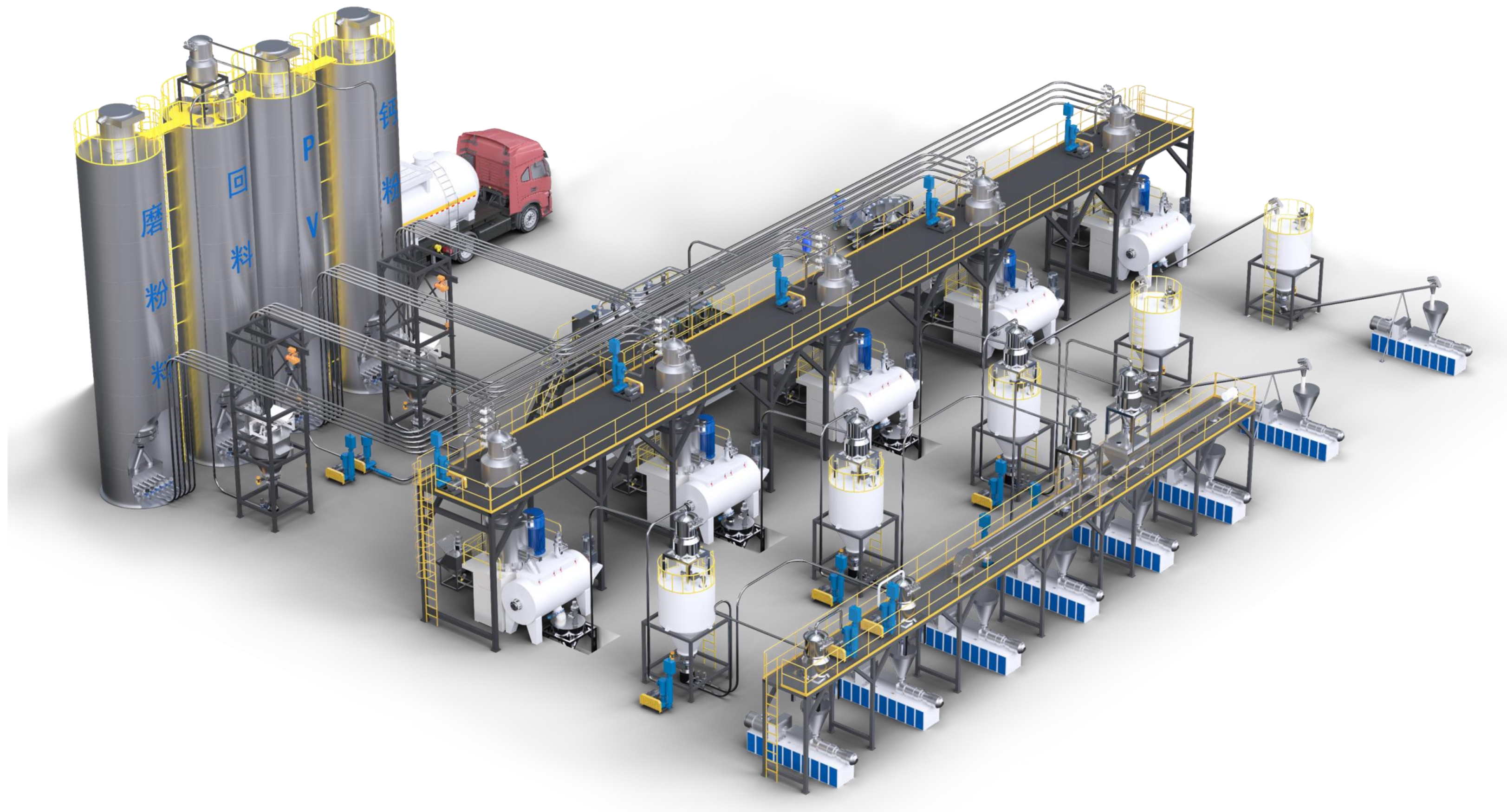








Automatic Weighing,Mixing,Conveying&Feeding System



ABOUT US

- **25** All over 25 countries in the world
- **40** Our company holds 40 patents in this field
- **10** The relevant components are from well-known brands
- **25** 25 years of industry experience
- **10,000** Over 10,000 square meters of factory space
- **1900** Annual sales USD 19 million

Certifications



ISO9001:2015



CE MIXING CONVEYING SYSTEM



CE High Speed Mixer

Multiple patents in the field of mixers



Patent Name	High speed mixer with metering function for feeding	Efficient powder mixer	High speed mixer control software	Hot and cold mixing machine	Powder material mixer with temperature control function	High speed mixer wear-resistant mixing blade
Patent number	ZL201921464499.6	ZL201921476215.5	2020SR0040662	ZL201921464497.7	ZL202321401933.2	ZL202120664805.1

Multiple patents in the field of mixing and conveying

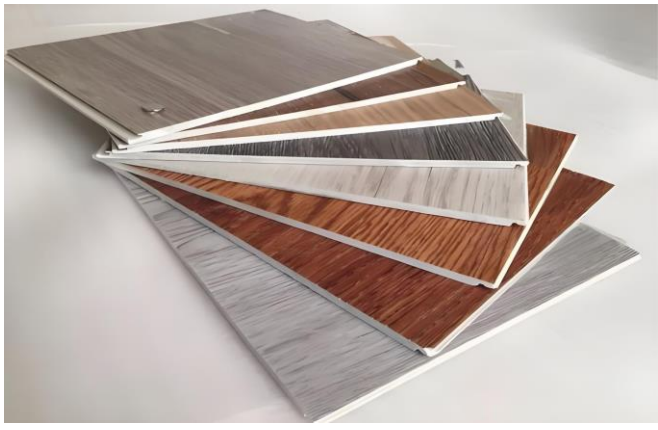


Patent Name	Storage silos to prevent material accumulation	High capacity storage silo for stable discharge of materials	Mixed conveying system software	Efficient dust-free feeding machine	Efficient batching machine	Efficient silo vibration feeder
Patent number	ZL201921461061.2	ZL201921485626.0	2020SR0058262	ZL201921477696.1	ZL201921465202.8	ZL201921465533.1

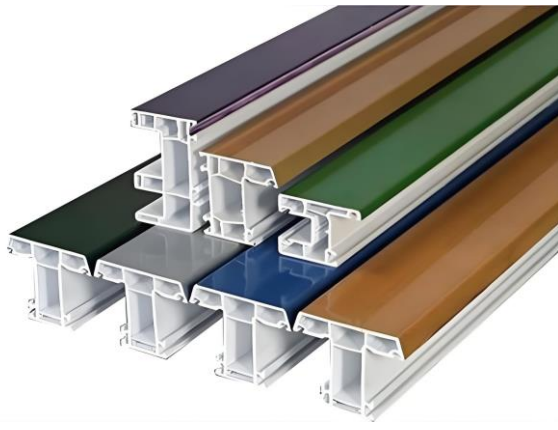


Patent Name	Automatic batching system	Zero dust pollution powder feeding device	Automatic quantitative feeding system and method for powdered materials	Automatic feeding production system	Fully automatic weighing and feeding system	Auxiliary feeding device
Patent number	ZL201921464542.9	ZL201921494056.1	ZL202310416232.4	ZL201921467406.5	ZL202222481550.2	ZL201921484459.8

