

Metering and Batching Transportation

System Engineering

PRODUCT MANUAL





Wuxi LinGood Machinery Technology Co.,Ltd.

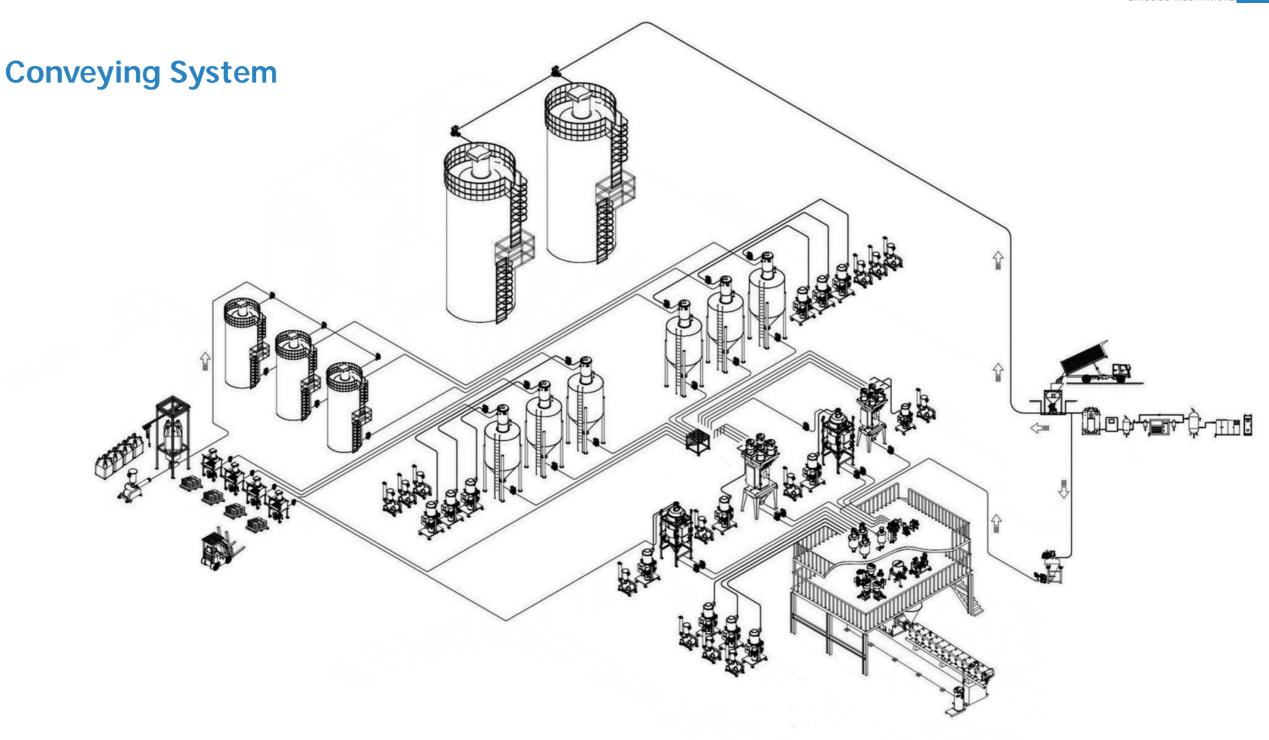
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LINGOOD Technology can provide you with a perfect automation solution for plastic granulation and modified granulation auxiliary equipment in the entire factory.

Including the unloading of various types of bagged, bulk, and solid materials for incoming materials, pneumatic conveying can quickly enter the warehouse and measure according to the order. From conveying and drying at the front end, premixing, and weight loss metering feeding and ingredient processing to precise formula (additives, liquid metering and addition) before the entrance of the granulator, and from cutting, screening, homogenization, drying to automatic packaging, detection, transportation, palletizing, scanning and warehousing at the extrusion end.

At the same time, we also provide various solid material conveying solutions for customers with pneumatic conveying requirements in various industries such as plastic processing, chemical engineering, construction, automotive, pharmaceutical, food, new energy, etc., including various plastic particles, plastic powders, chemical building powders, such as cement, carbon black, graphite, and so on. There are three main pneumatic conveying modes for materials with different characteristics and specific conveying requirements: positive pressure dense phase remote conveying, suitable for solutions with large conveying volume, long distance or special materials; Positive pressure dilute phase conveying, suitable for simple and fast solutions in medium and short distances; Negative pressure dilute phase conveying is suitable for automatic distribution of measuring and feeding schemes in workshops, such as one-to-many and multi-point.

