Aero-Conveyors

THE ECONOMICAL AND EFFICIENT METHOD FOR MOVING DRY MATERIAL
The Aerocon Concept of Aero-Conveying

Aero-Conveying is best defined as the movement of material using the desirable features of both pneumatic and mechanical conveying, and eliminating most of the disadvantages. The result is high volume, controlled transfer of dry materials such as foods, pharmaceuticals and chemical products, efficiently and economically, with little if any effect on the material, however friable and degradable.
Aerocon Systems Are Versatile

With the ability to convey through multi-planes, around corners, at any angle from 0° to 180°, and at a variety of conveying speeds, the Aerocon System is highly versatile.

This versatility is not limited to the ability to match site geometry, but includes the versatility of the product conveyed. The system allows for a range of bulk densities from as low as 5 pounds per cubic foot to 200 pounds per cubic foot, a range of particle sizes from 5 micron to ½” pieces, and a range of powder properties from free flowing to cohesive, all to be handled by the same machine.

True versatility is not just where the machine can be used, but also the range of materials it can handle.

Let Us Test Your Product

Aerocon welcomes the challenge to handle difficult products under difficult conditions. These include non-free flowing materials, friable products and work area cleanliness requirements. Systems are designed to successfully handle many materials that others say cannot be handled aero-mechanically.

Aerocon Conveying Systems Are Engineered to Meet Your Total Process Requirements

As part of the VAC-U-MAX Group of Companies, Aerocon is proud to be able to offer some of the finest Bulk Material Handling equipment available. This includes Bulk Bag Loaders and Unloaders, Volumetric Feeders, Bag Dump Stations, Compactors, Weigh Systems, Control Valves and Control Stations. Each has been designed to work together with our conveyors. Our state-of-the-art engineering allows for maximum efficiency and throughput.
Typical Applications of Aerocon Conveyor Systems

The following schematic diagram and photographs illustrate a few of the many applications of Aerocon Aero-Conveyors in various configurations. These systems illustrate the flexibility and wide range of products handled. In addition, an extensive range of auxiliary equipment is available, giving true total solution ability to Aerocon Engineers.

**Basic “Up and In” Series 200**
The original and most simple application of aero-conveying in which product is fed into the sprocket end of the machine from a controlled feed and transferred in a straight line to a discharge point where it leaves the conveyor under centrifugal force. High volume, high linear velocity, lean phase is suitable for non-friable products.

**Multi-Plane Series 400**
For applications requiring vertical and horizontal combinations of conveying direction using a single drive motor and 90° turn sprockets. May be lean or medium phase conveying, employing either sprocket or tube feed systems, allowing the transfer of semi-friable materials.

**Multi-Plane Distribution Series 500**
Used where multiple inlets and/or outlets are required or where the layout does not permit the standard close coupling of the conveying tubes. Can accommodate bag frames, bag dump stations, discharge from mixers, and combinations thereof. Also used to feed multiple packing machines, hoppers, reactors and similar machines. Can be either lean or medium phase, non-friable and semi-friable products.

**Long Radius Sweep Bend Service Series 300**
Particularly useful for handling the most friable of materials. Limited to changes of plane not exceeding 60°, this slow speed, dense phase method of conveying still maintains enough velocity to achieve some aeration, yet handles products such as rolled oats, bran flakes and similar friable products.

**Combination Systems**
By using the combination or combinations of any of the above conveyor types, Aerocon Engineers can tailor almost any application to provide the highest throughputs with the lowest levels of product degradation. Successful installations involving the bulk transfer and distribution of tea, coffee, cake mixes, filter agents and plastic compounds to a variety of packing machines, reactor vessels and mixers have all been achieved using these techniques.
Each System is Designed Using Our Extensive Range of Products

Inlets
We offer a variety of inlet hoppers, each designed for quick attachment to the conveyor: gravity, vibration or air slide assisted, and direct tube feed, all feature a flow regulating gate that is accessed from outside the hopper.

Outlets
Traditional centrifugal discharge type, gravity tube outlets and zero dead-pocket rotating tube valve outlets (RTV) allow single or multiple outlets to the conveyors. Remote operation of isolation valves or the RTV allows for the selection of individual destination points.

Controls
From simple starter panels to sophisticated PLC based integrated systems, our control department can provide all the necessary equipment to meet the most discerning needs.

Bulk Bag Unloaders
Recipient of the prestigious Food Processing Magazine Design Award and accepted by the USDA for food applications, the Bulk Bag Unloader boasts a list of the most advanced features available. Includes bag tensioning, patented panel agitation for flow promotion, and a variety of outlet designs, bag hook-up configurations, dust suppression techniques, and associated equipment to meet the most demanding of client needs.

Hover-Lift™
The Hover-Lift by VAC-U-MAX is a vacuum lifting device for maneuvering and lifting objects weighing up to 150 pounds, including boxes, bags and drums.

Bag Dump Stations
Sturdy, ergonomic and high efficiency bag dump stations featuring optional bag, cartridge or HEPA filters, reverse jet cleaning, and available in USDA approved variants. Each unit is equipped with integrated dust hood and gas spring assisted lift up door.

Volumetric And Loss-In-Weight Feeders
Designed specifically to fit beneath the Bulk Bag Unloader, these wedge-shaped robust units include Flexwall flow promotion options, and coupled on load cells on the bag frame can provide high accuracy weighing not normally associated with bulk bag unloading.

Sales and Service Support
Through our network of representatives, or by the use of our own direct employees, Aerocon is committed to providing the very best in service to all our clients. This includes installation and startup assistance as well as the expected after-sales service.