



Equipment
to handle
**Dry Bulk Solids,
Additives and
Ingredients**
across all industries

**Mechanical
Conveying**



**Bulk Bag
Filling**



**Bulk Bag
Discharging**



**Systems
Solutions**



Superior by design,
outstanding in performance

Spiroflow

SUPERIOR BY DESIGN, OUTSTANDING IN PERFORMANCE

Spiroflow's conveying, weighing, blending, emptying and filling equipment is used in every corner of the world where bulk materials are processed.

For over 45 years, we have designed, engineered and continuously developed equipment and systems to effectively handle the enormous diversity of products found in today's process industries. Time and again in food, pharmaceuticals, chemicals, minerals, plastics, and building materials, our proven experience has enabled us to provide solutions to meet every handling need.

Our Product Portfolio

- Flexible Screw Conveyors
- Aero Mechanical Conveyors
- Tubular Cable & Chain Drag Conveyors
- Bulk Bag Dischargers
- Bulk Bag Filling & Weighing Machines
- Batch & Continuous Weighing Systems
- Bag, Drum, IBC & Gaylord Emptiers
- Complete Bulk Material Handling Systems
- Robotic Automation

Equipment and systems for dust free handling of powders and dry bulk solids

Founded on the flexible screw conveyor, today our product portfolio includes five types of totally enclosed, hygienic conveyor systems. We have also added state of the art machines for dust-free filling and controlled emptying of bulk bags and small line bags. With our wealth of resources and experience, we offer complete conveying and handling systems incorporating weighing equipment for a wide variety of applications.

We have particular expertise in handling ingredients continuously or in batches. Our conveying and weighing systems are designed with a minimum of moving parts for maximum reliability, simple operation, easy cleaning and maintainance, and are completely dust contained.



Flexible Screw Conveyors



Aeroflow® Aero Mechanical Conveyors



Cableflow® Cable Drag Conveyors



Chainflow® & Dynaflow® Drag Chain Conveyors



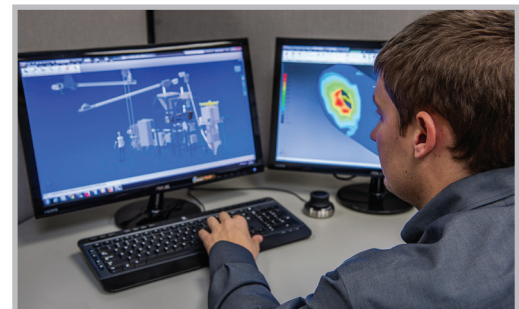
Bulk Bag Dischargers



Spirofil Bulk Bag Fillers

Setting the design criteria for optimum performance

The high standard of Spiroflow equipment is sustained by an ongoing development program utilizing 3D design capabilities. Our range gives customers the choice of either standard modules, equipment tailored to particular applications or a completely customized system. Often customized systems incorporate proprietary components such as pre-breakers, mixers, sieves, etc.



Material Testing

ESTABLISHING THE CRITERIA FOR OPTIMUM PERFORMANCE

During the production process, most bulk raw materials and ingredients are conveyed, weighed or blended, often several times over, before processing is complete.

Because these materials have different flow and particle properties, they behave quite differently under dynamic operating conditions. Our product database, accumulated over four decades, contains the handling and flow characteristics of a vast number of powders, granules, flakes, pellets and other forms of particulate material. This can often provide a tested solution to a customer's equipment or system requirements.

Before new untested forms of materials or product blends are handled, we conduct practical tests to evaluate their flow properties. These properties along with other factors such as available factory space, internal walls, headroom limitations and explosion risks are all considered in our recommendation for the most efficient solution for your application.

