SOLUTIONS made SIMPLE

A newsletter published by ACT to help make your material handling SAFER, CLEANER, & MORE PRODUCTIVE.

INTRODUCING AERODYNE ENVIRONMENTAL

Applied Conveyor Technology is a distributor of Aerodyne Environmental DUST COLLECTION products, and with them, is ready and able to address your immediate and future dust collection needs. Aerodyne services industries such as foundries, mining, steel, cement, pharmaceutical, food processing, dairy, wood, power, grain, asphalt, cereal, plastics, chemical, reclamation and manufacturing. They have been specializing in solving dry material handling problems for more than 60 years through such products as high-efficiency cyclone dust collectors and low-cost, low-maintenance, material-handling valves. Aerodyne operates under the corporate motto "Making it easy to *Clean Our World®*", addressing material handling challenges through innovation, customer commitment, and environmental stewardship.

Aerodyne's industrial dust collector products feature unique and low-maintenance designs that will enhance the performance of your processing operations. ACT is excited to spotlight some of the unique technology and solutions Aerodyne provides and looks forward to assisting with your dust collection needs right away!

THE Aerodyne ENVIRONMENTAL PRODUCT LINE . . . *as easy as 1, 2, 3!*

1 SPLITSTREAM ™ DUST COLLECTOR

The Aerodyne SplitStream™ is a counter cyclonic dust collector that has no major moving components and is capable of handling a wide range of materials, while requiring minimal maintenance. Particulate that is granular, fibrous, sticky, or hydroscopic, with process temperatures ranging from -20° F to 700° F, can be separated and collected for air pollution control or reclamation. The unique counter cyclonic design element of the SplitStream™ Dust Collector insures that a minimal amount of particulate comes in contact with the interior walls. This eliminates excessive wear and enables the collection of abrasive particulate. The cyclone can be configured vertically or horizontally, providing easy installation in existing facilities or new locations.

2 GPC CYCLONE DUST COLLECTOR

The Aerodyne GPC Cyclone Dust Collector represents an improvement over conventional high-efficiency cyclones. Cyclonic action is initiated by a sloped spiral inlet and vortex reversal is accomplished by the use of a solid ground plate. The unique design of the GPC Cyclone Dust Collector provides a high-efficiency, compact unit that is available in horizontal or vertical configurations.

- High efficiency and Compact Size
- Horizontal or vertical configurations which is ideal for limited spaces

Unlike conventional cyclones, the GPC Dust Collector does not require a long, tapered body for effective dust separation. This compact cyclone dust collector is ideal for plants and workshops with limited floor space or limited overhead clearance.

3 AIRLOCK VALVES

Since 1947, Aerodyne has been providing premier industrial dry material handling valves and dust collector vales. These valves are capable of handling materials from a variety of applications such as dust from sand, rock, foodstuffs, wood, glass, chemicals and more. Browse our products below to find out which dust collector valve is right for you. Whether it is a rotary valve, trickle valve, knife gate valve, slide gate valve or double dump valve, we are your material handling and air pollution control experts.

[Aerodyne Vacu-Valve® Platypus and Vacu-Valve® Armadillo]

The open-construction Platypus and the closed-construction Armadillo trickle valves are the most economical ways to manage dust discharged from bag filters or cyclones under negative pressure. The fitted duckbill sleeve adjusts to the desired vacuum and material is continuously discharged. It requires no controls, lubrication or power supply and easily handles abrasive materials. This trickle valve can be used in higher temperature applications as well. The Vacu-Valve® dust discharge trickle valve is available at a fraction of the cost of the rotary airlock valves it replaces.

[Aerodyne GatorGate™ Double-Dump Valve]

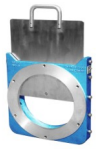
The GatorGate Double-Dump valve feeds and moves chunky or fibrous material that would jam ordinary rotary valves and is durable enough to move abrasive material. The GatorGate valve uses tandem gates to maintain proper pressure above and below the valve and has a reinforced closure mechanism to prevent air seepage. This double flap valve can be configured to operate using air or electricity and requires little maintenance.