INDUSTRIES



SPC/WPC/LVT Flooring



PVC Profiles



PVC Pipes



Wallboard



Granulation



Cable



FOOD & Health Products



Chemical Industry



Dyestuff



Lithium Battery

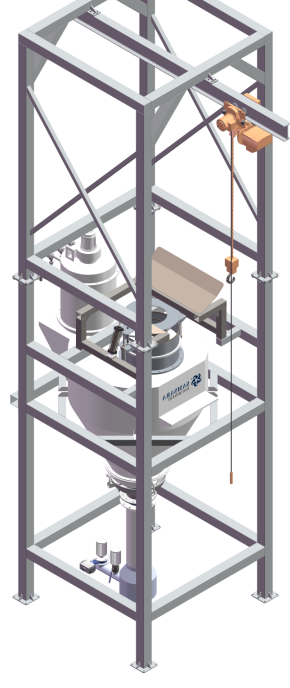
PRODUCTS



1.SRL-W Series Horizontal Mixing Unit



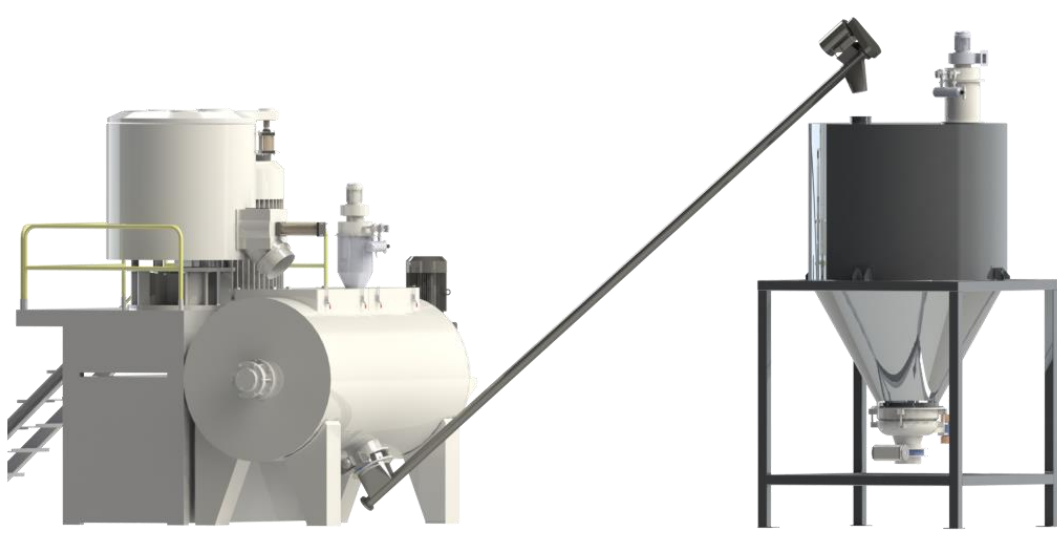
2.SRL-Z Series Vertical Mixing Unit



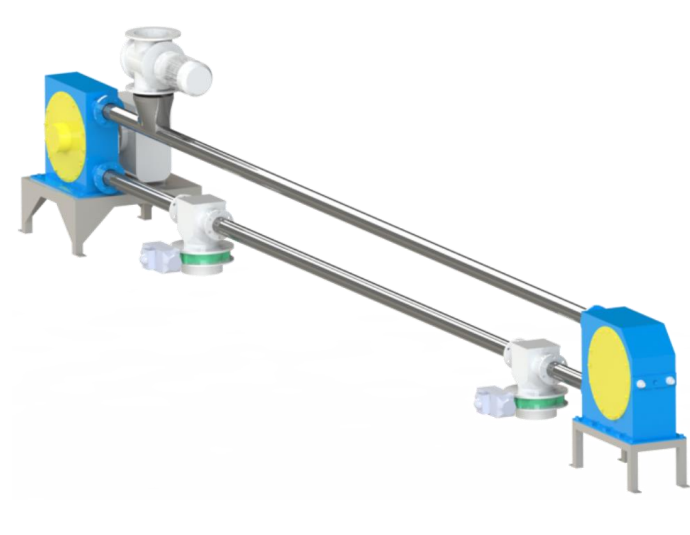
3.Bulk Bag Unloaders



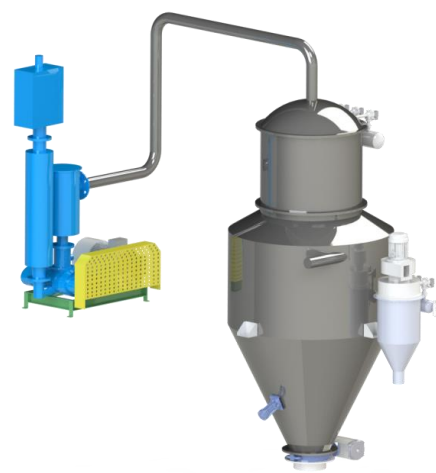
8.Material Storage Equipment



5.Screw Conveyors



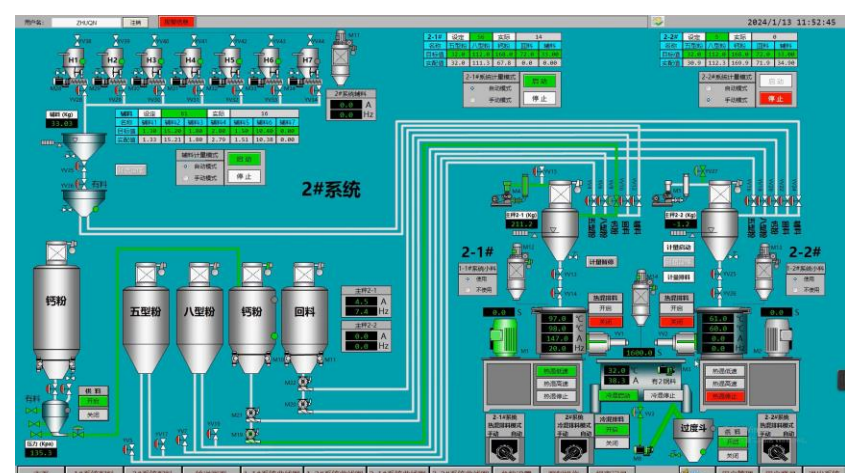
6.Tubular Chain Conveyors



7.Pneumatic Conveyors



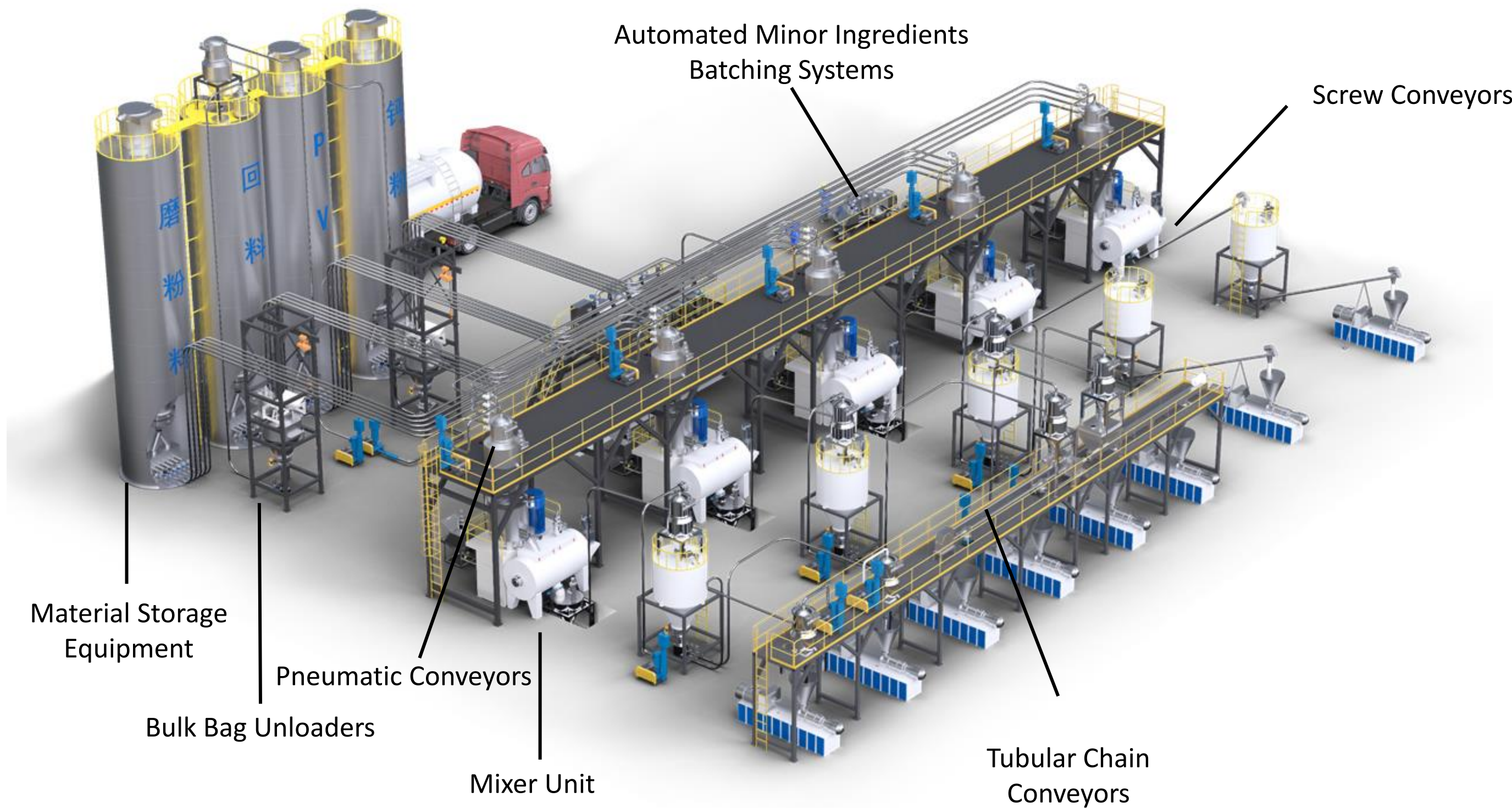
8.Automated Minor Ingredients Batching Systems



9.Weighing & Feeding Systems

Turnkey solution

PVC Automatic Weighing,Mixing,Conveying&Feeding System



Automation solutions

Samsara Machinery is a world leader in the design and manufacture of Automatic Weighing,Mixing,Conveying&Feeding System and equipment and custom-engineered and integrated plant-wide systems.

Samsara products range from individual equipment to automated systems that source bulk material from interior and exterior plant locations, transport it between process equipment and storage vessels, weigh it, blend it, feed it to packaging lines, extruders, molding machines and storage vessels. Choose from a broad range of reliable, high performance equipment in carbon steel with durable industrial finishes, or in stainless steel designed and constructed to industrial, food, dairy or pharmaceutical standards.



PVC Automatic Compounding Weighing Feeding System For Extruder Line Mixing machine

For large PVC pipe/SPC floor production factory, Advanced automatic weighing compounding conveying system is essential, Traditional mixing method is that people weigh and batch material manually, then move the mixed material to extruder also manually, this old way just fit for the small factory, and has many defects:

- 1.Artificial mixing is easy to make a mistake, because this is a repetition work, so worker is tired easily,the weighing precision is not assured.
- 2.Labour intensity is large, human cost is high from long term view.
- 3.Chemical raw material harms the worker' s health.



Automation of bulk material handling systems

Automation and storage, automation and discharge:

The storage of large bulk solids quantities is realized in silos, big-bags and containers, equipped with automatic discharge aids for a safe extraction of the required product amount from the container. In case of larger capacities the bags emptying is made automatically; at smaller discharge capacities the manual discharge process is usually supported by mechanical devices (like hoists).

Automation and conveying:

The application of automation technologies in the field of bulk solids transport - comprising both mechanical systems (screw conveyors, bucket elevators, chain conveyors...) and also pneumatic systems (conveying under overpressure and by vacuum, fluidized bed chutes...) - has a very strong impact on production and productivity. It allows to transport even very large bulk quantities in a reliable and safe manner over great distances without human intervention.

Automation and metering, automation and weighing:

In the field of metering and weighing the automation allows higher metering accuracies and has - besides a productivity increase - mainly an impact on the product quality. Of great importance are the production records and batch protocols recorded and filed by the recipe management system.

Raw material preparation is a necessary and very important step in a PVC extrusion process.



what is the targets we want to achieve:

A: Improve the finish product quality

(and as a consequence the profit margins of the product) Definition of quality: A product is constantly produced without any variation of the specific characteristics the product need to have for fulfilling the final task of the product's application.

B: Improve the environment of PVC processors

With a state of the Raw Material Handling System the ENVIROMENTAL CONDITIONS inside and outside the production plant(Dust, Noise, Steam, Smells, Vibrations) are improved easily and therefore the environment of this industry as well as.

C: Minimize labor cost since the introduce of automation processing

1.SRL-W Series Horizontal Mixing Unit





Samsara's PVC heating-cooling mixer Horizontal Delivering Unprecedented Performance and Efficiency!
Mixing PVC Dry-Blend. Innovative mixing technology for perfect homogeneity.



PVC Heating Mixer. Perfect Dispersion.

Optimal dispersion of PVC powder with powders, granulates or liquids. The new SRL-W series of heating mixers offers the optimal solution for all applications where dispersion of powders with powders or granules with or without liquid addition is required. The possible applications are manifold.



PVC Cooling Mixer Horizontal. High efficiency cooling without agglomeration.

The new high-efficiency SRL-W horizontal cooling mixers are optimized for maximum performance in cooling hot dry blends from the turbo mixer. With a large heat exchange area on the tank, sides, and lid, and intensive contact between the dry mix and the main agitator, these mixers achieve the lowest cooling temperatures. This prevents lump formation in intermediate silos due to thermal inertia. All product-contact surfaces are made of polished stainless steel for easy cleaning and to avoid material buildup.



Advantages

- No clumping of hot PVC mixtures due to optimum cooling
- Mixing with throughputs up to 3,600 kg/h
- Optimized double-batching
- Dispersion of powder with powder, granules and liquid
- Safety compliant to standards CE
- Cost-saving remote maintenance
- Cloud monitoring “Control Center”
- Customized PVC mixers



Outstanding PVC Mixing Technology

With our combined heating-cooling mixers, PVC compounds are precisely heated and then highly efficiently cooled. The horizontal design of the PVC heating-cooling mixer was developed for large throughputs, fast processing and 100% reliability. Our heating mixers, cooling mixers and combined heating-cooling mixers are suitable for mixing and processing PVC raw materials like no other industrial mixer.



PVC Applications. Mixing PVC dry blends in the high throughput range.

PVC heating mixers and cooling mixers must be extremely flexible, because the variety of applications in the PVC industry is enormous. Samsara's PVC mixers process PVC-U, PVC-P, PVC-C as well as PVC composites such as WPC or SPC as the basis for an infinite number of end products.



