC Control System

Fully automated control, intuitive monitoring of operational status, reserved ports for comprehensive factory control



PART.2

Equipment

- Dust Free Feeding System
- Pneumatic Conveying System
- Tube Chain Conveyor
- Ton Bag Packing System
- The Mixing Equipment

DUST FREE FEEDING SYSTEM

无尘密闭投料系统

NO.1 Dust Free Small Bag Dump Station

The small bag feeding station is used for manual operation of feeding small bag packaging materials. The material dust generated during small bag feeding is sucked into the filtration system by the negative pressure formed by the centrifugal fan or odor pipeline, separating the material from the air, preventing dust from scattering and escaping, polluting the surrounding environment, and effectively protecting the health of the operator.

Modular design, configurable for screening, impurity removal, and fast breaking devices

Mirror treatment on the inner wall, effectively eliminating material static electricity

Advantages

Simple and convenient operation, installation, and maintenance

Eliminate dust flying and improve working environment

Main Structure

Figure 1, Three parts: a fan, a filter element component, and the main body of the feeding station.

Technical Parameters

Model	WT100/150
Volume(L)	100/150
Power(KW) ①	0.75/1.1
Consumption of compression air②/Pressure (L/min)/MPa	50/0.6
Discharge interface	Quick in stall 8inch Φ100/ Φ150
Dust removal fan interface	150/200
Overall Dimensions(mm)L*W*H	1000X900X2000

Note: ①Excluding the power of other selected fans and their electrical appliances.
②Only the consumption of compressed air required for the backwash device.



NO.2 Feeding Station With Screening

By using a vibrating screen (safety screen), large blocks of materials and foreign objects can be intercepted, ensuring that qualified products (qualified materials) meet the requirements enter the next process.

Model	Screening area	Power (kW)	Speed (rpm)	Dynamic load	Static load	Centrifugal force (kN)	Flow
RXWT-800	0.42	2x0.18	1460	800N	1500N	2.5x2	1550-997
RXWT-1000	0.64	2x0.25	1460	500N	2500N	5x2	1550-997

Application Industry: Pharmaceutical industry, chemical, food, battery etc.



Simple structure and easy to operate

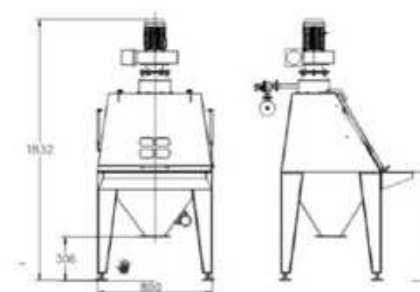
Eliminate dust flying and improve working environment

Advantages

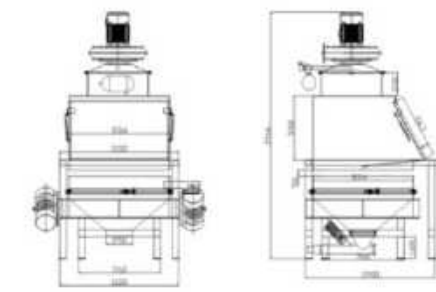
Direct screening to remove foreign objects