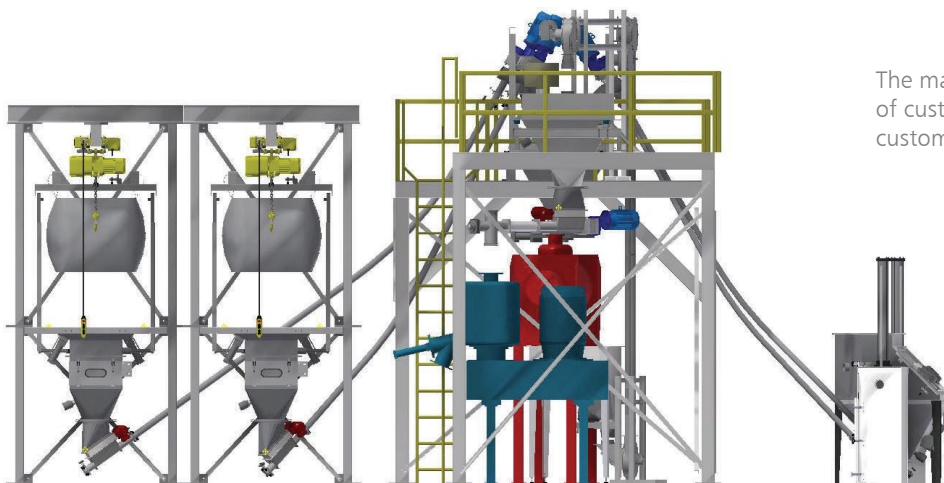


Ensuring your product goes with the flow



Our in-house test facility provides the means to analyze and demonstrate a material's flow properties under actual operating conditions. The results are then stored into our continually growing database for future reference.

Standard, configured and completely customized solutions



The majority of our customers require some degree of customized design to accommodate layout and/or custom processes. Spiroflow offers:

- Standard designs of all our equipment with options to meet a wide variety of applications.
- Configured solutions where existing equipment designs are modified for a specific application.
- Completely customized designs where we design comprehensive bulk material handling solutions with a variety of equipment and services.

Flexible Screw Conveyors

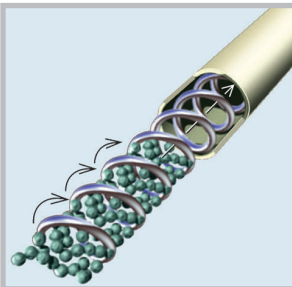
FOR THE DUST-FREE HANDLING OF DRY BULK SOLIDS AND INGREDIENTS

Flexible screw conveyors can convey in any direction from horizontal to vertical. They can be routed around fixed obstacles and through walls. These conveyors are ideal for lifting materials from bag dump stations or storage bins. Multiple discharge points can be placed along horizontal sections, so flexible screw conveyors can easily convey products to processing or packaging equipment.

Flexible screw conveyors inherently ensure material is constantly re-mixed by action of the rotating spiral, effectively eliminating the risk of product segregation. The range of applications for these conveyors is as diverse and extreme as the number of materials they can successfully handle. applications in the food industry, where thousands of different ingredients are handled, require the highest levels of hygiene. Flexible screw conveyors for chemical and mineral applications are designed to withstand the most abrasive and corrosive materials and operate in extreme environments. Our conveyors are equally at home in either extreme.



Mobile designs allow users to convey a variety of materials at multiple locations. Flexible screw conveyors can have multiple inlets and multiple outlets.



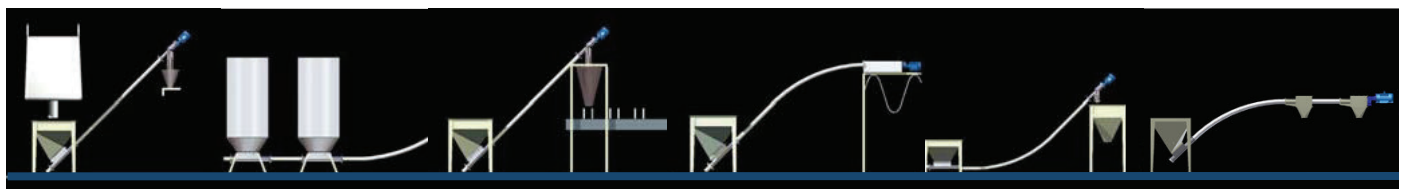
Spiroflow flexible screw conveyors require little maintenance as the spiral is the only moving part. This eliminates the need for bearings and seals. The conveyor is easily dismantled for quick and easy cleaning. There isn't a need for additional filtration equipment at the point of discharge because additional air is not introduced while conveying. This minimizes capital costs as well as maintenance costs. We carefully choose the correct spiral profile and speed of rotation for optimum performance.

Our Rhinoveyor flexible screw conveyors are designed for very abrasive applications such as sand, cement, minerals and aggregates.

For other heavy duty applications our centerless screw conveyors are capable of throughputs of up to 40 tons per hour.



Typical applications



Feeding from bulk bag

Multi-infeed conveyor

Conveying from hopper to process

Feeding machinery

Horizontal outlet for restricted headroom

Multi-outlet conveyor

Aeroflow® Aero Mechanical Conveyors

HIGH THROUGHPUT, TOTAL BATCH TRANSFER



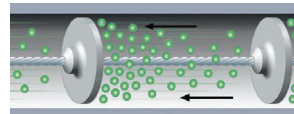
Aero mechanical conveyors are ideal for difficult products such as titanium dioxide and other products which have a tendency to smear and are cohesive.