PVC-U/Rigid PVC

Samsara's industrial mixers produce perfect PVC mixtures, which serve as raw material for the production of various products made of rigid PVC, such as:

- Window profiles
- Pipes
- Fittings
- Compounds
- Thermoforming sheets
- Sheets(hard or foamed)
- Technical profiles



PVC-P/Soft PVC

Mix PVC with additives, colors and plasticizers to create perfect blends for manufacturing a wide variety of flexible PVC products:

- Foils
- Cables
- Hoses
- Compounds
- LVT
- Medical products
- Sheets



Wood Plastic Composite/WPC

Benefit from the superior temperature control of our mixers and produce PVC compounds for the manufacture of WPC products:

- Profiles
- Boards
- Sheets
- Laminate
- LVT
- Planks



Stone Plastic Composites/SPC

You will not find better mixers than ours to mix PVC powder with stabilizers as a base to produce SPC:

- Floors
- Planks
- Sheets
- LVT
- Laminate
- Window profiles



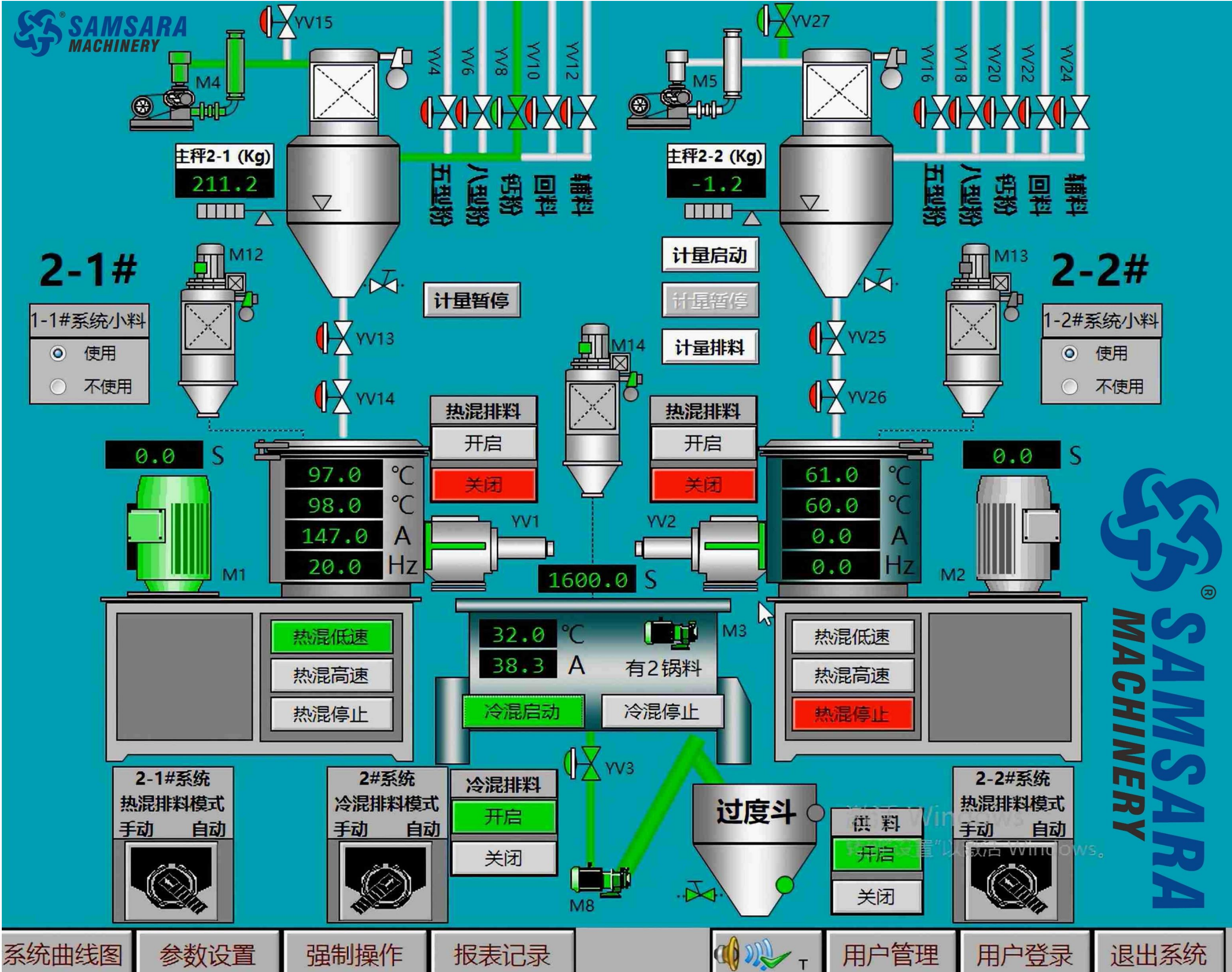
Technical Parameter

SRL-W	Heat/cool	Heat/cool	Heat/cool	Heat/cool	Heat/cool
Total volume (L)	500/1600	800/2500	1000/3000	1500/5000	2000/6000
Effective capacity (L)	375/1120	560/1750	700/2100	1050/2450	1450/3900
Stirring speed (rpm)	430/860/80	357/714/80	300/600/50	300/600/60	300/500/50
Mixing time (m)	8-12	8-12	8-12	8-12	8-12
Motor power (kW)	75/18.5	110/22	160/30	250/37	315/55
Output (kg/h)	900	1440	1800	2700	3600



Control System

Highest efficiency and process visualization



2.SRL-Z Series Vertical Mixing Unit



Samsara's PVC heating-cooling mixer Vertical
High efficiency cooling without agglomeration for smaller batch sizes.

Mixing PVC Dry-Blend. Innovative mixing technology for perfect homogeneity.



PVC Heating Mixer.
Perfect Dispersion.

Optimal dispersion of PVC powder with powders, granulates or liquids. The new SRL-Z series of heating mixers offers the optimal solution for all applications where dispersion of powders with powders or granules with or without liquid addition is required. The possible applications are manifold.



PVC Cooling Mixer Vertical.
High efficiency cooling without agglomeration.

The SRL-Z vertical cooling mixers have been developed to provide economic and reliable solutions for throughputs up to 1,200 kg / h. In the vertical cooling mixer, cooling of the mix takes place by gentle material circulation on a cooled surface. A targeted water supply in the mixer bottom and side wall ensures optimum cooling performance of the mix. After completion of the mixing process, the cooled mix is quickly discharged via the contour-shaped outlet.



Outstanding PVC Mixing Technology

With our combined heating-cooling mixers, PVC compounds are precisely heated and then highly efficiently cooled. The vertical design of the PVC heating-cooling mixer was developed for large throughputs, fast processing and 100% reliability. Our heating mixers, cooling mixers and combined heating-cooling mixers are suitable for mixing and processing PVC raw materials like no other industrial mixer.



Advantages

- No clumping of hot PVC mixtures due to optimum cooling
- Mixing with throughputs up to 1,200 kg/h
- Optimized double-batching
- Dispersion of powder with powder, granules and liquid
- Safety compliant to standards CE
- Cost-saving remote maintenance
- Cloud monitoring “Control Center”
- Customized PVC mixers



PVC Applications. Mixing PVC dry blends in the high throughput range.

PVC heating mixers and cooling mixers must be extremely flexible, because the variety of applications in the PVC industry is enormous. Samsara's PVC mixers process PVC-U, PVC-P, PVC-C as well as PVC composites such as WPC or SPC as the basis for an infinite number of end products.



PVC-U/Rigid PVC

Samsara's industrial mixers produce perfect PVC mixtures, which serve as raw material for the production of various products made of rigid PVC, such as:

- Window profiles
- Pipes
- Fittings
- Compounds
- Thermoforming sheets
- Sheets(hard or foamed)
- Technical profiles



PVC-P/Soft PVC

Mix PVC with additives, colors and plasticizers to create perfect blends for manufacturing a wide variety of flexible PVC products:

- Foils
- Cables
- Hoses
- Compounds
- LVT
- Medical products
- Sheets



Wood Plastic Composite/WPC

Benefit from the superior temperature control of our mixers and produce PVC compounds for the manufacture of WPC products:

- Profiles
- Boards
- Sheets
- Laminate
- LVT
- Planks



Stone Plastic Composites/SPC

You will not find better mixers than ours to mix PVC powder with stabilizers as a base to produce SPC:

- Floors
- Planks
- Sheets
- LVT
- Laminate
- Window profiles



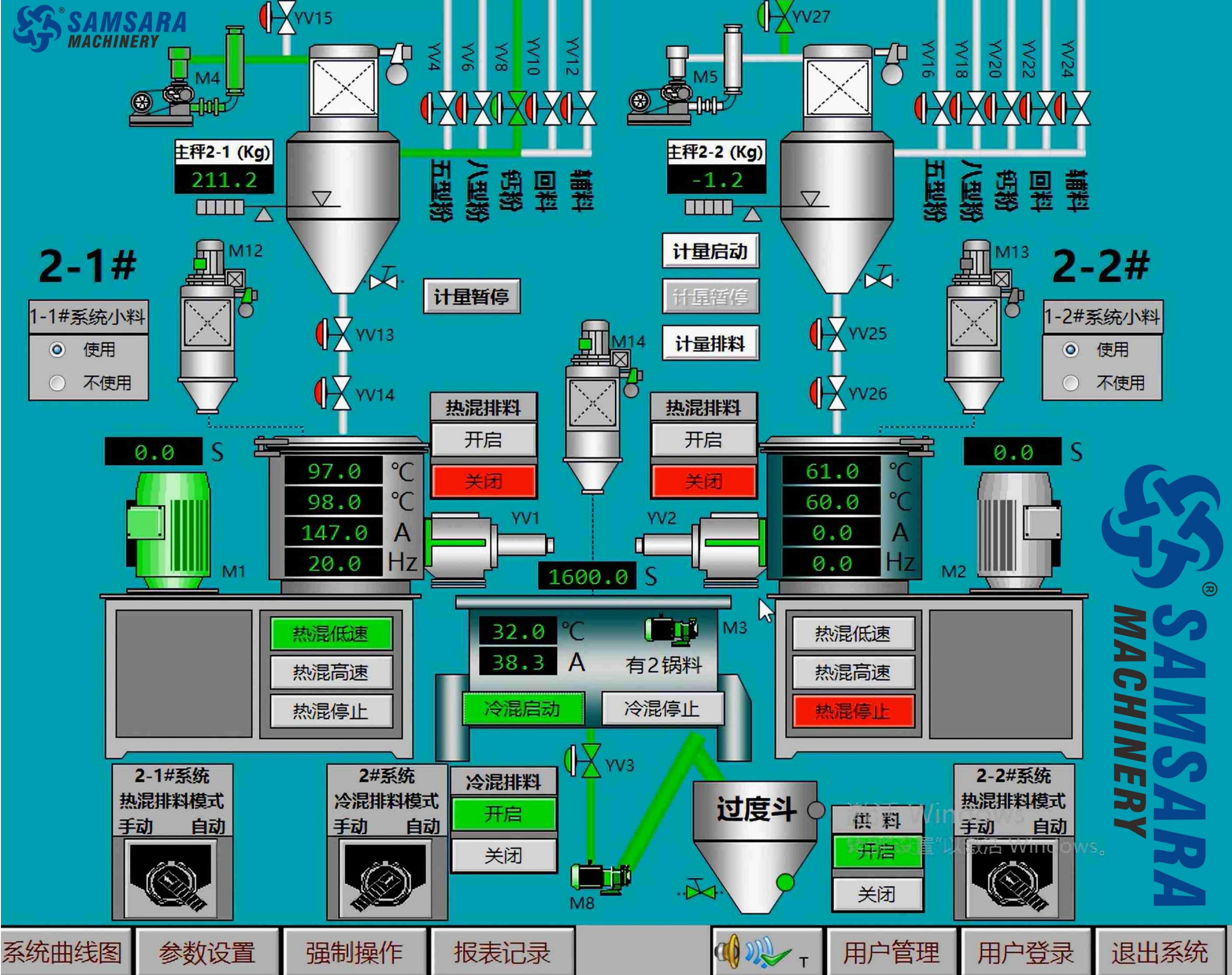
Technical Parameter

SRL-Z	Heat/cool	Heat/cool	Heat/cool	Heat/cool	Heat/cool
Total volume (L)	100/200	200/500	300/600	500/1000	800/1600
Effective capacity (L)	65/130	150/320	225/380	375/650	600/1050
Stirring speed (rpm)	650/1300/200	475/950/130	475/950/100	430/860/60	370/740/50
Mixing time (m)	8-12	8-12	8-12	8-12	8-12
Motor power (kW)	22/7.5	42/11	55/11	75/15	110/22
Output (kg/h)	200	360	540	900	1400