Compact structure and convenient operation

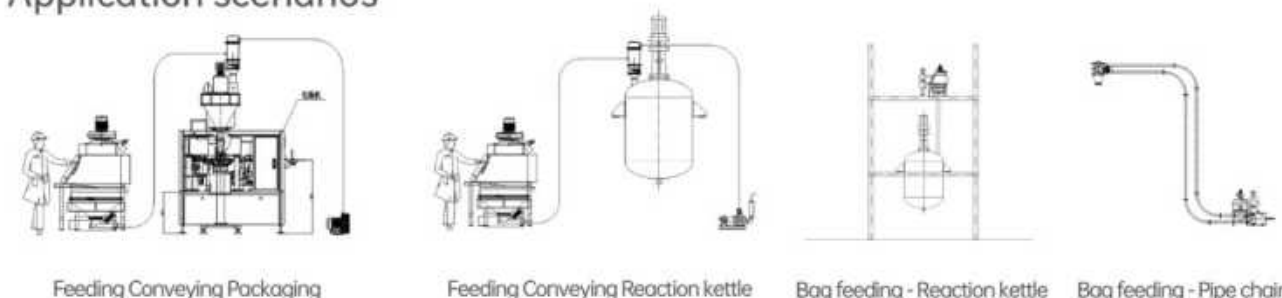
RXWT-100



RXST-800



Application scenarios



NO.3 Ton Bag Discharging Station

The ton-bag feeding station is designed to mitigate the environmental impact of dust dispersion during the opening of large bags, reduce the strenuous physical labor of operating personnel, and address issues such as clumping and difficulty in discharging material due to moisture absorption during bag opening.

The Product Features

- Sealed bag opening, can be equipped with a clamp for sealed dust removal;
- The unpacking method can be manually assisted bag opening or automatic bag cutting;
- A configurable vibrating plate equipped with mechanisms for tapping, stirring, and mixing, suitable for materials with poor flowability.



The Primary Configuration List

Serial Number	Device Name	Specifications	Material	Remark
1	Frame	100×100×4	Q235/304/316L	
2	Percussion Device	Pneumatic Control	Q235/304/316L	
3	Electric Hoist	1T、2T、3T	Q235/304/316L	
4	Dust Removal	10-0.5μm	Filter bag / Filter cartridge	
5	Temporary Storage Bin	0.4m ³ -Optional	Q235/304/316L	
6	Unpacking Format	Manual/Automatic	304	
7	Suspension Rack	800-1200mm	Q235/304/316L	

Optional configuration: Export flanges and clamps optional; cutting knife; built-in magnetic iron removal

Application scenarios



Hermetic Bag Sealer

The sealer is a semi-automatic device used for ton bag's discharging. It operates by elevating the ton bag to the material inlet, whereupon a manual button is pressed. This action triggers the clamping cylinder to ascend, allowing the operator to pull the discharge opening of the packaging bag into the inner ring of the clamping device. Upon pressing the clamping button, the clamping cylinder descends, effectively securing the bag opening by compressing it against the inner ring using a sealing ring. At this point, the operator unties the discharge opening of the ton bag, initiating the material unloading process through the inner ring of the ton bag unloader. The unloading process is characterized by dust-free discharge, as the material begins to discharge along the pipeline under gravity, aided by a tapping device to facilitate the complete emptying of the ton bag by allowing the material to fall under gravity into the buffer tank, thus completing the unpacking and unloading process.



Product Characters

1

The structure is simple, with low production costs, and convenient operation.

2

System operations are stable, improving work efficiency

3

Minimize residual materials and cross-contamination.

4

Enclosed discharge, preventing dust from flying, improving working environment.

5

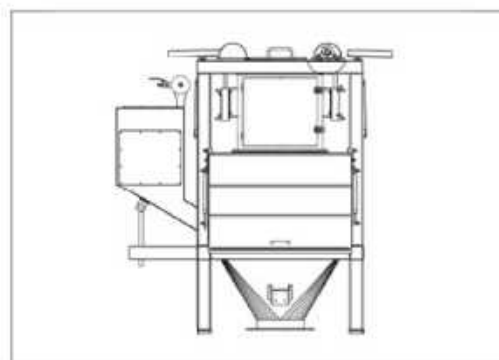
Can be directly connected and used with glove box, hopper, reaction vessels, and other equipment.

6

The process of opening the bag generates no heat and is safe from explosions.

NO.4 Two-in-one Feeding Station

The ton bag and small bag two in one feeding station can achieve both ton bag feeding and small bag feeding, realizing the feeding of multiple packaging specifications in the same equipment, and occupying a small area. The overall equipment structure is lightweight



- 1 This device features an auxiliary unloading (tapping) function.
- 2 Equipped with a dust collection system, it can return the collected dust to the feeding station to reduce dust leakage during the feeding process, thereby avoiding material waste.
- 3 The equipment utilizes a bag-pressing mechanism to prevent dust leakage.
- 4 The lower part is equipped with an auxiliary unloading device to ensure that all materials are transferred to the downstream equipment.
- 5 The interior is equipped with baffles to prevent foreign objects and large pieces of material from entering during the feeding process.
- 6 The device is equipped with a barcode anti-misplacement device to prevent workers from feeding incorrectly.
- 7 Wheels can be installed at the base to facilitate flexible movement of the equipment.