Transfer of material takes place within an enclosed tube.

The material becomes entrained in the moving air-stream created by the high speed movement of the cable and discs traveling through the tube.

The cable and discs travel in a continuous loop around the sprockets at each end of the conveyor.

One sprocket is motor-driven and the other acts as the cable tensioning device.



The conveying air stream acts to cushion the product ensuring minimal degradation and separation of the product while offering significant throughput capabilities.

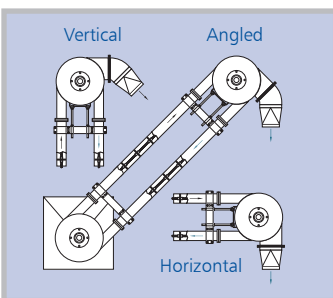


This aero mechanical conveyor is elevating chemicals to a hopper. Discharge heights can be specified for individual requirements.

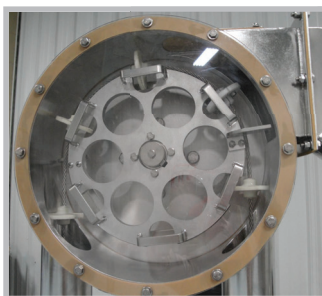


Mobile aero mechanical conveyors are used extensively both in and out of factory environments.

Options



Aero mechanical conveyors can convey materials at any angle from 0° to 90° without loss in throughput capacity. They also provide total batch transfer.



Construction can be of epoxy painted carbon steel or grades of stainless steel to meet application requirements. The discs are made from food grade PU and are without rivets.



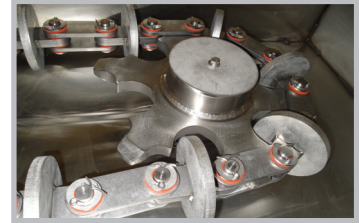
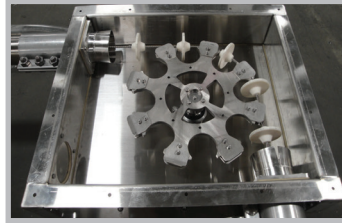
Spiroflow's patented Dynamic Automatic Rope Tensioner (DART) extends rope life and decrease maintenance costs.

Our optional patented Dynamic Automatic Rope Tensioner (DART) is available to ensure smooth and trouble-free operation of our Aeroflow conveyors. Extensive trials have shown that rope life can be increased by up to 40% with this option.

Tubular Cable & Chain Drag Conveyors

PROBLEM SOLVERS IN A PIPELINE

We offer our customers the best solution and have never believed in the 'one size fits all' philosophy. Accordingly, we have expanded our conveying solutions to meet evolving customer requirements.



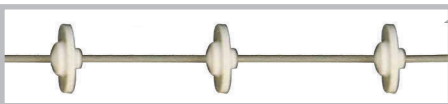
A cable or chain, with discs spaced along its length, is connected to form an endless loop. A motor driven sprocket pulls the cable or chain assembly within an enclosed tube. Changes in direction are facilitated by bends in the tubing or by corner housings for tighter radii. Discharge of the product is handled through outlet boxes.



Cableflow® Tubular Cable Drag Conveyors



Multiple Cableflow conveyors move coffee beans from five silos to a high speed packaging machine at 10,000 lb/hr (4,500kg).



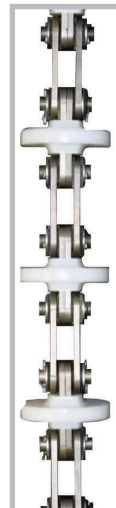
These conveyors were developed from our industry benchmark aero mechanical conveyors but are designed to operate with reduced clearances and at reduced running speeds. Cableflow conveyors are built for gentle handling of fragile products and for installations requiring conveying in multiple planes. They can:

- Transfer fragile bulk products from single or multiple in-feed points.
- Discharge fragile products to multiple discharge points.
- Operate over long distances.
- Convey your fragile products with little or no damage.

Dynaflow® Tubular Chain Drag Conveyors

The Dynaflow chain drag conveyor is designed for the most heavy duty applications. It is a mechanical conveying system that operates within the confines of a pipe. The discs, connected by articulated metal links (chains), move material through the pipe. Discs can be made from a variety of materials including steel and cast iron, enabling them to operate at temperatures up to 480°F/250°C and higher.