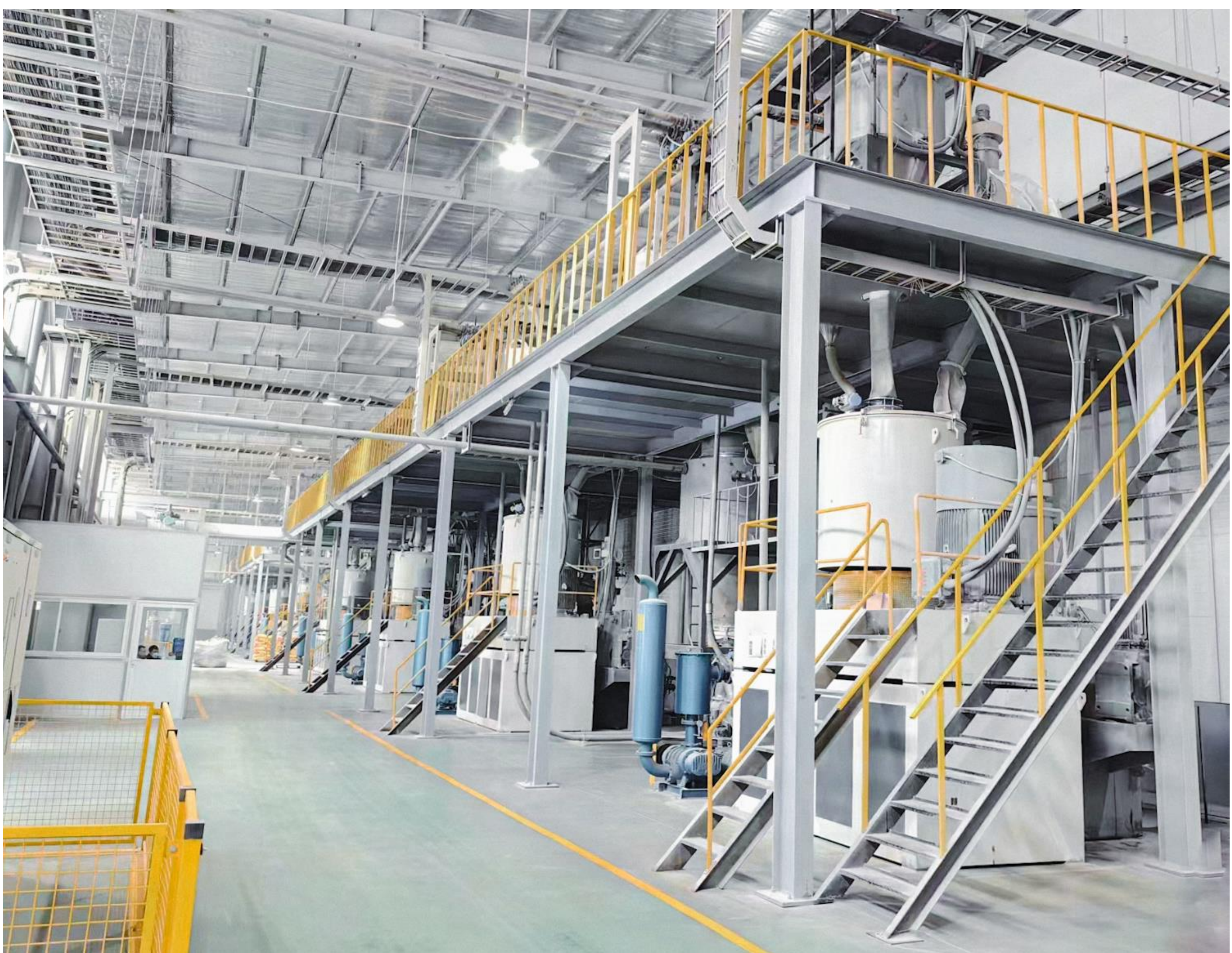


Control System

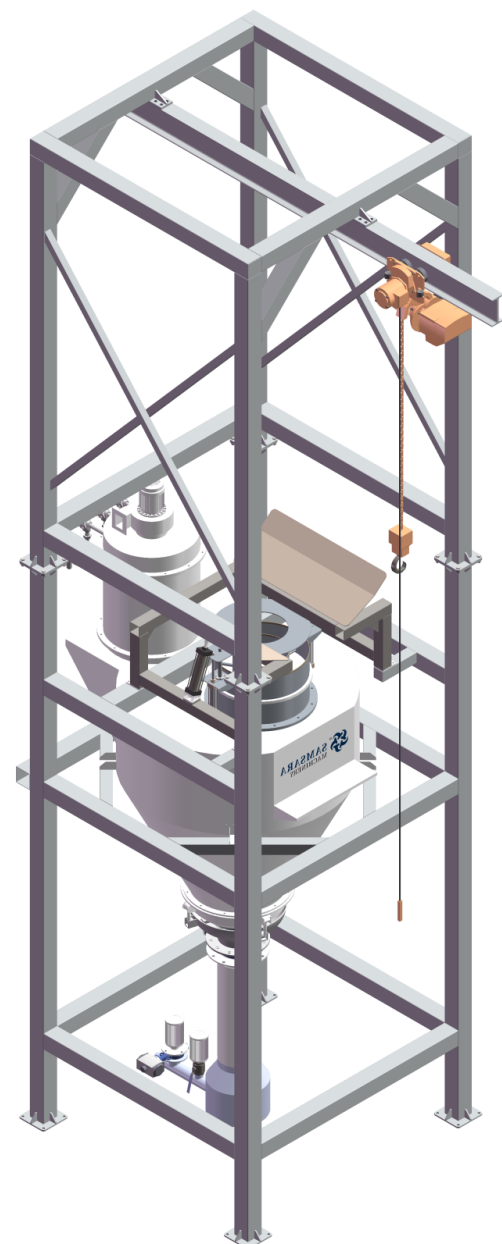
Highest efficiency and process visualization



CASE HISTORIES



3. Bulk Bag Unloaders



Provide Dust-Free Loading, Untying, Retying and Removal of Bulk Bags.

Samsara Bulk Bag Unloaders, also known as FIBC, Big Bag, or Jumbo Bag unloaders, are available in various frame configurations to suit different needs.

These configurations include:

- Split frames for forklift loading in low headroom areas.
- Half frames for suspending bags during discharge using a forklift.
- Continuous loss-of-weight dischargers for uninterrupted feeding directly from bulk bags.
- Other specialized designs tailored to specific requirements.

Once the bag is unloaded, the material can be transferred to the target position using a vacuum conveyor, screw conveyor, or other types of conveyors.



Revolutionary advances overcome limitations of outdated designs

Just as bulk bags changed the way bulk material was stored and shipped over the last decade, so will these bulk bag unloaders revolutionize the way you load, untie, retie, remove and collapse bulk bags in the future.

No longer must your operators reach through cramped access doors and awkward glove boxes, struggle to retie partially empty bags, clean up spillage after disconnections, dislodge products from dead spots or flatten bags manually.



Performance never before possible

Samsara's latest generation of bulk bag unloaders can eliminate the drawbacks of outdated designs while dramatically improving convenience, safety and cleanliness. The heart of the new design is a bag spout interface that not only creates a dust-tight seal, but promotes material flow and total evacuation. It also allows easy retying of partially empty bags, and can collapse empty bags—free of spillage and dust.

CASE HISTORIES



Manual feeding station (20kg sack)

4. Material Storage Equipment



Material storage equipment mainly refers to various silos used for storage of raw materials and finished materials



PVC Raw Material Storage Silo



Bridge-proof CaCO_3 Storage Silo



Additives Material Storage Hopper



Liquid Storage Tank



Finished Material Storage Silo

CASE HISTORIES



Finished Material Storage Silo

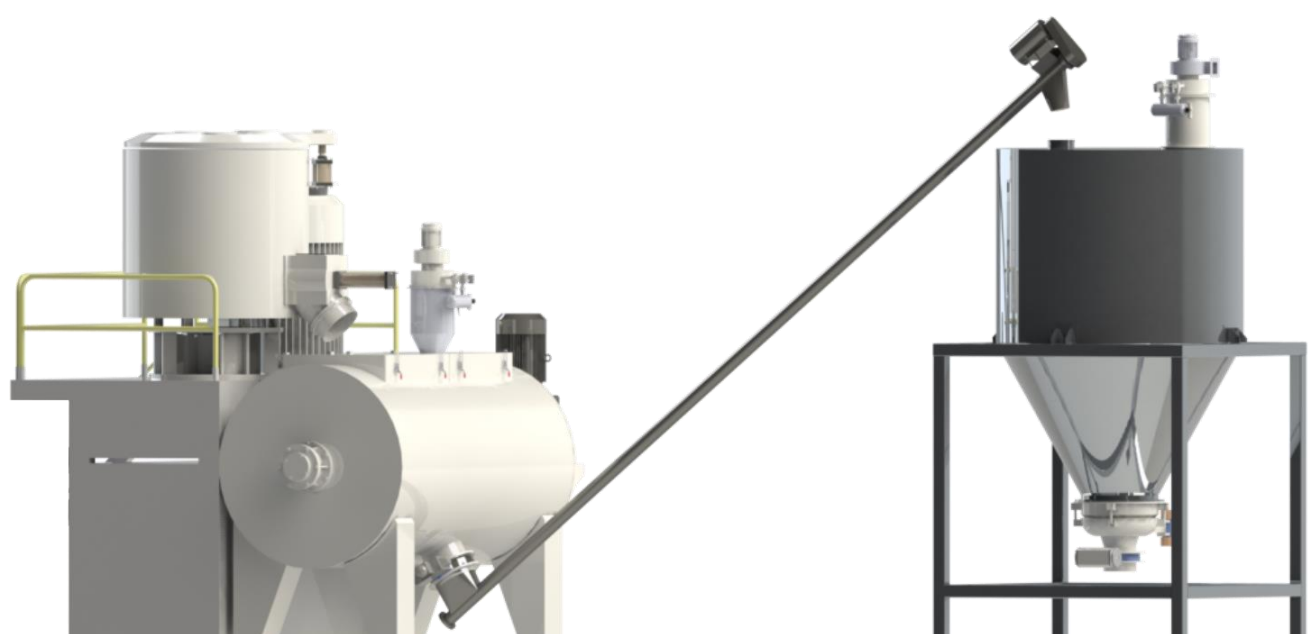


Finished Material Storage Silo



Finished Material Storage Silo

5. Screw Conveyors



Move Virtually Any Bulk Material Free-flowing and non-free-flowing materials and blends

Samsara's screw conveyors, also known as helix, spiral, and auger conveyors, provide efficient and versatile solutions for conveying bulk materials. These conveyors handle a wide range of materials, from large pellets to sub-micron powders, and accommodate both free-flowing and non-free-flowing substances without causing separation of blended products.