CLOSED CONVEYING SYSTEM

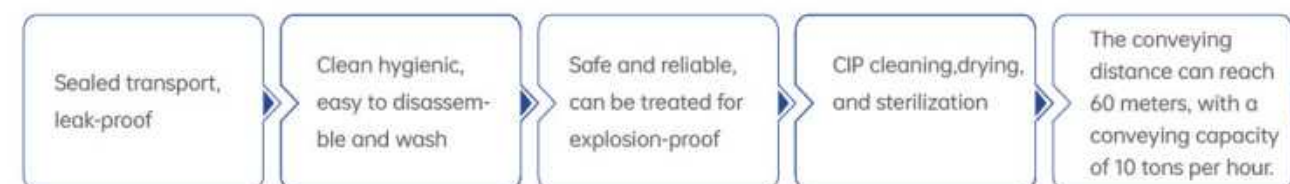
密闭输送系统

Vacuum Conveyor

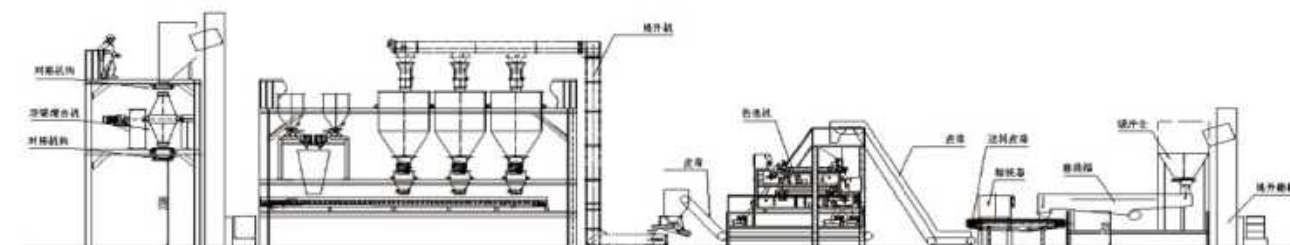
Vacuum Conveyor utilizes the pressure difference to create a stream of air within the conveying pipeline. Under the influence of this strong airflow, materials at one end are instantly transported through the sealed pipeline to a container at the other end, completing the conveying process.

Three types of machine models have been developed based on application environments and functional characteristics.

Product Features



Application Scenario



01 STANDARD VACUUM CONVEYOR



RXXL-14



RXXL-33



RXXL-56

Product Characters

Independent flip blown filter element automatic cleaning

Simple structure, easy operation and maintenance, low noise

Low usage cost widely used

The material is 304 or 316L, which meets conventional use

Application

Suitable for conveying powder and granular bulk materials in industries such as medicine, food, chemical, batteries, and rubber, and automatic feeding of equipment such as mixers, packaging machines, crushers, and vibrating screens.

Mainly used for simple conveying requirements, conventional conveying conditions, and low cost budget.

Main Structure

The main structure consists of six parts: upper head, filter element component, intermediate buffer compartment, discharge valve, control box, clamp, and sealing ring.



Technical Parameter

Parameter \ Model	RXXL-14	RXXL-33	RXXL-56
Volume (L)	14	33	56
Power (W)	200	200	200
Compressed air consumption/pressure (L/min) /MPa	100/0.6	100/0.6	200/0.6
Vacuum interface	Quick 2inch	Quick 3inch	Quick 4inch
Feed interface	Quick 2inch	Quick 3inch	Quick 4inch
Production capacity t/h	2.5-5.5	4-7	6-8
Weight (Kg)	37	40	65
Overall dimension(mm) D×H	φ400×1000	φ400×1250	φ650×1350

Note:

Does not include the power of the matching vacuum pump and its electrical components.

Excluding the consumption of compressed air when using a vacuum generator.

