Mechanical Conveying Solutions Superior Design, Outstanding Performance

Spiroflow is a global leader in dry bulk solids and powder processing and an emerging leader in the control system integration industry. Throughout our 45 year history, our equipment design and process automation engineers have provided our customers with the safest, most efficient and most reliable process solutions available.

Yes, we were an early inventor of the flexible screw conveyor, but our products and services have grown significantly since those early days. Spiroflow delivers engineered solutions designed to solve your greatest processing challenges, whether it is a single conveyor, a complete bulk solid and powder processing system or a fully customized solution.

With our flexible screw. Aeroflow® aero mechanical. Cableflow® cable drag. Chainflow™ or Dynaflow[®] chain drag conveyors. hands down. we offer the widest range of mechanical conveyors for dry bulk solids and powder processing in the industry. Our engineers will evaluate your needs so you get the right, the best, the most appropriate conveyor for your application.

We are also well known for our expansive line of Spirofil[®] bulk bag fillers, bulk bag dischargers, control systems, bulk bag conditioners, hoppers, bin activators, box dumping stations, and bin, bag, and drum emptiers as well as end-of-line robotic palletizing solutions.

Manufacturing & Material Testing

Spiroflow has two manufacturing facilities located in the United States and the United Kingdom enabling us to build your conveying solution efficiently and to our highest quality standards. Both also have fully equipped material test labs and our UK office's new technology center houses an equipment show room and our powder characterization lab.

Our test lab managers maintain an extensive test database going back over 45 years which allows them to retrieve helpful information about thousands of materials. No matter where your plant is located, we can readily test material flow characteristics of your precise material under actual operating conditions. Attend a live product test in one of our test labs or choose to view video of your material test. The choice is yours.

Beyond Process Equipment

In 2014 Spiroflow Automation Solutions was launched in North America as part of our planned expansion into control systems integration. Along with our acquisition of the well respected US based Food Control Solutions our automation team is firmly positioned for continued growth and success.







Convevors

Cableflow[®] Cable Drag Conveyors

Our cumulative expertise in process equipment, robotic automation (in North America) and control systems integration sets Spiroflow apart from other suppliers and gives you a powerful competitive advantage. Our highly trained, educated and disciplined team members have the solid industry knowhow to deliver the safest, most reliable, and efficient solutions vou demand.

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August 26, 2016

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Chainflow[™] Heavy Duty **Tubular Chain Drag Conveyors**

For Dry Bulk Solids

Chainflow Chain Drag Conveyors

What do they convey?

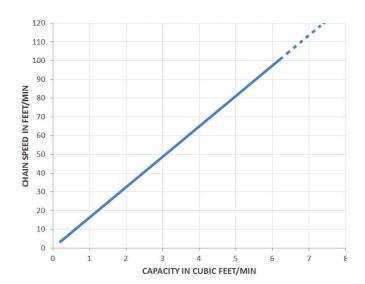
Spiroflow's Chainflow tubular chain drag conveyor is the newest mechanical conveying option in our extensive line of mechanical conveyors designed for the dry bulk solids and powder processing industry.

The heavy duty, totally enclosed, dust-free Chainflow tubular chain drag conveyor economically conveys dry, hot (up to 180°F/82°C) or cold, powders and granules, particularly fragile materials such as cereals, nuts, coffee beans, food ingredients, pet food, animal feed, and a wide variety of chemicals and plastics. Processors easily convey or batch ingredients with crevice free material contact surfaces with flexibility in layout options.

They successfully convey any number of non-cohesive dry powders and granules such as:

- Animal Feed*
- Barley
- Beans/Legumes
- Candy*
- Cereals
- Coffee
- Cocoa
- Dried Fruits
- Flour*
- Frozen Fruits*
- Frozen Vegetables*
- Grains
- Hops
- Nuts
- Oats
- Peas
- Pepper
- Pet Food*
- Seeds
- Snack Foods*
- Sodium Bicarbonate

Capacities Subject to Application



Chain & Discs

The 304 stainless steel chain is fitted with 4 inch (100mm) diameter molded food grade UHMWPE discs every 5 inches (125mm). Molding the discs directly onto the chain minimizes crevices where material can accumulate. The chain can be upgraded to 316 stainless steel.