Tubular Screw Conveyor



U Slot Split Conveyor



Horizontal Screw Conveyor



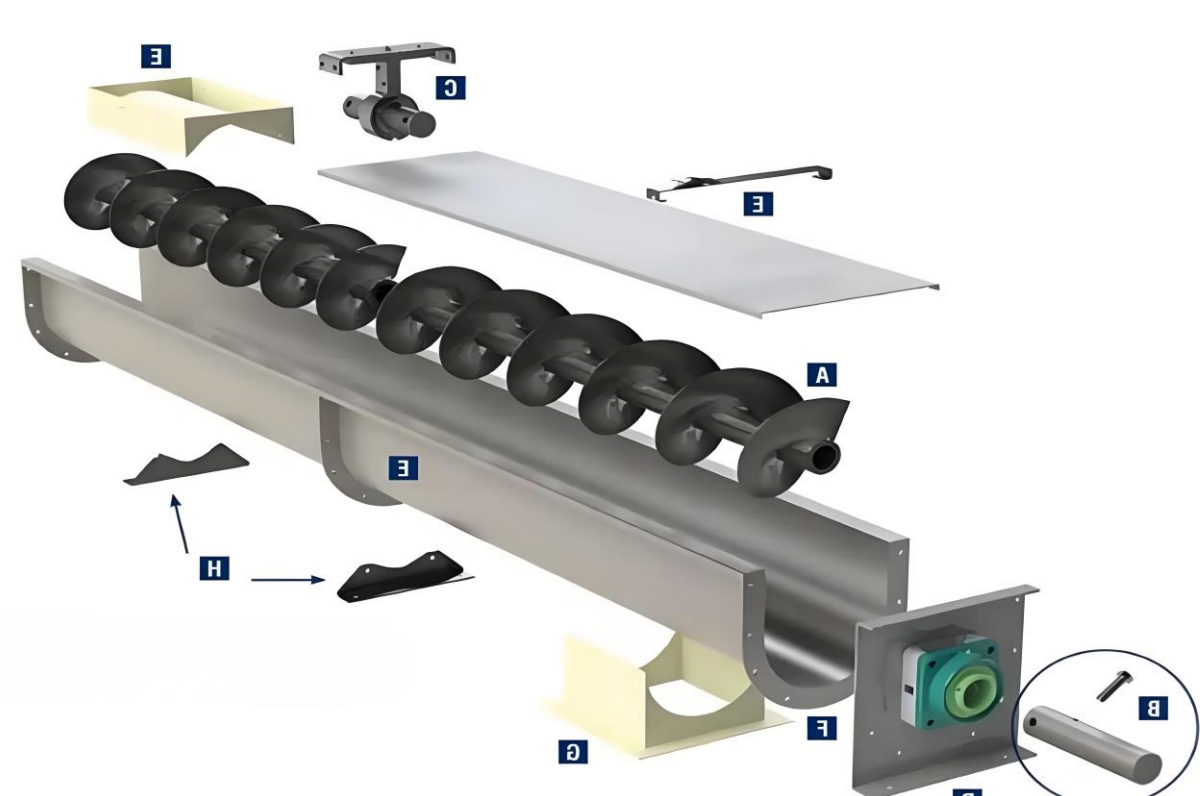
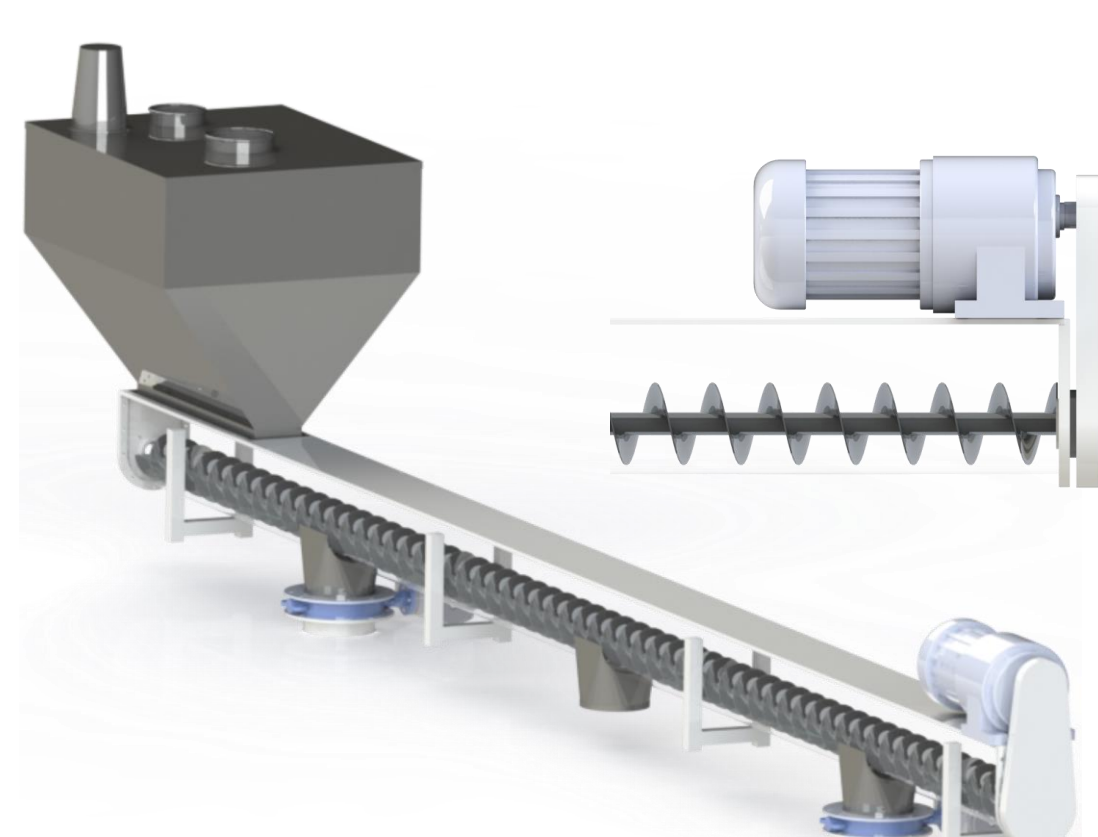
Vertical Screw Conveyor



Inclined Screw Conveyor



Flexible Screw Conveyor



CASE HISTORIES



Inclined Screw Conveyor



Inclined Screw Conveyor



Flexible Screw Conveyor



U Slot Split Conveyor

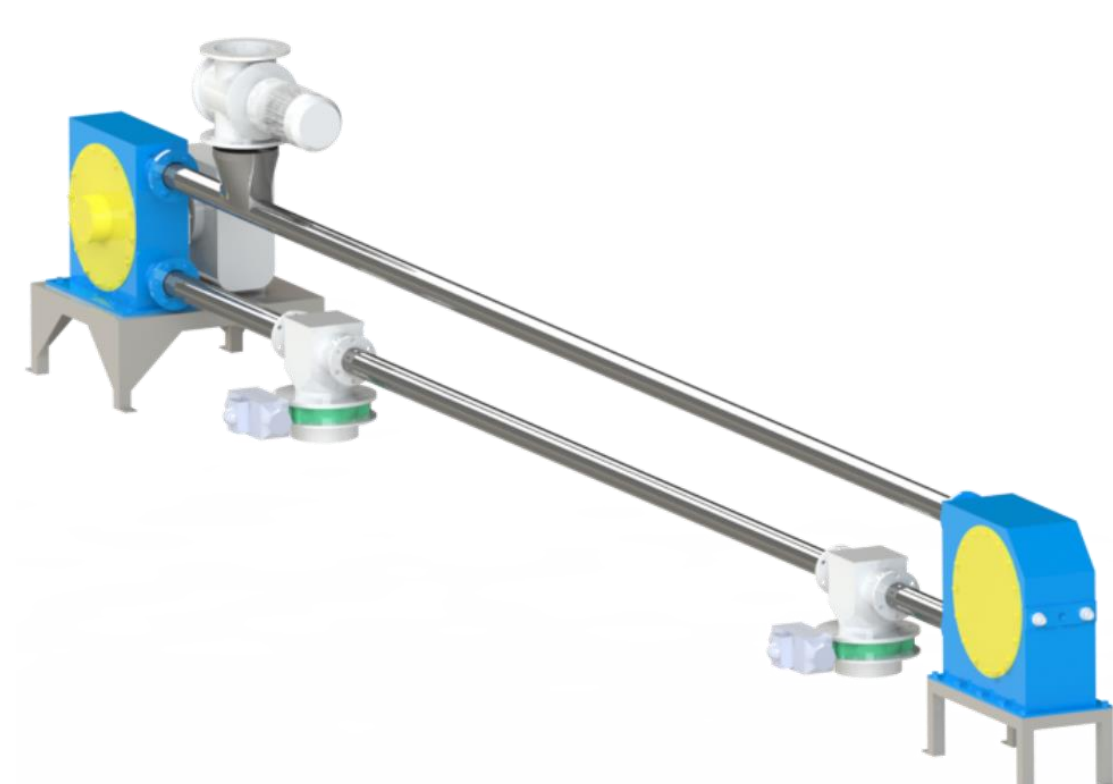


U Slot Split Conveyor



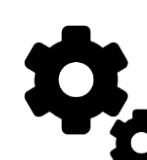
Horizontal Screw Conveyor

6.Tubular Chain Conveyors



Handle Friable Materials Gently, Efficiently, Dust-Free

Samsara's Tubular Chain Conveyors, also known as Disc or Drag Conveyors, gently transport bulk materials through smooth stainless steel tubing using low-friction polymer discs attached to stainless steel chains. Driven by a wheel at one end and tensioned by a wheel at the other, this design allows for single or multiple inlets and outlets. Conveyor tubing can be routed horizontally, vertically, or at any angle, passing through small holes in walls or ceilings. The modular components enable easy addition, removal, or relocation of inlets and outlets, and the circuit can be lengthened, shortened, or re-routed as needed.



Features

Gentle Conveying: Transports friable materials with particles of varying sizes, shapes, and bulk densities without separating blended materials.

Flexible Transfer: Moves materials from single or multiple inlets to single or multiple outlets, ideal for packaging lines.

Modular Design: Allows changes in conveyor routing, length, and the number and position of inlets and outlets.

Energy Efficient: Low power requirements per volume of material conveyed.

Air-Free Conveying: Eliminates the need for blowers and filtration equipment.