This parameter is measured when the conveying distance is not more than 5 meters and the material is flour.

If there are changes in the conveying distance and material type, please call for consultation.



02 CIP&SIP VACUUM CONVEYOR

Applied in the pharmaceutical and food industries, the conveying system can support equipment online cleaning (CIP) and online sterilization (SIP)



RXXL-200



RXXL-300



RXXL-400

Product Character

Unique flat membrane vacuum filtration system

Equipped with built-in cleaning balls and cleaning components, it can achieve equipment online cleaning (CIP) and online sterilization (SIP)

Inert gas protection transportation ensures safe feeding

Application

Suitable for conveying medium powder and granular materials in industries such as pharmaceuticals, food, and fine chemicals, it can be the feeder for tablet presses, capsule filling machines, dry granulation machines, and reaction kettles.

Technical Parameter

conveying distance	Model	RXXL-200	RXXL-300	RXXL-400
	Conveying Distance (m)	0-50	0-60	0-70
	Conveying Height (m)	0-20	0-25	0-30
conveying capacity	Model	RXXL-200	RXXL-300	RXXL-400
	Density (kg/L)	0.1-3	0.1-3	0.1-3
	Partical Size (um)	3-2000	3-2000	3-2000
	Conveying Capacity (L/H)	90-3000	180-8000	450-14000

03 Weighing Type Vacuum Conveyor

Product Character

High precision measurement and weighing

Realize weighing of multiple materials

0.5% Metering accuracy

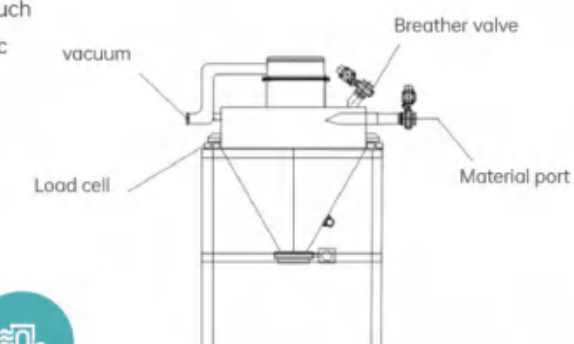
Closed and environmentally friendly transportation without dust

Material: 304, 316L or customized



Application

Suitable for conveying powder and granular bulk materials in industries such as pharmaceuticals, food, chemicals, batteries, and rubber, and automatic feeding of equipment such as mixers, reactors, and mixing tanks. The weighing type suction machine is used for automatic conveying and weighing of single batch, single weight materials, or multiple types of materials.



Structure Diagram



Pharmaceuticals



Food



Chemical



Battery



Rubber&Plastic

TUBE CHAIN CONVEYOR

管链输送机



Pipe chain conveyor is a device that achieves material transportation by moving bulk materials through a chain plate inside a closed pipeline.

CHARACTERS

- a Closed and environmentally friendly**

Closed transportation throughout the process, without dust or odor leakage.
- b Safe and reliable**

Inert pneumatic protection inside the pipeline for transporting flammable and explosive materials.
- c Multi point feeding and discharging**