The Problem Solver in a Pipeline



Bulk Bag Dischargers

FOR THE SAFE, DUST FREE DISCHARGE OF POWDERS AND DRY BULK SOLIDS

The worldwide acceptance of bulk bags has made bulk material handling part of processes across most manufacturing industries. This is because bulk bags and their associated filling and discharging systems offer proven advances in hygiene and 'high containment' operations. At Spiroflow, we specialize in 'high containment' filling and discharging solutions.



T7 Rigid Bin Discharger

The T7 Rigid Bin Discharger utilizes a controllable discharger and a subframe. A rigid container is placed on the subframe, which has fork channels to allow loading into the discharger. It is typically fitted with a flexible screw conveyor to feed the contents volumetrically or by weight to process or packaging machinery.

T2 Universal Discharger

Our Universal T2 discharger provides controllable discharge of product via any suitable feeder coupled to its base. The conveyor accurately meters the bag contents into a process vessel or a packaging machine at a variable rate and in a totally enclosed manner.



T9 CV Discharger

Our T9 Containment Variant bulk bag discharger offers total control of bulk bags during discharge and their subsequent removal. It comes complete with a liner spout clamping system that provides the highest level of containment.

T3 Loss-in-weight

Our T3 Loss-in-weight discharging system is used when the weight of the bulk bag is required for inventory or proportioning by weight.



Flo 60 and Iso Flo 60

The Control and Metering Flo 60 discharger is designed for poor flowing ingredients and features a 60° sloped hopper.

The Control and Metering Iso Flo 60, which also has a 60° sloped hopper, is designed for hazardous, toxic or sanitary products. It has a bag clamping system enclosed in an isolation chamber for total dust containment.

T6 Integral Hoist

The T6 discharger is a self-contained unloading station for dust-free, controllable bulk bag emptying. It has an integral 'I' beam and hoist for loading bags into the discharger. The discharger is connected to an enclosed conveyor for direct transfer of material to process machinery. No forklift is necessary as the bulk bags can be brought to the discharger by pallet truck and placed adjacent to it.



Mobile Discharger

The heavy duty frame of our mobile bulk bag discharger, with optional towing facility and integral conveyor, offers the flexibility of discharging materials at several locations.

Ask us about making your system mobile!

Other Models

Other models such as our T4 knife discharger for single trip bags, our T5 low loading discharger for height restricted applications, our USDA discharger, and our T10 pharmaceutical discharger are also available. Please contact us or visit our website for more information.

Spirofil Bulk Bag Fillers

FOR DUST FREE-FILLING AND WEIGHING OF BULK BAGS

Our range of weigh/fill equipment is offered in a variety of models from basic to complex to meet the needs of any application. These machines are modular in construction, enabling the user to specify a number of options for individual production requirements - current and future.



Spirofil Bulk Bag Fillers

Spirofil bulk bag fillers are designed for a wide range of applications and are used extensively across a multitude of industries including food, chemicals, plastics, building materials, mining, minerals, and construction.

Many standard operating features are included in our bulk bag weigh filler, enabling processors to begin immediate production without extra equipment. In addition to the many built-in features, a full range of options is provided, allowing many other operations to be performed from the same machine.

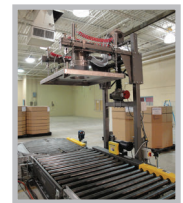
Our competitively priced C Series fillers offer the same features usually found on high cost units. Options include rigid bin and drum filling attachments, data management on our weigh fillers, and more.



Gaylord filling systems



Drum filling



Auto height adjustment & roller conveyors



Mobile & low loading designs



Data management on weigh controller



Automatic bag loop release



CTE Bulk Bag Fillers

For High Speed Filling and Maximum Material Densification

Our Cone Table Elite (CTE) Bulk Bag Filler is one of the most versatile and capable bulk bag fillers in the industry

Unlike other fillers, the CTE Bulk Bag Filler features our patented cone table densification system which densifies material in the bag, increases bag stability, and increases bulk bag filling throughput.

The CTE Bulk Bag Filler quickly and easily densifies the most highly aerated materials. Depending on the application, this filler is capable of filling more than 35 bags per hour, nearly twice the rate of any other filler in the industry!

Ask us how!



Contact us to discuss your application today!



US Headquarters
1609 Airport Road
Monroe, NC 28110 USA

(1) 704 246 0900

UK Headquarters
Lincoln Way, Clitheroe,
Lancashire, BB7 1QG UK

44 (0) 1200 422525
sales@spiroflow.com
spiroflow.com

July 2017