Temperature and Moisture Control: Maintains the material's temperature and moisture levels during conveyance.

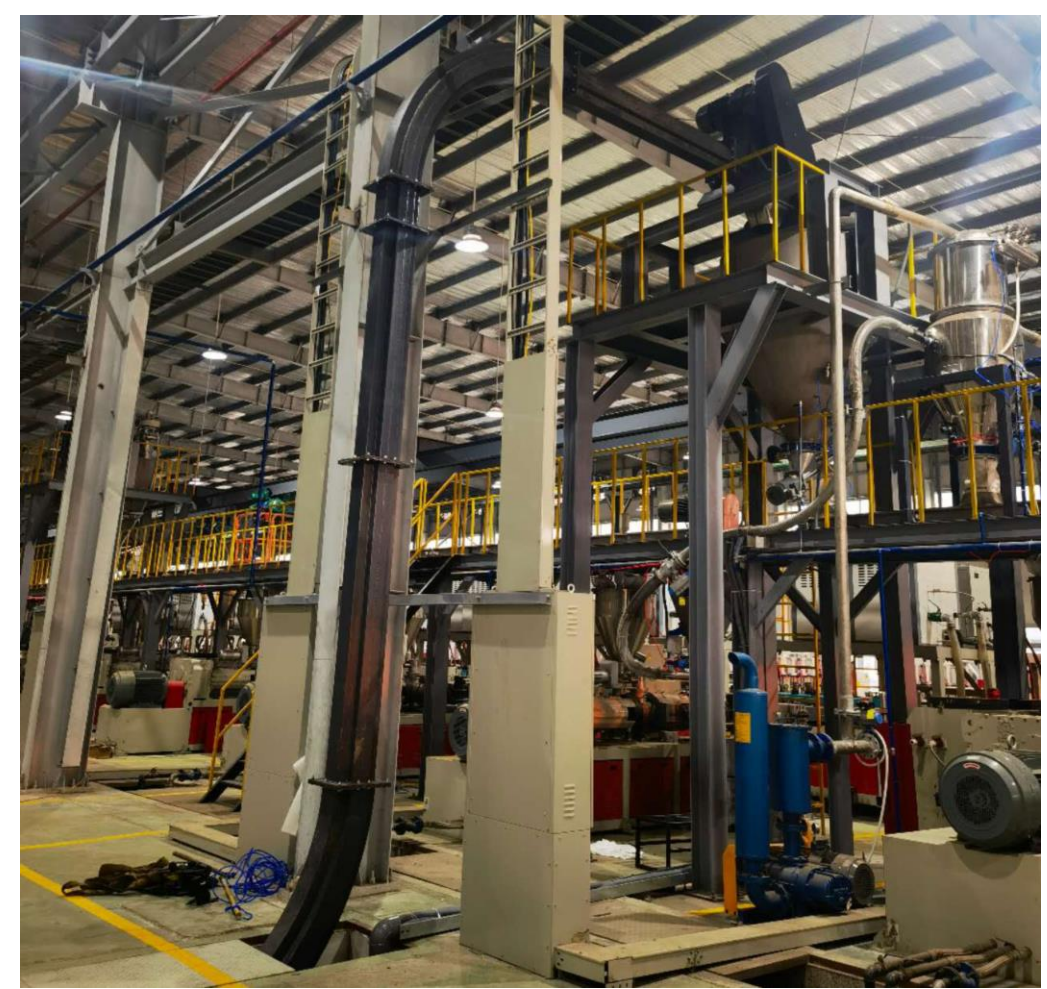
Enclosed System: Contains dust and prevents contamination.

High-Quality Construction: Stainless steel components finished to food, pharmaceutical, or industrial standards.

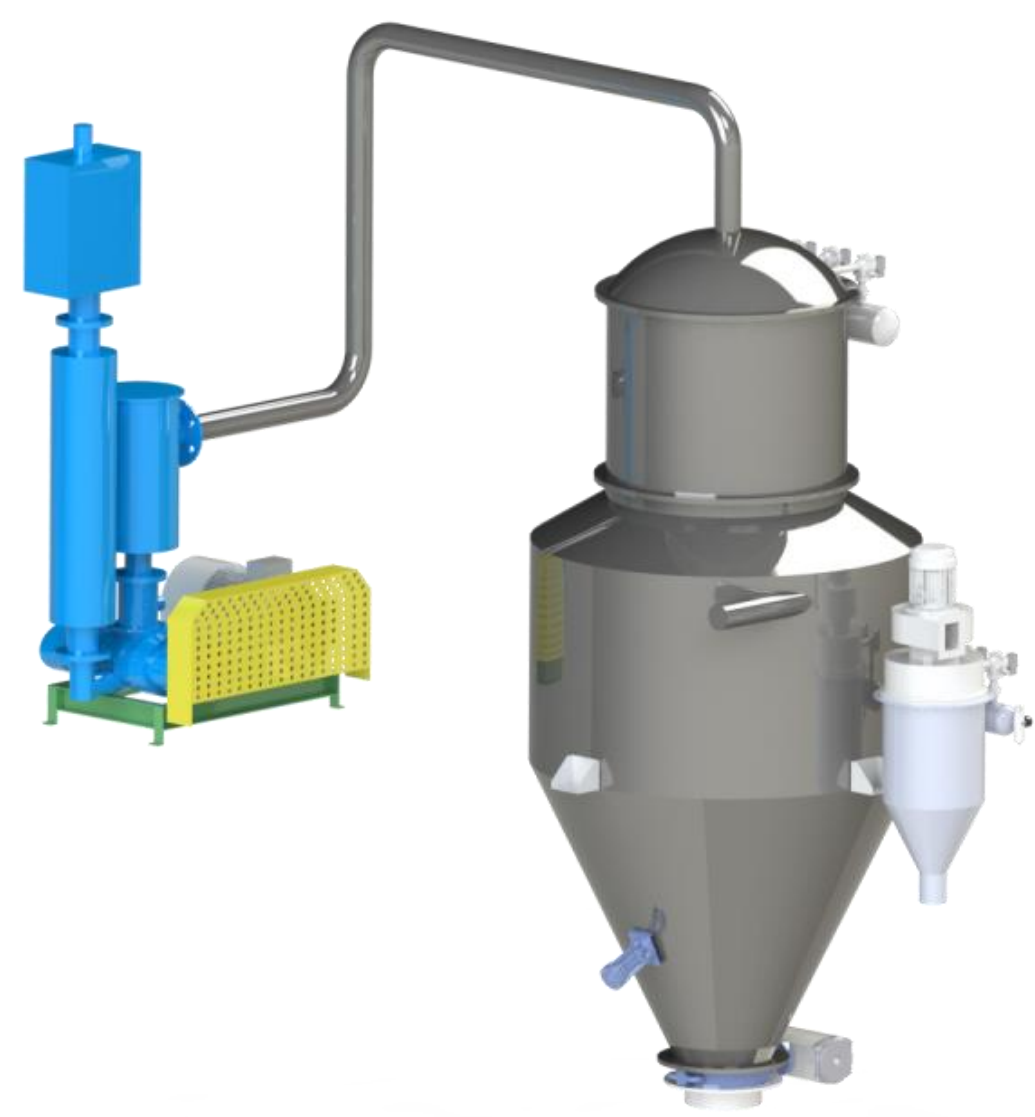
Efficient Evacuation: Minimizes waste and facilitates rapid cleaning.

Quick-Clean Accessories: Available for easy maintenance.

CASE HISTORIES



7.Pneumatic Conveyors



Transporting materials is no longer limited by distance and space.

Samsara's pneumatic conveying systems range from single-point "up-and-in" installations to cross-plant systems with multiple pick-up and discharge points and automated controls, satisfying an exceptionally wide range of bulk conveying applications. All are custom-engineered and fully integrated with other Samsara equipment and systems, and your new or existing process.

Pneumatic conveying systems move bulk materials that are suspended in an air stream that is introduced by a positive pressure blower upstream of material intake points, or by a vacuum pump that removes air from the system downstream of material discharge points. Material is separated from the conveying air at the use point, then discharged on a batch basis via butterfly or slide gate valves, or continuously via rotary airlock valves.



Positive pressure systems

Positive pressure pneumatic conveying systems are used to transport bulk materials from a single source to one or multiple destinations over long distances with high capacity. These systems feature a positive displacement blower and rotary airlock valves that maintain pressure differentials, allowing material and air to travel through conveying lines to their destinations. Separation of material and air occurs at filter receivers or cyclone separators, or materials can be fed directly into process vessels vented to downstream dust collection devices. These systems are more efficient than vacuum systems and can convey materials directly into process and storage vessels without additional airlock valves.



Vacuum Systems

Vacuum pneumatic conveying systems are ideal for transporting materials from multiple sources, such as storage vessels, process equipment, trucks, and railcars, to individual or multiple destinations. These systems offer superior leak containment, making them suitable for handling hazardous materials. A positive displacement vacuum pump creates negative pressure, drawing material into the system via rotary airlock valves, pick-up wands, or flood-feed adapters, and separating the material from the air at filter receivers or cyclone separators. Vacuum systems are also suited for direct feeding of blenders, reactors, and other enclosed process vessels under vacuum, eliminating the need for individual filter receivers or cyclone separators at each discharge point.



Easy Integration

Samsara's pneumatic conveying systems allow conveyor lines to be routed vertically and in any horizontal direction, making them easy to integrate into production environments with existing process equipment and obstacles. They consume minimal floor space and can pass through small holes in walls or ceilings.



Industrial and Sanitary Standards

Samsara's pneumatic conveying systems allow conveyor lines to be routed vertically and in any horizontal direction, making them easy to integrate into production environments with existing process equipment and obstacles. They consume minimal floor space and can pass through small holes in walls or ceilings.



Enclosed System

The totally enclosed, dust-free design prevents contamination of both the product and the plant environment, making it suitable for transferring contamination-sensitive materials, including dusty and hazardous products.




Versatile and High-Capacity Handling


Samsara's pneumatic conveying systems can transport powders of varying bulk densities, flakes, pellets, capsules, tablets, and other friable materials, providing the flexibility to handle multiple ingredients. pneumatic conveying systems offer capacities from several pounds to tens of tons per hour.


CASE HISTORIES





8. Automated Minor Ingredients Batching Systems


 **Revolutionary advances overcome limitations of outdated designs**
Our state-of-the-art Automated Minor Ingredients Batching System—designed to redefine performance standards in ingredient handling. Our system combines precision, efficiency, and reliability to deliver exceptional results every time.

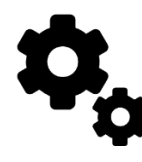
 **Unmatched Precision and Efficiency**
Our Automated Minor Ingredients Batching System ensures precise weighing and consistent quality in every batch. The system's advanced controls allow for high accuracy and repeatability, crucial for maintaining product quality. Whether handling a single ingredient or multiple components, our system guarantees accurate dosing and minimal waste.


 **Seamless Integration and Flexibility**
Designed to seamlessly integrate into existing processes, our batching system accommodates both pneumatic and mechanical conveying methods. The system supports quick recipe changeovers and flexible production schedules, making it ideal for various industrial applications, including food processing, chemicals, and more.