LINGOOD Technology can provide customers with a complete service model from design planning, manufacturing and installation to debugging and delivery of the entire factory. In our entire factory solution, centralized monitoring and communication sharing of various equipment data are included, and seamless integration with ERP, MES and other systems is achieved.

# Positive Pressure Dense Phase Conveying





# Positive Pressure Dilute Phase Conveying



# **Negative Pressure Conveying**



# Product Characteristics

Ultra high stability, large conveying capacity, long-distance transportation, energy conservation.

Suitable for conveying powder with poor breathability and particle size less than 0.1mm

- o Unique bypass throttle technology ensures that the system maintains energy-saving advantages.
- Ontinuous conveying can be achieved through parallel or series connection of sending devices.
- $\odot$  Multiple cross combinations can be formed through pipeline switching, feeding points, and feeding points to form an efficient conveying system.
- $\, \odot \,$  The maximum conveying capacity can reach 100m³/h.
- $\,\circ\,$  Conveying distance of over 500m.

### Product Characteristics

Fast storage of raw materials, simple structure, and low maintenance cost.

Applied to the transportation of various coarse and fine dry powders with particle sizes less than 10mm.

- Suitable for simple and fast solutions for medium and short distances.
- Multiple cross combinations can be formed through pipeline switching, feeding points, and feeding points to form an efficient conveying system.
- ◎ The maximum conveying capacity can reach 200m³/h.
- © Conveying distance of over 500m.

### Product Characteristics

Automatic allocation and measurement, meeting the complex feeding needs of multiple material points.

Applied to the transportation of various coarse and fine dry powders with particle sizes less than 10mm.

- Suitable for workshop short distance, one to many, many to many automatic distribution of measuring and feeding schemes
- Multiple cross combinations can be achieved through pipeline switching, suction and feeding points to form an efficient negative pressure conveying system.
- ◎ The maximum conveying capacity can reach 50m³/h.
- The conveying distance can reach over 200m.





# **Powder Feeding Station**



# **Container Bag Unloading Station**



# **Vacuum Feeder**

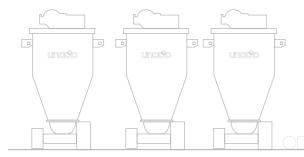


# Product Characteristics

Easy to clean, dust-free and environmentally friendly, docking system.

Suitable for manual small bag feeding of various powder and particle materials.

- The top design of a reverse blowing dust removal device ensures effective control of dust during the
   unloading process of materials and keeps the working area clean.
- $\, \odot \,$  The lower part can be directly connected to a rotary valve or other feeding mechanism.



#### Product Characteristics

Easy to operate, safe and reliable.

Suitable for loading Container bags, equipped with a clamping device and auxiliary dropping and tapping device.

- ® Reasonable angle design with no residual dead corners.
- Dual sealing structure inside and outside, equipped with dust removal and filtration system, sealed bag opening, preventing dust from flying.
- The best solution can be designed based on material performance requirements, unloading capacity, and working environment.

### Product Characteristics

Safety, simplicity, hygiene, quietness, cleanliness, economy.

Including two types of vacuum feeding machines for powder and granular materials.

Can be used in industries such as food, chemical, lithium batteries, and plastics.

- © Easy to assemble and disassemble, easy to clean and maintain.
- Sound insulation design, effectively reducing noise.
- Tangential fast exhaust separation.
- Automatically alarm and close the program when there is no material available.
- Modular design, can be directly used as a replenishment silo.
- $\odot$  The powder vacuum feeding machine is equipped with an automatic backflushing system that can perform thorough cleaning, and the minimum filtering particle size of the filter element can be as low as  $0.5\mu m$ .



# EQUIPMEN.

# **High Pressure Sending Tank Conveying System**



# **Draught Fan**





Vortex Fan

# Product Characteristics

Low cost, easy maintenance, long distance, and wide application range.

Applied to conveying powder and granular materials. Especially suitable for long-distance and efficient transportation of materials with poor fluidity.