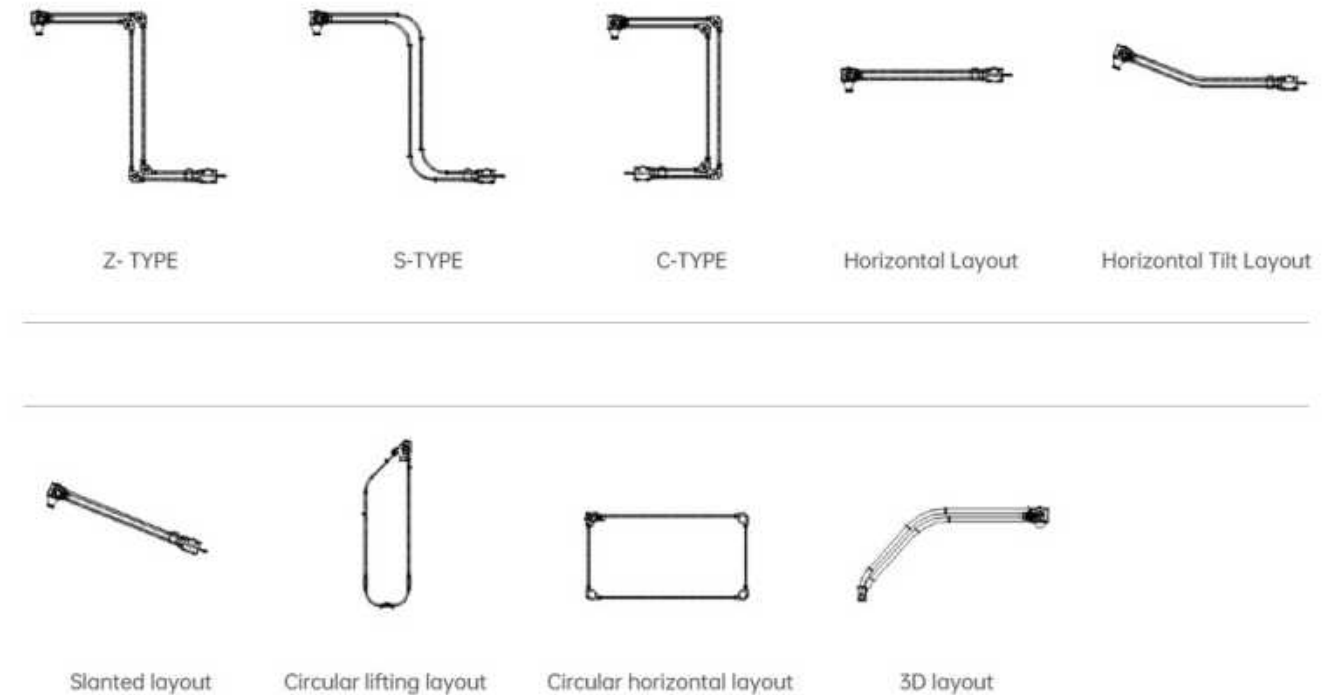
During the conveying process, it is possible to achieve multi position feeding and discharging.
- d Strong material adaptability**

Powders and particles can be transported, unaffected by material moisture content.
- e Flexible layout**

The pipeline has flexible turning and can achieve three-dimensional space transportation.
- f Long conveying distance**

The one-way horizontal distance reaches 60 meters, and the vertical height is 40 meters.

Layout form



Technical Parameter

Model	Motor Power KW	linear velocity M/S	Speed R/min	Conveying capacity M³/H	Max Torque N·M	Max Tensile force N	Notice
PC-80	4.0	0.30	20.7	3.9	1810	1300	Low speed maximum pulling force reaches 1.5 tons
		0.40	24.9	4.7	1504	1090	
PC-100	5.5	0.30	17.5	6.0	2943	1800	Low speed maximum pulling force reaches 2 tons
		0.40	23.4	7.0	2200	1350	
PC-150	7.5	0.30	13.4	13.7	5240	2450	Low speed maximum pulling force reaches 3 tons
		0.40	17.9	18.2	3923	1840	
PC-200	11.0	0.30	11.4	27.4	9034	3590	Low speed maximum pulling force reaches 4 tons
		0.40	15.2	36.5	6776	2700	

Application Field



Fine Chemicals

Pigment, Dye, Paint, Carbon Black, Zinc White Powder, Activated Carbon, etc.