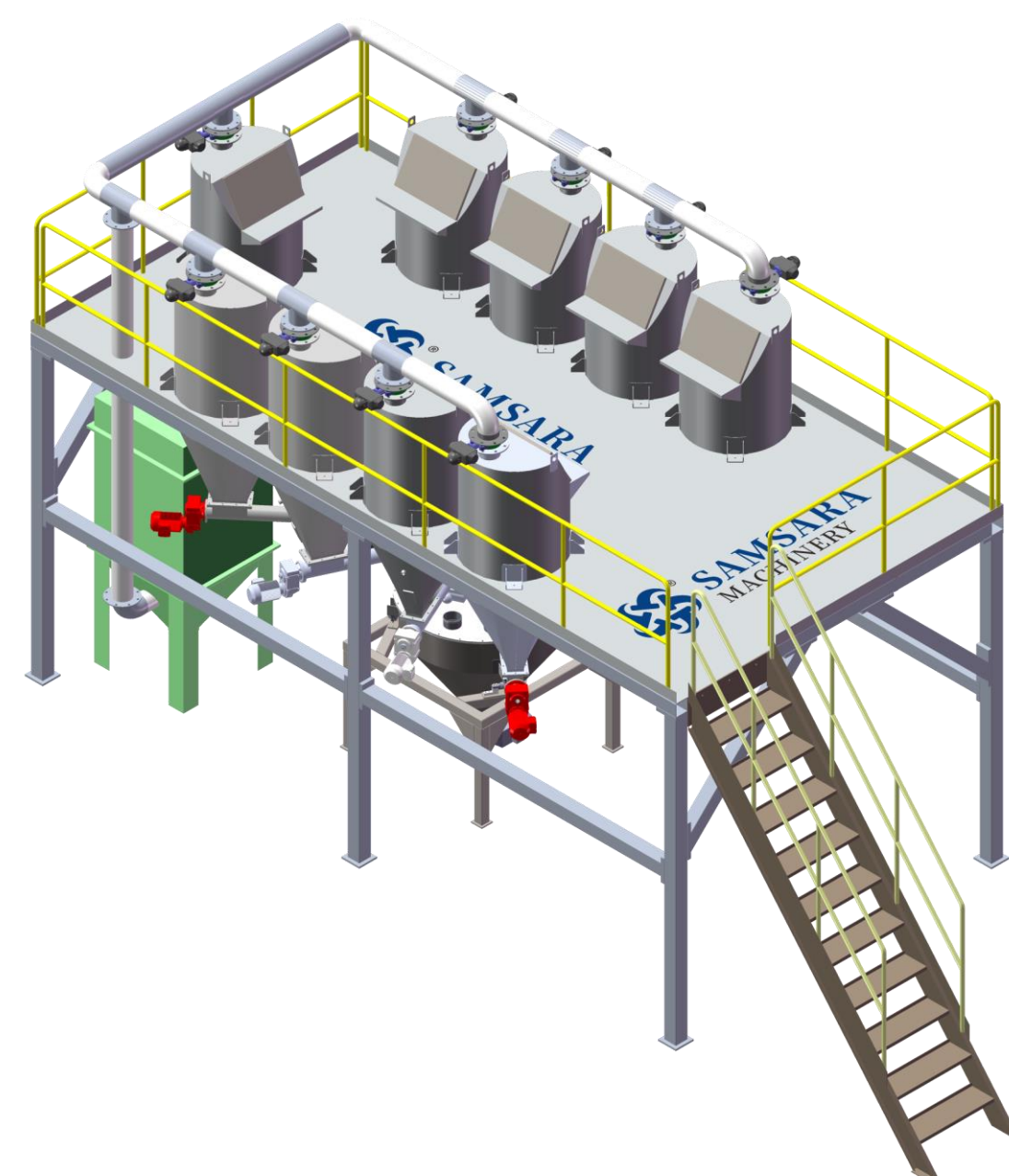
 **Enhanced Performance and Automation**
Equipped with both gain-in-weight and loss-in-weight scaling options, our system ensures optimal performance tailored to your specific needs. Gain-in-weight systems excel in managing multiple smaller-volume ingredients with high accuracy, while loss-in-weight systems are perfect for larger volumes.

 **Advanced Control and Reporting**
Our system offers comprehensive process control features, including recipe creation, production scheduling, and ingredient level monitoring. The automated batch reporting and tracking capabilities provide detailed insights into each production cycle, enhancing quality assurance and operational efficiency.

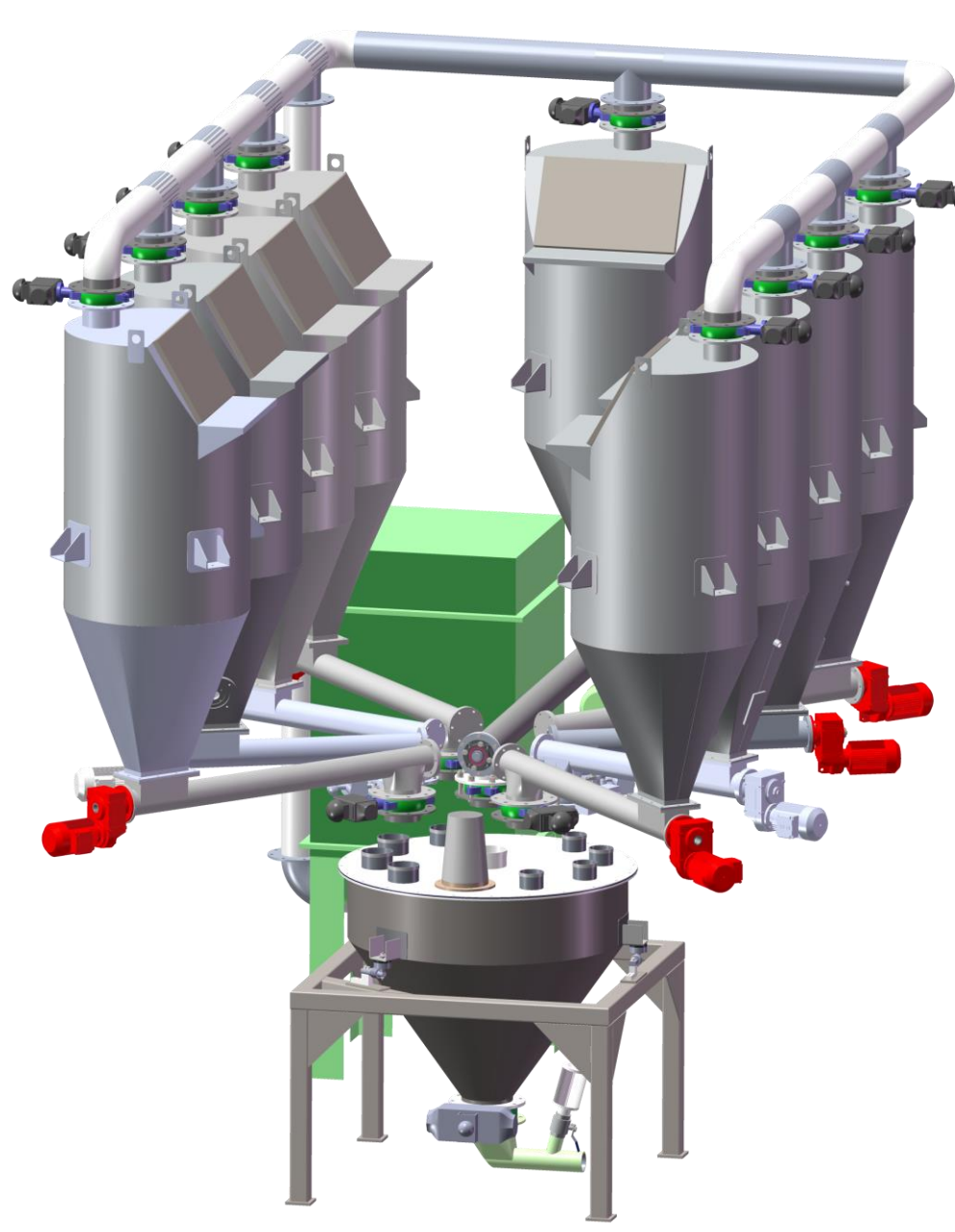
 **Experience the next level of performance with our Automated Minor Ingredients Batching System—where precision, efficiency, and innovation converge to elevate your production capabilities.**

 **Technical Parameter (Floor standing type)**
Maximum range: ≤50kgs
accuracy reach: ±2/20g
Storage/supply bins: 3-12
Structure materials: Carbon steel, SS201, SS304, SS316L
Product type: Automatic by PLC

 **Technical Parameter (Steel structure platform)**
Maximum range: ≤2000kgs
accuracy reach: ±2/20g
Storage/supply bins: ≥1
Structure materials: Carbon steel, SS201, SS304, SS316L
Product type: Automatic by PLC