[Aerodyne High Capacity Rhino Rotary "R" Valve™]

The Aerodyne High Capacity Rhino Rotary "R" Valve is designed for continuous discharge of dry, free-flowing, low-abrasive solids in gravity flow or low-pressure systems. Widely used in applications such as the bottom of cyclonic dust collectors and baghouse hoppers, the Rhino Rotary "R" Valve's steel plate construction gives it a distinct advantage in quality, flexibility and durability over cast valves.

[Aerodyne Rhino Rotary "H" Valve™]

The Aerodyne Rhino Rotary "H" Valve's cast iron construction and tight tolerances provide exceptional performance in handling highly-abrasive materials when compared to competing cast valves. Hardened-surface rotor vane tips and added clearance outside the rotor shroud allow the rotary "H" Valve to operate smoothly without packing or excessive wear. This tough material handling valve is equipped with a standard 4 vane rotor, outboard bearings for easy maintenance, and a TEFC motor.



[Knife Gate Valve]

A knife gate valve is used to control flow in a bulk-material handling system, either in the line of flow or at the point of discharge. Using a linear motion, a blade advances until the passage is closed, or it withdraws until the passage is open. In the closed position, the knife gate valve is designed to seat tightly and prevent the loss of positive or negative pressure of the system. The system must be able to tolerate a loss of pressure when the valve is in the open position.

[Aerodyne StopTight® Slide Gate Valve]

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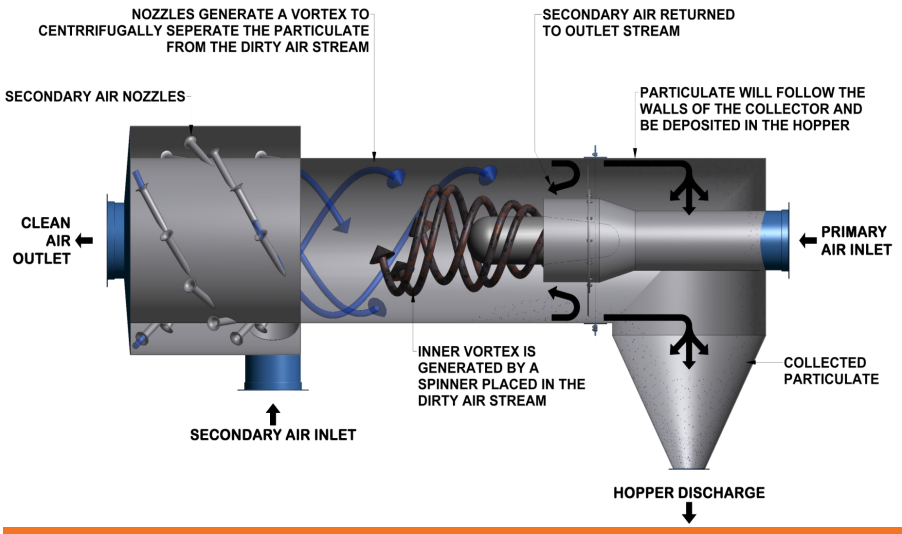
COUNTER CYCLONIC COLLECTION: *How it works*

Aerodyne dust collection systems consist of fabric filter bags, a cyclonic dust collector, or combination of the two. In cyclone collection, air laden with particulate is made to spin inside a conical chamber. Centrifugal force causes particulate to move to the walls of the chamber where it gains inertia. Then gravity pulls the particulate into a hopper for dust collection. This is called cyclonic separation. Sometimes multiple cyclones are used with a common inlet and outlet. Counter cyclonic dust collection is a cyclone with a secondary air stream that reduces wear on the cyclone walls and increases efficiency. Some other cyclones use a ground plate to reverse the vortex and increase efficiency that way. A cyclone-based dust collection system requires little maintenance because it has no filters to replace and no moving parts except for the blower. Filter media dust collectors such as cartridge filters and bag houses are usually able to capture fine, light particles easier than cyclones, however cyclones are often used upstream of filters as a pre-treatment, to remove the majority of dust and extend the service life of filters. Cyclonic dust collectors have other advantages over filter media. Filters often do not allow collected particulates to be recovered for reuse. Also, installed before a bag house on high heat processes, a cyclone can act as a spark arrestor. Finally, unlike filters, cyclone dust collectors actually work more efficiently as humidity increases.



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