Intermediate

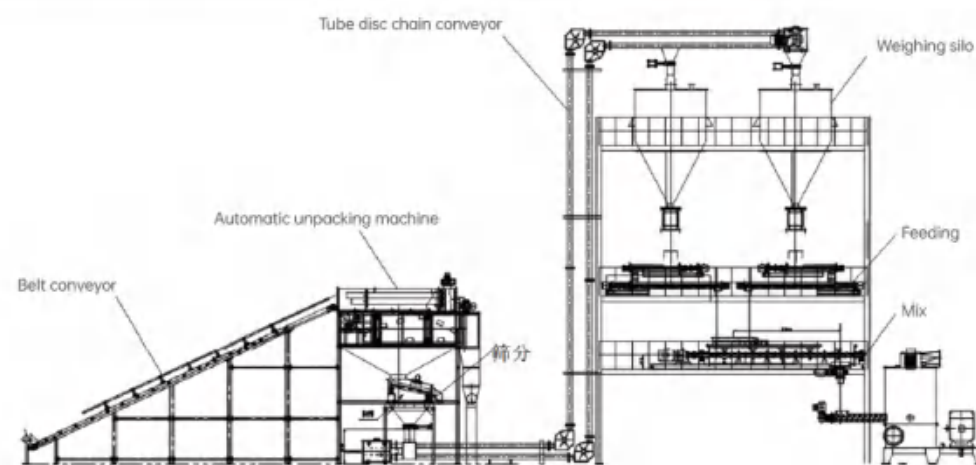
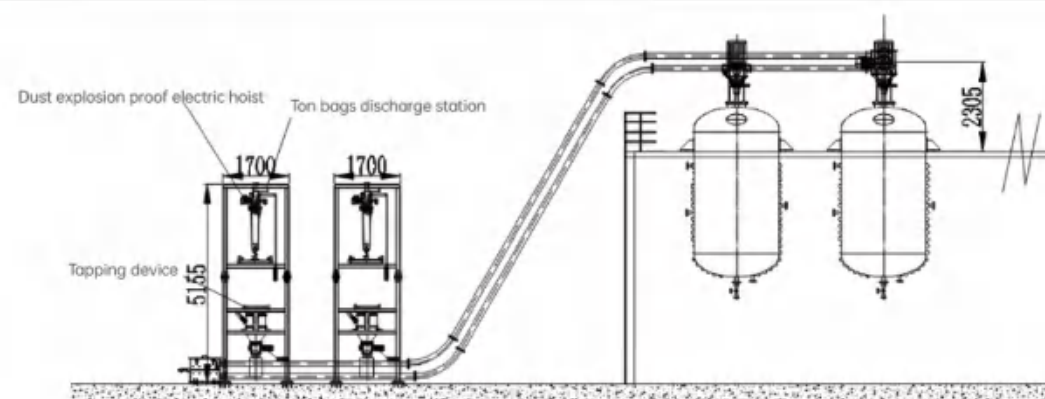
Urea, Pesticide Adjuvant, Copper Concentrate Powder, Coal Dust, Phosphate Ore Powder, etc.



Food Industry

Grains, Powdered Milk, Food Additives, etc.

Tube Chain Conveyor Process Solution



TON BAG PACKAGING SYSTEM

吨袋包装系统

The ton bag packaging machine is suitable for packaging granular materials and powdery substances. It consists of mechanical devices, electronic platform scales, and a microcomputer intelligent control system. The mechanical devices include flow tubes, gravity-controlled dual-speed feeding devices, bag-clamping mechanisms, weighing mechanisms, lifting mechanisms, conveying equipment, brackets, etc. The control system includes weighing sensors, intelligent weighing instruments, and PLC program control. Except for manual bagging, this machine adopts automatic control for bag expansion, fast/slow feeding, quantitative feeding, bag clamping, and bag unloading. The instrument can set control parameters such as fast/slow feeding quantity and display overload alarms. The equipment features fast packaging speed, high packaging accuracy, good stability, and easy operation.



The electronic scale packaging machine adopts gravity controlled dual-speed feeding device, with adjustable packaging speed and accuracy. When the packaging machine is working, except for manually hanging and bagging, all other processes are completed automatically, including feeding, measuring, loosening bags, unhooking, conveying, etc. The machine features low noise, minimal dust, compact structure, accurate measurement, simple operation, easy installation, and environmental friendliness.

Technical Parameters

Packaging Capacity	10-20(bag/h)
Measurement Range	500-1000 (KG/bag)
Measurement Accuracy	±0.5%
Working Pressure of the Gas Source	0.6-0.8Mpa、0.6m ³ /min
Return Air Dust Removal Wind Pressure	-0.01bar ~ -0.03bar

CASES SCENE

现场案例



OUR CUSTOMERS

我们的客户