Steel structure platform

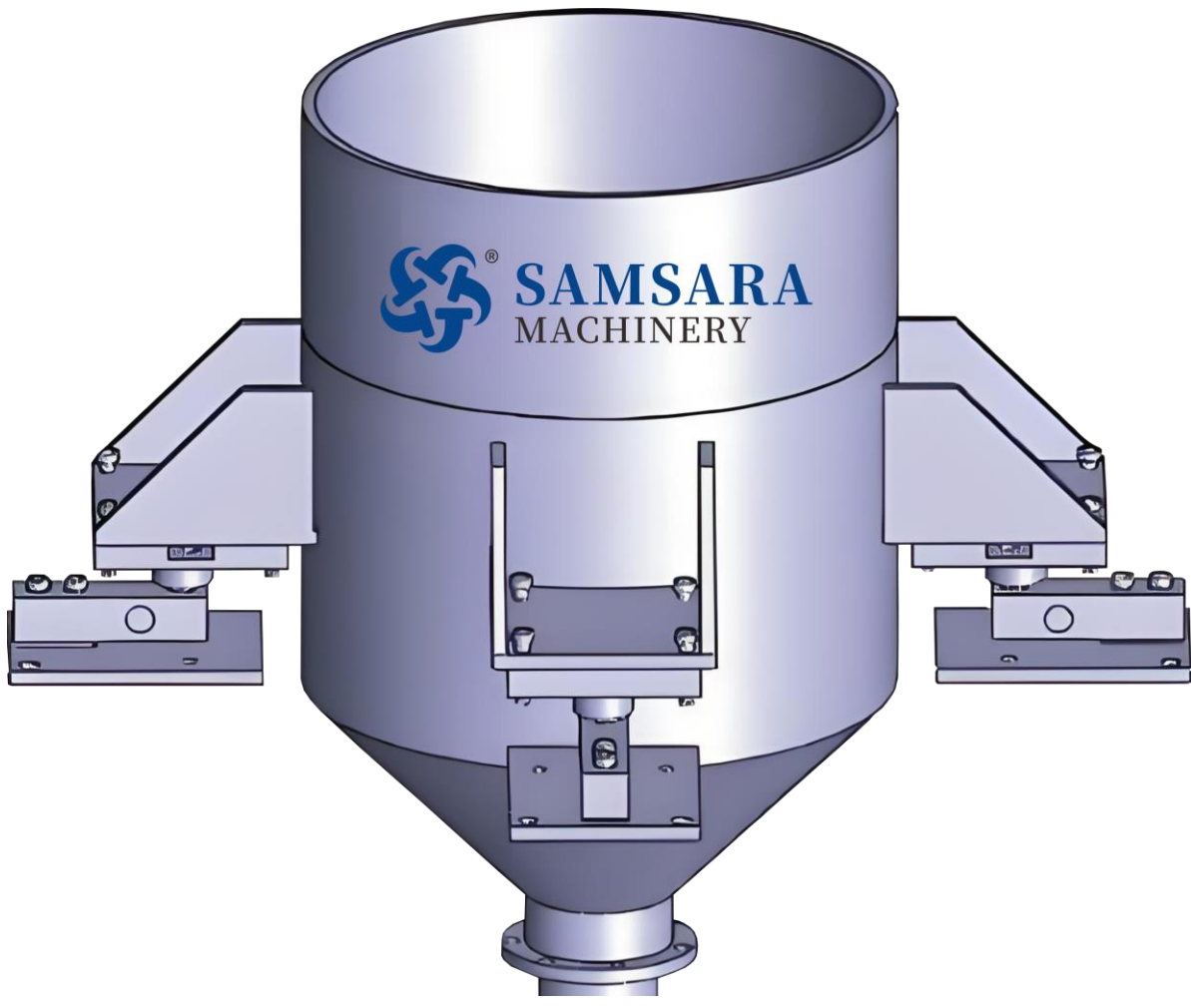
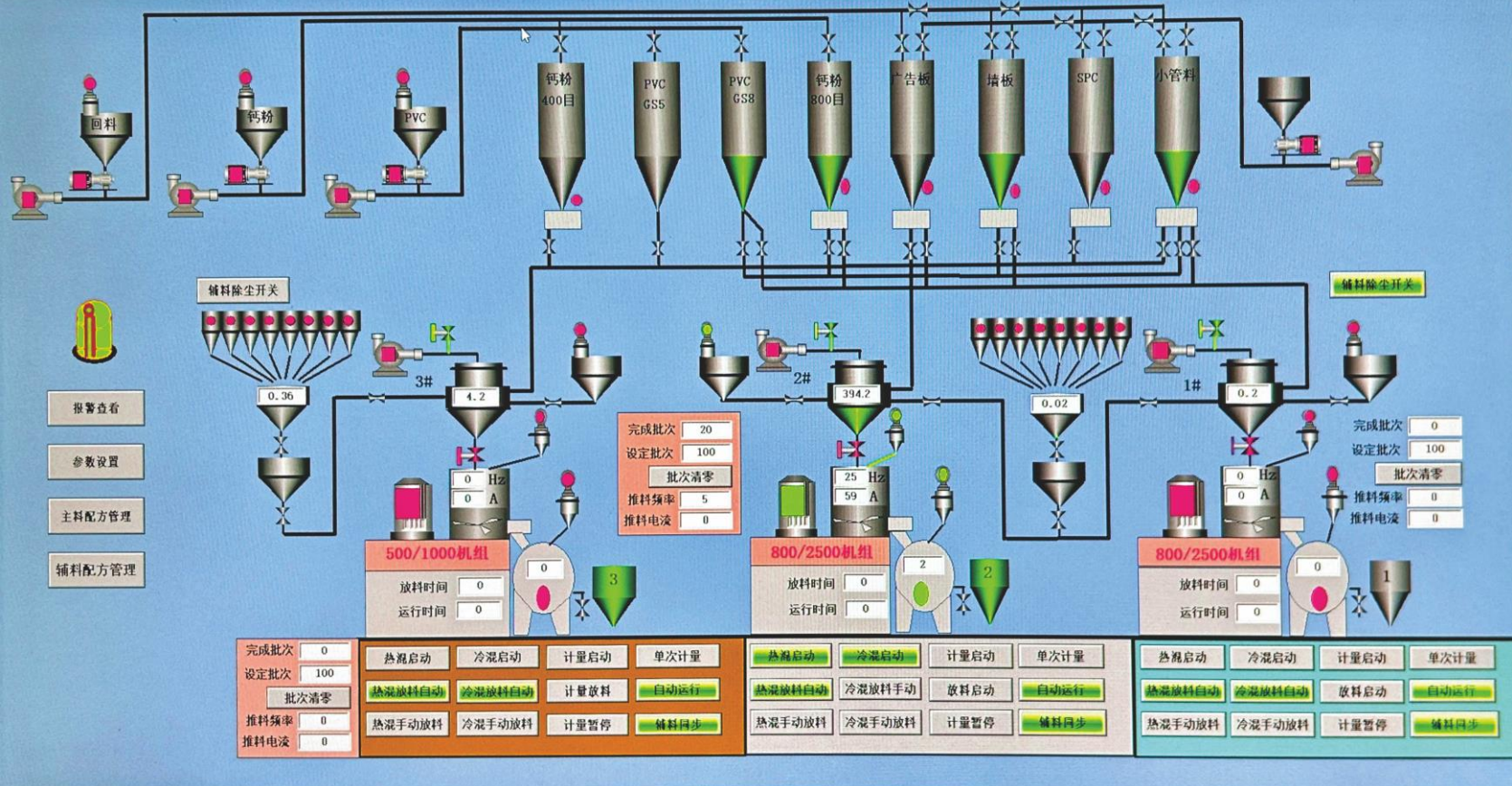
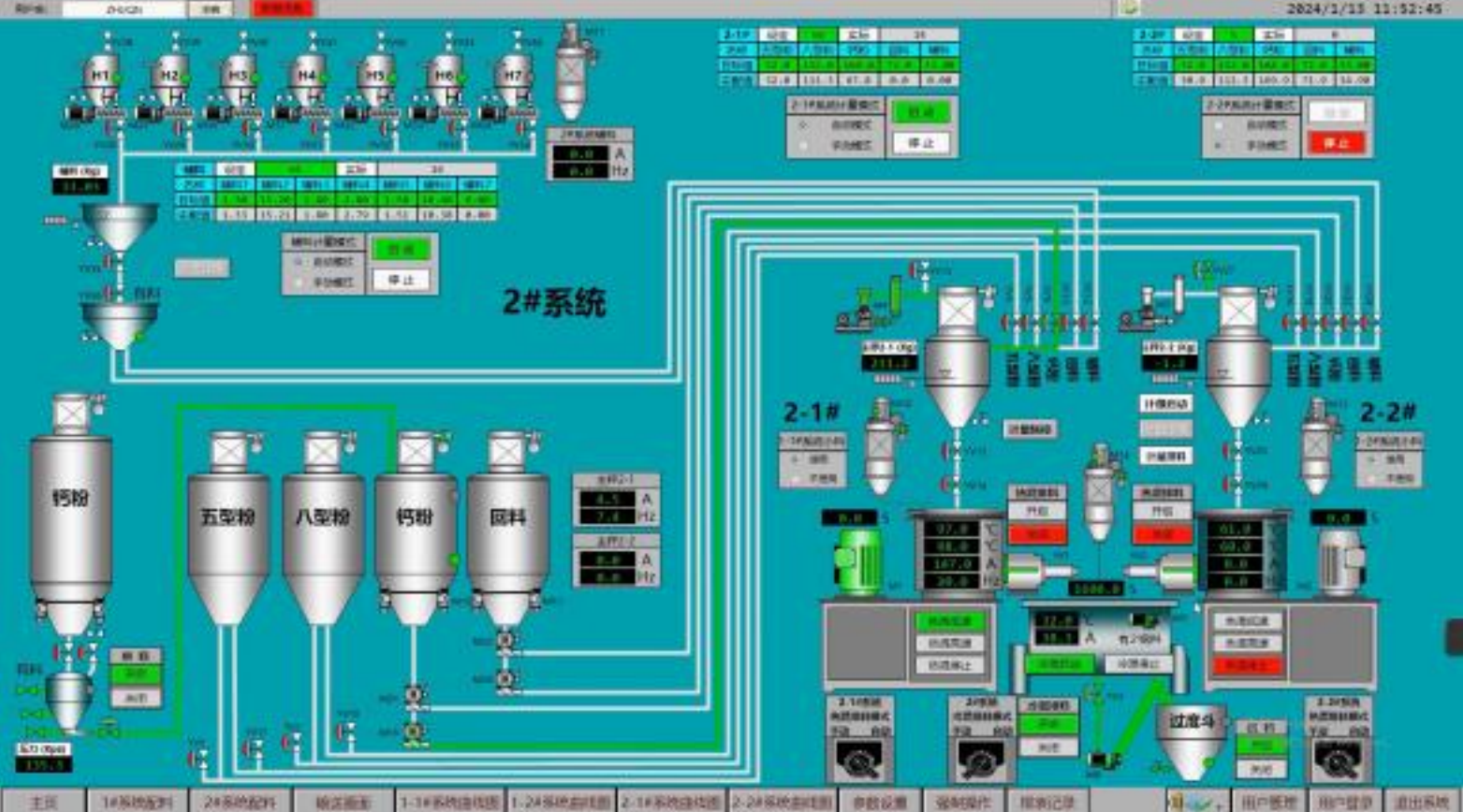


Steel structure platform

CASE HISTORIES



9.Weighing & Feeding Systems



Our cutting-edge systems utilize advanced load cell technology to deliver unparalleled accuracy and efficiency in industrial applications. Designed with high-grade materials, our load cells ensure durability and precision, making them perfect for various environments.

- Key Features:
- High Accuracy: Achieve precision from 0.1% to 0.3% full scale.
 - Versatile Applications: Suitable for tension, compression, and shear measurements.
 - Robust Construction: Protected against dust and moisture for long-lasting performance.
 - Advanced Signal Processing: Real-time monitoring and precise control.

Advanced Weighing & Feeding Systems

Introducing our advanced Weighing & Feeding Systems, designed to revolutionize your production processes with unparalleled precision and efficiency. Our systems ensure that you achieve performance levels never before possible, setting new standards in the industry.

Advanced Control and Reporting

Equipped with state-of-the-art control systems, our Weighing & Feeding Systems offer comprehensive monitoring and reporting capabilities. From real-time weight monitoring to detailed batch reporting, you can track and optimize every aspect of your production process. This level of control ensures that you maintain the highest quality standards and achieve optimal efficiency in every batch produced.

Seamless Integration

Our systems are designed to integrate seamlessly into your existing infrastructure, whether you are operating mixers, mills or extruders. This integration capability ensures minimal disruption to your current processes while enhancing productivity and accuracy. The systems come equipped with features such as metal detectors, speed controls, and folding mechanisms to further optimize your production line.

Efficiency and Flexibility

Engineered for efficiency, our systems support various applications, from minor ingredient handling to major bulk material processing. The flexibility of our solutions allows for easy adaptation to different production needs, including the precise feeding of powders, granules, and liquids. Whether you need gain-in-weight or loss-in-weight configurations, our systems provide the right solution to enhance your operational workflow.

Precision and Reliability

Our Weighing & Feeding Systems utilize cutting-edge technology to deliver precise and reliable measurement and control of bulk materials. These systems are perfect for both continuous and batch feeding operations, ensuring consistent quality and reducing material waste. By integrating advanced load cells and digital weight indicators, we guarantee accurate weight measurement and seamless data integration into your existing production management systems.

Experience the next level of performance with our Automated System—where precision, efficiency, and innovation converge to elevate your production capabilities.

CASE HISTORIES