Features & Benefits

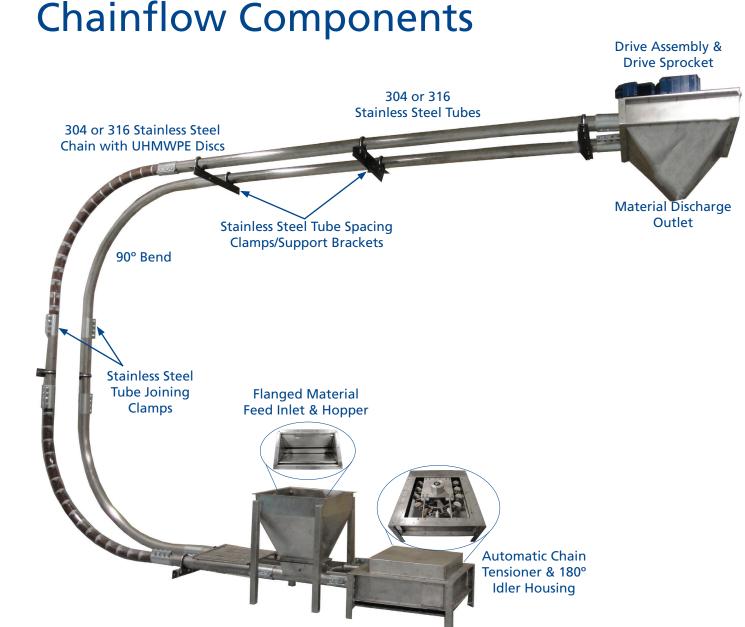
- Deliver heavy duty conveying of high loads 24/7/365 and enjoy maximum chain life with 304 or 316 stainless steel chain.
- Crevice free material contact surfaces

Ideal for food grade applications as well as abrasive and/ or higher density materials with homogeneous crevice free material contact surfaces of robust UHMWPE discs molded to stainless steel chain.

Maximum layout versatility

Achieve intricate layouts, endless flexibility and maximum versatility with multiple inlets and outlets (without air locks) in complex 3 plane circuits.

- · Minimize material breakage and maintain consistent mixtures with gentle handling of your fragile materials for minimal waste and maximum customer satisfaction.
- Maintain dust and contamination free handling via our totally enclosed conveyor design.
- · Maximize your chain, disc and tube life and minimize operator maintenance with built-in automatic chain tensioning.
- Keep your operation simple and operating costs low as no filters or cyclones are required to separate air and material
- Lower your energy consumption Chainflow conveyors have minimum horsepower (kW) requirements.
- Maximize your ROI with minimal spare parts requirements.
- · Minimize residual material accumulation with our round construction design.
- Enjoy operational flexibility to stop and start under load, and run empty with most materials.
- Flood or meter feed the conveyor based on your product flow characteristics.
- Maximize your use with a mobile design available for multiple in-plant applications or freight car and truck loading.
- Achieve fast, efficient conveying with capacities up to 370 ft³/hr $(10.5m^{3}/hr)$.
- Convey over long distances with maximum straight line lengths of up to 250 ft (76m) per conveyor and link multiple conveyors for longer distances.



Additional Components & Options

90° Idler Housing is an alternative to a 90° bend. It allows for tighter radii and quick access to the corner and/or discharge housing and sprocket.

Pneumatic Inlet Baffle aids in the control of material into the conveyor.

Inlet Options

Multiple inlets can be fitted with manual or pneumatic baffles, inlet chute lids, electric or pneumatic vibration, hoppers, agitators, lump breakers, extended capacity chutes, and dust hoods. As always, custom designs are also available.

Multiple Inlets & Outlets are available for this conveyor for maximum flexibility.

Wash Gate & Drain is available for cleaning.

 Wheat • Other Food Ingredients Chemicals*

• Soluble Corn Fiber

Soup Mix*

Soy Beans

Spices*

Tobacco

• Tea

- Deteraent
- Latex
- PET
- Plastics
- Prills & Pellets
- Recycled Products*
- Rearind
- Saw Dust
- Talcum Powder
- Urea

• Wood Chips & Pellets

* Application Dependent

Wax Flakes

Chain Vibrator is a reciprocating hammer used to shake material from the chain and prevent product carry over at each outlet on the system including in-line valves.

Static Grounding

Conductive equipment is interconnected to prevent sparking.

Sight Glass allows an operator to observe the chain, discs, and material as it moves through the conveyor.

Controls

Standard controls are available with or without a VFD. They include a NEMA 4 (IP66) carbon steel enclosure with a lockable disconnect, emergency stop, power on & run lights, micro PLC controls for all functions. AUTO mode, and HAND mode. Custom controls are always available.