- $^{\scriptsize \odot}$  It is a type of positive pressure pneumatic conveying system, usually transported in a dense phase form.
- High solid to gas ratio brings high conveying efficiency.
- Using high-pressure gas for transportation, with low gas consumption and low operating costs.
- $\, \circ \,$  The conveying distance can range from a few meters to a few kilometers.
- The lower airflow speed reduces the wear of the pipeline and can also prevent brittle particles from violently impacting the pipe wall and causing fragmentation.
- There are no moving parts in the system, with fewer faults and low maintenance costs.
- $\, \odot \,$  For materials with unstable chemical properties, specific gases can be used for transportation.
- Closed transmission pipeline, unaffected by climate and surrounding conditions, to avoid moisture, dirt, and foreign objects mixing in materials.
- Multiple sending tanks can be combined to meet different conveying needs of users.

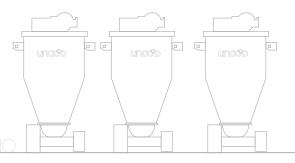
### Product Characteristics

**Roots Blower** 

According to the different application requirements of the project plan, we configure different fans for customers.

Fan up to 2500m³/h Inspiratory capacity and 1000mbar pressure difference. Meet the pneumatic conveying needs of various materials such as granular materials, powder materials, and particle powder mixtures.

- Roots blower is a volumetric fan, which is a rotary compressor that uses two blade shaped rotors to move relative to each other in the cylinder to compress and transport gas.
- O Low vibration, low noise, durable and durable.
- © Large volume utilization rate and high Volumetric efficiency.
- Compact structure, environmentally friendly and energy-saving.
- The vortex fan is another type of air source generating equipment that uses a dedicated motor direct connection and does not require any variable speed mechanism.
- Simple structure, direct transmission form.
- © Compact structure, small size, light weight.
- $\, \odot \,$  Low noise, low energy consumption, and stable performance.



# **Ball Plug Type Three-way Directional Valve**

# **Rotary Discharge Valve**

# **Central Filter**







# Product Characteristics

Changing the direction of material flow or merging two streams of material in pneumatic conveying.

Suitable for powder, granular materials, granular powder mixtures, flake materials, etc.

- © Full channel structure, arc transition, large curvature radius design, no residual dead corners.
- High torque cylinder actuator ensures high reliability when opening and closing.
- The cylinder is equipped with a position indicator, which is convenient for distinguishing whether the valve position and angle deviate.
- ® Equipped with a high-pressure blowing device, it can be used to automatically clean up residual
  materials inside the flow channel when switching forward.
- $\, \odot \,$  Bull polishing in the flow channel can reduce the resistance and residue of materials during operation.
- ® Equipped with an independent filter adjustment valve group, it can perform independent pressure regulation of pneumatic actuators and high-pressure injection valves.
- Customization and assembly combination of valve flow angle can be carried out according to different on-site requirements.

### Product Characteristics

There are various structural types based on the characteristics, uses, and usage conditions of materials.

The selection is determined based on the characteristics of the conveyed material, such as particle size, adhesion, temperature, humidity, etc., so it has a wide range of applications.

- ® The structure is simple, easy to use and maintain, and the temperature of the transported materials can be between n-3nn ℃
- The frequency converter can remotely control the adjustment of its speed, making it easy to change the feeding amount.
- With changes in physical properties and changes in material storage in the separator or dryer, the discharge amount changes very little.
- Slow speed, almost no damage to materials.

### Product Characteristics

Safe and reliable, easy to operate, quiet and dust-free.

Used to filter dust and fine impurities in the transported raw materials.

- Automatic spray cleaning and dust removal function, which can effectively spray clean the filter on a regular basis, reducing the number of cleaning times.
- © Equipped with a vacuum breaking diaphragm valve, effectively protecting the fan and improving the raw material delivery speed.
- Built-in cloth bag filter device, which can effectively filter dust in raw materials.
- ® Equipped with a high-pressure air storage tank, externally connected with high-pressure air, which can provide a large amount of high-pressure air required for spray cleaning and dust removal.
- © Filters and fans can be installed in independent rooms outside the production site to maintain cleanliness, isolate noise, and achieve an ideal dust-free workshop.



